# Kiran Kumar Anumandla

CONTACT Information Plot No.121, Brindavan Colony, Nizampet Road, Hyderabad 500072 Telangana. 9703332849 kiran.anumandla@gmail.com

RESEARCH INTERESTS

Hardware Security, System-on-chip design, Cognitive Radio, Evolutionary algorithms

EDUCATION

IIT Hyderabad, Hyderabad, India

Post Doctoral Fellow, Electrical Engineering, March 2017 - till

- Research Topic: Hardware Security and Implementation of ANN techniques for Intelligent Sensor applications
- Advisor: Amit Acharyya, Ph.D

### University of Hyderabad, Hyderabad, India

Ph.D., Electronics Science, May 2016

- Thesis Topic: Studies on Development of Spectrum Allocation algorithms and FPGA Implementation for Cognitive Radio Networks
- Advisor: Samrat L. Sabat, Ph.D

## M.R College, Andhra University, Andhra Pradesh

M.Sc., Electronics (72.2%), June 2005

#### Aurora Degree College, Kakatiya University, Telangana

B.Sc., Electronics (78.3%), June 2003

#### Manjeera Junior College,

Intermediate, M.P.C (67.7%), June 2000

#### C.S.I High School

S.S.C (77.5%), June 1998

#### International SCI Indexed Journals - 5

REFEREED JOURNAL PUBLICATIONS

- 1. **Kiran Kumar Anumandla**, Rangababu Peesapati, Samrat L. Sabat and Siba K. Udgata, "SoC based floating point implementation of Differential Evolution Algorithm using FPGA" *Design Automation and Embedded Systems, Springer*, 16(4): 221–240, 2012.
- Kiran Kumar Anumandla, Rangababu Peesapati, Samrat L. Sabat, Siba K. Udgata and Ajith Abraham, "FPGA based Differential Evolution Coprocessor: A case study of spectrum allocation in cognitive radio network", IET Computer and Digital Techniques, 7(5):221-234, 2013.
- 3. Rangababu Peesapati, Samrat L. Sabat, **Kiran Kumar Anumandla**, Palani Karthik Kandyala, and Nayak Jagnnath, "Design and Implementation of a Real Time Co-Processor for denoising Fiber Optic Gyroscope signal", *Digital Signal Processing*, *Elsevier*, 23(5):1813-1825, 2013.
- 4. Rangababu Peesapati, **Kiran Kumar Anumandla**, Samrat L. Sabat, "Comparative study of system on chip based solution for floating and fixed point differential evolution algorithm", *Swarm and Evolutionary Computation, Elsevier*, 19(0):68-81,2014.
- 5. **Kiran Kumar Anumandla**, Rangababu Peesapati, Samrat L. Sabat, "Field Programmable Gate Array implementation of Spectrum Allocation technique for Cognitive Radio Networks", *Computers & Electrical Engineering, Elsevier*, 42(0): 178-192, 2015.

INTERNATIONAL CONFERENCE PUBLICATIONS

- 1. **Kiran Kumar Anumandla**, Shravan Kudikala, Bharadwaj Akella Venkata, Samrat L. Sabat, "Spectrum Allocation in Cognitive Radio Networks Using Firefly Algorithm", In Proceedings of *International conference on Swarm, Evolutionary and Memetic Computing (SEMCCO)*:366-376,2013.
- Kiran Kumar Anumandla, Bharadwaj Akella Venkata, Samrat L. Sabat and Siba K.Udgata, "Spectrum Allocation in Cognitive Radio Networks Using Multi-Objective Differential Evolution Algorithm", In Proceedings of IEEE 2nd International conference on Signal Processing and Integrated Networks (SPIN):273-278, 2015.
- 3. Rangababu Peesapati, **Kiran Kumar Anumandla**, Samrat L. Sabat, "Performance Evaluation of Floating Point Differential Evolution Hardware Accelerator on FPGA", In Proceedings of *IEEE TENCON*, 2016.
- 4. B.MadhuSudhan Reddy, **Kiran Kumar Anumandla**, Vikas Kumar Tiwari, "Optimization of Smart Vehicle Ad hoc Network (SVANET) communication for Traffic Related Issues with a security", In Proceedings of *IEEE Internation Conference on Computer Communication and Informatics*, 2017.

RESEARCH EXPERIENCE

#### Research Scholar

Aug 2010 - Sep 2015

Department of Electronics, University of Hyderabad

Supervisor: Samrat L. Sabat, Ph.D

#### Senior Research Fellow

Nov 2015 – Feb 2016

Department of Electronics, University of Hyderabad

Supervisor: Samrat L. Sabat, Ph.D

#### Project Associate

Jan 2009 – Aug 2010

July 2006 - Feb 2009

School of Computers & Information Sciences,

University of Hyderabad

Supervisors: Siba K. Udgata Ph.D

Industry Experience

#### **Embedded Engineer**

Synergy Multi Tech Limited

Hyderabad

Project Engineer

June 2005 – June 2006

AP Electronics, Hyderabad

SUBMITTED
JOURNAL
PUBLICATIONS

- Kiran Kumar Anumandla, Rangababu Peesapati, Samrat L. Sabat, "Hardware Implementation of Multi-Objective Differential Evolution algorithm: A Case Study of Spectrum Allocation in Cognitive Radio Networks", 2016. Submitted to International Journal of Innovative Computing and Applications, Inderscience
- Kiran Kumar Anumandla, Samrat L. Sabat, "Optimal Spectrum and Power Allocation using Evolutionary Algorithms for Cognitive Radio Networks", 2016. Submitted to International Journal of Wireless and Mobile Computing, Inderscience

Papers in Preparation

1. Rangababu Peesapati, Samrat L. Sabat, **Kiran Kumar Anumandla** "Hardware implementation of Particle Swarm Optimizaton algorithm for Denoising FOG signal."

Fellowship Awards AWARDS

> • UGC-JRF-NET in Electronics Science Dec 2009 • DST-SERB National Post-Doctoral Fellowship Jan 2017

Presentations Lecture in workshop

• National level Symposium on "DSP System Design and Labview (DIZARK-13)", Hyderabad

Dec 2013

Teaching June 2016 - Feb 2017 Assistant Professor

EXPERIENCE Dept. of ECE,

K L University, Guntur, Andhra Pradesh

Teaching Assistant June 2011-16

Dept. of Electronics, University of Hyderabad

Advising Ph.D Students (Primary Advisor)

B.Madhu Sudhan Reddy, Assistant Professor, Vignan Institute of Technology and

Sciences, 2016.

G. Vasu, Assistant Professor, 2016.

Professional Reviewer for IEEE Transaction on Evolutionary Computation, Computer and Electrical ACTIVITIES

Engineering, Applied Soft Computing, Design Automation and Embedded Systems,

Swarm and Evolutionary Computation.

Member, International Association of Engineers, 2016–Present

Member, International Engineering and Technology Institute, 2016–Present

References Amit Acharyya

> Assistant Professor, Electrical Engineering Phone: 91-040-23016106

> IIT Hyderabad E-mail: amit\_acharyya@iith.ac.in

Samrat L. Sabat

Phone: 91-040-23134326 Associate Professor, CASEST School of Physics E-mail: slssp@uohyd.ac.in

University of Hyderabad