Six-year-old Alex Pring comes to UCF to be fitted with his first 3D-printed robotic arm, and meets Albert Manero, AE, '12, '14, doctoral student, mechanical engineering, who helped create the arm. (July 18, 2014)
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I am pleased to present the Comprehensive Report of the College of Engineering & Computer Science (CECS) at the University of Central Florida for the reporting period from May 8, 2014 to May 9, 2015 (summer 2014, fall 2014 and spring 2015 semesters).

This report provides an accurate, summarized record of the major faculty and student activities during the reporting period; and showcases their noteworthy achievements. With 131 tenure and tenure-eligible faculty, 29 instructors and lecturers, 7,382 undergraduate students and 1,330 graduate students (Fall 2014), I am proud to say that our achievements were many.

The great work of our faculty and students is reflected in our ranking. According to U.S. News & World Report, CECS is ranked in the top 100 public graduate engineering colleges nationwide for 2015.

CECS is among the nation’s largest producers of engineers and computer scientists. Our college’s impact in fueling Florida’s growing innovation economy is significant. UCF is the No. 1 workforce supplier worldwide for Lockheed Martin, Harris Corporation and Siemens Energy. In 2014, CECS ranked seventh among graduate engineering schools for Hispanics by Hispanic Business Magazine.

Our college has five departments: Civil, Environmental and Construction Engineering (CECE); Electrical Engineering and Computer Science (EECS) with two divisions: Computer Science (CS) and Electrical and Computer Engineering (ECE); Industrial Engineering and Management Systems (IEMS); Materials Science and Engineering (MSE); and Mechanical and Aerospace Engineering (MAE).

These five departments are known for their research strengths in diverse areas such as transportation, energy systems and power generation, computer vision, modeling and simulation, artificial intelligence, smart sensors and materials, water resources and quality, and more. Our education and research efforts are supported by a strong neighboring industry presence, such as Harris Corporation, Lockheed Martin, Duke Energy, Siemens, Walt Disney World, NASA, to name a few.
Our college’s major initiatives and achievements during the reporting period include:

- In September 2014, the UCF Engineering Leadership & Innovation Institute launched a Maker Space lab complex to bolster students’ teamwork, creativity, rapid prototyping and marketable innovations. The four labs – Harris Gathering Lab, Idea Lab, Texas Instruments Innovation Lab, and Manufacturing Lab – are available to the entire UCF community.

- CECS is home to the nation’s top collegiate cyber defense team for overall competition performance. Our Collegiate Cyber Defense Competition team won Raytheon’s 2014 and 2015 national competitions.

- UCF’s Computer Programming Team is ranked No. 8 in the U.S. and No. 28 in the world. Only 128 teams competed in the 2015 Association of Computing Machinery’s International Collegiate Programming Competition, representing the best of 10,000 regional teams from 101 countries. For 33 consecutive years, a UCF team has placed in the southeast region’s top three.

- The UCF-based nonprofit, Limbitless Solutions, delivered its first 3D-printed robotic arm to then 6-year-old Alex Pring, who was born with a partially-developed arm. The story made national and international headlines, particularly after actor Robert Downey Jr. met with Pring and thanked the UCF engineering students for providing Pring with a low-cost, robotic arm.

As we move forward, our college will continue to emphasize strong, niche, inter-disciplinary research that can, and many times will, achieve national and international recognition for UCF.

Equally as important, CECS will remain dedicated to empowering our students’ academic development and success. Our high-achievers set the standard for all students, and best reflect the technical capabilities and leadership skills that UCF sends to the workforce.

Michael Georgiopoulos, Ph.D.
Dean, College of Engineering & Computer Science
May 9, 2014: Mini Knightro Travels the Nation to Build Excitement for Science Olympiad
UCF is hosting the Science Olympiad National Tournament for the second time in three years. To celebrate the 30th anniversary of the largest STEM competition in the U.S., UCF’s Knightro mascot visited K-12 schools across the nation.

May 10, 2014: UCF Cyber Defense Team Takes First in Nation, Photo Displayed in Times Square
The eight-member UCF team that started as a grassroots effort to educate the community about how to defend against cyber-attacks was named best in the nation by winning the Raytheon National Collegiate Cyber Defense Competition, edging out the Rochester Institute of Technology. The UCF team’s victory photo was displayed in Times Square, in New York City.

June 21, 2014: Who’s Your Daddy? CECS Students Program Computer to Find Out
The computer science research team’s facial recognition tool could be used to rapidly match pictures of children with their biological parents, and potentially identify photos of missing children as they age. The study was presented at the IEEE Computer Vision and Pattern Recognition conference in June.

June 25, 2014: UCF 3rd in Nation, 21st in World, in ‘World Cup’ of Computer Programming
UCF placed in the Association of Computing Machinery’s International Collegiate Programming Contest, also known as the “Battle of the Brains,” in Ekaterinburg, Russia, out of a pool of 9,000+ regional teams.

June 30, 2014: UCF Simulator to Help Predict Sinkholes
The experiment designed by Mohamed Alrowaimi, a Ph.D. student studying with Prof. Manoj Chopra, simulates sinkholes on a small scale. It took Alrowaimi more than a year to scale the experiment correctly so that what they learn from creating sinkholes can apply to the real world.

July 25, 2014: CECS Students Build Robotic Arm for 6-Year-Old with 3D Printing
Mechanical engineering doctoral student Albert Manero and his team designed a 3D-printed robotic arm for 6-year-old Alex Pring at no cost to his family. It runs with off-the-shelf servos and batteries that are activated by the electromyography muscle energy. This story received worldwide media attention.
Sept. 23, 2014: Lab Launch: Creativity Bolstered at UCF with New Maker Space Labs
The process of turning a creative idea into a marketable innovation is now easier, faster and more accessible at UCF with the grand opening of four new labs known as the Maker Space Lab Complex in the Engineering II building. UCF President John C. Hitt, Texas Instruments Executive Vice President Brian Crutcher and Harris Corporation Senior Vice President Robert Duffy today unveiled the Harris Corporation Gathering Lab, Idea Lab, Texas Instruments Innovation Lab and Manufacturing Lab during a special ceremony. The lab complex is the latest offering of the UCF Engineering Leadership & Innovation Institute: a dedicated space to gather and collaborate, generate creative ideas, vet those ideas, then build and fine-tune working prototypes, all in one place that allows for easy movement between labs.

October 23, 2014: UCF Contributes to Hurricane Hunting, Better Predictions
Electrical engineering professor W. Linwood Jones developed a microwave remote sensor (Hurricane Imaging Radiometer) that can image the ocean-surface wind speed and rainfall patterns of a hurricane.

October 29, 2014: UCF Takes Lead Research Role for Emerging ‘Internet of Things’
UCF and the University of Florida research the materials, sensors, actuators, power sources and electronics that are expected to drive the “Internet of Things” - the interconnection of the cyber and physical world - which engineers predict is the future of the Internet.

November 18, 2014: Repeat Win for UCF: Southeast Champions of Computer Programming
UCF won a regional super-contest of computer programming known as the “Battle of the Brains.” The victory marks the 33rd consecutive year that the UCF Programming Team has achieved a top-three regional win in the Association for Computing Machinery International Collegiate Programming Contest, a record unmatched by any similar team in the nation.

November 21, 2014: Senior Design Prototypes Include Space Friendly IV, Artificial Lung
A team of graduating engineering students has designed a way to administer IVs in zero gravity. Being able to provide fluids and medicine via an IV will be important when astronauts begin long-range space missions to Mars and beyond. Another team has created an artificial lung that simulates the movement of a human lung that may one day help doctors increase the accuracy of medicine delivery.

November 24, 2014: UCF Modeling and Simulation Receives $2.6 Million Gift from Presagis
Presagis, a Canada-based software company, donated the licensing for its products to UCF computer modeling and simulation students. The software allows students to develop, test and train on the most advanced software used in aerospace and defense industries and is valued at $2.6 million.
December 22, 2014: UCF Engineering Professor Takes Top Invention Honors
Marwan Simaan, professor of electrical and computer engineering, was named a 2014 Fellow of the National Academy of Inventors, for his inventions that include devices that give potential heart transplant patients more time to wait for a donor heart, and games that help teach leadership skills.

Hollywood film star Robert Downey Jr., known for his role as Tony Stark in the Iron Man movie series, draws worldwide attention with a viral video showing his recent visit with 7-year-old Alex Pring and the UCF engineering students helping him.

March 31, 2015: UCF Engineers Study Ways to Keep Drivers Safe in Fog with $2M Grant
Prof. Mohamed Abdel-Aty and his team will use the Florida Department of Transportation’s $2 million grant to collect real-time traffic data from sections of I-4 in Polk County, Interstate 75 near Gainesville and a two-lane road in Tallahassee to determine traffic patterns in fog. Orlando-based Praxsoft, Inc., will contribute its expertise in developing weather sensing technology.

March 31, 2015: U.S. Secretary of Commerce Visits Engineering Maker Spaces to Announce Grants
UCF will receive $750,000 to grow the entrepreneurship ecosystem in central Florida, the U.S. Secretary of Commerce Penny Pritzker announced alongside U.S. Sen. Bill Nelson and UCF President John C. Hitt in UCF’s engineering Maker Space lab complex.

April 6, 2015: Five CECS Students Score Competitive NSF Graduate Research Fellowships
More than 16,000 students nationwide applied for the National Science Foundation fellowships, and only 2,000 were selected. Winners get three years of financial support ($34,000 a year) within a five-year fellowship period.

April 28, 2015: Another National Victory for UCF Cyber Defense Team
UCF’s cyber defense competition team won the National Collegiate Cyber Defense Competition for the second year in a row. The Collegiate Cyber Defense Club @ UCF – also known as Hack@UCF – bested nine other teams to win the competition in San Antonio.
Aerospace Engineering, B.S., M.S.

Civil Engineering, B.S., M.S., Ph.D.

Computer Engineering, B.S., M.S., Ph.D.

Construction Engineering, B.S.

Digital Forensics, M.S.

Electrical Engineering, B.S., M.S., Ph.D.

Environmental Engineering, B.S., M.S., Ph.D.

Industrial Engineering, B.S., M.S., Ph.D.

Information Technology, B.S.

Materials Science and Engineering, M.S., Ph.D.

Mechanical Engineering, B.S., M.S., Ph.D.

Photonics Science and Engineering: B.S.*

*Joint program with UCF College of Optics and Photonics
## Fall 2014

During the 2014-15 academic year, the college had a total of 7,382 undergraduate students and 1,330 graduate students, distributed into different departments as follows (Note: P is for pending):

<table>
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During the 2014-15 academic year, the college had a total of 7,382 undergraduate students and 1,330 graduate students, distributed into different departments as follows (Note: P is for pending):
During 2014-15, the College has awarded a total of 1,240 B.S., 329 M.S. and 77 Ph.D. degrees.

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</table>
The college conducts collaborative research with a number of UCF-based research centers including:

- Advanced Materials Processing and Analysis Center
- Biomolecular Science Center
- Center for Research and Education in Optics and Lasers
- Florida Photonics Center of Excellence
- Florida Solar Energy Center
- Florida Space Institute
- Institute for Simulation and Training
- NanoScience Technology Center
- National Center for Forensic Science, and
- Townes Laser Institute

Additionally, CECS financially supports the following three Centers and Research Clusters of Excellence:

3. Interactive Systems and User Experience (ISUE) (website: http://www.eecs.ucf.edu/isuelab/). Director: Dr. Joe LaViola

UCF’s clustered research efforts join experts from a variety of disciplines and fields, and provide benefits, including: increased opportunities for the participating faculty to pursue collaborative scholarly work and funding, opportunities to more aggressively and successfully partner with renowned researchers and labs around the nation, higher national and international visibility, increased funding potential, and an avenue to train the future science and tech workforce with industry-relevant skills.

During the 2014-2015 year, the College’s latest center that was initiated the previous year – Interactive Systems and User Experience (ISUE) Research Cluster of Excellence – has attracted research from U.S. Army, Office of Naval Research, National Science Foundation, and Lockheed Martin. There were also hardware donations from several industries. ISUE develops innovative techniques, tools and applications that improve the overall experience between humans and machines. Specifically the cluster pursues projects and interdisciplinary research that supports better learning, physical and mental rehabilitation, entertainment, relaxation and enjoyment.

In the CECE department, transportation is one of the key strategic areas of research. The SAFER SIM is a Tier 1 University Transportation Center sanctioned for four years starting from January 2014 and is dedicated to promoting interdisciplinary research using simulation techniques to address the safety issues prioritized by the U.S. Department of Transportation. This Transportation Center has multiple university partners. In FY2015, the Transportation Center received grants totaling over $4 million with faculty and student journal publications reaching 40.
Assistant Professor Weiwei Deng, Department of Mechanical and Aerospace Engineering, received the prestigious NSF CAREER award to advance his research in electrospray technology.

In addition to the three research clusters mentioned, six university faculty cluster initiatives (FCI) have been funded, three of which are led by CECS faculty. These clusters improve our ability to pursue interdisciplinary education and research projects with other colleges, centers and institutes, and enable the expansion of faculty members who are tenured in our college.

FEEDER (Foundations for Engineering Education for Distributed Energy Resources) is a major consortium funded with a $3.2 million grant from the U.S. Department of Energy. FEEDER was established as part of DOE’s $12 million investment to improve and sustain distributed energy technologies, and prepare for a national shift from traditional energy sources to renewables such as solar and wind. UCF is the lead partner of FEEDER, in partnership with CECS and FSEC. FEEDER’s partners include eight universities, eight utility companies, 11 supporting industry partners, and two national laboratories.

### Research Productivity

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<thead>
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<th>Department</th>
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### New Funding and Research Expenditures

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<th>Department</th>
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<th>Research Expenditures</th>
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<td>TOTAL</td>
<td>$27,878,633.28</td>
<td>$24,051,975.48</td>
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</table>
Department of Civil, Environmental and Construction Engineering

Mohamed Abdel-Aty *(pictured at right)*

- University 2014 award for “Faculty Excellence in Mentoring Doctoral Students”, recipient in the disciplinary grouping of “Engineering, Physical Sciences, and Life Sciences”, March 2015.
- UCF Pegasus Professor, the university’s highest faculty honor, April 2015
- Two best papers selected by the Transportation Research Board’s Safety Performance Committee (out of 65 papers), January 2015.

Haitham Al-Deek

- Keynote Speaker at the 7th Traffic Safety Conference organized by the Jordan Traffic Institute, title of Professor Al-Deek’s speech was “Innovative Research Methodology and Countermeasures for Combating Wrong-Way Driving,” May 12-13, 2015, Amman, Jordan.
- A TV broadcast of Prof. Al-Deek’s wrong-way driving research findings aired five times on Orlando’s ABC TV-9, Feb.11-12, 2015.

Amir Behzadan

- Teaching Incentive Program Award, University of Central Florida, 2015.

Necati Catbas

- 2015, Award, Plaque of Appreciation, Keynote Presentation at International Conference on Civil and Environmental Engineering, (ICOCEE - Cappadocia 2015).
- 2014, Elected Fellow to Structural Engineering Institute (SEI).

Ni-Bin Chang

- Fellow, the International Society of Optics and Photonics (SPIE), Feb., 2015.

Steven Duranceau

- College Distinguished Researcher Award (February 6, 2015).
- 2015 Best Paper Award (as a co-Author with graduate student Ben Yoakum), Florida Section American Water Works Association’s Fall 2015 Conference.

Naveen Eluru

- TRB Committee ANB20 2015 Young Researcher Paper Award for the paper “A Copula Based Joint Model of Injury Severity and Vehicle Damage in Two-Vehicle Crashes”
- 2014 Transportation Research Board Data Contest: Best Professor-Led Paper.

Woo Hyoung Lee

- ONR Summer Faculty Fellowship, Office of Naval Research (ONR) Summer Faculty Research Program (SFRP), Naval Surface Warfare Center – Carderock Division (NSWCCD), ONR, 2015
- InnoCentive Challenge Award, New Insights into Fluoride Delivery from Toothpaste (#9933557), Aug., 2014 (one of 3 awardees among 287 submissions).
Kevin Mackie
- Faculty excellence award, 2014/10/24. Corporate Affiliate Board, Department of Civil, Environmental, and Construction Engineering, University of Central Florida.

Nicos Makris
- Distinguished Visiting Fellow from the Royal Academy of Engineering, UK, under the Newton Research Collaboration Program.

Boo Hyun Nam
- Nam’s sinkhole research has made two international media exposures. Nam had made interviews with MBC Special (top TV documentary show in Korea) and JTBC News (national TV news in Korea).

Essam Radwan
- Was honored during the 94th Annual Transportation Research Board meeting held in Washington DC during the period January 11-15, 2015. The International Road Federation (IRF) presented him with a plaque in recognition for his support of the 17th World Meeting held in Saudi Arabia.

Debra Reinhart
- American Academy of Environmental Engineering and Science Kappe Award, 2014

Dingbao Wang
- UCF Teaching Incentive Program (TIP) Award, 2015.
- UCF Reach for the Stars Award, 2015.
- Editors’ Citation for Excellence in Refereeing, Geophysical Research Letters, American Geophysical Union, 2015.

Ricardo Zaurin
- College Excellence in Undergraduate Teaching Award (Founder’s Day).
FACULTY HONORS

Department of Electrical Engineering & Computer Science
Computer Science Division

Ladislau Boloni

Mainak Chatterjee
- Recipient of AFOSR sponsored Air Force Summer Faculty Fellowship, 2015.
- Recipient of AFOSR sponsored Air Force Summer Faculty Fellowship, 2014.

Hassan Foroosh
- Research Incentive Award (RIA), 2014-2015.
- UCF Millionaire’s Club, class of 2014.
- Excellence in Research Award, CECS, 2014.

Avelino Gonzalez
- UCF Pegasus Professor, the university’s highest faculty honor, April 2015.

Arup Guha
- Received a Coaches Award at the 2014 ACM ICPC World Finals for helping UCF get to the ACM ICPC World Finals at least five times.

Mark Heinrich
- UCF TIP Award, April 2015.

Haiyan “Nancy” Hu
- UCF Reach for the Stars Award, 2015.

Kien Hua
- ACM Recognition of Service Award for serving as Chair of the 2014 ACM Multimedia Conference.

Charles Hughes
- TeachLivE Included in Sesame Workshop Video of Five Most Innovative Approaches to Teacher Professional Development (Video released in summer 2014).

Sumit Jha
- Best Paper Award, Fourth Annual IEEE International Conference on Computational Advances in Bio and Medical Sciences, Institute for Electrical and Electronics Engineers, Sept. 2014.

Ali Orooji
Guo Jun Qi
- Best Student Paper Award (co-recipient as the mentor of the student author), IEEE International Conference on Data Mining (ICDM), December, 2015.

Mubarak Shah
- His students won the following awards
  - Afshin Dehghan CS Doctoral Student of the Year Award
  - Arjun Watane, Audience Choice; First place for presentation at the Showcase of Undergraduate Research, April 2015.

Kenneth Stanley
- Best Paper Award in Artificial Life / Robotics / Evolvable Hardware Track at GECCO-2014 (out of 35 in track), Genetic and Evolutionary Computation Conference (GECCO-2014, Vancouver, Canada), for Woolley, B. and Stanley, K., A Novel Human-Computer Collaboration: Combining Novelty Search with Interactive Evolution.

Gita Sukthankar
- UCF Reach for the Stars, April 2015.

Damla Turgut
- Featured in 2015 UCF Woman Making History, UCF Center for Success of Women Faculty, March 5, 2015.
- Distinguished Member of IEEE INFOCOM 2015 TPC, December 2014.

Shaojie Zhang
FACULTY HONORS

Department of Electrical Engineering & Computer Science
Electrical and Computer Engineering Division

ECE Division

George Atia
- Top 10 Student Paper Award at the 57th International Midwest Symposium on Circuits & Systems (MWSCAS), Texas, August 2014 (In collaboration with Ahmed Aldhahab and Dr. Wasfy Mikhael for paper on facial recognition based on multiresolution analysis and feature alignment).
- Finalist for Best Paper Award at the 48th Asilomar Conference on Signals, Systems and Computers, Pacific Grove CA, Nov 2014 (In collaboration with Alan Paris and Dr. Vosoughi for research on Advanced Signal Processing for Brain Computer Interfacing).

Xun Gong
- UCF Teaching Incentive Program (TIP) Award 2015.

Yier Jin
- Best Paper Candidate, IEEE/ACM Design Automation Conference (DAC’15), 2015. (6 out of 800 submissions)

W. Linwood Jones
- Research Award: Outstanding Contributions to CONAR AQ/SAC-D Satellite Program, Spring 2014.
- NASA Agency Group Achievement Award with a citation reading “For exceeding all expectations for GPM operations, data processing, algorithm performance, science impact, and education and public outreach within one year after launch”, Spring 2015.

Juin Liou

Donald Malocha
- UCF RIA 2014

Wasfy Mikhael
- Certificate of Recognition of Outstanding Performance, Service, and Contributions to the Midwest Symposium on Circuit and System (IEEE 57th International MWSCAS), College Station, Texas, August 3 - 6, 2014.
Marwan Simaan
- Received the Outstanding Paper Award from the Metal Industry Committee of the IEEE Industry Applications Society.
- Elected Fellow of the National Academy of Inventors

Kalpathy Sundaram
- Thomas D. Callinan Award, Dielectric Science and Technology Division of the Electrochemical Society, 2015.

Jun Wang
- UCF Reach For the Stars Award, 2015.
- 2015 Teaching Incentive Program Award

Jiann-Shiun Yuan
- TIP Award, UCF, 2014-2015.
- College Research Excellence Award at the full Professor level, 2014-2015.

Department of Industrial Engineering and Management Systems

Mark Calabrese
- CECS Undergraduate Teacher of the Year, Spring 2014.

Michael Proctor
- Teaching Incentive Plan (TIP) Award, 2014/2015.

Luis Rabelo
- 2014 ISERC Best Track Paper Award in Engineering Management “, Institute of Industrial Engineers (IIE), June 2, 2014.

Department of Materials Science and Engineering

Romain Gaume
- Defense University Research Instrumentation Program Award Winner.

Catherine Kammerer
- CECS Teaching Associate of the Year, UCF CECS, 2014.

Kathleen Richardson
- Defense University Research Instrumentation Program Award Winner.

Yongho Sohn
- Defense University Research Instrumentation Program Award Winner.
Department of Mechanical and Aerospace Engineering

Kareem Ahmed
- The American Chemical Society – Petroleum Research Fund, Doctoral New Investigator Award, January 2015.

Weiwei Deng *(pictured at left)*
- NSF CAREER Award, April 2015.

Ali Gordon
- ASEE-AFOSR Summer Faculty Fellowship Program award. This is a research-related award, Summer 2014.

Nina Orlovskaya
- UCF RIA award, 2015.

Challapalli Suryanaraya
- Award for Lifetime Achievement in Engineering, Central Florida Engineers, February 2015.

Yunjun Xu
- UCF Millionaire Club, 2014.
CECS has 158 faculty members (tenured/tenure-eligible, instructors and lecturers) including 12 who joined the college during the 2014 - 2015 academic year.

Kareem Ahmed, Assistant Professor (MAE) - Hired Dec. 23, 2014
Kareem Ahmed obtained his Ph.D. in 2009 and M.S. in 2006 degree in Mechanical Engineering from University at Buffalo, and his B.S. in 2004 degree in Mechanical Engineering from the State University of New York at Alfred. Before joining UCF he was an Assistant Professor at the Department of Mechanical & Aerospace Engineering at Old Dominion University from 2013 - 2014. Prior to that he has served three years as a Senior Aero/Thermo Engineer at Pratt & Whitney Military Engines – United Technologies Corporation (2011-2013) working on Augmentor and Exhaust Systems – Advanced Engine Programs and Technologies. He also served as a faculty at Florida State University from 2009 - 2011. His research interests are in the area of propulsion and energy focusing on multi-phase turbulent reacting and non-reacting flows, fluid mechanics, turbulent combustion, pressure gain combustion, combustion dynamics, supersonic compressible flows, flow control, fluid-structure interaction, fluidic-flow interactions, flame-fluidic interactions, hydrodynamic instabilities, experimental methods and advanced optical diagnostics.

Ulas Bagci, Assistant Professor, CS, CRCV - Hired Dec. 23, 2014
Ulas Bagci obtained his Ph.D. degree from School of Computer Science, University of Nottingham, United Kingdom, in collaboration with Radiology department of University of Pennsylvania. He received his masters from Electrical Engineering and Computer Sciences and certificates of mastery from Harvard, Berkeley, MIT, and Johns Hopkins Universities in the topics of statistics, public health, and clinical trials. His research interests are image processing and statistical machine learning and their applications in biomedical and clinical imaging. Bagci was a staff scientist and the lab manager at the NIH’s Center for Infectious Disease Imaging Lab, department of Radiology and Imaging Sciences. Bagci had been the leading scientist (image analyst) in biosafety/bioterrorism project initiated jointly by NIAID and IRF. Bagci is senior member of IEEE and RSNA, and member of scientific organizations such as Society of Nuclear Medicine and Molecular Imaging, American Statistical Association, Royal Statistical Society, AAAS, and MICCAI.
Richard Biehl, Lecturer, IEMS - Hired Dec. 23, 2014
Richard Biehl obtained his Ph.D. in Applied Management and Decision Sciences in 2008, and an M.S. in Educational Change & Technology Innovation in 1999 from Walden University. He is certified as a Six Sigma Black Belt, and as a Software Quality Engineer, by the American Society for Quality. He spent five years as an adjunct instructor in IEMS before joining the department in 2015 to work on the new on-line master’s track in Healthcare Systems Engineering. His research interests include the application of chaos and complexity theories to the systems engineering of healthcare, supported by the semantic interoperability of biomedical data in support of system feedback and control.

Naveen Eluru, Assistant Professor, CECE - Hired Aug. 8, 2014
Naveen Eluru obtained his Master’s and Ph.D. from the University of Texas at Austin. He is primarily involved in the formulation and development of discrete choice models that allow us to better understand the behavioral patterns involved in various decision processes. He is actively involved in the development of integrated modeling frameworks for travel demand modeling and vehicular emissions for urban metropolitan regions. He has published journal articles in wide ranging topics including transportation planning, land-use modeling, integrated demand supply models, activity time-use analysis and transportation safety. Eluru is currently a member of Transportation Research Board committee on Statistical Methods. He is a member of the Editorial Advisory Board of Analytic Methods in Accident Research and Sustainable Cities and Society journals. Prior to joining UCF, he worked as an Assistant Professor at McGill University.

Rochelle Elva, Lecturer, CS - Hired Aug. 8, 2014
Rochelle Elva obtained her Ph.D. in Computer Science from the University of Central Florida in August 2013. On completion of her Ph.D., she worked for one year as a Visiting Assistant Professor at the University of Missouri – St. Louis. In the fall of 2014, she returned to UCF as a visiting lecturer where she teaches Introduction to C Programming, Database Concepts, Database Systems, Operating Systems, Computer Science 1 and Fundamentals of IT. She also serves as Academic Advisor to Undergraduate Computer Science students.

Matthew Fontaine, CS, ’11, ’13, Instructor - Hired Aug. 8, 2014
Matthew Fontaine obtained a Master of Science degree in Computer Science from UCF in 2013. He was a research assistant at UCF’s Institute for Simulation and Training, Interactive Realities Lab from 2008-2014 and has served the UCF’s Division of Computer Science as Instructor since fall 2014. He serves as an algorithms coach for the UCF Programming Team and annually contributes as a problem writer and judge to ACM ICPC’s North American Invitational Programming Contest. His teaching focuses on discrete structures and other foundational classes needed for understanding algorithms, data structures, and theoretical computer science.

Kelly Kibler, Assistant Professor, CECE - Hired Dec. 23, 2014
Kelly Kibler received her Ph.D. in Water Resources Engineering from Oregon State University in 2011. Prior to joining UCF on Dec. 23, 2014, she simultaneously held a research position at a United Nations Educational, Scientific, and Cultural Organization water research center and an adjunct faculty
position with the Japanese National Graduate Institute for Policy Studies in Tokyo. Kelly directs the UCF Ecohydraulics Laboratory, with a research focus on coupled interaction between biological and physical variables in natural and engineered water systems. She is currently working on NSF-funded projects investigating impacts of restoration in Florida’s estuaries and the Food Energy Water nexus.

**Nicos Makris, Professor, CECE - Hired Aug. 8, 2014**

Nicos Makris received his Ph.D. in 1992 and his M.S. in 1990 from the State University of New York at Buffalo. He received his bachelor’s in Civil Engineering from the National Technical University, Athens, Greece in 1988. He has more than 25 years of research, academic and professional experience in the areas of structural-earthquake engineering and applied mechanics-dynamics. His research interests include the protection and design of structures against natural and man-made hazards, the analysis and design of rocking structures (tall/slender structures free to step on their foundation—from tall bridges to classical ancient temples), system identification and health monitoring studies with emphasis on bridges, soil-structure interaction and the reconstruction-preservation of ancient monuments and stone arches in areas with high seismic hazard. Makris has published more than 100 papers in archival journals, 110 papers in conference proceedings and 30 technical research reports and monographs.

**Yoav Peles, Professor, MAE - Hired Dec. 23, 2014**

Yoav Peles is the Chair of the Department of Mechanical and Aerospace Engineering at UCF. Prior to UCF, Professor Peles was the Director of the Mechanical Engineering Program and the Associate Department Head for Graduate Studies in the Department of Mechanical, Aerospace and Nuclear Engineering at Rensselaer Polytechnic Institute. He is an international leader in convective heat transfer in micro domains. Peles published more than 90 peer reviewed journal papers, about 50 conference papers, has several patents, written four book chapters, and is the author of a book entitled Contemporary Perspective on Flow Boiling Instabilities in Microchannels. He organized and co-organized several international conferences and workshops including the ASME International Conference on Nanochannels, Microchannels, and Minichannels 2013, the International Workshop on Micro and Nano Structures for Phase Change Heat transfer, and the first Gordon Research Conference on Micro and Nanoscale Phase Change Heat Transfer (2015). He is a fellow of the American Society of Mechanical Engineering.

**Arvind Singh, Assistant Professor, CECE - Hired Aug. 8, 2014**

Arvind Singh obtained his Ph.D. degree in Civil Engineering from University of Minnesota in December 2011. After his graduation, he worked at the National Center for Earth–surface Dynamics and St. Anthony Falls Laboratory, University of Minnesota as a Post-doctoral Associate. He joined UCF as an Assistant Professor in the Department of Civil, Environmental and Construction Engineering in August, 2014. His major research interests are in the area of hydrology and geomorphology. Currently he is focusing on linking and modeling interacting processes (such as fluid flow, topography, and material flux transport) over a range of spatio-temporal scales that will help us increase our ability to make quantitative predictions of how geomorphically and societally relevant variables will change under scenarios of future climatic and land-use changes.
GuoJun Qi, Assistant Professor, CS - Hired Aug. 8, 2014
Guo-Jun Qi is an assistant professor of Computer Science at the University of Central Florida. Prior to joining UCF, he was a Research Staff Member at the IBM T.J. Watson Research Center (Yorktown Heights, NY). He worked with Professor Thomas Huang in the Image Formation and Processing Group at the Beckman Institute in the University of Illinois at Urbana-Champaign, where he received the Ph.D. in Electrical and Computer Engineering in December 2013. His main research interests include computer vision, pattern recognition, data mining, and multimedia computing. In particular, he is interested in information and knowledge discovery, analysis and aggregation, from multiple data sources of diverse modalities (e.g., images, audios, sensors and text). His research also aims at effectively leveraging and aggregating data shared in an open connected environment (e.g., social, sensor and mobile networks), as well as developing computational models and theory for general-purpose knowledge and information systems. His research results have been published in several venues, including CVPR, ICCV, ACM Multimedia, KDD, ICML, IEEE T. PAMI, IEEE T. KDE, and Proceedings of IEEE. He has served or will serve as the Area Chair (Senior Program Committee Member) for ACM Multimedia, KDD, CIKM and ICME, as well as the Program Committee Member for CVPR, ICCV, and ICIP. He was also a Program Committee Chair for MMM 2016. In addition, he has co-edited two special issues of “Deep Learning for Multimedia Computing” and “Big Media Data: Understanding, Search and Mining” for IEEE T. Multimedia and IEEE T. Big Data, respectively.

Robert Steward, Assistant Professor, MAE - Hired Jan. 9, 2015
Robert Steward Jr. is an assistant professor in the Mechanical and Aerospace Engineering Department. Prior to his current appointment he was a research fellow in the Laboratory for Molecular and Integrative Cellular Dynamics at the Harvard T.H. Chan School of Public Health where he studied the physical mechanisms by which mechanical forces affect the cardiovascular system. His doctoral studies were completed in the Mechanical Engineering Department at Carnegie Mellon University in 2011 where he developed novel methodologies to probe the effects of mechanical forces on cell behaviors. He also holds a bachelor’s degree in Mechanical Engineering from Clark Atlanta University. Results yielded from his studies have implication in multiple fields including cell biology, biophysics, and bioengineering. Dr. Robert Steward Jr.’s research is in the field of cellular mechanics.
Seetha Raghavan, assistant professor, Mechanical and Aerospace Engineering, speaks to Engineering Leadership students October 31, 2014
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<tr>
<th>Year</th>
<th>Semester</th>
<th>Last Name</th>
<th>First Name</th>
<th>Program</th>
<th>Title</th>
<th>Advisors</th>
<th>Dept.</th>
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<td>2014</td>
<td>Fall</td>
<td>Huang</td>
<td>Yuping</td>
<td>Industrial Engineering</td>
<td>Stochastic Optimization for Electric Power Generation with Reliability Improvement Using Decomposition Algorithms</td>
<td>Qipeng Zheng</td>
<td>IEMS</td>
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<td>Khalid</td>
<td>Civil Engineering</td>
<td>Transferability &amp; Calibration of the Highway Safety Manual Performance Functions and Development of New Models for Urban Four-Lane Divided Roads</td>
<td>Mohamed Abdel-Aty</td>
<td>CECE</td>
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<tr>
<td>2014</td>
<td>Fall</td>
<td>Consoli</td>
<td>Frank</td>
<td>Civil Engineering</td>
<td>Application of Transit Signal Priority Technology for Transit Service</td>
<td>Haitham Al-Deek</td>
<td>CECE</td>
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<tr>
<td>2014</td>
<td>Fall</td>
<td>Lochrane</td>
<td>Tyler</td>
<td>Civil Engineering</td>
<td>A New Multidimensional Psycho-Physical Framework for Modeling Car-Following in a Freeway Work Zone</td>
<td>Haitham Al-Deek</td>
<td>CECE</td>
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<td>2014</td>
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<td>Shi</td>
<td>Qi</td>
<td>Civil Engineering</td>
<td>Urban Expressway Safety and efficiency Evaluation and Improvement Using Bog Data</td>
<td>Mohamed Abdel-Aty</td>
<td>CECE</td>
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<td>2014</td>
<td>Fall</td>
<td>Xiao</td>
<td>Yulin</td>
<td>Civil Engineering</td>
<td>Quantifying Ultra-High Performance Concrete Flexural System Mechanical Response</td>
<td>Kevin Mackie</td>
<td>CECE</td>
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<td>2014</td>
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<td>Abuzwidah</td>
<td>Muamer</td>
<td>Civil Engineering</td>
<td>Traffic Safety Assessment of Different Toll Collection Systems on Expressways Using Multiple Analytic Techniques</td>
<td>Mohamed Abdel-Aty</td>
<td>CECE</td>
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<tr>
<td>2014</td>
<td>Fall</td>
<td>Shu</td>
<td>Guang</td>
<td>Computer Engineering</td>
<td>Human Detection Tracking and Segmentation in Surveillance Video</td>
<td>Mubarak Shah</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Alabrah</td>
<td>Amerah</td>
<td>Computer Science</td>
<td>Improved Internet Security Protocols Using Cryptographic One-Way Hash Functions</td>
<td>Mostafa Bassiouni</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Cashion</td>
<td>Jeffrey</td>
<td>Computer Science</td>
<td>Intelligent Selection Techniques for Virtual Environments</td>
<td>Joseph LaViola</td>
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<td>Cheema</td>
<td>Salman</td>
<td>Computer Science</td>
<td>Pen-Based Methods for Recognition and Animation of Handwritten Physics Solutions</td>
<td>Joseph LaViola</td>
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<td>2014</td>
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<td>Dey</td>
<td>Soumyabrata</td>
<td>Computer Science</td>
<td>Automatic Detection of Brain Functional Disorder Using Imaging Data</td>
<td>Mubarak Shah</td>
<td>EECS</td>
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<td>Year</td>
<td>Semester</td>
<td>Last Name</td>
<td>First Name</td>
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<td>2014</td>
<td>Fall</td>
<td>Idrees</td>
<td>Haroon</td>
<td>Computer Science</td>
<td>Visual Analysis of Extremely Dense Crowded Scenes</td>
<td>Mubarak Shah, Hassan Foroosh</td>
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<td>2014</td>
<td>Fall</td>
<td>Sun</td>
<td>Chuan</td>
<td>Computer Science</td>
<td>Exploring Sparsity, Self-Similarity, and Low Rank Approximation in Action Recognition, Motion Retrieval, and Action Spotting</td>
<td>Hassan Foroosh</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Farag Allah</td>
<td>George</td>
<td>Electrical Engineering</td>
<td>Treatment-Specific Approaches for Analysis and Control Left Ventricular Assist Devices</td>
<td>Mirwan Simaan</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Ghazi</td>
<td>Zoubair</td>
<td>Electrical Engineering</td>
<td>CONAE Microwave Radiometer (MWR) Counts to Brightness Temperature Algorithm</td>
<td>W Linwood Jones</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Li</td>
<td>Cong</td>
<td>Electrical Engineering</td>
<td>On Kernel-Based Multi-Task Learning</td>
<td>Michael</td>
<td>EECS</td>
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<td>2014</td>
<td>Fall</td>
<td>Hardin</td>
<td>Mike</td>
<td>Environmental Engineering</td>
<td>Development of Treatment Train Techniques for the Evaluation of Low Impact Development in Urban Regions</td>
<td>Manoj Chopra, Waldemar Karwowski</td>
<td>CECE</td>
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<td>2014</td>
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<td>Li</td>
<td>Muyuan</td>
<td>Industrial Engineering</td>
<td>A Short Window Granger Causality Approach to Identify Brain Functional Pattern Associated with Emergent Behavioral Impairment Under Sleep Deprivation</td>
<td>Waldemar Karwowski, Petros</td>
<td>IEMS</td>
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<td>2014</td>
<td>Fall</td>
<td>Lim</td>
<td>Geunsik</td>
<td>Materials Engineering</td>
<td>An Uncooled Mid-Wave Infra-red Detector Based on Optical Response of Laser-Doped Silicon Carbide</td>
<td>Aravinda Kar</td>
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<td>2014</td>
<td>Fall</td>
<td>Yang</td>
<td>Xueping</td>
<td>Materials Engineering</td>
<td>Non-Oxide Porous Ceramics from Polymer Precursor</td>
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<td>Madani</td>
<td>Seyed Omid</td>
<td>Mechanical Engineering</td>
<td>Decentralized Power Management and Transient Control in Hybrid Fuel Cells Ultra-Capacitor System</td>
<td>Tuhin Das</td>
<td>MAE</td>
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<td>Year</td>
<td>Semester</td>
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<td>First Name</td>
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<td>Xie</td>
<td>Zhilin</td>
<td>Mechanical Engineering</td>
<td>Rhenium, Osmium, and Iridium Diborides by Mechanochemistry: Synthesis, Structure, Thermal Stability and Mechanical Properties</td>
<td>Nina Orlovskaya</td>
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<td>Chen</td>
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<td>Climate and Landscape Controls on Seasonal Water Balance at the Watershed Scale</td>
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<td>Spectrum Map and its Applications in Cognitive Radio Networks</td>
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<td>Functional Scaffolding for Musical Composition: A New Approach in Computer-Assisted Music Composition</td>
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<td>Learning Collective Behavior in Multi-relational Networks</td>
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<td>Human Face Mnemonics for Information Retrieval Under Workload</td>
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<td>2014</td>
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<td>Melissa</td>
<td>Industrial Engineering</td>
<td>A Framework of Critical Success Factors for Business Organizations that Lead to Exceptional Financial and Quality Systems Performance</td>
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<td>Halawany</td>
<td>Abdullah</td>
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<td>Using Design for Six Sigma Methodology to Develop Quantitative Model for Curricula Assessment and Improvement in Higher Education Institutions</td>
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<td>Analytical Study of Computer Vision-Based Pavement Crack Quantification Using Machine Learning Techniques</td>
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<td>Applications of Computer Vision Technologies for Automated Crack Detection and Quantification for the Inspection of Civil Infrastructures Systems</td>
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<td>Amjad</td>
<td>Muhammad</td>
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<td>Opportunistic Spectrum Utilization for Cognitive Radio Networks: Challenges and Solutions</td>
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<td>Modeling User Transportation Patterns Using Mobile Devices</td>
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<td>Arun</td>
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<td>Exploring 3D User Interface Technologies for Improving the Gaming Experience</td>
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<td>Tariq</td>
<td>Sana</td>
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<td>Improving Fairness, Throughput, and Blocking Performance for Long Haul and Short Reach Optical Networks</td>
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<td>Mathematical Modeling of Carbon Removal in the High Rate Activated Sludge System</td>
<td>Andrew Randall</td>
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<td>The Effects of Chronic Sleep Deprivation on Sustained Attention: A Study of Dynamic Brain Functional Connectivity</td>
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<td>Huayamave</td>
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<td>Biometrics of Developmental Dysplasia of the Hip: An Engineering Study of Closed Reduction Utilizing the Pavlik Harness for a Range of Subtle to Severe Dislocations in Infants</td>
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<td>Meshless Direct Simulation and Large Eddy Simulation of Turbulent Incompressible Flows</td>
<td>Alain Kassab</td>
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<td>Hollander</td>
<td>Christopher</td>
<td>Modeling &amp; Simulation</td>
<td>Information Propagation Algorithms for Consensus Formation in Decentralized Multi-Agent Systems</td>
<td>Annie Wu</td>
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<td>Maraj</td>
<td>Crystal</td>
<td>Modeling &amp; Simulation</td>
<td>Investigating Simulation-Based Pattern Recognition Training for Behavior Cue Detection</td>
<td>Stephanie Lackey</td>
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David Bettner, CS, ’03, Co-Founder, Words With Friends, speaks to students
September 19, 2014

BOOKS:

BOOK CHAPTERS:
REFEREE JOURNAL ARTICLES:


**CONFERENCE PROCEEDINGS:**


**Computer Science Publications, 2014 - 2015**

**PATENTS:**


**BOOKS:**


**BOOK CHAPTERS:**


JOURNAL ARTICLES:


**CONFERENCE PROCEEDINGS:**


**Electrical and Computer Engineering Publications, 2014 - 2015**

**PATENTS:**

**BOOKS:**

**BOOK CHAPTERS:**

**JOURNAL ARTICLES:**


**CONFERENCE PROCEEDINGS:**


9. Bai, Y. and M. Lin, “Stochastically Computing Discrete Fourier Transform with Reconfigurable Digital Fabric,” Proceedings of the 2014 International Conference on ReConFigurable Computing and FPGAs, Cancun, Mexico, December 8-10, 2014. DOI:10.1109/ReConFig.2014.7032558


BOOK CHAPTERS:


JOURNAL ARTICLES:


CONFERENCE PROCEEDINGS:


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BOOKS:

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**CONFERENCE PROCEEDINGS:**


PATENTS:


JOURNAL ARTICLES:


A mechanical engineering senior design project demonstrates electrospray technology
April 23, 2015
We thank all of our generous donors, including the following who gave generously during the reporting period:

**Beverly J. Seay** – Seay has been involved with the College of Engineering and Computer Science for many years. She has personally given to the College and UCF for seven years, most recently supporting a significant planned gift to be used toward an endowed professorship and programs supporting women in engineering. Bev serves as a UCF Trustee and CECS Dean’s Advisory Board chair.

**David J. Bettner, CS, ’03** – Bettner is an alumnus of UCF and is most noted for creating Words With Friends. His interest is in providing access to computer science education, to encourage more diversity and varying socio-economic groups to go into related fields. He is funding access to summer camps for high-school students from around the nation over the next five years.

**Brian Crutcher, EE, ’95 (pictured at left)** – Executive Vice President of Texas Instruments, Crutcher personally committed to a multi-year gift in support of a new Student-Athlete Engineering Program, providing augmented tutoring, advising and one-on-one attention from a graduate teaching assistant to help the athlete-engineers make it through the difficult engineering curriculum.

**Guillermo Novo, IE, ’86** – Executive Vice President, Materials Technologies, Air Products and Chemicals, Inc., personally committed to a multi-year gift in support of international experiences for CECS students.

**Raj Mittra** – A visiting faculty member in CECS from Penn State noted for his work in electromagnetic communication, has given to support the Magnet Lab and a distinguished lecture series for IEEE/CECS students and faculty.

**Duke Energy Foundation** – Duke is the largest electric power holding company in the United States, supplying and delivering energy to approximately 7.3 million U.S. customers. They support annually the Engineering Leadership and Innovation Institute (eli2) Leaders Up Close Seminar Series, a Symposium on Renewable and Sustainable Energy, senior design projects, and undergraduate research experiences through the EXCEL Program.
**Eustace-Kwan Family Foundation** - This foundation was created by Alan Eustace, former senior vice president at Google and his wife, Kathy Kwan, to satisfy their philanthropic giving preferences. The family has been giving generously to UCF for eight years in support of the UCF Computer Programming Team. Funds help to benefit students on the team, so they may concentrate on practicing hundreds of hours a year in preparation for regional and international competitions, and pay for lab upgrades and coaches.

**Harris Corporation** - Harris has been a long-standing supporter of UCF in many different ways. This year, they changed direction and supported the CECS Engineering Leadership and Innovation Institute (eli2), to help fund operations, lab spaces, and initiatives, helping students to hone their leadership skills, including in the realms of creativity, collaboration, innovation and delivery of solutions. CECS named the new Gathering Lab for Harris to thank them for the continued support.

**Lockheed Martin CWEP Program** - Lockheed supported approximately 500 students in paid, two-semester internships providing students an opportunity to gain professional work experience related to their academic discipline while maintaining full-time university enrollment.

**Presagis USA** - Presagis is a global provider of software for the development of modeling, simulation, visualization, and embedded display applications. They’ve donated their software package to support the graduate-level Interactive Simulation course in CECS.

**Siemens Energy, Inc.** - Siemens is pioneering strategies and innovative solutions for energy generation to pave the way for an intelligent power supply worldwide. This year the company donated equipment in support of a variety of research initiatives in CECS.

**Texas Instruments** - Texas Instruments’ analog and embedded processing produces power electronics across every industry. This year, Texas Instruments donated funding and in-kind product support to help construct and equip the new TI Innovation Lab, as part of the Maker Space Lab Complex.

**The Boeing Company** - Boeing is the world’s largest aerospace company and leading manufacturer of commercial jetliners and defense, space and security systems. Each year, Boeing funds scholarships, senior design projects, and undergraduate research experiences in CECS.

**Raytheon Company** - Sponsors the Annual National Collegiate Cyber Defense Competition. The UCF CCDC team competed in and won the competition. As part of their winning prize, Raytheon initiated an endowed scholarship to benefit CCDC competitors. Raytheon’s business focus is on missile defense, intelligence, surveillance and reconnaissance; precision strike; homeland security and technical services.

**Leidos** - Leidos, a joint spin-off of Science Applications International Corporation, is an American defense company headquartered in Reston, Virginia, that provides scientific, engineering, systems integration, and technical services. They support CECS with funding to support senior design
projects, eli2 and other programs.

**GE General Electric Company** – An American multinational conglomerate corporation operating through the following segments: Power & Water, Oil and Gas, Aviation, Healthcare, Transportation and Capital which cater to the needs of Financial services, Medical devices, Life Sciences, Pharmaceutical, Automotive, Software Development and Engineering industries.

Qualcomm, Inc. GE provided support for a graduate fellowship in support of the CATER program.

**MtronPTI** – Manufacturer of crystal oscillators, TCXOs, VCXOs, crystal and LC filters, and frequency control products, MtronPTI provided support for the William Horton Scholarship.

**The SAME Space Coast Post** – An association made up of public and private sector engineers and related professionals whose mission is to promote interest and activity in the architectural, engineering, and construction industries in the Central Florida community, for the purpose of readiness and national security, by promoting professional and personal growth, facilitating relationships between military, government, and businesses, and developing future engineers. SAME has established an endowed scholarship in their name.

**Presagis software gift to UCF**

October 28, 2014
Grace Bochenek, Ph.D., IE, ’98, director, National Energy Technology Laboratory, is the keynote speaker at the Spring 2015 Senior Design Showcase
April 23, 2015
STUDENT AWARDS AND ACHIEVEMENTS

Civil, Environmental, and Construction Engineering

M. Abuzwidah
- Best GTA, CECS, UCF. (February 2015)

Paul Biscardi
- Best Paper Award – State of Florida. (Dec. 4, 2014)
- People’s Choice Award – National Level Award. (June 10, 2014)
- 2014-2015 American Membrane Technology Association’s Affordable Desalination Collaboration Fellowship Awards. (July 30, 2014)

Stephanie Bolyard
- Graduate Research Excellence Fellowship (2014 – 2015)
- First Place for Best Student Oral Presentation at the Global Waste Management Symposium, Orlando, Florida. (June 2014)
- College of Engineering and Computer Science Award for Excellence in Graduate Student Teaching (2014 – 2015)
- Solid Waste Management Scholarship Recipient (2014 – 2015)

A. Cumming
- 1st Place Florida College Water Bowl – State of Florida. (Dec. 4, 2014)
- Second Place Poster – National Level Award. (June 10, 2014)

S. Jeffery
- 1st Place Florida College Water Bowl – State of Florida. (Dec. 4, 2014)

Seoyoung Kim
- ASCE EWRI (Environmental and Water Resources Institute) Scholarship. (2015)

Erica LaBerge

Taylor Laurent
- UCF Order of Pegasus Award, the university’s highest student honor. (May 2015)

C. Smith
- 1st Place Florida College Water Bowl – State of Florida. (Dec. 4, 2014)

Ling Wang
- ITS Florida Scholarship (Fall 2014)

David Yonge
- First Place Poster – State of Florida. (Dec. 2, 2014)
- 2014-2015 American Membrane Technology Association’s Affordable Desalination Collaboration Fellowship Awards. (July 30, 2014)
Computer Science

Collegiate Cyber Defense Club and Hack@UCF

- The CCDC team and Hack@UCF were awarded first place out of more than 300 colleges and universities in the USA with computer/cyber security programs and clubs in the 2014 Collegiate Cybersecurity Championship Cup. This competition is run by the Center for Infrastructure Assurance and Security at the University of Texas at San Antonio. (January 2015)

- The CCDC team won the Alamo Cup, which is the first place trophy for winning the 2015 Raytheon National Collegiate Cyber Defense Competition. The Alamo cup represents first place among 10 teams selected from regional competitions across the USA. 180 teams comprised of more than 2000 students entered the 3-tier elimination process. On the team 4 team members are IT majors, 3 CS majors, and one EE major. The faculty advisor is Thomas Nedorost. They competed against 10 regional winners to win the Raytheon cup. CCDC Team: Carlos Beltran, Alex Davis, Kevin Colley, Austin Brogle, Tyler Dever, Nathaniel Dennise, Connor Brooks, Kevin DiClemente, Andreas Giron, Jason Cooper, Jon Lundstrom, Shane Welch. (April 2015)

- Hack@UCF placed third, sixth, tenth and twelfth places out of 150 teams from across the United States in the Microsoft Build the Shield competition. (April 2015)

Faraz Hussain

- Best Paper Award, Fourth Annual IEEE International Conference on Computational Advances in Bio and Medical Sciences, Institute for Electrical and Electronics Engineers. (September 2014)

Ardalan Naseri


UCF Programming Team

- The UCF programming team took 21st place among 121 teams worldwide competing in the ACM International Collegiate Programming Contest (ICPC), who were selected from 12,720 teams in 2,534 universities and 101 countries. The UCF teams also placed 3rd among the 25 teams competing in the world finals from the US and Canada. The students on this team were students: Anthony Stabile, Travis Meade, and Daniel Wasserman. (June 2014)
STUDENT AWARDS AND ACHIEVEMENTS

Electrical and Computer Engineering

Ling Wang
- ITS Florida Scholarship (Fall 2014)

Victor Bassey
- NACME Scholarship (2014 – 2015)

Dominique Benito
- NACME Scholarship (2014 – 2015)
- Walt Disney World Scholarship (2014 – 2015)

Yu Bi
- David and Jane Donaldson Memorial Scholarship (2014 – 2015)

Irina Bouzina

Ivette Carreras

Gretha Arrage Chico
- NACME Scholarship (2014 – 2015)

James Choi

Nicholar Dikhoffz

Daniel Franco

Benjamin Goolsby

Kelley Ice

Muhtasim Jayeed
- Walt Disney World (2014 – 2015)

Shawn Mahon
- Walt Disney World (2014 – 2015)

Carla Majluf
- FGLSAMP Scholarship (2014 – 2015)

Jorge Guerra Marin
STUDENT AWARDS AND ACHIEVEMENTS

Brian Millikan
- Daniel D. Hammond Engineering Scholarship (Graduate) (2014 – 2015)

Wesley Mullins

Ley Nezifort
- NACME Scholarship (2014 – 2015)

Ly Nguyen

Joseph Nichols
- CECS Alumni Chapter Scholarship (2014 – 2015)

Jonathan Obah
- NACME Scholarship (2014 – 2015)

Nicholas Paperno
- Daniel D. Hammond Engineering Scholarship (Graduate) (2014 – 2015)

Ahkeim Pierre
- NACME Scholarship (2014 – 2015)

Laura Rubio-Perez
- Walt Disney World (2014 – 2015)

Robert Simon
- NACME Scholarship (2014 – 2015)

David Steury

Darrel Thompson
- NACME Scholarship (2014 – 2015)

Cassandra Todd
- Boeing Scholarship (2014 – 2015)

Benjamin Truckenbrod

Fatemeh Yazdiananari

Nancy Zanaty
- Boeing Scholarship (2014 – 2015)
STUDENT AWARDS AND ACHIEVEMENTS

Industrial Engineering and Management Systems

Anastasia Angelopoulou
- Best Poster Award, IEEE International Multidisciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support. (March 2015)

Seyed-Shahab Mofidi
- Lee Wood Scholarship, Material Handling Education Foundation. (March 2015)

Konstantinos Mykoniatis
- Best Poster Award, IEEE International Multidisciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support. (March 2015)

Brandon Naid

Catherine Ninah
- Crane Manufacturers Association of America Honor Scholarship, Material Handling Education Foundation. (March 2015)

University of Central Florida Institute of Industrial Engineers, Student Chapter
- GOLD Chapter Award (2014 – 2015)

Materials Science and Engineering

Swetha Barkam
- UCF SGA Extreme Leadership Scholarship. (2014)
- $500 Austin L Grogan Memorial Scholarship Award. (2014)
- $150, 2nd Place poster award, Electrochemistry, 2014 ECS. (May 2014)
- AVS Florida Conference, Second Place, Orlando, FL. (2015)
- $1,500 Alumni Fellowship. (2015)
- SGA Graduate Student Research Scholarship for $500. (2015)
- Campus Involvement Scholarship $250. (2015)

Soumen Das
- Gordon Conf Young Scientist Travel and Registration Award, Andover, NH. (July 2014)

Michael Giraldo
- Florida AVS meeting, Second Place. (March 2014)

Ankur Gupta
- UCF Dean’s Dissertation Completion Fellowship. (Spring 2015)
- Florida AVS meeting, Honorable mention. (March 2014)
- UCF Graduate student research scholarship $500. (2015)
Steven Hellar

Anh Ly
- Florida AVS meeting, Second Place. (March 2014)

Rameech McCormack
- Florida AVS meeting, First Place. (March 2014)
- AVS Florida Conference, First Place, Orlando, FL. (2015)
- $1000 Whalen Family Trust Fund award. (2014)
- $300, 1st Place poster award, Solid State Div., ECS. (May 2014)
- Gordon Conference Graduate student Travel Award ($500), Andover, NH. (July 2014)

Abhishek Mehta

Julian Ortiz
- Florida AVS meeting, Honorable mention. (March 2014)

Corey Rodas
- SURE UG Poster, Life Sciences, Honorable Mention, UCF. (2015)

Shashank Saraf
- Graduate Studies Research Excellence Fellowship, UCF. (2014)
- Graduate Research Excellence Fellowship. (2014-2015)
- AVS Florida Conference, Third Place, Orlando, FL. (2015)

Nozomi Shirato

Umesh Singh

Zenan Yu
- UCF Dean’s Dissertation Completion Fellowship. (Spring 2015)

Le Zhou
- Graduate Research Excellence Fellowship. (2014-2015)
- Second Place, Poster Presentation at 2015 Annual Joint Symposium & Exhibition of Florida Chapter of American Vacuum Society (FLAVS) and Florida Society for Microscopy. (March 2015)
Mechanical and Aerospace Engineering

The MAE organizations have been active in Camp Connect and STEM Day, which are outreach events to engage elementary, middle, and high school students. Participating in these June 2014 events are:

- American Institute of Aeronautics and Astronautics (AIAA)
- American Society of Mechanical Engineers (ASME)
- Society of Automotive Engineers (SAE)
- Students for the Exploration and Development of Space (SEDS)
- American Society of Heating, Refrigeration and Air-conditioning (ASHRAE)

Kevin Aranda
- Undergraduate Scholarship, $2,500. (April 2015)

Itza Beltran
- Undergraduate Scholarship, $2,500. (April 2015)

Felipe Betancor
- Undergraduate Scholarship, $2,500. (April 2015)

Mateo Gomez
- Undergraduate Scholarship, $3,000. (April 2015)

Alyssa Mahaffey
- Undergraduate Scholarship, $5,500. (April 2015)

Albert Manero
- UCF Order of Pegasus Award, the university's highest student honor. (May 2015)

Julian Moore
- Undergraduate Scholarship, $2,500. (April 2015)

Richard Murdock
- UCF Order of Pegasus Award, the university's highest student honor. (May 2015)

Zachary Oviatt
- Undergraduate Scholarship, $5,500. (April 2015)

Kathryn Pope
- Undergraduate Scholarship, $3,000. (April 2015)

Louis Shatkun
- Undergraduate Scholarship, $5,500. (April 2015)

Paul Wilson
- Undergraduate Scholarship, $3,000. (April 2015)
Order of Pegasus recipients
Taylor Laurent and Richard Murdock
UCF engineering student John Sparkman, a volunteer for UCF-based Limbitless Solutions, and the Blue Man Group surprised 12-year-old Wyatt Falardeau with a “Blue Man” styled 3D-printed bionic arm in April 2015.