



THE DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

SPRING 2017

CALENDAR OF EVENTS

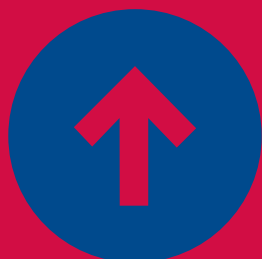
Stander Symposium
April 5, 2017



Easter Break
April 13–16, 2017



Last Day of Classes
April 28, 2017



Chair's Corner *Dr. Guru Subramanyam*



Our 2016–17 academic year began with welcoming our new UD President, Dr. Eric Spina, along with the class of 2020. Likewise, we extended our warm welcome to our newest faculty member, Dr. Feng Ye. Professor Ye is an expert in computer networks, wireless networks and smart grid. We look forward to his contributions to the department in the years to come. We also welcomed Mr. James Reed as a Research Technician in our department, primarily to support our research activities in the Mumma Radar Lab as well as our department faculty. Mr. Reed will help develop packaging and RF testing services through our department to UDRI and external customers.

Professor Vamsy Chodavarapu (Principal Investigator) received an NSF grant called the Cloud MEMS program, which offers unique multi-project wafer services for microelectromechanical systems (MEMS) for the first time to industry and government customers. We are excited about this opportunity to serve the MEMS based microsystems community through this NSF funded program. This is a three-year program for a total cost of \$225K.

Our faculty were instrumental in the success of the 2016 IEEE National Aerospace Electronics Conference (NAECON 2016). Professors Vijayan Asari, Vamsy Chodavarapu, Keigo Hirakawa, Lorenzo LoMonte, Raúl Ordóñez and Bob Penno chaired/co-chaired sessions in the NAECON 2017, with myself serving as one of the General Co-Chairs for the conference. We had over 200 attendees at the conference for the first time in a long time. Congratulations to our ECE graduate students who won several of the poster awards at NAECON 2016.

Our ABET review in October went exceptionally well with absolutely no short-comings in our electrical engineering and our computer engineering programs. My sincere thanks to all of our faculty, staff and students who contributed to the success of the programs. A special thanks to Professors Russ Hardie and Eric Balster in helping me to prepare the final ABET *Self Study Report*.

Congratulations also to our December graduates (18 undergraduates, 28 M.S. students, and 7 Ph.D. students).

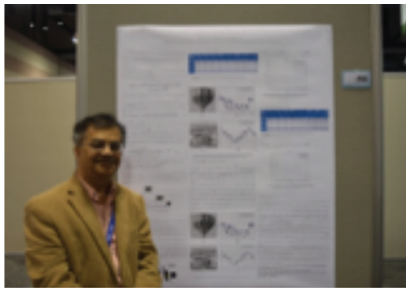
Dr. Michael Wicks Awarded 2016 IEEE Aerospace & Electronic Systems Society Pioneer Award

“Dr. Michael Wicks is an Ohio Research Scholar Chair in Sensor Exploitation & Fusion and faculty member in the ECE department. He invented the ‘concept’ of an Expert System Constant False Alarm Rate (CFAR) in 1984 while working on the Air Defense Initiative. In this concept, he used several mathematical CFAR detection algorithms and heuristic Expert System rules to make global decisions concerning target detections in airborne early warning radar. This innovative concept was supported by experiments conducted in the Surveillance Lab. The resulting invention was documented, fully developed to TRL-7, and reduced to practice for fielding as an Air Force product by William Baldygo in the 1990s. Mr. Baldygo from AFRL is co-recipient of the 2016 Pioneer Award.”

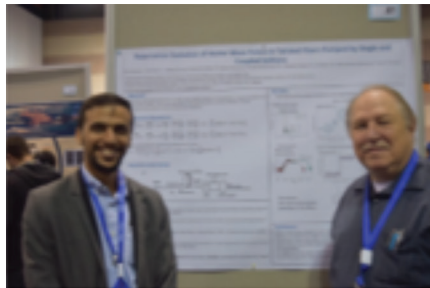


The Optical Society Frontiers in Optics Conference and Centennial Celebration in Rochester, NY

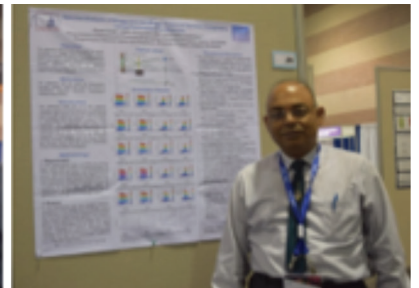
This past October, three of our ECE faculty had the chance to attend the Optical Society Frontiers in Optics Conference and Centennial Celebration in Rochester, NY. Dr. Monish Chatterjee, Dr. Partha Bannerjee and Dr. Joseph Haus had the opportunity to present their work in Electro-Optics at the conference/celebration.



Monish Chatterjee



**Joseph Haus and
Mohammad Almanee**



Partha Banerjee

Keigo Hirakawa: Keynote Speaker at The Computational Color Imaging Workshop

The Sixth Annual International Association for Pattern Recognition (IAPR) Computational Color Imaging Workshop (CCIW) will take place from March 29-31, 2017, in Milan Italy. Prof. Keigo Hirakawa will be traveling to Milan to be a keynote speaker. This workshop is a forum for research in color image processing, color image quality assessment, color vision modeling and color image reproduction. Prof. Hirakawa will be speaking about Fourier Multispectral Imaging — a joint collaboration with Prof. Andrew Sarangan involving sensor development for capturing and reproducing the spectrum of light at every pixel. The National Science Foundation and Air Force Research Laboratory have funded their prototyping efforts.



Dr. Vijayan Asari and Almbrok Essa Awarded Best Paper by IARIA

ECE professor, Dr. Vijayan Asari, and ECE graduate student, Almbrok Essa, were awarded the Best Paper Award for their paper that they presented during the VISUAL 2016 International Conference on Applications and Systems of Visual Paradigms. This conference was held in Barcelona, Spain, November 13-17, 2016.



**Mark Patterson,
adjunct faculty
advanced to Senior
Member in IEEE,
September 2016.**



IEEE PES Scholarship Awarded to David Gross and James Kronk



The IEEE Power and Energy Society (PES) Scholarship Plus program is a signature program of the IEEE Foundation, made possible through the generosity of various corporations, foundations and individuals. It is awarded to electrical engineering majors with an interest in power and energy engineering careers and stipulates that those seeking renewal of the award participate in internships/co-ops related to such careers. The award amount is for \$2000 for two years and \$3000 for a third year, for a total of \$7000. A total of 230 students, first-time and renewing students, were awarded the scholarship this past year. David and James expressed their utmost appreciation for being awarded the scholarships. On behalf of the Department of Electrical and Computer Engineering, we congratulate them!

IEEE National Aerospace Electronics Conference-OIS Sciabica Award

On Tuesday, July 26, 2016, Dr. Keigo Hirakawa and Dr. Paul McManamon were awarded the IEEE NAECON-OIS Joe Sciabica Award at Emerson's Helix Innovation Center at the University of Dayton. Dr. Hirakawa, Department of Electrical and Computer Engineering, was recognized for his excellence in innovation and collaboration. Dr. McManamon, Department of Electro-Optics and Photonics, was recognized for his leadership in innovation and collaboration. Congratulations to our faculty members for their achievements.

Dr. Guru Subramanyam Recognized in UD School of Engineering News

In the January 2017 issue of the UD School of Engineering newsletter, Dr. Guru Subramanyam, department chair, was congratulated for the department's work toward preparing the *Self Study Report* for ABET accreditation this past fall. Notification was sent to Associate Dean Bob Wilkens the week of January 22nd that the Self Study Report prepared for the electrical engineering program had been selected by ABET as a model report. The *Self Study Report* will be displayed at the 2017 ABET Symposium, to be held April 20-21 in Baltimore, MD.



December 2016 Graduates

B.S./B.E. Degrees Awarded

Ali M. Al-Saba

Ph.D. Degrees Awarded

Mosa A. Abdesalam

M.S. Degrees Awarded

Maha F. Aldhafairi
Muntather M. Alnasser
Anas H. Alrehaili
Hasan A. Alsayegh
Ahmed A. Alshuwakat
Evan C. Cooper
Daniel P. Gates
Michael W. Gaussa
Nolan R. George
Amnah E. Hasan
Brian S. Kessler
Francisco L. Palenzuela
Yichun Qi
Ali M. Redha
Huilin Wen

Wangbo Zhang
Jiahang Zhu
Mohammed A. Alfakhri
Daniel P. Prince
Abdelhadi A. Abu Leyeh
Faisal A. Alabdullatif
Mohammed M. Alammar
Redha A. Almahdi
Alexander J. Boytim
Jordan L. Christman
Joshua R. Cory
Han Fan
Md Omer Faruq
Kevin T. Geary
Sravani Here Matam

Radhika Reddy Jupally
Asha Palanisamy
Kevin Pasko
Sai Sowjanya Peteti
Krupakar Reddy Samala
Venkata Suresh Setarajupalli
Matthew J. Sprague
Bindu Bhargavi Thandra
Luke J. Valach
Xu Wang
Shuo Zhang
Mahmudunnabi Basunia
Chong Chen
Linda J. Moore
Sidike Paheding