Indian Institute of Technology Hyderabad

॥ नवोन्मेषेण देशनिर्माणम् ॥

Annual Report

2025-26

Inventing and Innovating in Technology for Humanity (IITH)

www.iith.ac.in





14th Convocation

Hon'ble Union Minister Shri Ashwini Vaishnaw addressed 14th Convocation Program inspired and congratulated the graduating students, faculty and staff, highlighting India's rapid technological transformation and the opportunities ahead for young graduates. He outlined key advances in semiconductor manufacturing, the India AI Mission, indigenous 4G/5G technology, railway modernization and the Kavach train protection system. Noting IIT Hyderabad's significant contribution to semiconductor chip design and talent development, he encouraged graduates to contribute to India's ambition of becoming one of the world's leading economies by 2047.

Contents

OVERVIEW

04 Board of Governors
05 Deans
06 Distinguished Professors
08 Director's Message
10 Faculty Statistics
11 Students Statistics
13 Patents, Publications, & PhDs
14 Research & Development
15 Placement & Internship
16 Incubation @IITH
- 15 CfHE
- 16 FabCI
- 16 iTIC
- 19 TiHAN

22 Centres/Centres of Excellence
- 22 DIA-CoE
- 23 ICMR-DHR-CoE
- 23 TRIHUB
- 24 MDI
- 24 DIC
- 26 KRIA
- 27 RDC
- 28 CCE
- 30 CIP
- 31 IKS
- 32 Other Centres

33 Schools
34 Technology Research Park & TIP
35 Green Office
36 KRC
39 Hindi Cell
41 Innovation Cell - IIC
42 National Events

DEPARTMENTS

45 Artificial Intelligence
49 Biomedical Engineering
61 Biotechnology
69 Chemical Engineering
79 Chemistry
100 Civil Engineering
114 Computer Science & Engineering
127 Design
135 Electrical Engineering
154 Entrepreneurship and Management
160 Liberal Arts
169 Materials Science & Metallurgical Engineering
178 Mathematics
183 Mechanical & Aerospace Engineering
194 Physics

VIRTUAL DEPARTMENTS

216 Climate Change
220 Engineering Science
222 Heritage Science & Technology

CAMPUS CHRONICLES

227 BUILD
228 Tinkerer's Lab
229 EBSB Activities
232 NSS Activities
234 EML Series
235 Elan & nvision
236 MILAN
237 E-Cell
238 JAPAN Career DAY
239 Finance & Consulting Club
240 TEDx
241 Sunshine @Student Arena
242 SPICMACAY
243 Collaborations
244 Architectural Landmarks
247 Non-Teaching Staff

Board of Governors



Chairman
Dr B V R Mohan Reddy
Founder Chairman and
Board Member of
Cyient Limited



Member (Central Govt nominee)
Smt Saumya Gupta, (IAS)
Joint Secretary to GoI
Dept. of Higher Education
Ministry of Education



Ex-Officio Member
Prof B S Murty
Director
IIT Hyderabad



Member (State Govt nominee)
Dr Yogita Rana (IAS)
Member (Representative of
Telangana State Govt.)
Secretary to the Government



Member
Prof Vinod Krishan
Senior Professor & Dean
Indian Institute of Astrophysics



Member, Senate Nominee
Prof K Siva Kumar
Professor
Professor, Department of Electrical
Engineering, IIT Hyderabad



Member
Dr Prema Ramachandran
Director
Nutrition Foundation of India



Member, Senate Nominee
Prof Vinod M Janardhanan
Professor
Department of Chemical Engineering
IIT Hyderabad



Member
Prof M Lakshmi Kantam
Professor
Institute of Chemical Technology
Mumbai



Secretary
Shri V Venkat Rao
Registrar
IIT Hyderabad

Our Deans



Prof Ashok Kumar Pandey
Dean (Academic)



Prof Prem Pal
Dean (Administration)



Prof Mahendrakumar Madhavan
Dean (Alumni & Corporate Relations)



Prof Sushmee Badhulika
Dean (Faculty)



Prof Tarun Kanti Panda
Dean (International Relations)



Prof C Malla Reddy
Dean (Innovation, Translation & Startups)



Prof Suriya S Prakash
Dean (Planning)



Prof G Narahari Sastry
Dean (Sponsored Research & Consultancy)



Prof Prasanth Kumar R
Dean (Students)



Prof Bheemarjuna Reddy Tamma
Dean Digital Transformation



Prof Munwar B Basha
Associate Dean (Planning)

Our Distinguished Professors



Prof Abhay Deshpande
Distinguished Professor
Physics and Astronomy
Stony Brook University



Dr Bayya Yegnanarayana
INSA Senior Scientist
International Institute of Information Technology



Prof Amba Kulkarni
University of Hyderabad,
Distinguished Professor, Dept of Heritage Science & Technology



Prof Jun Murai
Professor & Dean of Graduate School of Media and Governance
Keio University, Japan



Prof James Francis Antaki
Professor
Cornell Engineering



Dr Mallikarjun Tatipamula
Chief Technology Officer
Ericsson Silicon Valley



Prof Nemkumar Banthia
Professor
University of British Columbia



Prof Nobuhiro Tsuji
Graduate School of Engineering
Kyoto University



Dr Omkaram Nalamasu
CTO and Senior Vice President
Applied Materials



Dr Paresh Kumar Narayan
Professor, Monash Business School
Monash University, Australia



Prof Pramod K Nayar
Senior Professor, UNESCO Chair in Vulnerability Studies , Department of English, University of Hyderabad



Prof Seeram Ramakrishna
Mechanical Engineering
National University of Singapore



Prof Shekhar C Mande
Distinguished Professor
Bioinformatics Centre, Savitribai Phule Pune University, Pune.



Dr Saraswat V K
Member of NITI Ayog &
Scientific Adviser to Defense Minister



Dr M Vidyasagar FRS
SERB - National Science Chair
India

Our Distinguished Professors



Prof Chennupati Jagadish
Australian National University, Distinguished Professor Department of MSME



Prof Harish Chandra Verma
IIT Kanpur, Distinguished Professor, Department of Physics



Dr Padma Subramanyam
Padma Vibhushan, Distinguished Professor, Center for Creative Arts



Smt. Radha Reddy
Indian Kuchipudi Dancer, Distinguished Professor Department of Liberal Arts



Smt. Sudha Ragunathan
Padma Bhushan, Distinguished Professor, Center for Creative Arts



Sri Raja Reddy
Padma Bhushan, Indian Kuchipudi Dancer, Distinguished Professor, Center for Creative Arts



Dr L. Subramaniam
Padma Vibhushan, Distinguished Professor, Center for Creative Arts



Prof Suresh Bhargava
Order of Australia, Distinguished Professor, Department of Chemical Engineering



Dr Sanjay Mathur
Director, Institute of Inorganic Chemistry, University of Cologne, Germany



Dr Uma Sharma
Padma Bhushan, Kathak Dancer, Distinguished Professor, Centre for Creative Arts



Prof Vinod Tare
cGanga, IIT Kanpur, Distinguished Professor, Department of Climate Change



Vishwa Mohan Bhatt
Padma Bhushan, Distinguished Professor, Centre for Creative Arts



Prof Rafal E Dunin-Brokowski
Ernst Ruska-Centre for Microscopy and Spectroscopy with Electrons, Germany, Distinguished Professor, Department of MSME



Director's Insights

Dear Friends,

As we present the Annual Report 2025–26, I am delighted to share some of the significant milestones and achievements that continue to strengthen IIT Hyderabad's position as a leading institution for innovation, research, and technology-driven societal impact. This year has witnessed IITH achieving remarkable progress across multiple dimensions—research excellence, academic innovation, sustainability, global outreach, and community engagement—all reflecting the Institute's unwavering commitment to nation-building through science and technology.

Achievements@IITH:

This year has been particularly rewarding for IITH. The National Institutional Ranking Framework (NIRF) 2025 placed the Institute at an impressive 7th position in Engineering, marking a climb from the 8th rank last year and surpassing one of the first-generation IITs for the first time. IITH also secured 6th position in NIRF–Innovation, while maintaining 12th position Overall and 15th in Research, reaffirming our position among India's top institutes, driving academic and research excellence.

Our pursuit of excellence has also been recognised globally. In the QS World University Rankings 2026, IIT Hyderabad secured the 664th position globally, while the QS Asia University Rankings 2026 recorded a remarkable 50-rank jump to 270th position. In the QS World University Rankings by Subject 2026, IITH entered the global Top 400 in Engineering & Technology, securing the 395th position, with several disciplines improving their international standing. IITH's growing stature on the world stage is also reaffirmed by the recognition of our faculty in the Stanford–Elsevier Top 2% Scientists in the World 2025 list, with 46 positions secured across career-long and single-year impact categories.

The 14th Convocation of IIT Hyderabad was celebrated with great pride, during which 1,273 degrees were conferred. The event was graced by Shri Ashwini Vaishnaw, Hon'ble Minister for Railways, Information & Broadcasting, and Electronics & Information Technology, Government of India, as the Chief Guest, who inspired the graduating class with his visionary address on building a Viksit Bharat by 2047.

Academics@IITH:

IITH introduced BHARATI—Bold Hearted Aspirants Raising to Transform India—to nurture "Fearless Engineers for the Future." The initiative brings together 660 first-year undergraduate students and 90 young faculty mentors in small groups to pursue hands-on engineering projects supported by seed funding, fostering creativity, collaboration and real-world problem-solving.

Our academic offerings are also evolving to be globally relevant and industry-aligned. The Centre for Continuing Education (CCE), in collaboration with TCS iON, launched an online certification programme on VLSI Chip Design, a key initiative to bridge the skill gap in India's rapidly evolving semiconductor ecosystem. The launch of the Integrated Product–Service System (IPSS) Design Certificate Programme in collaboration with POLI.design, Milan, and new executive programmes in Artificial Intelligence and Machine Learning further strengthened our commitment to industry-relevant education.

Our academic framework also reflects key principles of the National Education Policy (NEP) 2020, including multidisciplinary learning, curricular flexibility and experiential education. Through Fractal Academics, students have greater flexibility in shaping their learning pathways, with opportunities for free electives, minors, double majors and dual-degree options. Semester-long internships and the Open to All Teaching (OAT) initiative further support practical learning and wider access to quality education. IITH's strong emphasis on liberal and creative arts, with nearly 10% of the undergraduate curriculum dedicated to creative and liberal disciplines, continues to nurture well-rounded, empathetic and socially conscious engineers and scientists.

In January 2026, IITH launched the Centre for Creative Arts (CCA), strengthening the place of artistic expression, cultural engagement and creativity within a technology-focused institution. The Centre complements our multidisciplinary approach by encouraging students to develop imagination, aesthetic sensibility and an appreciation of diverse forms of expression.

Innovations & Entrepreneurship @ IITH:
The year commenced with Innovation Day 2026, highlighted by the first-ever Inter-IIT Undergraduate Innovation Meet (RISE 2026) organised by IITH. Bringing together undergraduate students from IITs across the country, the event celebrated the spirit of creativity, problem-solving and entrepreneurship, reaffirming our belief that innovation should begin from the very first year of undergraduate education.

The Grand Finale of the FinShield Hackathon 2025, jointly organised by the Bank of India, the Department of Financial Services (Ministry of Finance) and the Indian Banks' Association, showcased IITH's commitment to innovation-led entrepreneurship in the fintech space. The launch of the IITH Podcast Series also created a platform for engaging conversations with leading scientists, innovators, entrepreneurs and policymakers, strengthening the dialogue between academia, industry and society while inspiring future generations.

The Institute has filed more than 460 patents till 2024, including over 210 in 2024 alone. In 2025, IITH filed 250 patents —equivalent to approximately one patent per working day—reflecting its continued commitment to innovation and technology development.

Research@IITH:

Our research ecosystem expanded through the Integrated Lung Health (ILH) Centre, CODE Studio and recognition under the National Critical Mineral Mission (NCMM). The Dr. Krishna Prasad Chigurupati Chair Professorship in Process Automation, established with Granules India Limited, and participation in the Si-Zero consortium led by Swinburne University of Technology, Australia, advance sustainable industrial automation and circular silicon recycling.

IITH's research strengths in advanced materials, critical minerals and energy were showcased at the 79th Annual Technical Meeting of the Indian Institute of Metals, which brought together more than 1,600 participants. Artificial Intelligence remains a major focus of our education and research, building on India's first BTech programme in AI. Research spans areas including autonomous systems, healthcare, materials and resource prediction, alongside advanced AI/ML learning opportunities.

At the India AI Summit, IITH organised the Conclave on Inclusion for Social Empowerment with the Ministry of Electronics and Information Technology (MeitY), highlighting technology's potential to address societal needs, including in education.

International and National Collaborations:

IITH continues to build partnerships with industry, academia and government to address strategic priorities. In collaboration with the Department of Posts and the National Remote Sensing Centre (NRSC–ISRO), IITH contributed to the development of DIGIPIN, a national geospatial addressing system designed to enable precise, location-based digital addressing. With support from the Ministry of Education, partnerships with Purdue University, USA, and National Tsing Hua University (NTHU), Taiwan, are strengthening semiconductor education, research and talent development.

The MoU with the Army Training Command (ARTRAC) led to the establishment of VIGRAHA, a Centre of Excellence in AR/VR and high-tech applications for the Indian Army. Our association with Bisleri International under its Bottles for Change initiative also reinforces our commitment to sustainability. Engagement with Japan continued through JETRO's Japan Career Day and Co-Research Day, Japan Academic Day 2025 and the Japan–India Universities Forum. Hosting a U.S. Government delegation under the U.S.–India TRUST initiative further strengthened strategic technology engagement.

Collaborations with organisations such as Mitsubishi Electric, alongside initiatives in critical minerals, sustainable industrial technologies and advanced manufacturing, are creating opportunities for research and skill development. The establishment of the position of Dean (Digital Transformation) reflects IITH's commitment to coordinated digital initiatives and technology-enabled institutional processes and governance. Through our Technology Research Park and innovation ecosystem, we remain focused on connecting research with industry needs and accelerating technology translation.

Societal Impact & Campus Engagement:
Through the Visit IITH Portal and our first Annual Book Fair, we continued to make science, research and knowledge more accessible to the community. The Next Bharat Ventures Skilling Centre, established through the Rural Development Centre, supports skill development and entrepreneurship among rural and semi-urban youth, while Prerna 2025 strengthens educational outreach.

Campus life remained vibrant with ELAN & nVision 2026, bringing together technology, culture, creativity and entrepreneurship. Fit India's Sundays on Cycle initiative further promoted health, active living and environmental responsibility.

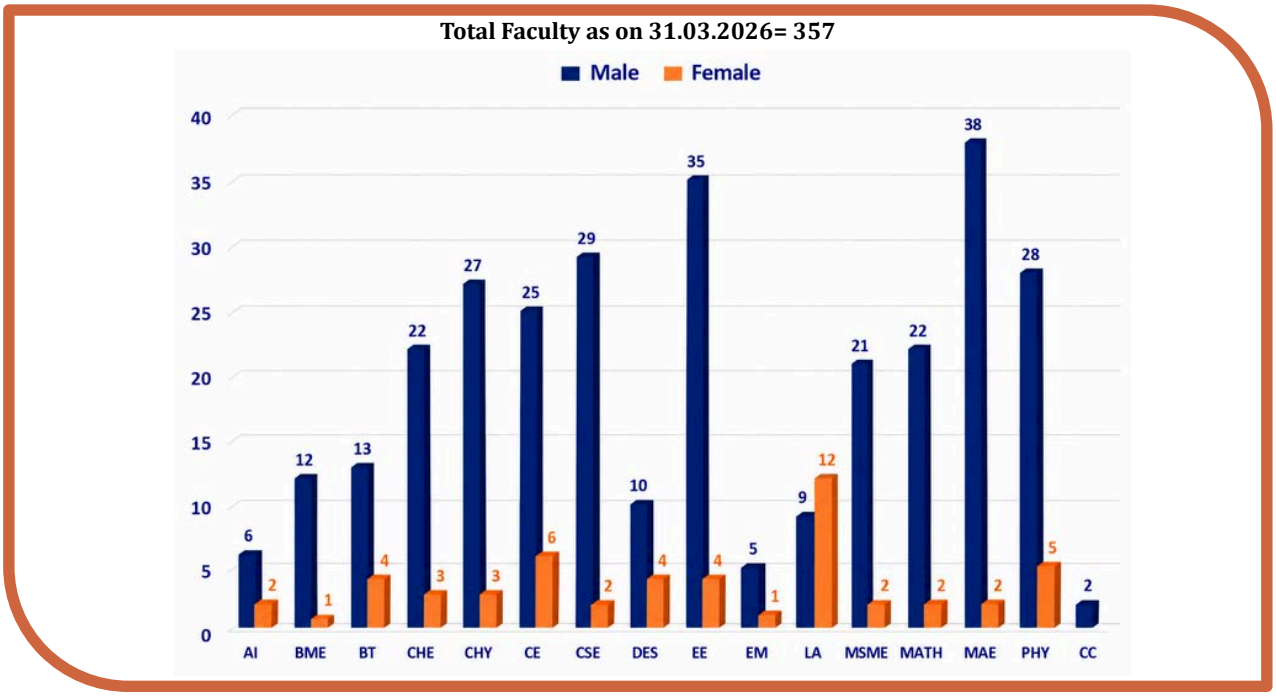
These achievements reflect the collective efforts of our faculty, students, staff, alumni and collaborators. I extend my heartfelt appreciation to everyone who contributes to IITH's journey. As we look ahead, we remain committed to impactful research, multidisciplinary education, innovation, sustainability and inclusive partnerships that serve society and help build a technologically capable India.

Warm Regards
Prof B S Murty, Director

Faculty Statistics

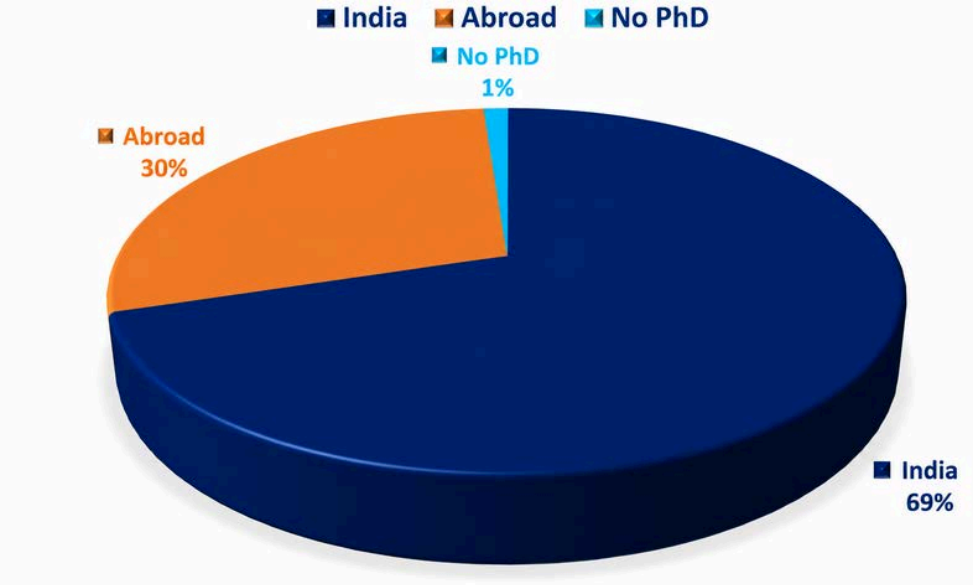
Department-wise

As on 31 March 2026, IITH is having 357 faculty members on-roll. ~18% of the total faculty are women.



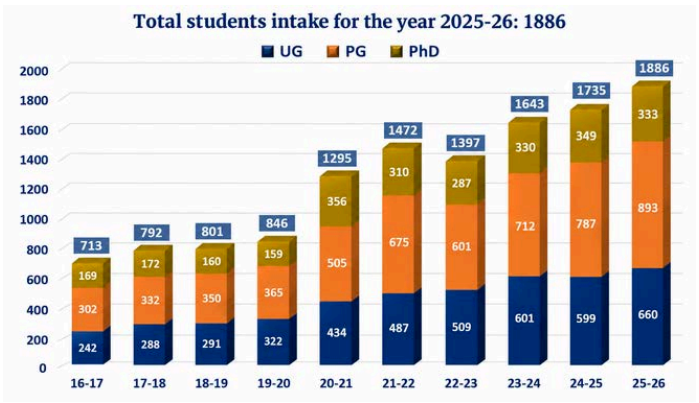
Place of PhD

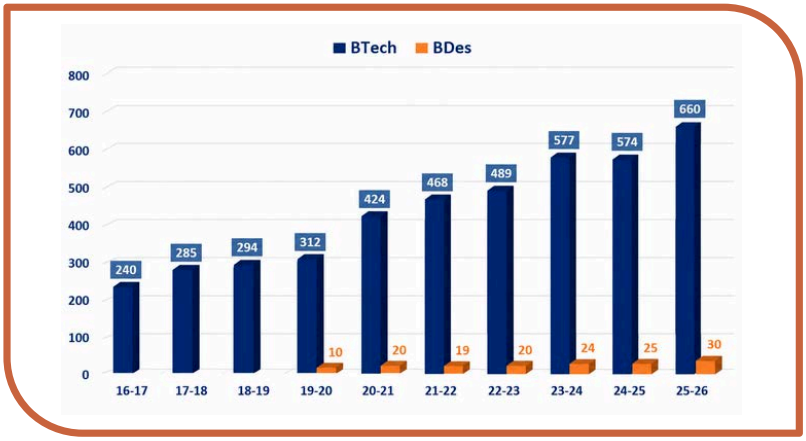
Place of PhD denotes the geographical location (India/ Abroad) of the Institute from where the concerned faculty has obtained PhD.



Student Statistics

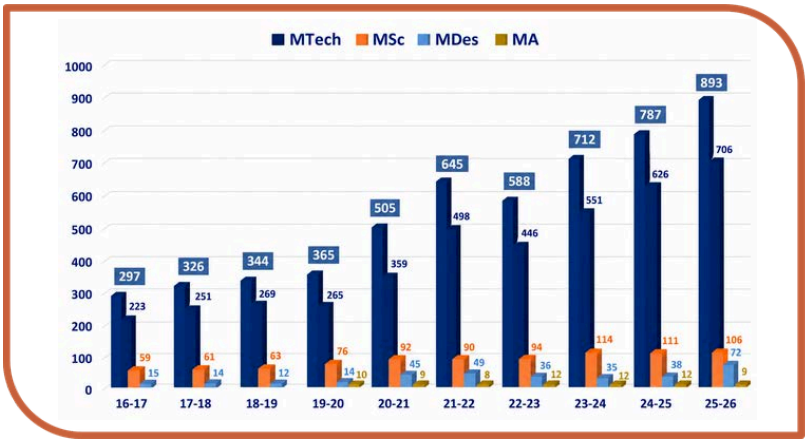
Total students intake for year (2025-26)

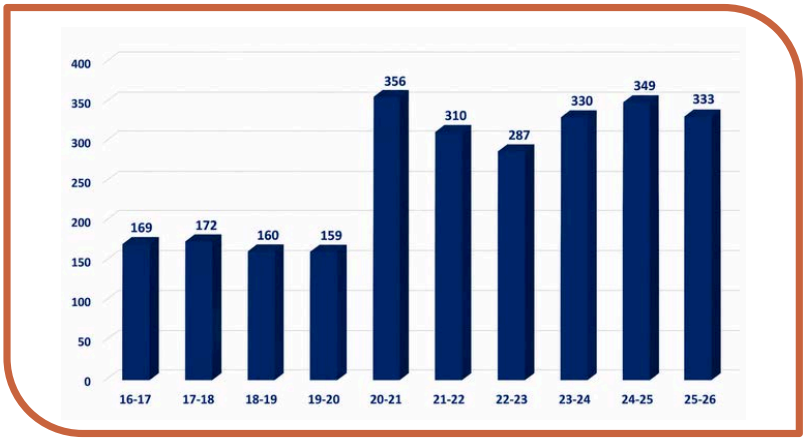




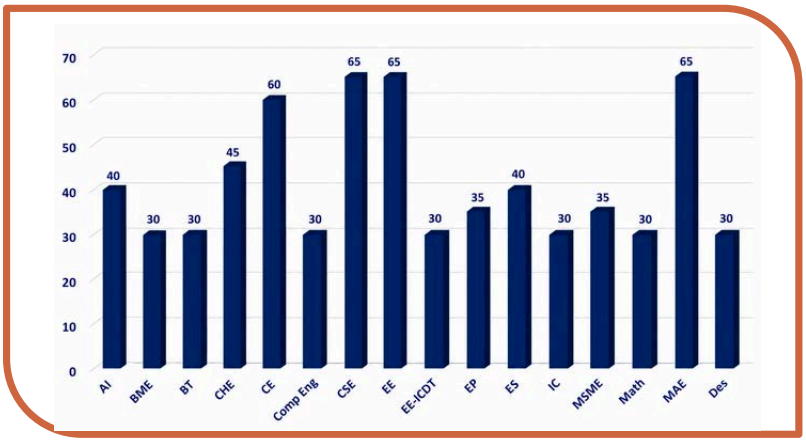
Yearly Intake of UG (BTech & BDes) Students

Yearly Intake of PG (MTech, MSc, MDes, & MA) Students



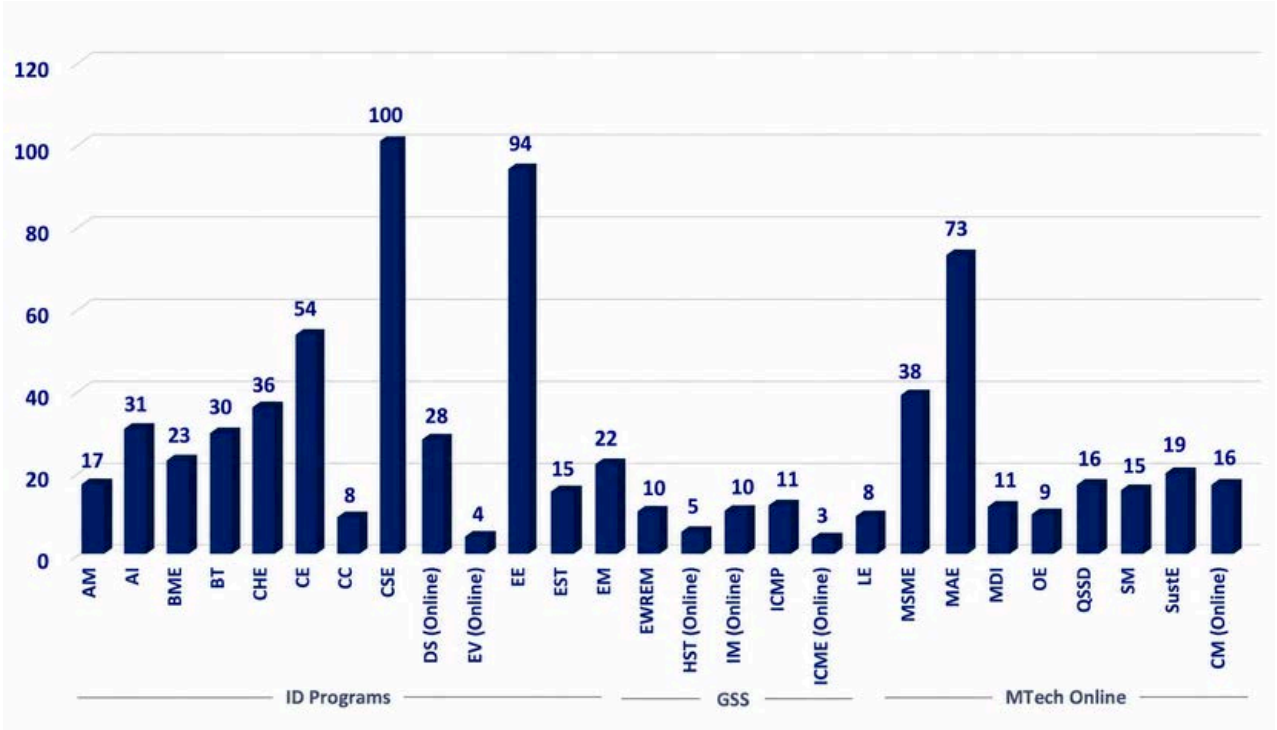


Yearly Intake of PhD Students

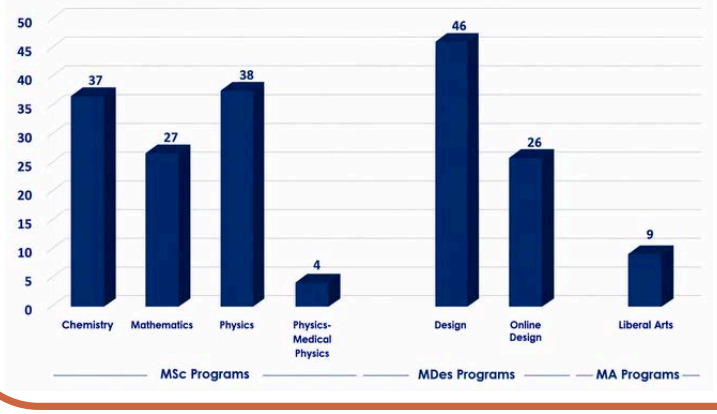


Department-wise intake of Undergraduate Students (BTech+BDes) for the Year 2025-2026 =690

Department-wise intake of MTech, MTech-Interdisciplinary, and MTech-Online students for the 2025-2026 = 706

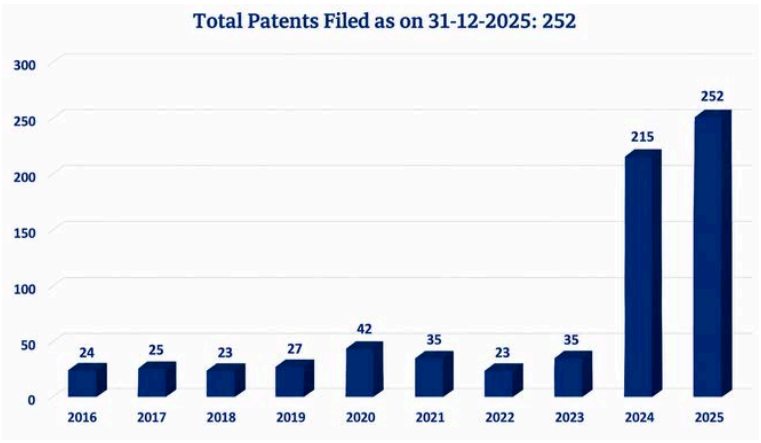


Department-wise intake of MSc, MA, and Mdes for the Year 2025-2026 = 187



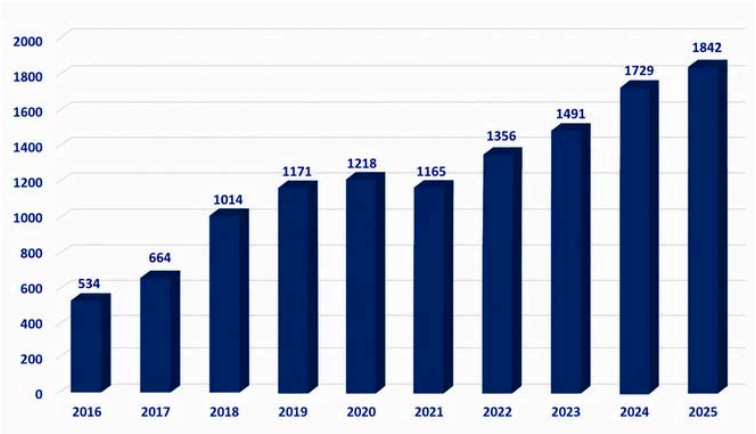
AI-Artificial Intelligence, BME-Biomedical Engineering, BT-Biotechnology and Bioinformatics, CHE-Chemical Engineering, CE-Civil Engineering, Comp Eng-Computational Engineering - ID program, CSE-Computer Science & Engineering, EE-Electrical Engineering, EE ICDT-Electrical Engineering (IC Design and Technology), EP-Engineering Physics, ES-Engineering Science, IC-Industrial Chy-Chemistry, MSME-Materials Science & Metallurgical Engineering, Math-Mathematics & Computing, MAE-Mechanical Engineering, Des-Design, Techno Ent-Techno Entrepreneurship, Phy-Physics, AM-Additive Manufacturing, MDI-Medical Device Innovation, SM-Smart Mobility, ICMP-Integrated Circuits & Microsystems Packaging, OE-Ophthalmic Engineering, GSS EST-Greenko School of Sustainability Energy Science and Technology, E-Waste Resource Engineering & Management, Sustainable Engineering, EMDS-Executive MTech in Data Science, CM-Computational Mechanics, IM-Industrial Metallurgy, HST-Heritage Science and Technology, EV Technology

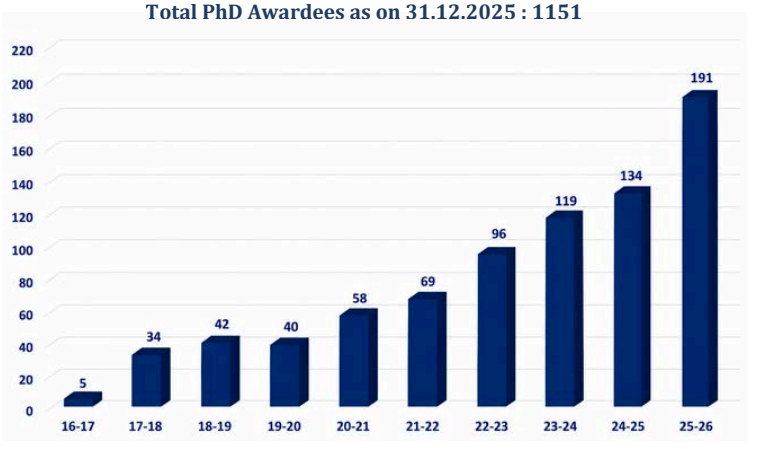
Patents, Publications, & PhD Awardees



Year-wise Distribution of Patents filed

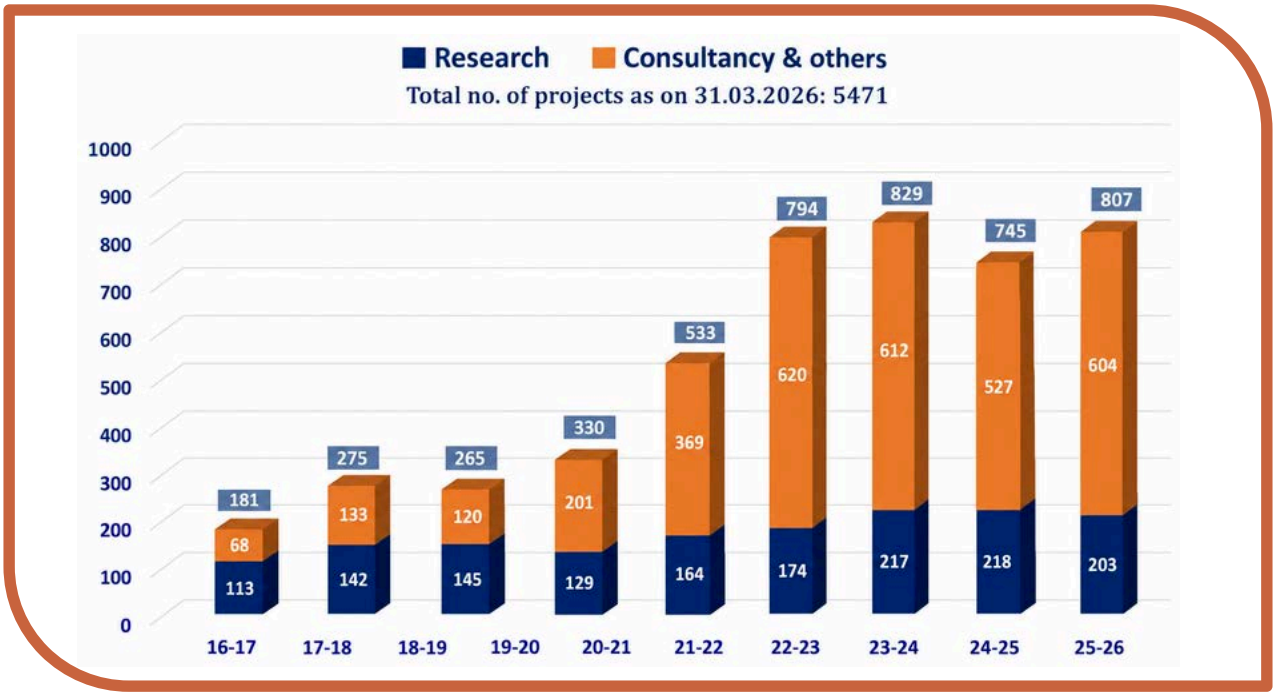
Year-wise Distribution of Publications



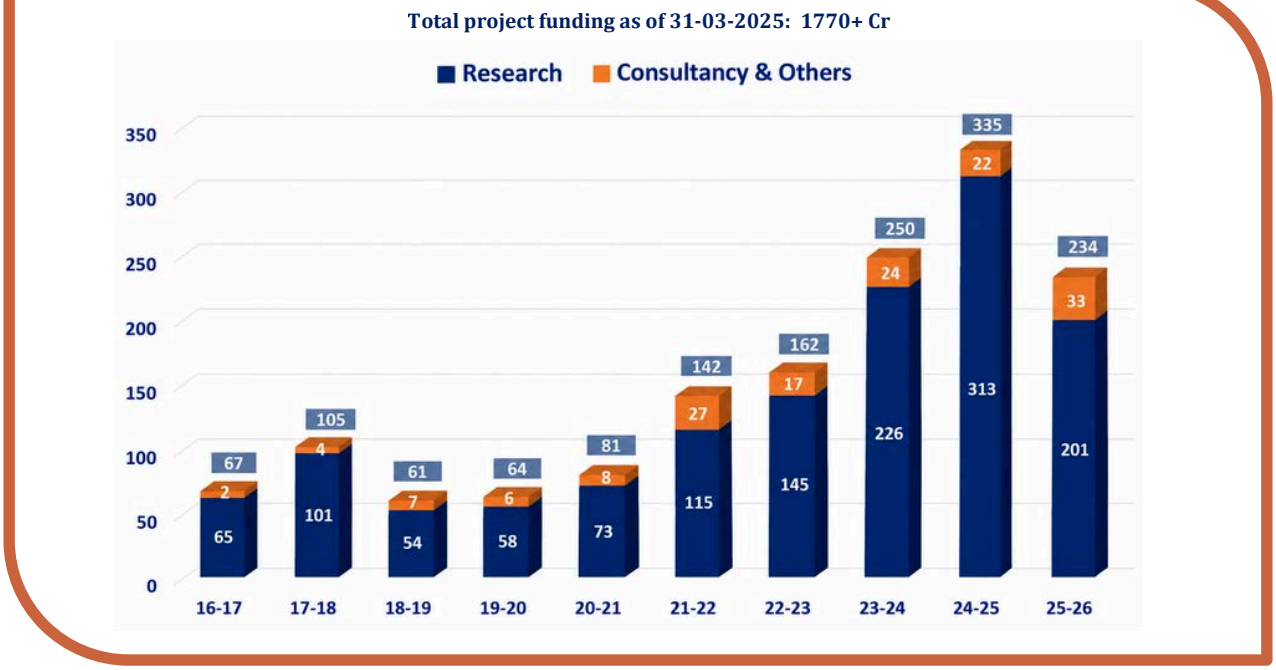


Year-wise Distribution of PhD Awarded

Research & Development



Year-wise distribution of Number of Projects



Year-wise distribution of Project Funds (Value in Cr {INR})

Placements & Internships

Webpage: https://ocs.iith.ac.in/

Placements

The campus placement drive at Indian Institute of Technology Hyderabad was conducted with the objective of attracting distinguished organizations, facilitating employment opportunities for graduating students, strengthening industry-academia relationships, and obtaining valuable feedback for continuous process improvement. The placement season witnessed participation from companies across diverse sectors, offering students opportunities in Engineering, Sciences, Design, and Management domains. Recruiters had access to a highly talented and multidisciplinary student pool, enabling them to identify candidates best suited to their organizational requirements.

The Placement Drive 2026 at Indian Institute of Technology Hyderabad, which commenced on December 1, 2025, was conducted in both offline and online modes. Despite challenges such as market competition and stringent hiring scrutiny across certain industries, the placement drive achieved noteworthy outcomes in terms of placement offers and recruiter participation. This year's placements highlighted positive trends in terms of both the diversity of recruiters and the increase in CTCs, along with the quality of profiles offered to students.



Higher Education

The Top paying recruiters are Optivar, Edelweiss Financial Services, Data Bricks, Microsoft, Oracle, Google, Qualcomm, NTT-AT, Rippling, Samsung R&D, Amazon, Goldman Sachs, Tata Motors, Suzuki Motor Corporation, Accenture Japan, KLA Tencor. A good number of students from UG and PG opted for higher education in India and abroad. Mentioned below are the few universities opted by the students for higher education:

- California Institute of Technology
- ISI
- Carnegie Mellon University
- IISc Bangalore
- Columbia University
- IIT Delhi
- Georgetown University
- IIT Madras
- Georgia Institute of Technology
- IIM Ahmedabad
- Harvard Business School
- IIT Bombay
- New York University
- Karlsruhe Institute of Technology
- Purdue University
- University of Minnesota Twin Cities
- University of Illinois
- University of Munster
- University of Pennsylvania
- University of Southern California
- University of Texas

Internships

IIT Hyderabad is continuously working towards industry engagement. Semester-long Internship for B.Tech. & B.Des., Interdisciplinary MTech, Industry lectures, and industry defined MTech projects are some of the key initiatives taken in this direction in recent years.

IIT Hyderabad witnessed a significant increase in the no. of National and International internship offers for the AY 2025-26. A total of 441 offers received from 250 companies, out of which 26 offers are from international Companies. The participated companies are from diversified sectors such as IT, Financial Services, E-Commerce, Manufacturing, Healthcare Services, Automobiles, R&D, etc.



Incubation Centres

CfHE - Centre for Healthcare Entrepreneurship

Webpage: https://cfhe.iith.ac.in/

Foundation for CfHE is a Section 8 company established at IIT Hyderabad with Section 12 A, 80G, and CSR Registrations. CfHE is also a recognised Technology Business Incubator (TBI) approved by DST and a BIONEST through BIRAC, DBT, Government of India. CfHE strives to bring affordable solutions that meet the healthcare needs of the country. CfHE achieves this through incubating companies engaged in bio-design thinking process, identifying unmet clinical needs through clinical immersion at leading hospital partners in Hyderabad, innovate solutions, and prototyping along with strong mentoring in setting up business, as well as regulatory practices.

The CfHE supports product-development facilities, including Electronics, mechanical prototyping laboratories to facilitate electronics design and testing equipment, PCB prototyping systems, industrial 3D printing, vacuum casting, laser cutting and CNC milling, wet lab, IVF center etc.





A significant development happened in collaboration with BeAble Health, Jeevaniyam Research Center and IIT Hyderabad including development, scaling and clinical validation of AI-based paediatric rehabilitation technologies. CfHE also developed opportunities for specialised healthcare training including certificate programmes in assisted reproductive technology (ART), clinical embryology, andrology, intracytoplasmic sperm injection (ICSI), vitrification and IVF laboratory quality management.

Achievements:

- LifeInvitro Academy, CfHE initiative represents a specialised training pathway for professionals working in assisted reproductive technology (ART) and reproductive medicine.
- Collaboration with S-Tech IVF Solutions for ART lab equipment and training.
- EmbVisage 1.0 - International Embryology Conference on 24–26 January 2026, at IIT Hyderabad.
- IKP–CfHE Biodesign Fellowship 2026–27: fellowship initiative for clinicians, engineers, researchers and designers focused on identifying unmet clinical needs, developing medical technologies, receiving mentorship and building healthcare startups.
- Fellowship in Healthcare Entrepreneurship: 12-month entrepreneurship fellowship for innovators seeking to progress from clinical problem identification through prototype development and commercialisation.
- A collaboration involving BeAble Health, Jeevaniyam Research Center and IIT Hyderabad was announced to advance AI-based rehabilitation technologies for children with neurological and neurodevelopmental conditions, including cerebral palsy, autism spectrum disorder and attention-deficit/hyperactivity disorder (ADHD).
- Certificate Course in Basic Andrology (28–30 September 2026): LifeInvitro Academy, CfHE, started 3-day hands-on training programme covering semen analysis using WHO guidelines, sperm preparation for IUI and IVF, microscopic evaluation, staining, biological-fluid handling and laboratory quality assurance.
- Certificate Course in Intracytoplasmic Sperm Injection (ICSI) (4–8 October 2026): LifeInvitro Academy, CfHE presents an intensive 5-Day Certificate Course in Intracytoplasmic Sperm Injection (ICSI), designed for professionals looking to strengthen their practical skills in Assisted Reproductive Technology.
- M/s Nemocare Wellness Pvt Ltd was the winner of 5G Hackathon hosted by Department of Telecommunications (DoT) and TCOE India.
- M/s Eranki Labs Pvt Ltd becomes India's First Focused Ultrasound (FUS)/High-Intensity Focused Ultrasound (HIFU) device manufacturer.
- Hands-on Workshop on IoT-Enabled Healthcare Devices with Edge Computing and On-Chip Programming led by Dr. Venkatesh Narasimhan, Senior Director, Silicon Labs, in collaboration with Silicon Labs.
- CfHE welcomed the visit of the team from Space Born United for an engaging exchange on the future of Assisted Reproductive Technology and its potential applications in space.
- CfHE conducted IOCL Aarogyam – Medical Device Handover & Inauguration Ceremony, an IndianOil CSR initiative in association with CfHE, IIT Hyderabad.



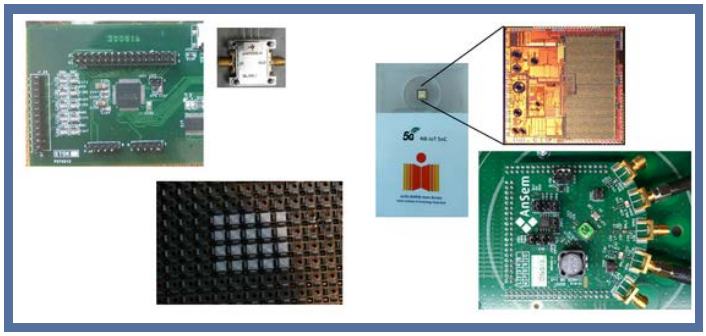


FabCI - Fabless Chip Design Incubator

Webpage: https://fabci.iith.ac.in/

The Fabless Chip Design Incubator (FabCI) is a flagship program being executed with the support of the Ministry of Electronics and Information Technology (MEITY) and focuses on creating an ecosystem wherein these primary activities get executed for any startup in the area of chip design. The primary motivation for this unique incubator program is to provide a one-stop solution for start-ups focusing on the area of chip design. We want to help incubate multiple "Make-in- India' chip design companies. We aspire to build an ecosystem wherein the incubates are not only provided with the relevant infrastructure hardware and software but also are handheld through the path of success with the help of mentors who are pioneers in this field. The grand vision is to leverage the design expertise that exists in India to create Indian IP and to make a mark in chip design internationally.

FabCI is a unique incubation centre envisioned and implemented by the IITH with the able support of the Ministry of Electronics and Information Technology (MEITY). The goal of this centre is to act as a one-stop solution for incubates intending to work in the area of chip design. Starting a company in the Integrated Circuit design field is an enormous task as the hardware-software and the relevant infrastructure for the same requires a huge amount of capital investment.

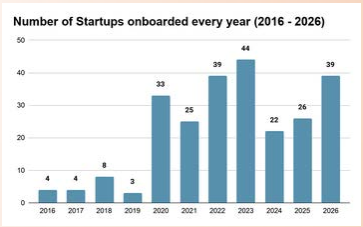


Also, developing a business model in this highly competitive domain is a non-trivial task. Mentorship by experts in both technical and business domains would hasten the process of transition from a startup to a revenue-generating company. Since its inception in 2018, FabCI has supported around 50 start ups. Several of its start ups have successfully prototyped their ideas and are in the marketing stage.

i-TIC - Technology Incubation Centre

Webpage: https://itic.iith.ac.in/

The year 2025-26 witnessed continued momentum in iTIC's efforts to transform deep-tech ideas into impactful ventures and strengthen IIT Hyderabad's innovation ecosystem. Through startup support, innovation programs, knowledge exchanges, and strategic ecosystem engagements, iTIC connected emerging entrepreneurs with mentors, industry leaders, investors, and global partners, creating opportunities for collaboration, technology translation, and sustainable growth.



Startups and Technology Development

Techlanz Private Limited

Techlanz is a deep-tech startup developing indigenous smart battery technologies for next-generation drones used in agriculture, defence, surveillance, and logistics. The startup addresses key challenges in the drone ecosystem, including limited battery life and flight endurance, failures under extreme conditions, slow charging, and dependence on imported battery systems. Through its proprietary VOUWL platform, Techlanz has developed an integrated battery ecosystem comprising in-house battery hardware, battery management systems (BMS), firmware, software, analytics, and mobile applications. The platform enables real-time battery monitoring, predictive diagnostics, improved thermal management, and enhanced operational reliability.



Phycora Labs Private Limited

Phycora Labs is developing microalgae-based climate-tech solutions for urban air pollution and carbon management. Its flagship JIVOT Bio Wall is a modular microalgae-based carbon capture system designed for campuses, commercial buildings, and dense urban environments where conventional green infrastructure may be difficult to deploy. The system uses microalgae to absorb carbon dioxide and improve surrounding air quality, supported by IoT-enabled monitoring and AI-driven optimisation of air-quality, carbon-capture, and environmental parameters. Phycora Labs also explores circular applications of captured algal biomass, including bio-based materials and clean-energy alternatives.

Rayoscan AI Diagnostics Private Limited

Rayoscan AI Diagnostics is a healthcare AI startup developing artificial intelligence-powered imaging solutions for dental diagnostics. Founded by Dr. Sanjana Upadhyay and Diya Joginipally, the startup is building AI systems to assist dentists in analysing dental OPG and RVG scans with greater speed and efficiency. Its solutions address automated dental caries detection, impacted tooth analysis, mandibular nerve canal identification, bone loss assessment, radiographic pathology detection, and AI-generated clinical dental reports. Rayoscan has developed working AI prototypes for dental scan analysis and is building a large annotated dental imaging dataset to strengthen model accuracy and validation.

Events, Outreach and Innovation

1. **Innovators Connect - Tandem 2025: Germany-India Innovation Exchange Program**

Held from 10–20 November 2025 across Hyderabad and Bengaluru, Tandem 2025 brought together innovators, students, and startup stakeholders for design thinking, mentoring, ecosystem interactions, and pitching. Supported by IIT Hyderabad, University of Hyderabad, C-CAMP, and IISc, the program strengthened entrepreneurship and Germany–India innovation collaboration..

2. **Innovation Day 2026**

Held on 3 January 2026 at IIT Hyderabad, Innovation Day 2026 brought together student innovators, startups, faculty members, industry leaders, investors, and policymakers to celebrate innovation, entrepreneurship, and technology-driven solutions. The program featured an inaugural session with distinguished representatives from academia, industry, government, and the startup ecosystem; an innovation exhibition showcasing student, startup, and faculty technologies; a panel discussion on innovation and ecosystem building; and the Inter IIT UG Innovation Meet - RISE@IITs pitching competition. Finalists presented their innovations to an expert jury and were recognised during the Prize Distribution and Closing Ceremony. The event also provided opportunities for networking, mentorship, knowledge exchange, and collaboration across the innovation ecosystem.



Innovation Day 2026

3. **International SPARC Hybrid Workshop on Health Technologies**

Hosted at IIT Hyderabad on 29 July 2025, the SPARC workshop brought together international experts, researchers, faculty, and startups to discuss emerging health technologies and translational research. Plenary and keynote sessions promoted interdisciplinary knowledge exchange and international collaboration in healthcare innovation.



Innovators Connect - Tandem 2025



International SPARC Hybrid Workshop on Health Technologies

4. **Incubator Development Program (IDP) 2025**

The two-day Incubator Development Program (IDP) 2025 brought together incubator managers, innovation leaders, and ecosystem enablers for capacity building in incubation management, sustainability, startup engagement, funding, IP, governance, and entrepreneurship. Expert sessions and visits to IIT Hyderabad's Technology Innovation Park, Technology Research Park, and iLAB provided practical exposure to incubation operations and strengthened knowledge exchange across the innovation ecosystem.



5. **Capacity Building Program for SKUAST**

iTIC Incubator organised a Capacity Building Program for SKUAST from 8–11 January 2026, focusing on innovation management, entrepreneurship, incubator operations, design thinking, startup engagement, and the idea-to-product journey. Visits to Suzuki Innovation Centre (SIC), TiHAN, iLAB, AR/VR and design facilities provided participants with practical exposure to IIT Hyderabad's incubation and prototyping ecosystem.



6. **Delegation Visits at iTIC**

During 2025–26, iTIC hosted national and international delegations to strengthen collaboration and knowledge exchange. Visitors included representatives from the Netherlands Foreign Investment Agency (NFIA), Geethanjali College of Engineering and Technology, and a US delegation under Genpact's Global Leadership Program. The visits showcased iTIC's incubation ecosystem, startup support framework, deep-tech innovation, and opportunities for institutional and international collaboration.

TiHAN

DST NM-ICPS Technology Innovation Hub on Autonomous Navigation

Webpage: https://tihan.iith.ac.in/

Major Activities at TiHAN during FY 2025-26

TiHAN IIT Hyderabad at Wings India 2026 & CII Global Summit 2025

As part of its outreach and collaboration initiatives, TiHAN IIT Hyderabad, under the NMICPS DST mission, participated in Wings India 2026, India's flagship civil aviation and aerospace event, held at Begumpet Airport, Hyderabad, India. TiHAN-IITH showcased its advancements in autonomous navigation, drone technologies, and emerging mobility solutions. TiHAN-IITH also served as a panellist on Urban Air Mobility (UAM), contributing insights on the future of autonomous aerial systems and advanced mobility ecosystems.

Also participated in the CII Global Summit on Academia–Industry Partnerships 2025 fostering innovation through academia–industry collaboration, held in New Delhi, India. The event enabled engagement with industry leaders, academic institutions, and policymakers to promote innovation, collaborative research, and stronger academia–industry linkages in emerging technology domains.



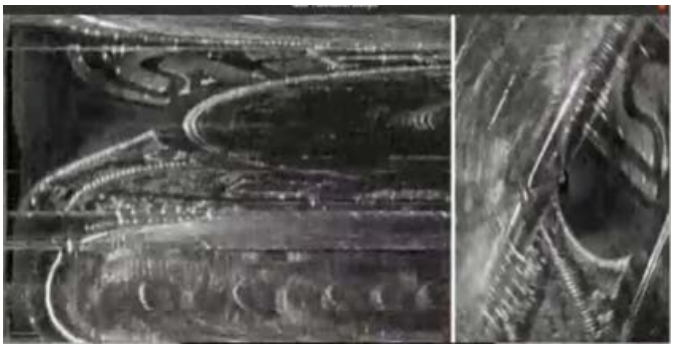


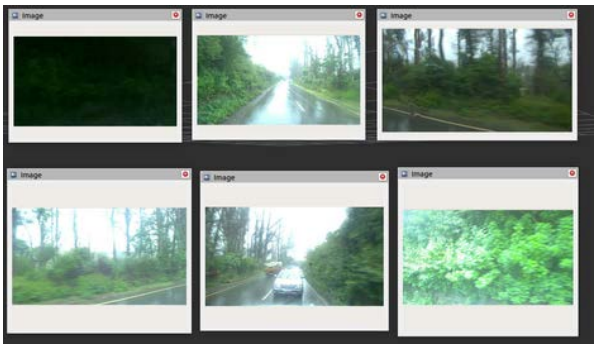


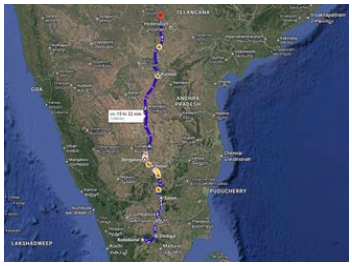
TiHAN R&D Activities:

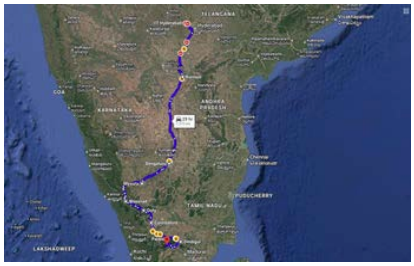
1. TiHAN-SAFARI (Adverse Weather Multi-model sensor Data Acquisition System)

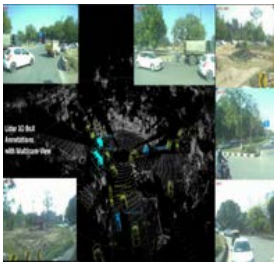
SAFARI is a pioneering project aimed at collecting autonomous navigation data for ground vehicles across a diverse route spanning more than 2500 kilometers from Hyderabad to Kodaikanal, covering key urban, rural, and challenging terrains including Indian Institute of Technology Hyderabad, Kurnool, Nandi Hills, Bengaluru, Mysuru, Bandipur National Park, Wayanad, Ooty, Coimbatore, Palani, Dindigul, and Kodaikanal. The project focuses on collecting high-quality autonomous driving and navigation data using more than 24 advanced sensors, including LiDAR, RADAR, and cameras such as Basler and HIS SWIR, to support the development and training of intelligent autonomous systems. The data collection campaign captured a wide range of environmental and operational conditions including hilly terrain, mountain roads, ghat sections, fog, rain-soaked roads, urban regions, rural landscapes, and highly congested areas such as market zones, bus stand surroundings, railway station approaches, airport roads, and tourist viewpoint regions. Through this extensive effort, more than 35 terabytes of new autonomous navigation data were added to the TiHAN autonomous navigation dataset, significantly strengthening its scale, diversity, and real-world applicability for autonomous mobility research and development.







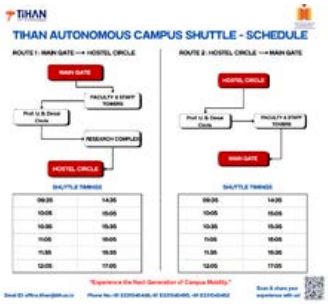




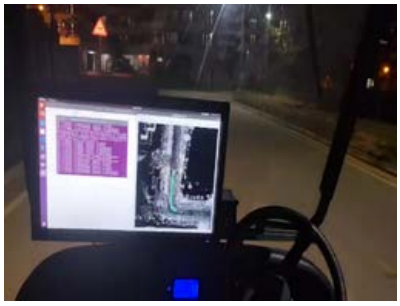


2. Autonomous Campus Shuttle

Two Autonomous Campus Shuttles have been successfully deployed at the Indian Institute of Technology Hyderabad campus, operating on the routes from Hostel Circle to Main Gate and Main Gate to Hostel Circle. These vehicles are fully integrated with advanced technologies including real-time GPS tracking, obstacle detection, automated stop announcements, and stable autonomous navigation systems, ensuring safe and efficient transportation within the campus. To date, the Autonomous Campus Shuttle collectively covered more than 25,000 kilometers across both routes, demonstrating reliable performance and continuous operational success.







3. Autonomous Personalized Aerial Vehicle - PALYANKA:

Palyanka-1 has been successfully tested with a 100 kg payload, demonstrating autonomous operation and multi-mode communication capabilities. During testing, certain challenges were observed, primarily due to the use of open-source controllers and non-redundant IMUs, which limited the system's failsafe capabilities and made it susceptible to EMI issues and endurance constraints. To address these limitations, a new and improved version—Palyanka-2 with 120 kg is being developed, incorporating proprietary industry-grade controllers, advanced navigation equipment, and enhanced system reliability to ensure robust performance under diverse operational conditions.



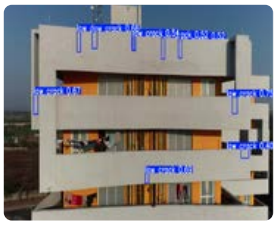
INDUSTRY PROJECTS

1. Ananth Technologies - Long-Endurance Tethered Drone System.

TiHAN-IITH has been sanctioned a project titled "Long-Endurance Tethered Drone System" in collaboration with Ananth Technologies Limited (ATL). The project focuses on the development of an advanced tethered drone platform capable of achieving long-endurance aerial operations of up to 9 hours without the need for frequent battery replacements. Designed for fully autonomous operation, the tethered drone can operate safely within controlled airspace with a tether length of up to 100 meters. The platform is capable of carrying multiple payloads of up to 5 kg, making it suitable for applications such as real-time surveillance, traffic monitoring, emergency response, event security, and communication relay. This long-endurance tethered drone solution is particularly suited for persistent monitoring missions where continuous aerial presence, operational reliability, and high data integrity are critical.




2. MELCO- Optimized Multi-UAV Task Management System for Data Acquisition TiHAN-IITH has been sanctioned a project titled "Optimized Multi-UAV Task Management System for Data Acquisition" in collaboration with Mitsubishi Electric Corporation (MELCO). The project focuses on developing a Cloud API-based multi-UAV task management and data acquisition system for autonomous inspection and monitoring applications. The system is designed to support fault detection in buildings, infrastructure, and equipment by enabling coordinated inspection requests, data acquisition, and communication between UAVs and the AWS cloud. It facilitates efficient exchange of UAV state and environmental information to support synchronized scanning and inspection operations. The project also aims to develop intelligent task management capabilities for crack detection, inspection handling, and real-time data sharing among multiple UAVs. Structured in phases, Phase I of the project focused on building inspection using an RGB camera integrated with the TiHAN drone platform over a six-month period. The phase was successfully completed and demonstrated to the MELCO team during their visit to TiHAN on 12-03-2026.






ToT – Transfer of Technology

TiHAN IIT Hyderabad Initiated Technology Transfer Agreements with Enertech Engineering Private Limited marking a significant step towards commercialization and real-world deployment of indigenous autonomous navigation solutions.





TiHAN Achievements:

- The Multi-model Sensor Data Acquisition System Data Collection Vehicle journeyed from IIT Hyderabad to Kodaikanal, capturing real-world driving data across diverse road conditions and environmental scenarios.
- The Autonomous Campus shuttle has been operational at IIT Hyderabad for over 3+ years, covering 35,000+ km and serving 40,000+ users. The technology has also been deployed across multiple locations in India, demonstrating real-world readiness.
- TiHAN-IITH team successfully demonstrated Autonomous Campus Shuttle operations to the DMRC team at the DMRC Campus on 18-03-2026 under both indoor and outdoor operational scenarios
- Filed 39 patents in FY 2025 - 2026
- The NMICPS Technology Innovation Hub on Autonomous Navigation (TiHAN) Foundation is certified under the NABL Accreditation Board for Testing and Calibration Laboratories for eVTOL Propulsion Laboratory.

Centres/Centres of Excellence

DIA-CoE

DIA-CoE at IITH started functioning from 16-04-2023 at TRP, IITH. To begin with 11 Legacy Projects of AMP & Sensor Verticals were transferred from RCoE, IITM in April' 23. The Centre has successfully completed the scope of Nine (9) of the 11 Legay Projects under Advanced Materials & Processing (AMP) & Sensor Verticals. The Centre coordinated with Faculty and Various DRDO Labs for conducting TEC, RAB & GC meetings for review and progress of 18 ongoing Projects and also obtained sanction of 3 new Projects in the year 25-26. 7 new project proposals under different verticals (UHTM, AIMMSD, SSD, LBC & SHT) have been reviewed for sanction. Two new verticals i.e. "Extraction, Recycling and Sustainability of Materials (ERSM)" and "Laser Beam Combination (LBC)" have been added for developing technology in new domains.
The details of the ongoing Projects under different verticals are tabulated below:

SNo	Research Vertical	No. and the cost of Projects being executed
1	Additive Manufacturing(AM)	6 Projects – Rs.45 Cr.
2	Seeker and Homing Technologies(SHT)	3 Projects – Rs.4.7 Cr.
3	Ultra High Temperature Materials (UHTM)	5 Projects - Rs.11.5Cr.
4	Nano-Ornithopter Technologies(NOT)	4 Projects -Rs.4.7 Cr.
5	Adaptive Imaging and Image Processing(AIIP)	1 Project -Rs. 1.3 cr.
6	Space System for Defence(SSD)	2 Projects-Rs.5.2 Cr.

PROJECT TITLE & KEY OUTCOMES

01

Large Area Additive Manufacturing (LAAM): Design and Development of Powder based Directed Energy Deposition System of size 1m x 1m x 2.5m for Direct Fabrication of Rocket Components.
PI: Prof. Surya Kumar, MAE, IITH
LAAM developed & Printing of engine of size 205x670x2500mm completed and transferred to DRDL



02

Wire Arc Additive Manufacturing of Naval Impeller/Propeller of 500 mm diameter
PI: Dr.Degala Kiran, IITTp
NAB propeller of 500 mm dia with 3 blades was successfully fabricated and demonstrated using the developed WAAM route



03

Development of an unsteady wind tunnel for simulating flight-relevant flow conditions for a micro or nano UAV

PI: Dr. Vishnu R Unni, MAE, IITH



04

Indigenous development and Fabrication of Electric Ducted Fan (EDF) fan units for the wind-generation system. The EDF consists of an impeller enclosed within a custom-designed shroud.

PI: Dr. Vishnu R Unni, MAE, IITH



05

Design, analysis, verification, and Performance evaluation of Analog to digital interface single-channel ASIC for high performance closed- loop capacitive gyroscope for inertial navigation applications

PI: Dr Ch. Gajendranath Chowdary, EE, IITH



ICMR-DHR-CoE

IIT Hyderabad's ICMR-DHR Centre of Excellence (CoE) fosters indigenous MedTech innovation by developing affordable healthcare technologies aligned with the National Health Mission, Ayushman Bharat, and public health needs. The Centre focuses on medical device development, clinical validation, technology translation, and commercialization.

Key Achievements:

- Supported 16 projects and established 9 startups.
- Developed 12 manufacture-ready prototypes at TRL 5 or above.
- Achieved TRL 9 for 3 medical devices and 2 software-as-medical-device products.
- Over 250 devices sold by three supported startups.

Medical Device Development & Translation - Progress and Achievements | 2026



Major Technology Developments:

- nLite360 Intelligent Phototherapy Device:
  Reached TRL 9, obtained regulatory approvals, and entered the market.
- Game-Based Upper Limb Rehabilitation Device: Advanced to TRL 9 and entered the market.
- NemoCare Raksha: Neonatal monitoring device reached TRL 9 and entered the market.
- 3D-Printed Maxillofacial Constructs: Advanced to TRL 7, completing preclinical trials.
- Corneal Scarring Hydrogel Therapy: Reached TRL 8 and entered clinical trials.
- CERVI.AI: AI-based cervical cancer diagnosis platform advanced to TRL 9.

Other Innovations:

- Optical Coherence Tomography for surgical cancer-margin assessment.
- Compact microscopes for IVF, andrology, and live-cell imaging.
- Automated slide scanner for digital pathology.
- High-Intensity Focused Ultrasound for benign breast tumours.
- AI-powered neuromonitoring and dental diagnostic platforms.

TRIHUB - Transportation Research and Innovation Hub

Webpage: https://trihub.iith.ac.in/

Transportation Research and Innovation Hub (TRIHUB)

To address critical challenges in highway and bridge infrastructure, IIT Hyderabad established the Transportation Research and Innovation Hub (TRIHUB) as a Centre of Excellence with financial support from the National Highways Authority of India (NHAI). TRIHUB focuses on developing innovative, sustainable, and cost-effective technologies for the construction, rehabilitation, and strengthening of transportation infrastructure.

Current research initiatives span geosynthetic-reinforced pavements and bridge systems, geopolymer-stabilized pavement materials, utilization of slag and construction & demolition waste, advanced numerical modelling, mechanically stabilized earth walls, corrosion-free bridge decks using GFRP and synthetic fibres, FRP-based strengthening solutions, lightweight composite bridge decks, and condition assessment and strengthening of steel bridges. A key emphasis is on translating these research outcomes from laboratory studies to field applications under real-world traffic and environmental conditions.

Several TRIHUB innovations, particularly those involving geosynthetics for highway infrastructure, have received approval from the Indian Roads Congress (IRC) for field implementation. The research team continues to work closely with NHAI and IRC committees to develop design guidelines, specifications, and standards to support wider adoption of these technologies.
A significant achievement during the year was the IRC Council's approval of the "Guidelines for Design and Installation of CFRP Systems for Repair and Retrofitting of Concrete Bridges," developed by the IIT Hyderabad research team led by Prof. Suriya Prakash. Developed through TRIHUB research, these guidelines provide a systematic framework for using Carbon Fibre Reinforced Polymer (CFRP) systems in bridge repair and retrofitting. The approval marks an important step in translating IIT Hyderabad's research into standardized practices for safer, more durable, and sustainable bridge infrastructure in India.

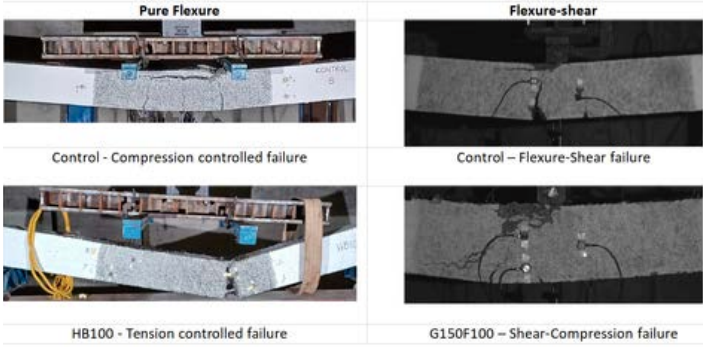


Figure: shows the failure modes of bridge decks subjected to different loading conditions

Medical Device Innovations

IIT Hyderabad, along with the Center for Healthcare Entrepreneurship (CfHE) and Asian Institute of Gastroenterology (AIG) Hyderabad, is introducing a course specifically considering the need for innovative medical devices for patients and the need for Indian industry orientation to medical devices. The Program, MTech in Medical Device Innovation (MDI), is intended for candidates, who passionately feel for finding innovative solutions for the problems faced by the current health industry. The enrolled students will be trained to find problem statements in the health industry; discuss the solutions among engineers, doctors and designers, and come up with a solution to fulfill the degree requirements.

The Program: This is a multifaceted experience that ranges from grassroots innovation to product development, business planning, and entrepreneurship. The program will be instructed in a structured and design-oriented manner with the help of experienced faculty, staff, industry experts, serial entrepreneurs, and the academic community.

Duration: 2 years with 50 credits

As part of their project credits, the teams made from the students would undergo a complete design life cycle comprising of:

- Clinical immersions to identify problems,
- Validate the needs,
- Brainstorm on ways to address the needs
- Build technology prototypes
- Build business and IP management
- Deliver working proof of concept prototypes of their ideas

Project Titles:

- Automatic segmentation and 3D Printing of Patient Specific Craniomaxillofacial Bio-degradable Implants using deep learning techniques
- Therapeutic Compression Device for Lymphatic Filariasis(Elephantiasis).
- Intraoral imaging with advanced image processing for accurate and early detection of dental caries
- Development of a Cold Plasma-Based Device for Effective Disinfection of Dentinal Tubules in Endodontic Treatment
- Early osteoporosis detection in pre-menopausal females

DIC- Design Innovation Centre

Webpage: https://dic.iith.ac.in/ || HUB: DIC IIT Hyderabad - Nodal of all DICs || Principal Investigator: Prof Deepak John Mathew || Spokes: IIIT Sri City, IIIT Hyderabad, IIITDM Kancheepuram

Overview:

During 2025–26, the Design Innovation Centre (DIC), IIT Hyderabad continued to strengthen its role as a multidisciplinary platform for design-led research, innovation, education and societal impact. As the Nodal Centre for Design Innovation Centres, DIC-IITH works towards strengthening collaboration among Hub and Spoke institutions, knowledge exchange, capacity building, documentation of outcomes and development of strategic roadmaps across the national DIC ecosystem.



Fields of Expertise, Major Domains and Ongoing Projects

Design for Education

- Design education and interdisciplinary learning
- Design thinking and innovation
- Mentoring children in PM SHRI Schools through DICE
- Design for Bharat initiatives

Digital & Cultural Heritage

- Digital preservation of UNESCO and culturally significant heritage sites
- Photogrammetry and drone-based documentation
- AI integration in digital heritage
- Preservation of cultural heritage through emerging technologies

Sustainability & Product Innovation

- Aquaponics
- Solar cookers for daily-wage communities
- Vegetable dryers for food preservation
- Technology-to-product conversion

AI & Emerging Technologies

- Integration of Artificial Intelligence into design innovation
- AI applications in design education
- Digital heritage, photogrammetry and drone-based applications

5th All India Design Innovation Meet 2025 at IIT Delhi



A major national engagement during 2025-26 was IIT Hyderabad's participation as a partnering institution in the 5th All India Design Innovation Meet 2025 at IIT Delhi. The gathering brought together more than 1,300 participants, including faculty members, researchers, coordinators and student innovators from IITs, IIITs, NIDs, CFIs and other institutions associated with the DIC network. Ms. Manmohan Kaur, Advisor, Ministry of Education, addressed the gathering at the Research & Innovation Park, inaugurated the exhibition and unveiled a booklet Inventive Oasis, Published by IIT Hyderabad, showcasing innovative projects developed by Design Innovation Centres across the country.

DIC Nodal Centre 2026

Under the leadership of Prof. Deepak John Mathew, DIC-IITH continued strengthening coordination among DIC Hub and Spoke institutions through structured monitoring, mentoring, capacity building, documentation and knowledge exchange. The Centre is developing a unified framework to document projects, prototypes, products, publications, workshops and collaborations across areas including cultural heritage, healthcare, sustainability and education.

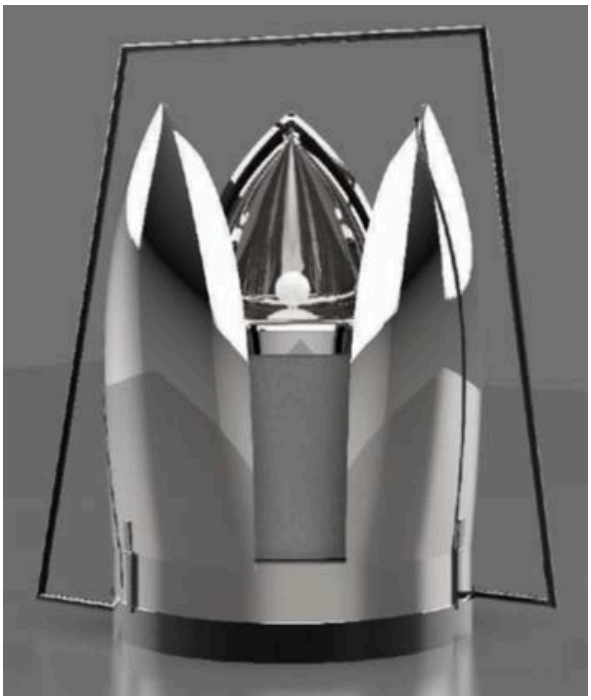


Outreach & Capacity Building

DIC-IITH expanded its school-level innovation outreach through DICE, mentoring children in PM SHRI Schools in design thinking, creativity, problem identification, ideation and innovation. As a Design for Bharat Nodal Centre, IIT Hyderabad is also working to strengthen design-thinking and innovation capabilities among school students and extend design-led problem-solving beyond higher education.



DIC-IITH is working towards strengthening the Hub-and-Spoke framework, systematic mentoring, technology-to-product conversion, intellectual property support, start-up development and industry collaboration, while expanding engagement with universities, MSMEs, communities, artisans, government agencies and national innovation programmes.



Centre for Research and Innovation in AI (क्रिया)

Webpage: https://ai.iith.ac.in/research/ai-research-centre.html

The Department of Artificial Intelligence (AI) at IIT Hyderabad, established in 2019, was India's first initiative of its kind (at least among the IITs) and likely the third globally, following the Massachusetts Institute of Technology and Carnegie Mellon University. Historically, AI has been studied within departments such as computer science or electrical engineering. However, the creation of a dedicated AI department at IIT Hyderabad allows for the integration of knowledge from multiple disciplines.

By drawing on these diverse perspectives, the department offers a unified academic program. IIT Hyderabad's Bachelor of Technology in Artificial Intelligence has influenced the development of similar programs nationwide, and the department has provided guidance to other institutions in designing their AI curricula.

According to Professor Vineeth N. Balasubramanian, from the Department of Computer Science and Engineering and affiliated with the AI Department, the presence of the AI Department enables students from other disciplines to pursue a minor in AI alongside their major. This is crucial, as AI's relevance spans a broad range of domains—from structural engineering to drug discovery.

The department currently enrols over 250 students, with an almost equal distribution between undergraduate and postgraduate programs. It boasts a faculty of 30 members, including five core faculty members and affiliated faculty from computer science, electrical engineering, mathematics, and mechanical engineering. Additionally, the department offers a PhD program, enabling candidates with foundational knowledge in various fields and strong mathematical backgrounds to engage in advanced AI research.

The department's research covers a wide array of fields, including foundational AI algorithms, computer vision, natural language processing (NLP), speech understanding, social media analysis, robotics, signal processing, high-dimensional data analysis, distributed AI, AI compilers, and embedded AI. Research also explores interdisciplinary applications, such as AI and the Internet of Things (IoT), AI and blockchains, AI and wireless networks, and AI in design. The department runs projects funded by prominent government agencies (DST, SERB, MEITY, DRDO) and industry leaders (Google, Microsoft, Adobe, Honeywell, Sony, Qualcomm, Accenture). Faculty members have worked on AI-driven solutions in areas like sustainable development, healthcare, smart transport, security, agriculture, disaster management, fraud analytics, e-commerce, astronomy, and aerospace.

Supported by Honeywell and the Japan International Cooperation Agency (JICA), the department hosts a state-of-the-art Centre for Research and Innovation in AI (क्रिया). The computing capability of the department consists of 25+ high end GPU servers, including NVIDIA DGX-1 and DGX-2 servers. These resources support a wide range of AI research projects. Also in partnership with NVIDIA, it established India's first NVIDIA AI Technology Centre (NVAITC) in July 2020, significantly enhancing AI research with high-performance computing resources.

Recently, in collaboration with Intel, the department launched the Intel AI PC Experience Center, one of only two such centers in India (the other is at IISc Bangalore), allowing students to experiment with AI without requiring high-end GPU servers, thus making AI accessible to a broader group of learners.

The department encourages interdisciplinary collaboration on large-scale projects. A notable example is the AISWARYAM initiative for sustainable city management, led by Professor Vineeth N. Balasubramanian, which involved contributions from more than 20 faculty members across the institute. The faculty members and students of the AI department contribute and collaborate very closely with the Technology Innovation Hub in Autonomous Navigation (TiHAN), another large scale project led by Prof. Rajalakshmi from the Electrical Engineering department and also affiliated with the AI department. Additionally, faculty members such as Professors Maunendra and Mohan Raghavan are involved in the BharatGen project, which leverages generative AI technology to enhance public service delivery and citizen engagement on a national level. The other notable collaborative projects include SANKALP (healthcare) and M2SMART (air pollution). The department remains focused on impactful research, with students and faculty regularly publishing in leading AI and machine learning conferences and journals such as ICML, ACL, CVPR, AIJ, JMLR, WACV, NeurIPS, AAAI, IJCAI, AAMAS, ECAI, ICLR, and various IEEE Transactions.



RDC - Rural Development Centre

Webpage:https://rdc.iith.ac.in./

The Rural Development Center (RDC) at IIT Hyderabad works across three interconnected thematic areas — Education, Environment, and Entrepreneurship — and also runs the NBV Skilling Foundation to create skilling and employment opportunities for peri-urban and rural communities.

Major Events during 2025–26 academic year:

Inauguration of NBV Skilling Foundation: A three-party agreement among RDC IIT Hyderabad, Suzuki Innovation Centre (SIC), and Deshpande Skilling Foundation was signed to establish the NBV Skilling Foundation. The centre was established at IIT Hyderabad to provide skilling opportunities to rural youth from villages around IITH.

Teaching Activities: RDC, through the Prayas team, conducted teaching activities in 7 ZPHS schools in Kandi Mandal of Sangareddy district. IITH students (UG, PG, and PhD), faculty, and staff participated in teaching Science, Mathematics, and English. SkillinVillage and SkillPlus programs were also initiated under NBV in October 2025.

Prerna: RDC organised Prerna to motivate students and parents from rural backgrounds. Individuals from diverse professional backgrounds who had excelled in their respective fields and had begun their schooling in ZPHS schools were invited to interact with students and parents.

Agastya Foundation SEP Program: RDC, in association with the Agastya Foundation, conducted a Science Enrichment Program from May to June 2026 for 38 students and 7 teachers from Navodaya schools across India. The students stayed at the IIT Hyderabad campus for five weeks, attending classes by IITH faculty for three weeks and undertaking projects in IITH laboratories for two weeks.

Partnership with Aksharadaan: RDC, in collaboration with Aksharadaan, supported government school students across Telangana through online classes in Mathematics and Science during November–December 2025.

MoU with FIEK: RDC signed an MoU with FIEK to develop model plots demonstrating regenerative farming practices for villagers, IITH students, and the IITH community.

Meeting with Panchayat Secretaries: RDC organised a meeting with Panchayat secretaries from villages across Kandi Mandal. Discussions focused on village-level initiatives such as waste segregation, water storage and recycling, solar energy implementation, and farming-related activities, along with possible steps for implementation.

Internship under RDC: RDC supported an intern in undertaking an M.Phil project for their thesis. Internship opportunities were also offered under the IITH SURE program for students to work on practical problems and develop solutions relevant to rural communities.



SkillinVillage Programme at one of the seven ZPHS school



Inauguration of the NBV Skilling Foundation Centre at IITH



Suzuki (Next Bharat Venture) Global team visits to SkillPlus Pro program at Govt. Women college at Sangareddy.



DEEKSHA Programme – Students interacting with IITH faculty

CCE - Center for Continued Education

Webpage: https://cce.iith.ac.in/

Overview: The Centre for Continuing Education, IIT Hyderabad promotes lifelong learning and professional development through quality education programs for students, academicians, researchers, industry professionals, and global learners. Leveraging the expertise of IIT Hyderabad's faculty, the Centre offers programs in emerging areas of science, technology, engineering, management, and interdisciplinary domains. CCE @ IIT Hyderabad conducts executive education programs, certification courses, faculty development programs, workshops, and customized industry training in both online and offline modes. Through industry-academia collaborations and technology-enabled learning initiatives, the Centre supports skill enhancement, innovation, and continuous learning while addressing evolving academic and industrial needs.

Scope and functions:

- To conduct all academic outreach activities like Conferences, Workshops, Certificate Courses, Symposia, Short-term courses, Training programs, and other similar activities of the Institute.
- To organize faculty development programs for faculty of various technical institutes in the country.
- To conduct certificate courses in collaboration with industry and academia to provide specialized expertise/skill development in diverse fields

Programs and Facilities

- Open To all Teaching (OAT)
- NPTEL (National Programme on Technology Enhanced Learning)
- International/ National Conferences
- Workshops, Symposiums and Training Programs
- Short-term and long-term Certificate Programs

Convention Centre Facilities:

- Auditoriums
- Seminar Rooms
- Conference Rooms
- VIP Lounges



July – December 2025 Semester

- Concepts and hands-on astrophysics by
- Distributed computing
- Electrochemical energy conversion
- Entrepreneurial marketing
- Fundamentals of scientific computing
- Cultural Perspectives on Development: Examining Race, Class, Gender
- Algebra I - Groups and Rings
- Mathematical Methods in Civil Engineering
- Role of Microstructures
- Communication Skills
- Introduction to Bayesian Statistics
- Powder Metallurgy of Nano, Micro and Additive Manufacturing

January - May 2026 Semester

- Machine learning and scientific computing for civil engineers by
- Stem cell biology and regenerative medicine
- Parallel and concurrent programming
- Accelerator physics and teletherapy machines
- Introduction to entrepreneurship
- Composite Materials
- Atomization and Sprays
- High Entropy Alloys

NPTEL Courses:

- Advanced prestressed concrete design
- Nation and narration
- Theory of plasticity for engineers: concepts and applications
- Memory device technology for AI/ML computing
- Transmission electron microscopy theory of imaging to advanced applications
- Predictive modelling with applications supervised and unsupervised learning
- Introduction to cardiovascular mechanics
- Migration, mobility and development
- Polymeric biomaterials: structure, properties, function and performance
- Basics of climate modeling
- IC design for wireless systems

Conferences:

- WHEPP 2025
- INACOMM
- ServDes' 25
- 11th International Conference on Power Systems 2025
- International Conference on Chemistry for Sustainability (ICCS 2025)
- Theme Meeting Ultrafast Sciences-2025
- Phoenix 2025
- ChemSpirit 2025: Current and Future Trends in Chemical Synthesis 2025
- Pattern formation in complex physical and biological systems
- Hyderabad Soft Matter
- ITS India Congress 2025

Workshops

- CMS Data Analysis School (CMSDAS) 202
- 2nd Indo-French Workshop on Light-Matter Interaction
- DRM Gurukool-3 INDIAN School on Desing Research
- Summer Training Workshop on Characterization Techniques foe Cementitious Materials
- Computational Methods in Advanced and Precision Oncology
- Workshop on “Ideation to Scale up: Navigating Operational Challenges”
- Research Internship in Health Psychology
- Using Motivational Enhancement Therapy to Treat Addiction Empowering Change through Motivation
- Communication Skills in Oncology
- Advance Traffic Safety Using ADAS & DMS Systems
- Machine Learning for Engineers
- Modelling of Multiphase Flow Fundamentals & Applications
- IEEE-PELS PhD Summer School 2025 on "Designing Reliable Control Circuits for Power Converters
- Research Opportunities in Computer Architecture
- Fundamentals of Learn Startup Approach
- AI on ARM/Embedded Platforms
- Research Writing in Health Psychology Workshop
- DRM Gurukooll-3rd Indian School On Design Research
- Academic Immersion Program
- Practical Applications of AI, LLMs, and Optimization
- Driving Organizational Effectiveness Through Employee Experience
- Topology Optimization & AI/ML Design
- Precision Medicine and Clinical AI: Laboratory Innovation to Beside Application
- Transnational Encounters In/ Through South Asia: Victoria Routes of Influence and Affect
- SPARC Sponsored 2 day workshop on Lithium and beyond Li-ion Battery Systems
- Workshop on Biophysical Characterization of Proteins

Symposiums

- National Symposium on Porous Media Research & First Meeting of the India Interpore Chapter
- Annual Symposium on Advances in Materials Characterization
- Ritsumeikan University-IIT Hyderabad Symposium-2025((RUIITHS-2025)
- Accessible and Inclusive Digital Library (AIDL) - 2026

Certificate Programs

- Entrepreneurship Essentials
- Next - Gen Computer Architecture
- 5-Days Workshop on Electronics and Instrumentation
- Entrepreneurial Essentials
- Entrepreneurial Essentials
- Gender in Theory and Practice
- A Four-week Masterclass in Impact Evaluation
- AI Foundation for all
- IITH-MARVELL AI/ML Networking and Infrastructure Workshop-2025
- Bio AI Omics Workshop, Foundations & Practice
- VLSI Chip Design - Boot camp

Other various training and outreach activities:
Research Training in Health and Medical Psychology
Living with Type 1 Diabetes Seminar
India AI Impact Summit
AlChEmEx: Chemical Engineering
Department Day
Navodaya Batch - 1
Navodaya Batch - 2

















CIP - Center for Interdisciplinary Program

Webpage: https://cip.iith.ac.in/

The Centre for Interdisciplinary Programs (CIP) has been created with a vision of fostering collaboration and integration across different academic disciplines at IITH. CIP @ IITH envisions creating new paradigms in education, integrating techniques, tools and science from multi- and cross-disciplinary expertise on the IITH campus to address complex and multifaceted challenges. Centre for Interdisciplinary Programs serves as a bridge between traditional academic departments at IITH.

The main goals of the Centre include

- Initiate and sustain new interdisciplinary programs
- Promote interdisciplinary research through joint PhD supervision. Programs include the Inter-Departmental PhD program and the IITH-Deakin University Joint Doctoral Program.
- Incubate new 'Centres of Excellence'

Research Verticals

- Artificial Intelligence, Computing, Communications & Networks
- Bioengineering & Healthcare
- Energy, Environment, Creative Design & Management
- Novel Materials & Computational Techniques
- Soft and Active Matter & Mechanics of Materials
- Robotics, Biomimetics & Instrumentation

New Programs Introduced in FY 25-26

M.Tech in Critical Minerals and Metals Processing (Online & Offline)

The program aims to develop skilled professionals to address challenges in low-grade ore beneficiation, recovery of rare and critical elements, recycling of secondary resources, and environmentally responsible processing. It also emphasizes emerging areas such as digitalization, artificial intelligence and advanced analytical techniques. With interdisciplinary collaboration and engagement with industry and government agencies, the program aims to contribute to India's resource security and sustainable mineral industries.

M.Tech in Defence Technologies

With Defence Atmanirbharta as its aim, the program is designed to provide students with "defence acclimatization", enabling them to understand the broader context and technical foundations of defence technologies.

Awards & Recognition of ID Students:

- Uday Dhawan – Excellence in Academics Award.
- Kondababu Kadali – Best Paper Award at IIW 2026, IIT Hyderabad, and Best Metallography Award at IIM ATM 2025, IIT Hyderabad.
- Neha Mishra – Best Oral Presentation Award at ICNEA, Tokyo, Japan, 2025; also selected for the JST-LOTUS Program 2025.
- Naveen Kumar Kamatchi Ramakrishnan – Received a ₹75,000 Travel Grant for the GRC Conference, Italy, July 2025, and an ANRF Travel Grant for the MicroTAS Conference, October 2026.
- Sumitkumar Chandanshive – Award winner in the Creative Writing Competition held as part of National Space Day '25.

Student Achievements – Sports

- Nikhil Singh Katiyar – Gold Medal in 1500m Athletics at Aarambh 2026.
- Uday Dhawan – Gold Medal in Hockey with the Civil Team at Diesta'26.
- Prashant Sahu – Winner, IVL Volleyball.
- Sumitkumar Chandanshive – Runner-up in Table Tennis at Diesta'26.



Grants & Fellowships

- Naveen Kumar Kamatchi Ramakrishnan – Received a ₹75,000 Travel Grant for participation in the GRC Conference, Italy, July 2025.
- Naveen Kumar Kamatchi Ramakrishnan – Received an ANRF Travel Grant for the MicroTAS Conference, October 2026.
- Neha Mishra – Selected for the JST-LOTUS Program 2025.

Indian Knowledge Systems

The Indian Knowledge Systems (IKS) Cell of IITH has been established to nurture an awareness of the traditional Indian Knowledge Systems (shaastras) in the IITH community. The prime focus of IKS@IITH is in discovering the knowledge in the traditional Indian Systems and disseminating them. The IKS@IITH operates within the purview of the Heritage Science and Technology (HST) Department of IITH.

Non-Formal Sanskrit Education (NFSE) Sanskrit Courses:

In collaboration with Central Sanskrit University, IITH offers Certificate and Diploma Courses in Sanskrit Language. These courses are offered in offline mode with the CSU instructors stationed at IITH. The CSU instructor for these courses is Shri Dr. Avijit Ghosh. The CSU courses are run together by the Dept. of Heritage Science and Technology (HST) and the IKS Cell.

Samskrita Bharati (SB) Sanskrit Courses:

In collaboration with Samskrita Bharati, IITH offers five 1-credit senate approved Sanskrit courses to students of IITH. These courses are designed so that the basic student becomes an expert reader of texts in Sanskrit. Undergraduate and Graduate students take these courses to satisfy their LA/CA credit requirements. Until date around 400+ IITH students have benefited from these courses.

The SB courses are run together by the Dept. of Heritage Science and Technology (HST) and the IKS Cell. These courses are offered in online mode by instructors delegated by Samskrita Bharati, Telangana. The instructors for these courses are Acharya Shri Turlapati Sivaramakrishna, Shri Acharya Paka Gopalakrishna and Acharya Dr. Sarita Ancha.



Center for Cryptography and Cybersecurity

The Center for Cryptography and Cybersecurity aims to be a premier hub for cryptography and cybersecurity research in India. The center conducts research in cutting-edge technologies as well as engages in the training of students and professionals in these areas.

To know more, visit: https://ccs.iith.ac.in/ Email ID: mvp@cse.iith.ac.in

Center for Geo-spatial AI and Digital Twins

Estd through an MoU between AMS, NEER, INTERACTIVES & IITH, to faster a close partnership that focuses on Geospatial AI & Digital Twins, cultivating a collaborative environment for project initiatives in Geo AI, drones AI, perimeter security AI, BIM AI & Digital Twins applied to defense, industry, environmental safety, climate change, wildlife

To know more, visit: http://cgdtind.org/ Email ID: shivaji@des.iith.ac.in

Center of Design Excellence (CoDE)

The Center of Design Excellence (CoDE) at IIT Hyderabad represents a strategic collaboration between academia and the Telangana MSME industry, aimed at enhancing industrial capabilities through innovative design solutions.

To know more, Visit: https://code.design.iith.ac.in/ Email ID: code@des.iith.ac.in

Skill Development Center at RDC

Established in 2020, the Rural Development Center (RDC), IIT Hyderabad, bridges advanced research and grassroots needs to drive sustainable rural development. RDC focuses on Education, Environment, Entrepreneurship and Skill Development, empowering rural communities through knowledge, innovation and employment opportunities.

Email ID: office@rdc.iith.ac.in ; To know more, visit: https://rdc.iith.ac.in/

CLEANZ

The Centre of Clean Coal Energy & Net Zero (CLEANZ) is a CoE committed to promoting the development of high-impact coal-based technologies by integrating advanced scientific approaches with real-world applications. The centre aims to create scalable solutions for clean coal utilisation, CO_2 management, and the circular economy.

To know more, visit: https://cleanz.coe.iith.ac.in/#contact Email ID: office@cleanz.coe.iith.ac.in

Centre for Creative Arts

The Centre for Creative Arts at IIT Hyderabad promotes creativity and artistic expression by integrating Fine Arts and Performing Arts into the academic curriculum. The Centre fosters innovation, cultural appreciation, and holistic learning through courses and creative activities.

To know more, visit: https://la.iith.ac.in/creative_arts.html Email: fic.ca@la.iith.ac.in

DBT-SAHAJ

The DBT-SAHAJ facility for single-molecule and super-resolution imaging provides access to cutting-edge single-molecule imaging technologies for life science/biomedical research. Technologies available: 1) Single-molecule tracking in live cells, 2) Single-Molecule Localization Microscopy (STORM/PALM), 3) Single-Molecule FRET, 4) Single-molecule FISH, 5) 5D imaging of live and fixed cells, 6) Image processing and visualization.
To know more, visit: www.singlemolecules.iith.ac.in. Email ID: gunjanmehta@bt.iith.ac.in

IITH-Nikon CoE

The Nikon Centre of Excellence for Optical Microscopy at IITH provides super-resolution confocal, TIRF, widefield fluorescence and stereo fluorescence microscopes to support high quality imaging across various fields of research.
To know more, Visit: https://coenikon.iith.ac.in/ Email ID: shourya@msme.iith.ac.in

NVAITC

The NVIDIA AI Technology Centre (NVAITC) at IITH is a joint initiative to accelerate AI research and its commercialization. It was established to facilitate research on AI algorithms and develop AI-based solutions for various sectors, including agriculture, smart cities, and language understanding.
Email ID: head@ai.iith.ac.in

SIMMECT

IITH in collaboration with Swinburne University of Technology (Swinburne), Australia have established SIMMECT—the "Swinburne-IITH Manufacturing, Materials, Energy, and Communication Technologies Joint Research Institute". This centre aims to strengthen the research collaboration between IITH and Swinburne, fostering cutting-edge advancements with significant industry and societal impact. **Email ID: celiawong@swin.edu.au**

Takshashila

The Takshashila- Centre for Heritage Science & Technology, located within the Department of Heritage Science & Technology (HST) at IIT Hyderabad, focuses on applying science and technology to conserve and develop India's tangible and intangible heritage assets. This includes monuments, archaeological sites, traditional knowledge systems, cuisines, art, and languages. **Email ID: mohanr@bme.iith.ac.in**

AMRIT

AMRIT (Advanced Manufacturing Research Innovation and Training) is a joint initiative launched in 2025 by the IITH and Deakin University, Australia, to advance next-generation manufacturing technologies. This collaboration focuses on additive manufacturing, smart materials, lightweight composites, automation systems, and Industry 4.0 technologies to foster innovation, workforce development, and startup incubation in India. **Email ID: mgopinath@mae.iith.ac.in**

SU IITH

SU IITH is established between Shimane University, Japan and IITH. This centre aims to cultivate the next generation of human resources with an entrepreneurial mindset, strengthening the Japan-India science and Technology partnership and preparing students, researchers and academics to lead industries and contribute to society in both nations
Email ID: dean.ir@iith.ac.in

WIN

IITH in collaboration with the Wadhwani Foundation, has established a Centre of Excellence, Wadhwani Innovation Network, to drive innovation and research in key frontier areas. The Foundation is supporting the initiative in the areas of Advanced Computing and Artificial Intelligence; Biotechnology and Bioengineering; HealthTech; SpaceTech; Quantum Technologies; Critical Minerals and Mining. **Email ID: office@win.coe.iith.ac.in**

NBV-SIC

Suzuki Innovation Centre & Next Bharat Ventures at IITH are dedicated to advancing the Next Billion in India by supporting impact entrepreneurs committed to making a substantial difference. Empowering the community of great entrepreneurs creating greater impact, for the next billion.
To know more, visit: https://nextbharat.ventures/ Email ID: sic@nextbharat.ventures

SATHI-CISCoM

Centre for In-Situ and Correlative Microscopy is a consortium of 18 partner institutes supported through the DST-SATHI program. This centre would be the first in the nation to enable real-time characterisation across multiple length scales for fundamental and industrial R&D purposes. This centre is headed by Dr. Sairam Malladi.
To know more, visit: https://sathi.iith.ac.in Email ID: sathi.ciscom@admin.iith.ac.in

STC^{2}M^{2}P

Sustainable Technologies Centre for Critical Minerals and Metals Processing (STC M P)- CoE under National Critical Mineral Mission by Ministry of Mines, GoI. This CoE focuses on recovering critical minerals from e-waste, industrial residues, ash sources, and primary ores (Ni, Co, V, Ti). The CoE aims to drive innovation, reduce import dependency, and promote sustainable practices, strengthening India's mineral independence.
Email ID: narasimha@che.iith.ac.in

Creative Arts

The Centre for Creative Arts at IIT Hyderabad promotes creativity and artistic expression by integrating Fine Arts and Performing Arts into the academic curriculum. The Centre fosters innovation, cultural appreciation, and holistic learning through courses and creative activities. **https://la.iith.ac.in/creative_arts.html Email Id: fic.ca@la.iith.ac.in**

CQC

The Center for Quantum Communications (CQC) is a Center of Excellence at IIT Hyderabad focusing on Secure Quantum Communications. The Center hosts a branch of the Quantum Communications Technical Hub of the National Quantum Mission. Researchers in the CQC work on design, development of Quantum Key Distribution (QKD) systems, design and analysis of secure quantum network protocols, and QKD systems based on Photonic Integrated Circuits.
Email ID: cqc@coe.iith.ac.in

VIGRAHA

VIGRAHA (Virtual, Intelligent, Ground-breaking Research in AR/VR & High-tech Applications for Indian Army) CoE has established in collaboration with with the Army Training Command, Shimla, represented by the Simulator Development Division (SDD), Secunderabad This collaboration aims to spearhead cutting-edge research and development for the Indian Armed Forces. **Email ID: shivaji@des.iith.ac.in**

Schools

BVR SCIENT

Dr BVR Mohan Reddy School of Innovation and Entrepreneurship is a unique Institute established in collaboration with IIT Hyderabad with a collective goal to instill an entrepreneurial mindset amongst youngsters and create a thriving innovation ecosystem to transform the entrepreneurial landscape across the country.
Key Objectives:

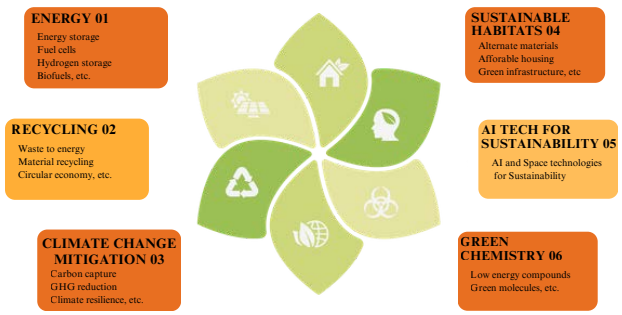
- Capability building for potential entrepreneurs
- Entrepreneurial Ecosystem Enhancement and
- Capacity building for entrepreneurial mindset.

For more details, visit: bvrscient.iith.ac.in

Greenko School of Sustainability

Greenko Group and IITH are collaborating to establish the Greenko School of Sustainability at the Indian Institute of Technology Hyderabad. The School of Sustainability is designed to shape a world that harmonizes with nature and empowers future generations toward a more sustainable tomorrow. The objectives of the school are to conduct research and development, and education programs. The Greenko School of Sustainability is structured as a cross-disciplinary centre that manages seamless participation and knowledge flow from all existing departments and centres of IITH.

Core research areas of the School:



TRP - Technology Research Park

Webpage: https://trp.iith.ac.in/

Technology Research Park (TRP), aims to provide infrastructure and facilities for industry partners to co-locate Research and Development (R&D) centers at the IITH campus. Funded by the Ministry of Education, Govt. of India (erstwhile Ministry of Human Resource Development) to tune of Rs. 75 Crores towards capital expenses, this 1.5 Lakhs sq. ft. (Square Feet) building features state-of the-art facilities on par with global standards.

During the Financial Year 2025 -26, Granules India Limited setup 2 advanced Centers of Excellence namely Ascelis Center of Excellence for Peptide Development and Characterization and the Granules Center of Excellence for Particle Engineering.



TRP Outside



TRP Inside



TRP Office

As on 31st March 2026, total of 20 organizations had setup their R&D labs and are currently occupying 32,765 sq. ft. in total. Other than these organizations, TRP hosts 5 Centers of Excellence in verticals of 5G & 6G telecommunications, DRDO's DIA CoE, Data Analysis & AI and Godavari Water Study. During the Financial Year 2025 – 26, IITH Technology Research Park has provided space to 7 different private companies that are engaged in different verticals namely, Pharmaceuticals, Defence, Animation, VLSI & Artificial Intelligence. Companies hosted in IITH TRP have set up their R&D labs and are working in areas ranging from Software Drone Technology Biomed / Biotech Artificial Intelligence Satellite Related Technologies, Fabless Chip Designing, RF, VLSI, Critical Minerals, Fintech & Pharmaceutical-related research activities.

During the Financial Year 2025 -26, Granules India Limited setup 2 advanced Centers of Excellence namely Ascelis Center of Excellence for Peptide Development and Characterization and the Granules Center of Excellence for Particle Engineering.

Apart from the above, Dr. Remedies Life Sciences is in the process of setting up an advanced R&D lab spread across 8300 sq. ft. in the domain of Cancer treatment making the treatment cost effective. 1 Japanese company, AGC India Pacific, has taken up space to setup their R&D lab.



TIP - Technology Incubation Park

The TIP building, with a total built-up area of 14313 sqm, consisting of 11 blocks with a G+5 structure, is ready to support the incubation activity at IITH. The motto of IIT Hyderabad is Inventing and Innovating in Technology for Humanity (IITH). The Incubation ecosystem of IITH aims at nurturing ideas and innovations into viable technological and business ventures. The establishment of TIP is a major step forward in strengthening the incubation ecosystem of IITH. IITH has incubated more than 300+ startups that generated more than Rs. 1500+ crores of revenues and created 1100+ jobs.



Green Office

Greening the Campus, Conserving Biodiversity, Advancing Sustainability

During 2025–26, IIT Hyderabad's Green Office advanced campus greening, biodiversity conservation, water-efficient landscaping and sustainable waste management, focusing on native species and biodiversity. During the year, 10,715 trees were planted, including CSR-supported plantations. The year also marked the achievement of the 1 lakh sapling plantation milestone on campus since 2019.



Key Initiatives & Achievements

- **Mass Plantation & Campus Greening:** The Independence Day plantation drive covered 20 locations across the campus and completed 1 lakh sapling plantations with over 70 native species. This was complemented by 12 monthly plantation drives. Approximately 6,800 hedge and topiary saplings were also planted. In addition, indoor plants and suitable pots were procured for the admin building and library to enhance indoor aesthetics.



- **Landscape Development:** A butterfly garden and nearly 5 acres of sports grounds for cricket, football, and hockey were developed and landscaped for the Inter-IIT Sports Meet 2025, using in-house manpower and resulting in estimated savings of up to 80% of institute funds. The campus entrance and library lawns were planted with winter-flowering plants. Irrigation infrastructure was extended, drip irrigation was introduced along the main boulevard, and STP-treated water was used for landscaping. At the Director's Residence, indoor plants, natural stones, and pebbles were thoughtfully arranged to create a harmonious indoor landscape. New grass dibbing was undertaken in lawns at the faculty towers, staff towers, and old and new hostels.



- **Biodiversity Conservation:** The Green Office strengthened documentation of campus biodiversity by releasing Birds of IITH, featuring more than 100 bird illustrations documenting the institute's avian diversity. A Butterfly Garden was developed at SNCC Circle, alongside biodiversity-supportive plantations that provide habitat for pollinators and other species.



- **Waste Management, Resource Recovery & Circularity:** IIT Hyderabad signed an MoU with Bisleri for waste-bottle management, established bottle-collection cages, and introduced benches made from recycled bottle caps. More than 500 garbage bins were established in hostel areas, along with additional steel bins and protective cages strategically. Daily campus waste is collected and segregated at the Resource Recovery Park, enabling recyclable and reusable materials to be recovered. Organic and food waste is processed through bio-composting and vermicomposting, with the resulting compost used in campus gardens and plantations. Food waste is also processed through the campus biogas plant, generating biogas for use in the campus kitchen.



- **Event-Based Plantation:** Tree plantation was organized during the Indian Institute of Metals (IIM)-ATM conference (trees were planted by all past presidents), the Ritsumeikan University PBL Programme, and World Environment Day, contributing to campus greening, environmental awareness, and a lasting ecological legacy.



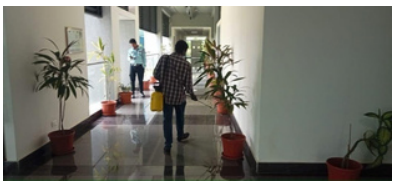
- **Recognition:** The Green Office received the CII Vanamahotsav Award 2025–26 in recognition of its plantation and campus-greening initiatives.







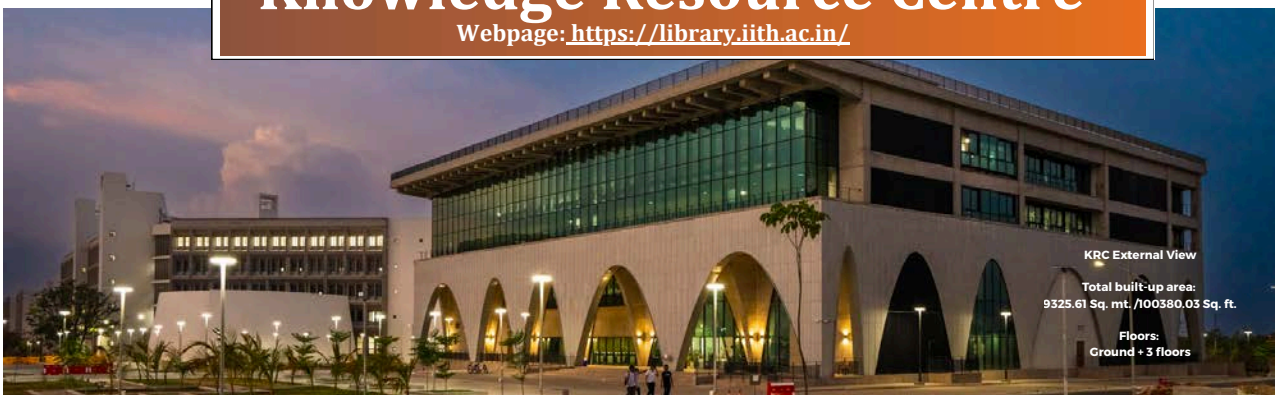







Knowledge Resource Centre

Webpage: https://library.iith.ac.in/



IITH Library has been functioning since 2008. The library presently holds more than 41,670+ Books including gratis. E-resources collections include 5,000+ Full-text Resources, Bibliographic Databases, 1,83,000+ e-books, Academic Tools, and Online Newspapers & Magazines. The IITH library is fully automated with the integrated library software package using Koha and the RFID security automation system.

IITH Library has been renamed as IITH Knowledge Resource Centre (KRC) relocated to the new building and re-started its functioning on 27-March-2024. For more details, visit: https://library.iith.ac.in/ | Video Url

KRC AT A GLANCE :

The Knowledge Resource Centre (KRC) is a ground plus three-storey structure. It was modeled as a library with a large digital collection, multimedia rooms and digital archives. Complex roof construction consisting of a central square surrounded by four hyperbolic paraboloid shell roofs. It has fair-faced exposed concrete parabolic arches of various heights and widths at multiple locations.



KRC equipped with all new facilities such as:

Koha LMS, RFID, Self-Issue Return Kiosk, Digital Wall and displays, AV Rooms, Recording Studio, Group Discussion Rooms with displays, Research Commons Computer Lab, Learning Commons Lab, Conference & Meeting Rooms, Printing, Digitisation, Scholar Zone, Reading Areas, Study Carrels, Formal and Informal seating spaces and many more services to its patrons.



Following is the summary of the infrastructure, facilities, services and state-of-the-art technology available at KRC to support Teaching-Learning and Research (TLR) activities. Visit: https://library.iith.ac.in/ | Video Url

LIBRARY COLLECTIONS

Type of Collection	Additions in 2024-25	Total collection
Print Books (including gratis)	5864	41,670+
Young Minds / Children Books	625	1127+
Rajbhasha (Hindi) Collection	52	459+
Theses & Dissertations	2025:615 | 2026: 79	694+
e-Resources (Full-text & Databases)	3	23+
E-Books Collection	73029	3,45,780+
Accessible Books for Divyangjan (PwD)	683185	683185

Research Output by IITH fraternity:

Publications:

Total Publications: 14,258+

Total citations: 2,92,267+

H-index: 167

Source: Scopus

Books / Edited Books:

68+ Books:

Library Infrastructure

Collections	Research Support	Library Initiatives	Facilities	Services	Infrastructure
Print Books / E-Books • Core Subject Books • Faculty Publications • Rajbhasha (Hindi) Collection • Japanese Book Collection • Telugu Book Collection • Indian Regional Language Book • Competitive Exam Book • Young Minds Collections • Autobiography / Biography **e-Resources** Off-Campus Access **Database** **Standards**	• Similarity Check/Plagiarism • Tools Access – Turnitin, Grammarly, Overleaf, etc. • Reference Managers • Scientific Tools • Citation Styles Article Request	• Koha LMS - OPAC • RAIITH (Institutional Repository) • IRINS Faculty Profile • Research Support • Pragyaan collections Exit/Entry Statistics	•Reading Areas Scholar Zone Group-Discussion-Rooms Study Carrels •Recording Studio •Learning-Commons •Research-Commons •Video-Conference-Room •Virtual-Class-Room •Seminar Room •Meeting-Room Inclusive Study Centre	• Circulation • Library Membership • New Arrivals Alerts • OPAC - Book Catalogue • Document Delivery Services • User Orientation Programs • Library Statistics for Reports • Online Access to e-Resources • Open Access e-Resources • Off-Campus Access • Book Suggestion/Procurement • Online Booking of facilities	• RFID Security Gate • Self Check-in / Check-Out • Reading Areas • Centralized AC • Wi-Fi Access • Book Stack areas • Printing/Scan/Copy material • CCTV Ramp Access for Specially-Abled Users

Koha LMS - OPAC: https://catalogue.krc.iith.ac.in/
The web catalogue allows campus community members to search and discover the library's physical and digital collection, including volumes, serials, and academic materials online. Patrons can recommend acquisitions, access specialized library services, and share feedback to fulfill academic requirements. This unified system streamlines information discovery and resource management across the institute. As an essential component of the Knowledge Resource Centre (KRC), it facilitates seamless information retrieval to support Teaching-Learning and Research (TLR) activities at IITH.



RAIITH (Institutional Repository): https://raiith.krc.iith.ac.in/
The institute repository serves as an open-access archive preserving research outputs generated by the IITH fraternity, including faculty, scholars, and staff. It offers seamless access to theses, dissertations, journal publications, and proceedings, facilitating long-term digital archiving. This initiative expands global reach, encourages academic and industry collaborations, and elevates the global research visibility of IIT Hyderabad.



IRINS Faculty Profile: https://iith.irins.org/
The IRINS platform compiles comprehensive profiles of researchers, showcasing their publications, project undertakings, and scholarly achievements. It integrates seamlessly with bibliographic databases such as Scopus and ORCID to showcase research contributions effectively. Citation counts and H-index metrics are automatically synchronized from Google Scholar and Scopus for every member. The portal strengthens collaborative networks, enhances overall research visibility, and simplifies tracking institutional productivity.



Recording Studio:
It provides a dedicated facility for the creation of high-quality audio and video content, including podcasts, interviews, lectures, webinars, instructional videos, and other digital learning resources for faculty, researchers, students, and other Institute stakeholders in developing and disseminating knowledge resources in digital formats.
All recordings and Podcasts can be accessed at: https://www.youtube.com/@IITHyderabadofficial



Teaching-Learning and Research (TLR) Support
KRC supports TLR activities by offering access to print books, e-books, full-text e-resources, and online databases. It provides off-campus access, Scholar Zone reading spaces, group discussion rooms, document delivery, and interlibrary loan services. Users can submit book recommendations and utilize digitization, printing, and reprographic facilities for their academic needs. The centre delivers patron-centric support through state-of-the-art technology, responsive procurement policies, research tools, and specialized facilities. These comprehensive offerings ensure academic excellence and empower the research ecosystem of the institution.

LIBRARY ORIENTATION, TRAININGS, WORKSHOPS & EVENTS
Library Outreach activities:

- Library Orientation Session for Freshers - To create an awareness about the KRC resources, infrastructure and services, the library team conducted the orientation programs for UG, PG and Ph.D students.
- User Awareness Workshop / Author Workshops on a regular basis .
- The Annual Grand Book Fair was conducted by KRC on 23–24 January 2026, with the participation of publishers and book vendors to enrich the KRC collection as per the requirements of the IITH fraternity.
- Symposium on Accessible and Inclusive Digital Library (AIDL)-2026 was conducted on 6–7 March 2026 at IIT Hyderabad to promote awareness of accessible and inclusive digital library practices, assistive technologies, and best practices for inclusive library services.

LIBRARY INITIATIVES
Institutional Social Responsibility (ISR) initiative:

- Library Internship (1 Month): KRC has provided training to more than 40 LIS budding professionals. This ISR initiative programme aims to provide Library and Information Science (LIS) students with practical exposure and skill development, in line with the objectives of NEP 2020 and the UGC internship framework to facilitate hands-on learning in a leading academic library environment.
- Library Professional Traineeship (1 year): KRC has provided training to more than 50 LIS professionals so far, equipping them to serve in diverse capacities across national and international level institutions.

S.No.	Designation	Name
1.	Chairman Library Committee	Dr. Saket Asthana
2.	Chief Library Officer	Dr. Bhojaraju Gunjal
3.	Deputy Librarian	Dr. Puli Naryana C
4.	Assistant Librarian	Mr. Siva Shankar K
5.	Senior Library and Information Assistant	Dr. Hoorom V K K M
6.	Library and Information Assistant	Mr. Gajanan Kumar Karbala
7.	Junior Library and Information Assistant	Mr. Sujan C S
8.	Library Attendant	Mr. Sribayath Rajesham
9.	Library Attendant	Mr. Skamali Praveen Kumar



KRC - Library Advisory Committee (LAC)

S. No.	Name	Team Leader
1	Dr. Saket Asthana, Chairman (Library)	Convener
2	Dr. Anindita Majumdar, Dept. of Liberal Arts	Member
3	Dr. Karthik P N, Dept. of Artificial Intelligence	Member
4	Dr. Subha Narayan Rath, Dept. of Bio Medical Engineering	Member
5	Dr. Rahul Kumar, Dept. of Bio Technology	Member
6	Dr. Mahesh Ganesan, Dept. of Chemical Engineering	Member
7	Dr. Debasish Koner, Dept. of Chemistry	Member
8	Dr. Roshan Khan, Dept. of Civil Engineering	Member
9	Dr. Debraj, Dept. of Climate Change & GSS	Member
10	Dr. N R Aravind, Dept. of Computer Science Engineering	Member
11	Dr. Shahid, Dept. of Design	Member
12	Dr. Kaushik Nayak, Dept. of Electrical Engineering	Member
13	Dr. Aravind Rengan, Dept. of Engineering Science	Member
14	Dr. Nakul Parameswar, Dept. of Entrepreneurship and Management	Member
15	Dr. Ramakrishna Upadrast Dept. of Heritage Science and Technology	Member
16	Dr. Neeraj Kumar, Dept. of Mathematics	Member
17	Dr. Neetu Tiwari, Dept. of Mechanical and Aerospace Engineering	Member
18	Dr. Hemam Rachna Devi, Dept. of MSME	Member
19	Dr. Saurabh Shandilya, Dept. of Physics	Member
20	Dr. Bhojaraju Gunjal, KRC (Library)	Member Secretary















Hindi Cell

In pursuance of the Official Language Policy of the Government of India, the Hindi Cell of the Indian Institute of Technology Hyderabad is promoting the progressive use of Hindi in the Institute. Every possible effort is made by the Hindi cell to follow the rules and regulations related to official language Hindi in the institute. Quarterly Progress Report and Annual Evaluation Report related to the progress of Official Language Hindi in our Institute is sent by the Hindi Cell to the Ministry of Education, Department of Official Language, Government of India & Town Official Language Implementation Committee(TOLIC). The highlights of Hindi Cell's official language activities are as follows:

Ongoing Activities of the Cell

Hindi Cell translates the Institute's Annual Report, Annual Audit Report and various other documents like Notifications, orders, standard drafts, press releases etc., which are covered under Section 3(3) of the Official Languages Act, 1963. In addition, various other letters and correspondence, RTI-replies etc., are either translated or prepared in Hindi. The Hindi Cell also tries to ensure the effective implementation of the "Official Language" policy of the Government of India in the Institute. Hindi Cell ensures use of bilingual display boards and various name boards, notice boards, rubber stamps, letter heads, bilingual file covers and also helps in compliance thereof. It also ensures bilingual preparation of degree certificates, PhD thesis titles etc. to be awarded by the Institute during the convocation.

Hindi Language Training

Hindi Cell emphasizes the need to impart Hindi training to all those employees of the Institute who do not have working knowledge of Hindi. The Hindi Cell nominates all such employees and gets them trained by getting them admitted in training programs like Prabodh, Praveen and Pragya through the Hindi Teaching Scheme under the Central Hindi Training Institute.

Hindi Workshops

In order to solve the difficulties and problems faced by the employees in the use of official language in their day-to-day official work, the Hindi cell organizes Hindi workshops for the employees of the Institute in every quarter and eminent official language scholars are invited. The details of Hindi workshops organized are as follows:-

Date	Invited Guest Faculty	Topics of the workshop
26-06-2025	Dr. Raj Narayan Awasthi, Manager(Corporate Training & Development - OL), Electronics Corporation of India Limited(ECIL), Hyderabad	Official Noting & Drafting
30-09-2025	Shri. Kamaluddin, Asst Director, HTS, Secunderabad.	Official Terminology & Notings
16-12-2025	Shri. Santosh Kumar, Assistant Director(Technical), HTS, Secunderabad.	Use of IT tools in Hindi and Indian languages
10-03-2026	Dr. Ravi Chandra Rao, Asst. Director, HTS, Secunderabad	Official Correspondence & Administrative Terminology

Hindi Pakhwada Celebrations

Hindi Cell organized “Hindi Pakhwada Celebrations” from 15 to 29th September, 2025 in the Institute. Hindi cell organized many competitions for the faculty, staff and students like essay writing, Dumb charades, official terminology competition, Singing, Self written Poetry recitation, General Knowledge Competition, Hindi Varg Paheli Competition and Elocution competition. Certificates and mementos were awarded to all the winners of the various competitions organized during the Hindi Pakhwada celebrations. Cultural program is also organized on this occasion. In the end, the vote of thanks was given by Dr. Saurabh Kumar Singh, Faculty In-charge, Hindi Cell & Member Secretary, OLIC and after the national anthem, the Hindi Pakhwada celebrations were successfully concluded.



Rajbhasha Cash Incentive Scheme

Rajbhasha Cash Incentive Scheme is implemented in the institute for all the staff members w.e.f. 1st August, 2025. The officers/employees participating in this cash incentive scheme will get cash awards and certificates on the basis of their quantum of official work done in Hindi during the assessment year (2025-26). To promote the use of Hindi in official work by employees, the number of cash awards has also been increased from this year.

COMMITTEES

Official Language Implementation Committee

According to the guidelines of the Department of Official Language and on the recommendations of the Hindi Cell, Official Language Implementation Committee(OLIC) was constituted on 06-09-2021.The Director of the institute is the Chairman of this committee and the Registrar is the Vice-Chairman. All section heads are the members of the committee. Faculty in charge of Hindi cell is the member secretary of the committee. The purpose of this committee is to promote the implementation of the official language policies of the Government of India and to review the progressive use of Hindi in the institute. In the financial year 2025-26, under the chairmanship of the Director of the Institute, meetings of the Official Language Implementation Committee were organized on 20th June 2025, 5th September, 2025, 13th December, 2025 and 17th March, 2026. In all these meetings, discussions were held on taking all possible steps and taking necessary action to accelerate the progress of official language implementation in the institute.

TOWN OFFICIAL LANGUAGE IMPLEMENTATION COMMITTEE(TOLIC)

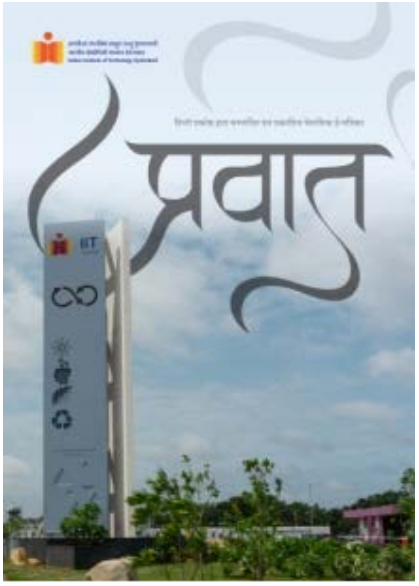
Indian Institute of Technology Hyderabad has taken membership of the Town Official Language Implementation Committee (TOLIC)-4 from the financial year 2024 onwards, which is currently headed by the General Manager Office, South Central Railway, Secunderabad. Town Official Language Implementation Committee, being an official committee constituted by the Department of Official Language, Ministry of Home Affairs, monitor and reviews the quarterly and annual reports regarding official language implementation and other activities etc. of all the member offices comes under its jurisdiction.
In the function organized by the Town Official Language Implementation Committee (TOLIC) on 18th December, 2025 in the auditorium of Rail Nilayam, South Central Railway, Secunderabad, our institute was awarded third prize for better implementation of official language and our institute's Pravaat magazine was awarded the second prize in the best E-magazine category





PUBLICATION of PRAVAT E-MAGAZINE

In order to promote Hindi language activities in the institute, Hindi Cell started publishing Hindi quarterly e-magazine “Pravat”. During the financial year 2025-26, four issues of Pravat Hindi quarterly e-magazine were published – in April, July and October 2025 and January 2026.



IIC - Institution's Innovation Council

Webpage: https://innovationcouncil.iith.ac.in/

Vision: Fostering innovation-driven entrepreneurship at IITH to empower an Aatmanirbhar Bharat

Mission and Mandate:

- Identification of the best ideas and providing them with a 'womb' to incubate, eventually to transform into a Startup or entrepreneurial endeavor.
- Soliciting an entrepreneur through the application of knowledge and expertise, academic as well as industrial.
- Empowering an idea with all the important ingredients and resources aiding its conversion into a successful product or service.
- Helping entrepreneurs to grow holistically with business acumen.
- Bring socio-economic change in the country by finding innovative solutions to local problems.
- Meet periodically to formalise the discussion and keep action points for activities in the coming quarter, and regularly update them.

IIC Activity Statistics at IITH for FY 2025-2026

IIC Activities and Events





Fireside Chat with the CEO of MathOnGo







Founders Hive



E-MERGE 2025



Startup Studio



Innomet Industry Visit



HES Summit



Startup School



Fetching Fortunes



Startup Fair

National Events



IITH Commemorated 150 years of Vande Mataram with Students, Staff and Faculty in the Institute.

IIT Hyderabad proudly celebrated the 79th Independence Day, immersed in the colors of the tricolor, and reaffirmed its commitment to honouring our roots with the spirit of Independent India





The NSS, IITH, marked Run for Swadeshi, uniting the campus community to celebrate Swadeshi values, youth spirit, and nation building

IIT Hyderabad celebrated the 77th Republic Day with patriotic fervor and unity, featuring the hoisting of the national flag and inspiring addresses that reflected the spirit of the Constitution.





IIT Hyderabad successfully conducted the 'Ek Din, Ek Ghanta, Ek Saath' cleanliness drive on 25th September 2025

On the occasion of International Women's Day, the Sports Department at IITH successfully organized sports events celebrating the strength, fitness, and achievements of women across campus





IIT Hyderabad successfully conducted the 'Ek Din, Ek Ghanta, Ek Saath' cleanliness drive on 25th September 2025

IIT Hyderabad successfully observed the Swachhata Pledge Ceremony as part of the Swachhata Hi Sewa Campaign under the theme 'Swachhotsav'.





IITH celebrated Ekta Diwas 2025 with a Run for Unity and Unity Pledge, honoring the spirit of unity and nation-building

IITH observed Vigilance Awareness Week 2025 with an Integrity Pledge & a session promoting integrity and transparency



Inventing & Innovating in Technology for Humanity

DEPARTMENTS



Department of Artificial Intelligence

Welcome to the Department of Artificial Intelligence at IIT Hyderabad, the first dedicated AI department in India, established in 2019. We offer a comprehensive range of academic programs, including BTech, MTech (2-year and 3-year), and PhD, with a curriculum rooted in programming, mathematical foundations, and cutting-edge AI applications. Our students explore diverse domains such as autonomous systems, healthcare technologies, natural language processing, computer vision, and more.

At IIT Hyderabad, we prioritize real-world learning through immersive industry experiences. Our BTech students benefit from 6-month, semester-long internships, while both BTech and MTech students can engage in summer internships or joint MTech positions with our industry partners. These hands-on opportunities equip students with practical expertise and essential professional skills, ensuring they are well-prepared to tackle complex, real-world challenges.

We invite you to explore collaboration opportunities with our department, whether through our placement drives, internships, or industry partnerships. Together, we can foster innovation, drive growth, and shape the future of artificial intelligence.

We look forward to building meaningful partnerships and advancing AI research and development with you. For more information, please visit: **https://ai.iith.ac.in/**

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Distinguished Faculty



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Publications:

1. Pokhriyal, S., Jain, S., Ghalme, G., & Aggarwal, V. (2025). Anytime Fairness Guarantees in Stochastic Combinatorial MABs: A Novel Learning Framework. Proceedings of the International Joint Conference on Autonomous Agents and Multiagent Systems Aamas, 1660-1669. https://www.scopus.com/record/display.uri?eid=2-s2.0-105009776413

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5. Mohanty, S., & Mopuri, K.R. (2025). Coreset-Driven Re-Labeling: Tackling Noisy Annotations with Noise-Free Gradients. Transactions on Machine Learning Research, 2025-October. https://www.scopus.com/record/display.uri?eid=2-s2.0-105018692037

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7. Mohanty, S., Anudeep, C., & Mopuri, K.R. (2025). Noise-free Loss Gradients: A Surprisingly Effective Baseline for Coreset Selection. Transactions on Machine Learning Research, 2025(May). https://www.scopus.com/record/display.uri?eid=2-s2.0-105006623823

8. Madhumitha, V., Padhye, S., Madarkar, S.S., Agrawal, S., & Mopuri, K.R. (2025). Rel-SA: Alzheimer's Disease Detection Using Relevance-augmented Self Attention by Inducing Domain Priors in Vision Transformers. IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops, 2792-2801. https://doi.org/10.1109/CVPRW67362.2025.00263

9. George, N., Dasaraju, K.N., R., R. C., & Mopuri, K.R. (2025). The Illusion of Unlearning: The Unstable Nature of Machine Unlearning in Text-to-Image Diffusion Models. Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition, 13393-13402. https://doi.org/10.1109/CVPR52734.2025.01250

10. Raja, R., Su, W.H., Slaughter, D.C., & Fennimore, S.A. (2025). Real-time precision crop identification in high weed-density environments for robotic weed control using spectral fluorescence imaging in celery. Computers and Electronics in Agriculture, 231. https://doi.org/10.1016/j.compag.2025.110022

11. Raja, R., L.A., P. P., Burusa, A.K., Kootstra, G., & E., V. H. (2025). Real-time six degrees of freedom grasping of deformable poultry legs in cluttered bins using deep learning and geometric feature extraction. Biosystems Engineering, 253. https://doi.org/10.1016/j.biosystemseng.2025.104134

Department of Biomedical Engineering

The Department of Biomedical Engineering at IIT Hyderabad completed calendar year 2025 with visible growth across faculty structure, academic offering and translational reach. Twelve regular faculty were supported by five adjunct professors from GE Healthcare, Max-Planck / Justus Liebig University Giessen, Citi Neuro Centre, Yashoda Hospitals and Toyo University Japan, and a visiting professor from UMBC. Prof. Falguni Pati led the department as Head, and five faculty promotions marked the year: Dr. Falguni Pati and Prof. Aravind Kumar Rengan were promoted to Professor, while Dr. Kousik Sarathy Sridharan, Dr. Avinash Eranki and Dr. Nagarajan Ganapathy were promoted to Associate Professor. Prof. Subha Narayan Rath received the Faculty Research Excellence Award (Engineering Category, Above 40 Years at the 17th IITH Foundation Day.

The academic offering spanned three programs. The M.Tech in Biomedical Engineering continued as the flagship postgraduate degree through a 50-credit two-year structure across two focus streams: Medical Sensing, Analytics and Simulation, and Nanomedicine and Biomaterials, coordinated by Dr. Nagarajan Ganapathy. The Ph.D. program continued across all research verticals, and the Minor in Biomedical Engineering remained open to students from other B.Tech disciplines. The B.Tech in Biomedical Engineering, launched in 2020, continued with four broad verticals: bio-imaging and biosensors; biomaterials and nanomedicine; natural and artificial intelligence; and biomechanics.

Research and translational output was substantial. Dr. Avinash Eranki's Medical Ultrasound Research Laboratory reported progress on India's first image-guided High-Intensity Focused Ultrasound device for non-invasive tumour treatment, alongside peer-reviewed publications on focused-ultrasound-induced shear-wave production in hyperelastic media and the vAO Variant Annotator for OncoKB presented at ESMO's Targeted Anticancer Therapies 2025 congress in Paris. Dr. Nagarajan Ganapathy's Medical Informatics and Digital Health Lab joined ISRO's HOPE Analog Mission for AI-enabled mental health and physiological monitoring, marking the department's first participation in space-analogue human-physiology research. Prof. Falguni Pati's team secured the ICMR First-in-World (FIW) Challenge Research Grant in 2025 for the clinical translation of their 3D bioprinted cornea for partial keratoplasty. Prof. Renu John delivered the Robert Edwards Oration at the 12th International Congress of the Academy of Clinical Embryologists.

For more information, please visit: https://bme.iith.ac.in/



Biotechnology and Biomedical Engineering Departments Building

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Head of the Department



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Patents:

Filed

1. Avinash Eranki : Positioning System and Method for Positioning a High-Intensity Focused Ultrasound (Hifu) Therapy Device : 202641016534
2. Sridharan, Kousik Sarathy : A Method and System for an Indigenous Electrophysiological Support Platform for Safer Spinal Surgeries : 202641026525
3. Aravind Kumar Rengan : A Water-Soluble Organo Ruthenium(Ii) Thione Complex and a Method of Preparation Thereof : 202541035130
4. Aravind Kumar Rengan : A Guided Bone Regeneration Membrane and a Method of Preparation Thereof : 202541035539
5. Aravind Kumar Rengan : Thulium Containing Caffeic Acid-Terpyridine Mof and a Method of Preparation Thereof : 202541042863
6. Aravind Kumar Rengan : Rhenium (I) Complexes and a Method of Synthesis Thereof : 202541044738
7. Aravind Kumar Rengan : Fluorescent Copper Nanoclusters and Their Preparation Thereof As Antibacterial and Bioimaging Agent" : 202541045529
8. Aravind Kumar Rengan : In-Situ Synthesis of Silver Nanoparticles Encapsulated in Soyphosphatidylcholine Liposomes Using Lime Juice and Uv Radiation" : 202541046223
9. Aravind Kumar Rengan : A Ferro-Flexible Antibacterial Composite Film and Method of Preparation Thereof : 202541054437
10. Aravind Kumar Rengan : Drug-Loaded Soya Pc Nanoplatform and Process of Preparing the Same : 202541061414
11. Aravind Kumar Rengan : A Cyclodextrin- Isatin Nanoparticle Formulation and a Method of Preparation Thereof : 202541064622
12. Aravind Kumar Rengan : A Mn-Based Nanocarrier Formulation and a Process for Preparation Thereof : 202541065551
13. Subha Narayan Rath : A Multifunctional Wound Healing Patch : 202541067034
14. Aravind Kumar Rengan : A Gold Coated Bilosome Formulation and a Method of Preparation Thereof : 202541076874
15. Aravind Kumar Rengan : A Gold Coated Bilosome Formulation and a Method of Preparation Thereof : 202541076874
16. Aravind Kumar Rengan : A Fluorescent Zinc-Based Nanocluster and a Method for Preparation Thereof : 202541078499
17. Aravind Kumar Rengan : Fluorescent Antibacterial Formulation, and Method of Preparation Thereof : 202541078642
18. Jyotsnendu Giri : In-Situ Crosslinked Core-Shell Microparticulate Hydrogel System, Preparation and Its Application Thereof : 202541079380
19. Aravind Kumar Rengan : Silver-Coated Nanoparticle Formulation and a Method of Preparation Thereof : 202541080381
20. Aravind Kumar Rengan : Liposome Nanoparticle Formulation and a Method of Preparation Thereof : 202541081275
21. Renu John : A System and a Method for Non-Invasively Calculating Real Time Continuous Blood Pressure : 202541082539
22. Aravind Kumar Rengan : a Method for Synthesizing Gold Coated Calcium Peroxide Nano Particles : 202541082547
23. Jyotsnendu Giri : Device and Method for Fabricating Micro and Nanofibers : 202541082674
24. Aravind Kumar Rengan : A Process for Synthesis of Cysteine Cyclic Dipeptide : 202541083223
25. Aravind Kumar Rengan : A Dual Drug Nanoformulation for Prostate Cancer and Cutaneous Melanoma Theranostics : 202541086061
26. Aravind Kumar Rengan : A Mucin-Based Nanoparticle Formulation and a Method of Preparation Thereof : 202541086942
27. Aravind Kumar Rengan : A Rhenium(I) Tricarbonyl Dinuclear Complex and a Process for Preparation Thereof : 202541092531
28. Aravind Kumar Rengan : A Liposome-Based Antacid Nanoformulation and a Process for Preparation Thereof : 202541092654
29. Aravind Kumar Rengan : A Sonosensitizer-Based Nanoliposomal Formulation and a Method of Preparation Thereof : 202541092957
30. Aravind Kumar Rengan : A Luminescent N-Heterocyclic Chalcogenone Complex and a Process for Preparation Thereof : 202541093387
31. Aravind Kumar Rengan : A N-Heterocyclic Chalcogenone Complex and a Process For Synthesis Thereof : 202541093319
32. Falguni Pati : A Method for Preparing a Decellularized Extracellular Matrix Hydrogel and a Hydrogel Prepared Thereof, a Bioink and a Method for 3D Bioprinting : 202541094206
33. Nagarajan Ganapathy : System and Method for Clinically Interpretable Electrocardiogram (Ecg) Analysis with Relevance Score : 202541097720
34. Nagarajan Ganapathy : System and Method for Zero-Annotation High-Confidence Anomaly Segmentation with Explainable Ai-Guided Multi-Instance Prompting : 202541098971
35. Nagarajan Ganapathy : System and Method for Dynamic Region-Of-Interest Isolation in Imaging Photoplethysmography for Enhanced Heart Rate Estimation During Driving : 202541101688
36. Aravind Kumar Rengan : Itraconazole-Loaded Algosome and Method of Preparation Thereof : 202541104880
    Aravind Kumar Rengan : Ferromarin Nanoparticle Formulation and Method for Preparation Thereof : 202541107562
37. Nagarajan Ganapathy : A Single-Arm, Single-Lead Dry Electrode System for Real-Time Monitoring in Emergency and Ambulatory Care : 202541110162
38. Aravind Kumar Rengan : A Nano Formulation, and a Method of Preparation Thereof : 202541110978
39. Aravind Kumar Rengan : Hydroxybenzoic Acid-Based Terpyridine Derivatives, and Method of Preparation Thereof : 202541111623

40. Nagarajan Ganapathy : System and Method for Real-Time Contactless Lead-Free Driver Stress Detection in Automotive Environments : 202541114889
41. Aravind Kumar Rengan : Dual Functional Light-Emitting N-Heterocyclic Selone Compound, and Method of Preparation Thereof : 202541117638
42. Nagarajan Ganapathy : System and Method for Health Assessment Using Differential Self-Attention Mechanisms : 202541118673
43. Nagarajan Ganapathy : A Method and a System for Continuously Assessing a Cognitive State of a Subject in Real-Time : 202541119361
44. Aravind Kumar Rengan : A Ferroelectric Nbt-Based Compound and a Method of Preparation Thereof : 202541119875
45. Falguni Pati : A Thermo-Responsive Hydrogel-Supporting Suspension Bath and a Process for Preparation Thereof : 202541121102
46. Aravind Kumar Rengan : A Radio-Responsive Nanogel with Auxiliary Photothermal Enhancement and a Process for Preparation Thereof : 202541121101
47. Nagarajan Ganapathy : System and Method for Real-Time Contactless Health Monitoring : 202541121061
48. Aravind Kumar Rengan : Ruthenium-Based Complex (Ru-Nan) and a Process of Preparing the Same : 202541122810
49. Nagarajan Ganapathy : System and Method for Ai-Integrated Drone-Based Human Health Monitoring : 202541122769
50. Subha Narayan Rath : A Mesenchymal Stem Cell-Based Injectable Hydrogel and a Process for Preparation Thereof : 202541123468
51. Nagarajan Ganapathy : System and Method for Real-Time Neuro-Controlled Actuation of a Device : 202541124631
52. Aravind Kumar Rengan : A Dual Metal Nanoparticle Formulation and a Method of Preparation Thereof : 202541124873
53. Aravind Kumar Rengan : A Ferrocene- Tagged Benzimidazolium Salt and a Method of Preparation Thereof : 202541127682
54. Aravind Kumar Rengan : A Liposomal Nanoparticle Formulation and a Method of Preparation Thereof : 202541127640
55. Aravind Kumar Rengan : Gold-Coated Radiosensitizing Nanoparticles and a Process for Preparation Thereof : 202541128156
56. Aravind Kumar Rengan : A Bimetallic Nanoformulation and a Method of Preparation Thereof : 202541129302
57. Aravind Kumar Rengan : Phage Modified Cobalt Nanoparticles and a Method of Preparation Thereof : 202541130228
58. Aravind Kumar Rengan : Peg-Modified Ferrocene-Terpyridine for Enhanced Radiosensitization and Its Method of Preparation : 202541132136
59. Aravind Kumar Rengan : Glutathione-Stabilized Mno2 Nanoparticles and Its Method of Preparation : 202541132597
60. Aravind Kumar Rengan : A Flp-Aa@Cao2 Core–Shell Nanostructure and Its Process of Preparation : 202541133003
61. Aravind Kumar Rengan : A Radiation-Responsive Ruthenium (Iii)-Based Coordination Complex and a Method of Preparation Thereof : 202541133021
62. Aravind Kumar Rengan : A Zinc Pyrithione-Based Liposomal Nanoformulation and a Process for Preparation Thereof : 202541133462
63. Aravind Kumar Rengan : A Multifunctional Fluorescent Gold Nanoparticle and Its Method of Preparation : 202541134230
64. Renu John : A Fully Automated Microscope : 202541134582
65. Aravind Kumar Rengan : Copper(I)-Based One-Dimensional Coordination Polymeric Complexes and the Method of Preparation Thereof : 202541134655
66. Kousik Sarathy Sridharan : Wearable Apparatus, System, and Method for Standardized Electrode Placement for Intraoperative Neurophysiological Monitoring : 202641032293
67. Kousik Sarathy Sridharan : A Temperature-Based Ultra-Violet Germicidal Irradiation Device : 202641037944
68. Nagarajan Ganapathy : A Method and a System for Detecting Suppressed Sentiments of a Subject : 202541134301
69. Nagarajan Ganapathy : A Method and a System for Real Time Sleep Posture Estimation Using Light Detection and Ranging : 202641008388

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1. Aravind Kumar Rengan :Melanin-CE6- Loaded Polydopamine Nanoparticles and Preparation Thereof: 202441032903
2. Aravind Kumar Rengan :Peg-B-Aca Mixture and a Method of Preparingthe Same: 202441036100
3. Aravind Kumar Rengan :Multi-Functional Lipid Nanoemulsions for Dual Therapy of Infectious Diabetic Wounds Using Quercetin, Ce6, and Rosemary Oil: 202441028252
4. Aravind Kumar Rengan :High-Affinity Oligonucleotide Nanomatrix and a Nanocarrier System: 202341006125
5. Subha Narayan Rath :Stimuli Responsive Electrospun Polydimethylsiloxane (Epdms) Membrane and Method of Preparation Thereof: 202441085120
6. Mohan Raghavan :A Method and a System for Remotely Monitoring an Intensive Care Unit: 202441046360
7. Kousik Sarathy Sridharan :A Method and a System for Remotely Monitoring an Intensive Care Unit: 202441046360
8. Aravind Kumar Rengan :Light-Emitting Fluorescent Molecules and a Method of Preparation Thereof: 202441074170
9. Aravind Kumar Rengan :A Thermosensitive Hyogel and a Process of Preparation Thereof: 202441086429
10. Aravind Kumar Rengan :A Gold-Coated Bimetallic Nanocarrier Composition and Its Method of Preparation: 202441085990
11. Aravind Kumar Rengan : Nano-Formulation for Enhanced Therapeutic Delivery Using Nir Dye 1061 Etinoic Acid Nd Soy Pc: 202441085316
12. Aravind Kumar Rengan :Liposome- Encapsulated Neem Nanoemulsion and a Method of Preparation Thereof: 202441033616
13. Aravind Kumar Rengan :A Process for Synthesis of a Nano- Formulation (Cdir@Mnnps): 202441099977
14. Aravind Kumar Rengan :Fl-Peg Nanoparticles Encapsulating Ugs for Cancer Therapy: 202441085975
15. Aravind Kumar Rengan :A Nanoparticle Composition and a Method of Preparation Thereof: 202441085507
16. Subha Narayan Rath :A Tpa-Stillbene Flavin Probe for Real-Time Monitoring of Hocl and a Method of Synthesis Thereof: 202441085937
17. Jyotsnendu Giri :Modified Protein-Based Dissolvable Microneedle and Method of Preparation Thereof: 202441042376
18. Nagarajan Ganapathy :Apparatus for Real-Time Wireless Transmission of Vital Parameters and Method of Manufacturing the Same: 202441085856
19. NAGARAJAN GANAPATHY :A Cross-Attention Based Multimodal Health Monitoring System: 202441103197
20. Aravind Kumar Rengan :Self-Assembled Nanoparticle Formulation for Anti-Cancer Acitvity and Methods of Preparation Thereof: 202441081501
21. Aravind Kumar Rengan :Copper-Based Paddle-Wheel Complex and a Process for Preparation Thereof: 202541003614
22. Nagarajan Ganapathy :A Method and a Wavelength Demultiplexing Diffractive Neural Network System to Reconstruct Unique Intensity Patterns: 202541004549

23. Aravind Kumar Rengan :Pyridine-Substituted Naphthoimidazolium Compound and Method of Preparing the Same: 202441084005
24. Aravind Kumar Rengan :A Nanoparticle Composition and a Method of Preparation Thereof: 202441086473
25. Aravind Kumar Rengan :Emulsomes for Melanoma Cancer Treatment and Method of Preparation Thereof: 202441079252
26. Aravind Kumar Rengan :Chondroitin Sulfate-Coated Nanoparticle Formulation and Method of Preparation Thereof: 202541009434
27. Aravind Kumar Rengan :Copper (Cu(Ii)) Complex and a Method of Preparation Thereof: 202441082868
28. Aravind Kumar Rengan :Algosomes-Gold (Alg/Au) Complex and Method of Preparation Thereof: 202441086009
29. Aravind Kumar Rengan :Rhenium(I) Metallocycle and Method of Preparation Thereof: 202441086380
30. Aravind Kumar Rengan :Co(Ii) Thione Based Catalyst and Method of Preparation Thereof: 202441079009
31. Aravind Kumar Rengan :A Nanoparticle Formulation and a Method of Preparation Thereof: 202541019756
32. Aravind Kumar Rengan :A Ruthenium-Based Thione Complex Having Anticancer Activity and a Method of Preparation Thereof: 202541021105
33. Aravind Kumar Rengan :A Ruthenium-Based Thione Complex Having Anticancer Activity and a Method of Preparation Thereof: 202541021105
34. Aravind Kumar Rengan :A Fluid Collection Device for Collecting Fluids: 202341005050
35. Nagarajan Ganapathy :System and Method for Assessment of Ground Glass Opacity in a Computed Tomography Image: 202441084895
36. Aravind Kumar Rengan :A Functionalized Complex Nanoparticle Composition and a Method of Preparation Thereof: 202441086474
37. Jyotsnendu Giri :Modified Protein-Based Hydrogel Microneedle and Method of Preparation Thereof: 202441042440
38. Aravind Kumar Rengan :A Phage-Modified Chitosan Nanocarrier and Method of Preparation Thereof: 202441075680
39. Aravind Kumar Rengan : A Pharmaceutical Composition and a Method of Preparation Thereof: 202441085921
40. Aravind Kumar Rengan :A Formulation of Transethosomal for Trageted Drug Delivery and a Method of Preparing the Same: 202541004503
41. Aravind Kumar Rengan :A Nanoparticle Formulation and Preparation Thereof: 202441081750
42. Aravind Kumar Rengan :A Multimodal Liposomal Composition for Naja Naja Venom Neutralization and a Method for Producing the Same: 202241024566
43. Aravind Kumar Rengan :Ferrocene-Coumarin Complex and a Method of Preparation Thereof: 202541021928
44. Aravind Kumar Rengan : A Nanoliposomal Formulation and a Method of Preparation Thereof: 202441086472
Falguni Pati : Method and Apparatus for Cell Culture Treatment: 202441088059
45. Aravind Kumar Rengan :Gallic Acid and Ir-775 Loaded Liposome Nanoparticles for Phototherapy of Cancer and Preparation Thereof: 202441084440
46. Aravind Kumar Rengan :Co-Crystal of Copper Iodide (Cui) Clusters and a Process for Preparation Thereof: 202541003577
47. Aravind Kumar Rengan :Fluorescent Copper Nanoclusters and Their Preparation Thereof As
48. Antibacterial and Bioimaging Agent": 202541045529
Aravind Kumar Rengan :A Formulation Comprising Iohexol Functionalized Dopamine Compound and a
49. Method of Preparation Thereof: 202441102596
Aravind Kumar Rengan :Solvent-Based Synthesis of Gold Nanostructures for Enhanced Anticancer Efficacy: 202441091408
51. Aravind Kumar Rengan : Supramolecular Hyogels and Method of Preparation Thereof: 202441086354
52. Aravind Kumar Rengan :A Phage-Modified Casein Nanocarrier Conjugated with Glutathione and Method of Preparation Thereof: 202441080547
53. Aravind Kumar Rengan :A Ferro-Flexible Antibacterial Composite Film and Method of Preparation Thereof: 202541054437
54. Aravind Kumar Rengan :A Water-Soluble Organo Ruthenium(Ii) Thione Complex and a Method of Preparation Thereof: 202541035130
55. Aravind Kumar Rengan :Composition for Delivery of Therapeutic Complex Within Golgi Apparatus and Method of Producing the Same: 202441084476
56. Aravind Kumar Rengan :Liposomal Nanoformulations for Treatment of Cancer: 201841032747
57. Aravind Kumar Rengan :Bioinspired Gold-Coated Phase Nanosomes and a Process of Preparation Thereof: 202341013944
58. Subha Narayan Rath :A Versatile Microfludic Platform and Its Application Thereof: 202341037655
Aravind Kumar Rengan :A Cyclodextrin- Isatin
59. Nanoparticle Formulation and a Method of Preparation Thereof: 202541064622
Aravind Kumar Rengan : A Liposome Comprising
60. Bronzaphyrin and Method of Preparation Thereof: 202441086634
61. Nagarajan Ganapathy :System and Method for Non-Invasive, Non-Contact, and Real-Time Vital Sign Monitoring: 202441037262
62. Aravind Kumar Rengan :A Mn-Based Nanocarrier Formulation and a Process for Preparation Thereof: 202541065551
63. Aravind Kumar Rengan :Drug-Loaded Soya Pc Nanoplatform and Process of Preparing the Same: 202541061414
64. Aravind Kumar Rengan :A Pharmaceutical Composition and a Method of Preparation Thereof: 202441036487
65. Aravind Kumar Rengan :In-Situ Synthesis of Silver Nanoparticles Encapsulated in Soyphosphatidylcholine Liposomes Using Lime Juice and Uv Radiation": 202541046223
66. Falguni Pati :Systems and Methods for Generation of Patient-Specific Craniomaxillofacial Implants: 202441064413
67. Aravind Kumar Rengan :Thulium Containing Caffeic Acid-Terpyridine Mof and a Method of Preparation Thereof: 202541042863
68. Aravind Kumar Rengan :Liposomal Nanoparticles Encapsulting Boldine and Ir- 775 for Therapy Against Metastatic Triple- Negative Breast Cancer and Preparation Thereof: 202441034692
69. Aravind Kumar Rengan : A Nanoparticle Composition Having Anti-Cancer Activity and a Method of Preparation Thereof: 202441082537
70. Aravind Kumar Rengan :Phage Nanosomes for Nir Dye Delivery and a Method of Preparation Thereof: 202441036196
71. Aravind Kumar Rengan :Resveratrol and Coumarin 6 Loaded Nanoparticle Formulation for Cancer Therapy and Preparation Thereof: 202541009119
72. Aravind Kumar Rengan :Fluorescent Antibacterial Formulation, and Method of Preparation Thereof: 202541078642
73. Aravind Kumar Rengan :Liposome of Saussurea Obvallata and Its Process of Preparation: 202441086405
74. Aravind Kumar Rengan :A Liposomes-Based Hybrid Nanosystem and Preparation Thereof: 202541022787

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Funded Research projects

1. Dr. Falguni Pati has received funding of ₹87,15,712 from ICMR for the project titled "3D Bioprinted Corneal Stroma for Partial Keratoplasty: A Step Towards Restoring Vision" (Project Code: G821).
2. Dr. Renu John has received funding of ₹96,50,979 from DBT for the project titled "Development of Liver-on-Chip Models for In Vitro Liver Disease Modelling Studies" (Project Code: G822).
3. Dr. Aravind Kumar Rengan has received funding of ₹99,49,831 from ICMR for the project titled "Conversion of Diagnostic X-ray Systems into Therapeutic Radiation, Mediated by Nano-Multi Sensitizers Through a Circadian-Oriented Approach for the Treatment of Metastatic Solid Tumors" (Project Code: S378).
4. Dr. Jyotsnendu Giri has received funding of ₹2,00,00,000 from Sree Padmavathi Venkateswara Foundation for the project titled "Autologous Platelet-Rich Plasma (PRP) Loaded Personalized Wound Care Patch at Patient Bedside for Effective and Affordable Burn Wound Care" (Project Code: S391).
5. Dr. Renu John has received funding of ₹6,18,30,372 from Giessen University for the project titled "ILH-IITH Bioengineering Centre of Excellence" (Project Code: S398).
6. Dr. Renu John has received funding of ₹34,77,638 from INDO-INCP2 for the project titled "Photonics 4 Health: Interdisciplinary Synergy Between Photonics and Innovation to Tackle Global Health Challenges" (Project Code: S402).
7. Dr. Jyotsnendu Giri has received funding of ₹1,23,40,801 from ICMR for the project titled "SHANTI: A Novel Invisible Spray-Film Metered-Dose Diclofenac Formulation for Long-Acting (24h) Effective Musculoskeletal Pain Management" (Project Code: G869).
8. Dr. Nagarajan Ganapathy has received funding of ₹1,03,03,123 from Wadhwani Foundation for the project titled "Selection of Carbon Composite-Based Flexible Dry Electrodes for Non-Invasive Long-Term On-Skin Biopotential Monitoring (Project) by WIN-CoE Established at IIT Hyderabad" (Project Code: S405).
9. Dr. Aravind Kumar Rengan has received funding of ₹81,71,520 from ANRF for the project titled "Hydrogel-Based Tri-Modal Platform for Integrated Hyperthermic Radio Immunotherapy of Peritoneal Metastasis" (Project Code: G880).
10. Dr. Harikrishnan Narayanan Unni has received funding of ₹57,04,074 from ANRF for the project titled "Microfluidic Blood-Brain-Barrier Designs for Alzheimer's Modeling and Drug Screening" (Project Code: G882).

Research Highlights

1. **Indigenous 1.5T MRI Scanner:** Dr. Jaladhar Neelavalli is involved in the clinical validation of an indigenous 1.5T MRI scanner at AIIMS and advanced MRI research, supported by MeitY.

2. **Cancer-on-Chip Technology:** Dr. Harikrishnan Narayanan Unni is working on a 3D-printed microfluidic cancer-on-chip platform for breast cancer drug-sensitivity testing, supported by ICMR.

3. **Nano-Radiosensitizers for Cancer Therapy:** Prof. Aravind Kumar Rengan is pursuing research on nano-radiosensitizers for immunomodulatory breast cancer therapy and converting diagnostic X-rays into therapeutic radiation using nano-multisensitizers.

4. **Islet Transplantation:** Prof. Subha Narayan Rath is undertaking ICMR-supported research on autologous islet transplantation using immunoisolation devices.

5. **3D Ultrasound Breast Imaging:** Dr. Avinash Eranki is developing 3D ultrasound technology for breast imaging, supported by SEIL.

Awards & Recognition

Additional award details to include:

- Prof. Aravind Kumar Rengan received the Faculty Excellence Award (Patents Granted) at the 18th IITH Foundation Day.
- Dr. Harikrishnan Narayanan Unni received the Faculty Teaching Excellence Award at the 18th IITH Foundation Day.

Fellowships and professional recognition :

- Prof. Renu John: Fellow of the Royal Society of Biology.
- Prof. Aravind Kumar Rengan: DST-SERB SIRE Fellowship, INSA–NASI Young Scientist and INAE Young Engineer medals.
- Dr. Nagarajan Ganapathy: Associate Editor, IEEE Transactions on Affective Computing.
- Dr. Avinash Eranki: Bracco Distinguished Young Investigator Award and Editorial Board Member, Ultrasound in Medicine and Biology.



The image-guided HIFU system at the technology exhibition (left) and the Eranki Labs product unit (right).

The department's strengths in 2025–26 cluster in four areas: cancer diagnosis and therapy (nano-radiosensitizers, cancer-on-chip, HIFU, breast ultrasound), regenerative medicine and biofabrication, indigenous imaging (1.5T MRI), and AI for health, from clinical AI to spaceflight monitoring. Neuroengineering, healthcare data analytics and patent-led translation add depth.

Together, steady external funding, a first-of-its-kind therapeutic device, faculty promotions and national partnerships such as ISRO's HOPE mission show a department moving from research toward clinical translation.

Department of Biotechnology

Since its establishment in 2010, the Department of Biotechnology at IITH has maintained an uncompromising commitment to excellence in both teaching and research. Our journey has been marked by continuous growth in our capabilities. Our DNA shaped building now has 17 world-class research laboratories alongside dedicated teaching facilities that provide our students with hands-on learning experiences.

We are proud to have 238 students, 17 regular faculty, 1 distinguished professor, 1 adjunct professor, 1 affiliated faculty member and a dedicated team of 6 technical and office staff who constantly work towards enhancing the research and academic environment in the department.

In the financial year 2025-26, we got approval for ~ 7.99 crores of research and facility development funding. Our faculty published more than 80 research articles in reputed journals in the year 2025-26. More than 38 seminars from eminent scientists were hosted online/offline and our faculty gave more than 38 seminars worldwide. More than 7 students were awarded PhD in Biotechnology.

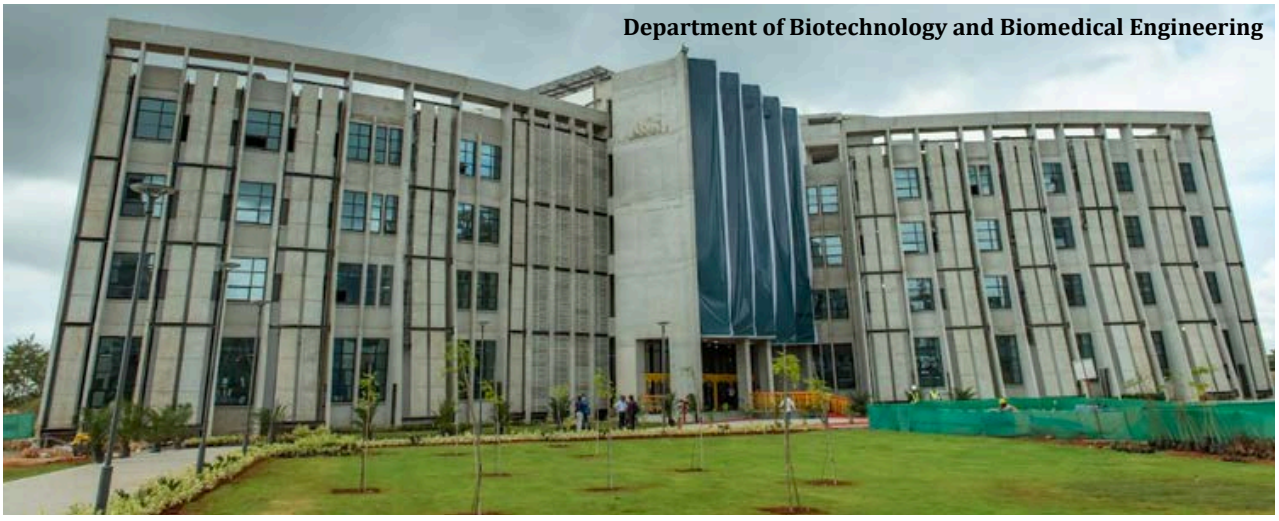
The department organized a multitude of events which included:

- Workshop on "Computational Methods in Advanced & Precision Oncology", April 2025.
- Workshop on "Pharma and Biopharma: how it works in Industry", August 2025.
- First industry-connect day for Biotechnology department with various core biotech industries, Sept 2025.
- Foundation day with Chief Guest Prof. Shekhar Mande and Prof. Sharmila Mande, Nov 2025
- International conference "Indo-Japan conference cum workshop on Single-Molecule Fluorescence Imaging", Jan 2026.

This year 13 BTech and 26 MTech students will receive their degree in the upcoming convocation 2026. A majority of students have graduated with accolades and are either placed or going for higher studies. Committed to community upliftment alongside our growth, we welcomed students from diverse backgrounds across privileged and underprivileged institutions, including JNV, Choppadandi, Karimnagar, Telangana, Tara Government College (A), St. Pious X Degree & PG College for Women, Telangana.

The department has a vibrant and engaged student led "Biotech Society" which not only organized excellent seminars for academic enrichment but also enthusiastically organized and participated in celebrating the Department's Foundation Day, Teachers' Day, Freshers' Day, Sports meet, World Health Week and Farewell to the graduating students.
As we enter another year, the department remains committed to excelling beyond boundaries.

For more information, please visit: https://biotech.iith.ac.in/



Department of Biotechnology and Biomedical Engineering

Faculty

Head of the Department



Anamika Bhargava
PhD - Innsbruck Medical University, Austria
Professor & Head of the Department
Profile page: *https://iith.ac.in/bt/abhargava/*

Professor



Anindya Roy
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Basant Kumar Patel
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Associate Professor



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Adjunct Faculty



Dr. Sangita Mukhopadhyay
Staff Scientist VII, BRIC-CDFD

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Distinguished Professor



Shekhar C Mande
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https://en.wikipedia.org/wiki/Shekhar_C._Mande

Patents

Filed

1. Gaurav Sharma : System and Method for Processing at Least One Digital Content Associated with a Subject : 202541037576
2. Anindya Roy : Thulium Containing Caffeic Acid-Terpyridine Mof and a Method of Preparation Thereof : 202541042863
3. Sandipan Ray : In-Situ Synthesis of Silver Nanoparticles Encapsulated in Soyphosphatidylcholine Liposomes Using Lime Juice and Uv Radiation" : 202541046223
4. Sandipan Ray : Drug-Loaded Soya Pc Nanoplatform and Process of Preparing the Same : 202541061414
   Sandipan Ray : A Cyclodextrin- Isatin Nanoparticle Formulation and a Method of Preparation Thereof : 202541064622
5. Sandipan Ray : A Gold Coated Bilosome Formulation and a Method of Preparation Thereof : 202541076874
6. Sandipan Ray : A Fluorescent Zinc-Based Nanocluster and a Method for Preparation Thereof : 202541078499
7. Anindya Roy : Hydroxybenzoic Acid-Based Terpyridine Derivatives, and Method of Preparation Thereof : 202541111623
8. Sandipan Ray : Gold-Coated Radiosensitizing Nanoparticles and a Process for Preparation Thereof : 202541128156

Granted

1. Sandipan Ray :A Thermosensitive Hyogel and a Process of Preparation Thereof: 202441086429
2. Sandipan Ray :Fl-Peg Nanoparticles Encapsulating Ugs for Cancer Therapy: 202441085975
3. Anindya Roy :Copper (Cu(Ii)) Complex and a Method of Preparation Thereof: 202441082868
4. Rajkumara Eerappa :Pentoxifylline Derivative and Process for Preparation Thereof: 202441103228
5. Avanthi Althuri : Bioactive Green Composite Film and a Method of Preparation Thereof: 202541021083
6. Sandipan Ray :Gallic Acid and Ir-775 Loaded Liposome Nanoparticles for Phototherapy of Cancer and Preparation Thereof: 202441084440
7. Sandipan Ray :A Cyclodextrin- Isatin Nanoparticle Formulation and a Method of Preparation Thereof: 202541064622
8. Sandipan Ray :Drug-Loaded Soya Pc Nanoplatform and Process of Preparing the Same: 202541061414
9. Sandipan Ray :In-Situ Synthesis of Silver Nanoparticles Encapsulated in Soyphosphatidylcholine Liposomes Using Lime Juice and Uv Radiation": 202541046223
10. Anindya Roy :Thulium Containing Caffeic Acid-Terpyridine Mof and a Method of Preparation Thereof: 202541042863
11. Sandipan Ray :Liposomal Nanoparticles Encapsulting Boldine and Ir- 775 for Therapy Against Metastatic Triple- Negative Breast Cancer and Preparation Thereof: 202441034692
12. Himanshu Joshi :Phage Nanosomes for Nir Dye Delivery and a Method of Preparation Thereof: 202441036196

Book chapters:

1. Subramanian A.; Kumar N. Artificial Intelligence in Bioinformatics (2025); Artificial Intelligence and Biological Sciences;
2. Mehra M.K.; VS B.S.; B S.; Avanthi A. Scale-up strategies for solid-state fermentation (2025); Biotechnology Engineering: A Practical Approach on Bioprocess Development from Lab to Industrial Scale; DOI: 10.1016/B978-0-443-31476-6.00007-5.
3. Vinith Kumar K.; B R.; B S.; Garg S.; Gujjala L.K.S.; Avanthi A. Fundamentals on bioreactors, operation modes and control system mechanisms (2025); Biotechnology Engineering: A Practical Approach on Bioprocess Development from Lab to Industrial Scale; DOI: 10.1016/B978-0-443-31476-6.00010-5.
4. Korra B.T.; Roffin K.; Singh S.; Kar S.S.; Kundal K.; Sengupta A.; Kumar R. Drug Repurposing-1 (2025); Springer Handbooks; DOI: 10.1007/978-3-031-81728-1_41.

Publications:

1. Subramanian, A., & Kumar, N. (2025). Artificial Intelligence in Bioinformatics. Artificial Intelligence and Biological Sciences, 357-374. https://www.scopus.com/record/display.uri?eid=2-s2.0-105002532266

2. Subramanian, A., Kurthkoti, K., V., M. M., & Vijay, S. (2025). Editorial: Bacterial population heterogeneity, stress response and antibiotic tolerance. Frontiers in Cellular and Infection Microbiology, 15. https://doi.org/10.3389/fcimb.2025.1754314

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5. Sruthi, B., Mehra, M.K., & Avanthi, A. (2025). Fungal biomolecules as nutraceuticals. Bioprospecting of Multi Tasking Fungi for Therapeutic Applications Volume II, 203-238. https://doi.org/10.1007/978-981-96-2975-6_9

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8. Garg, S., & Avanthi, A. (2025). Tuning of chitosan with lignin-derived bioactive properties to develop a lignin-reinforced and sustainable food packaging biomaterial. Biomass Conversion and Biorefinery, 15(6), 8221-8237. https://doi.org/10.1007/s13399-024-06037-8

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12. Verma, A., Muley, A., Rathnam, V.S.S., Jangra, J., Mathur, S., Anindya, R., & Maji, S. (2025). Design and Synthesis of Nitrogen-Rich Triazole-Based Mononuclear Ru(II) Arene Complexes Toward Anticancer Activities. European Journal of Inorganic Chemistry, 28(26). https://doi.org/10.1002/ejic.202500300

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19. Raut, R., Srivastava, D., Nayak, V., Saini, T., Gupta, P., Chakraborty, A.K., Choudhury, C., Bais, M.V., Mishra, P., & Misra, A. (2025). Clinical data investigation identifies MARK3 as an oncogenic driver in castration-resistant prostate cancer. Biochemistry and Biophysics Reports, 42. https://doi.org/10.1016/j.bbrep.2025.102003

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21. Saini, T., Srivastava, D., Raut, R., Mishra, P., & Misra, A.

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Funded Research Projects:

1. Anindya Roy; Mechanism of 7 Methyl Guanine processing by human ALKBHI and ALKBH6; 65.28 L [ANRF/ARG/2025/001296/LS]
2. Anindya Roy; Expanding the DNA End Binder (DEB) library for selective inhibition of DNA repair pathways in cancer; 71.67 L [BT/PR59289/BMS/85/1176/2025]
3. G. Narahari Sastry; SSB Honorarium; 3.45 L [CSIR-HRDG/BT/F343/2025-26/G872]
4. Gunjan Mehta; Quantifying the chromatin binding dynamics of methyltransferase EZH2 in live cells using single molecule imaging to identify novel therapeutic strategies to treat drug-resistant cancers; 90.4 L [ANRF/BT/F256/2026-27/G919]
5. Gunjan Mehta; Single-molecule imaging of yeast sirtuin sir2 to understand its trafficking and target-search mechanism for transcription silencing; 78.55 L [DBT/BT/F256/2025-26/G817]
6. Rahul Kumar; Optimized Gene Panel Identification for Kidney Transplant Rejection Using RNA Sequencing and Machine Learning-Based Clustering; 3.40 L [ICMR/BT/F271/2025-26/G866]
7. Rahul Kumar; Investigating the role of MIR122 super-enhancer in hepatocarcinogenesis for therapeutic intervention; 5.23 L [DBT/BT/F271/2025-26/G845]
8. Rajakumara Eerappa; Evaluation of non-hydrolysable and non-canonical cyclic mononucleotides against sperm phosphodiesterases for enhancing sperm functions, and to reduce gamete and embryo toxicity for assisted reproductive technology; 52.27 L [ICMR/BT/F131/2025-26/G870]
9. Rajakumara Eerappa; NSF-DBT: Structural and Biophysical Analysis of Evolved Fe(II)/2-Ketoglutarate-Dependent Azidases to Understand and Expand the Substrate Scope of Enzymatic C-H Functionalization; 1.56 C [DBT/BT/F131/2025-26/G848]
10. Sandipan Ray; Understanding the Relationship between Circadian Rhythms, Motor Learning, and Plasticity for Establishing Novel Chronobiological Markers of Cognitive Functions; 71.35 L [DST-CSIR/BT/F255/2026-27/G900]
11. Savita Devi; Investigating the regulation of human inflammasome activation in homeostasis and inflammatory disease; 64.19L [ANRF-ECRG/BT/F349/2025-26/G843]
12. Indranil Malik; Mechanisms of chimeric peptide production and targeting dipeptide repeat toxicity in C9orf72-associated ALS/FTD; 64.91 L [SERB-ANRF/BT/F338/2025-26/G810]
13. Indranil Malik; Defining subcellular and disease-specific RNA-protein interaction networks underlying repeat expansion disorders using in vivo RNA tagging and proximity labeling; 72 L [ANRF/BT/F338/2025-26/G853]

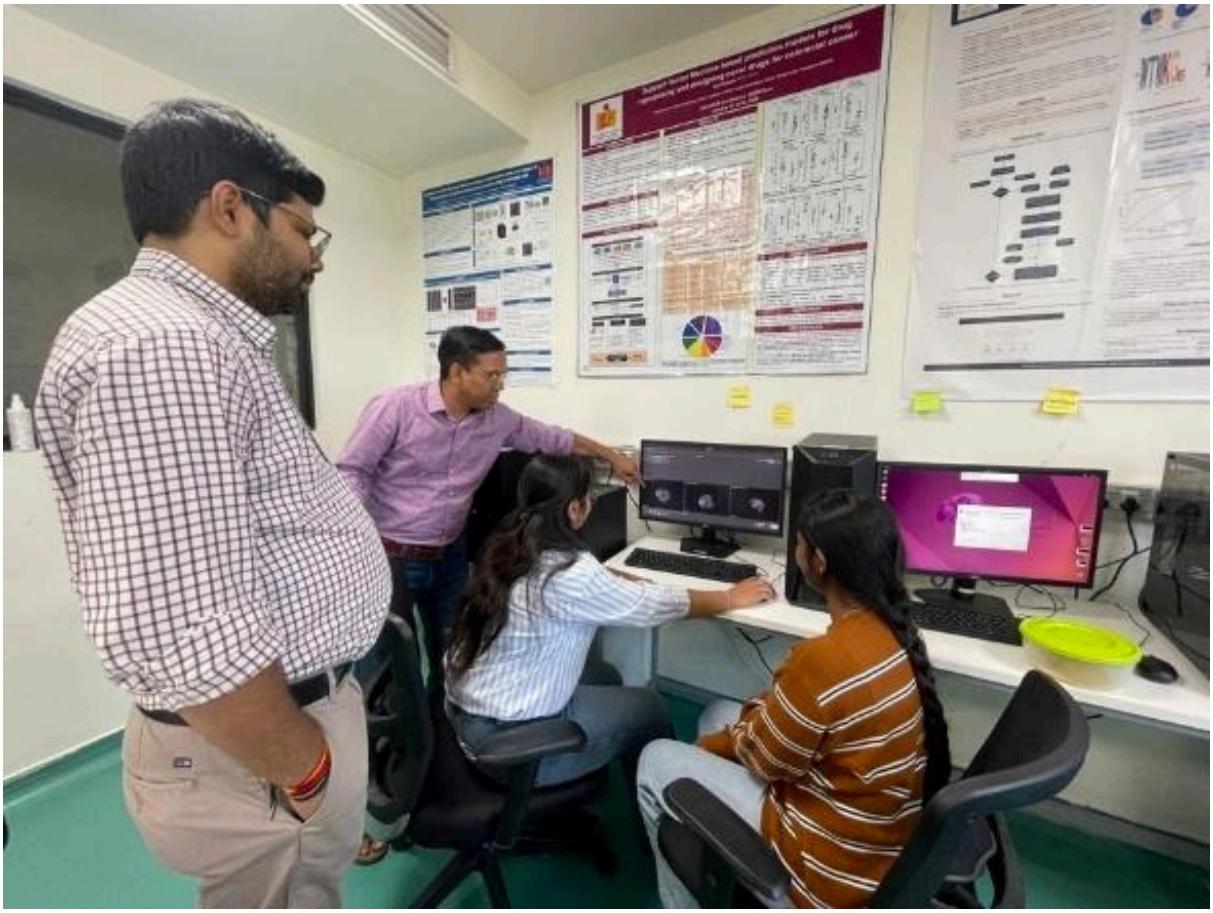
Research Highlights:

1. **IIT-Hyderabad developed a web-platform to predict survival risk of brain cancer patients using MRI scan**

MRI is a standard first-line tool for detecting brain tumors and researchers have demonstrated that it can be used to improve the understanding of tumor behaviour. Based on this concept, researchers from IIT Hyderabad have developed a web-platform named "RadGLO" (Radiology of Glioma) that can analyse MRI scans of glioma patients to predict the survival risk using a prediction model. This model uses imaging features or patterns extracted from MRI scans that are difficult to identify by human eye.

This web-platform allow clinicians and researchers to predict survival risk using MRI scans of glioma patients. The researchers say this non-invasive tool could help clinicians make early and personalised treatment decisions, particularly in settings where surgical biopsy or molecular testing is difficult. "Biopsy remains the gold standard, but radiomics based studies can complement it by providing quick, image-based insights," the team noted.

Models integrated within "RadGLO" have been tested on two large independent datasets, demonstrating their potential to perform accurate survival risk prediction and tumour stratification across diverse glioma patient cohorts. This study is recently published in npj Precision Oncology journal and platform is publicly accessible for research and clinical exploration through https://project.iith.ac.in/cgntlab/radglo/. The team plans to expand the platform further to include genetic information, molecular and histopathological data that can enhance its potential for precision oncology.



Student exchange and awards:

- Ms. Harshita Bansal secured the prestigious DAAD KOSPIE Scholarship
- Student P S Harish secured 6th position among 700 participants at ReSCon 2025
- Divyesh Pant Divyesh secured the First Prize in the poster presentation at the National Conference on Bioinformatics and Computational Biology held at Savitribai Phule Pune University, February 2026.
- Atleast three students were selected for JST-LOTUS the flagship student exchange program with Japan.

Department of Chemical Engineering

ChE@IITH is known for its pursuit of excellence in chemical engineering education, research and expert consulting support to industries in energy, health, and processing sectors. With the support of twenty four (24)e core faculty, one adjunct faculty from Shimane University Japan, one DST INSPIRE faculty, one Ramanujan Fellowship, and one distinguished faculty and eleven (11) staff members, the department adopts a holistic approach of (i) fractal and hands-on / project based practical teaching, (ii) connecting interdisciplinary research approaches to socially relevant problems, and (iii) inculcating start-up culture and making high quality education accessible for all our students. Broadly, our teaching covers various aspects of chemical, biochemical, minerals, materials and process systems engineering. Our electives provide exposure to the state-of-the-art developments in the fields of energy, new materials, nano-science, AI, machine learning and biochemical engineering. ChE@IITH offers BTech, MTech (Chemical Engineering, Computational Chemical Engineering, AI/ML in Chemical Engineering) and PhD programs featuring a curriculum that is both comprehensive and flexible with options for exploring mini research projects and internship opportunities. Faculty from the department are well known for their contribution to the field and have been recognized with awards like the prestigious ANRF JC Bose Fellowship (Grant), DST Swarna Jayanti Fellowship, National Geoscience Award, Vasvik award, INAE and IASc Fellowships and INSA Associate Fellow (IAF). Further, several department faculties appear among top 2% scientists in the world (Stanford University list 2025) bearing a testimony for the quality and research environment in the department.

A large number of the faculty from the department are actively involved in hosting conferences and outreach workshops (TEQIP, ATAL-FDP). Faculty also participate in conferences/workshops by delivering invited / keynote lectures benefitting the students and faculties across several institutes in India. The department also houses state-of-the-art research and teaching laboratories. The faculty members in the department conduct research in a wide variety of exciting areas such as catalysis, fluid flow, nanotechnology, materials for energy and biological applications, bioengineering, atomistic simulations, efficient energy harvesting and storage, process control and optimization, machine learning, techno-economic analysis, supply chain management, mineral processing and climate change. The department also contributes to nation building by engaging in several national mission projects associated with ministry of mines, Coal India Limited, ICMR, ANRF MAHA EV and DRDO.

For more information, please visit: https://che.iith.ac.in/





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Patents:

Filed:

1. Suhanya Duraiswamy : A System and a Method of Analyzing the Metal Nanoparticle in a Droplet Microfluidic Device : 202541033408
2. Mangadoddy Narasimha : A Method and a System for Simulating Granular Flows Comprising Non-Spherical Particles : 202541053046
3. Kirti Chandra Sahu : An Apparatus and a Method to Measure Real-Time Rainfall Rate Based on Digital Holography : 202541076970
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5. Chandra Shekhar Sharma : Innovative Solution for Anti-Site Defect in Lithium Metal Orthosillicates and Use Thereof : 202541120887
6. Chandra Shekhar Sharma : Nitrogen-Sulfur Co-Doped Resorcinol-Formaldehyde Xerogel Based Carbon Cathode for High-Performance Batteries and a Method of Preparation Thereof : 202541127013
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5. Debaprasad Shee :Method of Preparing Synthetic Anode Materials Using Demineralized Coal: 202231004700
6. Chandra Shekhar Sharma :Method of Preparing Synthetic Anode Materials Using Demineralized Coal: 202231004700
7. Lopamudra Giri :A Biocompatible Head Plate for Semibatch Bioreactors: 202441035701
8. Chandra Shekhar Sharma :A Process of Synthesis of Su8-Derived Aligned and Non-Aligned Carbon Nanofibres and Fabrication Therefor: 202341070538
9. Suhanya Duraiswamy : Programmable Self-Assembly and Surface Organization of Anisotropic and Isotropic Gold Nanoparticles: 202441086462
10. Suhanya Duraiswamy :Bacterial Cellulose Based Microfluidic Poc Device for Ast: 202241030646
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Funded Research Projects:

1. Dr. Alan Ranjith Jacob; Development of hydrophobic coating in gas diffusion electrode for zinc air batteries to improve the battery life cycle; 20.35L[MOM-HIPL/CHE/F368/2025-26/G818].

2. Dr. Chandra Sekhar Sharma; Development and Demonstration of Materials and Fabrication Technologies for Tropical Batteries; [ANRF/CHE/F065/2025-26/G824-A].

3. Dr Chandrasekhar Sharma; Partnerships in Research for Advanced Technologies in healthcare, AI, Materials & Energy; 2.30Crs [ANRF/CHE/F065/2025-26/G841].

4. Dr. Gande Vamsi Vikram; Development of an efficient process to recover Li, Co and Ni from spent lithium-ion batteries; 46.18L [MOM-HIPL/CHE/F368/2025-26/G818].

5. Dr Kirti Chandra Sahu; Design and Development of a miniature device powered by holography and machine learning to revolutionize in-situ rainfall measurement across diverse climatic zones; 53.10L [NBV/CHE/F011/2025-26/S401].

6. Dr. Lopamudra Giri; Portable Imaging Solutions towards affordable healthcare: Microfluidic devices for the detection of disease specific proteins FOF 2025; 23.54L[UK-ROYAL ACADEMY/CHE/F113/2025-26/S369].

7. Dr Lopamudra Giri; A vision for vision: A program to create an opportunity to study biology towards clinical application of novel gene therapy; 42.07L[DST/CHE/F113/2025-26/G858].

8. Dr Mahesh Ganesan; Rheology of Cosmetic Samples; 13.8[L'Oreal/CHE/F288/2025-26/C1693].

9. Dr. Narasimha Mangadoddy; Dense Medium cyclones modelling; 28.74L[WEIR/CHE/F046/2025-26/S371].

10. Dr. Narasimha Mangadoddy; CVD, DE Hydro cyclone modelling; 52.2L[WEIR/CHE/F046/2025-26/S372].

11. Dr Ranajit Mondal; Understanding the freezing induced self-assembly of colloids rods in designing light-weight solid foams; 70.31L[ANRF/CHE/F305/2025-26/G838].

12. Dr Ranajit Mondal; KISEM: Environment and Sustainable Development (Phase-III); 1.5Cr [IITM/CHE/F305/2025-26/S393].

Awards & Recognitions:

1. Prof. Chandra Shekhar Sharma has been selected INSA Associate Fellow of the Indian National Science Academy at their 91st Annual General Meeting New Delhi.

2. Dr. Giridhar Madras, Dr. Kirti Chandra Sahu, Dr. Kishalay Mitra, Dr. Narasimha Mangadoddy and Dr. Sunil Kumar Maity have been featured in the Stanford top 2% scientists list for the year 2025.

3. Prof. Kirti Chandra Sahu has been elected as a Fellow of the Indian National Academy of Engineering (INAE).
Molecular Pharmaceutics (ACS) recently profiled Prof. Satyavrata Samavedi and highlighted his lab's work through their "Voices in Molecular Pharmaceutics" initiative.

4. Prof. Kishalay Mitra became a member, R&D Board of CIL/Apex Committee for R&D Board of CIL/Subject Matter Experts.

5. Prof. Kishalay Mitra became a member (invited), Subject Expert Committee (SEC) on Chemical and Environmental Engineering under the Prime Minister Early Career Research Grant (PM ECRG) program.

6. Prof. Kishalay Mitra became a member, Anusandhan National Research Foundation (ANRF) Chemical and Environmental Engineering PAC (Program Advisory Committee) for the Advanced Research Grant (ARG) program.

7. **Several department faculty members serve as:**
   - Editorial board members of several reputed international journals,
   - Members in several technical committees of different ministries (SERB, Coal c.),
   - Members of the board of studies of several reputed engineering colleges,
   - Organizing committee members of several national / international conferences.
8. **Joint PhD Programs**
   - Active participation of department in Joint PhD Program with Deakin University, Australia & Swinburne University of Technology, Australia,
   - Strong research collaboration with University of Texas, Austin, University of Exeter, UK, University of Cape Town, South Africa.
9. **Placement**
   - IITH Chemical Engineering PhD students are recruited as faculty members in leading IITs and other CFTIs,
   - Excellent placement for B Tech & M Tech students.

Book chapters

1. Decoding the Challenge of Ammonia Combustion: A Hybrid Approach considering CFD & AI, In "Ammonia, Methanol, and Hydrogen as Emerging Fuels for De-Fossilized Transport Sector". Editors: Valera, H., Agarwal, A. K., Energy, Environment and Sustainability Series, 2025, Springer, Singapore. Authors: Tadepalli, A., Mathew, R. S., Banerjee, R., Mitra, K.

2. Wind Behaviour Modelling Towards Improvement of Sustainable Energy Generation: GANs vs Diffusion Models, In "Data-Driven Insights and Analytics for Measurable Sustainable Development Goals. Editors: Goswami, T., Roy, S. M., Senatore, S., 2025, Elsevier, United Kingdom. Authors: Pujari, N. K., Mundra, S., Sharma, Y., Mitra, K.

3. Sushama Agarwalla, Sunil Kumar Singh, Mohammed Adil Ibrahim and Suhanya Duraiswamy, Safety Management: Hazard Identification and Risk Assessment at the Workplace, Chapter 11 Chemical Engineering Essentials, Volume 2: Advanced Processes, Materials, and Sustainability, 2025, ISBN: 978-1-394-37236-2, Wiley-ISTE. Editors: Raj K. Arya, George D. Verros, J. Paulo Davim.

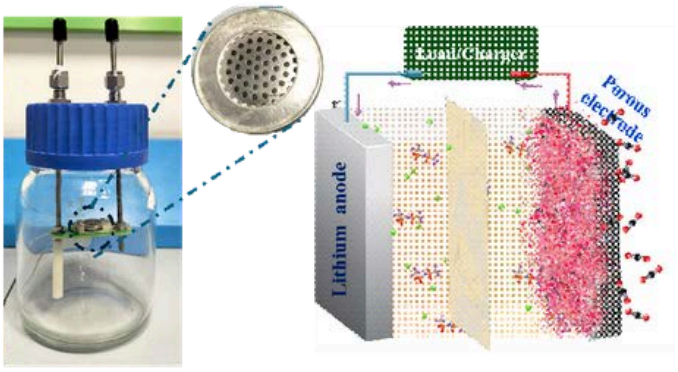
Research Highlights:

From Kachchh to Mars: Towards Self-Sustaining Energy Systems for Mars



Mars, the Red Planet, has long inspired humanity's dream of exploring and inhabiting it. Turning this vision into reality requires technologies capable of supporting sustainable life beyond Earth. As part of this effort, AAKA Space Studio conducted a Mars Analog Mission in the Mars-like terrain of Kachchh, Gujarat, alongside 17 analogs habitats across the five continents. Serving as a testbed for future planetary exploration, the mission evaluated habitat systems, scientific experiments, rover-assisted operations, and resource-utilization technologies. Among them was the Li-CO2Mars battery system developed at our CARBON Laboratory, Department of Chemical Engineering at IIT Hyderabad. By directly utilizing CO2, present at ~95% concentration in the Martian atmosphere, as an active reactant, the battery represents a promising in-situ resource utilization technology. Its high energy density and ability to harness locally available resources could reduce payload mass from Earth while supporting sustainable power generation for future Martian habitats and exploration systems.





Prof. Anand Mohan

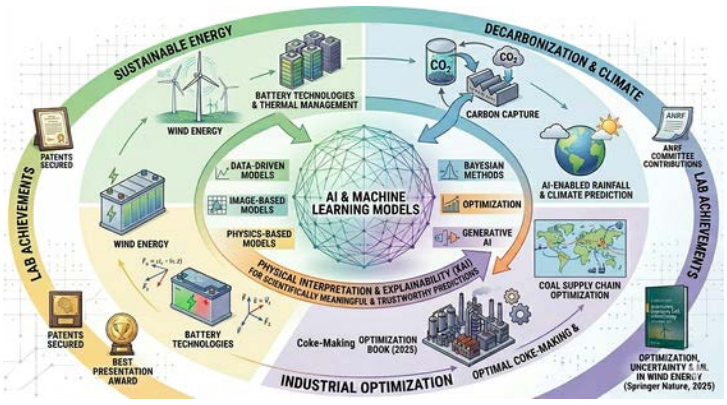
1) Extended study of a new shear-thinning fluid model that mimics a class of viscoplastic materials
2) Developed a software to reproduce the homing signal of a naval torpedo using trial data

GOKUL (Global Optimization and Knowledge Unearthing Lab)

Over the past year, our lab has made significant advances in AI, optimization, and sustainable energy research. Our work has focused on wind energy, hydrogen systems, battery technologies, carbon capture, and climate applications, utilizing steady-state and time-series analytics, image-based learning, Generative AI, Physics-Informed Neural Networks, and Fourier Neural Operators. A major research thrust has been the physical interpretation and explainability of AI models, enabling scientifically meaningful insights and trustworthy predictions. We have also developed first-principles and Large Eddy Simulation (LES)-based models and integrated Bayesian Optimization (BO) for catalyst design and accelerated materials discovery. Additional research areas include AI-enabled rainfall prediction, process–structure–property relationship discovery, ammonia (NH_3) combustion, coal supply chain optimization, and optimal coke-making. The laboratory secured several patents, received four Best Presentation Awards at international conferences, and contributed to multiple ANRF committees. A notable achievement was the publication of the book Optimization, Uncertainty and Machine Learning in Wind Energy Conversion Systems (Springer Nature, 2025).

Industry Summit 2026

Hosted the first Industry Summit 2026, bringing together ~100 delegates from 40 leading industries to strengthen industry–academia collaboration. The summit was honored by Shri. Achyut Ghatak, Director (Technical), Coal India Limited, as Chief Guest. In his video message, Prof. B.S. Murty Director, IITH, reaffirmed the institute's commitment to innovation-driven impact, while Prof. Chandra Shekhar Sharma, HoD, Chemical Engineering, emphasized moving from collaboration to co-creation. It was a strong step toward structured, outcome-driven partnerships and accelerated technology translation.



Laboratory Safety Training

Laboratory Safety Training Program for PG students, PhD students, research scholars, and department staffs was successfully conducted. The training witnessed active participation and enthusiastic engagement, reflecting the department's commitment to fostering a safe, responsible, and research-driven environment.

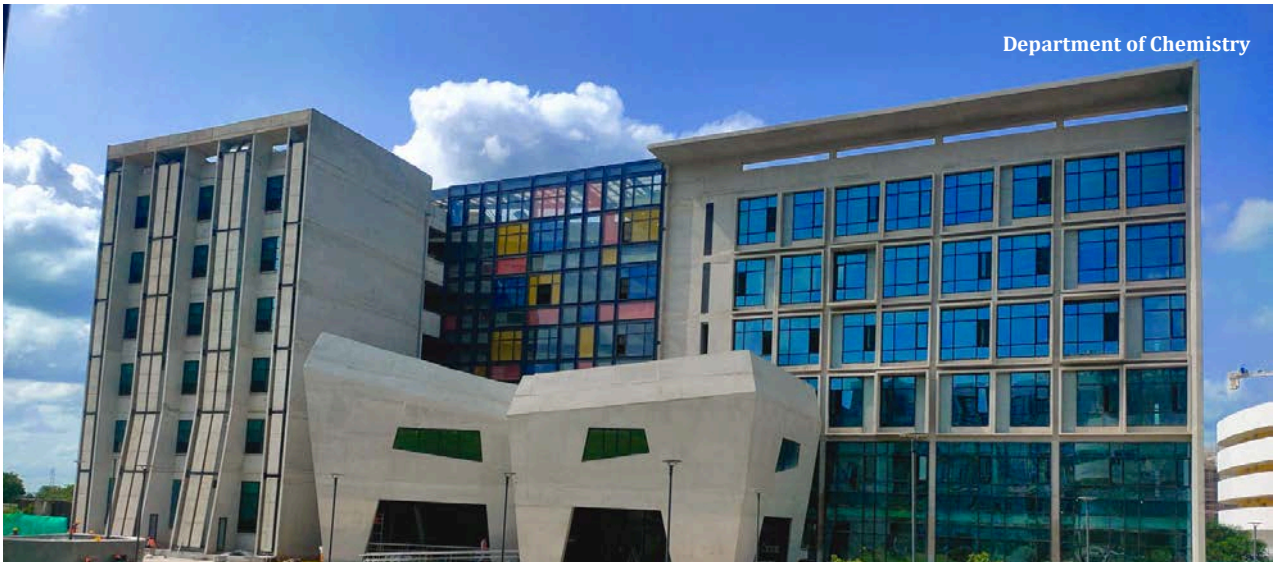
Department of Chemistry

The Department of Chemistry has been an integral part of the Indian Institute of Technology Hyderabad since its inception in 2008. Over the years, it has evolved into a vibrant center of excellence for education, research, and innovation, with state-of-the-art infrastructure and a strong interdisciplinary research ecosystem. Today, the department is among the largest at IIT Hyderabad in terms of faculty strength, Ph.D. scholars, sponsored research, and high-impact scientific publications. Committed to advancing the frontiers of chemical sciences, the department pursues cutting-edge research spanning Inorganic, Organic, Physical, Computational and Theoretical Chemistry, while actively fostering interdisciplinary collaborations in materials science, energy, catalysis, chemical biology, environmental sustainability, computational chemistry, and artificial intelligence. Our research addresses fundamental scientific questions alongside pressing technological challenges of the 21st century, contributing to sustainable development, healthcare, clean energy, and advanced functional materials.

The department offers a rigorous and research-intensive Ph.D. programme, carefully designed to combine advanced coursework with high-quality research under the mentorship of internationally recognized faculty members. Students are trained to develop a strong foundation in chemical sciences while cultivating the creativity, independence, and critical thinking required to become future leaders in academia, industry, and research laboratories. With the dedicated support of our technical and administrative staff, the department provides an intellectually stimulating environment and comprehensive laboratory training that equips students with modern experimental and computational skills. In addition to doctoral education, the department plays a vital role in undergraduate and postgraduate teaching.

The B.Tech. (Industrial Chemistry) and M.Sc. curricula are designed with a strong emphasis on experiential learning, incorporating nearly 30% laboratory and research-based training. This hands-on approach enables students to bridge theory with practice and prepares them for successful careers in research, industry, entrepreneurship, and higher education.

For more information, please visit: https://chemistry.iith.ac.in/


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Patents:

Filed:

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2. Ganesan Prabu Sankar : A Guided Bone Regeneration Membrane and a Method of Preparation Thereof : 202541035539
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33. Ganesan Prabu Sankar : A Zinc Pyrithione-Based Liposomal Nanoformulation and a Process for Preparation Thereof : 202541133462
34. Ganesan Prabu Sankar : Luminescent Dinuclear Copper(I) Complex and Method of Preparation Thereof : 202541134406
35. Kishore Natte : A Method of Preparation of Aryl Sulfoxides : 202541134484
36. Ganesan Prabu Sankar : A Dinuclear Copper(I) N-Heterocyclic Carbene Complex and a Method for Preparation Thereof : 202541134377
37. Surajit Maity : A Method and Apparatus for Selective Deuterium Exchange : 202541134291
38. Ganesan Prabu Sankar : Luminescent Organometallic Copper(I) Complexes and the Method of Preparation Thereof : 202541134362
39. Ganesan Prabu Sankar : Corrosion-Resistant Coating Composition and the Method of Preparation Thereof : 202541134240
40. Ganesan Prabu Sankar : Copper(I)-Based One-Dimensional Coordination Polymeric Complexes and the Method of Preparation Thereof : 202541134655
41. Narendra Kurra : An Electrochemical Device, an Electrode, and a Method of Preparation of the Electrode : 202541134653
42. Somnath Maji : Ru(Ii) Complexes and a Method of Preparation Thereof : 202541134136
43. Balraju K : Co-Amorphous Form of Vadadustat and a Process for Preparation Thereof : 202641012481

44. C Malla Reddy : Co-Amorphous Form of Vadadustat and a Process for Preparation Thereof : 202641012481
45. Surendra Kumar Martha : A Method for Synthesising a Porous Ti3C2Tx-Nise Composite : 202641027980
46. Sivakumar Vaidyanathan : White Light-Emitting Europium(Iii) Coordination Complexes and the Method of Preparation Thereof : 202641032911
47. Surendra Kumar Martha : Low-Cost, Energy-Efficient, and Environmentally Friendly Synthesis of Plasma-Induced N-Doped Nvopf Cathode for Sodium-Ion Batteries : 202641040619
48. Ch Subrahmanyam : Low-Cost, Energy-Efficient, and Environmentally Friendly Synthesis of Plasma-Induced N-Doped Nvopf Cathode for Sodium-Ion Batteries : 202641040619
49. Kotagiri Venkata Rao : Photothermal Substance Comprising Imide-Containing Compound for Solar Steam Generation, and Device and Process Thereof : 202541091461
50. Sivakumar Vaidyanathan : Chiral Thermally Active Delayed Fluorescence (Tadf) Material and a Method of Preparation Thereof : 202541118083
51. Sivakumar Vaidyanathan : Optoelectronic Europium Complexes for Led Applications and a Method for Preparation Thereof : 202541125696
52. Sivakumar Vaidyanathan : Excimer-Based White Light Emission from Organo-Lanthanide-Based Complexes: Synthesis and White Led Using the Same : 202541130145
53. Sivakumar Vaidyanathan : Non-Doped Blue Organic Light-Emitting Diode (Oled) Emitters, Method of Preparation Thereof : 202541133126
54. Sivakumar Vaidyanathan : White Light-Emissive Butterfly Shaped Europium Complexes for Led Devices and Method of Preparation Thereof : 202541133740
55. Sivakumar Vaidyanathan : Benzo[4,5]Thieno[3,2-D]Thiazole-Based Donor-Acceptor- Donor (D-A-D) Compound and a Process of Prepartion Thereof : 202541133637
56. Sivakumar Vaidyanathan : A Donor-Acceptor Organic Fluorophores for Oleds and Process of Preparation Thereof : 202541133739
57. Sivakumar Vaidyanathan : A Dinuclear Copper(I) N-Heterocyclic Carbene Complex and a Method for Preparation Thereof : 202541134377
58. Sivakumar Vaidyanathan : Europium (Iii)-Based Complex and a Method for Preparation Thereof : 202541133398

Granted:

1. Ganesan Prabu Sankar :Peg-B-Aca Mixture and a Method of Preparingthe Same: 202441036100
2. Kishore Natte :A Method for Chemoselective Reduction of N-Heteroarenes and Its Hyogenated Products: 202441073447
3. Ganesan Prabu Sankar :N-Heterocyclic Thiones As Light-Emitting Compounds and Method of Preparation Thereof: 202441082505
4. Ganesan Prabu Sankar :Light-Emitting Fluorescent Molecules and a Method of Preparation Thereof: 202441074170
5. Ganesan Prabu Sankar :A Gold-Coated Bimetallic Nanocarrier Composition and Its Method of Preparation: 202441085990
6. Surendra Kumar Martha :A Method for Synthesizing a Catalytic Graphite for Lithium-Ion and Dual-Ion Batteries: 202541002412
7. Ganesan Prabu Sankar :A Nanoparticle Composition and a Method of Preparation Thereof: 202441085507
8. Ashutosh Kumar Mishra :A Tpa-Stillbene Flavin Probe for Real-Time Monitoring of Hocl and a Method of Synthesis Thereof: 202441085937
9. Ganesan Prabu Sankar :Copper-Based Paddle-Wheel Complex and a Process for Preparation Thereof: 202541003614
10. Ganesan Prabu Sankar :Pyridine-Substituted Naphthoimidazolium Compound and Method of Preparing the Same: 202441084005
11. Kishore Natte :Difluoromethylation of Complex N-Heterocycles: 202541011404
11. G. SATYANARAYANA :Pentoxifylline Derivative and Process for Preparation Thereof: 202441103228
12. Ganesan Prabu Sankar :Co(Ii) Thione Based Catalyst and Method of Preparation Thereof: 202441079009
13. Ganesan Prabu Sankar :A Ruthenium-Based Thione Complex Having Anticancer Activity and a Method of Preparation Thereof: 202541021105
14. Ganesan Prabu Sankar :A Ruthenium-Based Thione Complex Having Anticancer Activity and a Method of Preparation Thereof: 202541021105
15. Kishore Natte :Aryl Difluoromethyl Ether Compounds and Method of Preparation Thereof: 202441071161
16. Ganesan Prabu Sankar :Synthesis of Mesoionic Selone Bismuth (Iii) Trihalide Complex: 202541019558
17. Ganesan Prabu Sankar :Ferrocene-Coumarin Complex and a Method of Preparation Thereof: 202541021928
18. Ganesan Prabu Sankar :Luminescent N- Heterocyclic Thione Compound and a Process for Preparation Thereof: 202541005149
19. Ganesan Prabu Sankar :Co-Crystal of Copper Iodide (Cui) Clusters and a Process for Preparation Thereof: 202541003577
20. Ganesan Prabu Sankar :Fluorescent Copper Nanoclusters and Their Preparation Thereof As Antibacterial and Bioimaging Agent": 202541045529
21. Ganesan Prabu Sankar :A Water-Soluble Organo Ruthenium(Ii) Thione Complex and a Method of Preparation Thereof: 202541035130
22. Ganesan Prabu Sankar :A Mn-Based Nanocarrier Formulation and a Process for Preparation Thereof: 202541065551
23. Sudarsanam Putla :Process of Producing Bis (Hydroxyethyl) Ether of Bisphenol a in Presence of Calcined Cuo-Mgo Nanocat: 202541064948
24. Sudarsanam Putla :Nanostructured Metal Oxide Catalyst for Upcycling Pet Waste, and Method of Preparation Thereof: 202541069970
25. Ganesan Prabu Sankar :Aromatic Azide Compound and a Process for Preparation Thereof: 202541006927
26. M. Annadhasan :Liposome of Saussurea Obvallata and Its Process of Preparation: 202441086405
27. Ganesan Prabu Sankar :A Liposomes-Based Hybrid Nanosystem and Preparation Thereof: 202541022787
28. Ganesan Prabu Sankar :A Zinc-Based Thione Complex and a Method for Preparation Thereof: 202541046737
29. Ganesan Prabu Sankar :A Zinc-Based Thione Complex and a Method for Preparation Thereof: 202541046737
30. Challapalli Subrahmanyam :A Non-Thermal Plasma Incinerator to Remove Dilute Volatile Organic Compounds in Indoor Concentrations: 202241039380

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Funded Research Projects:

1. Dr. Sudarsanam Putla is associated with the project titled “Production of Aviation Fuels from Mixed Plastic Waste Using Heterogeneous Nanoalloy/Silica Catalysts.” The sponsoring agency, sanction amount, and project short number are not provided in the table.
2. Dr. Subrahmanyam Challapalli has received funding of ₹64,91,520 from ANRF-IRG for the project titled “Development of AI-Ion Cell Technology” (Project Code: G807).
3. Dr. Venkata Rao Kotagiri has received funding of ₹55,12,997 from DRDO-NSTL for the project titled “Large-Scale Synthesis of Porous Organic Polymer-Based Solid Adsorbents Efficient for CO_2 Capture from Flue Gas” (LOA No.: GAIL/NOID/25001/5900000626/C&P/R&D, dated 09.05.2025; P.O. No.: PO# 5900000626; Project Code: G813).
4. Dr. Surendra Kumar Martha has received funding of ₹67,85,000 from GAIL India Limited for the project titled “Development and Demonstration of Materials and Fabrication Technologies for Tropical Batteries” (Project Code: S374).
5. Dr. Narendra Kurra has received funding of ₹1,71,44,454 from ANRF for the project titled “Development and Demonstration of Materials and Fabrication Technologies for Tropical Batteries” (Project Code: G824B).

6. Dr. Satyanarayana G. has received funding of ₹1,04,23,246 from ANRF for the project titled "Extraction of Pd(II) from High-Level Liquid Waste (HLLW) of Nuclear Fission Process in Nitric Acid Solutions Using Small Organic Molecules" (Project Code: G824C).
7. Dr. Sivakumar V. has received funding of ₹25,92,000 from the Board of Research in Nuclear Sciences (BRNS) for the project titled "Rational Design and Synthesis of Ultrabroad Band Near-Infrared Emitting Phosphors for Light-Emitting Diodes" (Project Code: G832).
8. Dr. Anup Bhunia has received funding of ₹28,29,500 from BRNS-DAE for the project titled "Methylation and Fluoromethylation: Electro(Photo)chemical Taming of Fundamental Intermediates and Their Applications" (Project Code: G836).
9. Dr. C. Malla Reddy has received funding of ₹71,91,732 from ANRF (Anusandhan National Research Foundation) for the project titled "Accelerating Discovery of Solid Forms of APIs Using AI-ML Tools" (Project Code: G839).
10. Dr. C. Malla Reddy has received funding of ₹74,20,000 from Granules India Limited for the project titled "Accelerating Discovery of Solid Forms of APIs Using AI-ML Tools" (Project Code: S380).
11. Dr. Sudarsanam Putla has received funding of ₹74,20,000 from Granules India Limited for the project titled "Development of Multifunctional Heterogeneous Catalysts for Selective Lignin-to-BTX Process" (Project Code: S382).
12. Dr. Kishore Natte has received funding of ₹46,38,000 from AM Green (India) Private Limited for the project titled "Development of a Selective Catalyst for Ethylene to Higher (C8+) Hydrocarbons" (Project Code: S383).
13. Dr. Prabhusankar Ganesan has received funding of ₹56,64,000 from AM Green (India) Private Limited for the project titled "Metal N-Heterocyclic Chalcogenone Clusters and Their Nanomaterials: Synthesis, Characterization and Applications" (Project Code: S385).
14. Dr. Subrahmanyam Challapalli has received funding of ₹77,27,520 from ANRF for the project titled "CoE for MSME Export and Technology (COMET) and Satellite Centre in IITH" (Project Code: G863).
15. Dr. Subrahmanyam Challapalli has received funding of ₹29,48,00,000 from MSME-GOI for the project titled "PMKVY 4.0-Reg" (Project Code: G868).
16. Dr. Satyanarayana G. has received funding of ₹40,00,000 from the Ministry of Skill Development and Entrepreneurship, Government of India for the project titled "Drug Development Support: Advanced Characterization, Synthetic Methodology and Analytical Evaluation of Drug Molecules" (Project Code: G874).
17. Dr. Sudarsanam Putla has received funding of ₹5,66,400 from Extrovis Private Limited for the project titled "Characterization Study of Solid and Liquid Samples Using Spectroscopy and Microscopy Techniques" (Project Code: S412).
18. Dr. Faiz Ahmed Khan has received funding of ₹19,82,400 from Extrovis Private Limited for the project titled "Invention of Innovative APIs Production Process that is Suitable for Industrialization" (Project Code: S413).
19. Dr. Surajit Maity has received funding of ₹2,33,64,000 from DNP Japan (Dai Nippon Printing Co., Ltd.) for the project titled "Experimental Investigations on the Photostability of Biorelevant Molecules: The Role of Nitrogen and Deuterium on the Reaction Pathways and the Excited-State Energy Barriers" (Project Code: S411).
20. Dr. Saurabh Kumar Singh has received funding of ₹64,91,520 from ANRF for the project titled "Tuning Carbon-Carbon Single and Double Bonds: Applications Towards Emerging New Materials" (Project Code: G877).
21. Dr. C. Malla Reddy has received funding of ₹16,80,000 from ANRF for the project titled "Structural Basis for the Mechano-Induced Surface Charges on Pharmaceutical Crystals: Implications to Dry Powder Inhalers" (Project Code: G881).
22. The final entry in the provided table lists ANRF as the sponsoring agency, with a sanction amount of ₹2,04,18,020 and Project Code G887; the PI name and project title are not provided.

Awards & Recognitions:

1. Prof.C.Malla Reddy, Department of Chemistry, has been conferred with"OPPI Scientist Award 2025" from the
2. Organisation of Pharmaceutical Producers of India (OPPI), The Award is a trophy and a Grant in Aid of Rs. 1,00,000/-.
3. Dr. Koyel Banerjee Ghosh: Recognized as the rising star of materials chemistry research in 2026 by Journal of Materials Chemistry.
4. Prof. Ch. Subrahmanyam, Prof. C. Malla Reddy. Prof. M. Deepa, Prof. Surendra Kumar Martha, Dr. Narendra Kurra, Dr. Sudarsanam Putla and Dr. Kishore Natte featured in Stanford's list of top 2% scientists for a single year, based on 2025.
5. Prof. Ch. Subrahmanyam, Prof. C. Malla Reddy., Prof. M. Deepa and Prof. Surendra Kumar Martha featured in Stanford's list of Top 2% Scientists (Career Based) List 2025
6. Ms. Jyotirekha Dutta, a research scholar (CY21RESCH11021), working under the supervision of Prof. Surendra K. Martha, Department of Chemistry has been awarded the SPARCling award for combined performance in 'Flash Talk and Poster Presentation' in the SPARC conclave held at IIT Kharagpur Research Park, Kolkata on 8-9th March, 2026.
7. Ms. Sneha Joseph, a research scholar (cy22resch11012) working under the supervision of Prof. Ch. Subrahmanyam, Department of Chemistry has been awarded the Best Poster Award at the ICFAST TOKYO-2026 (International Conference on Frontier Areas of Science and Technology), held at the University of Tokyo, Japan, on February 14–15, 2026.
8. Ms. Priyanku Nath, a PhD student (cy22resch11022) working with Prof. Tarun K. Panda, Department of Chemistry, has received the Best Poster presentation award and a Cash Prize Award, at the 18th International Conference on Polymer Science and Technology (SPSI-MACRO 2025) held on December 15 - 18, 2025, IIT Kharagpur Research Park, Kolkata, India). SPSI-MACRO-2025 conference is a series of international conferences held in India every two years by The Society for Polymer Science, India.
9. Mr. M. Bobby Barnabas, a research scholar of chemistry, working under supervision of Dr. Sudarsanam Putla, received Nanoscale Advances Poster Presentation award at the 3rd International conference in Nanoscience and Nanotechnology (ICNAN-2025), held at VIT Vellore during 16-19 December 2025.
10. Mr. Deewan Singh Teja, a research scholar of Chemistry, working under supervision of Professor Bhabani Sankar Mallik, received a best Poster Presentation award at the Statistical Mechanics in Chemistry and Biology (SMCB-2025) conference held at TIFR Hyderabad from December 17th to 19th, 2025.
11. Ms. Sadia Basri, a PhD student from Centre for Interdisciplinary Program (id22resch110015), jointly working with Prof. Debraj Bhattacharyya, Department of Civil Engineering and Prof. Tarun K. Panda, Department of Chemistry, has received the best Oral presentation award, a gift card worth 5000 JPY and a book voucher worth € 150 from Springer Nature, at the 19th International water association, IWA Conference on Sludge Management held in Kyoto, Japan during 21st to 24th of October 2025.

12. Mr. Mokilla Ramachandra Reddy, a research scholar of chemistry, working under supervision of Prof . G. Satyanarayana received a Best Poster Prize at the Professor A. Srikrishna Charitable Trust Symposium on "Innovations in Natural Products and Synthetic Strategies (INPSS-2025), held at The Park Hotel, Hyderabad, during 24-25th October 2025.
13. Mr. Sambit Shashanka Sekhar Rout, a research scholar of chemistry, working under supervision of Dr. Jai Prakash received a Best Poster Prize Award and cash prize at the International Conference on Chemistry and Physics of Solids (ChemPhySol-2025) organised by IISER Berhampur, held during 27-28 November 2025. The award was presented by Prof.John Paul Attfield (Director, CSEC) and Prof. Ashok K. Ganguly (Director, IISER Berhampur).
14. Ms. Suman Yadav, a research scholar (cy22resch11010) working under the supervision of Dr. Narendra Kurra, Department of Chemistry, has received the Best Poster presentation Award and a cash prize of 100 Euros) at the International Meeting of the Battery Research Society (IMBRS 2025), organized by the Battery Research Society of India, at the Hilton Convention Center, Bengaluru, during 6-9 December 2025.
15. Ms. Swapna Bhattu, a PhD scholar working under the guidance of Dr. Sudarsanam Putla got the best oral presentation award at the 10th Asian Pacific Congress on Catalysis (APCAT-10) in conjunction with the 4th International Symposium, for Single Atom Catalysis (ISSAC-4) held on 4th to 7th August 2025, organized by the in Singapore. She received a cash prize of 100 Singapore dollars and RSC membership along with this award.
16. Mr Sandeep Kumawat, a research scholar of the department working under the supervision of Dr. Kishore Natte, has received the best poster presentation award and cash prize at the International Symposium on 'Frontiers in Sustainable Organic Synthesis and Chemical Biology (FSOSCB-2025) organised by CSIR-IICT Hyderabad held during 13-10-2025 to 14-10-2025. The award was delivered by Christa Müller (ACS, Editor in Chief), Dr Ch Raji Reddy, and Dr A. Gangagni Rao at CSIR-IICT Hyderabad.
17. Mr. Pravat Kumar Sahu, a research scholar of Chemistry working under the supervision of Prof. Ch. Subrahmanyam has received an RSC Analyst poster presentation award at a conference entitled "DAE-BRNS Conference on Electrochemistry for Industry, Health, and Environment (EIHE-2025)" held in BARC, Mumbai, held during January 21–25, 2025.
18. Mr. Amitkumar Girbide, a research scholar working under the supervision of Prof. G. Prabu Sankar, has received the best poster presentation award and a cash prize at the International Conference on the Main Group Molecule to Materials (MMM-4, 2025) held at the Indian Institute of Technology Bombay (IIT Bombay) from 9th to 12th February 2025.

Research Highlights:

1. Spin-controlled electrocatalysis through chirality-driven magnetoresistance (CDMR), enabling more efficient oxygen evolution and reduction reactions.
2. Advanced lithium-ion and sodium-ion battery materials, including high-performance NMC-811 and NASICON-type cathodes for next-generation energy storage.
3. Commercialization of fluorinated heterocyclic building blocks through international collaboration, translating laboratory research into globally available chemical products.
4. AI-enabled molecular simulations using compact neural-network potential energy surfaces for fast and accurate quantum chemical modeling.
5. Minimalistic peptide hydrogels exhibiting programmable self-assembly, self-healing, injectability, and underwater adhesion for biomedical applications.
6. Bioinspired nanozyme and catalytic hydrogel platforms for sustainable catalysis, environmental remediation, and CO_2 hydration.
7. Electrochemical and photocatalytic organic synthesis providing greener and more sustainable routes for pharmaceuticals and fine chemicals.
8. Domino catalysis and remote C-H functionalization for atom-economical synthesis of complex molecular architectures.
9. Development of transition-metal-based anticancer metallodrugs with enhanced DNA binding, cleavage, and antiproliferative activity.
10. Flexible molecular crystals, optical waveguides, and nanophotonic materials for next-generation photonic and optoelectronic devices.
11. Advanced porous polymers and hybrid materials for carbon capture, energy conversion, and environmental sustainability.
12. Carbohydrate chemistry and glycoengineering enabling sustainable glycosylation strategies, glycopolymer synthesis, and targeted drug delivery.
13. Ultrafast laser spectroscopy and molecular reaction dynamics revealing excited-state processes, proton transfer, and intermolecular interactions.
14. Mechanistic understanding of biomolecular interactions, including protein–drug, protein–graphene, and DNA-ligand recognition using advanced spectroscopy.
15. Sustainable electrochemical synthesis and total synthesis of bioactive natural products while developing innovative DNA end-binding molecules for next-generation cancer therapeutics.
16. Advanced blue and near-infrared luminescent materials with efficient hot-exciton emission, enabling high-performance organic light-emitting and photonic devices.
17. Next-generation zero-dimensional halide materials with tunable excitonic and emission properties, advancing high-performance optoelectronic and photonic technologies.
18. Interdisciplinary research integrating chemistry with artificial intelligence, biology, materials science, and engineering, addressing challenges in clean energy, healthcare, and sustainable technologies.

Research Facilities

- Battery Cyclers, Potentiostat-GalvanostatHigh-performance Battery Fabrication & Electrochemistry Laboratory
- Glove Boxes, Environmental Chambers & Battery Assembly Facility
- Advanced Laser Spectroscopy & Time-of-Flight Mass Spectrometry Facility
- High-Performance Computing (HPC) Cluster & GPU Computing Facility
- Fluorescence, Spectrofluorometer, UV-Visible & Time-Resolved Spectroscopy Facility
- Photoreactor & Electrochemical Organic Synthesis Laboratory
- HPLC, Bioanalytical & Molecular Imaging Facility
- Optical Microscopy & Advanced Materials Characterization Laboratory
- Thermal Analysis, Powder Processing & Materials Processing Facility (TGA, Furnaces, Ball Milling)
- Computational Chemistry Laboratory with High-End Workstations and Quantum Chemical Softwares

Thrust Areas

- Green & Sustainable Chemistry
- Catalysis & Molecular Synthesis
- Energy Conversion & Storage
- Computational Design, AI & ML
- Chemical Biology, Drug Discovery & Bioinspired Systems
- Molecular Reactions, Spectroscopy & Dynamics
- Crystal Engineering, Photonics, Sensors & Optoelectronics
- Carbon Capture, Circular Chemistry & Waste Recycling
- Polymers, Soft Matter, Superstructures & Functional Materials



Circular Dichroism Spectrophotometer
In circular dichroism (CD) spectroscopy, the absorbance of right and left circularly polarized light by molecules in solution is measured.



Nuclear Magnetic Resonance Spectroscopy
Nuclear Magnetic Resonance Spectroscopy is a research tool for organic chemists which can determine both the physical and chemical properties of atoms or molecules. The NMR Spectroscopy relies on the phenomenon of nuclear magnetic resonance and provides detailed information about the structure, reaction state, and chemical environment of molecules.

Department of Civil Engineering

Welcome to the Department of Civil Engineering at IIT Hyderabad!

We take pride in being one of the largest departments, with 536 enrolled students, 31 regular faculty members including seven associated faculty (distinguished/adjunct/professor of practice), eleven technical staff, and two office staff. Our department offers five specializations, viz. structural engineering, geotechnical engineering, hydraulics and water resources engineering, environmental engineering, and transportation engineering with each group represented by faculty members engaged in cutting-edge research. As of March 31, 2026, our impressive record includes over 953 publications with a departmental h-index of 57, highlighting our commitment to impactful research.

The department faculty are actively involved in numerous projects, including 3 Grant-in-Aid projects valued at 3 Crores, 4 Sponsored projects valued at 1 Crores, and more than 100 Consultancy projects worth 10 Crores during the last financial year. This involvement reflects our dedication to advancing civil engineering through research and practical applications.

In the previous academic year, we organized several outreach activities. For instance, Civil Engineering Department, in association with the IGS Hyderabad Student Chapter, organized a talk on coupled process modelling, AI and sustainable resource recovery from municipal solid waste. Civil Engineering student Mr. Sivakalikiran under Dr. R. Maheswaran was part of a team that won first prize in the Riverathon conducted by NMCG and the World Bank, focusing on LiDAR- and climate-based riparian vegetation monitoring.

We take immense pride in our academic community and continuously strive to create an environment that fosters excellence in research, innovation, and education.

For more information, please visit: https://civil.iith.ac.in/



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Patents:

Filed:

1. Ramya Sri Mullapudi : A Pozzolanic Cement Grout Proportion for Reclaimed Cement Grouted Bituminous Mixes : 202541041829
2. Ramya Sri Mullapudi : Latex-Modified Cement Grout Proportion for Cement Grouted Bituminous Mixes Containing Reclaimed Asphalt Pavement Material : 202541054087
3. Anil Agarwal : A Fire-Resistant System and a Method of Forming the Same : 202541056684
4. Ambika S : A Hybrid Multifunctional Electrodialysis-Based Membrane Recovery System for Separation of Lithium, Nickel, Cobalt, and Manganese : 202541123619
5. Kolluru V.L.Subramaniam : Fire-Resistant Composite Material Incorporating Excalating Carbon Forms in Foamed Concrete : 202541090556

Granted:

1. Ambika S :Fluorescence Method of Quantifying Perfluorooctanoic Acid Concentration in Aqueous Solutions: 202441077834
2. Mahendrakumar Madhavan :Cold-Formed Steel Interlocked Built-Up Beam: 202341047418
3. Debraj Bhattacharyya :A Novel Algal-Bacterial Photo-Bio Tower for Waste Water Treatment: 202141059299
4. Ambika S :A Method and System for Water Treatment: 202341083848
5. T. Shashidhar :A Non-Thermal Plasma Incinerator to Remove Dilute Volatile Organic Compounds in Indoor Concentrations: 202241039380

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31. Raghuram, A.S.S., & Basha, B.M. (2025). Probabilistic Design of Unsaturated Clay Slopes with Spatial Variability of Shear Strength and SWRC Parameters. Geotechnical and Geological Engineering, 43(9). https://doi.org/10.1007/s10706-025-03481-9

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Funded Research Projects:

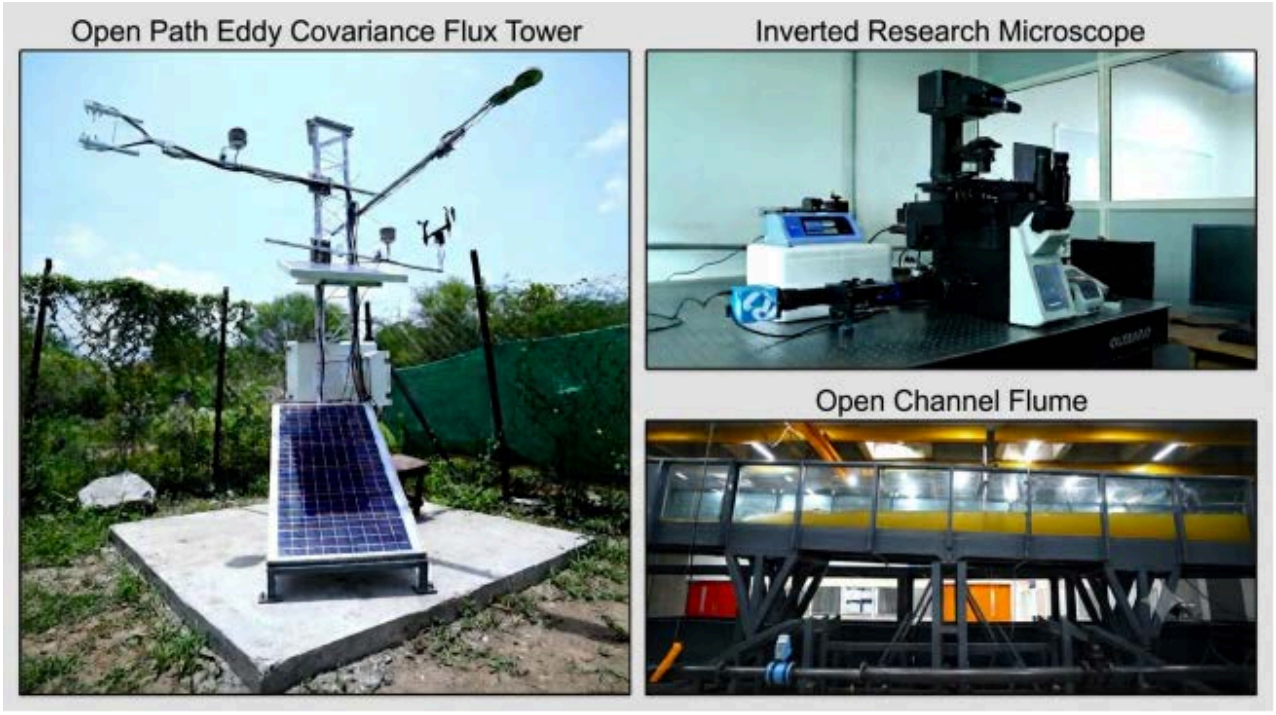
1 Dr. Sireesh Saride has received funding of ₹15,57,600 from GRIDMATS – GroundReality Enterprises Private Limited for the project titled "Evaluation of GridMats for Various Flexible Pavement Applications" (Project Code: S370).
2. Dr. Asif Qureshi has received funding of ₹2,29,823 from Eva Reckitt Trust for the project titled "Screening-Level Assessment of the Soil in Solar Evaporation Pond Outside the UCIL Plant" (Project Code: S379).
3. Dr. Mahendra Kumar Madhavan has received funding of ₹11,80,000 from Immersive Technology and Entrepreneurship Labs Foundation for the project titled "Development of Bridge System for HASHTIC" (Project Code: S389).
4. Dr. Prasanna R. has received funding of ₹61,79,571 from ANRF for the project titled "Development of a Framework for Evaluating Liquefaction Potential of Soil for Seismic Hazard Mitigation" (Project Code: G846).
23. Dr. Shwetabh Yadav has received funding of ₹82,58,563 from DRDO-ARMREB for the project titled "Numerical Simulation of High-Speed Projectile Impact on Concrete Target" (Project Code: G860).
24. Dr. Subramaniam K. V. L. has received funding of ₹46,16,160 from Samnan Chemicals Private Limited for the project titled "Evaluation of CNTs for Improvements
25. in Cementitious Materials: Microstructure, Kinetics, Strength, Mechanical Properties and Durability Performance" (P.O. No.: SCPL-IITH-2025, dated
26. 01.12.2025; Project Code: S400).
Dr. Subramaniam K. V. L. has received funding of ₹1,93,75,000 from DRDO-DIA-CoE, IIT Delhi for the
27. project titled "Protective Strategies for Blast Mitigation of Building Infrastructure Using Dynamic Compaction of Graded Cellular Geopolymers" (Project Code: G865).

Awards & Recognitions:

1. Dr. Digvijay S. Pawar received the Best Faculty Research Excellence Award 2025 in recognition of his contributions to research and innovation.
2. Ms. Bhuvana Priya, PhD Scholar, received the Best Poster Award at CTRG 2025, IIT Guwahati, for her research on cement-grouted bituminous mixes incorporating reclaimed asphalt pavement materials.
3. Mr. Mohit Singh, PhD Scholar, received the Best Poster Award at the PMRF Symposium in the Civil, Earth Science, Architecture and Ocean Engineering category.
4. Mr. Mohit Singh, PhD Scholar, received the Second-Best Presentation Award at CARRS 2025, IIT Roorkee, for his research presentation.
5. Ms. Sadia Basri, PhD Student, received the Best Oral Presentation Award at the 19th IWA Conference on Sludge Management, Kyoto, Japan, for her collaborative research with Prof. Debraj Bhattacharyya and Prof. Tarun K. Panda.
6. Ms. Bhagyshree Khandare, PhD Scholar, was recognized as the Best Oral Presenter at the 4th International Conference on 3D Printing and Additive Manufacturing (3D Printing 2025), under the guidance of Dr. Surendra Nadh Somala.
7. Prof. Mahendrakumar Madhavan was conferred the prestigious Fellowship of the Institution of Structural Engineers (IStructE), UK, in recognition of his contributions to structural engineering and professional excellence.
8. Dr. Sk Zeeshan Ali was awarded the Associateship of the Indian Academy of Sciences, Bengaluru, for 2026.
Mr. Venkateshwaran G, PhD Scholar, won the Jal Shakti Hackathon Award with a ₹1,00,000 prize for his innovative pitch, "Hybrid Membrane for Tertiary Water and Wastewater Treatment," under the guidance of Dr. Ambika S.
9. Mr. Sivakalikiran, M.Tech student, secured First Prize at the Riverathon Hackathon as part of Team Hydroscope, organized by the National Mission for Clean Ganga (NMCG) and the World Bank.

Research Highlights

Highlights: Experimental and computational studies on hydraulics, hydrology, remote sensing, and irrigation engineering
Major facilities: Open-Path Eddy Covariance Flux Tower, Borehole Video Camera, Open Channel Flume, River Surveyor, Terrameter, and Advanced Computational facility



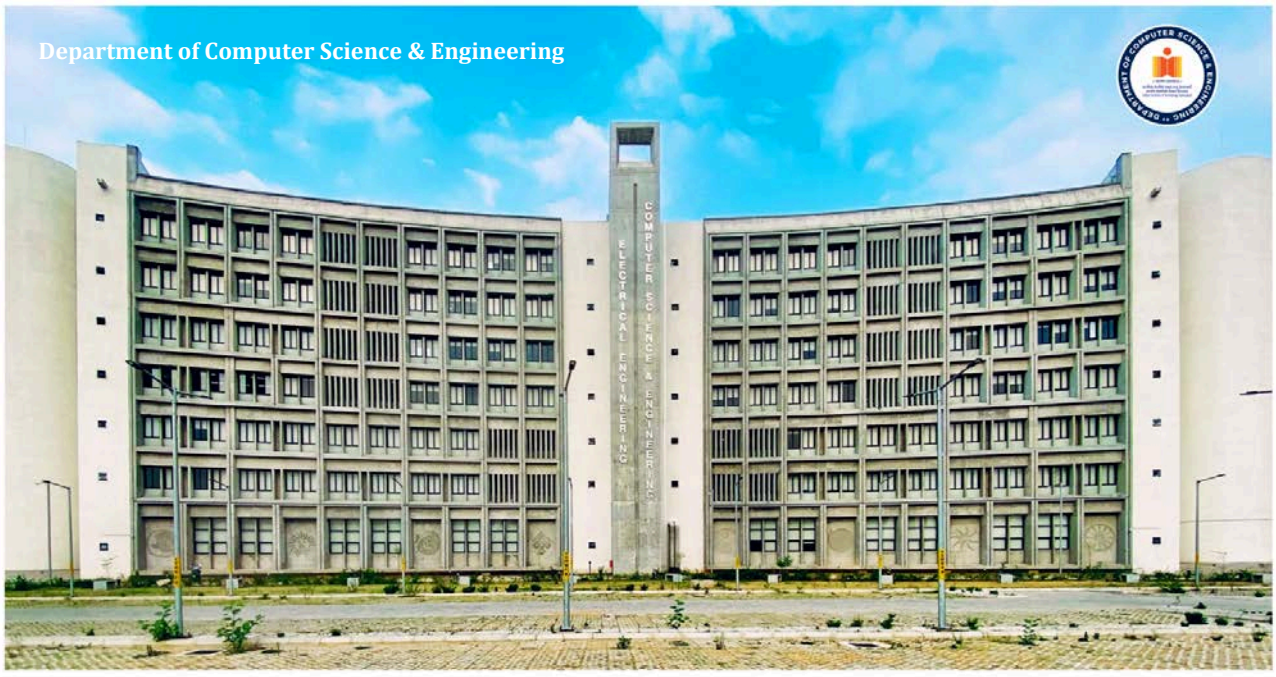
Department of Computer Science and Engineering

During the year 2025–26, the Department of Computer Science and Engineering (CSE), IIT Hyderabad, continued to strengthen its academic, research, and innovation ecosystem through advanced research activities, faculty expansion, infrastructure development, industry collaboration, and technical events.

The department organized several national-level workshops and training programs, including the Research Opportunities in Computer Architecture (ROCA 2025) workshop, sponsored by Intel Corporation, and the AI on ARM Platforms workshop. Advanced training programs, such as the Linux and Systems Security Bootcamp 2026 and the 5G Security Bootcamp, were conducted under ISEA Phase III. The department also hosted major technical events, including INAE CEEE 2026, ACM India Annual Event 2026, and Cryptology Conclave 2026.

The department expanded its academic strength by adding five new faculty members during the year. It also strengthened its infrastructure through an SLURM-managed HPC cluster, OpenStack-based private cloud, MAAS bare-metal provisioning, advanced NAS/Ceph/Luster storage, high-speed networking, and automated infrastructure management systems. Teaching laboratory facilities were expanded from 142 desktop workstations, with an additional 130 systems being added, taking the total to over 270 workstations.

For more information, please visit: https://cse.iith.ac.in/



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Patents:

Filed:

1. Antony Franklin : A Method and a System for Dynamic Alert Propagation of Emergency Alert Messages : 202542078184
2. C Krishna Mohan : System and Method for Explainable Semi-Supervised Scene Classification in Remote Sensing Imagery Using Tri-Prototype Learning : 202541095400
3. Sobhan Babu : System and Method for Explainable Semi-Supervised Scene Classification in Remote Sensing Imagery Using Tri-Prototype Learning : 202541095400
4. Kotaro Kataoka : Channel-Aware Adaptive Numerology Technique for Wireless Communication : 202541127474
5. C Krishna Mohan : A Method and a System for Performing a Zero Shot Scene Classification in One or More Remote Sensing Images : 202541128199
6. C Krishna Mohan : System and Method for Visual Segmentation for Autonomous Vehicles Under Transitional Weather Conditions : 202541129186
7. RAJESH KEDIA : System and Method of Performing Multiplication on a Processor System Without Using a Hardware Multiplier : 202541134553
8. Antony Franklin : A Method and a System for Dynamic Alert Propagation of Emergency Alert Messages : 202642003258
9. Rajesh Kedia : A Method and a System for Generating a Saftey Alert Based Upon a Plurality of Detections : 202541080868

Granted:

1. Antony Franklin :Method and System for Slice Identification in 5G Ran and Core for Secure Slice Service: 202241021594
2. Tamma Bheemarjun Reddy :Methods and Systems for Privacy-Preserving Federated Continuous Internet Forensics: 202341041491
3. Antony Franklin :Data-Iven Multi-Hop Method and System for Dynamic Alert Propagation in Emergency Response: 202341082764
4. Vineeth N Balasubramanian :System and Method for Detecting Object in an Adaptive Environment Using a Machine Learning Model: US 18/197,075
5. C Krishna Mohan :System and Method for Performing Adaptive Object Detection in an Autonomous Vehicle System: 202541001505
6. Ch.Sobhan Babu :System and Method for Performing Adaptive Object Detection in an Autonomous Vehicle System: 202541001505
7. Maunendra Sankar Desarkar :A Method and a System for Recommending Jobs for Differently Abled Individuals: 202441066966
8. C Krishna Mohan :System and Method for Generating Weather Transition Data for Autonomous Vehicle Training: 202541000718
9. Antony Franklin :A Method and a System for Dynamic Alert Propagation of Emergency Alert Messages: 202542078184
10. Antony Franklin :Method for Scheduling Data by Network Node Aggregated with Lte and Wi-Fi Protocol Stacks: 201641025740
11. Tamma Bheemarjun Reddy :Method for Scheduling Data by Network Node Aggregated with Lte and Wi-Fi Protocol Stacks: 201641025740
12. Jyothi Vedurada :Method and System for Performing Approximate Nearest Neighbour Search on Billion-Scale Vectors: 202441037405

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Funded Research Projects:

1. Dr. Antony Franklin has received funding of ₹6,28,70,400 from DST–International Cooperation Division for the project titled "Synergy: Taking Openness to the Next Level in 6G Networks" (Project Code: G819).
2. Dr. Panduranga Rao M. V. has received funding of ₹23,77,000 from Bank of India (BOI) for the project titled "Hackathon Series 2025" (Project Code: S376).

3. Dr. Krishna Mohan C. has received funding of ₹10,95,00,000 from the Government of West Bengal – Commercial Taxes Department for the project titled "GST Big Data Analytics Software and IT Support System" (Project Code: S377).
4. Dr. Rameshwar Pratap Yadav has received funding of ₹32,60,647 from ANRF for the project titled "Improving Similarity Search in Practice" (Project Code: G844).
   Dr. Sathya Peri has received funding of ₹8,70,715 from Qualcomm Technologies Inc. for the project titled "Software-Level Concurrent Data Structures for Enhanced Parallelism" (Project Code: S386).
5. Dr. Praveen Aravind Babu Tammana has received funding of ₹75,04,800 from Marvell India Private Limited for the project titled "Analysis and Evaluation of AI Transport Congestion Control in Hardware Offload Implementation" (P.O. No.: N248001222, dated 26.08.2025; Project Code: S388).
6. Dr. Sathya Peri has received a contribution of ₹22,06,849 from the University College of Science, Osmania University towards educational and research needs (Project Code: S390).
7. Dr. Ashish Mishra has received funding of ₹61,47,626 from ANRF for the project titled "Brahma Sutra: A Neuro-Symbolic Synthesis Toolchain for Verified Programs in Complex Domains" (Project Code: G857).
8. Dr. Sathya Peri has received funding of ₹21,10,690 from Marvell India Private Limited for the project titled "Large-Scale Graph Analytics Harnessing Multi-Hardware" (P.O. No.: N248001273, dated 31.10.2025; Project Code: S399).
9. Dr. Krishna Mohan C. has received funding of ₹14,25,00,000 from the Government of Karnataka for the project titled "Karnataka GST Analytics Portal" (Project Code: S403).
10. Dr. Krishna Mohan C. has received funding of ₹10,12,44,000 from RSMET – Government of Rajasthan for the project titled "AI/ML-Based Minerals Prognostication System for Critical Minerals in Rajasthan" (Project Code: S404).
11. Dr. Srijith P. K. has received funding of ₹20,00,000 from Airawat Research Foundation for the project titled "AICOE – Waste Management" (Project Code: G693A).

Awards & Recoginitions:

1. Prof. C. Krishna Mohan (CSE): for receiving a Research Impact Award.
2. Prof. Vineet N. Balasubramanian (CSE): for receiving the National Award to Teachers (NAT-2025).
3. Prof. Vineet N. Balasubramanian (CSE): for receiving a Research Impact Award.
4. Prof. Vineeth N. Balasubramanian (CSE): for receiving the Outstanding Paper Award at the Logical Reasoning of Large Language Models Workshop, ICLR 2026.
5. Dr. Jyothi Vedurada (CSE): for receiving the HPE Dr. APJ Abdul Kalam HPC & AI Award 2026.
6. Prof. Rajesh Kedia (CSE): for receiving the Teaching Excellence Award.

Research Highlights

1. Brief Report on the Department and its Activities

- During the year 2025–26, the Department of Computer Science and Engineering (CSE), IIT Hyderabad, continued to strengthen its academic, research, and innovation ecosystem through advanced research activities, faculty expansion, infrastructure development, industry collaboration, and technical events.
- The department organized several national-level workshops and training programs, including the Research Opportunities in Computer Architecture (ROCA 2025) workshop, sponsored by Intel Corporation, and the AI on ARM Platforms workshop. Advanced training programs, such as the Linux and Systems Security Bootcamp 2026 and the 5G Security Bootcamp, were conducted under ISEA Phase III. The department also hosted major technical events, including INAE CEEE 2026, ACM India Annual Event 2026, and Cryptology Conclave 2026.
- The department expanded its academic strength by adding five new faculty members during the year. It also strengthened its infrastructure through an SLURM-managed HPC cluster, OpenStack-based private cloud, MAAS bare-metal provisioning, advanced NAS/Ceph/Luster storage, high-speed networking, and automated infrastructure management systems. Teaching laboratory facilities were expanded from 142 desktop workstations, with an additional 130 systems being added, taking the total to over 270 workstations.

2. Research Findings / Highlights

- Strengthened research infrastructure through advanced HPC, private cloud, storage, and high-speed networking facilities.
- Supported research across key thrust areas, including Machine Learning and Data Science, Computer Architecture, Networks, Distributed Systems, Cybersecurity, Formal Methods, and Theory.
- As of June 30, 2026, the department recorded 1,134 publications, 90 SRC projects, and approximately ₹227.10 crore in project funding.
- The department had 84 cumulative PhD graduates, reflecting its sustained contribution to advanced research and doctoral education.



Organized ROCA 2025, a national workshop on Research Opportunities in Computer Architecture, sponsored by Intel Corporation.



Conducted the AI on ARM Platforms Workshop, promoting research and hands-on learning in AI and ARM-based computing.



Organized the ANRF PAIR workshop on Artificial Intelligence at IIT Hyderabad during April 2026.



Co-organized the Continual Causal Bridge workshop at the Advances in Artificial Intelligence (AAAI) 2025 Conference.



The CSE team is achieving the historic qualification for the ICPC World Finals 2026.



Linux and Systems Securityy / 5G Security Bootcamp conducted under ISEA Phase III.



Teaching LaboratoryModern teaching laboratory equipped with high-performance desktop workstations.

Participants and speakers at major technical events organized by the Department of CSE.







3. Major Achievements, Awards, Recognitions, Initiatives and Collaborations

- Historic Achievement: CSE team qualified for the ICPC World Finals 2026 for the first time.
- HPE Dr. APJ Abdul Kalam HPC & AI Award 2026: Jyothi Vedurada was selected for this prestigious award.
- National Award to Teachers (NAT-2025): Vineeth N. Balasubramanian received the prestigious award from the Ministry of Education, Government of India.
- Faculty Recognition: Rajesh Kedia received the Teaching Excellence Award, and C. Krishna Mohan and Vineeth N. Balasubramanian were also recognized with Research Impact Awards.
- Faculty Expansion: Five new faculty members joined the department during the year, strengthening expertise in emerging areas of computer science.
- Industry Collaboration: Launched the Professional Certificate Program in AI & Emerging Technologies in collaboration with TalentSprint.
- Technical Training: Conducted Linux and Systems Security and 5G Security Bootcamps under ISEA Phase III.
- Major Events: Hosted INAE CEEE 2026, ACM India Annual Event 2026, and Cryptology Conclave 2026, providing platforms for academic and research interaction.
- Infrastructure Development: Expanded computing and laboratory infrastructure with advanced HPC, cloud, storage, networking, and more than 270 teaching workstations.



Dr Jyothi Vedurada receiving prestigious awards and recognitions for excellence in teaching and research.

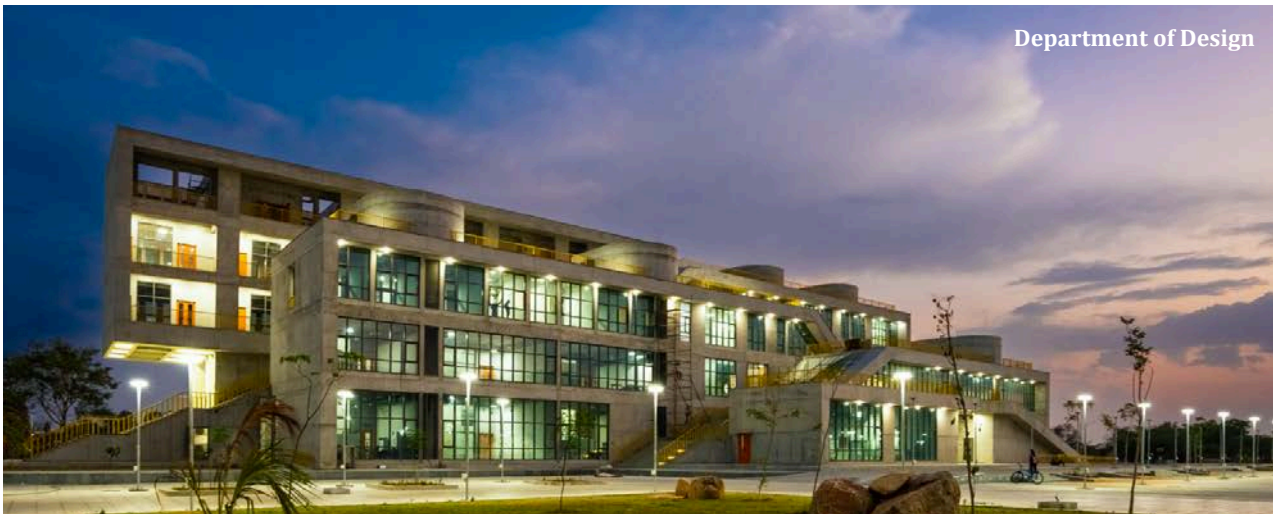
Department of Design

The department offers a comprehensive portfolio of academic programs including the Doctor of Philosophy (Ph.D.), Master of Design (M.Des.) (Ministry of Education and Self-Sponsored tracks) with specializations in Visual Design, Product Design,, Interaction Design and Photography, Film and Animation, along with distinctive options such as M.Des. by Practice and M.Des. by Project. The Bachelor of Design (B.Des.) program provides a strong foundation in creative problem-solving and interdisciplinary learning, while the PG Certificate Program in Visual Design and UX, offered in collaboration with TalentSprint, caters to professionals seeking design upskilling. The Design Minor program further extends opportunities for undergraduate students from other departments of IIT Hyderabad to explore design thinking and innovation.

The department's research areas encompass a wide spectrum of advanced and emerging domains: Architectural Design and Sustainability, Digital Preservation of National Heritage Sites, Artificial Intelligence and Design, Augmented, Virtual, and Mixed Reality, Human- Computer Interaction, Design Education, Drone Design and R&D, Game and Interaction Design, Digital Humanities, System and New Media Design, Typography and Visual Narratives, Design Thinking and Cognitive Studies, Usability Engineering, Accessibility and Inclusivity in Design, and Neurocognitive and Affective Design Research. Faculty and researchers are engaged in pioneering studies on AI-driven creative processes, immersive learning environments for education, cultural and contextual design behavior, heritage documentation using photogrammetry and haptics, and designing for emerging technologies such as IoT, XR, and robotics.

The department also emphasizes digital heritage and craft documentation, ensuring that traditional art forms are preserved and reinterpreted for future generations. The infrastructure of the Department of Design includes some of the finest facilities in the country, such as the Mixed Reality Lab, Rapid Prototyping Lab, XR and Interaction Design Labs, and Photography & Visualization Studios, enabling hands-on experimentation, prototyping, and simulation across disciplines.
The department maintains strong collaborations with ministries, government bodies, and industry partners including the Ministry of Education (MoE), Department of Science and Technology (DST), Ministry of Commerce, Government of Telangana, Suzuki India, and Wacom India.

For more information, please visit: https://design.iith.ac.in/



Faculty

Head of the Department



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Patents:

1. Neelakantan Keshavan : A Modular Architectural Screen System : 202541079957
   Neelakantan Keshavan : A Gear Actuated Flexure Casting System for a Continuous Adjustment in Void Ratio of Materials : 202541079948
2. Neelakantan Keshavan : System for Forming Three-Dimensional Geometric or Free- Form Structures and Method of Assembling the Same : 202541081620
3. Shiva Ji : A Method and a System for Generating an Urban 3-Dimensional (3D) Model of an Area : 202541084200
4. Srikar AVR, Mansur : MODULAR COMPACT URBAN AMBULANCE: 514368-001 (2025-26)

Publications:

1. Agarwal, T., & Roy, A. (2025). Mitigation of Human-Wildlife Conflict Through Innovative Communication Design Solution in Tirumala, Tirupati. Lecture Notes in Mechanical Engineering, 3-13. https://doi.org/10.1007/978-981-96-5499-4_1

2. Das, A., & Das, A.K. (2025). Analysing the Role of Cultural Event Spaces in the Formation of Place Identity in a Second-Tiered Indian City: A Case of Guwahati, Assam. Lecture Notes in Mechanical Engineering, 295-308. https://doi.org/10.1007/978-981-96-7316-2_24
   Deepak John Mathew

3. Mangalagiri, U., Malthurkar, G.K., & Mathew, D.J. (2025). A Comprehensive Assessment of Technology-Enhanced Experiential Learning in Education. Lecture Notes in Mechanical Engineering, 383-394. https://doi.org/10.1007/978-981-96-5507-6_32

4. Mishra, M., & Mathew, D.J. (2025). A Comprehensive Study on User Experience and Cabin Interior Design in Fully Autonomous Passenger Drones. Lecture Notes in Mechanical Engineering, 429-441. https://doi.org/10.1007/978-981-96-5491-8_34

5. Remedios, D.J., Mathew, D.J., & Schleser, M. (2025). Best Practices for Designing Parallel Interactive Narratives in Virtual Reality. Lecture Notes in Mechanical Engineering, 231-241. https://doi.org/10.1007/978-981-96-5503-8_19

6. Chaturmutha, K.M., & Mathew, D.J. (2025). Bio-Wiz Framework for Industrial Design Practices: Bio-Wisdom to Product Innovation. International Journal of Designed Objects, 19(2), 123-144. https://doi.org/10.18848/2325-1379/CGP/v19i02/123-144

7. Remedios, D.J., Mathew, D.J., & Schleser, M. (2025). Designing a Multi-Genre 360Â° Set for Cinematic Virtual Reality. Lecture Notes in Mechanical Engineering, 363-374. https://doi.org/10.1007/978-981-96-5503-8_30

8. Trivedi, K., Mathew, D.J., Marcello, F., & Taylor, M. (2025). Displaying Indigenous Heritage: Analysing Discourse on the Cultural Heritage, Community Involvement, and Indigenous Representation in Museum Exhibition Design. Lecture Notes in Mechanical Engineering, 291-303. https://doi.org/10.1007/978-981-96-5511-3_23

9. Shijith, V.P., & Mathew, D.J. (2025). Emergence of Colour Film Laboratories in Bombay: A Historical Narrative of Technological Dependence, Redesign and Inordinate Delay of Colour Cinema. Historical Journal of Film Radio and Television, 45(1), 78-105. https://doi.org/10.1080/01439685.2024.2396191

10. Trivedi, K., & Mathew, D.J. (2025). Empowering Dhokra Artisans: A Design-Led Intervention Workshop for Enhancing Sustainable Livelihoods in the Ojha Community of Adilabad, Telangana. Lecture Notes in Mechanical Engineering, 111-123. https://doi.org/10.1007/978-981-96-5507-6_10

11. Kar, S.K., Mathew, D.J., & Chaturmutha, K.M. (2025). Expanding Urban Air Mobility: A Proposal for Dual Landing Capabilities on Water Surfaces. Lecture Notes in Mechanical Engineering, 251-261. https://doi.org/10.1007/978-981-96-5487-1_20

12. Chaturmutha, K.M., & Mathew, D.J. (2025). Human-Centred Design Approach: A Comprehensive Review on Enhancing the UAM Aircraft Experience for Indian Passengers. Lecture Notes in Mechanical Engineering, 96, 195-207. https://doi.org/10.1007/978-981-96-6414-6_17

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15. Sen, A., & Mathew, D.J. (2025). Semiotics of Portraiture: Traditional Elements and Modern Influences in Portrait Culture of Western Himalayan Region (WHR). Lecture Notes in Mechanical Engineering, 375-387. https://doi.org/10.1007/978-981-96-6511-2_29

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20. Remedios, D.J., Mathew, D.J., & Schleser, M. (2025). Designing a Multi-Genre 360Â° Set for Cinematic Virtual Reality. Lecture Notes in Mechanical Engineering, 363-374. https://doi.org/10.1007/978-981-96-5503-8_30

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21. Remedios, D.J. (2025). Within These Wallsâ€"An Exquisite Corpse Approach to Animation by Students in Different Locations During the COVID-19 Pandemic. Lecture Notes in Mechanical Engineering, 387-397. https://doi.org/10.1007/978-981-96-5495-6_31

22. Ranjana, R., & Shahid, M. (2025). A Journey: From Rituals to Mithila Painting to Madhubani Painting to School of Art. Lecture Notes in Mechanical Engineering, 309-321. https://doi.org/10.1007/978-981-96-5495-6_25

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35. Swargari, N., & Deori, S.K. (2025). A Comparative Visual Analysis of the Ornamentation Styles of Kachari Monoliths Found in Northeast India. Lecture Notes in Mechanical Engineering, 165-177. https://doi.org/10.1007/978-981-96-6511-2_14

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38. Ji, S., & Kumar, S. (2025). Adaptive Slicing for 3D Printing Based on Load Concentration. Lecture Notes in Mechanical Engineering, 89-97. https://doi.org/10.1007/978-981-97-7150-9_8

39. Chakraborty, S., & Ji, S. (2025). Analyzing spatial technology trends in urban heritage preservation: A bibliometrics study. International Journal of Architectural Computing, 23(2), 548-566. https://doi.org/10.1177/14780771241287348

40. Prathap, N., Sharma, A., Pawar, T., & Ji, S. (2025). Analyzing the Cultural and Ecological Significance of the Traditional Water Canals of Kuttanad. Lecture Notes in Mechanical Engineering, 77-87. https://doi.org/10.1007/978-981-96-5499-4_7

41. Kumar, S., & Ji, S. (2025). Creating Digital Immersive Heritage Experience of Historically Significant Architectural Structure. Lecture Notes in Mechanical Engineering, 5, 139-152. https://doi.org/10.1007/978-981-97-6176-0_13

42. Chakraborty, S., Fukuda, T., & Ji, S. (2025). Evaluation Methods for Assessing the Effectiveness of Heritage Interpretation Designs: A Review. Lecture Notes in Mechanical Engineering, 169-178. https://doi.org/10.1007/978-981-96-5491-8_14

43. Chakraborty, S., Ji, S., & Fukuda, T. (2025). Exploring Architectural Heritage Values Through Bibliometric Visualization: A Comprehensive Review. Lecture Notes in Mechanical Engineering, 295-305. https://doi.org/10.1007/978-981-96-5499-4_24

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45. Sharma, A., Pawar, T., & Ji, S. (2025). Exploring Site-Responsive Characteristics in the Indigenous Architecture of Nyishis of Arunachal Pradesh, India.

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46. Pawar, T., Sharma, A., & Ji, S. (2025). Immersive Storytelling in Cultural Heritage Preservation: The Role of Virtual Reality and Narrative Design. Lecture Notes in Mechanical Engineering, 221-229. https://doi.org/10.1007/978-981-96-7312-4_17

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49. Chakraborty, S., Fukuda, T., & Ji, S. (2025). Integrated framework for sustainable urban development: bridging morphology, sustainability, and design. International Journal of Innovation Science, 17(4), 936-998. https://doi.org/10.1108/IJIS-06-2024-0161

50. Sharma, A., Pawar, T., & Ji, S. (2025). Investigating High Rainfall and Wind Sustenance Features of the Vernacular Habitat of Meghalaya: Insights from the Worldâ€™s Wettest Region. Lecture Notes in Mechanical Engineering, 335-348. https://doi.org/10.1007/978-981-96-7312-4_26

51. Chakraborty, S., Fukuda, T., & Ji, S. (2025). Navigating Challenges and Opportunities in Digital Heritage Preservation: Toward Consolidated 3D Archives. Lecture Notes in Mechanical Engineering, 307-317. https://doi.org/10.1007/978-981-96-5499-4_25

52. Shiva Ji, S., & Kumar, S. (2025). Optimized Workflow for Photogrammetry-Based High Poly Mesh Simplification for 3D Printing. Lecture Notes in Mechanical Engineering, 131-139. https://doi.org/10.1007/978-981-96-7312-4_10

53. Choudhury, P.R., Sharma, A., & Ji, S. (2025). Reconstructing Bhumija Temple Architecture: A modular generative computational model based on the SamarÄá[1]…gaá[1] ‡ a SÅ«tradhÄra. Proceedings of the International Conference on Computer Aided Architectural Design Research in Asia, 4, 315-324. https://doi.org/10.52842/conf.caadria.2025.4.315

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55. Sinha, N.R., Ji, S., Sinha, T., V., R. S., & Venkatesh, A. (2025). Strategies for Heritage Interpretation and Community Involvement for a Sustainable Tourist Centre at Pochampally, Telangana. Lecture Notes in Mechanical Engineering, 127-142. https://doi.org/10.1007/978-981-96-5491-8_11

56. Sinha, N.R., Ji, S., & Sinha, T. (2025). Systems Thinking for Design Interventions and Management of Built Living Heritage: A Methodological Case Study of Sitaram Bagh Temple Complex, Hyderabad. Lecture Notes in Mechanical Engineering, 383-392. https://doi.org/10.1007/978-981-96-5511-3_30

57. Srivastav, S., & Desiraju, S. (2025). Fashion Education and Self Sexualization: A Case Study of NIFT Panchkula Students. Sexuality and Culture, 29(1), 232-247. https://doi.org/10.1007/s12119-024-10280-6

Funded Research Projects:

1. Dr. Prasad S. Onkar has received funding of ₹43,77,449 from DRDO for the project titled “Dynamic Range Estimation and Simulation of Tides with Immersive Visualization (DRSTI)” (Project Code: G854).
2. Dr. Shiva Ji has received funding of ₹2,61,80,000 from the Hyderabad Metropolitan Development Authority (HMDA) for the project titled “GIS Base Map and Geospatial 3D Digital Twin of Telangana Core Urban Region” (Project Code: S395).
3. Dr. Deepak John Mathew has received funding of ₹2,50,000 from the Ministry of Youth Affairs and Sports for the project titled “Design for Bharat” (Project Code: G871).
4. Dr. Deepak John Mathew has received funding of ₹10,00,00,000 from the Ministry of Human Resource Development (MHRD) for the project titled “National Initiative for Design Innovation” (Project Code: 215).
5. Dr. Sonali Srivastav has received funding of ₹11,00,000 from the Indian Council of Social Science Research (ICSSR) for the project titled “Preserving Perini Natyam: A Study of Cultural Heritage, Performance and Politics of Identity” (Project Code: G885).

Awards and Recognitions

1. Prof. Deepak John Mathew, Professor in the Department of Design, IIT Hyderabad, Received the Lifetime Achievement Award in the field of Design Research by Design Research Council of India.
2. Shiva Ji – Awarded the JST LOTUS Fellowship by the Japan Science and Technology Agency (JST) and visited Keio University, Tokyo, Japan in June 2025.
3. Shiva Ji – Won First Prize in the Solo Singing Competition held as part of Hindi Pakhwada 2025 at IIT Hyderabad.
4. Delwyn Jude Remedios – “Chimti,” an IIT Hyderabad student 2D animation film under his guidance, received an Official Selection at Animela 2025.
5. Delwyn Jude Remedios – “Daak,” an IIT Hyderabad student 2D animation film under his guidance, received an Official Selection for the MIFA Pitch at Animela 2025 and was selected to represent Indian animation projects at Annecy 2025.
6. Ankita Roy – Mini-track paper selected for AMCIS 2025, Montreal, Canada.
   Film “Loud and Unheard”, directed by Atul Antony under the guidance of Dr. Sonali Srivastava, was screened at the Waterfront International Film Festival, Mumbai, on October 6, 2025.
7. Aditya Patankar, second year MDes Product Design student won India's Best Design Student 2025 by BEST DESIGN AWARDS 2025, DESIGN INDIA
8. Prof.Srikar, IITH received fellowship award 2026, International grant to travel and research at multiple locations in South East Asia as ongoing research on Indian architectural heritage in South East Asia along the lower Mekong basin region (2024,2025 & 2026).
9. Prof.Srikar, received an advisory award during the "The Smart Office's Blind Spot: Diagnosing Employee Experience Before Designing It." at the 32nd Smart office India summit, Hyderabad.
10. Prof.Srikar, has been nominated as CII Design Delegate to South Korea and Germany (2025,2026) and is also appointed as an advisory committee member at CII.
11. Prof.Srikar has been nominated as a Jury Member for CII Design Excellence Awards (2025-2026)
12. Prof. Srikar, LightspeakAI has been selected for GDC, IIT Madras Mentorship Award (2025-26)
13. The paper titled “Translation of Traditional Khovar Wall Art of Jharkhand, India, for a Contemporary Context,” co-authored by Pramod Priya Ranjan and Dr. Saurav Khuttiya Deori, received Distinguished Paper recognition at I-4AM 2026, held on 8–9 January 2026 at IISc Bengaluru.

Department Major Activities in FY - 2025-26



ServDes'25 marks the first-ever edition of the Service Design and Innovation Conference in India, hosted at the Indian Institute of Technology (IIT) Hyderabad from 6th – 8th Oct, 2025.



The **Centre of Design Excellence** (CoDE), IIT Hyderabad, inaugurated the CoDE Studio, a cutting-edge design facility equipped with state-of-the-art infrastructure and advanced equipment, on January 3, 2026.





5th All India Design Innovation Meet cum Exhibition





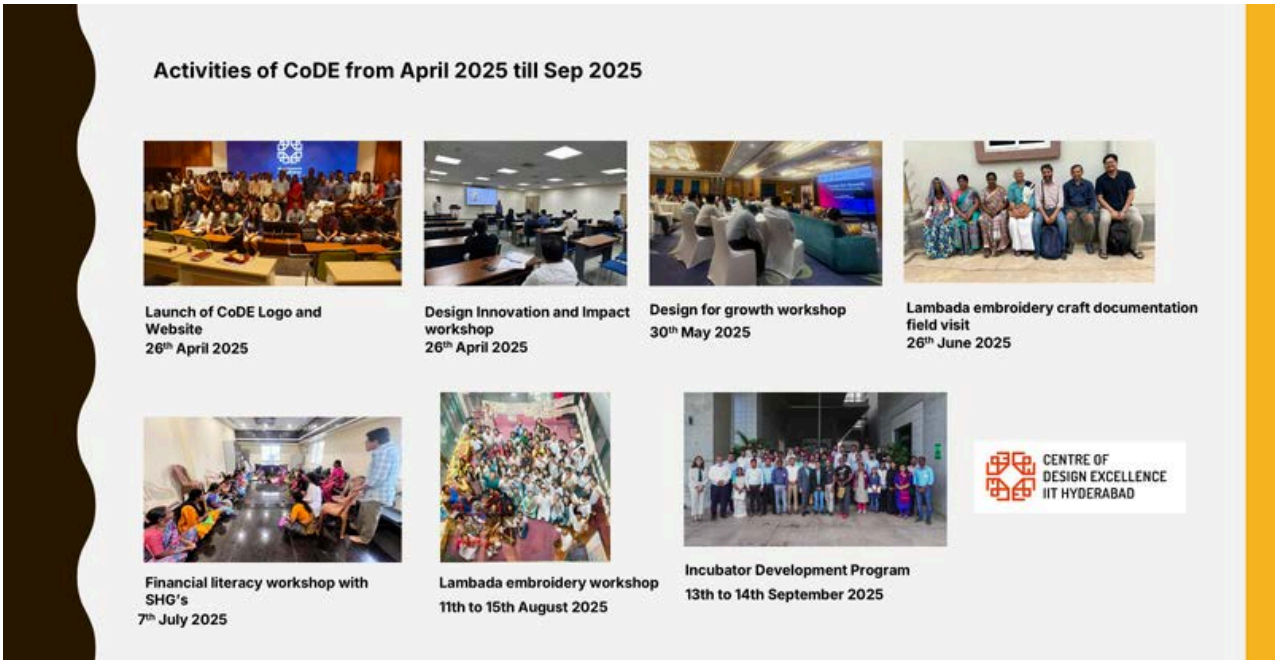
Department of Design students contributed to the Design of The N-Gen Post Office at @IITHyderabad, marking a significant step towards modern, digital, and citizen-centric postal services on campus



Dr. Shiva Ji's book inaugurated by Minister of Science & Technology, Dr Jitendra Singh Ji on National Science Day 2026 at Indian National Science Academy, New Delhi. Co-authored with Aman in Digital Heritage Lab, IIT Hyderabad, funded by DST, Govt of India.



DoD IITH - MIT WPU Immersion Programme





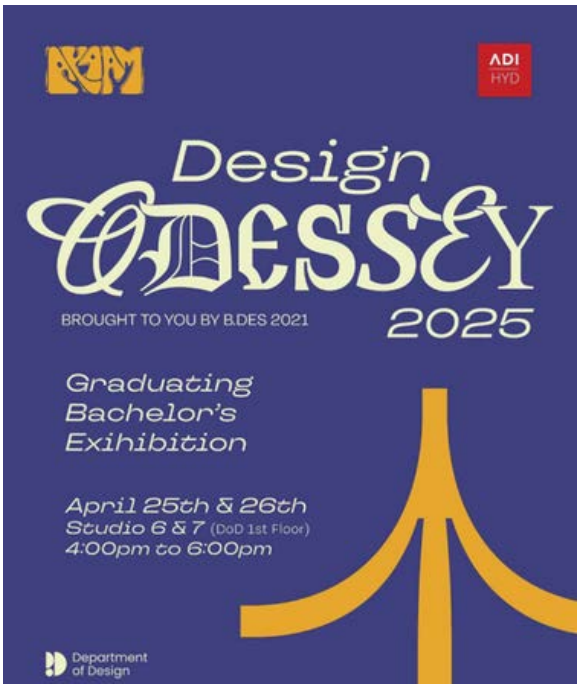
Design Innovation and Impact workshop for MSME's



Design for Growth - Empowering MSMEs through Innovation



Craft Documentation Workshop - Lambada Embroidery



Design Odessey 2025 – Bachelor's Exhibition



Financial Literacy Workshop for SHG's





A two-day awareness workshop co-hosted by the Institution's Innovation Council (IIC), iTIC Incubator and CoDE - 13th & 14th Sep 2025



The third edition of Ayaam, the annual design fest of IIT Hyderabad, a student-led initiative took place on April 25- 26th, 2025.



Prof. Srikar received an advisory award at 32nd Smart office India Summit



Prof.Srikar, DSSI Studios, has launched India's first program on EXD research. Organised first cohort of "Driving Organisational effectiveness through employee experience" attended by leadership teams from leading organisations representing various sectors -BFSI, Pharma, Technology, Retail, Real Estate, CSR, A&D, Worktech etc.

Department of Electrical Engineering

Welcome to the Department of Electrical Engineering. This report presents a comprehensive overview of the department's achievements, activities, and significant developments during the academic year 2025–2026. Our commitment to excellence in electrical engineering education, research, and innovation remains unwavering, and we are pleased to highlight the key accomplishments and milestones of the department over the past year.

The Department of Electrical Engineering has been a cornerstone of engineering education since its establishment, offering undergraduate and postgraduate programs with specializations in Microelectronics and VLSI, Power Electronics and Power Systems, Systems and Control, Communications, Signal Processing, and Learning. Through a dynamic and collaborative academic environment, the department promotes interdisciplinary learning, cutting-edge research, and innovation while nurturing the next generation of skilled engineers, researchers, and technology leaders.

During the academic year 2025–2026, the Department of Electrical Engineering has a total strength of 673 students on roll, comprising B.Tech., M.Tech., and Ph.D. students. The department is supported by 38 dedicated faculty members, with strong academic backgrounds and expertise across diverse areas of electrical engineering, along with 16 support staff members who play an essential role in ensuring the smooth functioning of academic and administrative activities.

The department is committed to fostering innovation, critical thinking, academic excellence, and collaboration, providing students with a supportive and enriching environment for their overall growth and development. During the academic year 2025–2026, the Department of Electrical Engineering secured substantial research funding and support from various government, public-sector, and private funding agencies. These financial resources have significantly strengthened the department's research capabilities, supported the development of advanced technologies and research infrastructure, and promoted academic excellence and innovation. The funding has also facilitated high-impact research activities, provided valuable opportunities for students and researchers, and contributed to enhancing the department's academic, technological, and societal impact in the field of electrical engineering.

For more information, please visit: https://ee.iith.ac.in/



Department of Electrical Engineering

Faculty

Head of the Department



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Associate Professor



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Patents:

Filed:

1. Sushmee Badhulika : A Piezoelectric Hydrogel and the Method of Preparation Thereof : 202541032497
2. Sushmee Badhulika : Synthesis of Pdms-B-Pmma/Pedot:Pss-Based Shape Memory Polymer :
3. 202541037637
   Amit Acharyya : Random Forest Regressor-Based
4. Accurate Fatigue Crack Localization Using Two Sensors : 202541041744
5. Amit Acharyya : Feedforward Neural Network-Based Noise Signal Segregation from Acoustic Emission
6. Signals : 202541042359
   Shiv Govind Singh : Surface-Engineered Low-
7. Temperature, Low-Pressure Nb–Nb Thermocompression Bonding for 3D Integration of Superconducting Interconnects in Scalable Quantum
8. Computing Systems : 202541042835

9. Shubhadeep Bhattacharjee : Method and Apparatus for a Device Exhibiting Sustained Electronic Properties Post Electrical and Mechanical Stresses : 202541044931
10. Amit Acharyya : A Method of Predicting Vehicular Speed Implemented on a Vehicle : 202541045975
11. Amit Acharyya : A Method and a System for Extracting a Gate-Level Netlist from a Gdsii File : 202541049764
12. Shubhadeep Bhattacharjee : A True Random Bitstream Generator and a Method of Generating a True Random Bitstream : 202541052796
13. Oves Mohamed Hussein Badami : A True Random Bitstream Generator and a Method of Generating a True Random Bitstream : 202541052796
14. Amit Acharyya : A Method for 360° Video Stitching Using Single-Shot Homography for Object Detection and Real-Time Tracking : 202541053699
15. Pachamuthu Rajalakshmi : System and Method for Orchestrating Hybrid Artificial Intelligence Driven Resource Allocation for Vehicular Communication Network : 202541054439
16. Pachamuthu Rajalakshmi : System and Method for Dynamically Scheduling Hybrid Sidelink for Vehicular Communications : 202541055772
17. Abhishek Kumar : A Self-Calibrating 1-Bit Phase Shifter for Reflected Array Antennas : 202541059718
18. Kiran Kumar Kuchi : Method and Apparatus for 6G Transmitter : 202541063379
19. Kiran Kumar Kuchi : Sixth Generation (6G) Open Radio Access Network (Oran) Receiver System for Otfdm Waveform : 202541063380
20. Kiran Kumar Kuchi : Fronthaul Split Architecture and Method Thereof : 202541063387
21. Kiran Kumar Kuchi : Equalizer for Orthogonal Time Frequency Division Multiplexing (Otfdm) : 202541063507
22. Kiran Kumar Kuchi : Receiver Method and Apparatus for Orthogonal Time Frequency Division Multiplexing (Otfdm) : 202541063515
23. Amit Acharyya : Machine Learning Methodology for Predicting Toggle Rates in Application Specific Integrated Circuit : 202541078951
24. Pachamuthu Rajalakshmi : Adaptive Frequency Hopping Interval-Based Anti-Jamming System for Robust Wireless Communication : 202541080086
25. Pachamuthu Rajalakshmi : Adaptive Frequency-Hopping Spread Spectrum Module for Interference-Resilient Wireless Communication : 202541082082
26. Amit Acharyya : A Skyrmion-Based Logic Operating Circuit : 202541084119
27. Pechetti Sasi Vinay : A Method of Secure Integrated Sensing and Communication Using Multiple Input Multiple Output (Mimo) Radar System : 202541084489
28. Pachamuthu Rajalakshmi : System and Method for Detecting and Classifying Road Anomalies in Real Time : 202541089617
29. Pachamuthu Rajalakshmi : System and Method for Planning a Trajectory for an Autonomous Ground Vehicle : 202541092386
30. Rupesh Ganpatrao Wandhare : A Dc-Dc Converter with Isolated Partial Power Regulated Dc Charger : 202541092873
31. Pachamuthu Rajalakshmi : A Method and a System for Generating Secure Time-Varying Frequency Hopping Sequences : 202541092953
32. Sushmee Badhulika : Hybrid Porous Aerogel and the Method of Preparation Thereof : 202541108225
33. Sushmee Badhulika : $Cecoo_3$- Integrated Hybrid Hydrogels for Room-Temperature Strain-Resistant Ammonia Detection : 202541111521
34. Sushmee Badhulika : $Cecoo_3$- Integrated Hybrid Hydrogels for Room-Temperature Strain-Resistant Ammonia Detection : 202541111521
35. KIRAN KUMAR KUCHI : Method and System for Scheduling a Pool of Resources to a Plurality of User Equipments : US 19/396,426
36. Sushmee Badhulika : Calcium Bio-Mof Hydrogel Tattoo Sensor for Long-Term Epidermal Monitoring : 202541115550
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38. Pachamuthu Rajalakshmi : System and Method for an Anti-Jamming Autonomous Navigation for an Unmanned Aerial Vehicle (Uav) : 202541121627
39. Pachamuthu Rajalakshmi : System and Method for Multisensory Fusion-Based Navigation for Unmanned Aerial Vehicles (Uavs) : 202541121810
40. Abhinav Kumar : Channel-Aware Adaptive Numerology Technique for Wireless Communication : 202541127474
41. Amit Acharyya : a Method for Extracting a Block Random Access Memory (Bram) Slice and Identifying Content of the Bram Slice : 202541127585
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47. Amit Acharyya : A System and Method for Reinforcement Learning–Based Dynamic Frequency Scaling in a Field-Programmable Gate Array Based Platform : 202541133729
48. Amit Acharyya : A Hardware Implemented Matrix Inversion System and Method Thereof : 202541133728
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50. Pradeep Kumar Yemula : A Fault Protection System for a Dual Battery Electric Vehicle : 202541134197
51. Pradeep Kumar Yemula : Fault-Responsive Isolation and Failover Operation in a Dual-Battery Electric Vehicle : 202541134719
52. Amit Acharyya : System and Method for Real-Time Prediction of Corrosion-Fatigue Crack Growth Rate in Metallic Structures : 202541134662
53. Anjana A M : A Method and a System for Determining an Optimal Kernel Size in a Convolutional Neural Network (Cnn) Model : 202541134506
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57. Kiran Kumar Kuchi : Ultra-Low-Snr Dft-S-Ofdm Systems with Post-Quantum Interleaving and Jamming Robustness : 202641028342
58. Kiran Kumar Kuchi : Ultra-Low-Snr Ofdm Systems with Walsh Spreading, Pqc-Driven Interleaving, and Jamming Robustness : 202641028424
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Rupesh Wandhare : A Configurable Electric Vehicle (Ev) Charging Apparatus and a Method of Charging : 202641030879

Granted:

1. Amit Acharyya : A Method for Extracting a Look-Up Table and Determining a Boolean Function: 202441078653
2. Kiran Kumar Kuchi :Method and System for Classifying Speed of a User Equipment: 201841028421
   Mohammed Zafar Ali Khan :A Method of Hybrid Encoding for Next Generation Networks: 202441076061
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10. Sushmee Badhulika :A Process for Synthesizing a Fe-Porphyrin/Vanadium Porphyrin Mof Composite with a 2D Sheet Structure: 202441081268
11. Sushmee Badhulika :A Method for Producing a Bismuth Tungstate Polymer Composite Mold: 202341017456
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20. Amit Acharyya :Wavelet Packet Decomposition Empowered Convolutional Neural Network (Cnn) for Fatigue and Corrosion Acoustic Emission Signal Classification: 202441033882
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    Shiv Govind Singh :Fabrication of Pcb Sunstrate Based Low Cost Multichannel Device for Bio Sensing: 202141053633
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28. Amit Acharyya :Optimized Transformer Encoder Architecture for Edge Computing Applications: 202441075188
29. Amit Acharyya :A Method of Generation of Register Transfer Level (Rtl) Design from Gate Level Netlist: 202441090125
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31. Sushmee Badhulika :Single-Step Hydrothermal Synthesis of Ternary Ag2Bas4 Nanostructures: 202541014160
32. Sushmee Badhulika :Synthesis of Pdms-B-Pmma/Pedot:Pss-Based Shape Memory Polymer: 202541037637
33. Shishir Kumar :A Device and Method for Integrating 2D Nanoporous Membranes in Microfluidic Circuits: 202341090061
34. Amit Acharyya :A Method and a System for Extracting a Gate-Level Netlist from a Gdsii File: 202541049764
35. Amit Acharyya :Random Forest Regressor-Based Accurate Fatigue Crack Localization Using Two Sensors: 202541041744
36. Sushmee Badhulika :V-Tcpp-Cu Metal Organic Framework and the Method of Preparation Thereof: 202441076277
37. Shubhadeep Bhattacharjee :A True Random Bitstream Generator and a Method of Generating a True Random Bitstream: 202541052796
38. Oves Mohamed Hussein Badami :A True Random Bitstream Generator and a Method of Generating a True Random Bitstream: 202541052796
39. Kiran Kumar Kuchi :Methods for Signaling Channel State Information Feedback Between User Equipment and Base Station: 202241023541
40. Amit Acharyya : A Reinforcement Based Learning Method for Maintaining a Temperature of a Central Processing Unit: 202441080746
41. Amit Acharyya :Feedforward Neural Network-Based Noise Signal Segregation from Acoustic Emission Signals: 202541042359
42. Pachamuthu Rajalakshmi :System and Method for Dynamically Scheduling Hybrid Sidelink for Vehicular Communications: 202541055772
43. Shiv Govind Singh :A Device for Neuromodulation and Neuromonitoring: 202441036426
44. Mohammed Zafar Ali Khan :A Method and System for Precoding Signals in a Massive Multiple-Input Multiple-Output (Mimo) Communication Systems : 202541023452
45. Kiran Kumar Kuchi :Method and System for Scheduling a Pool of Resources to a Plurality of User Equipment'S: US 17/264,067
46. Amit Acharyya :Hardware-Aware Width and Depth Shrinking with Convolutional and Fully Connected Layer Merging: 202441081768
47. Kiran Kumar Kuchi :Methods for Improving Coverage of a Cellular Network and Systems Thereof: 202041034036
48. Pachamuthu Rajalakshmi :Adaptive Frequency Hopping Interval-Based Anti-Jamming System for Robust Wireless Communication: 202541080086
49. Pradeep Kumar Yemula :Enhanced Powertrain Architecture for Electric Vehicle Applications Considering the Add-On Battery: 202541022357
    Student Inventor :A Novel Zuc-Prn Generator Using a Fully Connected Neural Network: 202441018657
50. Amit Acharyya :A Skyrmion-Based Tsetlin Machine Inference System: 202441086334

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223. Butukuri, K.R., H., P. G., Yemula, P.K., Sridhar, G., & Reddy, T.K. (2025). Remaining Useful Life Prediction of Boiler Feed Pump Motor: A Statistical and Condition Monitoring Approach for Industry 5.0. International Conference on Power Systems Icps, (2025). https://doi.org/10.1109/ICPS67276.2025.11364651

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Funded Research Projects:

1. Dr. Sushmee Badhulika has received funding of ₹47,30,000 from Applied Materials India Private Limited for the project titled "Design and Development of Halogen Sensor for Semiconductor Application" (Project Code: S368).

2. Dr. Rajalakshmi P. has received funding of ₹3,50,00,000 from Telecom Centres of Excellence India for the project titled "Dynamic Computational Offloading Using 6G Network" (Project Code: G808).

3. Dr. Jose Titus has received funding of ₹71,40,759 from ANRF for the project titled "Rare Earth Magnet-Free Axial Flux Synchronous, Radial Flux Switched Reluctance Motor and Their Controllers for EV Applications" (Project Code: G823).

4. Dr. Jose Titus has received funding of ₹7,62,500 from HBL Engineering Limited for the project titled "Development of CSI-Fed Drive Technology for EV Applications" (P.O. No.: 4400041164, dated 07.05.2026; Project Code: G823A).

5. Dr. Vajha Myna has received funding of ₹36,50,020 from ANRF for the project titled "Design and Analysis of Codes for Distributed Storage and Streaming Applications" (Project Code: G827).

6. Dr. Aneesh S. has received funding of ₹70,72,320 from ANRF for the project titled "An Efficient All-Optical Dot-Product Engine for Photonic Accelerators Using Cascaded Intensity Modulation" (Project Code: G829).

7. Dr. Sundaram Vanka has received funding of ₹46,10,496 from DRDO-RCI for the project titled "OTFS-Based Communication System for High-Speed Platforms" (Project Code: G847).

8. Dr. Sushmee Badhulika has received funding of ₹49,73,653 from DRDO-DYSL-SM for the project titled "Development of a Hydrophobic Hybrid Sensor Patch for Real-Time Physiological Activity Monitoring and Safety of Divers with Wireless Communication Capability" (Project Code: G851).

9. Dr. Siva Rama Krishna Vanjari has received funding of ₹60,78,688 from ANRF for the project titled "Electroactive Dressing: An Orthogonal Approach for Prevention of Biofilm Formation on Chronic Wounds" (Project Code: G855).

10. Dr. Ashudeb Dutta has received funding of ₹5,90,000 from MediaTek Bangalore Private Limited for the project titled "Master of Technology (M.Tech) Thesis Project Internship in MediaTek Bangalore Pvt. Ltd." (Project Code: S397).

11. Dr. Kapil Jainwal has received funding of ₹52,22,500 from ISRO India for the project titled "Direct Time-of-Flight Sensor-Based System-on-Chip LiDAR" (Project Code: G861).

12. Dr. Amit Acharyya has received funding of ₹49,99,896 from TIH Foundation–IIT Bombay for the project titled "AI-Enabled IoT-Based Affordable Fingertip Device for Multiparameter Monitoring of Non-Communicable Diseases and Sleep Apnea in the Indian Healthcare Setting" (Project Code: S407).

13. Dr. Kiran Kumar Kuchi has received funding of ₹4,01,26,000 from MeitY for the project titled "Deployment of Indigenous 5G gNB Solution for FWA Connectivity in India" (Project Code: G875).

Dr. Siva Kumar K. has received funding of ₹82,87,200 from ANRF for the project titled "Integrated Converter Design for Stator and Rotor of EESM for EV Applications" (Project Code: G878).
Dr. Rupesh Ganpatrao Wandhare has received funding of ₹38,94,000 from DNP Japan (Dai Nippon Printing Co., Ltd.) for the project titled "Power Converter for Wireless Power Transfer" (Project Code: S414).

Awards and Recognitions

1. Prof Kiran Kuchi, is elected as Fellow of Indian National Academy of Engineering (FNAE)

2. The convocation address of Sri Ashiwini Vaishnaw ji highlighted the achievement of highest tape outs by IIT Hyderabad in C2S program of MEITY

3. Prof. Shiv Govind Singh received prestigious Google Faculty Research Award

4. Prof. Sushmee Badhulika received Clarivate India Research Excellence – Citation Awards 2025, in Individual Researchers category (Women in Research)

5. Prof. Sushmee Badhulika received VASVIK Industrial Research Award 2025

6. Prof. Rajalakshmi received several honours and served in key roles during the year:
   - Received the FTCCI Excellence in Science and Technology (Individual) Award 2025 from the Federation of Telangana Chambers of Commerce and Industry (FTCCI) on 1 July 2025.
   - Received the Best Paper Award at the 9th International Conference on Robotics and Automation Sciences (ICRAS) 2025 for the paper titled "Optimized Real-Time Path Planning and Obstacle Avoidance for Dynamic Objects Using a Velocity-Based Approach."
   - Honoured with the Faculty Research Excellence Award 2025 at IIT Hyderabad during the Institute's Foundation Day celebrations in March 2025.
   - Received the IEEE Best Author Award in the Women Category at the IEEE Authors Workshop 2025, held at IIT Hyderabad.
   - Panel member for the discussion on "Strengthening the Deeptech Manufacturing Ecosystem in India", held during the 55th Foundation Day of the Department of Science and Technology (DST) on 2 May 2025 in New Delhi.
   - Served as Local Organizing Committee Co-Chair for IEEE APSCON 2025, held at IIT Hyderabad.



Department Highlights

- Hosting of NCC 2026: The Department of Electrical Engineering, IIT Hyderabad, has been selected to host the 32nd National Conference on Communications (NCC 2026), one of India's premier conferences in the areas of communications, signal processing, and networking. Organized by the Joint Telematics Group (JTG of IITs and IISc), the conference will bring together leading researchers, industry experts, and policymakers from across the country, further strengthening the Department's visibility and leadership in cutting-edge communications research.

- The National Conference on Communications (NCC) is the flagship conference of India in the area of Communications, Signal Processing and Networks. It has been organized every year, starting from the year 1995, by the Joint Telematics Group (JTG) of the Indian Institutes of Technology (IIT) and the Indian Institute of Science. More information on the previous editions of NCC can be found at http://www.ncc.org.in/. The 32nd National Conference on Communications (NCC-2026) was jointly organized by IIT Hyderabad, IIT Bhilai, IIIT Hyderabad, and IIIT Naya Raipur from February 26 to March 1, 2026. NCC-2026 was an in-person event at IIT Hyderabad.







- **ICPS 2025:** Organized the 11th Edition of the International Conference on Power Systems (ICPS) 2025, themed "Leveraging Smart Technologies for Clean, Resilient, and Secure Power Systems", jointly organized by Indian Institute of Technology (IIT) Hyderabad and Grid-India during December 7–9, 2025, at IIT Hyderabad, India. Role: General Chair.





Department of Entrepreneurship and Management

The Department of Entrepreneurship and Management at IIT Hyderabad is one amongst few departments in the country to offer academic programs in the domain of Entrepreneurship and Management. The second batch of MTech Techno-Entrepreneurship program with 17 students is intended to convocate in 2025. Apart from the MTech Techno-Entrepreneurship program, the department also offers a Minor in Entrepreneurship, Double Major in Entrepreneurship for Undergraduate students & PhD program. The department also takes active interest in offering several workshops and certificate programs to students and entrepreneurs in the space of entrepreneurship and management individually as well as in collaboration with internal and external stakeholders.

For more information, please visit: https://em.iith.ac.in/

Faculty

Head of the Department



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Patents:

Filed

1. Rajesh Ittamalla : A Real-Time, Ai-Driven System for Capturing, Evaluating, and Implementing Manufacturing Process Improvements : 202541054038
2. Ranapratap Maradana : A Method and a System for Generating a Saftey Alert Based Upon a Plurality of Detections : 202541080868

Granted

1. Rajesh Ittamalla : A Real-Time, Ai-Driven System for Capturing, Evaluating, and Implementing Manufacturing Process Improvements: 202541054038

Publications:

1. Wasi, K., Hasan, Z., Parameswar, N., Patnaik, J., & Ganesh, M.P. (2025). Analyzing factors influencing competitiveness of Indian tech start-ups: modified total interpretive structural model (m-TISM) approach. International Journal of Productivity and Performance Management, 74(4), 1201-1240. https://doi.org/10.1108/IJPPM-01-2024-0032

2. Patnaik, J., Hashir, A., Parameswar, N., Kongari, D.R., & Anand, A. (2025). Bhaumya Innovations: from start-up to scale-up. Emerald Emerging Markets Case Studies, 15(3), 1-11. https://doi.org/10.1108/EEMCS-04-2025-0193

3. Zagade, A., & Patnaik, J. (2025). Exploring Barriers to Digital Inclusion in Indian Agriculture: Designing a Platform for Farmer Empowerment. 2025 IEEE International Conference on Technology Management Operations and Decisions Ictmod 2025. https://doi.org/10.1109/ICTMOD66732.2025.11371803

4. Mudapaka, V.R.P., Nahire, A.P., Singh, A.K., & Patnaik, J. (2025). Harnessing Generative AI as a Knowledge Companion in the Venture Creation Process: An Exploratory Study. Proceedings of the European Conference on Innovation and Entrepreneurship Ecie, 20(1), 498-505. https://doi.org/10.34190/ecie.20.1.3653

5. Bhattacharjee, D., & Patnaik, J. (2025). Leveraging data-driven design for consumer-centric robust product development. Geometrical Enhancements Based on Data Driven Design Decisions, 56-67. https://doi.org/10.1201/9781003621102-3

6. Singhal, V., Maiyar, L.M., & Roy, I. (2025). Environmental sustainability consideration with just-in-time practices in industry 4.0 era â€“ A state of the art. Operations Management Research, 18(2), 437-460. https://doi.org/10.1007/s12063-024-00478-0

7. Kumar, P., Maiyar, L.M., & Mogale, D.G. (2025). Resilient supplier selection with supplier fortification in the presence of multiple manufacturers using mixed recovery profile. IEEE International Conference on Industrial Engineering and Engineering Management, 455-459. https://doi.org/10.1109/IEEM63636.2025.11357682

9. Nath, S., & Parameswar, N. (2025). The Sustainability of Livelihoods during Crisis-Mapping Evidence, Gaps, and Future Directions. Journal of Sustainability, 1(1). https://doi.org/10.55845/jos-2025-1126

10. Pradhan, R.P., S.M.R.K., S., B.A.C.H., W., & Maradana, R.P. (2025). Clear or confusing? How financial report readability and tone are associated with dividend payouts in Indian corporations. Quarterly Review of Economics and Finance, 104. https://doi.org/10.1016/j.qref.2025.102057

11. Pradhan, R.P., S.M.R.K., S., Maradana, R.P., & Sahoo, P. (2025). Climate change disclosure and firm value in a frontier market: Exploring the determinants. Natural Resources Forum, 49(2), 1931-1964. https://doi.org/10.1111/1477-8947.12462

Funded Research Projects:

1. Lohithaksha Maniraj Maiyar; Exploring the Impact of the Jal Jeevan Mission on the Wellbeing of Rural Women in Telangana: A Socio-Economic and Health Study; 9.00 L. [09/2024-25/JJMGEN/RP/ICSSR].

2. Nakul Parameswar; Sustainable Dairy Farming and Value Chain Development through Primary Dairy Cooperatives: Livelihood Diversification Strategies for Small and Marginal Dairy Farmers in Rural Uttar Pradesh, Bihar, and Madhya Pradesh; 75.00 L. [Project is Coordinated from Institute of Rural Management Anand (Dr Nakul Parameswar is the Co-PI)].

3. Rajesh Ittamalla; Creating Agritourism Experiences: Customers' Perspectives, Service Providers' Perspectives, and Entrepreneurial Perspective; 12.90 L. [G561]

4. Ranapratap Maradana; Venture Capital Funding and University Startups Connection: Catalysts' Role for Innovation; 14.20 L. [SG/IITH/F314/2023-24/SG-173].

Awards & Recognitions:

1. Mr. Rishab Prasad Soni, Doctoral Scholar, received the Excellence in Innovative Research Award at the International Conference on Frontiers of Sustainability Global Responsibility for Innovation and Entrepreneurship FOS 2026 GRIE, hosted by Thigarajar School of Management, Madurai, India.

Research Highlights

During the 2025-26 period, the department's research output focused heavily on sustainable operations, digital transformation, entrepreneurial strategies, and financial economics. In supply chain and operations management, faculty developed advanced optimization frameworks for -omnichannel fresh food distribution during disruptions, resilient supplier selection under fortification strategies, and data-driven product development. The strategic entrepreneurship and public policy domain explored generative AI as a knowledge companion in venture creation, hybrid decision logics for sustainable ventures like Sunbird Straws, scaling strategies for startups like Bhaumya Innovations, and public food procurement's impact on food security and crisis livelihood sustainability. Additionally, work in agricultural tech and financial markets highlighted frameworks to overcome digital inclusion barriers for Indian farmers, analyzed corporate financial report readability's effect on dividend payouts, and evaluated public policy implications surrounding BigTech antitrust hearings.

Major Activities in the Department:

The Department undertook many activities during the year to promote and nurture entrepreneurial mindset and innovative thinking among the students of IIT Hyderabad. A few notable programmes undertaken during the year are:

Tongali Program 2026

From 23rd–27th February 2026, the Department of Entrepreneurship and Management, IIT Hyderabad, hosted student startup teams from Japan as part of the Tongali Project, marking the fourth consecutive year of collaboration between the department and the Tongali Project team. During the visit, student startup founders engaged in a series of activities focused on entrepreneurship, collaboration, and knowledge exchange. The program included interactions with key stakeholders at IIT Hyderabad such as iTIC, faculty members from different departments, and the Suzuki Innovation Centre (SIC).

Students from the MTech Techno-Entrepreneurship (2025–2027) batch were assigned to work closely with the visiting startup teams. Over the course of five days, students collaborated with the student startup founders to explore ideas, discuss business models, and refine startup concepts through active teamwork and cross-cultural exchange. The program concluded with a pitch presentation session on 27th February, where the teams presented their startup ideas to a panel of experts. The experience provided students with valuable exposure to international startup ecosystems, collaborative innovation, and real-world entrepreneurial problem solving. The interaction offered a unique learning opportunity, allowing students to gain insights into global entrepreneurship while building meaningful connections with student startup founders from Japan.





Innovation Day 2026 and the National Inter-IIT undergraduate innovation meet

The Department of Entrepreneurship and Management, IIT Hyderabad is proud to have played a central role in the successful conduct of Innovation Day 2026, and the national inter-IIT undergraduate innovation meet, RISE@IITs, held at the IIT Hyderabad Convention Centre. Our faculty and scholars were deeply involved in the academic and organizational success of the event:

Dr. Rajesh Ittamalla, Dr. Jayshree Patnaik, and Dr. Lohithaksha M Maiyar served as jury members and participated in the rigorous process of scrutinizing innovation applications. Dr. Nakul Parameswar participated as a featured panel speaker, contributing to the dialogue on entrepreneurial growth. Ms. Mantry Priyathee, Research Scholar, represented the department and the institute excellently as the compere for the event. The department was well-represented in the exhibition area by our students, showcasing the practical application of their research and innovations:

• Mr.Soham Bhar: Presenting "VISN: Visually Impaired Smart Navigator An Integrated Assistive Technology Solution for Enhanced Mobility and Information Access".

• Mr.Vivek Yadav: Presenting "Building Reusable Liquid Rocket Engine".



Deep Tech Entrepreneur Spirits Program in collaboration with Kyoto University

Celebrating the successful conclusion of the Deep Tech Entrepreneur Spirits Program in collaboration with Kyoto University on 12th September 2025, hosted by the Department of Entrepreneurship and Management, IIT Hyderabad. Over the course of this immersive program, Japanese students from Kyoto University worked closely with our M.Tech 2nd-year Techno-Entrepreneurship students to understand and systematically break down pressing Sustainable development challenges faced globally— from urbanization stress to resource management. The program culminated in impactful presentations by four dynamic teams, each proposing innovative and sustainable solutions to complex problems like clean water and sanitation, rapid urbanization, e-waste management & clean energy. Our 2nd year students of M.Tech Techno Entrepreneurship program at department of Entrepreneurship and Management, IIT Hyderabad played a pivotal role in mentoring and guiding their Japanese peers, helping them contextualize the challenges, frame perspectives, and co-develop creative solution pathways.





Workshop on "Fundamentals of Lean Startup Approach"

The Department of Entrepreneurship and Management on 25th July 2025 organized a workshop on " Fundamentals of Lean Startup Approach" . The workshop was coordinated by Dr. Jayshree Patnaik, Dr. Lohithaksha M Maiyar, Dr. Nakul Parameswar. The workshop was attended by more than 80 participants across different institutions of the country. Throughout the workshop, the core pillars of the Lean Startup Methodology: Lean Thinking, Lean Startup Principles, Lean Business Model, and Lean Organizational Structure were covered. Each session was a sprint, from ideas to validation, from assumptions to insight.





Workshop on Agritourism: "Celebrate Farming through Agritourism: Invite, Engage, and Grow"

As part of an ICSSR-funded project, Dr. Rajesh Ittamalla conducted a workshop on agritourism titled "Celebrate Farming Through Agritourism: Invite, Engage, and Grow" on May 4, 2025. The workshop focused on the potential of agritourism to promote farming, rural development, and entrepreneurship. Around 18 farmers from Sangareddy district participated in the workshop. The sessions highlighted ways to engage visitors through meaningful farming and rural experiences. The programme encouraged farmers to explore agritourism as a viable entrepreneurial opportunity.





Workshop on "Ideation to Scaleup: Navigating Operational Challenges"

On 5th April 2025, the Department of Entrepreneurship and Management, IIT Hyderabad successfully wrapped up an insightful 1-day workshop on "Ideation to Scaleup: Navigating Operational Challenges" aimed at exploring the pathways and practical hurdles faced by startups as they grow and scale. The workshop was coordinated by Dr. Lohithaksha M Maiyar, Dr. Nakul Paramewar and Dr. Jayshree Patnaik, and brought together over 100 enthusiastic participants from various institutions across Telangana and Andhra Pradesh.

The day was filled with engaging activities and interactive sessions that delved deep into the journey of transitioning from a startup to a scaleup. Participants explored real-world cases—both successful and failed ventures—through experiential learning. The discussions highlighted how combining scientific planning with entrepreneurial intuition can lead to the creation of sustainable business models ready for scale.





Entrepreneurship Talk Series

1	Mr. Shiju Joseph	Senior Engineer, CISCO
2	Ms Srinidhi Reddy Kongari	Strategy & Leadership, MATH T-Hub
3	Mr Manuj Khullar	Associate Director of Product, Money View
4	Mr Hussain S f	Vice-President, JP Morgan Chase
5	Mr Bhanu Teja Chidura	Founder & CEO of LogiXair.
6	Mr Hari Kiran Chireddi	Founder of HRV Pharma
7	Mr Praveen	Founder of AIPTEK IT Solutions LLP
8	Mr Narasimha Vadde	Founder & CEO, Bilvantis Technologies | Director, ValueText
9	Prof. Amlan Bhusan	Founder, Superbolter
10	Mr. Arvind Prakash Singh	Founder, Superbolter
11	Ms. Vasanta Chigurupati	Founder and Director, The One Shop
12	Prof. Vittal Prabhu	Professor at Penn State Univeristy, USA
13	Mr. Yuvateja Thotamalla	Global Executive Manager, Gravity Medical Technology
14	Mr. Ramakanth P	MD & CEO, eSoft Consulting Ltd
15	Mr. Krishna Koundinya	IRS Officer, Joint Commissioner in Hyderabad CGST & Customs
16	Mr. Sanjay Radhakrishnan	Ex-COO, CSO in Tata Group and ICICI

Department of Liberal Arts

The Department of Liberal Arts at IIT Hyderabad currently has 21 full time faculty, 4 Adjunct faculty of distinct repute, and 12 distinguished professors. The department currently has 101 M.A. and Ph.D. students, 4 staff members and one attendant.

We are a fast growing and extremely diverse group of academics and scholars, where faculty and students strive through their research and practice to contribute to social, cultural, economic, and political development of the nation and the world. In Liberal Arts we engage with a significant amount of phenomenological and theoretical work as well as hands on learning and field-based research such that there is a strong continuum between academia, society, industry, healthcare, policies, and media, to name a few. The department received its own building space in August 2024 and is now fully functional with eleven labs, seminar rooms, classrooms, conference rooms, and a state-of-the-art experimental theater.

As a department we boast of Economists dealing with National Agricultural Market and Electronics; Economic Growth of India's Urban Poor in post-Covid Times; Gender, Education, and use of AI and other disruptive technologies on society and economy. We also house psychologists, anthropologists, gender studies experts, and litterateurs who together work on Mental and Physical health including Disability, Gender, Reproductive Health, Disease and Pathology, Body Image, Geriatric Healthcare, Cancer Care, Chronic Disease Management, Personality Psychology, Health Behavior Change, Caste and Feminism, Gendered Violence, and also Issues of Climate Change, Global Warming and Environmental Crises. We, likewise, have Development Studies and Cognitive Science experts who variously work on Migration and Labor Policies, Mathematical and Formal Foundations of Language, Biolinguistics, Issues of Cognition, Brain, Learning, and Memory Consolidation; to name a few. We also have substantial work going on in the areas of Media and Popular Culture and literary studies along with cutting edge discourses in Digital Humanities. Our department has also recently begun its Public Humanities initiative which is a unique forum for academic exchange and practice in India. Finally, we are also immensely happy to foster both practice and training in creative and performing arts. In January 2026, the Centre for Creative Arts was launched in the department, boasting many distinguished artists of international repute as distinguished faculty. The department runs two very popular Minor programs for undergraduate students, in Creative Arts and Economics.

Our students have also won several awards and have been actively publishing and presenting their work on various national and international platforms of repute. Many of our alumni are now faculty members at other IITs, IIMs, and universities of repute.

In sum, at Liberal Arts we therefore work with both traditional and upcoming discourses in the Humanities, the Social Sciences, and the Fine and Performing Arts. We deeply aspire to connect humanity and culture to science and technology in holistic and profound ways, forge interdisciplinary ties that encourage cutting-edge scholarship, and cultivate a deeper understanding of humanity at large.

For more information, please visit: https://la.iith.ac.in/



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51. Chatterjee, S., & Chigurupati, S. (2025). Global Literatures and Cultures of Modernity: Critical Perspectives from India. Global Literatures and Cultures of Modernity Critical Perspectives from India, 1-271. https://doi.org/10.4324/9781032635507

52. Chatterjee, S., & Vincent, V. (2025). Hyper(in)visibility and the Crisis of Missing Black Girls in Mondayâ€™s Not Coming and When You Look Like Us. Journal of Black Studies, 56(8), 737-760. https://doi.org/10.1177/00219347251369044

53. Chatterjee, S. (2025). Introduction. Global Literatures and Cultures of Modernity Critical Perspectives from India, 1-10. https://doi.org/10.4324/9781032635507-1

54. Chatterjee, S., & Anand, A.V. (2025). Redeeming Cloistered Womanhood: Spiritual Modernity in Mary Gordonâ€™s Pearl and There Your Heart Lies. Global Literatures and Cultures of Modernity Critical Perspectives from India, 238-251. https://doi.org/10.4324/9781032635507-25

Funded Research Projects:

1. Dr. Amrita Deb has received funding of ₹16,00,000 from the Indian Council of Social Science Research (ICSSR) for the project titled “Resilience and Mental Illness: Exploring Multisystemic Resilience among Adults Using Participatory Action Research (PAR)” (Project Code: G812).
2. Dr. Haripriya Narasimhan has received funding of ₹20,00,000 from the Indian Council of Social Science Research (ICSSR) for the project titled “Fading Memories and Caring Families: Caregiving for Dementia Patients in India” (Project Code: G873).
3. Dr. Srirupa Chatterjee has received funding of ₹18,00,000 from the Indian Council of Social Science Research (ICSSR) for the project titled “Ecotheology

Awards & Recognitions:

1. Aalok Khandekar: EditorialBoard Member. Energy Humanities [2025]
2. Aalok Khandekar: Editorial Board Member. East Asian Science,Technology, and Society:An International
3. Journal, Taylor & Francis [2025]
   Aardra Surendran: Editorialboard member. Gender Place and Culture
4. Aardra Surendran: AssociateEditor. Journal of South Asian Development
5. Amrita Datta: Elizabeth Adiseshiah Award 2025 (Constituted by the Malcolm and Elizabeth Adiseshiah Trust, the Elizabeth Adiseshiah Award is presented to a young scholar below the age of 45 for outstanding
6. contributions to Development Studies [2025]
   Amrita Datta: VisitingFellow, Institute for Human Development, New Delhi
7. Amrita Datta: AssociateResearcher, Centre de Sciences Humaines(CSH), New Delhi
8. Anindita Majumdar: Editor in chief, Medical Anthropology Quarterly. Wiley, Societyfor Medical Anthropology, American Anthropological Association [2025-2028]
9. Anindita Majumdar: EditorialBoard Member, MedicineAnthropology Theory. University of Edinburgh [2025-28]
10. Anindita Majumdar: Adjunct faculty, Departmentof Climate Change. IIT Hyderabad[2025]
11. Badri Narayan Rath: Faculty ResearchExcellence Award 2025. Received the Faculty ResearchExcellence Award from IIT Hyderabad [2025]
12. Badri Narayan Rath: Associate Editor. Journal of the Asia Pacific Economy - Taylor & Francis [2025]
13. Badri Narayan Rath: Associate Editor.Journal of Social and EconomicDevelopment, Springer Nature [2025]
14. Badri Narayan Rath: Editorial Advisory Board Member. Science, Technology and Society, Sage [2025]
15. Badri Narayan Rath: Editorial Board Member. EmergingMarkets Finance and Trade, Taylor & Francis [2025]
16. Badri Narayan Rath: Editorial Board Member. Innovation and Green Development, Elsevier [2025]
17. Badri Narayan Rath: Guest Editor. Energy Research Letters, APAEA [2025]
18. Dinabandhu Sethi: Rising temperature hurting labour productivity. The Hindu Businessline (August, 2026)
19. Dinabandhu Sethi: India's flexible inflation targeting regime has helped deliver price stability: Sharpen it now. Mint (October, 2025)
20. Dinabandhu Sethi: My student, Alekha Meher, jointly authored a paper with me had received the Best Paper Award at the conference “Digitalization for Inclusive Finance and Sustainability.”. Organised by National Institute of Bank Management Pune and College of Agricultural Banking (CAB), Reserve Bank of India (March 2026)
21. Gaurav Dhamija: Young Scholars' Workshop on "Contemporary Issues of Economic Development. Best paper presentation award to Shreemoyee Saha for paper titled "The Double-Edged Sword: Unveiling the Impact of Women's Financial Inclusion on Intimate Partner Violence in India" presented at the conference in IFMR KREA University during 14-16 June, 2025 [14-16 June, 2025.]
22. Gaurav Dhamija: Best Paper Award to Sunny Ladkat for the paper entitled “A Lopsided Bargain: Women's Employment and the Persistent Gender Gap in Unpaid Work in India” at the 3rd Doctoral Colloquium organised by the Madras Institute of Development Studies (MIDS), Chennai, held from 6th to 8th October 2025 [6th to 8th October 2025]
23. Gaurav Dhamija: Fellow. Policy Edge [2025-12-01]

24. M.P.Ganesh: Task force member, HR Area, CII Telangana (2026-2027)
25. M.P.Ganesh: Amity Univeristy, Hyderabad
    Prakash Mondal: EditorialBoard Member, BMC Psychology [2026]
26. Rashmi Singh: Marin, A., Davies,J., Flintan, F., Kerven, C., & Singh, R. (2026).Editorial: The role of pastoral livestock and products in climate change: A complicated issue. Pastoralism: Research, Policy and Practice, 16, 16611. https://doi.org/10.3389/past.2026.1661
27. Rashmi Singh: Pastoralism: Research, Policy and Practice, Frontiers
    Rashmi Singh: GlobalCo-Chair, Biodiversity Workinggroup- UN declaredInternational Year for Rangelands and Pastoralism(2026)
28. Rashmi Singh: Co-Chair,South Asia SupportGroup, UN declaredInternational Year for Rangelands and Pastoralism (2026)
29. Rashmi Singh: Awarded to participate in Japan, Australia & India Trilateral Collaboration Week: The Kyoto Roundtable FY2025, Kyoto University, Kyoto, Japan (November 25-28)
30. Rashmi Singh: Member of Society for Conservation Biology
31. Rashmi Singh: Member of Association of Himalayan and Nepal Studies
32. Shuhita Bhattacharjee: Co-Editor, Journal of VictorianCulture (Oxford University Press)
33. Shuhita Bhattacharjee: EditorialBoard Member, CambridgeElements Series, 'Literature and Religion since 1500' (Cambridge University Press)
34. Shuhita Bhattacharjee: Caucus Faculty Expert, Religion and Spiritualities Caucus, North American Victorian Studies Association
35. Shuhita Bhattacharjee: Faculty Expert,Canada India Research Centre for Learning and Engagement (CIRCLE); University of Guelph, Canada
36. Shuhita Bhattacharjee: Meghamala Ghosh received the 'creative and scholarly project' grant under the collaborative scheme offered by the India Foundation for the Arts (IFA) and the Dr Ashok Da Ranade Archives, Pune
37. Srirupa Chatterjee: Critical Studies in Fashion & Beauty. IntellectPublishers

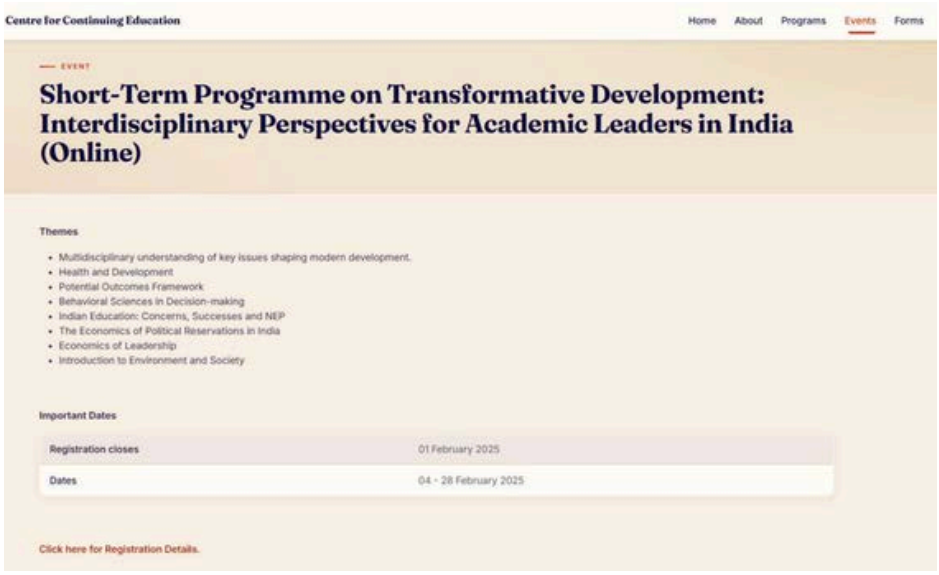
Research Highlights:

1. **Four-Week Masterclass in Impact Evaluation**

- Faculty Name: Gaurav Dhamija
- Category: Workshop Organisation
- Title: A Four-Week Masterclass in Impact Evaluation
- Description / Details: Co-organised with Prof. Mahati Chittem
- Date / Period: June 09 to July 04, 2025
- Collaboration / Organization:Co-organised with Prof. MahatiChittem



2. **Transformative Development: Interdisciplinary Perspectives for Academic Leaders in India (Online)**



- Faculty Name: Gaurav Dhamija
- Category: Organized TrainingProgram
- Title: Transformative Development: Interdisciplinary Perspectives for Academic Leaders in India (Online)
- Description/ Details: Short-Term Online Programme - Transformative Development: Interdisciplinary Perspectives for Academic Leaders in India (Online) as a part of UGC - Malaviya Mission Teacher Training Programme; coordinated by the Teaching Learning Centre / MMTTP
- Date / Period: 05.02.2025 to 28.02.2025

Department of Materials Science & Metallurgical Engineering

The Department of Materials Science and Metallurgical Engineering (MSME) at IIT Hyderabad continued to strengthen its teaching and research ecosystem during the financial year April 2025 to March 2026. Materials Science is an interdisciplinary branch of engineering that deals with the discovery and design of materials for nanotechnology, manufacturing, semiconductor, biomedical, and energy applications. The branch's core involves building materials via various synthesis and processing routes, followed by experimentally and computationally characterizing materials' innate crystal structure and unique properties, and ultimately maximizing their performance, efficiency, and sustainability in real-world applications. Modern metallurgists explore innovative processing routes to transform minerals into metals and work in an interdisciplinary team alongside materials scientists to design metals for extraction in batteries, light-weight manufacturing, and for space as well as extreme environments.

At MSME, we believe in engineering materials from their building blocks (atoms) to practical, real-world applications. The core of our research is built on a materials paradigm connecting process, structure, and property with the material performance in cutting-edge technologies.
We offer an interdisciplinary academic program designed to groom the next generation of engineers at the forefront of materials design and development.

For more information, please visit: https://msme.iith.ac.in/



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Adjunct Professor



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Tata Narasinga Rao
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Distinguished Faculty



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Dr. Omkaram Nalamasu
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Prof. Sanjay Mathur
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https://en.wikipedia.org/wiki/Sanjay_Mathur

Patents:

Filed

1. Ashok Kamaraj : Pelleting Composition, Iron Ore Pellet and Method(S) Thereof : 202531132035
2. Shourya Dutta Gupta : A System and a Method of Analyzing the Metal Nanoparticle in a Droplet Microfluidic Device : 202541033408
3. Chandrasekhar Murapaka : A Skyrmion-Based Logic Operating Circuit : 202541084119
4. Mudrika Khandelwal : A Method for Patterning Biopolymer and a Patterned Biopolymer Obtained Thereof : 202541094117
5. Ashok Kamaraj : Sustainable Method for Delamination of Printed Circuit Board to Recover Valuable Materials : 202541099416
6. Mudrika Khandelwal : Bacterial Cellulose- Based Slippery Liquid-Infused
7. Porous Surfaces and Preparation Method Thereof : 202541106818
8. Chandrasekhar Murapaka : A Thin Film Negative Differential Resistance Device : 202541127649
9. Mudrika Khandelwal : A Method for Fabricating a Heteroatom Multi-Doped Carbon Nanofibres Composite Based-Electrode : 202641026433
10. Ashok Kamaraj : A Method for Preparing a Sustainable Multifunctional Synthetic Slag and the Multifunctional Synthetic Slag Thereof : 202641033830
11. Atul Suresh Deshpande : Bacterial Cellulose- Based Slippery Liquid-Infused
12. Porous Surfaces and Preparation Method Thereof : 202541106818
13. Ranjith Ramadurai : Method and Apparatus for Quantitatively Reconstructing Polarization
14. Orientation in a Ferroelectric Material : 202541117214
    Bharat B. Panigrahi : A Method for Synthesising a Porous Ti3C2Tx-Nise Composite : 202641027980
15. Tata N. Rao : Nitrogen-Sulfur Co-Doped Resorcinol-Formaldehyde Xerogel Based Carbon Cathode for High-Performance Batteries and a Method of Preparation Thereof : 202541127013

Granted:

1. Shourya Dutta Gupta :Dynamic Cavity-Coupled Plasmonic Sensor for Surface-Enhanced Raman Spectroscopy (Sers): 202441084437
2. Shourya Dutta Gupta :Stimuli Responsive Electrospun Polydimethylsiloxane (Epdms) Membrane and Method of Preparation Thereof: 202441085120
3. Chandrasekhar Murapaka :Method and System to Operate Tsetlin Machines Using Skyrmions: 202441071705
4. Suhash Ranjan Dey :High Entropy Alloy and Quinary Alloy Nanowires: 202043041990
5. Shourya Dutta Gupta :A One-Pot Synthesis for Preparing Silver Nanowires (Agnws): 202441081395
6. Shourya Dutta Gupta :A Method of Preparation of Cadmium Sulphide Colloidal Nanoparticles: 202441085854
7. Shourya Dutta Gupta :A Method of Preparing Bipyramid Nano-Gold Particles: 202441085015
8. Sai Rama Krishna Malladi :A Method of Preparing Bipyramid Nano-Gold Particles: 202441085015
9. Chandrasekhar Murapaka :System and Method for a Skyrmionic Logical Adder for Electronic Circuit: 202441031123
10. Mudrika Khandelwal :Bacterial Cellulose Based Microfluidic Poc Device for Ast: 202241030646
11. Chandrasekhar Murapaka :Reconfigurable Logic Via Gate Controlled Skyrmion Motion: 202141057701
12. Chandrasekhar Murapaka :A Skyrmion-Based Tsetlin Machine Inference System: 202441086334

Publications:

1. Mishra, S.P., Kamaraj, A., Rajinikanth, V., & Rahul, M.R. (2025). A computer vision-based approach for identification of non-metallic inclusions in the steel industry products. Journal of Industrial Information Integration, 46. https://doi.org/10.1016/j.jii.2025.100860

2. Kumar, R., Sahoo, K., M., K. S., R., M. R., & Kamaraj, A. (2025). Development of cost-effective scrap-tolerant bulk-scale high entropy alloys. Journal of Alloys and Metallurgical Systems, 10. https://doi.org/10.1016/j.jalmes.2025.100190

3. Dash, A., Bansal, G.K., Soni, S., Kurapati, G.K., & Kamaraj, A. (2025). Interplay Between Inclusion Evolution, Tensile Properties, and Volumetric Energy Density During Additive Manufacturing of 316L Stainless Steel. Metallurgical and Materials Transactions B Process Metallurgy and Materials Processing Science, 56(6), 6198-6211. https://doi.org/10.1007/s11663-025-03772-9

4. Dashora, T., Rayapudi, V., Bais, P., Ramaswamy, K., Jena, M., Ravendran, R., Kamaraj, A., & Kaushal, A. (2025). Selective extraction of manganese content from process slag generated from lithium-ion battery black mass. Metallurgical Research and Technology, 122(4). https://doi.org/10.1051/metal/2025038

5. Majhi, E., & Deshpande, A.S. (2025). Pore-Engineered Ultrahigh Surface Area Okra-Derived Activated Carbon for Concurrently High-Power-Density and High-Energy-Density Supercapacitor. Batteries and Supercaps, 8(11). https://doi.org/10.1002/batt.202500160

6. Desetti, S., Nagini, M., Babu, D.A., Palguna, Y., Rajesh, K., & Murty, B.S. (2025). A Novel Precipitation-Hardened Medium-Entropy Alloy with Excellent Tensile Properties. Metallurgical and Materials Transactions A Physical Metallurgy and Materials Science, 56(2), 415-423. https://doi.org/10.1007/s11661-024-07650-y

7. Talluri, G., Maurya, R.S., & Murty, B.S. (2025). Composition design of eutectic high-entropy alloys: a review. Journal of Materials Science, 60(3), 1156-1186. https://doi.org/10.1007/s10853-024-10251-0

8. Talluri, G., Naveen, L., Shantanu, G., Babu, D.A., Maurya, R.S., & Murty, B.S. (2025). Deviations from eutectic-forming element criteria in the Al-Co-Cr-Fe-Ni system. Materials Letters, 384. https://doi.org/10.1016/j.matlet.2025.138126

9. Raman, L., Karthick, G., S.V.S., N. M., Fabijanic, D., Murty, B.S., & Kottada, R.S. (2025). Early dynamic recrystallization and flow localization in an ultrafine-grained CrMoNbTiW refractory high entropy alloy. Materials Science and Engineering A, 948. https://doi.org/10.1016/j.msea.2025.149346

10. Mishra, S.R., Rout, U., Trivedi, V., Battabyal, M., Davidson, K.P., Babu, D.A., Navaneethan, M., Mallik, R.C., Ramanujan, R.V., & Murty, B.S. (2025). Effect of Processing Route and Antimony Content on the Thermoelectric Properties of Nb2FeCoSnSb Double Half-Heusler Alloy. Journal of Materials Engineering and Performance, 34(24), 30390-30407. https://doi.org/10.1007/s11665-025-11474-1

11. Mishra, S.R., P.S., S. R. K., Davidson, K.P., Ramanujan, R.V., & Murty, B.S. (2025). Entropy Engineering in the Off-Stoichiometric Ti2NiCoSn0.5Sb1.5 Double Half-

Heusler Alloy. ACS Applied Energy Materials, 8(6), 3715-3731. https://doi.org/10.1021/acsaem.4c03382

12. Raman, L., Anupam, A., Karthick, G., Berndt, C.C., Ang, A.S.M., S.V.S., N. M., Fabijanic, D., Murty, B.S., & Kottada, R.S. (2025). High temperature deformation behavior and microstructural evolution of an ultrafine-grained and multiphase CrMoNbTiW refractory high entropy alloy. Acta Materialia, 289. https://doi.org/10.1016/j.actamat.2025.120841

13. Diraviam, A.B., J., A. C., Murty, B.S., Majumdar, B., & Muthuvel, M.R. (2025). Magnetic Properties of Rapidly Solidified (Fe1â˜xNix)88Zr7B4Cu1 Alloys. Journal of Superconductivity and Novel Magnetism, 38(1). https://doi.org/10.1007/s10948-024-06878-4

14. Nagini, M., & Murty, B.S. (2025). Mechanical Alloying: An Advanced Processing Route for Development of Iron-Based Oxide-Dispersion-Strengthened Alloys. Advanced Engineering Materials, 27(6). https://doi.org/10.1002/adem.202401111

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Physics, 58(46). https://doi.org/10.1088/1361-6463/ae148c

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Research Highlights

1. Design and development of high-entropy alloys (HEAs), complex concentrated alloys (CCAs), intermetallics, creep-resistant steels, advanced Ti-alloys, Ni-based superalloys, and superalloy welds for defence, aerospace, automotive, energy, and naval applications.
2. Development of advanced structural materials through additive manufacturing processes, including laser powder bed fusion (LPBF) and electron beam powder bed fusion (EBPBF).
3. Development of advanced functional materials and devices, including multiferroics, functionalized 2D materials, spintronic materials/devices, printed and flexible electronics, sensors, thermoelectrics, plasmonic nanostructures, electrocatalysts, and sustainable bioinspired and biomedical materials
4. Interdiffusion studies in multicomponent alloy systems and development of diffusion/mobility models for complex alloys.
5. In-situ electron microscopy, advanced characterization techniques, and high-temperature mechanical behaviour studies, including creep, fatigue, and thermomechanical testing.
6. ICME- and AI-enabled materials modelling, including GPU-accelerated phase-field simulations, first-principles/atomistic defect modelling, MLIPs for multicomponent alloys, and PINN/PINO-based inverse diffusion modelling.
7. Sustainable energy and environmental materials research, including carbon capture, clean-coal technologies, OER/HER electrocatalysis, thermoelectrics for waste-heat management, and catalytic materials.
8. Energy-storage materials for supercapacitors, Li-ion and Li–S batteries.
9. Non-ferrous extractive metallurgy, Li-ion battery recycling, hydrometallurgical extraction, and sustainable recovery of critical metals and rare-earth elements from secondary resources.Biomimetics and biomaterials for therapy, diagnostics

Awards & Recognitions

1. **Prof Pinaki Prasad Bhattacharjee :** Received the Fellowship of the Indian Institute of Metals (FIIM), 2025 ; Included in the career-wise and year-wise list of top 2% scientists in the list compiled by Stanford University.
2. **Dr Mayur Vaidya :** ASM-IIM Visiting Lectureship award-2026 ; Top 2% Scientist – Stanford List - 2025; Editorial Board member - Scientific Reports Journal (Nature publications) 2025; and DAAD Research Ambassador - 2025-2028
3. **Dr Chandrasekhar Murapaka** has been elevated to IEEE Senior Member in May 2025

Department of Mathematics

The Department of Mathematics of the Indian Institute of Technology Hyderabad has been in existence since the inception of the institute. The department shares the common vision of the institute in striving for excellence, and aims at becoming a center for applicable, theoretical, and interdisciplinary research.

Department Vision: To foster eclecticism and excellence in mathematical education and research, which is well poised between abstraction and application.

Long-term goal: To evolve into an internationally acclaimed centre for theoretical, interdisciplinary, and applicable mathematical research, supporting and complementing expertise extant in and around Hyderabad.

The Department of Mathematics, IIT Hyderabad, is equipped with modern infrastructure to support academic, research, and administrative activities. The department is housed in the AD3 Building, with facilities distributed across multiple floors. The department provides state-of-the-art infrastructure for teaching, research, collaboration, and administration, ensuring an environment conducive to academic excellence and innovation.

For more information, please visit: https://math.iith.ac.in/



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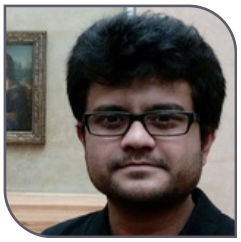
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Publications:

1. Dinku, T., Kumsa, B., Rana, J., & Srinivasan, A. (2025). Fractional-order models of tumor and oncolytic virus interaction incorporating the Beddingtonâ€“DeAngelis functional response: Sensitivity and cost-effectiveness analysis. Results in Physics, 79. https://doi.org/10.1016/j.rinp.2025.108516

2. Dinku, T., Kumsa, B., Rana, J., & Srinivasan, A. (2025). Stability analysis and optimal control of tumour-immune interaction problem using fractional order derivative. Mathematics and Computers in Simulation, 233, 187-207. https://doi.org/10.1016/j.matcom.2024.12.028

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5. Nanavati, K., & Jayaram, B. (2025). On Pseudo-homogeneity of Fuzzy Implications. Lecture Notes in Networks and Systems, 1175 LNNS, 323-331. https://doi.org/10.1007/978-3-031-74000-8_27

6. Nanavati, K., Gupta, M., & Jayaram, B. (2025). On the Existence of Non-trivial Monometrics on Betweenness Relations: Some Sufficient Conditions. Lecture Notes in Computer Science, 15883 LNCS, 15-25. https://doi.org/10.1007/978-3-031-97225-6_2

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11. Sen, A., & Sastry, C.S. (2025). Learned Over-Parametrized Gradient Descent Method for Non-Negative Least Squares Problem. International Conference on Sampling Theory and Applications Sampta. https://doi.org/10.1109/SampTA64769.2025.11133521

12. Sen, A., Pradhan, P., Randhi, R., & Sastry, C.S. (2025). Learned ReLU-Based Soft Thresholding: A Data-Driven Method for Non-Negative Sparse Signal Recovery. ICASSP IEEE International Conference on Acoustics Speech and Signal Processing Proceedings. https://doi.org/10.1109/ICASSP49660.2025.10887620

13. Daniel, S., & Ghosh, A. (2025). A note on commutativity of the exponential spectrum in the operator algebra B(â„“pâŠ•â„“q). Acta Mathematica Hungarica, 177(2), 280-296.https://doi.org/10.1007/s10474-025-01571x

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15. Nayak, S., Patra, D.S., & Shah, H.M. (2025). Characterizations of *-Ricci-Bourguignon solitons and contact Ricci-Bourguignon almost solitons. Quaestiones Mathematicae, 48(9), 1395-1416. https://doi.org/10.2989/16073606.2025.2505516

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22. Ramesh, G., Sangeetha, M.V., & Sequeira, S.S. (2025). REPRESENTATION OF COMPACT OPERATORS BETWEEN BANACH SPACES. Journal of Operator Theory, 94(1), 3-21. https://doi.org/10.7900/jot.2023aug07.2469

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24. Dinku, T., Kumsa, B., & Rana, J. (2025). A mathematical approach to cancer growth: The role of smoking through fractional order models with Mittag-Leffler kernels. Alexandria Engineering Journal, 124, 46-65. https://doi.org/10.1016/j.aej.2025.03.013

25. Dinku, T., Kumsa, B., Rana, J., & Srinivasan, A. (2025). Fractional-order models of tumor and oncolytic virus interaction incorporating the Beddingtonâ€"DeAngelis functional response: Sensitivity and cost-effectiveness analysis. Results in Physics, 79. https://doi.org/10.1016/j.rinp.2025.108516

26. Mahata, K., Das, D.R., Patne, R., & Rana, J. (2025). Shear-enhanced dispersion in Kolmogorov flow. Physics of Fluids, 37(4). https://doi.org/10.1063/5.0264433

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29. Beelen, P., Datta, M., Gorla, E., LÃ³pez, H.H., & Rosenthal, J. (2025). Foreword Special issue JAA on the occasion of Sudhir Ghorpadeâ€™s 60th birthday. Journal of Algebra and Its Applications, 24(13-14). https://doi.org/10.1142/S021949882503001X

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P A Lakshmi Narayana

33. Preethi, S., Kamboj, A., Patne, R., Narayana, P.A.L., & Sahu, K.C. (2025). A new instability driven by the combined effect of wind stress and rotation in a sheared liquid layer. Journal of Fluid Mechanics, 1025. https://doi.org/10.1017/jfm.2025.10976

34. Kamboj, A., Patne, R., Narayana, P.A.L., & Sahu, K.C. (2025). Exacerbation of viscoelastic instability due to viscous heating. Chemical Engineering Science, 316. https://doi.org/10.1016/j.ces.2025.121989

35. Tripathi, V.K., Ragoju, R., & Narayana, P.A.L. (2025). Stability analysis of thermal convection in a bidispersive porous media: The effect of depth dependent viscosity and permeability. Physica D Nonlinear Phenomena, 483. https://doi.org/10.1016/j.physd.2025.134999

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37. Mahato, I., & M., R. K. (2025). Minimizers for the energy of eccentricity matrices of trees. Linear and Multilinear Algebra, 73(1), 49-66. https://doi.org/10.1080/03081087.2024.2314207

38. Mandal, A., Adhikari, B., & Kannan, M.R. (2025). On the Eigenvalue Region of Permutative Doubly Stochastic Matrices. Bulletin of the Iranian Mathematical Society, 51(1). https://doi.org/10.1007/s41980-024-00925-5

39. Rao, T.V., & Naqvi, S. (2025). An algorithm to construct coherent systems using signatures. Journal of Applied Probability, 62(1), 347-366. https://doi.org/10.1017/jpr.2024.60

40. Kumar, R., Rao, T.V., & Naqvi, S. (2025). Redundancy Allocation for Series and Parallel Systems: A Copula-Based Approach. Applied Stochastic Models in Business and Industry, 41(1). https://doi.org/10.1002/asmb.2928

41. Kumar, R., & Naqvi, S. (2025). Standby redundancy allocation for series and parallel systems. Communications in Statistics Theory and Methods, 54(2), 620-645. https://doi.org/10.1080/03610926.2024.2316270

42. Mukherjee, A., Jana, S., & Coad, S. (2025). Covariate-adjusted response-adaptive designs for semiparametric survival models. Statistical Methods in Medical Research, 34(9 Special Issue: Response-adaptive Randomization in Clinical Trials), 1697-1723. https://doi.org/10.1177/09622802241287704

43. Das, B., Manna, A., & Paul, T. (2025). Improvement of the Discrete Weighted Variant Hardyâ€™s Inequality and Criticality of the Improved Weight. Journal of Geometric Analysis, 35(12). https://doi.org/10.1007/s12220-025-02214-x

44. Sahoo, S., & Kumar, N. (2025). Asymptotic solutions of the generalized Fermat-type equation of signature (p,p,3) over totally real number fields. Journal of Number Theory, 274, 56-71. https://doi.org/10.1016/j.jnt.2025.01.020

45. Bais, S.R., Mohan, P., & Naidu, D.V. (2025). Characterization of quasi-parabolic operators and their integral representation. Advances in Operator Theory, 10(1). https://doi.org/10.1007/s43036-024-00409-7

46. Bais, S.R., & D., V. N. (2025). Quasi-radial operators on the Fock space and C*-algebras of entire functions. Linear and Multilinear Algebra, 73(7), 1486-1507. https://doi.org/10.1080/03081087.2024.2430981

Funded Research Projects

1. Dr Mrinmoy Datta, On the Number of points on certain varieties over finite fields with applications to coding theory, 3,53,000(3Y) [NBHM-DEPARTMENT OF ATOMIC ENERGY].
2. Dr Deepak Kumar Pradhan, Problems in Toeplitz Operators, 28,67,520 (3Y) [ANRF].
3. Dr. Pallabi Manna,Mentor: Dr M Rajesh Kannan, Graph theoretic and spectral characterizations of some graphs defined on group, 30,96,000(2Y) [ANRF].
4. Dr Lakshmi Narayana P A, Analysis on ParamSeva (NSM Facility) Equipment (No. of measurement - 74626 CPU Hrs), 50000 [Indian Institute of Technology, Mandi].

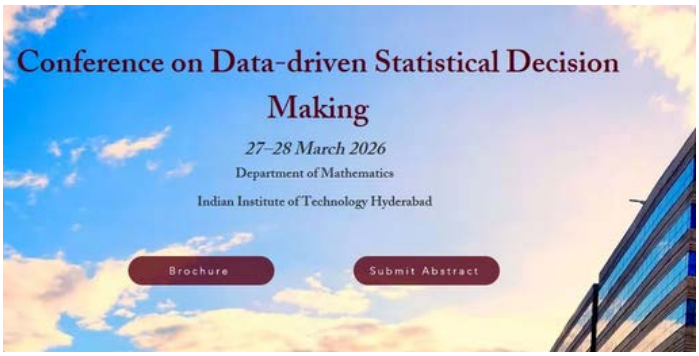
5. Dr Lakshmi Narayana P A, Analysis on ParamSeva (NSM Facility) Equipment (No. of measurement - 3.5L CPU-hr), 2,34,500 [University of Hyderabad].
6. Dr Lakshmi Narayana P A, "Analysis on ParamSeva (NSM Facility) Equipment (No. of measurement - 80000 CPU-hrs), 100000 [Indian Institute of Technology, Mandi].
7. Dr Arunabha Majumdar, Novel Bayesian Statistical Methods and Software tools for transcriptome-wide association study while calibrating the uncertainty of predicted expression,49,50,590 INR(3Y) [ANRF].

Awards and Recognitions

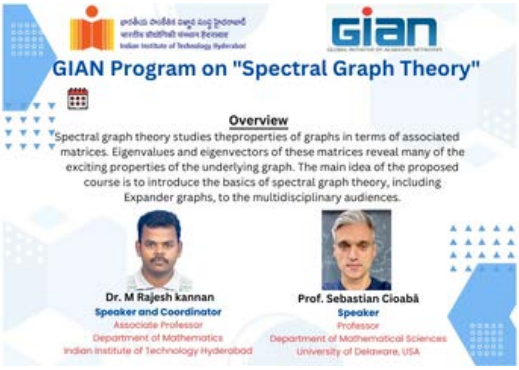
1. Prof. G. Ramesh - Best paper award for research article "Annals of Functional Analysis"
2. Dr Shanola S. Sequeira (student) is selected for the KVRSS Award for 2024.
3. P. Mohan (student) is received "Dr K V Rao Scientific Society Certificate award" in 2024.

Research Highlights

Conference on Data-driven Statistical Decision-making held on March 27-28 th , 2026 IIT Hyderabad



GIAN Program on "Spectral Graph Theory" held on October 27 th to 31st 2025 MA416, Dept. of Mathematics



Collaborative Research Symposium on Mathematics held on January 31st, 2026 MA01, Dept. of Mathematics





National Mathematics Day held on December 22 nd, 2025 , MA01, Dept. of Mathematics




Department of Mechanical and Aerospace Engineering

During 2025–2026, the Department of Mechanical and Aerospace Engineering (MAE) at IIT Hyderabad advanced research, innovation, and student development across Mechanics and Design, Thermo-Fluid Engineering, Integrated Design and Manufacturing, and Aerospace Engineering. With 39 faculty members and 559 students: 248 BTech, 188 MTech, and 123 PhD scholars, the department combined fundamental research with engineering solutions addressing aerospace, manufacturing, energy, healthcare, and sustainability.

Research output included more than 75 distinct scholarly publications, alongside contributions to book chapters and national and international conferences. The report documents 13 unique patent applications filed and seven unique patents granted, reflecting innovation in autonomous systems, manufacturing, flow diagnostics, sensing, and acoustics. Research advances included an indigenous light gas gun demonstrating projectile velocities of approximately 600 m/s, new methods for flow-field measurement and pressure estimation, and developments in additive manufacturing, structural mechanics, combustion, and biomedical engineering.

The department's research and industry engagement encompassed 24 funded research and industry-sponsored projects listed in this report. Support from ANRF/SERB, DRDO and its associated programmes, DST, DBT, ICMR, institutional grants, and industrial partners enabled investigations ranging from hypersonic boundary-layer transition and lightweight metamaterial structures to atmospheric water harvesting, thermal safety, advanced manufacturing, and medical devices. Collaborations with Hyundai Motor India Engineering, Honeywell, MISOCHAIN Technologies, and Collins Aerospace strengthened opportunities for applied research, technology development, and industry-relevant training.

Experimental and computational capabilities expanded through the establishment or further development of hypersonic, supersonic, and transonic wind tunnels, a light gas gun, a high-power plasma torch, and a water flume. A Computer-Aided Engineering Laboratory established with Collins Aerospace under its Corporate Social Responsibility initiative further strengthened teaching, simulation, and multidisciplinary engineering design.

Students earned recognition through thesis awards, best paper and presentation awards, scholarships, and institute research awards. Notable accomplishments included the ISSS Postgraduate Student Award, a Taylor & Francis Best Oral Presentation Award at ICOM 2025, and IIT Hyderabad's Research Excellence and Research Appreciation Awards. International research exposure included a doctoral scholar's four-month research visit to Technion, Israel. The launch of MAEstro, a semester-long residential undergraduate research internship, expanded opportunities for mentored research, while the MTech programme in Robotics and Intelligent Systems supported advanced interdisciplinary education.

The department also reported 28 academic and engagement events, including 18 seminars, seven industry lectures, Academic–Industry Connect 2025, Department Day, and the graduating-class farewell. Faculty honours, international fellowships, seven promotions, and a new faculty appointment further strengthened the department's academic community and research capabilities.

For more information, please visit: https://mae.iith.ac.in/



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Patents:

Filed

1. R Prasanth Kumar : An Under Actuated Robotic Arm : 202541044171
2. R Prasanth Kumar : A Multi-Level Unmanned Vehicle Deployment Platform : 202541045607
3. Karthick S K : A Method and a System for Attenuating Pressure Fluctuations in a Sub-Cavity of an Engine : 202541051876
4. M. S. MAHESH : Method and System for Generating Radar-Reflective Parameters Corresponding to an Aerial Platform : 202541061814
5. R Prasanth Kumar : Drone with Deployable Water Landing Platform for Multi-Environment Operations : 202541063642
6. Vishnu Rajasekharan Unni : A Device and Method for Tracking Cardiac Health and Predicting Potential Cardiac Anomalies : 202541065507
7. Neetu Tiwari : Method and System for Improving Temporal Resolution of Particle Image Velocimetry Measurements : 202541076752
8. Lakshmana Dora Chandrala : An Apparatus and a Method to Measure Real-Time Rainfall Rate Based on Digital Holography : 202541076970
9. Neetu Tiwari : Method and System for Estimating Time-Resolved Pressure Fields from Non-Time-Resolved Velocity Field and Pressure Sensors : 202541079041
10. Neetu Tiwari : Method and System for Reconstructing Time Resolved Velocity Fields in a Transparent or Opaque Fluid Flow : 202541080960
11. R Prasanth Kumar : An Autonomous Multi-Arm Agriculture Drone : 202541092644
12. Lakshmana Dora Chandrala, Vishnu Rajasekharan Unni : System and Method for Generating Millimetre-Scale Gas-Filled Soap Bubbles : 202541123627
13. Lakshmana Dora Chandrala, Vishnu Rajasekharan Unni : A Method and a System for Structural Depth Consolidation of a Multi-Layer Convolutional Neural Networks : 202541124468

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6. Nallagundla Venkata Reddy : A Multiple Tool Assembly to Improve Productivity and Energy Efficiency During Double-Sided Incremental Forming: 202441022735
7. Venkatesham B : A Mechanical Array to Facilitate Mounting of Sensors or Emitters for Uniform Directivity: 202441037091

Design Registrations

1. B. Venkatesham, Avinash Reddy Kondapally, and Priyabrata Rautray, Payload Locker, Design Registration No. 444672-001, Filed, Indian Patent Office.
2. B. Venkatesham, Avinash Reddy Kondapally, and Priyabrata Rautray, Cabin Holder, Design Registration No. 444673-001, Filed, Indian Patent Office.
3. B. Venkatesham, R. Prasanth Kumar, Mahesh M. S., Aashish Sahu, Sanju Kumar N. T., Mohammad Azizuddin Imtiaz, Rohith Murugeshan, and Avinash Reddy K., Inclined Flanged Connector, Design Registration No. 444674-001, Granted, Indian Patent Office.
4. B. Venkatesham, R. Prasanth Kumar, Mahesh M. S., Aashish Sahu, Sanju Kumar N. T., Mohammad Azizuddin Imtiaz, Rohith Murugeshan, and Avinash Reddy K., Landing Gear Connector, Design Registration No. 444675-001, Granted, Indian Patent Office.
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5. H. Bansal, P. Moise, S. K. Karthick, and R. Sriram, Interaction between Cavity and Wake Flows in the Transonic Regime, 35th International Symposium on Shock Waves (ISSW35), Brisbane, Australia, July 2025.
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8. M. Joshi, M. Cherishma, B. J. Dkhar, H. Ogawa, and S. K. Karthick, Suppression of Acoustic Wave Using a Passive Technique in a Supersonic Cavity Flow with a Sub-cavity, 35th International Symposium on Shock Waves (ISSW35), Brisbane, Australia, July 2025.
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20. J. A. Patel, S. Kommineni, and N. S. Ghaisas, "High-Order Immersed Boundary Method Based on Function Reconstruction Using Cubic Splines," 12th International and 52nd National Conference on Fluid Mechanics and Fluid Power (FMFP2025-CFD-371), Nirma University, Ahmedabad, India, 19–21 December 2025.
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3. S. B. Akula, C. S. C., S. M. R., S. Suryakumar, A. H. Rahman, and N. S. Reddy, "Fuzzy MCDM-Based Selection of 3D Printed Lattice Architectures for Underbody Blast Protection in Armored Vehicles," *Journal of Materials Engineering and Performance*, Vol. 35, No. 15, pp. 14811–14839, 2026.
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Funded Research Projects:

1. Experimental Identification of Transition Onset and Instability Wave Numbers in Hypersonic Boundary Layers with Controlled Upstream Disturbance using a Mach 6 Ludwieg Tunnel, funded by the Anusandhan National Research Foundation (ANRF). Principal Investigator: Dr S. K. Karthick (2025–2027).
2. In-situ Measurements of Aluminium Agglomerate Size, Velocity and Temperature using Simultaneous Digital Inline Holography and Imaging Pyrometry, funded by DRDO–ARMREB. Co-Principal Investigator: Dr S. K. Karthick (2025–2027).
3. Aerodynamic Breakup of Non-spherical Droplets, funded by the Anusandhan National Research Foundation (ANRF). Principal Investigator: Dr Sachidananda Behera (2025–2028).
4. Design and Fabrication of Lightweight Metamaterial Structures for Flapping Wing Systems, funded by DIA-CoE/DRDO, with Dr Sachidananda Behera as Co-Principal Investigator and Dr Anurup Datta as Co-Principal Investigator.
5. Utilization of Waste/Solar Heat Source for Sorbent-based Atmospheric Water Harvesting, funded by IIT Hyderabad. Principal Investigator: Dr Ankush Kumar Jaiswal.
6. Developing Solutions to Reduce Human Heat Strain and Extend Safe Exposure under Extreme Heat, funded by the Anusandhan National Research Foundation (ANRF). Principal Investigator: Dr Ankush Kumar Jaiswal.
7. Understanding the Transition from the Rayleigh–Plateau to the Whipping Instability of Liquid Filaments with Applications to Electrospinning, funded by the Anusandhan National Research Foundation (ANRF). Principal Investigator: Dr Harish Nagaraj Dixit.
8. A Proof-of-Concept Study on Laser Additive Manufacturing of Single-Crystal Superalloys through Spatio-temporally Tailored Laser Beam, funded by the Aeronautics Research and Development Board (ARDB). Principal Investigator: Dr Anurup Datta.
9. Fuel-flexible Novel Flow Burner Injector-based Swirl Stabilized Burner, funded by the ANRF/SERB. Principal Investigator: Dr Pankaj Sharadchandra Kolhe.
10. Ultrasound-triggered Active Drug Delivery (uADD) System for Triple Breast Cancer Therapy, funded by the Indian Council of Medical Research (ICMR). Co-Principal Investigator: Dr Ranabir Dey.
11. Towards Improved Stability and Longevity in Total Hip Replacement Implants, supported through the SIMMECT Seed Grant, with Dr Viswanath Chinthapenta as Co-Principal Investigator.
12. A Device Based on Digital Photoelasticity for In-vivo Characterization of Corneal Birefringence, funded by the Department of Biotechnology (DBT). Principal Investigator: Dr Viswanath Chinthapenta.
13. Numerical Modelling of the Selective Laser Melting Process for Additive Manufacturing of Inconel and Ti–6Al–4V Alloys, funded by DIA-CoE. Principal Investigator: Dr Viswanath Chinthapenta.
14. Corneal Characterization under Biaxial Loading in Physiological Conditions, funded by the Department of Science and Technology (DST). Principal Investigator: Dr Viswanath Chinthapenta.
15. Novel Neck Screw Design with Miniplate for Fixation of Mandibular Condylar Neck Fractures Using Three-dimensional Finite Element Analysis and Digital Image Correlation, funded by the Department of Biotechnology (DBT). Dr Viswanath Chinthapenta serves as Co-Principal Investigator.
16. Optimization of Electron Beam Additive Manufacturing of Ti–6Al–4V to Minimize Anisotropy in High-temperature Mechanical Properties, funded by DIA-CoE, with Dr Viswanath Chinthapenta as Co-Principal Investigator.
17. Bending Stiffness Enhancement of Truck Chassis with Variable Stiffeners, sponsored by Hyundai Motor India, with Dr Viswanath Chinthapenta as Co-Principal Investigator.
18. Developing Passive Vibration Isolator System (PVIS) for Helicopter Applications, sponsored by MISOCHAIN Technologies Pvt. Ltd. Principal Investigator: Prof. B. Venkatesham, with Dr Sai Aditya Raman Kuchibhatla as Co-Investigator.
19. 6 kW Condenser Fan Acoustic Testing and Performance Improvement, sponsored by Honeywell Technology Solutions Lab Pvt. Ltd. Principal Investigator: Prof. B. Venkatesham.
20. Windshield Test CAE Correlation, sponsored by Hyundai Motor India Engineering Pvt. Ltd., with Prof. B. Venkatesham as Co-Principal Investigator.
21. High-dimensional Aerodynamic Data Modelling and Shape Optimization using Convolutional Neural Networks, funded by Advanced Systems Laboratory (DRDO-ASL). Principal Investigator: Dr Lakshmana Dora Chandrala.
22. Calibration of Load Frame, sponsored by MISOCHAIN Technologies Pvt. Ltd., undertaken by Dr S. N. Khaderi.
23. Boundary Layer and Wind Farm Flows over Heterogeneous Terrain: Design-Oriented Model Development Using Large-Eddy Simulations, funded by the Department of Science and Technology – Science and Engineering Research Board (DST-SERB). Principal Investigator: Dr. Niranjan S. Ghaisas (2023–2026).
24. Analytical and GUI-Based Tool for Truck Frame Bending Stiffness Evaluation, sponsored by Hyundai Motor India Engineering (HMIE), Hyderabad. Principal Investigator: Dr. Prabhat Kumar.

Awards and Recognitions:

1. Dr. S. K. Karthick received the Israel–Technion Travel Research Grant from the Technion – Israel Institute of Technology in 2026. He was also awarded the ANRF–ARG Advance Research Grant by the Anusandhan National Research Foundation (ANRF), Government of India, in 2025. In addition, he received the Japan Science and Technology (JST) Fellowship from the Japan Science and Technology Agency (JST), Japan, in 2025.
2. Prof. Suryakumar S. received the Indigenization of Aeronautical Equipment Award from the Aeronautical Society of India in recognition of the indigenous development of India's largest metal additive manufacturing system.
3. Dr. Harish Nagaraj Dixit was awarded the JICA Friendship 2.0 Fellowship. During the year, he was also appointed as an Associate Editor of The European Physical Journal Plus.
4. Dr. Ranabir Dey received the Scientific High-Level Visiting Fellowship (SSHN) 2025 awarded by the French Institute in India (IFI), Embassy of France in India. He was also awarded the Visiting Scholar Fellowship as an Invited Professor by the University of Bordeaux, France.
5. Mr. Manu Sebastian, under the guidance of Dr. Safvan Palathingal, received the First Prize in the Institute of Smart Structures and Systems (ISSS) Postgraduate Student Award 2025 for his MTech thesis titled "Compliant Mechanisms with Tunable Poisson's Ratio and Stiffness for Growing Biological Cells."
7. Mr. Mahadev A. K. was awarded the UGC–MoE Postgraduate Scholarship for Professional Courses (GATE) by the University Grants Commission, Government of India, in recognition of his academic merit.
8. Sahil Dhiman received the Best Paper Award for his research contribution and was also honoured with the Best Oral Presentation Award at an international conference.
9. Sahil Dhiman received the Best Poster Presentation Award for his research presentation at an international conference.
10. Mr. Subhasish Guchhait received the Taylor & Francis Best Oral Presentation Award during the International Conference on Manufacturing (ICOM 2025) for his outstanding research presentation.
11. Mr. Raj Kiran RMR, student of Dr. S. K. Karthick, received the Technion, Israel research travel grant (2025) and spent four months in the Faculty of Aerospace Engineering with Prof. Jacob Cohen to do part of his doctoral thesis work on experimental studies to generate hypersonic quiet flow.
12. Mr. Naveen N. Kethavath, student of Dr. Niranjan Shrinivas Ghaisas, received the Research Excellence Award from IIT Hyderabad in 2025.
13. Ms. Anagha K., student of Dr. Niranjan Shrinivas Ghaisas, received the Research Appreciation Award from IIT Hyderabad in 2026.

Research Facilities Established

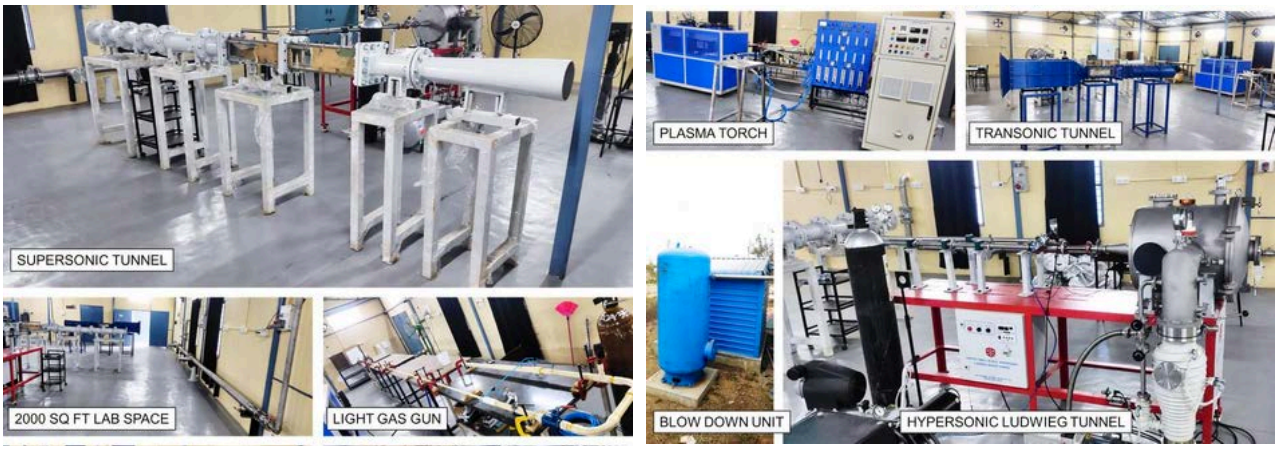
The Department of Mechanical and Aerospace Engineering continued to strengthen its experimental and computational research infrastructure during the academic year 2025–26 through the establishment and augmentation of several state-of-the-art research facilities supporting research in aerospace engineering, manufacturing, fluid mechanics, biomechanics, and thermal sciences.

- A Hypersonic Ludwieg Tunnel was established in the High-Speed Aerodynamics Laboratory under the leadership of Dr. S. K. Karthick, enabling experimental investigations on hypersonic boundary-layer transition and high-speed flow phenomena.
- The department also established a Supersonic Blow-down Wind Tunnel, providing experimental capability for studies in compressible aerodynamics, propulsion, and external aerodynamics.
- A Light Gas Gun Facility was developed to support research on high-velocity impact, ballistic phenomena, and dynamic material behaviour.
- A High-power Plasma Torch Facility was commissioned for investigations involving high-temperature flows, thermal processing, and plasma-assisted applications.
- A Transonic Wind Tunnel Facility was further developed to strengthen the department's capability in experimental aerodynamics and flow diagnostics.
- A Water Flume Facility was established under Dr. Neetu Tiwari to facilitate experimental studies in open-channel hydraulics, environmental fluid mechanics, and multiphase flow.
- The department also strengthened its computational engineering infrastructure through the establishment of a Computer-Aided Engineering (CAE) Laboratory in collaboration with Collins Aerospace under a Corporate Social Responsibility (CSR) initiative. The facility supports teaching and research in structural analysis, computational mechanics, and multidisciplinary engineering design.

Water flume



High-speed flow facilities



Department Highlights:

- The Department of Mechanical and Aerospace Engineering continued to advance research across a broad spectrum of engineering disciplines, combining fundamental investigations with translational research addressing challenges in aerospace, manufacturing, energy, healthcare, and sustainability.
- The department made significant progress in high-speed aerodynamics and propulsion, with the development of advanced experimental facilities including hypersonic, supersonic, and transonic wind tunnels, a light gas gun, and plasma-based experimental systems. Research focused on hypersonic boundary-layer transition, high-speed flow diagnostics, combustion, spray dynamics, aeroacoustics, and aerodynamic optimization for aerospace applications.
- In advanced manufacturing and mechanics, research encompassed additive manufacturing, laser processing, metamaterial structures, structural integrity, computational mechanics, and digital manufacturing. Faculty secured competitive funding for projects on lightweight structural systems, manufacturing process optimization, and next-generation engineering materials, while strengthening collaborations with national laboratories and industry.
- The department expanded its activities in robotics, dynamics, and intelligent systems, with research spanning compliant mechanisms, vibration control, autonomous systems, machine learning-based engineering design, and multidisciplinary optimization. The continued growth of the MTech programme in Robotics and Intelligent Systems and the launch of the MAEstro undergraduate research internship programme further strengthened research-oriented education.
- Research in thermal and fluid sciences addressed energy conversion, heat transfer, atmospheric water harvesting, liquid filament dynamics, droplet breakup, combustion, and renewable energy systems. Several externally funded projects supported investigations into sustainable energy technologies and climate-resilient engineering solutions.
- The department also strengthened its research in biomechanics and biomedical engineering, focusing on orthopedic implants, ophthalmic biomechanics, medical devices, and ultrasound-assisted therapeutic systems through collaborations with medical institutions, government agencies, and industry.
- To support these research activities, the department enhanced its experimental and computational capabilities through new research facilities and industry-supported laboratories, while continuing to secure competitive funding from agencies including the Anusandhan National Research Foundation (ANRF), DRDO, DST, DBT, ICMR, and several industrial partners. These efforts further reinforced the department's commitment to high-quality interdisciplinary research with strong societal and industrial impact.

Research Highlights:

- Development of an Indigenous Light Gas Gun Facility for Free-Flight Supersonic Projectile Testing: The department successfully designed, developed, and experimentally validated an indigenous low-cost Light Gas Gun facility for free-flight supersonic projectile testing. The facility enables aerodynamic investigations of high-speed projectiles without the constraints of conventional sting-mounted wind-tunnel testing. The system incorporates a compact pressure-driven launcher, modular barrel–plenum architecture, and 3D-printed projectiles, allowing economical operation and rapid prototyping. Projectile velocities of approximately 600 m/s were demonstrated through optimization of barrel length, pressure ratio, projectile positioning, and driver-gas properties. The facility is integrated with high-speed shadowgraph and Schlieren diagnostics for visualization of shock waves and compressible-flow phenomena, providing a versatile experimental platform for research in high-speed aerodynamics, ballistics, and compressible flows.

- Advances in Flow Diagnostics and Data-Driven Fluid Mechanics: The department reported several developments in experimental fluid mechanics and flow diagnostics. These include the development of a novel technique for improving the temporal resolution of Particle Image Velocimetry (PIV) (patent filled), a fast pressure estimation methodology from PIV measurements (patent filed), and a new area-selection methodology for optimization of multiple-cylinder systems. Ongoing research also focuses on improving Physics-Informed Neural Networks (PINNs) for fluid mechanics applications and the development of real-flow simulation software for advanced flow analysis.

Department of Physics

The Department of Physics at IIT Hyderabad continues to excel in both fundamental and applied research across a broad spectrum of areas including quantum science, condensed matter physics, photonics, materials science, astrophysics, high energy physics, plasma physics, and complex systems. During 2025–26, faculty members made significant contributions through high-impact publications, patents, technology development, and international collaborations.

In theoretical and computational physics, Anupam Gupta advanced the understanding of bacterial turbulence through two Physical Review Letters publications revealing universal behaviour in active matter systems. Archak Purkayastha reported important results on the Non-Markovian Quantum Mpemba Effect and thermalization in quantum systems, while Atanu Rajak contributed to the understanding of thermalization in driven many-body systems and physics education research. Shubho R. Roy made significant contributions to quantum fields and quantum gravity in de Sitter spacetimes. Kanchana V. continued pioneering computational studies of functional, topological, spintronic, and energy materials using first-principles methods.

The department's condensed matter and materials research remained highly productive. Mahesh Peddigari demonstrated high-energy-density capacitor systems with exceptional power density, flexibility, and self-charging capability. Saket Asthana developed eco-friendly relaxor ferroelectrics and ferro-flexible composite films for advanced energy-storage applications. J. Suryanarayana reported advances in resistive memory and neuromorphic devices, while Shinde Satish Laxman developed innovative technologies including cooling paints, triboelectric nanogenerators, biodegradable photodetectors, and porous materials for clean water and hydrogen production.

In emerging quantum materials and topological physics, Manisha Thakurathi and her group demonstrated a tenable field-free Josephson diode effect and discovered novel Floquet exceptional points with higher-order skin effects, opening new directions in non-Hermitian physics and unconventional superconductivity. The department achieved notable success in photonics and optical sciences. Yogesh Kumar Srivastava reported major advances in terahertz photonics and metamaterials, including an ultrathin flexible terahertz metasurface sensor with nanometer-scale detection capability and the introduction of Mie-void resonators for high-Q electromagnetic resonances. Nithyanandan Kanagaraj established the Directed Energy Systems and Applications (DESA) Laboratory and developed advanced capabilities in coherent beam combining, broadband optical amplifiers, free-space optical communications, adaptive optics, and atmospheric turbulence studies, resulting in several publications and patents.

Research in astrophysics, particle physics, and plasma physics continued to expand the department's global presence. Mayukh Pahari pursued research in planetary science, spacecraft dynamics, and X-ray/UV astrophysics. Shantanu Desai reported statistically significant gamma-ray detection from galaxy cluster studies. Saranya Ghosh contributed to the CMS experiment at CERN through detector development and searches for dark matter and low-mass Higgs-like particles. Saurabh Sandilya developed a GPU-based track-finding framework for the J-PARC muon g-2/EDM experiment, supporting precision tests of physics beyond the Standard Model. Kirit Makwana reported important findings on relativistic magnetic reconnection and plasma turbulence.

These achievements reflect the department's commitment to interdisciplinary research, scientific excellence, innovation, and societal impact. Through strong collaborations, state-of-the-art facilities, and sustained support from national and international funding agencies, the Department of Physics continues to advance frontier research while training the next generation of scientists and innovators.

For more information, please visit: https://physics.iith.ac.in/



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Patents:

Filed:

1. Saket Asthana : A Strontium Bismuth Titanate-Based Dielectric Ceramic Material and a Method of Preparation Thereof : 202541042220
2. Suryanarayana Jammalamadaka : A Method for Developing and Remotely Controlling a Neuromorphic Device : 202541050656
3. Saket Asthana : A Ferro-Flexible Antibacterial Composite Film and Method of Preparation Thereof : 202541054437
4. Sai Santosh Kumar Raavi : Method for Fabricating One or More Layered Tmdc Material Using Bessel Beam Femtosecond Laser Ablation : 202541061247
5. Nithyanandan Kanagaraj : A Method and a System of Operation in a Fiber Amplifier for Achieving a Flattened Gain : 202541062141
6. Nithyanandan Kanagaraj : A Method and System for Programmable Laser Beam Shaping Using a Diffractive Neural Network : 202541062917
7. Nithyanandan Kanagaraj : Transformer-Based Encoder-Decoder Framework for Modeling System Dynamics : 202541070936
8. Sai Santosh Kumar Raavi : A Self-Powered Photo Detector and a Method of Fabricating the Same : 202541071935
9. Vandana Sharma : A Method and a System for Determining Chirality of a Chemical Compound : 202541077133
10. Saket Asthana : A Multiferroic Material for Ceramics and Method of Preparation Thereof : 202541079912
    BHUVANESH RAMAKRISHNA : Liposome Nanoparticle Formulation and a Method of Preparation Thereof : 202541081275
11. Saket Asthana : A Wearable Bio-Mechanical Motion Driven Piezoelectric Nanogenerator : 202541082993
    Arabinda Haldar : A Skyrmion-Based Logic Operating Circuit : 202541084119
12. Nithyanandan Kanagaraj : Methods and Systems for Dynamic Beam Shaping and Sequencing in Coherent Beam Combination System : 202541087214
13. Nithyanandan Kanagaraj : A Method for Flat-Gain Broadband Application in a Multi-Pass Optical Amplifier Configuration : 202541101608
14. Nithyanandan Kanagaraj : Real-Time Phase Locking in Laser Arrays : 202541103740
15. Nithyanandan Kanagaraj : System and Method for Generating Hybrid Soliton Families in an All-Fiber Mode-Locked Laser Cavity : 202541114604

16. Nithyanandan Kanagaraj : System and Method for Generating Tunable and Switchable Multiwavelength Mode-Locked Laser Emission : 202541115345
17. Manish Kumar Niranjan : Tuning the Dielectric, Optical and Photocatalytic Performance of K0.5Na0.5Nbo3 Through Rb Doping : 202541119348
18. Saket Asthana : Tuning the Dielectric, Optical and Photocatalytic Performance of K0.5Na0.5Nbo3 Through Rb Doping : 202541119348
19. Nithyanandan Kanagaraj : A Method and a System for Gain-Equalized Broadband Amplification Using Few Mode Fibers : 202541123539
20. Saket Asthana : Ultra-High Energy Efficiency and Harvesting Potential in Sr2+-Substituted Na0.5Bi0.5Tio3-Based Eco-Friendly Ferroelectric Material : 202541130581
21. Nithyanandan Kanagaraj : Autonomous Multi-Sensor Target Recognition and Tracking System for Directed Energy Systems (Des) : 202541130653
22. Suryanarayana Jammalamadaka : Magnesium Oxide-Based Memristor Device Having Multi-Bit Quantum Memory and a Method of Fabrication Thereof : 202541133050
23. Saket Asthana : Copper(I)-Based One-Dimensional Coordination Polymeric Complexes and the Method of Preparation Thereof : 202541134655
24. Nithyanandan Kanagaraj : A System and a Method for Generating a Shaped Optical Beam Through Coherent Combination of Multiple Lasers Channels : 202541134365
25. Suryanarayana Jammalamadaka : Resistive Random Access Memory Having Multi-Bit Memory at High Temperatures and Method of Preparation Thereof : 202641003765
26. Bhuvanesh Ramakrishna : System and Method for Selectively Tuning Radiation Output from an Electron Beam : 202641020775
27. Saket Asthana : A Hybrid Photo-Responsive Triboelectric Nanogenerator and a Process for Fabrication Thereof : 202541089508
28. Shinde Satish Laxman : A Hybrid Photo-Responsive Triboelectric Nanogenerator and a Process for Fabrication Thereof : 202541089508
29. Saket Asthana : A Ferroelectric Nbt-Based Compound and a Method of Preparation Thereof : 202541119875

Granted:

1. Nithyanandan Kanagaraj :A System And method For controlling state of Array of Coherent sources of Electromagnetic waves: 202441040191
2. Arabinda Haldar :Method and System to Operate Tsetlin Machines Using Skyrmions: 202441071705
3. Arabinda Haldar :System and Method for a Skyrmionic Logical Adder for Electronic Circuit: 202441031123
4. Nithyanandan Kanagaraj :A Method and a Wavelength Demultiplexing Diffractive Neural Network System to Reconstruct Unique Intensity Patterns: 202541004549
5. Vandana Sharma :A Compact Vein Viewer: 202541021078
6. Suryanarayana Jammalamadaka :A Spintronic Memory Device and a Method of Manufacturing the Same: 202441102812
7. Saket Asthana :A Strontium Bismuth Titanate-Based Dielectric Ceramic Material and a Method of Preparation Thereof: 202541042220
8. Suryanarayana Jammalamadaka :A Memristor Device Having 5-Bit Conductance Quantization and 6-Bit Memory Capacity and a Method of Manufacturing the Same: 202441102895
9. Saket Asthana :A Ferro-Flexible Antibacterial Composite Film and Method of Preparation Thereof: 202541054437
10. Saket Asthana :A Multiferroic Material for Ceramics and Method of Preparation Thereof: 202541079912
11. Nithyanandan Kanagaraj :A Method and a System of Operation in a Fiber Amplifier for Achieving a Flattened Gain: 202541062141
12. Arabinda Haldar :Reconfigurable Logic Via Gate Controlled Skyrmion Motion: 202141057701
    Arabinda Haldar :A Skyrmion-Based Tsetlin Machine Inference System: 202441086334

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Funded Research Projects:

1. Dr. Vandana Sharma has received funding of ₹12,88,380 from CEFIPRA for the project titled "Molecular Photoionization Dynamics with Ultrashort Orbital Angular Momentum Pulses" (Project Code: G803).
2. Dr. Atanu Rajak has received funding of ₹66,90,718 from SERB-ANRF for the project titled "Floquet Engineering and Simulating Quantum Many-Body Systems Out-of-Equilibrium" (Project Code: G811).
3. Dr. Yogesh Kumar Srivastava & Prof. Prem pal has received funding of ₹1,89,25,000 from DRDO for the project titled "Development of S, C and X Band Ferroelectric Tunable Filters for Microwave Device Application" (Project Code: G834).
4. Dr. Raavi Sai Santosh Kumar has received funding of ₹24,00,000 from Dhruva Space Private Limited for the project titled "Thermal and Environmental Stability of Perovskite Solar Cells for Space Applications" (Project Code: S381).
5. Dr. Priyotosh Bandyopadhyay has received funding of ₹3,50,000 from ANRF for the project titled "Phoenix 2025" (Project Code: G850).
6. Dr. Mayukh Pahari has received funding of ₹1,79,57,200 from DRDO for the project titled "Numerical Simulation of Orbital Propagation and Experimental Validation of

LEO Objects Using Optical Tracking Approach" (Project Code: G852).

7. Dr. Vandana Sharma has received funding of ₹44,07,020 from Wadhwani Foundation for the project titled "Selection of Stereovision AI-Assisted 3D Vein Imaging Vascular Access in Patients (Project) by WIN-CoE Established at IIT Hyderabad" (Project Code: S408).

Awards & Recoginitions

1. Archak Purkayastha – Appointed as ICTS Faculty Associate.
2. J. Suryanarayana – Elected as a Fellow of the Royal Society of Chemistry (FRSC).
3. Mahesh Peddigari – Under his guidance, Mr. Aravind Krishna Talluri received the Bharat Ratna Dr. A. P. J.
4. Abdul Kalam Best Student Technical Paper Award at the 1st International Conference and Exhibition on Advanced Materials and Structures (ICEAMS) organised by the ISAMPE Hyderabad Chapter, DRDO–IITH.
5. Mayukh Pahari – Appointed as Invited Adjunct Professor at ICSP, Kolkata.
6. Nithyanandan Kanagaraj – Appointed as Associate Editor of IEEE Photonics Technology Letters (2025), Assistant Editor of OPTICA Photonics Research (from February 2026), and served as Conference General Co-Chair and session/panel Chair at major international photonics conferences in 2025.
7. Saket Asthana – Appointed as Associate Editor for Polar and Functional Oxides, Frontiers in Electronic Materials.
8. Shinde Satish Laxman – Awarded the JST LOTUS Fellowship to undertake a research visit to NIMS, Japan (2025–2026).
9. Vandana Sharma – Received the Woman Technologist of the Year, IEEE-IC Award 2025 at IIIT Bangalore and appointed as External Expert Member of the School Board, School of Physical Sciences, Central University of Karnataka (2025–2028).

Research Highlights

Anupam Gupta : The Yin and Yang of Bacterial Turbulence: Dr. Anupam Gupta's research group has recently published two Physical Review Letters that together advance our understanding of bacterial turbulence. In the first study (Phys. Rev. Lett. 134, 088302 (2025)), the team uncovered universal statistical behaviour in active turbulence, drawing unexpected parallels with inertial turbulence. Building on this discovery, their latest work (Phys. Rev. Lett. 136, 108301 (2026)) revealed the structural origin of this universality by demonstrating that, beyond a critical activity, locally ordered flow regions emerge and coexist with chaotic domains. This interplay between order and chaos gives rise to giant number fluctuations and provides a new energetic framework for understanding pattern formation in active matter. The research was featured as a Research Bytes article on the IITH SciComm page and accompanied by an explainer video on YouTube: https://www.youtube.com/watch?v=IQ5Ifjzvtjg.

- Mathematical modelling of tissue morphogenesis with viscoelastic extracellular matrix; SERB-MATRICS (6.6 L)
- Matrix inhomogeneity and degradation regulate tissue organization and its morphogenesis; SERB-CRG (34.6 L)
- Coherent Structures in complex physical and biological systems; Global Initiative of Academic Networks; (6.64 L)
- Pattern Formation in Physical and Biological Systems; ANRF-Seminar Symposia (3L)"

Archak Purkayastha : Paper titled "Non-Markovian Quantum Mpemba effect" published in Physical Review Letters, a very prestigious journal. Paper titled "On the difference between thermalization in open and isolated quantum systems: A case study", published in SciPost Physics, also quite prestigious journal.

Atanu Rajak : Dr. Atanu Rajak and collaborators proposed the thermalization process in aperiodically driven many-body systems by revealing a fundamental connection between the thermalization time scale and the entropy generated by temporal disorder, published in Physical Review B. This work advances the fundamental understanding of thermalization in driven many-body systems. Another significant contribution is the discovery of a global blind spot in students' understanding of trigonometric derivatives through the statistical analysis of real-world educational data, published in Physical Review Physics Education Research.

J Suryanarayana : 6-bit data Storage through resistive switching in α-Fe_2O_3/Fe Bilayers

Neuromorphic Engineering: Remote Control and Pavlovian conditioning via Ag/α-Fe_2O_3/FTO Synaptic Memristor device

Optically controlled P–CuxO based artificial synaptic device for neuromorphic applications

Kirit Makwana : The paper (Phys. Plasmas 32, 112904) identified the scaling and effect of compressibility in relativistic magnetic reconnection.

Kanchana V : Professor V. Kanchana of IIT Hyderabad is a leading computational condensed matter physicist whose research focuses on the design and investigation of advanced functional materials using state-of-the-art computational techniques. Her work is centered on predicting and understanding the electronic, magnetic, topological, and thermal properties of materials through first-principles quantum mechanical calculations based on Density Functional Theory (DFT). By employing advanced computational methods, she elucidates the fundamental physics underlying the design and optimization of novel materials. Her research has made significant contributions to a wide range of areas, including thermoelectric materials, spintronic materials for next-generation electronic devices, high-pressure phase transitions, lattice dynamics and thermal transport, topological materials such as topological insulators, Weyl semimetals, Dirac semimetals, and spin-gapless semimetals, two-dimensional materials, and battery electrode materials. Through these efforts, her research group has established strong expertise in computational condensed matter physics.

By combining advanced computational approaches with close collaborations with experimental scientists, Professor Kanchana not only advances the fundamental understanding of material properties but also contributes to the development of practical solutions for emerging technologies.

Her research has important applications in quantum computing, energy harvesting, energy storage, and next-generation electronic devices.

Mahesh Peddigari : Mahesh Peddigari and collaborators demonstrated high-energy-density capacitor systems with giant power density, flexibility, and self-charging capability, through mechanically nanostructured ferroelectric and antiferroelectric systems (Adv. Func. Mater., 2026 & 2025, Nano Convergence 2025, J. Adv. Ceram. 2025) and a magneto-mechano-electric generator for self-powered IoT sensors (Mater. Today Phys. 2025).

Manisha Thakurathi : Dr. Manisha Thakurathi's research group has made significant contributions to non-Hermitian topological physics and unconventional superconductivity by: Demonstrating a tunable, field-free Josephson diode effect in singlet superconductor–altermagnet–triplet superconductor junctions, enabled by the interplay of unconventional pairing and altermagnetic symmetry (Phys. Rev. B 112, 104506, 2025). Discovering multiple Floquet exceptional points with a higher-order skin effect, uncovering a new class of driven non-Hermitian topological phases featuring novel boundary localization phenomena (Phys. Rev. B 113, 075113, 2026).

Mayukh Pahari : Planetary science, spacecraft dynamics, X-ray/UV Astrophysics

Nithyanandan Kanagaraj : Established the Directed Energy Systems and Applications (DESA) Laboratory and the Atmospheric Turbulence for advanced research in high-energy laser systems, free-space optical communications, beam control, adaptive optics, and atmospheric propagation.

- Published the research article "Adaptive Laser Beam Engineering with Coherent Beam Combining for Optimized Power Delivery" in Optics and Laser Technology, presenting a unified framework for adaptive laser beam engineering using coherent beam combining with fast, scalable phase control for optimized power delivery.
- Presented the paper "Adaptive Beam Steering in Coherent Beam Combining Systems Using Adagrad Optimization for Precision Applications" at the 2025 IEEE Photonics Society Summer Topicals Meeting Series (SUM) held in Berlin, Germany (21–23 July 2025).
- Published the Indian patent "Methods and Systems for Dynamic Beam Shaping and Sequencing in Coherent Beam Combination System" (Patent No. 590062; Application No. 202541087214), introducing adaptive beam shaping and sequencing techniques for coherent beam combination systems.

Secured two Indian patents:

- A Method and a System of Operation in a Fiber Amplifier for Achieving a Flattened Gain (Indian Patent Granted: 583349), introducing a gain-guiding strategy for ultra-flat broadband thulium-doped fiber amplification.
- A Method and a System for Gain-equalized Broadband Amplification Using Few Mode Fibers (Indian Patent Granted: 594973), proposing simultaneous spectral and modal gain equalization for high-capacity space-division multiplexed optical communication systems.
- Filed the Indian patent "A Method for Flat-gain Broadband Amplification in a Multi-pass Optical Amplifier Configuration," proposing a compact multi-pass thulium-doped fiber amplifier architecture for broadband flat-gain amplification without external gain-flattening filters.
- Published the research article "Towards a Broadband Gain-Flattened Thulium-Doped Fiber Amplifier" in Optics Communications (2025), demonstrating gain-guided broadband amplification (1690–1986 nm) with high gain, low noise, and excellent gain uniformity for next-generation optical communication and biomedical applications.
- Submitted the manuscript "A Gain-guided Approach to Broadband Multimode Fiber Amplifiers for High-capacity Optical Systems" to APS Open Science, proposing a scalable framework for broadband multimode fiber amplifiers with simultaneous spectral and modal gain equalization.

Developed an IoT-enabled Atmospheric Turbulence Laboratory capable of emulating realistic atmospheric propagation conditions through programmable control of temperature, airflow, and humidity. Established numerical phase-screen simulation models, validated experimental measurements, implemented cloud-based environmental monitoring, and created a versatile testbed for evaluating free-space optical communication, adaptive optics, beam control, laser power beaming, and directed-energy systems under repeatable atmospheric conditions.

Characterized the propagation of 7-beam and 19-beam coherent laser arrays generated using a Spatial Light Modulator (SLM) through the atmospheric turbulence chamber, enabling experimental evaluation of turbulence-induced effects on coherent beam combining and directed-energy laser systems under controlled laboratory conditions.

Saket Asthana : Developed eco-friendly relaxor ferroelectrics for pulsed energy storage using the underexplored random quenched field concept. Eu substitution enhanced energy density, breakdown strength, thermal stability, and efficiency for next-generation electronics.

Developed ferro-flexible Ca-substituted $Ba_{0.8}Sr_{0.2}TiO_3$/PVDF composite films with enhanced flexibility, permittivity, and sevenfold higher breakdown strength by tuning normal–relaxor crossover; patent pending.

Saranya Ghosh : Saranya Ghosh's group has been actively participating in the research being performed at the Compact Muon Solenoid experiment at the Large Hadron Collider at CERN. The group has overseen the production of readout electronics for the upcoming High Granularity Calorimeter detector along with performing quality control tests and calibration. The group has been working on the search for a new BSM physics with soft lepton signatures, targeting potential dark matter candidate particles. Further, the group is involved in physics of the Higgs boson with searches of low mass Higgs like particles. Alongside, Dr. Ghosh has been involved in the organisation of multiple workshops at IIT Hyderabad and elsewhere in the country.

Saurabh Sandilya : Developed a GPU-based track-finding framework for the J-PARC muon g-2/EDM experiment, achieving substantial improvements in reconstruction speed over conventional approaches. The work supports the experiment's search for physics beyond the Standard Model through precise measurements of the muon anomalous magnetic moment and electric dipole moment.
“GPU-based track-finding for the J-PARC muon g-2/EDM experiment,” H. Chetri, D. Samuel, S. Sandilya, T. Yamanaka, T. Mibe and T. Suehara, JINST 21, no.01, P01006 (2026), doi:10.1088/1748-0221/21/01/P01006 [arXiv:2511.02742 [hep-ex]].
Shantanu Desai : Detection of statistically significant gamma-ray detection from a stacked analysis of SPT-SZ selected galaxy clusters.
Shinde Satish Laxman : The group developed a radiative and evaporative cooling paint in collaboration with NIMS, Japan, the work patent has been filed (Application No. 202641071624). In collaboration with IITH faculties, developed a WS_2 based triboelectric nanogenerator (Patent granted and paper published in ACS Applied Energy Materials 8 (23), 17431-17441). Developed a biocompatible Vis-NIR photodetector on biodegradable substrates. Developed a hierarchical porous scaffold for on-board generation of clean water and hydrogen production and storage.
Shubho R. Roy : The main research highlight of the "Fields, Strings and Gravity group" has been on quantum fields and quantum gravity in de Sitter spacetimes, leading to two main results. The first one studies the holographic complexity of conformal fields in global de Sitter spacetime, while the second one works out the holographic time like complexity in de Sitter using the framework of static patch holography.
Yogesh Kumar Srivastava : During 2025–2026, our research made significant advances in terahertz photonics, metamaterials, and ultrafast electromagnetic devices. A major achievement was the development of an ultrathin flexible terahertz meta surface sensor with deep-subwavelength mode confinement, demonstrating one of the world's best reported sensing performances with nanometre-scale detection capability. We also introduced the concept of Mie-void resonators, establishing a new route to achieve high-Q electromagnetic resonances and enhanced light–matter interactions for low-loss photonic devices. Together, these contributions advance the frontiers of terahertz science and provide new opportunities for high-performance sensing, communication, and next-generation information processing technologies.

Research Projects

Atanu Rajak and Archak Purkayastha
Title: Quantum Annealing and Optimization Mobility, Multi-modal logistics, Railway Resource Scheduling and Related Problems, Agency: DST under NQM, Duration: 2026-2029 (3 years)
Kirit Makwana
Funding for organizing an international program at ICTS-TIFR on the topic of "Plasma turbulence across scales: Integrating theory and observations"
Mayukh Pahari
DRDO-funded research project: Numerical analysis and validation of spacecraft orbital propogation
Nithyanandan Kanagaraj
"Project Title- Prototype Development of Generation of Spatio-Temporal Multimode Broadband Amplifiers;
Sponsoring Agency: SPARC; Project Period: 2025–26; Duration: 1 Year; Project Cost: ₹10 Lakhs."
Saurabh Sandilya
"Discovery Through Play: Bringing Particle Physics to Schools via Interactive 3D Models (Co-PI) | Agency: DST National Council for Science & Technology Communication NCSTC"
Saket Asthana
JICA friendship 2.0
Shantanu Desai
MTR_2023_000384
Shubho R. Roy
"Many Facets of Complexity: From chaos to thermalization" DST-ANRF funded (CRG/2023/001120)
Vandana Sharma
"a) Stereovision AI-assisted 3D Vein Imaging for Challenging Vascular Access in Patients"", WIN-CoE grant, 44 Lakhs, Jan 2026, S408
b) 12th DAE-BRNS Theme Meeting on Ultrafast Sciences (UFS 2025)"", 3 Lakhs, W81
c) Japanese Travel Grant to attend the SMOLQ-2025 Workshop, 1.3 Lakhs
d) Molecular Photoionization Dynamics with Ultrashort Orbital Angular Momentum Pulses"" (Project nr: 7304-3) Funding agency: CEFIPRA, 174 Lakhs, April 2025, G803"
Yogesh Kumar Srivastava
"1Title: Development of S, C, and X Band Ferroelectric Tunable Filters for
Microwave Device Applications, PI: Dr. Yogesh Kumar Srivastava, Indian
Institute of Technology Hyderabad
Stake holding Lab: DMRL, DRDO
Project Cost: 20,31,755 Lakhs
PDC: 03 Years, Sanction Date: 02/09/2026"

Inventing & Innovating in Technology for Humanity

VIRTUAL DEPARTMENTS



Department of Climate Change

The Department of Climate Change at the IIT Hyderabad attempts to explore climate change, integrating academic knowledge with practical knowledge, bringing scientists, engineers, practitioners, and students together. The key is to foster an interdisciplinary space of inquiry that incorporates climate sciences, technology, engineering-based design approaches, and social and policy research. We, at IITH, plan to be a leading institute in the synergy among these three key areas. Recognizing the urgent need for interdisciplinary solutions, the department brings scientists, engineers, practitioners, and students together. The department offers a comprehensive curriculum that integrates climate sciences, technology, engineering, social policy research, and sustainable practices, supported by IITH's innovative fractal academics program. The department fosters a collaborative environment, enhanced knowledge, technological innovations, sustainable practices, and business opportunities.

For more information, please visit: https://cc.iith.ac.in/

Affiliated Faculty

Head of the Department



Prof. Asif Qureshi
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Professor



Debraj Bhattacharyya
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Anindita Majumdar
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Adjunct Professor



Venkata Krishna Kumar Upadhyayula
Sustainability Expert, Scania Technical Center, Sodertalje Sweden



Rajib Shaw
Keio University, Japan
Profile page: ***https://rajibshaw.org/***

Adjunct Professor



Chetan Singh Solanki
IIT Bombay
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https://www.ese.iitb.ac.in/faculty/chetan-singh-solanki

Distinguised Professor

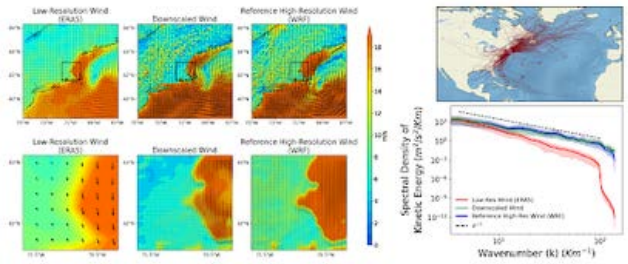


Prof. Vinod Tare
Distinguished Professor
Profile page:
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Research highlights:

1. **Downscaling for accessing climate risk :**

Dr. Anamitra Saha and collaborators have developed a physics-guided generative AI framework for downscaling climate extremes and assessing associated risks. The methodology has been extended to downscale extratropical storms, which have historically been challenging to model. By integrating a stochastic synthetic storm generator that realistically mimics observed storm characteristics, the framework enables risk assessment beyond the limitations imposed by the observational record. In addition, the assumption of invariance underlying machine-learning-based downscaling methods has been tested at the convection permitting scale.



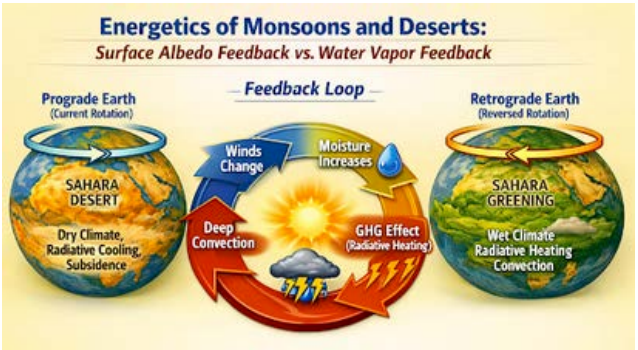
2. **Serious games for climate risk awareness:**



In collaboration with MIT, a pilot field study was conducted in the Sundarban region, a highly vulnerable ecosystem. The study explored whether games can help communities develop a risk-based understanding of climate-related hazards and decision-making. A prototype board game was designed and played with local participants to examine how they responded to different climate extremes and made decisions under risk. Feedback was collected to assess how effectively the game captured the nuances of climate adversity experienced by the community. The findings will be used to further refine the game and its application for climate risk research and engagement.

3. **Monsoon over the Sahara.**

Previously, it was thought that the monsoon cannot develop over the Sahara due to its bright sand, which reflects sunlight and thereby cools the atmosphere efficiently. A cooling atmosphere sinks, creating high pressure and enhancing aridity. In a recent study, Dr. Chetankumar Jalihal (IIT Hyderabad) and Dr. Uwe Mikolajewicz (Max Planck Institute for Meteorology) show that this is not the dominant mechanism. It is the lack of water vapor that leads to the radiative cooling of the atmosphere over the Sahara. They demonstrate this by carrying out a counterfactual reverse rotating Earth simulation. In this simulation, enough moisture penetrates the Sahara due to changes in winds. Water vapor is a greenhouse gas. It heats the atmosphere and thus creates conditions suitable for ascent of air and cloud formation. Thus, in this simulation a strong monsoon develops over the Sahara.



4. **Multi-Branch CNN for orographic bias correction of satellite precipitation:**

Satellite precipitation estimates offer invaluable global coverage, but suffer from severe systematic errors over complex mountainous terrain due to passive microwave signal degradation and uncaptured warm-cloud orographic uplift. To resolve these uncertainties, Dr. Shruti Upadhyaya and PhD scholar Yashraj Upase have developed a Multi-Branch Convolutional Neural Network (CNN) framework that performs targeted bias correction across critical orographic regions where rainfall under- or over-estimation leads to severe hydrological consequences.

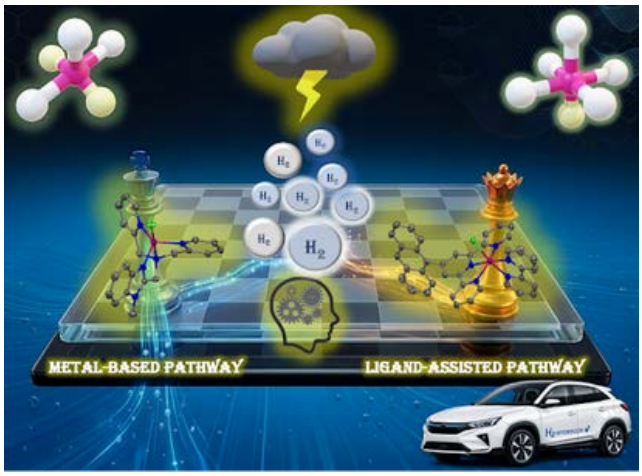
The architecture fuses three distinct inputs: satellite precipitation observations (IMERG), fine-scale topographic variables (DEM elevation, aspect, and slope), and NWP-based atmospheric variables providing physics-based environmental conditioning.

By capturing complex non-linear interactions between atmospheric dynamics and terrain geometry, the multi-branch model generates spatially consistent precipitation estimates for ungauged mountain catchments and key downstream application sectors.



5. The Cobalt Catalysts: Turning Water into the Fuel of a Sustainable Future

Dr. Somnath Maji's research group has developed a series of cobalt-based molecular catalysts for sustainable hydrogen generation, with particular emphasis on understanding how catalyst structure and reaction conditions influence catalytic performance and mechanistic pathways. The work highlights the importance of rational catalyst design and provides valuable insights into the factors governing efficient hydrogen evolution. The demonstrated activity in aqueous media further enhances the practical relevance of these catalysts, offering promising directions for developing efficient and sustainable systems for future hydrogen-energy applications. (ChemCatChem, 2026, 18, e70917; Chem. Asian J., 2026, 21, e70969)



6. Activities in the period 2025-26

- Invited speakers: Prof. Jim Thomas (International Centre for Theoretical Studies – ICTS, Bangalore)
- Climate Day : Invited speakers, Dr. Ram Ratan (Director, Earthquant), Dr. Yuki Sato
- This year we initiated the Climate Cafe, an open to all, in-formal space to discuss climate change and related aspects. We meet once a month, and two volunteers lead the discussion.

Department of Engineering Science

The B.Tech. in Engineering Science at IIT Hyderabad is India's first programme of its kind, established in 2012 to give students the freedom to explore, choose, and specialize. Over the years, the programme has evolved into a distinctive interdisciplinary engineering education model. Students spend the first two years building a strong foundation across core sciences and engineering disciplines, followed by two years of focused study and specialization in their chosen field of interest.

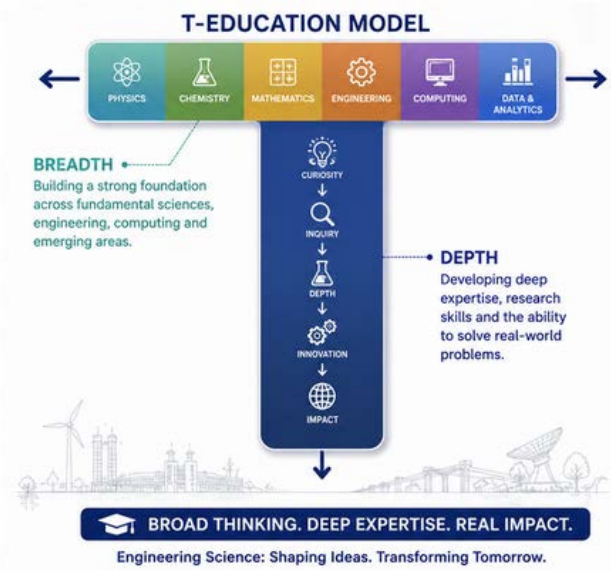
This programme structure reflects current industry expectations for what is commonly referred to as a "T-shaped education."

Curriculum Development and Enhancement

The Engineering Science programme continues to evolve through a collaborative and interdisciplinary curriculum development process involving faculty from participating departments. Regular curriculum updates ensure that the programme remains responsive to advances in engineering, emerging technologies, and changing academic and industry requirements.

During 2025–26, the curricula for several specializations were revised in consultation with faculty from the respective departments. These revisions focused on introducing new courses, updating existing syllabi, strengthening interdisciplinary learning, and enhancing learning outcomes to equip students with contemporary and industry-relevant skills.

The programme currently draws on the expertise of faculty members from across different departments, strengthening its interdisciplinary character. The flexibility of the programme is further supported by opportunities for students to pursue specialization across engineering disciplines, while branch changes to any individual department are limited to 10% of the students to maintain the programme's interdisciplinary balance.



Student Engagement and Support

The Department of Engineering Science is committed to creating a supportive and engaging environment that enables students to explore research, internships, and broader academic opportunities. Regular mentorship programmes help students identify and pursue research internships, with several students benefiting from the six-month internship opportunities available at IIT Hyderabad.

The department also facilitates access to essential student support resources, including scholarships, academic tutoring, and mental health support services. To further encourage interaction, collaboration, and peer engagement, a dedicated student interaction space has been established within the department.

For more information, please visit: https://es.iith.ac.in/

Affiliated Faculty

Head of the Department



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Professor



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Aravind Kumar Rengan
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Department of Heritage Science and Technology

The Department of Heritage Science and Technology (HST) at IIT Hyderabad pioneers the application of advanced science, deep technology, and engineering to conserve, document, and scale India's vast tangible and intangible heritage assets. Grounded in traditional Indian Knowledge Systems (IKS) and powered by modern innovations—such as artificial intelligence, biomechanics, spatial computing, and materials science—the department is designed to de-fragment traditional industries, upgrade artisan livelihoods, and create high-impact research. By integrating rigorous pedagogy with active incubation, HST prepares scientists, technologists, and industry leaders to transform authentic cultural assets into globally scalable technological and economic solutions.

Academic Programs for Professionals: Offers flexible, evening- and weekend-based online M.Tech (48 credits), Executive M.Tech (24 credits), and Ph.D. programs tailored for working engineers, architects, doctors, and humanities professionals, culminating in industry- or venture-oriented theses.

Specialized Curricular Tracks: Delivers targeted coursework across four interdisciplinary domains: Yoga Technology (neurotech, ECG/EEG, and biomechanics), Indic Language Processing (Sanskrit NLP, linguistics, and speech systems), Conservation & Reconstruction (AR/VR, structural modeling, and 3D scanning), and Archaeometry (biomaterials, archaeo-metallurgy, and chemical forensics).

Translational Innovation: Converts academic research into commercial reality through its incubated arm, the BHERI Technology Foundation, driving enterprise incubation and startup ventures at the intersection of heritage, wellness, and deep tech.

Indigenous Deep-Tech Product Suite: Commercializes ready-to-deploy platforms, including Dhārā (Indic data and lexicon APIs), Abhyās (markerless motion capture and biomechanical digital twins), Anubhūti (immersive 3D virtual cultural tourism), and Rañjanā (gamified cultural edtech).

For more information, please visit: https://www.hst.iith.ac.in/

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Adjunct Faculty



Gopikrishna Deshpande
Professor, MRI Research Centre, Auburne University, USA



Rama Jayasunder
Professor, NMR, AIIMS, New Delhi



Subrahmanyam Korada
Professor Emeritus, University of Hyderabad



Vishwanath M. V
Assistant Professor, Kameshwar Singh Darbhanga Sanskrit University



K S Kannan
Chair Professor, Dept. of HSS, IIT Madras
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Shiva Kumar H R
Co-founder & Director, Bhashini.ai



Vasant Shinde
CSIR Bhatnagar Fellow, CCMB

Distinguished Faculty



Amba Kulkarni
Professor, Dept. of Sanskrit Studies, University of Hyderabad.

Research Highlights

1. **Computational Musicology & AI for Indian Music:** Culture-specific machine learning models for raga identification, śruti tracking, melodic contour analysis, and rhythmic audio source separation.
2. **Computational Linguistics & Sanskrit NLP:** Specialized NLP pipelines and Retrieval-Augmented Generation (RAG) frameworks for morphological parsing and algorithmic structural analysis of constrained Sanskrit visual poetry (Citrakāvya).
3. **3D Digital Twinning & Spatial Heritage Documentation:** High-resolution aerial and terrestrial photogrammetry, reality capture, and millimeter-accurate digital twin modeling for the preservation of vulnerable historical monuments.
4. **AI-Enabled Structural Health Monitoring:** Computer-vision inspection systems and non-destructive evaluation (NDE) algorithms for automated micro-crack identification and masonry degradation mapping.
5. **Yogasana Biomechanics & Motion Intelligence:** Markerless computer-vision kinematic tracking to quantify joint torques, center-of-mass displacement, and neuromuscular stability during complex postural transitions.
6. **Epigraphy, Script Decipherment & Maritime Technologies:** Cryptanalytic approaches applied to ancient script analysis alongside reverse-engineering studies on the naval architecture and assembly of ancient stitched-ship vessels.

Thrust areas

- Computational Linguistics & Indic NLP
- Yoga Technology & Neuro-Physiological Computing
- Biomechanics, Motion Intelligence & Digital Twins
- 3D Spatial Heritage & Photogrammetric Digital Twinning
- AI-Enabled Structural Health Monitoring & Monument Conservation
- Archaeometry, Archaeo-Metallurgy & Heritage Biomaterials
- Computational Musicology & Audio AI
- Epigraphy, Script Decipherment & Ancient Engineering Systems

Major research facilities

- Yoga Technology & Neuro-Biomechanics Laboratory
- Heritage Informatics & Indic NLP Computing Facility
- 3D Reality Capture & Digital Twinning Suite
- Archaeometry& Heritage Materials Forensics Laboratory
- AR/VR & Spatial Computing Laboratory
- BHERI Translational Prototyping & Incubation Facility

Activities in the period 2025-26

1. The Department of Heritage Science and Technology, IIT Hyderabad is organized a two day workshop on AI Applications for Indian Music on 5th and 6th, April 2025 at IIT Hyderabad.
   Invited experts:
   - Xavier Serra, Thomas Nutall and Adithi Shankar, from the Music Technology Group at our Department, are part of the invited experts.

2. **Balvargah : Workshop for younger cohort for training in Sanskrit**

   Department of HST organised a workshop for youn students to provide training in Sanskrit on 24th Aug, 2025



3. The CSL Department of CSU, the HST department of IITH and the IKS Cell of IITH conducted a Sanskrit Workshop on 16th to 17th August and 23rd to 24th August 2025.









CAMPUS CHRONICLES





BUILD Project

BUILD (Bold and Unique Ideas Leading to Development) program provides a platform to all UG and PG students at IIT Hyderabad with financial support of up to Rs. 1 Lakh to enable their ideas into tangible prototypes. Various ideas which involved hardware, software, app, etc were supported. An internal faculty committee has thoroughly scrutinised all the applications received from students who have shown interest in the BUILD program FY 2025-26.

Depending on the title of the project, students are encouraged to either work solo or in groups, with a mentor. Multiple review sessions were conducted to monitor the progress of projects. A budget of Rs. 2006000/-has been approved for the Shortlisted Project.

BUILD Projects for the Financial Year 2025-2026:

S. No.	Title of Project	Name of the Applicant	Names of Team members	Grant
1	Automatic Machine at Community Level for Ready to Grow Oyster Mushroom Bags	Shreyansh Nayak		50000
2	Guardian Drone: Smart, Non-Lethal Security for Modern Institutions	Mamidi Bharath		100000
3	SWASTHBOX (Repeated)	VINOD KUMAR B		50,000
4	Project Maya - Making AI as Your Assistant	BOGIREDDY VISHNU VARDHAN REDDY	Omkar Nilkanth	20000
5	Development of LAMP-based Rapid and Affordable Diagnostic Assay for Detection of Urinary Tract Infections (UTIs) and Associated Antimicrobial Resistance (AMR)	Akriti Kumari		50000
6	InstantMentor	Mohit Sagar		20000
7	Krishi Sahay: Leveraging Machine Learning to Optimize Crop Production - Tackling Overproduction and Underproduction	Prateek Giddaplavar		20000
8	Integrated machine for PCB recycling and precious metal recovery	Sri Lekha		50000
9	ShunyaCoach	Adamya Verma	Sahil Odhavia , Kaushal Morankar	50,000
10	KrishiConnect Systems: Revolutionizing Agricultural Supply Chains with Blockchain	Amit Vikram		20000
11	TempEase	AMIT KUMAR KHOIWAL		20000
12	Development of Rotating Detonation Engine	Arnav Prashanth	Arnav Prashanth, Soumyajit Maji, Arnav Govindu, Neel Prajapati, Naren Karthik T, Darshan V, Aditya Kumar Singh, Shri Satyavada Harini	86000
13	AI-Driven Real-Time CNC Tool Wear Monitoring & Prediction	M.Sharath chandra		100000
14	Ram-Rocket Hybrid Engine for Future-Ready Defense Aircrafts and UAVs	HARSHAVARDHAN MADISHETTI		100000
15	LightSpeakAI	AJAY WANEKAR		20000
16	Rakshaved : The Science of Safer Prescriptions.	Rohit Prabhakar Gundeti		20000
17	Sukshma Flow	Sourav Maji	Odhavia Sahil Jaykishan and Akshaya Prakash	20000
18	Gamified Cybersecurity "Learn By Doing" Edtech Platform	Vikramaditya Gaikwad	Vikramaditya Gaikwad	20000
19	Defeat-Deepfake : Robust and explainable detection of deepfake images using vision transformers and GAN-based forensics	Pathri Vidya Praveen	Shiva Chethan Halamane, Jakkula Adishesh Balaji	20000
20	Quantum Generative AI Models for Drug Discovery	Kishore Reddi		20,000
21	CoInvest	Vedant Gupta	Ayush Dhakad	20000
22	NEERA(Nearshore economic exploration ROV/AUV)	Saragadam Yagna Sri	Varad mallurwar	100000
23	Building an Intelligent Construction Materials Procurement Infrastructure: End-to-End.	SHINJU SHAJI		20000
24	BuildYourModel- Cognira	Aric Maji	Aric Maji; Akshat Banzal; Golla Shriram	20000
25	AI Agents for Disruption Mitigation in Supply Chain Finance	Balusu Bhanu Prakash		20000
26	EaseLift	Jeffin Steve		50000
27	Photographer's AI Assistant	Guna Sekhar Reddy Panaganti		20,000
28	OTP Based DoorLock	Kamal Koushik Duppalapudi	Disha Daga	50000
29	RECYCLING APP	Disha Daga		20000
30	Development of Lightweight syntactic foam with improved tensile strength	Khaja Kamal Fayaz Ahmed		50000
31	Project - D Cyclotron for Education and Research	SANDEEP RAJANSINGH RESWAL	ADITH FRANCIS K; SONAWANE RENUKA ANIL; ARSHAD HARITH; ALVIN VIJAY V S; MUHAMMED SHAMIL	50000
32	ElevinAI (test.elevin.ai)	Ankush Singh	Jitender Singh Yadav	100000
33	Pupil-Based Fatigue Screening System for Night-Time Driver Safety	Kalapureddy Srinivasa Varun Reddy	Parishkrith A	100000
34	NiCo-SMART	FEBA FRANCIS	SUJIT NARAYAN S	50000
35	TAMIR	Mohsin Alam Siddiqui	Syed Zain Ahmed	20000
36	TOCN: The Only Catalyst Needed	Syed Zain Ahmed Syed Anis Ahmed	Mohsin Alam Siddiqui	100000
37	Pioneering Ultra-Pure Water Storage for India's Future	Sattwik Singh	Sattwik Singh	100000
38	Supply Terra	Divya Saraika		100000
39	Spiritual wellness platform	Dasari Jayaramesh		20000
40	First Aid Kit For Construction workers	Aditya Patankar		40,000
41	Data Acquisition (DAQ) system	Aayush Dua		1,00,000
			Total	**50000**

Tinkerer's Lab

Building, Experimenting and Innovating Beyond the Classroom

During 2025–26, Tinkerers' Lab at IIT Hyderabad continued to provide a hands-on environment for students to transform ideas into working solutions across Software Development, Machine Learning and Mechatronics. Through technical projects, workshops, structured learning programmes and participation in innovation showcases, the Lab strengthened interdisciplinary learning and encouraged students to apply engineering concepts to real-world challenges. TL Report (2025-26) (1)

Projects & Innovation

Student teams worked on projects spanning software, artificial intelligence, computer vision, embedded systems, robotics and autonomous technologies.

Software Development: The team successfully developed the Terminal Velocity architecture for THRUST, enabling independent development across multiple teams through a central data contract and structured deployment framework. Tinker Tech Camp and TinkerFresh also introduced students to practical software development through hands-on coding and community learning sessions. TL Report (2025-26) (1)

Machine Learning: Projects included an AI Food Nutrition Analysis System for identifying Indian food items and estimating nutritional values; an Automated Truck Loading Detection System using computer vision; and AQUA Resume Systems, focused on ATS-safe resume formatting and automated evaluation.

Mechatronics: The Lab successfully demonstrated a secure RFID-based Electronic Voting Machine prototype. Ongoing initiatives included WALL-E, an autonomous waste-collection robot using ROS2 and stereo vision, and an Autonomous Food Delivery Drone integrating aerodynamic design and Pixhawk-based avionics. TL Report (2025-26) (1)







Learning & Community Initiatives

Summer School: A structured technical learning programme enabled new members to develop fundamentals in Software Development, Machine Learning and Mechatronics through curated resources, practical exercises, mentoring and regular assessments. The initiative helped bridge classroom learning with project-based technical experience. TL Report (2025-26) (1)

TinkerFresh: The three-day immersive programme introduced first-year students to hands-on engineering through Arduino and mechatronics, Python-based data analysis, Machine Learning, Linux, Git/GitHub and LaTeX. The programme helped students move from theoretical concepts towards practical project building. TL Report (2025-26) (1)

Hands-On Arduino Workshop: Students received foundational training in embedded systems, sensor interfacing and hardware prototyping. With 45+ participants, teams worked with physical hardware and simulation platforms and successfully demonstrated functional prototypes. TL Report (2025-26) (1) TL Report (2025-26) (1)

Winter WonderLab: This month-long online technical immersion programme introduced first-year students to Quantum Computing, Numerical Methods, Competitive Programming, Machine Learning, MATLAB, Python, LaTeX, circuit design and Arduino prototyping, building a broad foundation for future technical projects and competitions. TL Report (2025-26) (1)

RISE: Inter-IIT Innovation Showcase

Tinkerers' Lab represented IIT Hyderabad's Mechatronics vertical at Innovation Day & RISE@IITs, showcasing student-led solutions to real-world challenges. Projects included D-Delivery, an autonomous drone-based system for transporting food and medicine using QR-code-enabled package retrieval, and a Computer Vision-based Boom Barrier, designed to automate vehicle access through real-time licence-plate recognition. The participation provided students with exposure to the broader Inter-IIT innovation ecosystem and opportunities for knowledge exchange.

From Learning to Building

Tinkerers' Lab continued to strengthen IIT Hyderabad's culture of learning by doing during 2025–26. From AI and software systems to autonomous robots, drones and embedded hardware, the Lab enabled students to explore emerging technologies through practical experimentation. Its workshops, technical programmes and innovation showcases provided an environment where students could learn, collaborate, prototype and transform ideas into real-world solutions.

Ek Bharat Shrestha Bharat




Onam Celebrations






Students participated in traditional attire, they made beautiful flower rangolis in Athapookalam. The events included Sundarikku Pottuthodal, Gesture's Mask Making, Mini Uriyadi, Vadamvali (Tug of War), mini-Ambeyyal, and the mesmerising Shuffle's Dance Performance. Enthusiasm and togetherness defined the celebration.




Garba Night





Garba is not just a dance form; it is a celebration of culture and rhythm. The Garba Night was organized after seven days of Garba practice sessions by Shuffle. The event brought together participants, performers, and spectators to celebrate tradition, joy, and community bonding. It rained in the evening where students danced joyfully making the event extra special and memorable.

Ek Bharat Shrestha Bharat





Makar Sankranthi







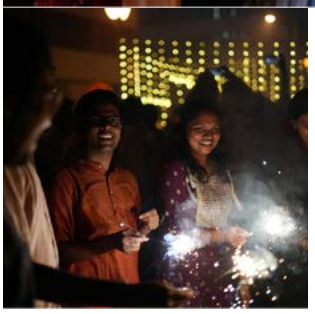
Celebrated all over India, this traditional festival filled the campus with warmth and happiness. The student community came together and decorated the sky with kites. People gathered around the traditional bonfire making the evening cheerful. The rangoli making activity beautifully reflected the artistic talents and cultural creativity of the participants. The Shuffle Dance Club of IITH delivered a high-energy performance, followed by a jamming session by VIBES and an open mic for singing, poetry, and storytelling, making EBSB Sankranti 2026 truly memorable.







Diwali Celebrations









The event as we call it "Ye Diwali Apno Wali!", a two day event, lit up every corner with vibrance and glowing smiles. Participants enjoyed Diya Painting, Mehndi, Clay Modelling, Decorations, and Rangoli Making. The most anticipated Sky Lanterns lit up the night, along with a Dance Performance. The Director and FIC visit added to the festive spirit of the celebration.

Ek Bharat Shrestha Bharat




Holi Celebrations



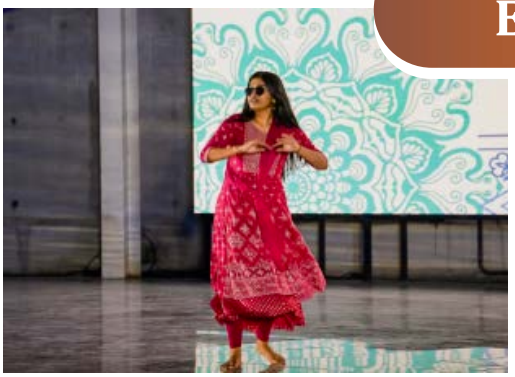


Holi Utsav is the most cheerful and colourful event of EBSB. The students apply organic colours on each other and dance in the immersive rain, a specialized overhead sprinkler system. The music and the laughter ensured the energy of the event was kept at peak. It left everyone with colourful memories and a stronger bond.





Ethnix





Ethnic Night showcased traditions, inclusivity, and togetherness. The evening featured a captivating dance performance by students from Tokyo University, Japan, along with cultural performances like dance, music, storytelling, and poetry. Fun activities like the Saree Draping Challenge and Paper Folding added excitement, and the draped sarees were shown off in a fun ramp walk. The venue, decorated with colorful lights, creative designs, and handmade decorations, looked bright and welcoming. A photo corner became a popular spot where participants captured instant pictures with friends as happy and memorable keepsakes.

NSS Activities



The National Service Scheme (NSS) at IIT Hyderabad continued to strengthen the spirit of social responsibility, community engagement, environmental stewardship and active citizenship during 2025–26. Through campus initiatives, outreach programmes, awareness activities and volunteering opportunities, students engaged with social, educational, health and sustainability issues.



Re-Ignite – Reviving the Spirit of Service

Re-Ignite, the flagship NSS initiative, encouraged students to look beyond academics and engage with pressing social and environmental issues. The programme featured social cause talks, debates, awareness drives and hands-on workshops covering gender equality, education, environmental sustainability, Indian Sign Language, paper recycling, and emergency survival and CPR skills.

The NSS Rural Outreach Camp offered students firsthand exposure to rural communities and grassroots challenges. Volunteers engaged with school students, local government institutions and farmers, conducting awareness sessions while gaining insights into public service delivery, rural livelihoods, sustainable agriculture, hygiene, gender equality and education.

NSS Rural Outreach Camp





Indian Sign Language Workshop

An Indian Sign Language Workshop, organized with the PHIN Deaf Organization, introduced participants to basic sign language while promoting inclusivity, accessibility and awareness of communication with the deaf and hard-of-hearing community.



Cleanliness, Environment & Sustainability

NSS strengthened environmental responsibility through 8 Swachh Bharat drives and 6 Clean India Drives, with the latter recording 925 volunteer participations and 343 bags of trash collected. Plantation drives, weed-removal activities and five walkathons further promoted campus cleanliness, greenery, sustainability and healthy living.

Community Service & Social Outreach
NSS organized two blood donation camps, collecting a total of 298 units of blood. Through Vidyadaan, volunteers supported government-school students in academics, communication, general awareness and career guidance. Visits to an NGO and an old-age home further encouraged empathy, social responsibility and meaningful community engagement.

Health, Education and Community Outreach





Awareness & Civic Engagement

NSS promoted civic awareness and social responsibility through essay and drawing competitions, alongside online initiatives on the Indian Constitution, environmental responsibility, support for soldiers, cleanliness, scribe volunteering and mentorship. The activities encouraged students to participate actively in community-oriented and nation-building initiatives.

Social & Environmental Outreach:

NSS extended its outreach through National Youth Day celebrations, Margdarshan school visits, lake cleaning, Gram Sabha engagement and Safai Mitra welfare initiatives, including health screenings for 80+ Safai Mitras. Environment-focused activities such as World Environment Day, donation campaigns and Vriksha Bandhan further promoted sustainability, community service and social responsibility.





2025–26 Activity Snapshot

S. No.	Title of Project	Reported Count
1	Swachh Bharat	8
2	Clean India Drives	6
3	Weed Removal	1
4	Plantation Drives	2
5	Vidyadaan	3
6	Offline Essay & Drawing	3
7	Online Events	13
8	Walkathons	5
9	Orphanage Visits	2
10	Blood Donation Camps	2
11	Major Events	6
12	NSS Camp	3
13	Others	10







Overall Impact

Across 2025–26, NSS IIT Hyderabad combined service, learning and student participation through a broad portfolio of campus and community initiatives. The programme promoted cleanliness, sustainability, health awareness, civic responsibility, inclusivity, education and empathy, while giving volunteers practical opportunities to contribute to society and develop leadership, communication and teamwork skills.

EML

EML IIT Hyderabad: Voices That Inspire, Stories That Transform"

The 2025–26 tenure of Extra Mural Lectures (EML) at IIT Hyderabad was marked by growth, resilience, and meaningful intellectual engagement. Through seven distinguished speakers spanning calligraphy, spirituality, science, entrepreneurship, engineering, architecture, leadership, and social impact, EML brought diverse perspectives and inspiring stories to the IITH community. The year also witnessed the launch of dedicated Media & Outreach and Sponsorship Teams, sustained digital growth, and a full-house finale at LHC6. EML_Annual_Report_2025-26 (1)

- **Distinguished Speaker Series:** EML hosted seven eminent speakers during 2025–26: Shri Achyut Palav, Acharya Prashant, Dr. Vijayalakshmi Deshmane, Dr. Gururaj Deshpande, Dr. Pramod Khargonekar, Architect Jayneel Trivedi, and Dr. Ravi Sharma. Their sessions covered fields ranging from visual arts and philosophy to entrepreneurship, engineering, architecture, leadership, and social impact. EML_Annual_Report_2025-26 (1) EML_Annual_Report_2025-26 (1)
- **Memorable Speaker Engagements:** Padma Shri awardee Shri Achyut Palav opened the year's lecture series with a session on calligraphy and creativity, while Acharya Prashant brought spiritual and philosophical perspectives to campus. Dr. Vijayalakshmi Deshmane's highly interactive session encouraged intellectual curiosity, with books distributed to participating students. EML_Annual_Report_2025-26 (1)
- **Diverse Academic Perspectives:** Sessions by Dr. Gururaj Deshpande and Dr. Pramod Khargonekar offered technical and domain-focused insights in entrepreneurship, technology, engineering, and academia, strengthening EML's commitment to serving diverse academic interests. EML_Annual_Report_2025-26 (1)
- **Launch of the Motivational Series:** EML introduced a new Motivational Series with Architect Jayneel Trivedi, who chose IIT Hyderabad as the launchpad for his inaugural motivational series. His energetic and relatable session highlighted the importance of looking beyond conventional definitions of success. EML_Annual_Report_2025-26 (1)
- **Full-House Finale:** The tenure concluded with Dr. Ravi Sharma's session on leadership and social impact, which recorded the year's highest attendance and filled LHC6 to capacity. The turnout was supported by a strategic collaboration with NSS. EML_Annual_Report_2025-26 (1)
- **Media & Outreach Team:** Delivering on a commitment from the previous year, EML established its first dedicated Media & Outreach Team, strengthening post-event coverage, introducing engaging digital content, and helping expand EML's online reach. EML_Annual_Report_2025-26 (1)
- **Sponsorship Team:** EML also operationalised its first Sponsorship Team, focused on building industry relationships, attracting monetary and non-monetary support, and developing a sustainable model for hosting high-profile speakers. EML_Annual_Report_2025-26 (1)
- **Digital Footprint Expansion:** EML's Instagram community grew to 1,266 followers. Regular event coverage and initiatives such as "Important Events of the Day" and "Know the Famous Personality Behind Your Hostel Name" helped maintain year-round engagement beyond lecture sessions. EML_Annual_Report_2025-26 (1)
- **Book Distribution & Student Engagement:** During Dr. Vijayalakshmi Deshmane's session, books were distributed to students who actively participated and asked questions, encouraging curiosity and deeper interaction with speakers. EML_Annual_Report_2025-26 (1)
- **Team Strength & Continuity:** With several domain heads having previously served as EML coordinators, the team benefited from strong institutional knowledge, operational experience, and continuity, contributing to improved execution throughout the year. EML_Annual_Report_2025-26 (1)

News & Future Initiatives: Expanding Horizons

- Building on the progress of 2025–26, EML plans to further strengthen its structure, inclusivity, outreach, and long-term sustainability. Key initiatives proposed for 2026–27 include dual domain heads for greater operational stability; an Associates/Volunteer programme for freshers; a dedicated Freshers' Orientation featuring a panel of speakers; and a Fresher Introduction Video to improve awareness and engagement among incoming students. EML_Annual_Report_2025-26 (1) EML_Annual_Report_2025-26 (1)
- EML also plans to complete its popular Hostel Personality Series, explore opening selected sessions to students from external colleges and schools, formalise corporate sponsorships, and continue building a vibrant, year-round social media presence. EML_Annual_Report_2025-26 (1) EML_Annual_Report_2025-26 (1)

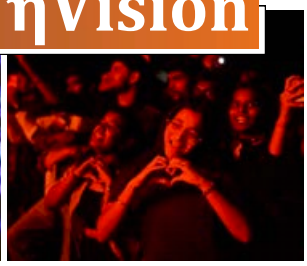
In Essence: A Year of Growth, Grit & Inspiration

- In 2025–26, EML strengthened its position as a vibrant student-led platform for intellectual engagement at IIT Hyderabad. The year saw seven nationally acclaimed speakers, the establishment of the Media & Outreach and Sponsorship Teams, growth to 1,266 Instagram followers, and a full-house finale at LHC6. EML also attracted its first self-initiated speaker partnership and built an experienced team with a strong foundation for the future.

EML is not just growing—it is leading. And the best is yet to come.

ELAN & ηVision






Elan & nVision 2026 came together thousands of students for an unforgettable evening of music and celebration. Shivam opened the night with high-energy beats, followed by the soulful performance of Shreya Baruah. The evening reached its peak with legendary singer Mohit Chauhan, whose iconic hits had the crowd singing along and celebrating together. From energetic performances to emotional melodies, Pop Nite became one of the most memorable highlights of Elan & nVision 2026.



The summit was strengthened by partnerships with leading organizations, including Greenko, Deutsche Börse Group, GHMC, Re Sustainability, TSGENCO, HPCL, Amara Raja, LIC India, and Sonoco. With engaging discussions, networking, exhibitions, and idea exchanges, nVisionX'26 highlighted the vision of Elan & nVision 2026—bringing together innovation, sustainability.








Elan & nVision 2026 blended technical events with creativity and entertainment. Events like Weave a Tale, Face Painting, and Glitz & Glamour showcased artistic talent, while the Bike Stunt Show captivated large crowds with thrilling performances and precision riding. The day concluded with a vibrant campus atmosphere filled with competitions, activities, and performances.




The festivities formally commenced with the inauguration ceremony held in the presence of Shri D. Sridhar Babu, Hon'ble Minister for IT, Government of Telangana, and Prof. B. S. Murty, Director of IIT Hyderabad. Their presence marked an important beginning for Elan & nVision 2026, reinforcing the scale and significance of one of South India's largest student-run techno-cultural festivals. The inauguration set the tone for the three-day celebration that would bring together technology, creativity, culture, and innovation on a single platform.

Elan & nVision 2026 came alive with an unforgettable Indie Nite, featuring the energetic The Deccan Project, soulful Anuj Rehan, and electrifying DJ Tasha. From live grooves and heartfelt melodies to high-energy beats, the performances kept the Old Football Ground buzzing and brought the three-day festival to a spectacular close.











Elan & nVision 2026 featured vibrant cultural competitions including Tales in a Frame, Chronicles & Click, Vivid Motion, Anime Quiz, Filmfare Fiesta, Campus Idol, and Breakfree, drawing enthusiastic participation from students across institutions.

The campus also buzzed with interactive attractions such as VR experiences, PlayStation gaming, car simulators, board games, mystery rooms, archery, balloon shooting, and zorbing, keeping participants engaged throughout the day.

MILAN







Milan 2025, IIT Hyderabad's General Championship, was held from 17th to 26th October 2025, bringing together students from across the institute for ten days of competition, creativity, innovation and camaraderie. With 43 events spanning Sports, Cultural and Sci-Tech domains, Milan provided students with a platform to showcase their skills, represent their hostels and celebrate the spirit of campus life.

Sci-Tech Events

The Sci-Tech segment featured 10 challenging events, bringing together students with diverse interests in technology, innovation and problem-solving. The events included Audio Reconstruction with ML, Astro Photography Challenge, CTF (Capture the Flag), Cepheid Quiz, Lambda Hackathon, Infero – Gridlock, Remote Rumble, Line Follower Boat Racing, Water Rocketry and Kinetic Light Sculptor.

From machine learning and cybersecurity to robotics, astronomy and aerospace-inspired challenges, the competitions encouraged participants to think creatively and apply their technical knowledge beyond the classroom. The events fostered an atmosphere of innovation, teamwork and hands-on problem-solving.

Sports Events

The sporting spirit of Milan came alive through 13 sporting disciplines, with students competing across individual and team events. The championship featured 8-Ball Pool, Badminton, Basketball, Carroms, Chess, Squash, Table Tennis, Tennis, Volleyball, Athletics, Aquatics, Powerlifting and Weightlifting.

The competitions tested participants across strength, endurance, agility, strategy and teamwork. Students battled for their respective hostels while displaying determination, sportsmanship and a strong competitive spirit. The sporting events brought together participants from across the institute and added an energetic dimension to the ten-day championship.

Cultural Events

Milan 2025 also celebrated the artistic and creative talents of the IIT Hyderabad community through 20 cultural events. The lineup included 75 Hr Filmmaking, Photo Story Challenge, Theme Based Photography, Weave a Tale, Solo Singing, Silhouettes, Litsoc Writing, Relay Painting, Gesture Painting, Stand-up Comedy, RDM Improve Game, Framed, Anime Quiz, Cosplay, Debate, BTL Screening, Litsoc General Quiz, Group Dance, Duo/Trio and Battle of Bands. The events provided a platform for performers, photographers, filmmakers, writers, artists and entertainers to showcase their talents. From photography and filmmaking to music, dance, theatre and literature, the cultural competitions reflected the diverse creative spirit of the IIT Hyderabad student community.

The Milan Spirit

With 10 Sci-Tech, 20 Cultural and 13 Sports events, Milan 2025 brought together 43 events across ten days, creating a celebration that extended far beyond competition.

The championship brought students together through moments of intense rivalry, creative expression, technical innovation and sporting excellence. Each event added to the atmosphere of Milan, while the participation and enthusiasm of students made the championship a memorable part of campus life.

Milan 2025 concluded with students carrying forward not only the pride of their performances and hostel achievements, but also memories of the friendships, teamwork and experiences created throughout the championship.







E-Cell

Fostering Innovation, Entrepreneurship & Startup Culture

The Entrepreneurship Cell (E-Cell), IIT Hyderabad continued to strengthen the entrepreneurial ecosystem during 2025–26 through founder interactions, competitions, startup showcases, mentorship, networking and its flagship entrepreneurship summit. The year connected students with founders, investors and industry leaders while providing practical exposure to ideation, business strategy, startup building and innovation.



Orientation 2025

E-Cell welcomed incoming students through Orientation 2025, introducing them to its entrepreneurial culture, domains and opportunities. A fireside chat with Anup Gupta, Founder of MathonGo, explored his entrepreneurial journey, career risks, persistence, decision-making and the challenges of scaling an education startup. The interactive session encouraged freshers to engage with entrepreneurship and student-led initiatives from the beginning of their IITH journey.



Founders' Hive – Bengaluru

The Bengaluru edition of Founders' Hive brought together 15+ startups from sectors including fintech, healthtech, AI, edtech and EV infrastructure. Mentored by Gaurav Dahake and Dharmgya Sharma, the session facilitated discussions on product development, fundraising, scaling, team building and startup execution. The initiative extended E-Cell's entrepreneurial engagement beyond campus and created a platform for founder networking and peer learning.



E-Merge 2025

Held on 11–12 October 2025, E-Merge brought together school and college students, entrepreneurs and industry professionals through competitions, simulations and keynote sessions. The conclave recorded 300+ participants, including 200+ college students from 15 colleges. Its competitions attracted 31 teams, with a combined prize pool of ₹75,000, while Startup Senate engaged 100+ school students in entrepreneurial simulations and business problem-solving.



The conclave also featured sessions by industry leaders including Deepak Gupta, Nitesh Patwari, Vinay Chilakapati and Upasana Kamineni, covering innovation, technology, startup growth, leadership and scaling businesses.

E-Summit 2026

The flagship E-Summit 2026, held from 13–15 March 2026, brought together startups, students, investors, entrepreneurs, mentors and industry leaders through startup showcases, competitions, workshops, networking and keynote sessions.



Startup Fair: Emerging ventures showcased their products and innovations while interacting directly with investors and representatives from organisations including Unicorn India Ventures, Draper and Melbourne Startup Accelerator, creating opportunities for visibility, networking and collaboration.

Startup School: Expert-led sessions provided practical exposure to ideation, MVP development, startup legalities, funding, customer discovery, AI and entrepreneurship, helping participants understand the fundamentals of building and scaling ventures.



Fetching Fortunes × Ideabaaz: Startups pitched their ideas before an investor panel, receiving expert feedback and potential funding opportunities. Winning startups also received an opportunity to feature on Zee TV's Ideabaaz platform.

Keynote Session: Ashish Arora, Founder of Physics Galaxy, delivered "The Laws and Equations of Entrepreneurship," sharing perspectives on innovation, perseverance, problem-solving, continuous learning and startup growth.









Building an Entrepreneurial Ecosystem

Through Orientation, Founders' Hive, E-Merge and E-Summit, E-Cell IIT Hyderabad created platforms connecting students and young innovators with entrepreneurs, startups, investors and industry professionals. Its initiatives combined entrepreneurial learning with real-world exposure, strengthening a culture of innovation, collaboration, networking and venture creation within and beyond the IIT Hyderabad community.

Japan Career Day



IIT Hyderabad, in collaboration with the Japan External Trade Organization (JETRO), successfully organized Japan Career Day 2025 on 30th & 31st August 2025, marking the 8th consecutive year of this flagship event. This year, around 15 leading Japanese companies from diverse sectors such as Manufacturing, Automotive, Sustainability, Energy Plants, and Transportation participated in the event. The two-day program included an inaugural session and company presentations on Day 1, followed by one-on-one student–company interactions on Day 2, enabling students to explore career pathways and build connections with prospective employers.

JETRO facilitated matching sessions and meetings with several IITH laboratories based on the companies' research areas, strengthening industry–academia collaboration. Japan Career Day at IIT Hyderabad continues to serve as a vital platform for fostering Indo-Japanese academic, research, and industry partnerships, while opening global career opportunities for students.

In addition to recruitment-oriented interactions, JETRO facilitated meetings between Japanese companies and IITH research laboratories, identifying opportunities for research partnerships and industry–academia collaboration based on shared technological interests.

Participating Companies

The event witnessed participation from prominent Japanese companies and their Indian subsidiaries, including:

AWL: A market leader in AI and Deep Learning-based video analytics working to revolutionize the retail industry.

Green Carbon Inc.: Sustainability-driven company that supports primary industries by generating carbon credits mainly through methane reduction in rice paddies and streamlining the process with its integrated Agreen platform.

AGC Group: A Japanese manufacturer specializing in glass, chemicals, and electronics for industries such as construction, automotive, displays, and life sciences. The company is now embracing a digital transformation.

Order Busters .Co: Order Busters .Co streamlines operations with smart order management solutions, helping businesses cut inefficiencies and deliver orders with speed and precision.

Ishihara Sangyo Kaisha, Ltd.: As a pioneer in specialty chemicals, Ishihara Sangyo Kaisha, Ltd. Creates products that enhance everyday life and industrial performance. Their focus on quality and responsible innovation defines their global presence.

gbl, inc.: Game Based Learning, Inc., headquartered in Tokyo, uses interactive, game-based pedagogy to drive mastery of the Four Cs: communication, collaboration, creativity, and critical thinking.

Sprix Inc: A leading educational services provider from Japan that is set to launch a new company in India to deliver high-quality online personal coaching for secondary school students.

MUFG Global Service Private Limited: MUFG Global Service Private Limited, part of MUFG, provides financial and technology solutions, supporting global operations with expertise in banking, digital transformation, and shared services.

HIRAOKA HYPER TOOLS INC: HIRAOKA HYPER TOOLS INC is a leader in industrial tool manufacturing, delivering precision solutions that optimize machining performance and support global manufacturing excellence.

DENSO: A global Fortune 500 company with a broad product portfolio and focused on advanced mobility that positively changes how the world moves and contributes to greater well-being.

Mitsubishi Electric Corporation: Mitsubishi Electric Corporation is a global leader in electrical and electronic equipment, driving innovation and sustainability with advanced solutions for energy, manufacturing, and infrastructure.

Hitachi High-Tech India Pvt Ltd: Hitachi High-Tech India Pvt. Ltd. provides advanced analytical instruments and technologies, combining global expertise with local insights to support healthcare, research, and manufacturing.

Macromill Inc.: Macromill, Inc. is a leading global market research firm, providing data driven insights and digital solutions that help businesses make smarter decisions and stay competitive.

NIHON NOHYAKU CO.,LTD.: Nihon Nohyaku Co., Ltd. leverages decades of agrochemical expertise to deliver sustainable crop protection products that help farmers boost productivity and ensure healthier harvests.

Nikko Co., Ltd.: A 100 year old leading plant manufacturer with core technologies that encompasses combustion, mixing, information technology, and belt conveyors.

Through this initiative, IIT Hyderabad reaffirms its commitment to global engagement and to creating meaningful career opportunities for its students in international markets.

Finance and Consulting Club







The Finance and Consulting Club (FCC), IIT Hyderabad, continued to foster financial literacy, consulting skills, product management expertise and industry engagement through interactive sessions, practical learning initiatives, competitions and campus-wide activities during 2025–26. The club provided students with opportunities to explore career pathways, develop problem-solving abilities and connect with industry professionals.

Skill Development & Learning Initiatives

Case Knights: A consulting and product management preparation initiative focused on case-solving techniques, structured thinking and practical frameworks. The club also launched its Product Management Casebook, helping students develop analytical thinking and practise approaching business problems under pressure.




Finance 101: A series of educational sessions introducing students to financial markets and investment fundamentals. Special Quant Finance sessions led by IITH alumni Edward Nathan Varghese, Raam and Dhruv Sharma provided insights into quantitative finance and preparation strategies for careers in the field.

SIDE – Build Your Own Product: Under the Rise & Elevate initiative, FCC collaborated with consultants from McKinsey to conduct a hands-on product development simulation integrating Product Management and Artificial Intelligence. Student teams competed with expert guidance, gaining practical exposure to product thinking and innovation.





Industry Interactions & Speaker Sessions

CNBC × UDAAN: An industry engagement initiative bringing together professionals from media, finance, corporate leadership and entrepreneurship. The programme featured discussions on career development, investment banking and professional opportunities, along with sessions involving startup founders and business leaders.

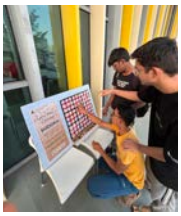
Eknoor Singh: An IIT Bombay alumnus and consultant, Eknoor Singh shared insights into entering the consulting profession, making informed career choices and maximising opportunities during undergraduate studies.

Neha Nagar: Finance content creator Neha Nagar delivered a session on wealth management and long-term financial planning, highlighting practical investment approaches, financial discipline and the importance of developing healthy financial habits early.

Competitions & Campus Engagement

FCC Olympics: A campus-wide initiative featuring 19 games and over 200 active participants, encouraging teamwork, competition and student engagement. The club also organised a UNO Night featuring more than seven games and recreational activities.



Pro Night – Tariq Faizal: A musical evening featuring Qawwali artist Tariq Faizal, bringing students together through soulful performances and cultural celebration.





Through these initiatives, FCC strengthened its role in promoting financial awareness, consulting readiness, practical business skills, industry exposure and student engagement at IIT Hyderabad.

TEDxIITHyderabad



The 2025–26 tenure marked a monumental chapter for TEDxIITHyderabad as it celebrated its landmark 10th edition. Guided by the enigmatic theme Paheli: A Mystery Wrapped in a Metaphor, this year was defined by unprecedented scale, cultural resonance, and meticulous execution.

Freshers' Orientation 2025



Freshers' Orientation 2025 was reimagined as an immersive TEDx-style experience, introducing the incoming batch to the TEDxIITHyderabad ecosystem, culture, and core values of curiosity, courage, creativity, and collaboration. The session featured the journey of TEDxIITHyderabad, past speakers, behind-the-scenes stories, and an overview of team roles. Interactive games, speaker trivia, and TEDx merchandise giveaways created an engaging atmosphere, while a Monster Energy campus activation added an energetic and memorable touch to the experience.

Jashn-E-Sama: Theme Reveal Night



Jashn-E-Sama was an enchanting evening of music, culture, and student performances that marked the grand unveiling of TEDxIITHyderabad's 10th edition theme, "Paheli – A Mystery Wrapped in a Metaphor." Featuring a soulful live Qawwali performance, cultural showcases, and interactive engagements, the event created an atmosphere of curiosity and anticipation. The theme invited audiences to explore the mysteries of human experiences, uncover hidden meanings, and look beyond the obvious—setting the tone for the landmark 10th edition on April 19.

X-MUN 2nd Edition: Diplomacy in Action





X-MUN 2nd Edition, held on 13–14 September 2025 at IIT Hyderabad, brought together 100+ delegates for an immersive simulation of international diplomacy. Across UN-style committees, participants engaged in critical discussions on global issues including AI and human rights, nuclear security, political unrest, cryptocurrencies, and post-conflict stability. Through structured debates, negotiation, and consensus-building, the event strengthened skills in diplomacy, critical thinking, and global affairs. Comprehensive Press Team coverage through newsletters, reports, creative content, and visual documentation further amplified the event's reach and created a lasting record of the experience.



TEDxIITHyderabad 10th Edition – Main Event
Held on 19 April 2026 at the Convention Centre, IIT Hyderabad, the 10th edition of TEDxIITHyderabad brought together six distinguished speakers under the theme "Paheli – A Mystery Wrapped in a Metaphor." Through powerful stories, performances, and personal philosophies, the speakers explored life's complexities, challenges, and unanswered questions. With a full-house audience, vibrant student performances, and strong online engagement, the event culminated the "Paheli" journey, leaving audiences inspired and reflective while setting a high benchmark for future editions.

Conclusion

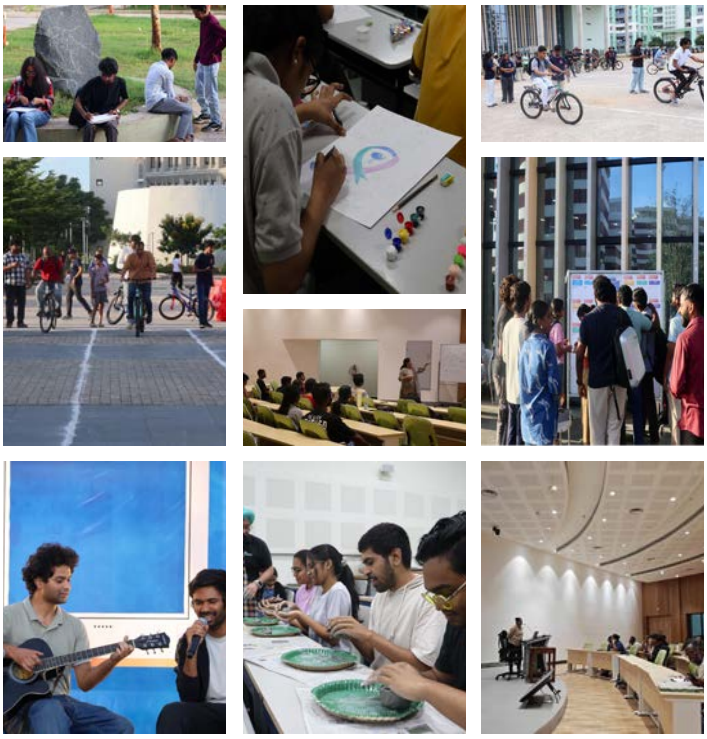
The 2025–26 tenure of TEDxIITHyderabad was a landmark year. With events ranging from lively orientation to thoughtful networking, and from diplomatic simulations to philanthropic outreach, the team embodied every facet of its theme—Paheli.

Each initiative served not just as an event, but as a platform for learning, growth, and inspiration—both for the organizers and the participants. This year has reaffirmed TEDxIITHyderabad's role as a changemaker on campus and beyond.

Sunshine

Sunshine – The Counselling Cell

Since its inception in 2012, Sunshine, the Counselling Cell of IIT Hyderabad, has evolved into a comprehensive student well-being ecosystem combining professional counselling, crisis support, peer mentoring, preventive programmes and student engagement. The Cell currently has five Psychological Counsellors, with access to psychiatric consultation and referrals where required



Professional Counselling & Support

Sunshine provides confidential counselling for academic stress, anxiety, emotional and interpersonal concerns, adjustment to campus life, career and placement stress, and other psychological concerns. An online appointment system facilitates confidential scheduling, follow-up and timely support. Sunshine Activities 2021-26

Peer Support & Mentoring

A structured network of UG/PG Mentors and Buddies, PhD Wellbeing Representatives, Faculty Coordinators and student representatives extends well-being support across the campus. Peer volunteers receive training in communication, emotional first aid, gatekeeping and suicide prevention, helping students connect with professional support when required. Sunshine Activities 2021-26

Well-being & Preventive Initiatives

Throughout the year, Sunshine promotes positive mental health through programmes such as Mental Health Week, Suicide Prevention initiatives, Happiness Carnival, Weekend Wellbeing Series, Art Therapy, relaxation workshops, pre-internship and pre-placement sessions, and other creative engagement activities. The Weekend Wellbeing Series has covered 110 topics and continues to expand.

Freshers' & Parents' Orientation

Well-being orientation sessions introduce incoming UG, PG and PhD students, as well as parents, to campus support systems and common academic and emotional challenges. Welcome Kits provide information on counselling services and guidance on managing concerns such as stress and anxiety.

Student Arena

General Council

The General Council is an umbrella term for various bodies which not only perform representation tasks, but also cater to student welfare, societies, entertainments etc. The General council strives towards the general welfare of the students.
For more details, visit: http://gymkhana.iith.ac.in/

Cultural Council

The Cultural Council are a motivated group of individuals who believe that a college should have its equal share of fun & frolic along with the case studies. Clubs under Cultural Council are Infocus, Behind the lens, Vibes, Rang de manch, Gesture Shuffle, LitSoc.

Sports Council

IITH's sports is one of the more brilliant facets of this campus life. IITH offers plenty of sports facilities, which include a common football & cricket ground, a hockey ground, a well-equipped swimming pool, floodlit courts for basketball, badminton, tennis, and multiple courts for volleyball. Facilities for indoor games like table tennis, caroms, and chess are also available.

Media Council

The media council of IITH was formed in May 2014 & is a student council that helps take IITH to every individual in & outside IITH. They are involved in publicizing our institute through social media, social events, etc. The Media Council is currently engaged in various newsletters of IITH like the academic newsletter, placement newsletter with the guidance of different faculties, and PR Office of IITH.

Scitech Council

The Sci-Tech council is headed by Science and Technology Secretary. It encompasses nine societies : AeroClub, Cepheid, Elektronica, Kludge, Infero, Lambda, Prakriti, Robotix and Torque which covers the diverse nature of science and technology. Various events are organised from time to time, starting from orientation of all these clubs.

Mess Council

Mess monitoring council, also known as MMC, assists in the robust functioning of mess in coordination with mess wardens & HCU. Headed by the mess secretary, it represents the students' voice. It also regularly inspects the operations to look for various faults & ensure that food quality is maintained at IITH. It strives to ensure that all the students have enjoyable and healthy meals at their second home.

SPICMACAY

Celebrating India's Classical Arts, Culture & Heritage

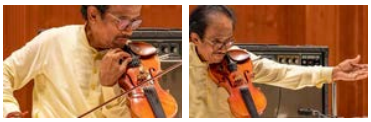
During 2025–26, SPIC MACAY IIT Hyderabad Heritage Club continued to enrich campus life by bringing Indian classical music, dance, theatre and traditional art forms closer to students. Through performances by eminent artists, student-led cultural programmes and collaborations with other institute bodies, the club created opportunities for the IITH community to experience India's diverse artistic heritage firsthand.

10th International Convention SPIC MACAY 2025



IIT Hyderabad hosted the 10th International Convention of SPIC MACAY from 26 May to 1 June 2025, bringing together more than 1,500 students, volunteers, artists and cultural enthusiasts from India and abroad. The week-long celebration showcased India's rich artistic and spiritual heritage through classical performances, interactions with eminent personalities, hands-on workshops in traditional arts and crafts, yoga and meditation, heritage walks, film screenings and cultural activities. Featuring renowned artists and personalities including Ustad Amjad Ali Khan, Begum Parween Sultana, Javed Akhtar, Shabana Azmi and Gulzar, the convention offered young participants an immersive platform to experience, understand and connect with India's diverse cultural traditions.

Violin Recital by Dr. L. Subramaniam: Padma Vibhushan Dr. L. Subramaniam performed at IIT Hyderabad on 19 April 2025, serving as a curtain raiser for the 10th International Convention. Accompanied by accomplished percussion artists, the recital drew nearly 400 attendees and offered the campus community an immersive experience of Indian classical music. SPICMACAY REPORT APRIL-2025 TO …



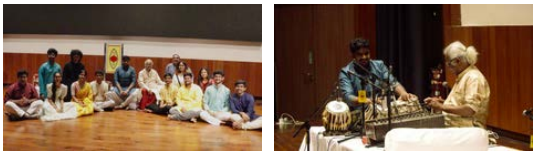
Yakshagana Performance: Sri Idagunji Mahaganapati Yakshagana Mandali, Keremane, led by Keremane Shivanand Hegde, presented the traditional theatrical art form of Karnataka on 10 August 2025. With colourful costumes, expressive storytelling, music and energetic dance, the performance



Classical Evening: Held on 10 October 2025, the student-led programme showcased classical vocal and instrumental music, Bharatanatyam, Kuchipudi and fusion performances. With nearly 300 attendees, the event provided IITH students with a platform to showcase their artistic talent alongside their academic pursuits. SPICMACAY REPORT APRIL-2025 TO …



Santoor Recital by Pt. Tarun Bhattacharya: Internationally acclaimed Santoor maestro Pt. Tarun Bhattacharya, accompanied by Pt. Jyotirmay Roychowdhury on Tabla, performed on 9 November 2025. The recital, attended by approximately 500 participants, highlighted the meditative and expressive dimensions of Indian classical music.



Mridangam Recital – Prof. Yella Venkateshwara Rao





Perini Shivatandavam – Perini Kumar and Troupe





Dhrupad Recital – Ustad Wasifuddin Dagar





Nritya Tarang – IIT Hyderabad Students and Faculty



Keeping India's Cultural Heritage Alive

Through distinguished artist performances, traditional art forms and opportunities for students and faculty to participate as performers and audiences, SPIC MACAY IIT Hyderabad continued to strengthen the connection between young minds and India's cultural heritage. From intimate classical recitals to the 10th International Convention and a 2,000-member gathering during the Inter-IIT Sports Meet, the year's activities created a vibrant cultural environment alongside IIT Hyderabad's academic and technological pursuits.

Collaborations



Strategic Collaborations Driving Innovation

During 2025–26, IIT Hyderabad strengthened partnerships with universities, research organisations, government agencies and industry to advance joint research, technology development, talent exchange and innovation. These collaborations reflect the Institute's commitment to connecting academic excellence with national priorities and real-world applications.

Academic Collaborations

IITH expanded academic engagement through an MoU with the United Nations University – Centre for Regional Integration Studies (UNU-CRIS), collaboration with Central Sanskrit University in Indian Knowledge Systems and interdisciplinary research, and a partnership with the University at Albany, SUNY, for joint research and academic engagement. The Institute also announced the Joint Centre for Advanced Manufacturing Research, Innovation and Training (AMRIT) with Deakin University, Australia. These partnerships create opportunities for knowledge exchange, collaborative research and stronger international academic engagement.

Research & Institutional Partnerships

Key initiatives included collaboration with the Department of Posts and NRSC–ISRO on DIGIPIN, a national-scale geospatial addressing system; work with the Government of Rajasthan on an AI/ML-based mineral prediction system; and participation in a global consortium for zero-carbon silicon refining for solar-panel recycling. IITH also strengthened critical-minerals research with Mahindra University and autonomous-mobility research through TiHAN's agreement with Delhi Metro Rail Corporation (DMRC). These initiatives bring together research expertise and institutional capabilities to address challenges in digital infrastructure, sustainable technologies, mobility and resource management.

Industry Collaborations

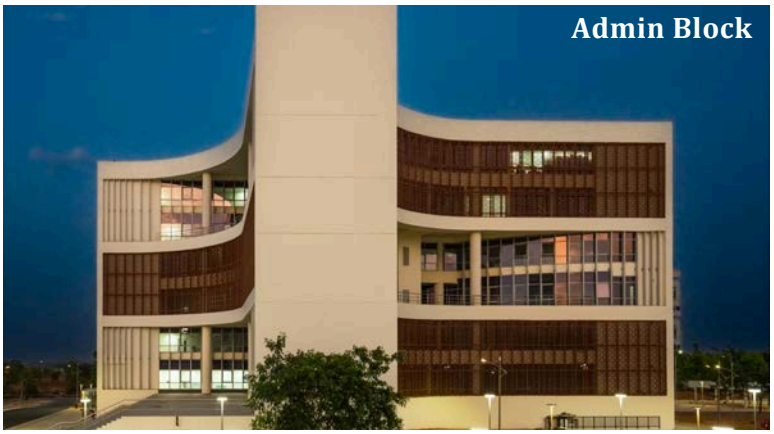
IITH, WiSig Networks and Sharp Semiconductor Innovation Corporation demonstrated advanced Beyond 5G and 6G technologies. TiHAN–IITH and Mitsubishi Electric Corporation partnered on autonomous navigation, while a further agreement with Mitsubishi Electric expanded cooperation in AI, quantum technologies, cybersecurity and smart mobility. IITH also collaborated with Goa Shipyard Limited on AI and digital-twin technologies for shipbuilding and with the Indian Army's Simulator Development Division to establish the VIGRAHA Centre of Excellence.

Through these diverse collaborations, IITH continues to connect research, talent and innovation with industry needs and national priorities, advancing interdisciplinary research, indigenous technologies and solutions with real-world impact.

Architectural Landmarks of IITH





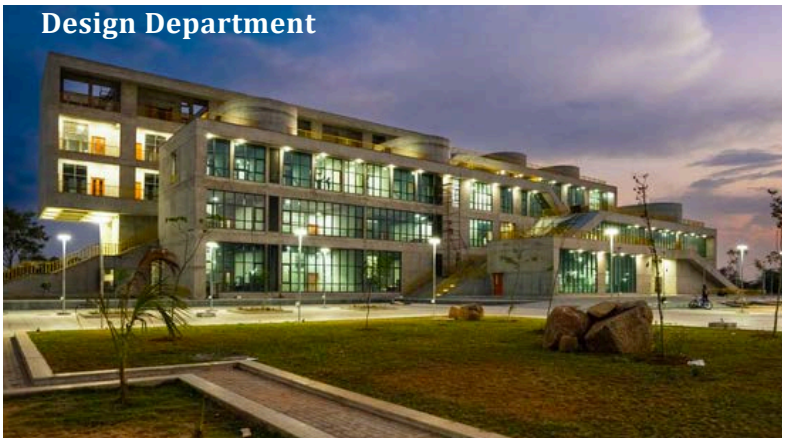




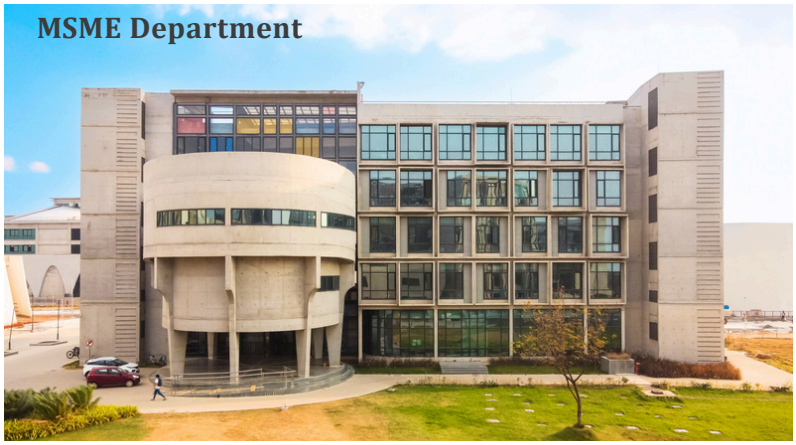








MSME Department



Core Labs Building



DAV School



Health Care Center



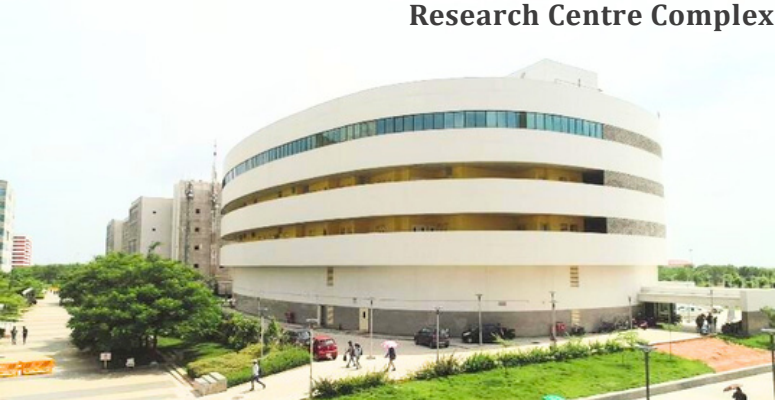
Married Students Housing



Students Hostel & Mess

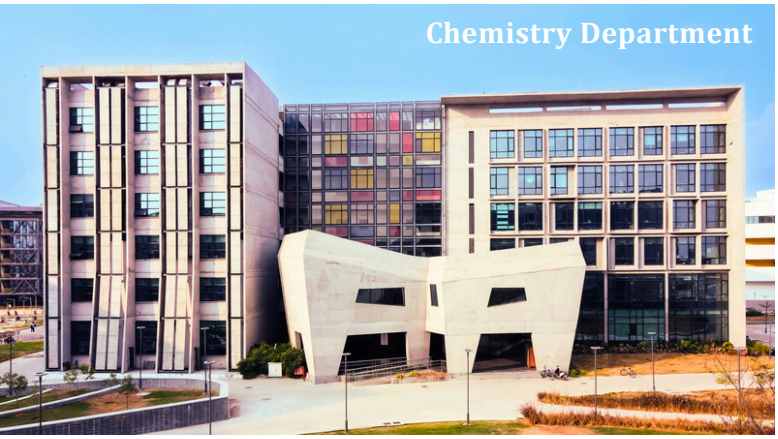


Research Centre Complex

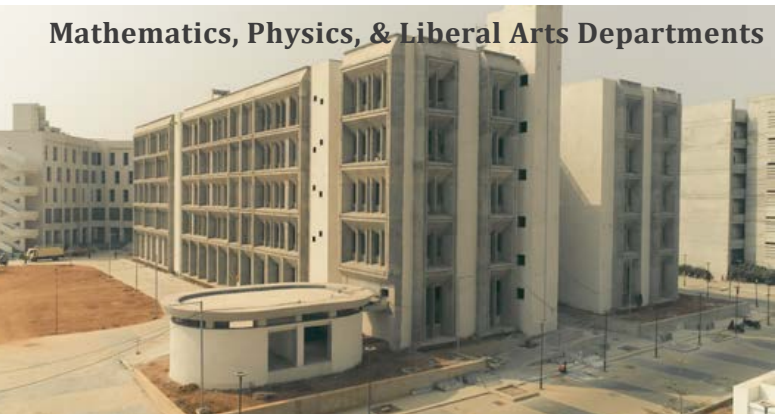


Lecture Hall Complex



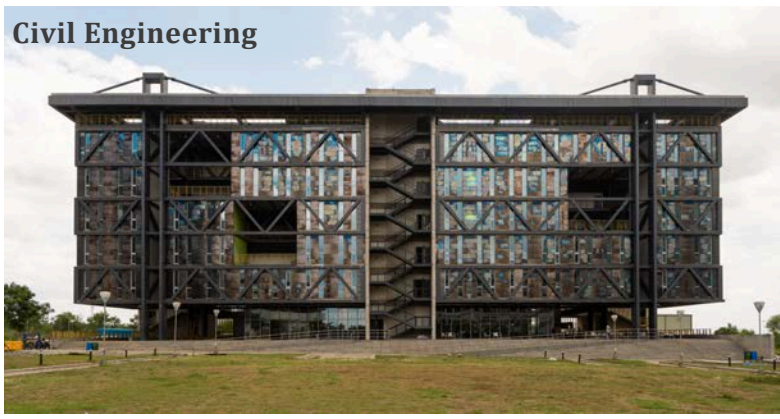

Chemistry Department


BTBM Department


Mathematics, Physics, & Liberal Arts Departments


Electrical Eng & Computer Science Engg. Department


Chemical Engineering


Civil Engineering


Mechanical and Aerospace Engineering


IITH Iconic Tower and Flag

Non-Teaching Staff (FY 2025-2026)

S. No.	Name	Designation	Pay Level
Administration			
1	V Venkat Rao	Registrar	14
Academic Section			
1	Rajnesh MP	Joint Registrar	13
2	V S Sastry	Senior Assistant Registrar	11
3	Vayuvegula Surya Phani Kumari	Senior Assistant Registrar	11
4	Suresh Narayanan Nair	Senior Assistant Registrar	11
5	Reddi Meena Kumari	Senior Section Officer	9
6	S V Sree Devi	Senior Section Officer	9
7	Rongala Lakshmi Prasanna	Senior Section Officer	9
8	S Hemalatha	Assistant Section Officer	7
9	Naveed MA	Assistant Section Officer	7
10	Janardhankumar Tolana	Assistant Section Officer	7
11	Mudavath Bahusingh	Executive Assistant	6
12	Kayyam Sreenivasa Reddy	Senior Assistant	5
13	J Rebekah	Assistant	4
14	S Samuel	Junior Assistant	3
15	Bhimaraju Hemalatha	Junior Assistant	3
16	Pawar Chandra Prakash	Junior Technician	3
Alumni, Corporate and Public Relations			
1	T Vijay Anand	Senior Section Officer	9
2	Akarapu Chittaranjan	Multi Skill Assistant 1	1
Artificial Intelligence			
1	D Ravi Kumar	Senior Technical Superintendent	9
2	Parimisetty Harinadha	Junior Technical Superintendent	6
3	B Vinod Kumar Raju	Assistant	4
Biomedical Engineering			
1	Chavan Sagar Babanrao	Veterinary Doctor	10
2	Anbumani D	Technical Officer	10
3	Saransh Khandelwal	Senior Technical Superintendent	9
4	Krushna Chandra Hembram	Senior Technical Superintendent	9
5	Sairam M	Senior Technical Superintendent	9
6	Khandagale Sudarshan Baburao	Senior Technical Superintendent	9
7	B Jayalakshmi	Senior Technician	5
8	Pulla Prashanth	Technician	4
9	J Manikyam	Technician	4
10	B Rajander	Junior Assistant	3
11	Bandari Pooja	Junior Technician	3
Biotechnology			
1	Pulala Raghuveer Yadav	Senior Technical Officer	11
2	N Ashwini	Senior Technician	5
3	K Velmurugan	Senior Assistant	5
4	M Jayavardhana Reddy	Technician	4
5	Venkatakrishnaprasad SM	Technician	4
6	Naveenprasath T	Junior Technician	3
Central Workshop			
1	Malla Seetarami Naidu	Senior Technical Officer	12
2	Ajith Kanakambaran	Junior Technical Superintendent	6
3	Jeebanbandhu Mahanta	Junior Technical Superintendent	6
4	Vadla Brahma Chary	Senior Technician	5
5	A Praveen Kumar	Senior Technician	5
6	M Srinivas	Technician	4
7	Lohakare Pramod Maroti	Technician	4
8	Lingamaiah B	Technician	4
9	Dhananjay Sahoo	Technician	4
10	G Prashanth	Junior Technician	3
11	Jiban Jyoti Palai	Junior Technician	3
12	Shaiyyam Sakib Sabba	Junior Technician	3

Centre for Continuing Education			
1	Sandolla Dasharath	Assistant Section Officer	7
2	Gollapalli B Durga Manikanta Swami	Accountant	4
Chemical Enginering			
1	Nama Someshwar Rao	Senior Technical Superintendent	9
2	P Gayathri	Senior Technical Superintendent	9
3	V Bhadra Rao Koruprolu	Senior Technical Superintendent	9
4	T Lavanya	Assistant Section Officer	7
5	P Nagarjuna	Senior Technician	5
6	Ch Venkata Krishnaiah	Technician	4
7	Parla Somasekhar	Junior Assistant	3
8	Dasari Kirankumar	Junior Technician	3
9	Kathala Sreevidya	Junior Technician	3
10	Muthukumar S	Junior Technician	3
11	Ramireddi Hari Krishna	Senior Technical Superintendent	9
Chemical Engineering & Materials Science and Metallurgical Engineering			
1	Cheemakurthi M Subhani	Multi Skill Assistant 1	1
Chemistry			
1	MD Samiuddin	Senior Technical Officer	11
2	Kota Venkata Satya Girish	Senior Technical Officer	11
3	Ashok Yeligeti	Senior Technical Superintendent	9
4	Pentakota Sree Ramana Babu	Technician	4
5	Poondla Vijaya kumar	Technician	4
6	Patange Rooby Clarest Melody	Technician	4
7	Surender B	Technician	4
8	Srinivas Pulimamidi	Technician	4
9	Singam Sampath	Junior Technician	3
10	Banothu Devendar	JuniorTechnician	3
11	Chintha Anjali	Multi Skill Assistant 1	1
Civil Engineering			
1	Yaseen Sherief Mohammed	Senior Technical Superintendent	9
2	Jitendriya Raul	Senior Technical Superintendent	9
3	Bhukya Ramakrishna	Senior Technical Superintendent	9
4	Srikanth K	Senior Technical Superintendent	9
5	Gourav	Senior Technical Superintendent	9
6	Kaleeswaran P	Senior Technical Superintendent	9
7	Moganraj M	Senior Technical Superintendent	9
8	S Mani Kumar	Assistant Section Officer	7
9	Kandhukuri Sandeep Kumar	Technician	4
10	Vishwanath B J	Technician	4
11	Muthyalu Kumar	Junior Assistant	3
12	Raviteja Gajawelly	Junior Technician	3
13	Kallepelli Pranaya	Junior Technician	3
Computer Center			
1	Imtiaz Ahmed	Technical Officer	10
2	Manivel R	Technical Officer	10
3	K Raguraman	Senior Technical Superintendent	9
4	Bondla Jessy	Senior Technical Superintendent	9
5	Sanju Kumar Chavan S	Senior Technical Superintendent	9
6	Mandlipalli Anil Kumar Reddy	Senior Technical Superintendent	9
7	Manukonda Rahulteja	Junior Technical Superintendent	6
8	Gandepalli Surya Prakash	Assistant	4
9	Bandam Ganesh	Junior Technician	3
10	Ramavath Ashok	Junior Technician	3
11	Sachin S V	JuniorTechnician	3
12	Gumma Rama Kotaiah	Junior Technician	3
13	Bollavaram Harshavardan Reddy	Multi Skill Assistant 1	1
Computer Science and Engineering			
1	T Vijaya Chakravarthi	Senior Technical Superintendent	9
2	Nakka Syamala Rao	Senior Technical Superintendent	9
3	Jatin Sharma	Technical Superintendent	8
4	Praveenkumar Gaddam	Junior Technical Superintendent	6
5	Nikith Reddy Peddasheri	Technician	4
6	Maloth Sunitha	Technician	4
7	Marepally Shivakumar Reddy	Junior Technician	3
8	P P Hannah Daisy	Junior Assistant	3

Computer Science and Engineering & Computer Centre			
1	Bollavaram Harshavardan Reddy	Multi Skill Assistant 1	1
Construction and Maintenance Division			
1	Vikas Kumar Nagal	Superintending Engineer	13
2	Mahankali Sateesh	Executive Engineer (Civil)	12
3	Sushant Vatsa	Executive Engineer (Electrical)	11
4	S Pramod Kumar	Assistant Executive Engineer(Civil)	10
5	Menda Chiranjeevi	Assistant Executive Engineer (Civil)	10
6	Vanam Aneesh	Assistant Executive Engineer (Electrical)	10
7	Datla Praveen Kumar	Assistant Executive Engineer(Civil)	10
8	Ponna Satyanarayana	Senior Section Officer	9
9	Patibandla Srikanth	Senior Assistant Engineer (Civil)	9
10	Vinay Kumar Beesa	Senior Assistant Engineer (Civil)	9
11	Nadiminti Nagaraju	Senior Assistant Engineer (Electrical)	9
12	Sivakrishna Reddy	Senior Assistant Engineer (Electrical)	9
13	Surender Banoth	Senior Assistant Engineer (Civil)	9
14	Viyyuri Raja Babu	Assistant Engineer(Civil)	8
15	M Yedukondalu	Assistant Section Officer	7
16	T Srinivas	Assistant Section Officer	7
17	Chityala Anand	Junior Assistant Engineer(Civil)	7
18	Gummadi Anil Kumar	Junior Assistant Engineer(Civil)	7
19	Narla Kalyan Kumar	Executive Assistant	6
20	Amaraneni Sai Teja	Junior Engineer(Civil)	6
21	Saheli Saha	Junior Engineer(Civil)	6
22	Divakar Kumar	Junior Engineer(Electrical)	6
23	Rajana Sravanakumar	Junior Engineer(Electrical)	6
24	Tata Bapuji	Junior Engineer(Electrical)	6
25	Marmala Ranadeep Kumar	Junior Engineer(Civil)	6
26	Battula Venkata Naga Avinash	Junior Engineer (Electrical)	6
27	Kammari Habibulla	Junior Engineer (Electrical)	6
28	K Arun Kumar	Technician	4
29	Jakka Jagadish Kumar	Technician(Civil Supervisor)	4
30	Muthyala Satheesh	Technician(Civil Supervisor)	4
31	Gosu Sreenivasu	Accountant	4
32	P Srinivas	Junior Assistant	3
33	Syed Omer Ali	Junior Technician (Draughtsman -Civil)	3
34	Chakali Papaiah	Multi Skill Assistant Gr.II	2
35	Bhoopal K	Multi Skill Assistant Gr.II (Plumber)	2
36	Maatla Vishal	Multi Skill Assistant Gr.II	2
37	Begari Vinod	Multi Skill Assistant Gr.II (Carpenter)	2
38	Chinthala Satheesh	Multi Skill Assistant 1 (Electrical)	1
Design			
1	Kumawat Vijay Prakashchand	Senior Technical Superintendent	9
2	Rajkumar B	Senior Technical Superintendent	9
3	Satyendra Rajendraprasad Nishad	Junior Technical Superintendent	6
4	B Vivekananda chary	Technician	4
5	Raj Priyadarshan Jee B	Technician	4
5	Gopal Manthuri	Junior Assistant	3
Director Office			
1	M Eswar Reddy	Senior Assistant Registrar	11
2	A Srinivas Rao	Senior Section Officer	9
3	N Pradeep Kumar	Assistant Section Officer	7
Electrical Engineering			
1	R Thirumurugan	Senior Technical Officer	11
2	Chinmaya Panda	Senior Technical Officer	11
3	Satheesh K Telagamsetti	Technical Officer	10
4	Aldhandi Suresh	Senior Technical Superintendent	9
5	Rajasekhar Jala	Senior Technical Superintendent	9
6	Simhadri Hari Prasad	Senior Technical Superintendent	9
7	Santhoshkumar S	Technical Superintendent	8
8	G Vijay Kumar	Executive Assistant	6
9	Manne Prahaseeth	Junior Technical Superintendent	6
10	S Velmurugan	Senior Technician	5
11	Kodavandlapalle N Rasool	Senior Technician	5
12	Santu Kayal	Senior Technician	5
13	Nagaraju Naddi	Technician	4
14	Manikanta PLG	Technician	4
15	Anup Kumar Shahi	Junior Technician	3
16	Y Prem Kumar	JuniorTechnician	3
17	Palthyavath Vijay Kumar	Junior Technician	3
18	Kalinga Chandra Mohan	Multi Skill Assistant 1	1

Engineering Science & Climate Change			
1	Palpanuri Madhu	Junior Assistant	3
Entrepreneurship and Management & Heritage Science and Technology			
1	Senivarapu A Archith Chandra	Junior Assistant	3
Finance and Accounts			
1	Jagadeswara Rao B	Joint Registrar	13
2	Manchambhotla Phanindra Kumar	Senior Assistant Registrar	11
3	V S P Hanumantha Krishna	Senior Assistant Registrar	11
4	Potharlanka Sree Ramakrishna	Senior Section Officer	9
5	Rajashekhar Soudhari	Senior Section Officer	9
6	Bala Prakash T	Senior Section Officer	9
7	Budeti Pradeep Babu	Assistant Section Officer	7
8	Nandyala Bheemeswara Reddy	Assistant Section Officer	7
9	Racha Praveen	Executive Assistant	6
10	Attaluri Jeevani	Senior Assistant	5
11	Ramreddy Bharath Reddy	Assistant	4
12	Chetty Nikhil Kumar	Accountant	4
13	Chandrika Sai Teja	Accountant	4
14	Jithesh A	Accountant	4
15	Bolla Ramesh	Accountant	4
16	Lankalapalli Naga V Lakshmi Manikanta	Accountant	4
17	Chidhruppa Thimothi	Junior Assistant	3
GATE & JEE Office			
1	Ankamwar Satish	Assistant Section Officer	7
2	K Shiva	Executive Assistant	6
Green Office			
1	Mashetti Vamshi	Junior Horticulturist	3
2	Golla Vamsi Krishna	Multi Skill Assistant 1	1
Greenko School of Sustainability			
1	Attela Jagannatha	Junior Assistant	3
Guest House			
1	George K T	Assistant Hospitality Management Officer	7
2	Batti Raja Sekhar	Multi Skill Assistant Gr.II	2
Hindi Cell			
1	Naveen Srivastava	Junior Hindi Translator	6
Hospital			
1	Kanaparthi Anilkumar	Principal Medical Officer	12
2	T Raja Adharnath	Senior Medical Officer	11
3	Baishakhi Chandra	Senior Medical Officer	11
4	Sonia Madhav Naik	Senior Medical Officer	11
5	Avvari Vedavani	Senior Physiotherapist	7
6	Buddala Venkata Satya Ramanamma	Staff Nurse	6
7	Ummadi Viswanadh Bodhi	Staff Nurse	6
8	K Nalini	Staff Nurse	6
9	Aruna C	Staff Nurse	6
10	Rohini Nair K	Staff Nurse	6
11	Patwardhan Ajinkya Nitin	Physiotherapist	6
12	S Santhi	Staff Nurse	6
13	Cheemakurthi M Subhani	Multi Skill Assistant 1	1
14	Lakkoji Manikanta	Multi Skill Assistant Gr.II	2
Hostel Office			
1	Palle Mohan Kumar	Assistant Registrar	10
2	Anapa Krishna Prasad	Senior Section Officer	9
3	Razia Begum	Executive Assistant	6
4	K Satheesh	Senior Assistant	5
5	G Shyamala Kumari	Senior Assistant	5
6	G Vasantha Kumari	Senior Assistant	5
7	S Swapna	Junior Assistant	3
8	Samiuddin MD	Junior Assistant	3
Human Resource Section			
1	Syed Ali Sabeer	Joint Registrar	13
2	Laxman Srigiri	Senior Assistant Registrar	11
3	Archana Singh	Assistant Registrar	10
4	Naresh Kandrathi	Senior Section Officer	9

5	Venkanna Bolagani	Senior Section Officer	9
6	Gottapu Naga Satish	Assistant Section Officer	7
7	MD. Mirza Raza Ali Baig	Executive Assistant	6
8	Nagaraju	Executive Assistant	6
9	Gurram Saidulu	Executive Assistant	6
10	Munganda Ramakesava	Assistant	4
11	Debarpita Parira	Assistant	4
12	M Sandeep	Junior Assistant	3
13	G Komala Priya	Junior Assistant	3
14	Venkatesh Betha	Junior Assistant	3
15	Mubarakapuram Vyshnavi	Junior Assistant	3
Internal Audit			
1	Suchismita Banerjee	Assistant Section Officer	7
2	Ramnaresh B	Multi Skill Assistant Gr.II	2
International Relations			
1	A Pranitha	Senior Section Officer	9
2	Priyanka Patheparapu	Senior Section Officer	9
3	Azmath Ali SK	Assistant Section Officer	7
Liberal Arts			
1	Abani Kumar Das	Assistant Section Officer	7
2	Anjaneyulu Botta	Technician	4
3	Maloth Harish Naik	Junior Technician	3
Library			
1	Bhojaraju Gunjal	Chief Library Officer	13
2	C Mallikarjuna	Deputy Librarian (NFS)	13
3	Kimidi Siva Shankar	Assistant Librarian	11
4	Haseena V K K M	Senior Library Information Assistant	7
5	Jayanta Kumar Sahu	Senior Library Information Assistant	7
6	Gajanand Kumar Kaushik	Library Information Assistant	6
7	Sajan C S	Junior Library Information Assistant	3
8	Suchita Sahoo	Junior Library Information Assistant	3
Management Services Section			
1	Md Jameel	Senior Assistant Registrar	11
2	Mohsin Mohammed	Senior Section Officer	9
3	Lingampally Neeraja	Assistant Section Officer	7
4	Gogula S L Vanama Raju	Executive Assistant	6
5	Guntur Vimala	Junior Assistant	3
6	A Pushpalatha	Junior Assistant	3
7	Mohammed Faheem Khan	Multi Skill Assistant 1	1
Materials Science and Metallurgical Engineering			
1	B Balavandhi Raju	Senior Technical Officer	11
2	Upender Sunkari	Senior Technical Officer	11
3	Yarajani Sravani	Senior Technical Superintendent	9
4	Muriki Laxminarayana	Senior Technical Superintendent	9
5	Mohammad Abdul Junaid	Senior Technical Superintendent	9
6	Paramita Maiti	Senior Technical Superintendent	9
7	Harish Ramineni	Assistant Section Officer	7
8	Manche Venkata Srinivas	Senior Technician	5
9	E Rangaiah	Senior Technician	5
10	Nalam Divakar	Technician	4
11	Saimatha Gannabathula	Technician	4
12	Mohammed Salman	Junior Technician	3
	Takkoli Sivakrishnareddy	Multi Skill Assistant 1	1
Mathematics			
1	Anand V	Senior Technical Superintendent	9
2	Katam Santhosh Reddy	Junior Technical Superintendent	6
3	Dumpala Raju	Junior Assistant	3
Mechanical and Aerospace Engineering			
1	Vootla Srikanth	Senior Technical Officer	11
2	Raju P	Senior Technical Officer	11
3	Ramu G	Senior Technical Officer	11
4	Pandicheri Madhu	Senior Technical Superintendent	9
5	Ajith A	Senior Technical Superintendent	9
6	Vallakonda Santhosh kumar	Assistant Section Officer	7
7	Rekhala Vikram	Junior Technical Superintendent	6
8	Munugala Dakaiah	Junior Technical Superintendent	6
9	S Jagadeesan	Senior Technician	5
10	Mohd. Abdulla	Senior Technician	5
11	Marepally Praveen Kumar	Technician	4
12	Pillai Madhushankar Subramonia	Technician	4
13	A Dinesh Chakrapani	Junior Technician	3
14	Darelli Pullarao	Junior Technician	3
15	Erry Srikanth	Junior Technician	3
Office of Career Services			
1	Vetrivel M	Assistant Section Officer	7
2	N Aruna	Assistant	4

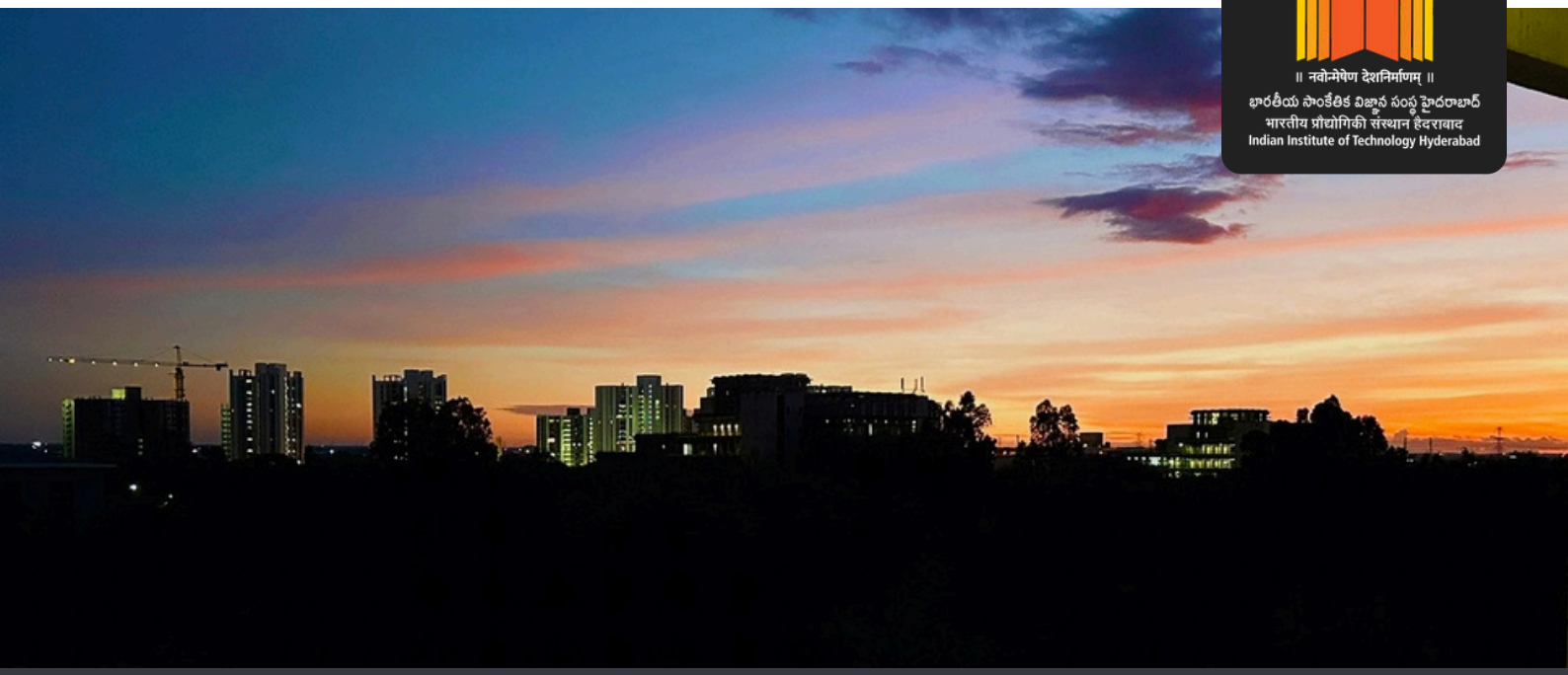
Office of the Dean (ITS)			
1	Anurag Pandey	Executive Assistant	6
Public Relations Office			
1	Vinay Kumar	Public Relations Officer	10
Physics			
1	T Naaraayanan	Senior Technical Officer	11
2	T Chengappa	Senior Technical Superintendent	9
3	Ranjit Kumar	Senior Technical Superintendent	9
4	Kanchugantla Rameshyadav	Senior Technical Superintendent	9
5	Vadla Anjaiah	Technician	4
6	Samaresh Basani	Technician	4
7	Vasudevarao Pavuluri	Technician	4
8	Shivaram Lakum	Technician	4
9	Guhan K	Junior Technician	3
10	Sunnam Goutham Raj	Junior Assistant	3
11	Nenavath Shiva Shankar	Multi Skill Assistant Gr.II	2
Registrar Office			
1	Beera Suresh Kumar	Assistant Section Officer	6
2	Samala Rajashekar	Junior Assistant	3
Safety Office			
1	Pyaram Purushotham	Security officer	12
Security Office			
1	M Sreejith (Retd)	Chief Security Officer	13
2	CH Guru Prasad	Multi Skill Assistant Gr.II	2
Sponsored Research Consultancy Section			
1	Gajula Ashok	Deputy Registrar	12
2	N Srisailam	Senior Assistant Registrar	11
3	Saikiran K	Senior Assistant Registrar	11
4	Syed Sadique Ali	Senior Section Officer	9
5	Mahaboob Moonavath	Assistant Section Officer	7
6	Narayana Ramanjaneyulu	Senior Assistant	5
7	Gollapalli Nagesh	Senior Assistant	5
8	Santosh Kumar Sahoo	Accountant	4
9	Chinmaya Kumar Pradhan	Accountant	4
10	Thakkar Nihit Deep	Accountant	4
Sports Department			
1	Vikram Pratap Singh Bundela	Senior Sports Officer	11
2	Md. Akbar	Senior Sports Officer	11
3	Baba Aditya Varma P	Senior Sports Officer	11
4	Ruchi Yadav	Senior Sports Officer	11
5	Hardeep	Senior Sports Officer	11
6	Kherkar Purva Ganeshrao	Junior Sports Officer	8
7	Anil Kumar Kushwaha	Junior Sports Officer	8
8	Mallikarjun	Physical Training Instructor	6
9	Rohit Pathariya	Physical Training Instructor	6
10	Uppuleti Chandramouli	Senior Assistant	5
Stores and Purchase			
1	Doddi Chanchala Devi	Joint Registrar	13
2	M Venkatesh	Senior Assistant Registrar	11
3	K Ramesh Kumar	Senior Assistant Registrar	11
4	Sady Sarala	Senior Section Officer	9
5	K Malini	Senior Section Officer	9
6	Vijaya Lakshmi A	Assistant Section Officer	7
7	Sonawane Gunavant Narayan	Assistant Section Officer	7
8	Sankarreddy A	Assistant Section Officer	7
9	Dinakar Pyla	Assistant Section Officer	7
10	M Rajashekar	Executive Assistant	6
11	Botsa Srinivasa Rao	Executive Assistant	6
12	S Thirunavukkarasu	Assistant	4
13	N Shivakumar	Assistant	4
Students Office			
1	Muniganti Badrinath	Senior Joint Registrar	13A
2	Nalla Srinivas	Assistant Section Officer	7
3	Dhananjay K	Assistant Hospitality Management Officer	7
4	L Dinesh	Assistant	4
5	Kotamla Srikanth	Multi Skill Assistant Gr.II	2
6	Prasad Boppa	Multi Skill Assistant I	1
Sunshine			
1	Maria Josephine Susan Morris	Senior Psychological Counselor	11
2	Yukti Rastogi	Assistant Psychological Counselor	9
3	Devatha Phani Bhushan	Assistant Psychological Counselor	9



IIT Hyderabad marked its 17th Foundation Day with Prof Ajay Kumar Sood, Principal Scientific Advisor to the Govt of India, as the Chief Guest and delivered the Foundation Day Lecture on "Way Forward for the Techade: Opportunities & Challenges," providing valuable insights into the transformative impact.

On this occasion, IITH and the United Nations University – Centre for Regional Integration Studies (UNU-CRIS) have signed a landmark MoU. The celebration included the Foundation Day Awards Ceremony, where faculty, staff, and students were recognised for their outstanding contributions to academics, research, and administration. In a significant step toward documenting and preserving biodiversity, IITH has released a book that showcases the bird diversity in and around the campus. Curated by Dr. Rashmi Singh, an Assistant Professor in the Liberal Arts Department, and designed by BDes student Shreevil KJ.

IIT Hyderabad



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