

## **Kumar Yelamarthi, Ph.D., P.E.**

Associate Dean and Professor, College of Engineering  
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### **Education**

Ph.D.	Electrical & Computer Engineering Wright State University, Dayton, OH	2008
M.S.	Electrical Engineering Wright State University, Dayton, OH	2004
B.E.	Instrumentation & Control Engineering University of Madras, India	2000

### **Professional Credentials**

Professional Engineer (P.E) Michigan Bureau of Professional Licensing	2019
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### **Certification**

Financial Tools for Strengthening Organization Kellogg School of Management, Northwestern University	2020
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### **Professional Experience**

2021 - present	Associate Dean, College of Engineering, Tennessee Tech University (TTU) Professor, Electrical and Computer Engineering
2019 - 2021	Director, School of Engineering and Technology (SET), Central Michigan University (CMU)
2018 - 2019	Assistant to the Dean, College of Science and Engineering, CMU Founding Director, Division of Engineering and Informatics
2015 - 2018	Assistant Director, SET, CMU
2016 - 2018	Coordinator, Electrical and Computer Engineering, SET, CMU
2016	Visiting Professor, Waterford Institute of Technology, Ireland
2012 - 2016	Coordinator, Computer Engineering, SET, CMU
2017 - 2021	Professor, Electrical and Computer Engineering, CMU
2014 - 2017	Associate Professor, Electrical and Computer Engineering, CMU
2008 - 2014	Assistant Professor, Electrical and Computer Engineering, CMU

\* - a few positions were held concurrently

## **Academic Leadership Positions**

2019 – 2021: Director, School of Engineering and Technology (SET), CMU

### **Leadership and Organization**

- Overseen a school with 800 students, five staff members, and 28 faculty members.
- Established 10 four-year FIRST Robotics scholarships, and two endowed SET scholarships.
- Created alternate revenue streams of \$75-100K annually in support of student lab fees and scholarships.
- Established a transparent budget allocation (\$6M) in support of teaching and research activities.
- Secured financial support to set up the SET Senior Design Studio space.

### **Program Development**

- Led the Mechanical Engineering Technology and Industrial Engineering Technology programs through successful *initial* ABET accreditation.
- Led three engineering programs to revise assessment practices per new ABET student outcomes and attain accreditation.
- Established a Makerspace facility to nurture creativity and innovation inside and outside the classroom.
- Introduced new SET teaching, research, and creative endeavors grants.

### **Academic Partnerships**

- Established partnerships with international academic institutions for 2+2 programs.
- Establishing a partnership with state-wide community colleges to enable seamless student transfer.
- Facilitated research collaboration and partnership with regional R1 universities to share equipment and facilities.

### **External Relationships**

- Secured industry sponsorship for student scholarships, lab equipment, and student excellence awards.
- Established partnership with DTE Energy to educate the current workforce through the MS in Engineering program.
- Hosted K-12 outreach and teacher training workshops to partner with regional schools and boost enrollment.
- Initiated annual SET alumni awards to recognize and cultivate a relationship with the alumnus of distinction.

### **Faculty Recruitment, Mentoring, Tenure, and Promotion**

- Hired four tenure-track faculty members in multiple engineering disciplines, with a focus on diversity. SET is the only unit in the college that hired any tenure-track faculty members in the past three years.
- Evaluation of tenure-track and fixed-term faculty members for reappointment, promotion, and tenure.
- Introduced a colleague-to-colleague faculty mentoring program for junior faculty.
- Supported junior faculty to participate in the American Society for Engineering Education (ASEE) NETI workshop and Delta Junior Faculty Institute teaching workshops.

2018 – 2019: Assistant to Dean, College of Science and Engineering (CSE) & Founding Director, Division of Engineering and Informatics, CMU

- Led the effort to synergize engineering, engineering technology, computer science, information technology, statistics, data, and actuarial science faculty and initiated a new *Division of Engineering and Informatics*.
- Initiated collaboration between CSE with the College of Business and Administration (CBA) towards joint course offerings, shared industry visits, and resource sharing.
- Introduced the *industry-academia faculty fellow program* for faculty to collaborate with industry professionals.
- Recruited key industry personnel to serve in the engineering advisory board.
- Initiated CSE alumni networking events across the Midwest to sustain alumni relations and fundraising.
- Chaired the College Curriculum Committee. Improved efficiency of curriculum review and approval process.
- Led computer science and information technology programs through academic program review.
- Led two engineering technology programs towards ABET readiness review and self-study submission.
- Facilitated the creation of a college-level assessment coordinator position and chaired the search committee.
- Initiated the annual 24-hour Designathon event to showcase student technical and interpersonal skills.

2015 – 2018: Assistant Director and Professor, School of Engineering and Technology (SET), CMU

**Leadership and Organization**

- Coordinated and scheduled annual engineering courses to streamline departmental effort, meet student needs, and optimize faculty teaching loads.
- Collaborated with CSE-Dean to obtain five tenure-track faculty positions from the Provost for Computer Engineering, Environmental Engineering, and Mechanical Engineering Technology programs, and one fixed-term faculty position to coordinate senior design projects.

**University-Industry Partnerships**

- External representation for the School of Engineering and Technology at industry and research labs.
  - Increased internship/employment opportunities for students (e.g. Nexteer, Ford, LG).
  - Secured industry partners/sponsors for senior design projects from industry and research labs.
  - Led the formation of a recruitment team at an industry specifically targeted to CMU students.

**Program Development**

- Led the initiation of MS in Engineering program
- Coordinated with SET faculty members to identify growth opportunities and initiated the Environmental Engineering program.

**Academic Partnerships**

- Established partnerships with the Waterford Institute of Technology (WIT), Ireland.
  - Directed the development of a Memorandum of Agreement (MoA) between CMU and WIT for study abroad programs, faculty exchange, faculty research collaboration, and team-teaching.
  - Implemented a synchronized team taught the Internet of Things course.
  - Developed a semester-long study abroad program.

- Enabled research collaboration in electrical engineering (sensor networks), computer science (mobile computing), geography, and engineering education (synchronized learning).
- Led the 2+2 CMU-Guangxi University (GXU) Electrical Engineering program.

### **Program Assessment and Accreditation**

- Streamlined accreditation initiatives and evaluation practices across the six undergraduate engineering and engineering technology programs.
- Led the faculty towards ABET readiness review of two engineering technology programs (Mechanical Engineering Technology, Industrial Engineering Technology).
- Successfully obtained ABET accreditation for the undergraduate engineering programs.

### **Faculty Recruitment, Mentoring, Tenure, and Promotion**

- Mentored junior faculty members to establish a research program, improve teaching, and attain promotion and tenure.
- Co-chaired faculty search committees in electrical, computer, environmental, mechanical engineering programs.
- Conducted fixed-term faculty evaluations for reappointment and promotion.

2016 – 2018: Coordinator for Computer and Electrical Engineering Programs, SET, CMU

2012 – 2016: Coordinator for Computer Engineering Program, SET, CMU

- Provided academic advising to all students in the computer and electrical engineering programs.
- Coordinated all curricular updates.
- Established transfer agreements, evaluated transfer credits, and advised transfer students.
- Led ABET accreditation efforts including drafting of program educational objectives, assessment metrics and rubrics, assessment-driven continuous improvement practices, and self-study.
- Initiated the BS in Computer Engineering (CE) program.
  - Drafted a proposal and obtained approval from faculty and university administration, and Michigan Association of State Universities to initiate the program.
  - Developed the curriculum, recruited, and advised students through graduation.
  - Recruited and mentored faculty members.

### **Grants and Funding**

- Workforce Development in Automotive Electronics, *Gentex Corporation*, 2019-20, \$16,000.
- Xilinx Prototyping boards and Development Kit, *Xilinx, Inc.*, 2019-20, \$1,959.
- Solar Workstation for Workforce Development in the Energy Sector, *DTE Energy*, 2019. \$11,995.
- Modular IoT Lab in a Box with Embedded Data Security and Encryption, *CMU Office of Research & Graduate Studies*, 2018-19, \$1,300.
- Supporting Rural Secondary School Student Learners in Developing Knowledge of Engineering through the RET Site on Smart Vehicles, *National Science Foundation*, 2017-20, \$49,818.
- Enriching the Professional Development of School Teachers & Community College Faculty in Rural Michigan: An RET Site on Smart Vehicles, *National Science Foundation*, 2016-201520, \$604,999.
- Xilinx FPGA Hardware & Vivado Design Suite, *Xilinx, Inc.*, 2017-18, \$7,986.

- A Modular Internet of Things (IoT) Framework: From Sensors to Cloud, Office of Research and Graduate Studies, *Central Michigan University*, 2016-2017, \$8,000.
- A Microsoft Kinect based Vibrotactile Feedback System for the Visually Impaired, Office of Research and Sponsored Programs, *Central Michigan University*, 2014-2015, \$3,300.
- Embedded Systems Hands-on Experience for First-Year Engineering and Technology Students, *Intel Corporation*, 2014-2015, \$1,200.
- RET Site on Multidisciplinary Engineering Research for Rural Michigan, *National Science Foundation*, 2012-2015, \$448,287.
- Design and Implementation of a Portable RFID-based Object Identification and Localization System, *Central Michigan University*, 2012-2013, \$15,000.
- Enhancement of Assessment Plan for the Electrical Engineering Curriculum, *Central Michigan University Assessment Council*, 2011-2012, \$1,500.
- The Autonomous Mobile Tour-Guide Robot: A Student-Centered Project to Enhance Recruitment and Teaching in Engineering and Technology Disciplines, *Central Michigan University- College of Science and Technology*, 2010-2011, \$10,010.
- Donation of Xilinx FPGA Hardware & Vivado Design Suite, *Xilinx, Inc.*, 2010-16, \$8,932.
- Development of Embedded Systems Lab, *Lowry Computer Products*, 2009-2010, \$30,000.
- Semi-Autonomous Navigation Assist Robotic System for the Blind, *Central Michigan University*, 2008-2010, \$2,300.
- Initiation of a Undergraduate Student-centered Research Program in Embedded Systems, *Central Michigan University*, 2008-10, \$71,350.
- A Student Learning-Centered Electrical Engineering Laboratory, *Central Michigan University*, 2008-2009, \$48,000.
- High Altitude Design Project and its Potential Impact on Interdisciplinary Undergraduate Engineering Curriculum, *NASA Ohio Space Grant Consortium*, 2006-2008, \$20,000.
- An Early Career Intervention Project to Increase the Awareness of High School Students to Engineering Disciplines, *NASA Ohio Space Grant Consortium*, 2006-2008, \$5,000.
- Professional Development through Presentations at Premier Conferences, *Central Michigan University*, 2008-2012, \$6,628.
- International Curriculum Development in South Africa, University Center for International Education, *Wright State University*, 2007-08, \$1,500
- Undergraduate Student Support Activities, Several Sources, 2007-2010, \$6,850.

## Scholarship

### Book Chapters

- [BC02] A. Abdelgawad, K. Yelamarthi, A. Khattab, "IoT-Based Health Monitoring system for Active and Assisted Living," *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, Springer, vol. 195, July 2017.
- [BC01] M. Trent, A. Abdelgawad, K. Yelamarthi, "Smart Wearable Navigation System for Visually Impaired," *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, Springer, vol. 195, July 2017.

## Journals

- [J35] V. P. Yanambaka, A. Abdelgawad, K. Yelamarthi, "PIM: A PUF Based Host Tracking Protocol for Privacy Aware Contact Tracing in Crowded Areas," *IEEE Consumers Electronics Magazine*, 2021.
- [J34] R. C. Shit, S. Sharma, K. Yelamarthi, D. Puthal, "AI-enabled Fingerprinting and Crowdsourced-based Vehicle Localization for Resilient and Safe Transportation Systems," *IEEE Transactions on Intelligent Transportation Systems*, 2021.
- [J33] K. F. Haque, A. Abdelgawad, V. P. Yanambaka, K. Yelamarthi, "LoRa Architecture for V2X Communication: An Experimental Evaluation on the Move," *Sensors*, 2020.
- [J32] S. Maitra, V. P. Yanambaka, D. Puthal, A. Abdelgawad, K. Yelamarthi, "Integration of Internet of Things (IoT) and Blockchain towards Portability and Low-Energy Consumption," *Transactions on Emerging Telecommunications Technologies*, e4103, 2020. <https://doi.org/10.1002/ett.4103>.
- [J31] R. C. Shit, S. Sharma, P. Walters, K. Yelamarthi, B. Pradhan, R. Davison, G. Morgan, D. Puthal, "Privacy-Preserving Cooperative Localization in Vehicular Edge Computing Infrastructure," *Concurrency and Computation: Practice and Experience*, 2020.
- [J30] S. R. Naqvi, A. Zahid, L. Sawalha, S. S. Naqvi, T. Akram, S. A. Haider, K. Yelamarthi, M. Jenihhin, "An Optimization Framework for Dynamic Pipeline Management in Low Power Computing Systems," *Computers and Electrical Engineering*, 2019.
- [J29] A. Brueck, K. Bates, T. Wood, W. House, Z. Martinez, S. Peters, B. Root, K. Yelamarthi, T. Kaya, "A Custom Computer-controlled Fluid Mixing and Dispensing System for Sweat Sensor Testing Applications," *Electronics*, vol. 8, issue. 6, 606, 2019.
- [J28] S. Maitra, K. Yelamarthi, "Rapidly Deployable IoT Architecture with Data Security: Implementation and Experimental Evaluation," *Sensors*, vol. 19, issue. 11, 2484, 2019.
- [J27] T. Kaya, G. Liu, J. C Ho, K. Yelamarthi, K. Miller, J. Edwards, A. Stannard, "Wearable Sweat Sensors: Background and Current Trends," *Electroanalysis*, 2018, doi:10.1002/elan.201800677.
- [J26] K. Yelamarthi, "Improving Student Success through an Effective Learner-Centered Course in Introductory Engineering, Mathematics, and Programming," *International Journal of Engineering Education*, vol. 34, no. 6, pp. 1-9, 2018.
- [J25] A. Brueck, T. Iftekhhar, A. B. Stannard, K. Yelamarthi, T. Kaya, "A Real-time Wireless Sweat Rate Measurement System for Physical Activity Monitoring," *Sensors*, vol. 18, no. 2, 53, 2018. doi:10.3390/s18020533.
- [J24] S. Alnaeli, M. Sarnowski, M-S. Aman, A. Abdelgawad, K. Yelamarthi, "Source Code Vulnerabilities in IoT Software Systems," *Advances in Science, Technology and Engineering Systems Journal*, vol.2, issue. 3, pp. 1502-1507, 2017.
- [J23] K. Yelamarthi, B. DeJong, T. Kaya, D. Chen, M. Prewett, "Engaging Secondary School Teachers in Engineering Design: Lessons Learned and Assessment of a Research Experience for Teachers Program," *International Journal of Engineering Education*, vol. 33, no. 5, 699-1709, 2017.
- [J22] K. Yelamarthi, M-S. Aman, A. Abdelgawad, "An Application-Driven Modular Internet of Things Architecture," *Wireless Communication and Mobile Computing*, vol. 2017, Article ID 1350929, 2017. doi:10.1155/2017/1350929.
- [J21] A. Abdelgawad, K. Yelamarthi, "Monitoring Structural Health with Internet of Things (IoT)," *Wireless Communication and Mobile Computing*, vol. 2017, Article ID 6560797, 2017. doi:10.1155/2017/6560797.

- [J20] A. Abdelgawad, M. A. Mahmud, K. Yelamarthi, "Butterworth filter application for Structural Health Monitoring," *International Journal of Handheld Computing Research*, vol. 7, no. 4, pp. 16-30, Dec 2016.
- [J19] K. Yelamarthi, E. Drake, M. Prewett, "Utilizing an Economical and Modified Flipped Instructional Design Model to Increase Student Learning in a First-Year Engineering Course," *Journal of Information Technology Education: Innovations in Practice*, vol. 15, pp. 195-222, 2016.
- [J18] B. DeJong, E. Karadogan, K. Yelamarthi, J. Hasbany, "Design and Analysis of a Four-Pendulum Omnidirectional Spherical Robot," *Journal of Intelligent and Robotic Systems*, Sep 2016.
- [J17] K. Yelamarthi, "Tour Guide Robots: An Integrated Research and Design Platform to Prepare Engineering and Technology Students," *Journal of STEM Education: Innovations and Research*, vol. 17, no. 2, May 2016.
- [J16] K. Yelamarthi, S. Boddhu, R. Kannavara, "A Perceptual Computing based Gesture Controlled Quadcopter for Visual Tracking and Transportation," *International Journal of Monitoring and Surveillance Technologies Research*, vol. 4, no.1, 2016.
- [J15] B. DeJong, K. Yelamarthi, T. Kaya, "A Engineering Research Program for High School Science Teachers; Year Two Changes and Results," *Journal of STEM Education: Innovations and Research*, vol. 17, no. 1, Feb 2016.
- [J14] A. Forde, K. Laubhan, K. Yelamarthi, "Depth-Vision Coordinated Robust Architecture for Obstacle Detection and Haptic Feedback," *International Journal of Handheld Computing Research*, vol. 6, no.2, pp. 20-33, 2015.
- [J13] K. Yelamarthi, K. Laubhan, "Space Perception and Navigation Assistance for the Visually Impaired using Depth Sensor and Haptic Feedback," *International Journal of Engineering Research & Innovations*, vol. 7, no.1, pp. 56-62, 2015.
- [J12] K. Yelamarthi, E. Drake, "A Flipped First Year Digital Circuits Class for Engineering and Technology Students," *IEEE Transactions on Education*, vol. 58, no.3, pp. 179-186, 2015.
- [J11] K. Yelamarthi, "An Autonomous Passive RFID-Assisted Mobile Robot System for Indoor Positioning," *International Journal of Modern Engineering*, vol. 14, no.2, 2014.
- [J10] K. Yelamarthi, "A Schmitt-Trigger and Transistor Sizing based Optimization in Dynamic CMOS Circuits," *International Journal of Modern Engineering*, vol. 14, no.1, pp. 32-41, 2013.
- [J09] K. Yelamarthi, T. Kaya, B. DeJong, D. Chen, Q. Hu, F. Cheng, "A Engineering Research Program for High School Science Teachers: Feedback and Lessons Learned from the Pilot Implementation," *The Technology Interface International Journal*, vol.13, no.2, pp.49-60, 2013.
- [J08] K. Yelamarthi, "Timing-Driven Variation-Aware Partitioning and Optimization of Mixed Static-Dynamic CMOS Circuits," *Circuits and Systems*, vol. 4, no. 2, pp.202-208, 2013.
- [J07] K. Yelamarthi, "RFID-Based Interdisciplinary Educational Platform to Improve the Engineering and Technology Curriculum," *Journal of STEM Education: Innovations and Research*, vol. 13, no.5, pp.46-51, Dec 2012.
- [J06] K. Yelamarthi, C-I. H. Chen, "Timing Optimization and Noise Tolerance for Dynamic CMOS Susceptible to Process Variations," *IEEE Transactions on Semiconductor Manufacturing*, vol. 25, no. 2, pp. 255-265, May 2012.
- [J05] K. Yelamarthi, P. R. Mawasha, "A Scholarship Model for Student Recruitment and Retention in STEM Disciplines," *Journal of STEM Education: Innovations and Research*, vol. 11, Issue 5, pp. 64-71, Dec 2010.

- [J04] K. Yelamarthi, C-I. H. Chen, "Dynamic CMOS Load Balancing and Path Oriented in Time Optimization Algorithms to Minimize Delay Uncertainties from Process Variations," *VLSI Design*, vol. 2010, Article ID: 230783, Mar 2010.
- [J03] K. Yelamarthi, C-I. H. Chen, "Process Variation-Aware Timing Optimization for Dynamic and Mixed-Static-Dynamic CMOS Logic," *IEEE Transactions on Semiconductor Manufacturing*, vol. 22, no.1, pp.31-39, Feb 2009.
- [J02] K. Yelamarthi, P. R. Mawasha, "A Pre-Engineering Program for the Under-Represented, Low-Income and/or First-Generation College Students to Pursue Higher Education," *Journal of STEM Education: Innovations and Research*, vol. 9, Issue 3, pp.5-15, Dec 2008.
- [J01] K. Yelamarthi, C-I. H. Chen, "Process Variation Aware Transistor Sizing for Load Balance of Multiple Paths in Dynamic CMOS for Timing Optimization," *Journal of Computers*, Academy Publishers, vol.3, no.2, pp.21-28, Mar 2008.

### Conference Proceedings

\* - Publications co-authored with undergraduate students

- [C99] M. Ishtyaq, A. Abdelgawad, V. P. Yanambaka, K. Yelamarthi, "Packet Drop and RSSI Analysis for LoRa: An Indoor Application Perspective," *IEEE World Forum on Internet of Things*, June 2021.
- [C99] N. Saqib, K. F. Haque, K. Yelamarthi, V. P. Yanambaka, A. Abdelgawad, "D2D-LoRa Latency Analysis: An Indoor Application Perspective," *IEEE World Forum on Internet of Things*, June 2021.
- [C98] P. K. Sadhu, V. P. Yanambaka, A. Abdelgawad, K. Yelamarthi, "Physical Unclonable Function based Authentication for Smart Transportation," *IEEE World Forum on Internet of Things*, June 2021.
- [C97] S. Maitra, V. P. Yanambaka, A. Abdelgawad, K. Yelamarthi, "Securing a Vehicle Fleet Management Through Blockchain and Internet of Things," *IEEE International Symposium on Smart Electronic Systems*, Dec 2020.
- [C96] K. F. Haque, A. Abdelgawad, P. Yanambaka, K. Yelamarthi, "A LoRa Based Reliable and Low Power Vehicle to Everything (V2X) Communication Architecture," *IEEE International Symposium on Smart Electronic Systems*, Dec 2020. **Best Paper Award.**
- [C95] M. K. Ahmed, P. Yanambaka, A. Abdelgawad, K. Yelamarthi, "Physical Unclonable Function based Hardware Security for Resource Constraint IoT Devices," *IEEE World Forum on Internet of Things*, Apr 2020.
- [C94] F. Haque, A. Abdelgawad, P. Yanambaka, K. Yelamarthi, "Crop Yield Analysis using Machine Learning Algorithms," *IEEE World Forum on Internet of Things*, Apr 2020.
- [C93] S. Maitra, P. Yanambaka, A. Abdelgawad, K. Yelamarthi, "Proof-of-Authentication Consensus Algorithm: Blockchain-Based IoT Application Implementation," *IEEE World Forum on Internet of Things*, Apr 2020.
- [C92] F. F. Haque, A. Abdegawad, P. Yanambaka, K. Yelamarthi, "Crop Yield Prediction using Deep Neural Network," *IEEE World Forum on Internet of Things*, Apr 2020.
- [C91] K. F. Haque, A. Abdelgawad, P. Yanambaka, K. Yelamarthi, "An Energy-Efficient and Reliable RPL for IoT," *IEEE World Forum on Internet of Things*, Apr 2020.
- [C90] K. F. Haque, A. Abdelgawad, P. Yanambaka, K. Yelamarthi, "An IoT Based Efficient Waste Collection System with Smart Bins," *IEEE World Forum on Internet of Things*, Apr 2020.

- [C89] \* H. Qin, J. Gillespie, M. Dunne, F. W. Walsh, K. Yelamarthi, "Development of a Vehicle Monitoring System Using BLE Beacons," *IEEE International Symposium on Smart Electronic Systems (IEEE iSES)*, Dec 2019.
- [C88] \* B. Smetana, L. Ibrahim, J. Lizotte, S. Maitra, F. Walsh, K. Yelamarthi, "Real-Time Vehicle Interior Environment Monitoring System through Mobile Sensing," *IEEE International Symposium on Smart Electronic Systems (IEEE iSES)*, Dec 2019.
- [C87] \* A. Shaik, A. Kane, K. Yelamarthi, F. Walsh, A. Abdelgawad, "Connected Vehicle: Monitor Automotive Embedded Systems via IoT Protocol UI," *Proceedings of the 2019 3<sup>rd</sup> ACM International Conference on Automation, Control and Robots*, pp. 67-71, Oct 2019.
- [C86] S. Maitra, K. Yelamarthi, A. Abdelgawad, "Lab in a Box: A Rapidly Deployable Environmental Monitoring IoT System," *IEEE International Midwest Symposium on Circuits and Systems*, Aug 2019.
- [C85] \* F. F. Haque, W. Zhou, J-S. Ng, A. Abdelgawad, F. Walsh, K. Yelamarthi, "IoT-based Approach to Monitor Parking Spaces in Smart Cities," 9<sup>th</sup> International Conference on Computer Science, Engineering and Applications (CCSEA 2019), July 2019.
- [C84] \* L. Mitchell, S. Balaji Kuruvadi, K. Yelamarthi, "IoT based Express-Lanes for Autonomous Vehicle," *IEEE International Conference on Signal Processing and Integrated Networks*, Mar 2019.
- [C83] \* S. Maitra, D. Richards, A. Abdelgawad, K. Yelamarthi, "Performance Evaluation of IoT Encryption Methods: Memory, Timing, and Energy," *IEEE Sensor Applications Symposium*, Mar 2019.
- [C82] \* A. Shaik, N. Bowen, J. Bole, G. Kunzi, D. Bruce, A. Abdelgawad, K. Yelamarthi, "Smart Car: An IoT Based Accident Detection System," *IEEE Global Conference on Internet of Things*, Dec 2018.
- [C81] \* D. Richards, A. Abdelgawad, K. Yelamarthi, "How Does Encryption Influence Timing in IoT?," *IEEE Global Conference on Internet of Things*, Dec 2018.
- [C80] M-A. Mahmud, A. Abdelgawad, K. Yelamarthi, "Improved RPL for IoT Applications," *IEEE International Midwest Symposium on Circuits and Systems (MWSCAS)*, Aug 2018.
- [C79] \* A. Forde, O. Olumolade, A. Brueck, A. Abdelgawad, K. Yelamarthi, "An IoT Enabled Automobile and Smart Home Connected System for Improved Energy Efficiency," *IEEE International Conference on Electro Information Technology*, May 2018.
- [C78] \* A. Brueck, K. Bates, T. Wood, W. House, Z. Martinez, S. Peters, B. Root, A. Brueck, K. Yelamarthi, T. Kaya, "A Custom Computer-Controlled Fluid Mixing and Dispensing System for Sweat Sensor Testing Applications," *IEEE International Conference on Electro and Information Technology*, May 2018.
- [C77] \* M-A. Mahmud, K. Bates, T. Wood, A. Abdelgawad, K. Yelamarthi, "A Complete Internet of Things (IoT) Platform for Structural Health Monitoring (SHM)," *IEEE World Forum on Internet of Things*, Feb 2018.
- [C76] M-A. Mahmud, A. Abdelgawad, K. Yelamarthi, "Signal Processing Techniques for IoT-based Structural Health Monitoring," *IEEE International Conference on Microelectronics*, Dec 2017.
- [C75] \* O. Olumolade, H. Jiang, A. Forde, Y. Almania, B. Alsahli, Y. Zhang, A. Mahmud, A. Abdelgawad, K. Yelamarthi, "The Design and Implementation of a Smart Parking Meter for Internet of Vehicle (IoV)," *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 2017.

- [C74] M-S. Aman, K. Yelamarthi, A. Abdelgawad, "A Comparative Analysis of Simulation and Experimental Results on RPL Performance," *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 2017.
- [C73] \* K. Yelamarthi, B. DeJong, T. Kaya, A. Abdelgawad, "Research Experiences for School Teachers and Community College Instructors in Smart-Vehicles: Initial Implementation and Assessment," *ASEE 124<sup>th</sup> Annual Conference & Exposition*, June 2017.
- [C72] \* A. Weis, M. Strandkov, K. Yelamarthi, M-S. Aman, A. Abdelgawad, "Rapid Deployment of IoT Enabled System for Automobile Fuel Range and Gas Price Location," *IEEE International Conference on Electro Information Technology*, May 2017.
- [C71] M-A. Mahmud, A. Abdelgawad, K. Yelamarthi, "Energy Efficient Routing for Internet of Things (IoT) Applications," *IEEE International Conference on Electro Information Technology*, May 2017.
- [C70] \* K. Laubhan, K. Eggenberger, T. Khan, K. Yelamarthi, "Design of a Smartphone Operated Powerstrip," *IEEE International Conference on Electro Information Technology*, May 2017.
- [C69] \* M. Trent, C. Alkevicius, C. Gargarello, T. Khan, K. Yelamarthi, "Internet-Enabled House Pipe Temperature Monitoring System," *IEEE International Conference on Electro Information Technology*, May 2017.
- [C68] \* J. Turner, C. Zellner, T. Khan, K. Yelamarthi, "A Smartphone-based Continuous Heart Rate Monitoring System," *IEEE International Conference on Electro Information Technology*, May 2017.
- [C67] \* M-S. Aman, C. Quint, A. Abdelgawad, K. Yelamarthi, "Sensing and Classifying Indoor Environments: An IoT Based Portable Tour Guide System," *IEEE Sensors Applications Symposium*, Mar 2017.
- [C66] \* J. Hasbany, B. DeJong, E. Karadogan, K. Yelamarthi, J. Smith, "Tracking a System of Multiple Cameras on a Rotating Spherical Robot," *IEEE Sensors Applications Symposium*, Mar 2017.
- [C65] M-A. Mahmud, A. Abdelgawad, K. Yelamarthi, "Low RPL for Internet of Things (IoT)," *IEEE International Conference on Acoustics, Speech and Signal Processing*, Mar 2017. **Best Master's Forum Award**
- [C64] M. S. Aman, K. Yelamarthi, A. Abdelgawad, "Implementation of a Modular IoT Framework with Scalability and Efficient Routing," *IEEE International Conference on Acoustics, Speech and Signal Processing*, Mar 2017.
- [C63] K. Yelamarthi, A. Abdelgawad, A. Khattab, "An Architectural Framework for Low-Power IoT Applications," *IEEE International Conference on Microelectronics*, Dec 2016.
- [C62] A. Khattab, A. Abdelgawad, K. Yelamarthi, "Design and Implementation of a Cloud-based IoT Scheme for Precision Agriculture," *IEEE International Conference on Microelectronics*, Dec 2016.
- [C61] \* S. M. Alnaeli, M. Sarnowski, M-S. Aman, A. Abdelgawad, K. Yelamarthi, "Vulnerable C/C++ code usage in IoT Software Systems," *IEEE World Forum on Internet of Things*, Dec 2016.
- [C60] M-S. Aman, K. Yelamarthi, A. Abdelgawad, S. M. Alnaeli, "Parallelization in Software Systems for WSN and IoT," *IEEE World Forum on Internet of Things*, Dec 2016.
- [C59] A. Abdelgawad, K. Yelamarthi, A. Khattab, "IoT-Based Health Monitoring system for Active and Assisted Living," *2<sup>nd</sup> EAI International Conference on Smart Objects and Technologies for Social Good*, Nov 2016.

- [C58] \* M. Trent, A. Abdelgawad, K. Yelamarthi, "An Internet of Things Enabled Wearable Navigation System for Blind," *2<sup>nd</sup> EAI International Conference on Smart Objects and Technologies for Social Good*, Nov 2016.
- [C57] \* M-S. Aman, C. Quint, H. Jiang, K. Yelamarthi, A. Abdelgawad, "Reliability Evaluation of iBeacon for Micro-Localization," *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 2016.
- [C56] \* S. M. Alnaeli, M. Sarnowski, M-S. Aman, K. Yelamarthi, A. Abdelgawad, H. Jiang "On The Evolution of Mobile Computing Software Systems and C/C++ Vulnerable Code," *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 2016.
- [C55] \* T. Morelli, K. Yelamarthi, A. Abdelgawad, M-A. Mahmud, M-S. Aman, "Virtual Reality Navigation Simulation for Users Who are Blind," *IEEE 59<sup>th</sup> Midwest Symposium on Circuits and Systems*, Oct 2016.
- [C54] \* K. Laubhan, K. Talaat, S. Riehl, T. Morelli, A. Abdelgawad, K. Yelamarthi, "A Four-Layer Wireless Sensor Network Framework for Internet of Things Applications," *IEEE 59<sup>th</sup> Midwest Symposium on Circuits and Systems*, Oct 2016.
- [C53] A. Abdelgawad, K. Yelamarthi, "Structural Health Monitoring: Internet of Things Solution," *IEEE 59<sup>th</sup> Midwest Symposium on Circuits and Systems*, Oct 2016.
- [C52] \* K. Laubhan, K. Talaat, S. Riehl, M-S. Aman, A. Abdelgawad, K. Yelamarthi, "A Low-Power IoT Transducer Framework: From Sensors to the Cloud," *IEEE International Conference on Electro/Information Technology*, May 2016.
- [C51] \* A. Myers, M-A. Mahmud, A. Abdelgawad, K. Yelamarthi, "Toward Integrating Structural Health Monitoring with Internet of Things," *IEEE International Conference on Electro/Information Technology*, May 2016.
- [C50] \* M-S. Aman, M-A. Mahmud, H. Jiang, A. Abdelgawad, K. Yelamarthi, "A Sensor Fusion Methodology for Dynamic Obstacle Avoidance Robot," *IEEE International Conference on Electro/Information Technology*, May 2016.
- [C49] \* K. Laubhan, M. Trent, B. Root, A. Abdelgawad, K. Yelamarthi, "A Wearable Portable Electronic Travel Aid for the Blind," *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 2016.
- [C48] K. M. Qatu, A. Abdelgawad, K. Yelamarthi, "Structure Damage Localization Using a Reliable Wave Damage Detection Technique," *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 2016.
- [C47] \* M. Trent, K. Laubhan, A. Abdelgawad, K. Yelamarthi, "An FPGA-based Portable Real-time Obstacle Detection and Notification System," *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 2016.
- [C46] \* M-A. Mahmud, M-S. Aman, H. Jiang, A. Abdelgawad, K. Yelamarthi, "Kalman Filter based Indoor Mobile Robot Navigation," *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 2016.
- [C45] \* D. DeJong, K. Yelamarthi, B. Bloxsom, "A Four-Pendulum Omnidirectional Spherical Robot: Design Analysis and Comparison," *ASME International Mechanical Engineering Congress & Exposition*, Nov 2015.
- [C44] K. Yelamarthi, E. Drake, "Increasing Student Learning and Interest in Electrical & Computer Engineering through a First-Year Course," *ASEE 122<sup>nd</sup> Annual Conference & Exposition*, June 2015.

- [C43] A. Abdelgawad, Y. Ismail, K. Yelamarthi, "Moving Target Tracking using a Mobile Robot," *IEEE International Symposium on Monitoring & Surveillance Research*, June 2015.
- [C42] \* K. Yelamarthi, K. Laubhan, "Navigation Assistive System for the Blind using a Portable Depth Sensor," *IEEE International Conference on Electro/Information Technology*, May 2015.
- [C41] \* K. Yelamarthi, B. P. DeJong, K. Laubhan, "A Kinect-based Vibrotactile Feedback System to Assist the Visually Impaired," *IEEE Midwest Symposium on Circuits and Systems*, Aug 2014.
- [C40] \* Z. Yuan, K. Laubhan, K. Yelamarthi, "A Efficient and Dynamic Algorithm for Accurate Mobile Robot Navigation," *IEEE International Conference on Electro/Information Technology*, May 2014. **Won the 2<sup>nd</sup> Best Student Paper Award**
- [C39] K. Yelamarthi, "Performance Optimization of Dynamic CMOS Circuits through Transistor Sizing," *IEEE International Conference on Electronics, Computing, and Communication Technologies*, Jan 2014.
- [C38] A. Ghelichi, K. Yelamarthi, A. Abdelgawad, "Target Localization in Wireless Sensor Network Based on Time Difference of Arrival," *IEEE International Midwest Symposium on Circuits and Systems*, pp. 940-943, Aug 2013.
- [C37] T. Kaya, K. Yelamarthi, B. DeJong, Q. Hu, S. Cheng S, D. Chen, "Learned Lessons from the First Year Research Experiences for Teachers Program," *120<sup>th</sup> American Society of Engineering Education Annual Conference and Exposition*, June 2013.
- [C36] \* B. Olszewski, S. Fenton, B. Tworek, J. Liang, K. Yelamarthi, "RFID Positioning Robot: An Indoor Navigation System," *IEEE International Conference on Electro/Information Technology*, May 2013. **Won the 1<sup>st</sup> Best Student Paper Award**
- [C35] K. Yelamarthi, J. Slater, J. Wu, P. R. Mawasha, "Engineering Management in an Interdisciplinary Senior Design Project," *International Conference on Engineering and Business Education, Innovation and Entrepreneurship*, October 2012.
- [C34] \* K. Yelamarthi, S. Sherbrook, J. Beckwith, M. Williams, R. Lefief, "An RFID based Semi-Autonomous Indoor Tour Guide Robot," *IEEE International Midwest Symposium on Circuits and Systems*, pp. 562-565, August 2012.
- [C33] K. Yelamarthi, "Tour Guide Robot: A Platform for Interdisciplinary Engineering Senior Design Projects," *119<sup>th</sup> Annual ASEE Conference & Exposition*, June 2012.
- [C32] \* J. Beckwith, S. Sherbrook, R. Lefief, M. Williams, K. Yelamarthi, "CATE: An Indoor Tour Guide Robot," *IEEE International Conference on Electro/Information Technology*, May 2012.
- [C31] K. Yelamarthi, C-I. H. Chen, "A Timing Optimization Technique for Nanoscale CMOS Circuits Susceptible to Variations," *IEEE International Instrumentation and Measurement Technology Conference*, May 2011.
- [C30] K. Yelamarthi, C-I. H. Chen, "Delay Optimization Considering Power Saving in Dynamic CMOS Circuits," *IEEE International Symposium on Quality Electronic Design*, March 2011.
- [C29] K. Yelamarthi, P. R. Mawasha, "An Interdisciplinary Platform for Capstone Design Projects in Engineering and Technology Curriculums," *Annual ASEE Global Colloquium on Engineering Education*, October 2010.
- [C28] \* K. Yelamarthi, D. Haas, D. Nielsen, S. Mothersell, "RFID and GPS Integrated Navigation System for the Visually Impaired," *IEEE International Midwest Symposium on Circuits and Systems*, pp.1149-1152, August 2010.

- [C27] K. Yelamarthi, P. R. Mawasha, "RFID based Assistive Devices: An Interdisciplinary Platform for Senior Design Projects in Engineering Disciplines," *117<sup>th</sup> Annual ASEE Conference & Exposition*, June 2010.
- [C26] \* B. Kirby, J. Bishop, K. Yelamarthi, S. Mascarella, T. Pestak, P. R. Mawasha, M. Wolff, J. Slater, Z. Wu, "Deployment of a Shape Memory Composite in Near Space: An Interdisciplinary Platform for Undergraduate Student Research," *Annual ASEE Global Colloquium on Engineering Education*, October 2009.
- [C25] K. Yelamarthi, P. R. Mawasha, A. H. Ramakrishna, "Securing an Internship in the Engineering Disciplines: Response from the Industry," *Annual ASEE Global Colloquium on Engineering Education*, October 2009.
- [C24] B. DeJong, K. Yelamarthi, "Retention in an Engineering and Technology Department," *116<sup>th</sup> Annual ASEE Conference & Exposition*, June 2009.
- [C23] A. H. Ramakrishna, K. Yelamarthi, P. R. Mawasha, "Securing an Internship in the Engineering Disciplines: Response from the Industry," *116<sup>th</sup> Annual ASEE Conference & Exposition*, June 2009.
- [C22] A. H. Ramakrishna, K. Yelamarthi, P. R. Mawasha, "Increasing Awareness of Engineering Disciplines in High-School Students through a Pre-College Program," *Annual ASEE Global Colloquium on Engineering Education*, October 2008.
- [C21] K. Yelamarthi, C-I. H. Chen, "A Path Oriented In Time Optimization Flow for Mixed-Static-Dynamic CMOS Logic," *IEEE International Midwest Symposium on Circuits and Systems*, August 2008.
- [C20] B. A. Rowley, K. Yelamarthi, T. Bazzoli, "Freshman Engineering Student Perceptions on Global Warming," *115<sup>th</sup> Annual ASEE Conference & Exposition*, June 2008.
- [C19] B. A. Rowley, K. Yelamarthi, T. Bazzoli, "Integrating Global Warming into Freshman Engineering Introductory Course," *115<sup>th</sup> Annual ASEE Conference & Exposition*, June 2008.
- [C18] K. Yelamarthi, C-I. H. Chen, "Process Variation Aware Timing Optimization through Transistor Sizing in Dynamic CMOS Logic," *IEEE International Symposium on Quality Electronic Design*, March 2008.
- [C17] P. R. Mawasha, K. Yelamarthi, "Project Management in an Interdisciplinary Senior Design Team," *ASME International Mechanical Engineering Congress and Exposition*, November 2007.
- [C16] K. Yelamarthi, P. R. Mawasha, J. Garringer, R. Rathbun, T. L. Bazzoli, "AAP: A Pre-First Year Engineering Bridge Program," *114<sup>th</sup> Annual ASEE Conference & Exposition*, June 2007.
- [C15] B. A. Rowley, K. Yelamarthi, T. L. Bazzoli, "Freshman Engineering Student Responses to a Pre-College Perception Survey," *114<sup>th</sup> Annual ASEE Conference & Exposition*, June 2007.
- [C14] P. R. Mawasha, K. Yelamarthi, M. Wolff, J. Slater, Z. Wu, "An Integrated Technology Project and its Potential Impact on Interdisciplinary Undergraduate Engineering Experience," *114<sup>th</sup> Annual ASEE Conference & Exposition*, June 2007.
- [C13] K. Yelamarthi, C-I. H. Chen, "Transistor Sizing for Load Balance of Multiple Paths in Dynamic CMOS for Timing Optimization," *IEEE International Symposium on Quality Electronic Design*, March 2007.
- [C12] K. Yelamarthi, C-I. H. Chen, "A Sub-nanosecond Low-Power High-Performance 64-bit Adder," *IEEE International Conference on Computers and Devices for Communication*, December 2006.

- [C11] S. Kakulavarapu, K. Yelamarthi, C-I. H. Chen, "Signed Multiplier Using Baugh-Wooley and On-The-Fly Conversion Algorithms," *IEEE International Conference on Computers and Devices for Communication*, December 2006.
- [C10] K. Yelamarthi, C-I. H. Chen, "Performance Optimization of Re-Convergent Manchester Carry Chain Adders," *Fifth IEEE Dallas Circuits and Systems Workshop*, October 2006.
- [C09] P. R. Mawasha, K. Yelamarthi, "Building a Bridge for Students to Transition from High-School to Engineering Curriculum," *5<sup>th</sup> Annual ASEE Global Colloquium on Engineering Education*, October 2006.
- [C08] K. Yelamarthi, P. R. Mawasha, "The Influence of a Pre-Engineering Program on Under-Represented, Low-Income and/or First Generation College Students Pursuing Secondary Education," *5<sup>th</sup> Annual ASEE Global Colloquium on Engineering Education*, October 2006.
- [C07] K. Yelamarthi, S. Ramachandran, P. R. Mawasha, B. A. Rowley, "Effective Integration of Technology in Classroom to Prepare the Engineer of 2020," *5<sup>th</sup> Annual ASEE Global Colloquium on Engineering Education*, October 2006.
- [C06] P. R. Mawasha, K. Yelamarthi, "Building a Bridge for Students to Transition from High-School to Pre-college Curriculum," *113<sup>th</sup> Annual ASEE Conference & Exposition*, June 2006.
- [C05] B. A. Rowley, K. Yelamarthi, T. L. Bazzoli, "Teaming Activities in a Freshman Engineering and Computer Science Course Aimed Towards Recruitment and Retention," *113<sup>th</sup> Annual ASEE Conference & Exposition*, June 2006.
- [C04] V. Chandrasekhar, C-I. H. Chen, K. Yelamarthi, "Low-Cost Low-Power Self-Test Design and Verification for On-Chip ADC in System-On-a-Chip Applications," *IEEE Instrumentation and Measurement Technology Conference*, April 2006.
- [C03] P. R. Mawasha, K. Yelamarthi, "Preparing the Engineer of 2020 through the Wright Innovative Design Experience in Undergraduate Education," *ASME International Mechanical Engineering Education Conference*, April 2006.
- [C02] K. Yelamarthi, S. Ramachandran, P. R. Mawasha, B. A. Rowley, "The Practical Use of Analogies to Mentor the Engineer of 2020," *ASEE Illinois-Indiana and North Central Joint Section Conference*, March 2006.
- [C01] B. A. Rowley, K. Yelamarthi, T. L. Bazzoli, "One Thousand and Still Flying," *ASEE Illinois-Indiana and North Central Joint Section Conference*, March 2006.

## Non-referred Conference Proceedings (peer-reviewed)

\* - Publications co-authored with undergraduate students

- [NC26] \* S. Buford, K. F. Haque, K. Yelamarthi, "Design and Implementation of a LoRa based Vehicle to Infrastructure Communication Architecture," *ASEE North Central Section Conference*, Mar 2021.
- [NC25] \* N. Bowen, K. Yelamarthi, "Applied Classroom Use of a Mobile Multifunctional Weather Station," *ASEE North Central Section Conference*, Mar 2020.
- [NC24] \* J. Clark, W. Falkner, R. Ratkos, S. Balaji Kuruvadi, D. Bruce, W. Zummo, K. Yelamarthi, "Development and Implementation of Real-Time Wireless Sensor Networks for Data Literacy Education," *ASEE North Central Section Conference*, Mar 2019.
- [NC23] S. Abdelgawad, D. Bruce, K. Yelamarthi, "Smart Banking Using an IoT Based Security System," *ASEE North Central Section Conference*, Mar 2019.
- [NC22] \* A. Saraiya, S. Balaji Kuruvadi, K. Yelamarthi, "Getting Ready for a Professional Education: Experience of a Middle School Student in an IoT based Research Program," *ASEE North Central Section Conference*, Mar 2019.
- [NC21] Z. Nelson, T. Kaya, K. Yelamarthi, "Engaging High School Students in Embedded Systems Engineering Research Program," *ASEE North Central Section Conference*, Mar 2018.
- [NC20] J. Gavenda, K. Yelamarthi, "Getting Ready for College: Experience of a Secondary Student in Engineering Research," *ASEE North Central Section Conference*, Mar 2018.
- [NC19] M. Abdelgawad, K. Yelamarthi, "Bridge to Success: Experience of Middle School Student in an Engineering Research Program," *ASEE North Central Section Conference*, Mar 2018.
- [NC18] \* M. Trent, K. Laubhan, A. Abdelgawad, K. Yelamarthi, "Low-Cost Ultrasonic Obstacle-Avoidance System using FPGA," *ASEE North Central Section Conference*, Mar 2016.
- [NC17] \* A. Gigowski, N. Martin, T. Root, A. Yoon, Z. Yuan, Z. Zhou, K. Yelamarthi, "Semi-Autonomous Gesture Controlled UAV Transportation System," *ASEE North Central Section Conference*, Apr 2015.
- [NC16] \* K. Laubhan, Z. Yuan, K. Yelamarthi, "A Dynamically Adapting Indoor Navigation Algorithm for Mobile Robots," *ASEE North Central Section Conference*, Apr 2014.
- [NC15] \* J. Beckwith, S. Sherbrook, R. Lefief, M. Williams, K. Yelamarthi, "Central Automated Tour Experience (CATE) – An Interdisciplinary Senior Design Project," *ASEE North Central Section Conference*, March 2012.
- [NC14] \* D. Boomgaard, K. Yelamarthi, L. Rakesh, "A Case Study on Basic Fuel Cell Design and Applications," *ASEE North Central and Illinois-Indiana Section Conference*, April 2011.
- [NC13] \* A. Adkins, J. Mitchell, N. Trela, K. Yelamarthi, "Tour Guide Robot: An Electrical Engineering Capstone Senior Design Project," *ASEE North Central and Illinois-Indiana Section Conference*, April 2011. **Won the 2<sup>nd</sup> Best Student Paper Award**
- [NC12] \* S. Rimer, K. Yelamarthi, "Analyzing the Flow rate of Water Through a Community Sand Filter Using Engineering Numerical Software," *ASEE North Central Section Conference*, March 2010.
- [NC11] \* D. Haas, D. Nielsen, S. Mothersell, K. Yelamarthi, "A Semi-Autonomous Navigational System for the Blind," *ASEE North Central Section Conference*, March 2010.

- [NC10] \* K. Dancer, W. Martin, K. Rock, C. Zeleny, K. Yelamarthi, “The Smart Cane: An Electrical Engineering Design Project,” *ASEE North Central Section Conference*, April 2009.
- [NC09] B. A. Rowley, K. Yelamarthi, T. L. Bazzoli, “Initial Results of Incorporating Global Warming into a Freshman Engineering Introductory Course,” *ASEE North Central Section Conference*, March 2008.
- [NC08] A. Wright, K. Yelamarthi, “Outreach Programs to Increase Awareness of STEM Disciplines in K-12 Students,” *ASEE North Central Section Conference*, March 2008.
- [NC07] \* B. Snyder, J. Bozeman, O. Ilenbiluan, D. Rahn, M. Andras, K. Yelamarthi, “Deployable Truss in a Near-Space Environment,” *ASEE North Central Section Conference*, March 2008.  
**Won the 2<sup>nd</sup> Best Student Paper Award**
- [NC06] S. Ramachandran, K. Yelamarthi, S. Boddhu, P. R. Mawasha, “A Conceptual Inter-Graduate Framework to Prepare the Future Faculty,” *ASEE North Central Section Conference*, March 2007.
- [NC05] K. Yelamarthi, S. Guttenahalli, P. R. Mawasha, “Introducing Pre-College Students to Engineering through a Weather Balloon Project,” *ASEE North Central Section Conference*, March 2007.
- [NC04] \* B. Kirby, C. Byers, S. Mascarella, T. Pestak, J. Bishop, K. Yelamarthi, M. Wolff, J. Slater, P. R. Mawasha, Z. Wu, “Engineering Research in Space using a High Altitude Balloon: an Interdisciplinary Senior Design Project,” *ASEE North Central Section Conference*, March 2007.
- [NC03] P. R. Mawasha, K. Yelamarthi, P. C. Lam, B. A. Rowley, “Mentorship in Engineering Education: The role of faculty, graduate and undergraduate students on the career development of pre-college students,” *ASEE North Central Section Conference*, April 2005.
- [NC02] B. A. Rowley, K. Yelamarthi, “Freshman Design Project with Senior Students as Team Leaders in the Engineering and Computer Science Freshman Program,” *ASEE North Central Section Conference*, April 2004.
- [NC01] K. Yelamarthi, P. R. Mawasha, B. A. Rowley, T. L. Bazzoli, “The Temperature Satellite Project: The Integration of Engineering Experience to First year Students,” *ASEE North Central Section Conference*, April 2004.

### **Abstract & Poster Proceedings**

- Published 25+ abstract and poster presentations.

### **Workshops/Tutorials**

- Smart Ecosystem: From Internet of Things to Blockchain & Big Data, *Indian Institute of Technology Dharwad, Oct 04, 2020.*
- Towards a Smart Ecosystems: The Road Ahead, *Keynote Speaker, IEEE Southeast Michigan Section Conference, Sep 29, 2020.*
- Smart City: Trends, Opportunities, and the Future Ahead, *Keynote Speaker, IEEE International Conference on Electro Information Technology, July 31, 2020.*
- Towards a Connected Smart City: Opportunities and Challenges, *Savannah State University, Apr 22, 2019.*
- Smart Cities: A Digital Solution for Tomorrow, *Chaitanya Institute of Technology and Science, Mar 05, 2019.*

- How Internet of Things (IoT) Will Change our Lives, *Saudi International Exhibition for the Internet of Things*, Jan 29, 2018.
- A Modular IoT Architecture: From Sensors to Cloud, *Wayne State University*, Nov 5, 2016.
- Internet of Things (IoT): Vision, Challenges, Applications, and Demonstration, *Nexteer Automotive*, Sep 13, 2016.
- Internet of Things (IoT): Foundations to Applications, *IEEE Southeast Michigan Section*, Apr 9, 2016.
- Internet of Things (IoT) Fundamentals, *ASEE North Central Section Conference*, March 18, 2016.
- Keynote Address, *Wright STEPP Graduation Ceremony*, Wright State University, July 3, 2008.

### **Talks & Other Presentations**

- Educational Opportunities in USA for STEM Majors from Sri Lanka, *Education USA*, Oct 15, 2020.
- Past, Present, and Future of Engineering & Technology Programs at Central Michigan University, *Consulate General India*, Chicago, Sep 24, 2020.
- Opportunities for Graduate Education in the Engineering Programs, *Education USA*, June 29, 2020.
- Physical Unclonable Function based Hardware Security for Resource Constraint IoT Devices, *IEEE World Forum on Internet of Things*, June 14, 2020.
- Proof-of-Authentication Consensus Algorithm: Blockchain-Based IoT Application Implementation, *IEEE World Forum on Internet of Things*, June 14, 2020.
- Crop Yield Prediction using Deep Neural Network, *IEEE World Forum on Internet of Things*, June 13, 2020.
- An Energy-Efficient and Reliable RPL for IoT, *IEEE World Forum on Internet of Things*, June 13, 2020.
- Industry Academia Partnership: A Model for Intellectual Growth, *DTE Energy*, June 26, 2019.
- How Does Encryption Influence Timing in IoT?, *IEEE Global Conference on Internet of Things*, Dec 6, 2018.
- Smart Car: An IoT Based Accident Detection System, *IEEE Global Conference on Internet of Things*, Dec 5, 2018.
- Improved RPL for IoT Applications, *IEEE International Midwest Symposium on Circuits and Systems (MWSCAS)*, Aug 2018.
- An IoT Enabled Automobile and Smart Home Connected System for Improved Energy Efficiency, *IEEE International Conference on Electro Information Technology*, May 5, 2018.
- A Custom Computer-Controlled Fluid Mixing and Dispensing System for Sweat Sensor Testing Applications, *IEEE International Conference on Electro and Information Technology*, May 4, 2018.
- Engaging High School Students in Embedded Systems Engineering Research Program, *ASEE North Central Section Conference*, Mar 24, 2018.
- Getting Ready for College: Experience of a Secondary Student in Engineering Research, *ASEE North Central Section Conference*, Mar 24, 2018.
- Bridge to Success: Experience of Middle School Student in an Engineering Research Program, *ASEE North Central Section Conference*, Mar 24, 2018.
- Signal Processing Techniques for IoT-based Structural Health Monitoring, *IEEE International Conference on Microelectronics*, Dec 2017.
- A Comparative Analysis of Simulation and Experimental Results on RPL Performance, *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 19, 2017.

- The Design and Implementation of a Smart Parking Meter for Internet of Vehicle (IoV), *IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference*, Oct 20, 2017.
- Vulnerable C/C++ code usage in IoT Software Systems, *IEEE World Forum on Internet of Things*, Dec 13, 2016.
- Parallelization in Software Systems for WSN and IoT, *IEEE World Forum on Internet of Things*, Dec 13, 2016.
- An Application Driven Modular IoT Architecture, *U.S. Army Tank Automotive Research Development and Engineering Center*, Dec 05, 2016.
- A Smart Wearable Navigation System for Visually Impaired, *EAI International Conference on Smart Objects and Technologies for Social Good*, Dec 01, 2016.
- IoT-Based Health Monitoring System for Active and Assisted Living, *EAI International Conference on Smart Objects and Technologies for Social Good*, Nov 30, 2016.
- A Modular IoT Architecture: From Sensors to Cloud, *Wayne State University*, Nov 5, 2016.
- Internet of Things (IoT): Foundations to Applications, *IEEE Southeast Michigan Section*, Apr 9, 2016.
- Internet of Things (IoT): A Vision, Architectural Elements, and Future Directions, *Graduate Student Seminar, Central Michigan University*, Mar 30, 2016.
- Low-Cost Ultrasonic Obstacle-Avoidance System using FPGA, *ASEE North Central Section Conference*, Mar 19, 2016.
- Dynamic Multi-Sensor Fusion through a Low-Power IoT Transducer Network, *ASEE North Central Section Conference*, Mar 19, 2016.
- Semi-Autonomous Mobile Informational Tour Robot, *ASEE North Central Section Conference*, Mar 19, 2016.
- A Portable Interactive Embedded System to Determine Student Status at the University, *ASEE North Central Section Conference*, Mar 19, 2016.
- A Wearable Portable Electronic Travel Aid for the Blind, *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 4, 2016.
- Structure Damage Localization Using a Reliable Wave Damage Detection Technique, *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 4, 2016.
- An FPGA-based Portable Real-time Obstacle Detection and Notification System, *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 3, 2016.
- Kalman Filter based Indoor Mobile Robot Navigation, *IEEE International Conference on Electrical, Electronics, and Optimization Techniques*, Mar 3, 2016.
- LinkedIn 101, *IEEE Student Professional Awareness Conference*, Oct 28, 2015.
- Moving Target Tracking using a Mobile Robot, *IEEE International Symposium on Monitoring & Surveillance Research*, June 10, 2015.
- Navigation Assistive System for the Blind using a Portable Depth Sensor, *IEEE International Conference on Electro/Information Technology*, May 22, 2015.
- Semi-Autonomous Gesture Controlled UAV Transportation System, *ASEE North Central Section Conference*, Apr 17, 2015.
- A Kinect based Vibrotactile Feedback System to Assist the Visually Impaired, *IEEE Midwest Symposium on Circuits and Systems*, Aug 5, 2014.
- An Efficient and Dynamic Algorithm for Accurate Mobile Robot Navigation, *IEEE International Conference on Electro/Information Technology*, June 7, 2014.

- A Dynamically Adapting Indoor Navigation Algorithm for Mobile Robots, *ASEE North Central Section Conference*, Apr 5, 2014.
- Performance Optimization of Dynamic CMOS Circuits through Transistor Sizing, *IEEE International Conference on Electronics, Computing, and Communication Technologies*, Jan 6, 2014.
- Staying Productive at CMU – Perspective of an Assistant Professor, *New Faculty Orientation, Central Michigan University*, Aug 21, 2012.
- An RFID based Semi-Autonomous Indoor Tour Guide Robot, *IEEE International Midwest Symposium on Circuits and Systems*, Aug 7, 2012.
- CATE: An Indoor Tour Guide Robot, *IEEE International Conference on Electro/Information Technology*, May 6, 2012.
- Central Automated Tour Experience (CATE) – An Interdisciplinary Senior Design Project, *ASEE North Central Section Conference*, March 24, 2012.
- Circuits And Systems Exploration Laboratory Research and Design Projects, Computer Science Graduate Seminar Series, Central Michigan University, Mar 14, 2012.
- RFID and GPS Integrated Navigation System for the Visually Impaired, *IEEE International Midwest Symposium on Circuits and Systems*, August 2, 2010.
- RFID based Assistive Devices: An Interdisciplinary Platform for Senior Design Projects in Engineering Disciplines, *117th Annual ASEE Conference & Exposition*, June 22, 2010.
- Process Variation-Aware Timing Optimization in Nanometer CMOS Technology, *North China University of Technology*, May 18, 2010.
- Analyzing the Flowrate of Water Through a Community Sand Filter Using Engineering Numerical Software, *ASEE North Central Section Conference*, March 27, 2010.
- A Semi-Autonomous Navigational System for the Blind, *ASEE North Central Section Conference*, March 27, 2010.
- Smart-Cane, Australian Broadcasting Corporation, Australia, Aug 9, 2009 (Interview).
- Smart Cane: A Navigation Assistive System for the Blind, *Michigan Commission for the Blind Training Center*, September 4, 2009.
- Retention in an Engineering and Technology Department, *116th Annual ASEE Conference & Exposition*, June 17, 2009.
- A Smart Cane: An Electrical Engineering Design Project, *ASEE North Central Section Conference*, April 04, 2009.
- A Path Oriented In Time Optimization Flow for Mixed-Static-Dynamic CMOS Logic, *51st IEEE Midwest Circuits and Systems Conference*, August 12, 2008.
- Freshman Engineering Student Perceptions on Global Warming, *115th Annual ASEE Conference & Exposition*, June 25, 2008.
- Integrating Global Warming into Freshman Engineering Introductory Course, *115th Annual ASEE Conference & Exposition*, June 25, 2008.
- Initial Results of Incorporating Global Warming into a Freshman Engineering Introductory Course, *2008 ASEE North Central Section Conference*, March 29, 2008.
- Outreach Programs to Increase Awareness of STEM Disciplines in K-12 Students, *2008 ASEE North Central Section Conference*, March 29, 2008.
- Deployable Truss in a Near-Space Environment, *2008 ASEE North Central Section Conference*, March 29, 2008.

- Process Variation Aware Timing Optimization through Transistor Sizing in Dynamic CMOS Logic, *IEEE International Symposium on Quality Electronic Design*, March 18, 2008.
- The Wright GREEN Program, *Ohio Space Grant Consortium*, November 16, 2007.
- Scientific Endeavors, *Youth Summit Program*, November 10, 2007.
- A Transistor Sizing Algorithm for Dynamic CMOS Circuits to improve Design for Manufacturability, *3<sup>rd</sup> Annual Dayton Engineering Sciences Symposium*, October 29, 2007.
- Wright State University Balloon Satellite Program, *Ohio Space Grant Consortium*, August 20, 2007.
- A Parametric Study on the Material Properties of a Shape Memory Polymer, *Ohio Student Research Forum, Ohio Science and Engineering Alliance*, August 10, 2007.
- Getting into Graduate School, 2007 Ohio Student Research Forum, Ohio Science and Engineering Alliance, August 9, 2007.
- Introduction to Electronics, *Wright State University*, August 3, 2007.
- The 5W's of Grad Program, The Ohio Glenn-Stokes Undergraduate Research Program, July 9, 2007.
- Signed Multiplier Using Baugh-Wooley and On-The-Fly Conversion Algorithms, *International Conference on Computers and Devices for Communication*, December 20, 2006.
- A Sub-nanosecond Low-Power High-Performance 64-bit Adder, *International Conference on Computers and Devices for Communication*, December 18, 2006.
- Wright State University High Altitude Balloon Project, *The Great Midwestern Space Grant Region's Small Balloon Conference*, September 18, 2006.
- Building a Bridge for Students to Transition from High School to Engineering Curriculum, *113<sup>th</sup> Annual ASEE Conference & Exposition*, June 20, 2006.
- Teaming Activities in a Freshman Engineering and Computer Science Course Aimed Towards Recruitment and Retention, *113<sup>th</sup> Annual ASEE Conference & Exposition*, June 19, 2006.
- One Thousand and Still Flying, Illinois-Indiana and North Central Joint Section Conference, April 1, 2006.
- The Practical Use of Analogies to Mentor the Engineer of 2020, *Illinois-Indiana and North Central Joint Section Conference*, April 1, 2006.
- An Airplane Flying Project That Has Involved Over 1000 Students, *31<sup>st</sup> Dayton-Cincinnati Aerospace Science Symposium*, March 7, 2006.
- Mentorship in Engineering Education: The role of faculty, graduate and undergraduate students on the career development of pre-college students, *ASEE/NCS Spring Conference*, April 8, 2005.
- The Temperature Satellite Project, NASA's Great Midwestern Regional Space Grant Meeting, November 4, 2004.
- Freshman Design Project with Senior Students as Team Leaders in the Engineering and Computer Science Freshman Program, *ASEE/NCS Spring Conference*, April 2, 2004.
- The Temperature Satellite Project: The Integration of Engineering Experience to First year Students, *ASEE/NCS Spring Conference*, April 2, 2004.

## Honors & Awards

- Michigan Science Teachers Association (MSTA) **College Science Teacher of the Year** 2021  
*A highly prestigious award that is given only to one college faculty per year across Michigan.*
- Outstanding Campus Representative Award, American Society for Engineering Education (ASEE) North Central Section 2021  
*Awarded to one faculty per year across Michigan, Ohio, Pennsylvania, West Virginia.*
- Best Paper Award, IEEE International Symposium on Smart Electronic Systems 2020
- Leadership Fellow, Mid-American Conference (MAC) 2020
- Outstanding Award for Service, College of Science and Engineering, CMU 2017
- Best Master Forum Award, IEEE International Conference on Acoustics, Speech and Signal Processing 2017
- Special Recognition for Outstanding Service, Leadership and Commitment to IEEE-USA and the Profession, IEEE-USA 2016
- Appreciation for Notable Services and Contributions to IEEE and Engineering Professions, IEEE President 2015
- 2<sup>nd</sup> Best Paper Award, Regional Student Paper Contest, IEEE International Conference on Electro/Information Technology 2014
- Finalist for Excellence in Teaching Award, College of Science and Engineering, CMU 2014
- Senior Member, Institute of Electrical and Electronics Engineers 2013
- 1<sup>st</sup> Best Paper Award, Regional Student Paper Contest, IEEE International Conference on Electro/Information Technology 2013
- Outstanding Campus Representative Award, ASEE North Central Section 2011
- 2<sup>nd</sup> Best Student Paper Award, ASEE North Central and Illinois-Indiana Joint Section Conference 2011
- Finalist for Excellence in Teaching Award, CMU 2010
- Commendation from Provost for research during the first year of service at CMU 2009
- Graduate Student Achievement Award, Wright State University 2008
- Global Citizen Award, Wright State University 2008
- Outstanding Technical Director, ASEE North Central Section 2008
- 2<sup>nd</sup> Best Student Paper Award, ASEE North Central Section Conference 2008
- Commendation, Ohio Science and Engineering Alliance for instructional support to the Ohio Student Research Forum 2007
- Dean's Commendation for outstanding advising of capstone senior design project, Wright State University. 2007
- Commendation from Lt. General John Hudson, Wright-Patterson Air Force Base for instructional support to the Wright STEPP (pre-college program) 2007

- Member, *Omicron Delta Kappa* (ODK) National Leadership Honor Society 2006
- Excellence in Teaching Award for Graduate Teaching Assistants, Wright State University 2005
- Dean's Award for Excellence in Academics, Leadership, and Service to the College, Wright State University 2004
- Finalist, Excellence in Teaching Award for Graduate Teaching Assistants, Wright State University 2006, 2003
- Member, *Tau Beta Pi* Engineering Honor Society 2004

## **Service Activities**

### **University**

- College of Science and Engineering Dean Search Committee, CMU 2020 - present  
(*appointed by the Provost*)
- Strategic Academic Organizational Review and Recommendations, CMU 2017 - 2019  
(*appointed by the President. Only one faculty member per college selected*)
- Professional Education Curriculum Committee, CMU 2016 - 2018
- General Education Committee, CMU 2014 - 2015
- Assessment Council, CMU 2009 - 2012
- New Member Selection, ODK National Leadership Honor Society, WSU 2006 - 2007
- Graduate Advisor, Glenn-Stokes Research Internship Program, WSU 2006 - 2007

### **College/School/Department**

- CSE Diversity, Equity, and Inclusion Committee 2020 - present
- Campus Representative, American Society for Engineering Education 2008 - present
- Advisor, IEEE Student Chapter, CMU-SET 2008 - present
- Chair, Coordinator of Senior Design & External Relations Search Committee, CMU-SET 2020
- Chair, Environmental Engineering Faculty Search Committee, CMU 2019 - 2020
- Chair, Mechanical Engineering Technology Faculty Search Committee, CMU 2019 - 2020
- Chair, Academic Integrity Committee, CMU-CSE 2020
- Chair, Coordinator of Assessment and Evaluation Search Committee, CMU-CSE 2018 - 2019
- Chair, College Curriculum Committee, CMU-CSE 2018 - 2019
- Co-chair, Computer Engineering Faculty Search Committee, CMU 2017 - 2019
- Co-chair, Environmental Engineering Faculty Search Committee, CMU 2017 - 2018
- Personnel Committee (Reappointment, Promotion, & Tenure), CMU-SET 2016 - 2018

- Co-chair, Strategic Planning Committee, CMU-SET 2016 - 2017
- Co-chair, Computer Engineering Faculty Search Committee, CMU 2016 - 2017
- Director Search Committee, CMU-SET 2015 - 2016
- Co-chair, Computer Engineering Faculty Search Committee, CMU 2015 - 2016
- Co-chair, SET Strategic Planning Committee, CMU College of Science and Technology 2014 - 2015
- Co-chair, Computer Engineering Faculty Search Committee, CMU 2014 - 2015
- Goldwater Scholarship Committee, CMU 2013 - 2014
- Co-chair, Computer Engineering Faculty Search Committee, CMU 2011 - 2012
- Chair, Computer Engineering Program Development Committee, CMU-SET 2010 - 2011
- Electrical Engineering Faculty Search Committee, CMU 2008 - 2010
- Student Ambassador, Wright State University (WSU)-College of Engineering & Computer Science (CECS) 2006 - 2007
- Graduate Studies Committee, WSU-CECS 2006 - 2007

### **Professional Organizations/Societies**

#### ***IEEE***

- General Chair, IEEE International Conference on Electro & Information Technology 2021
- IEEE Region 4 Industry Engagement Committee 2020 - 2021
- Treasurer - IEEE Northeast Michigan Section 2016 - present
- Technical Activities Chair - IEEE Northeast Michigan Section 2016 - present
- Program Chair, IEEE Region 4 Industrial Internet of Things Symposium 2019
- Coordinator - IEEE Region-4 Student Professional Awareness Activities 2012 - 2016
- Chair - IEEE Northeast Michigan Section 2012 - 2015

#### ***ASEE***

- Secretary/Treasurer, ASEE Electrical and Computer Engineering Division 2021 - present
- Best Paper Chair, ASEE North Central Section (NCS) 2017 - 2021, 2011 - 2013
- Webmaster, ASEE NCS 2010 - 2021
- General Chair, ASEE NCS Conference 2016
- Vice Chair - ASEE NCS 2013 - 2014
- General Chair, ASEE North Central and Illinois-Indiana Joint Section Conference 2011
- Unit Director-Instructional, ASEE NCS 2009 - 2011

- Unit Director-Research, ASEE NCS 2008 - 2009
- Co-chair, ASEE NCS Conference 2008

### *Other*

- Editorial Board, MDPI IoT Journal 2020 - present
- Topic Editor, MDPI Sensors Journal 2020 - present
- Award Selection Committee, Electrical and Computer Engineering Department Heads Association (ECEDHA) 2020 - present
- Editorial Board, International Journal of Forensic Software Engineering 2019 - present
- Guest Editor, MDPI Education Sciences Journal 2018 - 2019
- National Science Foundation (NSF) 2019, 2018, 2017, 2015, 2011, 2009
- The Research Council, Sultanate of Oman 2018
- NASA Student Launch Projects 2010
- Evaluator, Ohio Space Grant Consortium Student Research Symposium 2007 - 2010
- NASA Minority University Research and Education Program 2008 - 2009

### *Technical Program Committee*

- IEEE International Conference on Communications (ICC): IoT and Sensor Networks Symposium, 2022
- IEEE International Symposium on Smart Electronic Systems, 2021
- IEEE International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies (3ICT), 2021.
- IEEE World Forum on Internet of Things, 2021
- IEEE International Conference on Communications (ICC): IoT and Sensor Networks Symposium, 2021
- ASEE North Central Section Conference, 2021
- IEEE International Conference on Electro and Information Technology, 2021
- International Conference on Innovation and Intelligence for Informatics, Computing, and Technologies, 2020
- IEEE Global IoT Summit, 2020
- IEEE International Conference on Communications, 2020
- IEEE World Forum on Internet of Things, 2020
- ASEE North Central Section Conference, 2020
- Future Technologies Conference, 2020
- IEEE International Symposium on Smart Electronic Systems, 2020
- IEEE Computing and Communication Workshop and Conference, 2020

- IEEE Region 4 Industrial Internet of Things Symposium, 2019
- IEEE The International Symposium on Ubiquitous Networking, 2019
- IEEE Middle East & North Africa Communications Conference, 2019
- IFIP International Conference on New Technologies, Mobility and Security, 2019
- ASEE North Central Section Conference, 2019
- IEEE World Forum on Internet of Things, 2019
- Future Technologies Conference, 2019
- International Conference and Workshop on Telecommunication, Computing, Electronics and Control, 2018
- ASEE North Central Section Conference, 2018
- IEEE Global IoT Summit, 2018
- IEEE World Forum on Internet of Things, 2018
- Future of Information and Communication Conference, 2018
- IEEE International Symposium on Emerging Topics in Circuits and Systems, 2017
- ASEE North Central Section Conference, 2017
- Future Technologies Conference, 2017
- IoT Global Innovation Forum, 2017
- IEEE Global IoT Summit, 2017
- The International Symposium on Ubiquitous Networking, 2017
- ASEE North Central Section Conference, 2016
- IEEE Future Technologies Conference, 2016
- Future Technologies Conference, 2016
- IEEE International Midwest Symposium on Circuits and Systems, 2016
- IEEE Computer Society Annual Symposium on VLSI, 2015
- IEEE Symposium on Computer Applications and Industrial Electronics, 2014
- IEEE International Conference on Circuits and Systems, 2014
- IEEE Computer Society Annual Symposium on VLSI, 2014
- IEEE Frontiers in Education, 2013
- ASEE North Central Section Conference, 2013
- ASEE North Central Section Conference, 2012
- ASEE North Central and Illinois Indiana Section Conference, 2011
- ASEE North Central Section Conference, 2008