

**CALENDAR OF  
EVENTS**

Midterm Break  
March 4-8, 2015

Easter Recess  
April 1-5, 2015

Stander Symposium  
April 15, 2015

Graduation  
May 2 & 3, 2015

Summer Term begins  
May 11, 2015

Reunion Weekend  
June 12-14, 2015

THE DEPARTMENT OF

**ELECTRICAL AND  
COMPUTER ENGINEERING**

WINTER 2015

**Chair's Corner** *Dr. Guru Subramanyam*



**Subramanyam**

In fall 2014, we welcomed our 104th batch of students to the department. A total of 56 students declared their major as electrical/computer engineering before they started at UD. Our summer semester was a busy one as we had several graduate courses with record summer enrollments. The 2014 IEEE National Aerospace and Electronics Conference (NAECON) was held on our campus for the first time, with over 150 people attending the event from around the country.

The Mumma Radar lab opened this summer and started to engage in funded projects already with the ground-penetrating radar (GPR) measurements done in the lab. We also tried a short-format, one-week Introduction to Radar course over the interim period between summer and fall that was very well-received as we had over 20 students registered in it. Our department also won an Agilent/Keysight Technologies modular vector signal generator/analyzer (VSG/A) contest. Keysight donated a \$188,000 VSG/A modular system in September for the Mumma Lab. Our winning proposal for how we will use the equipment in our labs and curriculum beat 25 other proposals from around the country. Our department is also collaborating with Keysight Technologies to offer the RF/Microwave Lab course that will recognize top performing students as Keysight industry-ready RF engineers.

With larger undergraduate enrollment (300 students enrolled this fall), we were glad to hire an undergraduate adviser for the department, Mrs. Penny Timmer. Timmer has an undergraduate degree in electrical engineering from Michigan State University and spends roughly 20 hours each week advising our undergraduate students. Our graduate program continues to grow in record numbers as the total number of graduate students exceeded 250 in fall 2014. Computer Vision Lab is slated for expansion this year as it continues to grow with more projects and equipment. Our proposal for the M.S. degree in computer engineering was approved by the Regents' Advisory Committee on Graduate Studies (RACGS) in September. Also, we were delighted to hear about Emerson's new innovation center to be located on our campus. These are truly exciting times for UD ECE!

**Mumma Lab Dedication** *Excerpts by Pamela Gregg*

Dancing an aerial ballet choreographed to classical music, four large robotic arms entertained visitors who attended the dedication of the University of Dayton's new Mumma Radar Laboratory June 10, 2014. But when they get down to business, those robotic arms – part of one of the most precise radar instruments in the world – are working to advance sensing for a diverse array of applications in fields such as aviation, weather prediction, manufacturing, first response and rescue and medicine. "From a health care perspective, my long-term vision is that we'll one day be able to quickly determine a person's skin health without requiring the removal of clothing," said lab director Michael Wicks, UD's Ohio Research Scholar Endowed Chair in Sensor Exploitation and Fusion. Before its evolution to the new radar lab, the facility was originally established with a \$1.2 million endowment in 1988 from Retha Mumma following

the death of her husband, Marvin Mumma, who had a highly successful career as a radio and electronics technician.





## Dr. Hardie: National Champion in RC Sailboat Racing

In August, Dr. Russell Hardie won the national championship for radio-controlled (RC) sailboat racing for the V-32 sailboat class. These are one-design RC boats with a hull length of 32 inches. They are entirely wind-powered, and Hardie's team follows the International Sailing Federation Racing Rules of Sailing (just like the big boats). This year's V-32 national championship regatta was hosted by the

Kettering Model Sailing Club at Delco Park ([victiques.com/v32.htm](http://victiques.com/v32.htm)). Hardie's V-32 RC sailboat sports new Dayton Flyer logo sails! Hardie learned to sail from his father while growing up on the Magothy River in Pasadena, Maryland, near Annapolis. He raced Lasers and 420s in college and was captain of the Loyola University Maryland sailing team in Baltimore in 1988.

## Solar Splash Competition, UD ECE Wins Fourth Place

This past summer, some of UD's electrical/computer engineering students, as well as some mechanical engineering students, participated in the IEEE Power Electronics Society's Solar Splash competition.

UD's Solar Splash team won fourth place in the competition, held in Dayton in June.

UD's Solar Splash team also won the endurance competition.



## Seasons of Life *Dr. Monish Chatterjee, ECE*

On August 11, 2014, Dr. Monish Chatterjee's long-awaited book of translations of poems by Rabindranath Tagore (titled *Seasons of Life*) was published in Kolkata, India, by P.M. Bagchi & Company. There was a special book-release event held in Kolkata's renowned Nandan Hall with the

director of Visva Bharati Publications, Ramkumar Mukhopadhyay, serving as chief guest and Professor Swapan Chakraborty of the Department of Comparative Literature, Jadavpur University, releasing the book.

## Four Graduate Students Represent UD at 2014 SPIE Annual Meeting

In late August, four of Dr. Monish Chatterjee's graduate students made presentations at the 2014 SPIE Annual General Meeting in San Diego. Three of them (Fares Almeahmadi, Fathi Mohamed and Hao Zhou) presented contributed papers, while the fourth (Tarig Algadey) presented a poster.

The papers have since been published in the conference proceedings.



## ECE Department Wins Grand Prize!



Agilent/Keysight Technologies held a contest for all Electrical and Computer Engineering Department Heads Association (ECEDHA) members during the ECEDHA

annual meeting in February 2014. As part of the contest, Agilent asked for proposals from each member regarding how each institution will be

using the modular vector signal generator/analyzer (VSG/A) equipment in our curriculum and research. Keysight received 26 proposals and our UD ECE proposal was determined to be the most qualified and the grand prize winner. The grand prize is the modular vector signal generator/analyzer worth \$188,000.

## University of Dayton IEEE Activities



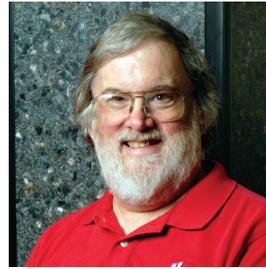
This has been a very exciting semester for the students in our IEEE student branch, with professional, technical and social events. The semester started with the annual mini-SPAC (Student Professional Awareness Conference) focusing on the transition from academia to the professional workplace; there was a keynote presentation from Ted Tracy and a panel discussion featuring young professionals from the Dayton area. Next, IEEE hosted a soldering workshop where students

learned the basics of PTH soldering and assembled their own Sparkfun RedBoard, an Arduino Uno equivalent, which will be used in future workshops. Finally, the student branch participated in Christmas on Campus by making wooden ornaments with an LED and a switch in various shapes for participants to color. For more information regarding these events please navigate to our website at [udayton.orgsync.com/org/ieee](http://udayton.orgsync.com/org/ieee).

# CONGRATULATIONS TO OUR NEW RETIREES! THANK YOU FOR 35 YEARS OF SERVICE TO UD.



Dr. Don Moon

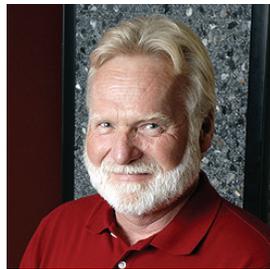


Dr. John Loomis

## PROMOTIONS



**Eric Balster** was tenured and promoted to associate professor.



**John Fortune** was promoted to senior lab manager.



**Bob Penno** was promoted to professor effective fall 2015.



Welcome to **Penny Timmer** — our new academic advising coordinator.

## GRADUATES – DECEMBER 2014

### B.S./B.E. Degrees Awarded

Robert G. Blatner  
Siying Chu  
John E. Wyda

### M.S. Degrees Awarded

Hemanth Kumar Andol  
Mamatha Bachupally  
Rama Pavithra Bala  
Rachel L. Bryant  
Matthew J. Dallmeyer  
Gokuleswara Reddy Dubbudu  
Suhayl E. Elkhammas  
Kaushik Erra  
Bryan W. Harris  
Roujun He  
Dinesh R. Jupally  
Sai Nisha Sree Reddy Kandi  
Vinakar Reddy Kondam  
Rakesh Kosana  
Liangyu Li  
Yunchong Mo

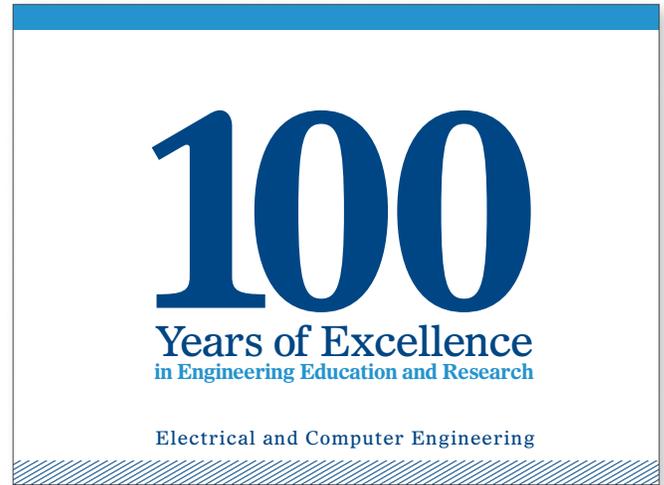
Anup Kumar Padishala  
Sudheer Palempati  
Chandra Shekar Palle  
Hemanth Kumar Pentela  
Swathi Pochampally  
Vamsidhar Poralla  
Ibraheem A. Rajab  
Srinivas Sandupatla  
Sai Kiran Sanipai  
Brian R. Schultek  
Robert G. Schumacher  
Matthew S. Stefanski  
Nishanth Tella  
Npp Chaitanya Thirunahari  
Sirisha Vempati  
Shravya Vulli Gnaneswara  
Jeremy Wood  
Ahmad Yousef

### Ph.D. Degrees Awarded

Temesgen M. Kebede  
Elhusain S. Saad

## Announcing the ECE Centennial Book

It is with great pleasure that we announce the completion of the book *100 Years of Excellence in Engineering Education and Research: Electrical and Computer Engineering*. The book highlights the humble beginnings of the electrical engineering department at UD in 1911. It chronicles the growth of the department and the people that were instrumental in making this program what it is today. The book is available to all our alumni, parents, students and friends for \$25 each. To place an order for your copy please fill out the order form below.



### ***100 Years of Excellence in Engineering Education and Research: Electrical and Computer Engineering Order Form***

Name \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ZIP \_\_\_\_\_

Phone number \_\_\_\_\_

Email address \_\_\_\_\_

Quantity of books \_\_\_\_\_

Total price \_\_\_\_\_

Return this form and a check for the total amount made out to:

**UD Electrical & Computer Engineering Department**

Send to:

**Nancy Striebich, Department of Electrical and Computer Engineering  
300 College Park  
Dayton, OH 45469-0232**

Orders can also be submitted via email at:

**nstriebich1@udayton.edu**