

Saraju P. Mohanty, Professor

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A. Professional Preparation

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|---|--------------------|----------------------------------|------------------------|------|
| Orissa University of Agriculture and Technology | Bhubaneswar, India | Electrical Engineering | Bachelor of Technology | 1995 |
| Indian Institute of Science Bangalore | Bangalore, India | System Science and Automation | Master of Engineering | 1999 |
| University of South Florida | Tampa, USA | Computer Science and Engineering | Doctor of Philosophy | 2003 |

B. Appointments

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|----------------------|---|----------------------|
| June 2015 – Present | Professor, Computer Science & Engineering | Univ. of North Texas |
| June 2010 – May 2015 | Assoc. Professor, Computer Science & Engineering | Univ. of North Texas |
| Sep 2004 – May 2010 | Assist. Professor, Computer Science & Engineering | Univ. of North Texas |

C. Products

1. Five Products Related to the Proposed Project

- 1) E. Kougianos, S. P. Mohanty, G. Coelho, U. Albalawi, and P. Sundaravadivel, "Design of a High-Performance System for Secure Image Communication in the Internet of Things (Invited Paper)", *IEEE Access Journal*, Volume 4, 2016, pp. 1222--1242.
- 2) S. P. Mohanty, U. Choppali, and E. Kougianos, "Everything You wanted to Know about Smart Cities: The Internet of Things is the Backbone", *IEEE Consumer Electronics Magazine (CEM)*, Volume 6, Issue 3, July 2016, pp. 60--70.
- 3) D. Puthal, M. S. Obaidat, P. Nanda, M. Prasad, S. P. Mohanty, and A. Y. Zomaya, "Secure and Sustainable Load Balancing of Edge Datacenters in Fog Computing", *IEEE Communications Magazine*, Volume X, Issue Y, XX 2018, pp. Accepted on 05 Nov 2017.
- 4) M. L. Rajaram, E. Kougianos, S. P. Mohanty, and P. Sundaravadivel, "A Wireless Sensor Network Simulation Framework for Structural Health Monitoring in Smart Cities", in *Proc. of the 6th IEEE International Conference on Consumer Electronics - Berlin (ICCE-Berlin)*, 2016, pp. 78--82.
- 5) D. Puthal, S. P. Mohanty, P. Nanda, and U. Choppali, "Building Security Perimeters to Protect Network Systems Against Cyber Threats", *IEEE Consumer Electronics Magazine (CEM)*, Volume 7, Issue 4, October 2017, pp. 24--27.

2. Five Other Significant Products

- 1) A. Sengupta, S. Bhadauria, and S. P. Mohanty, "TL-HLS: Methodology for Low Cost Hardware Trojan Security Aware Scheduling with Optimal Loop Unrolling Factor during High Level Synthesis", *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD)*, Volume 36, Issue 4, April 2017, pp. 655--668.

- 2) M. Sarkar, P. Ghosal, and S. P. Mohanty, "Exploring the Feasibility of a DNA Computer: Design of an ALU using Sticker Based DNA Model", *IEEE Transactions on NanoBioscience (TNB)*, Volume 16, Issue 6, September 2017, pp. 383-399.
- 3) V. P. Yanambaka, S. P. Mohanty, E. Kougianos, D. Ghai, and G. Ghai, "Process Variation Analysis and Optimization of a FinFET based VCO", *IEEE Transactions on Semiconductor Manufacturing (TSM)*, Volume 30, Issue 02, May 2017, pp. 126-134.
- 4) D. Roy, P. Ghosal, and S. P. Mohanty, "FuzzRoute: A Thermally Efficient Congestion-Free Global Routing Method for Three-Dimensional Integrated Circuits", *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, Volume 21, Issue 1, November 2015, pp. 1:1-1:38.
- 5) O. Okobiah, S. P. Mohanty, and E. Kougianos, "Fast Layout Optimization through Simple Kriging Metamodeling: A Sense Amplifier Case Study", *IEEE Transactions on Very Large Scale Integration Systems (TVLSI)*, Volume 22, Issue 4, April 2014, pp. 932-937.

D. Synergistic Activities

1. **Awards and Honors:** Glorious India Award - Rich and Famous NRIs of America for exemplary contributions to the discipline in 2017; Society for Technical Communication (STC) Award of Merit for outstanding contributions to IEEE Consumer Electronics Magazine (CEM) in 2017; *IEEE Distinguished Lecturer* by the Consumer Electronics Society (CESoc) in 2017; Best Poster Award (First place with a cash prize of \$1000) at the 30th IEEE MetroCon Conference, 2017; Best Poster Award (Second place with a cash prize of \$500) at the 30th IEEE MetroCon Conference, 2017; The PROSE Award for best Textbook in Physical Sciences & Mathematics in 2016; UNT Graduate School Toulouse Scholars Award for sustained, outstanding teaching and scholarly achievements in 2016; *Editor-in-Chief (EiC)*, *IEEE Consumer Electronics Magazine*, 2016-present; Chair, Technical Committee on Very Large Scale Integration (TCVLSI), IEEE-CS, 2014-Present; Received Honors Day recognition as an inspirational faculty at UNT for multiple years; UNT Provost's Thank a Teacher recognition for multiple years; Best Ph.D. Forum Paper Award at the 14th IEEE Computer Society Annual Symposium on VLSI (ISVLSI), 2015.
2. **Journal Editorial Board:** IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), ACM Journal on Emerging Technologies in Computing Systems (JETC), IEEE Transactions on Nanotechnology, IET Circuits, Devices and Systems (CDS); Founding Editor-in-Chief (EiC), VLSI Circuits and Systems Letter, IEEE-CS TCVLSI, 2015-present.
3. **Conference Chairmanship:** Steering Committee Chair, IEEE International Symposium on Nanoelectronic and Information Systems (iNIS); Steering Committee Vice-Chair, IEEE-CS Annual Symposium on VLSI (ISVLSI); General Chair, IEEE International Conference on Consumer Electronics (ICCE), 2018; General Chair, IEEE-CS Annual Symposium on VLSI (ISVLSI), 2012, 2014.
4. **Distinguished Lectures and Keynote Talks:** Everything You Wanted to Know About Smart Cities, IEEE Distinguished Lecture, CE Society, 5th Oct 2017; Everything You Wanted to Know about Internet of Things (IoT), IEEE Distinguished Lecture, IEEE CE Society, 16th Nov 2017; iVAMS: A Paradigm Shift System Simulation Framework for the IoT Era, Keynote Presentation, 17th IEEE International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, Montpellier, France, 19th April 2016.
5. **Panelist:** National Science Foundation (NSF) - Division of Electrical, Communications and Cyber Systems (ECCS); Division of Computer and Network Systems (CNS) - Secure and Trustworthy Cyberspace (SaTC); Division of Computer and Network Systems (CNS) - Cyber Physical Systems (CPS).