Thank you to all who helped create EPICS.

Congratulations on the

EPICS in IEEE Project at
Wichita State
Dear EECS Friends,

It gives me a great pleasure to welcome you to our first annual report since we became an EECS Department. This student driven effort to initiate the annual report intends to summarize the activities in terms of each academic program and research accomplishments. As you turn the pages you will be able to witness the achievements of our students and faculty.

Our department student body is continuing to grow, especially in the computer science area. Our fall 2017 undergraduate set another department record with 720 students. Our MS student enrollment is currently floating around 200 students. The Ph.D in EECS is growing and currently we have 42 students in the program. Research excellence as a department is highlighted by an increase in externally funded research projects and publications.

Our faulty have been recognized for their teaching, research and professional service. Dr. Animesh Chakravarthy and Dr. Zheng Chen received NSF CAREER awards in 2014 and 2016 respectively. Dr. Preethika Kumar was recognized as an outstanding teacher by IEEE-HKN and received the 2015 C. Holmes MacDonald Outstanding Teaching Award. Dr. Ward Jewell serves as the IEEE Power and Energy Society, Energy Development and Power Generation Committee Chair from 2017. Multiple faculty members have been co-authors of articles that have received best paper awards.

Our Networked Cyber Physical Systems (NETCPS) REU program attracts outstanding undergraduate students from around the country. This program, which is led by Dr. Vinod Namboodiri, seeks to provide research opportunities for students traditionally underrepresented in computer science.

Our department is home to five very active student organizations. Our honor society, IEEE-HKN has very high visibility nationally. It is involved in professional development as well as outreach activities and recently received $10,000 from EPICS in IEEE to modify ride-on cars for children with disabilities. Recently we have established the EECS Ph.D. Club to enhance the Ph.D. student experience and promote interdisciplinary research.

The Experiential Engineering Building has provided us an opportunity to enhance laboratory experiences for our students. Generous contribution from CybertronPC helped us improve all the computers in our teaching laboratories. Westar Energy has been supporting our power program and helped us expand and enhance the power system laboratory.

This newsletter provides more details to our excellence. I thank you for your interest in our Department as we are growing and developing new opportunities. As we grow we count on your continued support to our department.
One of our active student organizations IEEE HKN paired with Society of Hispanic Professional Engineers (SHPE) to introduce a class of fourth grade students to Electrical Engineering and Computer Science. The event started with an imitation of engineering class room environment in Wallace Hall 123 with brief lectures from our EECS chair Dr. Watkins and IEEE HKN faculty advisor Dr. Aravinthan. After that, the students were taken to Experiential Engineering Building Project Hub Lab where they got to build simple electric circuits under the guidance and supervision of our HKN members and SHPE volunteers. The 18 middle school children were put into groups and were introduced to concepts such as how an electric circuit is built with a small demonstration of how a motorized noisemaker toy works. Our HKN volunteers built a toy where motor was mounted on a wooden block which made a noise as a light metal rod was struck against an aluminum frame. Then the school children were given the chance to build simple a battery powered LED light for a picture frame. Finally, a College Student Panel was held where the fourth-grade students got to learn about aspects such as steps to get to college, a day in college and talking about pursuing Engineering in WSU. It was a fun activity for our EECS students to be part of as they got to see fourth-grade students being excited and engaged into the projects and building the circuit.

The whole process was initiated when some local Eta Kappa Nu chapter members started to support the Go-Baby-Go initiative at Wichita State University. The primary goal was to bring more engineering experience to the project and to produce more complex builds to support children with greater needs. Upon our introduction to EPICS in IEEE during the HKN Student Leadership Conference in 2016, it was clear what our proposal would be. We submitted a proposal to build about 15 cars over the course of a year. These would be tailored to the individual needs of each child and built using the engineering knowledge of our students as well as the support from the physiotherapy department and local high school students. As of this writing, EPICS in IEEE, with cooperation from the IEEE Wichita chapter, has granted us $10,000 for this effort and we have built and delivered 12 such cars with 2 more projects underway. We hope to continue this work with further funding.
When we began this project, what excited us was the opportunity for engineering innovation. We were excited to see what sensors we could incorporate into the builds, how intelligent of a control system we could implement and so on. As expected, we indulged ourselves in all this. We created ultrasonic collision avoidance systems, we created Android apps that controlled the car wirelessly and a host of other exciting engineering feats. However, what we gave little thought to during this whole process was the humanistic effect of this work. That all changed when we delivered our first car. We realized that while this was just an exciting project for us, for the families we delivered to, these cars were a life changer. As we got more and more feedback from the parents this fact became even more clear. Their children were finally getting the independence they desired. They are riding around their neighborhood on their own and exploring and interacting with others and the environment. These cars are providing for these children what they have been lacking for a large part of their youth.

We recently received a letter from one of the parents. The mom says: "she points to it and signs 'please' nearly every time we go by it. She knows how to make it go and today tried to steer!". She went on to say, "Since getting her car, Emily has had a motor and cognitive jump - more interest in figuring out how to stand, take steps and has added more signs (words) to her vocabulary! Maybe there is a link?!? Thank you for all your work on her car and for providing this opportunity for her!". One of the physical therapists we work with reported back how touching it was when one of the mothers teared up telling her about how the neighbor children noticed and interacted with her son for the first time when he drove his car. Another reported, "I'm excited to see the social and cognitive advancements in the child as she has new opportunities to explore her environment and play with her sister." While this is still an engineering project and we focus on using engineering knowledge to better our local community and introducing STEM education to local high school students, what drives us now is no longer just the engineering opportunity. It is these replies and comments we continue to receive telling us how our work is changing the lives of these families and further solidifying our belief that our engineering education can be used for great community service.

“"She points to it and signs 'please' nearly every time we go by it. She knows how to make it go and today tried to steer!”

EPICS in IEEE

Engineering Projects for Community Service (EPICS in IEEE) is an IEEE foundation signature project with the purpose of empowering students to work alongside local community service organizations in order to support their communities address a specific issue.

These projects also give students the opportunity to use their engineering skills to help their communities while gaining valuable hands on experience.

The funding for this project was provided by EPICS in IEEE through the IEEE Wichita chapter.
From Ms. Karen Wright, Academic Success Advisor: The department of Electrical Engineering and Computer Science believes academic advising is important to the success of every student. Under the EECS Advising Model, students receive academic advising and support from the Academic Success Advisor, Engineering Educator or Faculty Advisor. Getting academic advising assistance is as easy as one, two, three:

1. Call our main office at 316-978-3156 to schedule an advising appointment.
2. Review the Degree Works degree evaluation for an outline of which courses to register for in the upcoming semester.
3. Come to your advising appointment with a written tentative schedule of classes for the upcoming semester. Your Academic Advisor, Engineering Educator or Faculty Advisor will review your tentative schedule to ensure all prerequisites and grade requirements are met, in addition to confirming all courses taken are requirements for your major. Other campus resources such as tutoring through IEEE and GEEKS are strongly encouraged, as they are a catalyst for student academic success.

Two semesters prior to graduation, students complete a Senior Check with one of our faculty and submit an Application for Degree to ensure all degree requirements will be met in a timely manner, for graduation.

EE 285 Intro. to Programming with MATLAB for Electrical Engineers

Objective of this course is to develop deeper understanding of electrical engineering related programming and analysis. MATLAB is a strong high-level programming language popular in science and engineering fields. Students learning to develop solutions to engineering problems using MATLAB can easily extend their skills to other programming languages. This course will cover vitalization, developing and solving equations for electrical engineering, symbolic toolboxes and advanced programming methods for engineering applications.

Changes to MSEE

MS in Electrical and Computer Engineering

We have changed the Master of Science in Electrical Engineering (MSEE) program to Master of Science in Electrical and Computer Engineering (MSECE), without any changes to admission or program requirements. MSECE is designed to provide in-depth specialization in a particular area in electrical or computer engineering. Areas of specialization offered by the program are communication and signal processing, computing systems, control systems and robotics and power and energy systems. Students choose their area of specialization in consultation with their advisor.

Minor Requirements for MSECE

Minor requirements for MSECE students with thesis or project option is removed. Thesis and project students may choose courses based on their research. Thesis and project students will consult their advisor and choose appropriate courses beyond their major area of study. Coursework only students take more courses compared to project and thesis students. Minor option will provide them breadth in their study.
IEEE Student Branch

The IEEE Student Branch at WSU hosted the Undergraduate Student Paper Contest in the Experiential Engineering building at WSU on Thursday, January 25, 2018. Dr. Abu Asaduzzaman, faculty advisor of the WSU IEEE Student Branch, moderated the event. Mr. Amr Metwaly, EECS student and president of the WSU IEEE Student Branch, made a welcome presentation on "WU Coin." Mr. Louis Gomez, a student of Dr. Jaydip Desai, received the first paper award from Mr. George Dean, Secretary of the IEEE Wichita Section. Dr. John Watkins (Professor and Chair of the EECS Department), Mr. Mark Olive (Chairman of the IEEE Wichita Section), and many others attended the event. Light refreshments were served, courtesy of the IEEE Wichita Section.

ACM Student Chapter

The ACM Student Chapter at WSU organized a Tech-Talk: Never Stop Exploring in Jabara Hall at WSU on Wednesday, September 13, 2017. Mr. Clay Gill, Technical College Recruiter of Paycom, gave the talk. There were raffle prizes, courtesy of Paycom.

IEEE-HKN Epsilon Xi

IEEE-HKN Chapter is one of the most active student organization in the College of Engineering. The Chapter manages the EECS annual awards. During Thanksgiving the Chapter hosts a fund raising event that promotes to bring the lighter side of a faculty member. Out of the many events that are hosted by the organization outreach to elementary schools and high schools, faculty brownbag lunch, workshop with faculty, tutoring programs are some of the well attended events.

More information can be found at www.wichita.edu/hkn

WuLUG

WuLUG is a Linux User Group (LUG) based at Wichita State University. The mission of WuLUG is to promote, inform, and develop an understanding of Free and Open Source Software (FOSS). WuLUG has talks scheduled every alternate Thursday from 5:30 PM to 6:30 PM in EEB 327. The talks would be followed by Hands-on-session. Our Talk sessions are classified into two categories 1. Beginner level talks and 2. Advanced user talks. The second half of this spring semester would have beginner level talk sessions on Git, Raspberry Pi, and Arduino. The Advanced level talks are generally dependent on our guest speaker and are posted on the Facebook page.

WuLUG is in the process of organizing on-campus coding and community coding. If you are interested in participating, please contact wulug@wichita.edu

EECS Ph.D. Club

EECS PhD Club’s mission is to foster interdisciplinary research, interpersonal and soft skills. We organize a monthly meetings on the first Friday of every month between 2:00 - 3:00 pm. The meetings would host speakers from academia, industry, and the career development center. We are also in the process of developing a website encompassing all the resources, current and alumni student profiles. We have formed an executive board and are in the process of forming a RSO within the campus. For any information or suggestion please contact wsuphdclub@gmail.com.
Dr. Haneen Aburub received her B.Sc. degree in mechatronics engineering from Hashemite University, Jordan, in 2012 and M.S. and PhD. degrees in Electrical Engineering and Computer Science, in 2013 and 2016 respectively. Currently, she is a postdoctoral research associate at Florida International University (FIU) in developing solutions that keep the future smart grid resilient, reliable, and stable under the high penetration of renewable resources. During her PhD, she worked on developing sub- and fully optimized algorithms for operating adjustable speed pumped hydro storage in the current and future day-ahead and real-time US energy markets. She has industrial experience in market optimization of ISO-NE and California ISO (CAISO) markets. Her current research interests are power systems economics and markets, energy storage optimization, renewable energy integration, demand response, and smart grid cyber security.

When asked about her experience as a Graduate student at Wichita State she says, “WSU with its EECS Department, and under the supervision of Dr. Ward Jewell, offered me a wonderful opportunity to explore graduate studies in the area of my interest, which is Energy and Power Systems. During my years at WSU, I had the opportunity to build and improve my research, teaching, leadership, and communication skills through the experiences I went through and positions I have held. For research skills, I was under great supervision from Dr. Ward Jewell who gave me the chance to attend great classes offered by the EECS department, attend conferences, choose freely my research topic and approach, contact people from industry, and get an internship. For teaching skills, EECS department gave me the chance to teach the "Electronic Circuits 1" undergraduate course. For leadership and communication skills, EECS department gave me the chance to be the event coordinator and chair of the IEEE student branch at WSU. All of these beside the diverse and warm climate at WSU, and the financial support I received from Dr. Ward Jewell, the EECS Department, and Maha "Maggie" Sawan Fellowship throughout my study years have helped me to follow the success path. So, thank you WSU for investing in me, and always looking forward to reward you back.”

Dr. Sara Bahrami Zanjani received a Ph.D. in Computer Science from Wichita State University in May 2017 under the supervision of Dr. Huzefa Kagdi. She is currently an assistant professor in the Department of Computer Science and Software Engineering at California Polytechnic State University (SLO) teaching upper division classes such as “Individual Software Design and Development” and “Software Engineering” and advising several graduate (thesis) and undergraduate (senior project) students. Her research interests are: Software maintenance and evolution, Empirical software engineering, Mining software repositories, Program comprehension, Natural language processing, Human Computer Interaction. In addition Dr. Zanjani is serving as Co-general chair for the CWIC-SoCal 2018 Celebration of Women in Computing in Southern California Program.
committee for International Conference on Software Maintenance and Evolution (ICSME 2018).

“I joined WSU in Aug 2012. I started my Ph.D. in Software Engineering with a minor in Artificial Intelligence and Machine Learning under the supervision of Dr. Kagdi. During the Ph.D., I enjoyed being part of the research team at the Software Engineering Research Lab (SERL) consisting of undergraduate, and graduate students. The EECS department provided me with a spectacular opportunity to cultivate my skills and choose my future career. As an example, I benefited greatly from the commitment of the EECS department to excel in teaching and fostering students' learning through offering many well-structured and beneficial courses, data science courses. The EECS department and my Ph.D. supervisor have generously provided me with the opportunity to attend several scientific conferences to share and present my research. Presenting my research and networking with other scholars in my field not only helped me to gain a vision but it paved the path to my current academic position.

Additionally, I served as an adjunct lecturer at Wichita State University during academic year 2016-2017, teaching “Introduction to Programming.” My research was primarily focused on software evolution/maintenance and empirical software engineering. More specifically, in my Ph.D. dissertation I developed approaches that utilize information stored in software repositories to support the evolution of large scale software systems, in particular, the assignment of developers and reviewers. The results of my research were published in IEEE Transactions on Software Engineering (TSE) as well as conference presentations in IEEE/ACM International Conference on Software Engineering (ICSE 2016). During my Ph.D. I had the chance to collaborate with Dr. Christian Bird at Microsoft research.

I enjoyed the friendly environment at EECS department. The EECSC faculty have been always friendly and supportive of me. For example, during the last year of my Ph.D., I requested to teach a course in our department so I can have teaching experience. With the support, I received from our department chair Dr. Watkins I was able to teach a programming course for undergraduate students which helped me to land my current job in academia. I appreciate all the help and support I received from the faculty and staff in EECS department especially my advisor Dr. Huzefa Kagdi, my good friends in the department, Dr. Edwin Sawan, Dr. Preethika kumar, Dr. Ali Eslami, Dr. Sergio Salinas, Dr. Rajiv Bagai, and Mr Keenan Jackson.”

Tara Eicher is currently pursuing a PhD in Computer Science from The Ohio State University and conducting research in bioinformatics. Her research interests are in supervised and unsupervised machine learning techniques applied to genomics data and histology images. Currently, She is working on a framework to annotate regions of the epigenome by functionality given enzyme binding patterns.

“My studies at Wichita State University introduced me to exciting ideas in multiple areas of computer science including algorithm development, machine learning, data mining, big data analytics, information theory, and artificial intelligence. I have gone on to use many of these ideas in my research. I also had the honor of being involved with several organizations at Wichita State, including the Society of Women Engineers, IEEE-HKN, and the Association for Computing Machinery, as well as the opportunity to work on the Mercury Robot Challenge. Last but not least, I learned a lot from my thesis advisor, Dr. Kaushik Sinha, who was always there to support and guide me through the process of my research.
Thanatheepan Balachandran is currently a Ph.D. student at University of Illinois at Urbana Champaign, where he is working as a research assistant in Electrical and Computer engineering department. His research focus is High Density Power Machines application in wind energy generation. He was an Electrical Engineering graduate student in our EECS department from 2015 till 2017. Previously, he had received his Bachelor’s degree in Electrical Engineering from University of Peradeniya in Sri Lanka and had worked in the industry for two years before he started his masters at Wichita State University. This is what he had to say when asked about the influence that WSU and EECS department had on his career,

“After working in industry for two years in Sri Lanka I realized that working in the industry is not my passion. I always wanted to work in a sector where I can interact with people and help them. This made me realize that as an engineer, teaching and involving in research would be the most suitable career for me. This is what led me to pursue masters in electrical engineering at Wichita State under the guidance of Dr. Visvakumar Aravinthan. Dr. Ara was not only my advisor but a mentor and a good friend. The EECS faculty in Wichita State especially Dr. Ara and Dr. Sawan changed my entire perspective of how a professor can be friendly with students. They have influenced a lot and showed me that teaching is not only lecturing the students but it is also a life style and requires a lot of dedication. I have not only got firsthand experience in doing research with Dr. Ara and my colleagues but also got a lot of different experiences at WSU. I did research in smart grid and published research articles to share my knowledge. I also got an opportunity to instruct Digital design lab for a class of 60 students. I was an officer in IEEE-Eta Kapa-Nu honor society and served as the President of the International Student Union. Furthermore, I also was involved in a community service project called “Go Baby Go” to build ride-on cars for disabled children, working as the project manager and was instrumental in receiving $ 10,000 from EPICS in IEEE program. All these were possible because of the support of my advisor, EECS faculty and colleagues at WSU. I will always be proud to say that I am a WSU Alumni.”

EECS Department Chair, Dr. John Watkins (second from left) received the Outstanding Chapter Award form IEEE-HKN on behalf of the Wichita State Chapter (Epsilon Xi). IEEE-HKN is the Department Honor Society.
IEEE-HKN Alton B. Zerby and Carl T. Koerner Outstanding Student Award

This award recognizes outstanding scholastic excellence and high moral character, coupled with demonstrated exemplary service to classmates, university, community, and country. This program is administered by the Los Angeles Area alumni chapter.

In additional to the 2017 winner, the committee conferred
Honorable Mention to Mr. Alex Mages from our Department

Alex Mages completed his BSEE in Dec, 2016 and currently working as a System Support Engineer at LP Technologies. He is involved in product development, systems support, and consumer training.

At Wichita State he not only he excelled in his education, he was also very active in student organizations. Alex will be always ready to help other students. He served as a unofficial peer tutor to many students. With his military background, not only he helps students but will make sure that his help will provide an avenue to learn the concepts but would not provide the solutions.

IEEE PES Scholarship Plus Initiative

Recipients of PES engineering scholarships are high achieving undergraduate students in electrical engineering who have committed to exploring the power and energy fields through both coursework and career experiences. These students will graduate with the knowledge and skills necessary to begin making an impact across the power and energy industry.

Two of our students were recipients of this award in 2017

Thien Le (Fall2017 Graduate)  Colton Russell

Capitol Graduate Research Summit

Srikanth Gampa, Ph.D. in EECS student presented his work titled “Safeguarding Patients’ Data for Reasonable Health Care Cost” at the Capitol Graduate Research Summit in Topeka, KS on March 27, 2018. Dr Rajiv Bagai is his research advisor.

The Capitol Graduate Research Summit in Topeka was initially developed and implemented by graduate students at the doctorate and Ph.D level at the University of Kansas, Wichita State University, Kansas State University, and the University of Kansas Medical Center. Since its inception, it has grown to encompass graduate research at all Kansas universities.
Dr. Rémi Chou, Assistant Professor
Rémi Chou received the Ph.D. degree in Electrical Engineering from Georgia Tech in 2015. He was a postdoc at Penn State between 2015 and 2017, and joined the EECS Department at Wichita State University as an Assistant Professor in 2017. His research interests broadly include information theory, error-control coding, game theory, and machine learning pertaining to the field of telecommunication. His research aims at developing and studying insightful mathematical models to better understand the communication limits of networks, and to provide practical guidelines for the deployment and implementation of communication protocols over networks.

Dr. Hongsheng He, Assistant Professor
Dr. Hongsheng He is the Director of Robot Intelligence Laboratory at the Wichita State University. He was a Postdoctoral Research Associate at the University of Tennessee after obtaining his PhD degree from the National University of Singapore. His primary research interests lie in intelligent robotics, machine learning and computer vision. He has published over 30 journal and conference papers, two book chapters, two edited books and four patents in these areas. He is an associate editor of the International Journal of Social Robotics, and he has served in the organizing committee of several international conferences.

Dr. Zhiyong Shan, Assistant Professor
Dr. Shan was a postdoctoral researcher at University of California and received Ph.D. degree from Chinese Academy of Sciences. His research focuses on software engineering and information security. He received several research and teaching awards from Beijing government, Chinese Academy of Sciences and the Ministry of Education of China. He got several research funding as primary investigator from both US and China. He published two books and more than 30 papers on conferences like ICSE, OOPSLA and HPCA.

Dr. Tewodros Zewde, Engineering Educator
Dr. Tewodros Zewde was born and raised in Ethiopia. He received his B.Sc. in Electrical Engineering from Bahir Dar University and an M.Sc. in Electrical Power Engineering from Addis Ababa University. He pursued his doctoral studies in Syracuse University, and received a Ph.D. in Electrical and Computer Engineering in 2017. Among his accomplishments are an Outstanding Teaching Assistant Award and Certificate of University Teaching he received from Syracuse University. In addition, his dissertation is nominated for a doctoral prize winner award. His research interest includes, wireless information and power transfer, energy efficiency and convex optimization, unmanned aerial vehicles, and smart grid communication and security.

Mr. Adam Sweeney, Engineering Educator
Adam was born in Spokane, WA and has lived in New Mexico, Germany, and Brazil before landing in Kansas. He earned his BS in Mechanical Engineering from Washington State University and his MS in Computer Science from Wichita State University. Hobbies include: programming, distro-hopping, games (board and video), volleyball, racquetball, and consuming all the media.
Dr. Ward Jewell
Professor / IEEE Fellow

- IEEE PES Energy Development and Power Generation Committee Chair 2017—
- Nikola Tesla Award for the Student Choice of Outstanding EECS Faculty, 2017
- CoE Wallace Outstanding Educator Award for Excellence in Research, 2010
- CoE Wallace Outstanding Educator Award for Excellence in Teaching, 1990
- NCR Corporation Award for Excellence in Academic Achievement, 1989
- Chaired several IEEE PES subcommittees

Dr. Prakash Ramanan
Professor

- Teaching Award from the Academy for Effective Teaching (WSU), 1998–99.
- Outstanding Faculty Member Award (UCSB, 1985–86).

Dr. Hyuck Kwon
Professor

- CoE Wallace Outstanding Educator Award for Excellence in Research for 2010
- Been finalist for the Academy for Effective Teaching Award (2015 and 2016)
- Air Force Summer Faculty Fellow 2014 - 2018
- Boeing Fellow 2002 - 2004
- Eisenhower Delegation Member in Vehicular Technology and Wireless Communications to China 2000

Dr. John Watkins
Professor and Chair

- Corresponding Editor-Conference Activities, IEEE Control Systems Magazine, 2008-2014
- Associate Editor-Conference Editorial Board of the IEEE Control Systems Society, 1999—
- Vice Chair for Interactive Papers of the 2007 IEEE Conference on Decision and Control
- 2011-2012 WSU College of Health Professions Leadership Fellow
- 2011 WSU Cooperative Education and Work-Based Learning Faculty Advisor of the Year
- College of Engineering Dwane and Velma Wallace Outstanding Teaching Award, 2007
- NASA-ASEE Summer Faculty Fellow, NASA Goddard Space Flight Center, 1999, 2000
Dr. Rajiv Bagai
Associate Professor

- Wichita State University, Emory Lindquist Faculty Mentor Award 1992/93

Dr. Preethika Kumar
Associate Professor

- IEEE HKN Outstanding Teaching Award – fall 2015
- IEEE Eta Kappa Nu Nikola Tesla Teaching Award – spring 2015
- Wichita State University Academy for Effective Teaching Award – spring 2013
- Wichita State University Excellence in Teaching Award – spring 2012
- Dwane and Velma Excellence in Teaching Award - spring 2011
- Phi Delta Theta Outstanding Professor of the Year Award – spring 2008
- Polished Professor Award – spring 2015 and spring 2009

Dr. Vinod Namboodiri
Associate Professor

- Site Director of NSF Networked Cyber Physical Systems (NetCPS) REU Program
- Adjunct Senior Scientist at Envision Research Institute
- Online Learning Faculty Fellow at Wichita State University, 2015-2016.
- Excellence in the Advancement of Teaching Award in 2015.
- Academy of Effective Teaching Award by Wichita State University in 2014.
- Excellence in Teaching Award by Wichita State University in 2013.
- Duane and Velma Wallace Excellence in Teaching Award 2013.

Dr. Yanwu Ding
Associate Professor

- College of Engineering Strategic Engineering Research Fellowship, 2010
- Co-author of a paper that received best paper award at 10th Annual Wireless Telecommunications Symposium, 2011
Dr. Abu Asaduzzaman  
Associate Professor  
- WSU Strategic Enrollment Management (SEM) Faculty Fellow, 2016-2017  
- Finalist, IEEE-HKN Nikola Tesla Award, WSU EECS Department, Spring 2017  
- Best Paper Award in the IEEE ICAEE Conference, Bangladesh, 2015  
- NVIDIA GPU Research Center at Wichita State Award, 2015

Dr. Animesh Chakravarthy  
Associate Professor  
- NSF CAREER Awardee in 2014  
- Dwane and Velma Wallace Excellence in Teaching Award, 2014  
- AFRL Summer Faculty Fellow, 2014  
- Dwane and Velma Wallace Excellence in Research Award, 2015  
- WSU Excellence in Research Award, 2015  
- Kansas Board of Regents WSU Excellence in Teaching Award, 2015  
- Kansas Board of Regents WSU Young Faculty Scholar Award, 2016  
- Excellent Reviewer, Journal of Guidance Control and Dynamics, 2016 & 2017

Dr. Huzefa Kagdi  
Associate Professor  
- Most Influential Paper Award at IEEE ICPC 2013 for an IWPC paper on the srcML fact extractor  
- Recipient of the Excellence in Teaching Award, Wichita State University, 2016  
- Finalist for the Academy of Effective Teaching Award, Wichita State University, 2016  
- Finalist for the Wallace Teaching Award, College of Engineering, 2016  
- Finalist for the Wallace Research Award, College of Engineering, 2014

Dr. Visvakumar Aravindhan  
Associate Professor  
- Secretary, IEEE PES RRPA Subcommittee, 2018—  
- Academy of Effective Teaching Award by Wichita State University in 2017  
- Nikola Tesla Award for the Student Choice of EECS Faculty, 2016  
- Regents Award for Leadership in the Advancement of Teaching, 2016  
- Chair, IEEE PES RRPA Reliability Consideration in Emerging Cyber-Physical Energy Systems Task Force 2015 – present  
- General Chair, 51st North American Power Symposium (NAPS), 2019
Faculty Highlights

Dr. Koushik Sinha
Assistant Professor
- Recipient of Flossie E. West memorial foundation award, 2015
- Associate Editor, Neurocomputing Journal (2014-2017)

Dr. Chengzong Pang
Assistant Professor
- Fellowship from State Key Laboratory of Alternate Electrical Power System with Renewable Energy Sources, China (2018 and 2019)
- Member of Goddard Career and Technical Education Advisory Council (2017-)
- Exceptional Reviewer for IEEE Transactions on Power Delivery (2016)

Dr. Ali Eslami
Assistant Professor
- WSU Young Faculty Risk Taker Award for 2016-2017

Dr. Sergio Salinas
Assistant Professor
- Recipient of WSU’s URCA award for the project "A Cybersecurity testbed for Advanced Manufacturing"
Dr. Perlekar Tamtam
Engineering Educator
- Licensed Professional Engineer, Kansas

Ms. Manira Rani
Engineering Educator

Dr. Edwin Sawan
Professor and Chair Emeritus
- Licensed Professional Engineer, Kansas
- Wichita State University - Academy for Effective Teaching Award, 2009
- Dwane and Velma Wallace Award for Excellence in Teaching, 2002
- College of Engineering Award for Excellence in Teaching, 1983

Mr. Keenan Jackson
Lecturer
Mr. Ben Roose  
Systems Administrator
- Deployed Red Hat OpenStack Platform with Ceph cluster for EECS, 2017
- Integration of CFEngine Linux configuration management for EECS, 2016-
- LF Certified OpenStack Administrator, 2017
- Planning committee member for Kansas Linux Fest 2016 & 2017

Ms. Karen Wright  
Academic Success Advisor

Ms. Kayla Cunningham  
Senior Administrative Assistant

Ms. Angela Lentino  
Administrative Specialist
Active Research Grants

- Drs. Visvakumar Aravinthan (PI) and Ward Jewell received a $220,000 grant from Power System Engineering Research Center (NSF I/U CRC) for a project titled “Optimal Model Coordination for Integrated Transmission and Distribution Systems.” This is a collaborative project between Wichita State University, Cornell University and Smith College. The project duration is Jun 2018—Aug. 2020.
- Dr. Vinod Namboodiri (PI) received a $15,580 grant from Envision Research Institute, Envision Inc., for a project titled “Towards Inclusive Wayfinding in Wichita.” The grant duration is Jan, 18 – May, 18.
- Dr. Vinod Namboodiri (PI) received a $100,000 grant from National Science Foundation, for a project titled “SCC-Planning: CityGuide: Beacon-Based Community-Driven Inclusive Wayfinding.” The grant duration is Sep. 2017—Aug. 2018.
- Dr. Vinod Namboodiri (PI) received a $324,000 grant from National Science Foundation Titled “Enhancing Undergraduate Research Experiences in Networked Cyber-Physical Systems,” for a REU Center. The grant duration is Mar. 2017- Sep. 2020.
- Dr. Hyuck M. Kwon (PI), received $105,253 from US Air Force Research Laboratory or a project titled “Communication on the Move with Satellite Digital Beamforming.”, The project duration is Mar. 2017-Aug. 2018.
- Dr. Perlekar Tamtam (co-PI) received a $597,500 grant from Midwest Industrial Assessment Center titled “This research work is funded by Department of Energy and the main goal of this project is assess the energy usage by the industry and write a proposal to improve their energy efficiency.” The grant duration is Nov. 2016 - Oct. 2021.
- Drs. Pu Wang (PI), Animesh Chakravarthy and Zheng Chen received a $542,809 grant from National Science Foundation, titled “Synergy: Collaborative Research: Towards Effective and Efficient Sensing Motion Co-Design of Swarming Cyber-Physical Systems.” This is a collaborative grant between Wichita State University, Rensselaer Polytechnic Institute and State University of New York-Buffalo. The project duration is 2015-2019.
- Dr. Animesh Chakravarthy (PI) received a $749,998 grant from NASA titled “Active Wing Shaping Control for Morphing Aircraft.” This is a collaborative grant between Wichita State University, Missouri Science & Technology University, and University of Kansas. The grant period is Aug. 2015—Jul. 2018.
- Dr. Ali Eslami (PI) received $25,000 from Flossie West Memorial Foundation for his cancer research titled “Error Correction for the Code of Life in A New Era of Genome Editing.” The project duration is May 2016-Aug. 2018.
- Dr. Animesh Chakravarthy (PI) received NSF CAREER grant titled “CAREER: Generalizations in Obstacle Avoidance Theory.” The grant duration is 2014-2020.
- Dr. Animesh Chakravarthy (PI at WSU) received a $749,937 grant from NASA titled “Learning Algorithms for Preserving Safe Flight Envelope Under Adverse Aircraft Conditions”, This is a collaborative grant between Wichita State University, Missouri Science & Technology University (Lead), and University of Kansas. The grant duration is Sep. 2015-Aug. 2018.


- C. Luo, K. Zhang, S. Salinas and P. Li, “SecFact: Secure Large-scale QR and LU Factorizations,” accepted: IEEE Transactions on Big Data


- M. Ghanavati and A. Chakravarthy, “Demand-side Energy Management by use of a Design-then-Approximate Controller for Aggregated Thermostatic Loads”, accepted in the IEEE Trans. on Control Systems Technology,


- K. Chidella, and A. Asaduzzaman, “A Novel Wireless Network-on-Chip Architecture with Distributed Directory for Faster Exe-


EECS Department is the largest Department in the College of Engineering. The enrollment and graduation data for the last 10 years is provided.
Ph.D. in EECS Graduates since 2015

- **Dr. Shuang Xia**, “OPTIMAL NETWORK CONTROL FOR BIG AND HEAVY DATA DELIVERY,” Spring 2018—Advisor Dr. Hyuck Kwon
- **Dr. Vishnu Cherusola Dev**, “ENABLING SMART CITIES THROUGH DATA MANAGEMENT IN MOBILE DEVICES AND SMART GRIDS,” Summer 2017—Advisor: Dr. Vinod Namboodiri
- **Dr. Zhihang Ye**, “FABRICATION, MODELING, AND CONTROL OF DIELECTRIC ELASTOMER ACTUATOR: A SYSTEMATIC VIEW,” Summer 2017—Advisor: Dr. Zheng Chen
- **Dr. Saurav Man Singh Basnet**, “RESIDENTIAL DEMAND RESPONSE PROGRAM: PREDICTIVE ANALYTICS AND VIRTUAL STORAGE MODEL,” Spring 2017—Advisor: Dr. Ward Jewell
- **Dr. Dan Wang**, “INTELLIGENT SPECTRUM MOBILITY AND RESOURCE MANAGEMENT IN COGNITIVE RADIO AD HOC NETWORKS,” Spring 2017—Advisor: Dr. Yi Song
- **Dr. Motahareh Bahrami Zanjani**, “EFFECTIVE ASSIGNMENT AND ASSISTANCE TO SOFTWARE DEVELOPERS AND REVIEWERS,” Spring 2017—Advisor: Dr. Huzefa Kagdi
- **Dr. Suliman Abdullah Alhamidi**, “ROBUST POWER CONTROL DESIGN FOR WIND ENERGY IN MICROGRID,” Fall 2016—Advisor Dr. John Watkins
- **Dr. Arash Boustani**, “SECURITY AND PRIVACY IN CRITICAL INFRASTRUCTURE CYBER-PHYSICAL SYSTEMS: RECENT CHALLENGES AND SOLUTIONS,” Fall 2016—Advisor: Dr. Murtuza Jadliwala
- **Dr. Walid Sulaiman Alfuhaid**, “DECENTRALIZED CONTROL OF INTERCONNECTED SINGULARLY PERTURBED SYSTEMS,” Summer 2016—Advisor: Dr. John Watkins
- **Dr. Shuang Feng**, “CELL ASSOCIATION ATTACK VIA REFERENCE SIGNAL SPOOFING IN MULTI-CELL WIRELESS NETWORKS,” Summer 2016—Advisor: Dr. Hyuck Kwon
- **Dr. Lun Li**, “BLIND DETECTION DESIGNS WITH UNIQUE IDENTIFICATION IN TWO-WAY RELAY CHANNELS,” Summer 2016—Advisor: Dr. Yanwu Ding
- **Dr. Sachin Argade**, “STOCHASTIC LOAD AND RENEWABLE RESOURCE CONTROL FOR SMART DISTRIBUTION SYSTEM,” Spring 2016—Advisor: Dr. Visvakumar Aravinthan
- **Dr. Haneen Aburub**, “ELECTRIC ENERGY STORAGE FOR HIGH PENETRATION RENEWABLES,” Fall 2016—Advisor: Dr. Ward Jewell
- **Dr. Rudrayya Chowdary Garigipati**, “IMPLEMENTATION OF QUANTUM GATE OPERATIONS USING A DYNAMIC LEARNING ALGORITHM,” Summer 2015—Advisor: Dr. Preethika Kumar
- **Dr. Tze Chien Wong**, “ADVERSARY ANALYSIS OF COCKROACH NETWORK UNDER RAYLEIGH FADING CHANNEL: PROBABILITY OF ERROR AND ADVERSARY DETECTION,” Spring 2015—Advisor: Dr. Hyuck Kwon
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Group of Ph.D. students with Dr. Kerry Wilks Associate Dean, Graduate School; Dr. John Watkins Chair, EECS Department; Dr. Vinod Namboodiri, Associate Professor, EECS; Dr. Remi Chou, Assistant Professor, EECS and Dr. Edwin Sawan, Professor and Chair Emeritus EECS.
51st North American Power Symposium will be held at Wichita State University in September of 2019. NAPS is the premier student centric academic conference in the area of electric power and energy systems. Wichita state will host hundreds of students, academics' and researchers from research institutes worldwide for this 3 day symposium. The EECS faculty at WSU competed against a number of other hopeful universities to secure this great honor. The conference will be an excellent opportunity for EECS students to experience the execution of a world class academic conference.

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In Memoriam


Tom Wallis graduated from Wichita State and immediately started his career as the system administrator for the Computer Science department at Wichita State. When the department moved to the College of Engineering and became part of the current Electrical Engineering and Computer Science department in 2009, Tom remained with the College of Liberal Arts and Sciences as a member of the Mathematics, Statistics and Physics department. Tom was very generous with his time and even supported the computer systems for the EECS department, even though it was not part of his duties, until Ben Roose was hired as the systems administrator for the EECS Department. Tom was well-known for taking time to help anyone, faculty or student, with computer problems.