Showcasing New CETA Faculty Members

New faculty play an incredibly important role in higher education, especially so in these times of rapid growth for the University of Hartford’s College of Engineering, Technology, and Architecture (CETA). We are exceptionally proud to be highlighting the promise and potential of eight of our latest full-time faculty, and hope you share in the excitement that these new faculty members bring to help advance the college to even higher levels of distinction.

New faculty come to CETA after a fairly involved process of requesting a new full-time faculty position and a national search to assure that we attract and hire the very best candidates for the important work of preparing the next generation of CETA graduates. These requests are not made cavalierly, but result from in-depth assessments of the overall needs of our programs. These needs include consideration of the teaching resources in each of our programs, gaps in our areas of scholarship or expertise to address emerging trends of growing student interest, and the overall service load on full-time faculty to fulfill the many tasks and committees that keep the college running smoothly. Full-time faculty appointments represent long-term commitments on the part of the University and as such, require a thorough justification process including enrollment projections and documented need to cover specific areas of the curriculum with sufficient depth and distinction. We are fortunate to have been awarded the majority of full-time positions across the University over the past several years based on significant and consistent enrollment growth.

The eight faculty members showcased in this newsletter represent the results of this extensive justification process coupled with a comprehensive search that identified the strongest candidates from a global posting, application, and vetting process. Our faculty search committees review hundreds of résumés and scholarship statements, conduct a dozen or more teleconference interviews, and finally meet with candidates when they visit campus for more interviews and a full teaching demonstration. I think you will agree that our efforts have paid off exceptionally well with a group of new faculty who will carry on the traditions of excellence in education for which we are known, and take us to the next level of quality, recognition, and distinction.

Louis Manzione, Dean, CETA
Assistant Professor Timothy Adekunle came to the University in fall 2015 following completion of his PhD in architecture, and positions as a postgraduate research student and assistant lecturer at the Kent School of Architecture, University of Kent, Canterbury Campus, in the United Kingdom. He holds a Bachelor of Technology in Architecture from the Federal University of Technology, Akure, Nigeria, a Master of Architecture from the University of Nottingham, UK, and a PhD in Architecture from the University of Kent, UK. He has also worked as an architect in a variety of firms. Adekunle is interested in continuing his research in low-carbon, prefabricated, and sustainable building design, as well as architectural technology and the environment. He has presented papers at various international conferences. He is also looking forward to teaching students in the field of structural building design and advising both undergraduate and graduate students.

Assistant Professor Sirry Bjarnadottir joined the University of Hartford in fall 2013. She holds an undergraduate degree in civil engineering from the University of Iceland and a master’s and PhD from Michigan Technological University. Her area of specialization is hurricane-risk assessment with climatic adaptation. Her current area of focus includes studying how climate change affects natural hazards and solutions for our built environment, residential construction, and power utilities resilience to withstand natural weather events such as hurricane winds and flooding. Bjarnadottir is working with a graduate student on the use of bamboo as a sustainable alternative for construction materials and introducing probabilistic analysis and reliability into design courses.
Assistant Professor Seth Holmes joined the University in fall 2013. He received his Master of Design Studies at Harvard Graduate School of Design and a Bachelor of Architecture from Roger Williams University, School of Architecture, Art, & Historic Preservation. He has a strong interest in global warming and his research focus is climate change adaptation in the built environment. He is interested in studying the effects on a building due to loss of power, lack of affordable air conditioning, and natural weather events. The new architectural engineering technology curriculum incorporates the topic of sustainability in the design studio to provide students with a greater awareness of sustainability and green living. Holmes is excited to bring more course content in sustainable design to both the undergraduate and graduate levels.

Applied Assistant Professor of Engineering Philip Faraci ’89 joined the faculty in fall 2015 but initially came to the University of Hartford for his BSE in acoustical engineering and music. He then went on to Stevens Institute of Technology for his master of engineering in acoustics. His primary research area is musical instrument design, and he worked for several years as staff engineer for Steinway & Sons applying acoustic and vibration analysis to piano design and performance. He owned a professional audio company in Hartford and took private piano lessons at The Julliard School of Music. Faraci began teaching part time more than 15 years ago, starting at the University’s former Ward College of Technology. He teaches various courses including Introduction to Acoustics for audio engineering technology majors and the senior capstone project course for acoustics majors.
Assistant Professor Eoin King joined the Department of Mechanical Engineering in fall 2013 and also holds the position of University Honors Program Coordinator for CETA. He earned his Bachelor of Engineering Science in mechanical engineering, Post-Graduate Diploma in statistics, and PhD in acoustics from Trinity College Dublin, Dublin, Ireland. His research focus is on environmental noise mapping demonstrating the impact of noise from roadways, railways, wind farms, and ports, and providing solutions to planning agencies to implement efficient noise abatement strategies. He currently teaches Vibrations, Engineering and Environmental Acoustics, Acoustical Engineering by Design, and supervises a variety of senior capstone projects covering everything from the modal analysis of a hurley (a bat used in the sport of hurling) to the practical aspects of noise control. He recently supervised a senior capstone project on noise mapping with the cooperation of Hartford City Council and worked with a visiting Fulbright Scholar to assess the accuracy of smart phones, both iPhones and Androids, as noise-measuring devices.

Assistant Professor Andrea Kwaczala joined the Department of Civil, Environmental, and Biomedical Engineering in fall 2015. She earned her BS in biomedical engineering from Rensselaer Polytechnic Institute and her Master of Science and PhD in biomedical engineering at Stony Brook University. Her thesis research focused on bone quality during osteoporosis drug treatment, in which she studied how bone architecture, chemistry, and micro-mechanical properties related to bone strength. She did her post-doctoral training at Yale University, where she investigated cardiac disease mechanisms. Her work included the study of single-cell analysis and the development of tissue-engineered constructs for the characterization of cardiac function. Kwaczala teaches courses in biomedical research and design, bio-instrumentation, and biomaterials.
Akin Tatoglu joined the University in fall 2015 with his PhD in mechanical engineering from Stevens Institute of Technology. He completed his master’s degree in computer science at Gazi University and bachelor’s in computer engineering at Baskent University in Ankara, Turkey. His area of specialization is visual navigation localization, simultaneous localization and mapping, or SLAM. He is currently teaching mechatronics and control systems and leading students in a senior capstone design project that will be entered into an international robot competition at a nearby college. As the department seeks to advance its emphasis in robotics, Tatoglu looks forward to offering more robotics courses for both the undergraduate and graduate level and developing new courses and research areas in visual navigation using technology imitating human vision systems and lasers.

Theodore Sussmann
Department of Civil, Environmental, and Biomedical Engineering

Assistant Professor Ted Sussmann completed his BSCE, MSCE, and PhD at the University of Massachusetts, Amherst, and joined the Department of Civil, Environmental, and Biomedical Engineering in fall 2014. His focus is geotechnical engineering and railroad engineering. He has had an extensive career with the U.S. Department of Transportation in railroad engineering and focuses his research on sustainable transportation infrastructure including rail, highway, and pipeline. He is currently teaching structures, mechanics of materials, and ground water hydrology, and has supervised two senior design projects, one on drainage problems for the adjacent Town of Bloomfield. Sussmann is looking forward to teaching more on infrastructure research.

Taylor Unikewicz ’16, left, collecting topographic data in CE/AET 250 Introduction to Geomatics.

Akin Tatoglu
Department of Mechanical Engineering

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You may have wondered about the oddly shaped little huts south of Lincoln Theater near the Hog River. The structures are experimental environmental cells built during the fall 2015 semester by architecture graduate students in a required course ARC 513, Advanced Building Systems, with Assistant Professor Seth Holmes.

The cells are used to test the effectiveness of architectural design and construction of environmental systems in relation to indoor comfort and energy use. The experimental cells were built by using typical residential building materials (wood studs, plywood, metal roofing, batt insulation, rigid insulation, etc.) and are designed to represent a small one-room residential building.

Though they look similar, each cell is slightly different in its construction (insulation thickness or type, window quantity, vapor barrier type, etc.). Students compare the passive thermal and lighting performance of each design assembly by measuring indoor temperature, humidity, and lighting levels using small indoor environmental sensors. The cells will be reused and reconfigured each semester.

hartford.edu/ceta/hutsup.aspx
Beebe is an executive at Sennheiser Electronics, proving the power of hard work and goal-setting.

The Hartford Scholars Program at the University of Hartford made it possible for Greg Beebe ’92 to change the course of his life. He grew up poor in inner-city Hartford with no male role models, in a family where no one had graduated from high school. Beebe’s family changed apartments frequently because money was tight (they even lived in a motel for a while). Food stamps and government cheese were staples. But Beebe knew at a young age that he had goals: to earn twice his age times 1,000 at age 30, reach six figures by age 40, and become a company president by age 50. He has done all that — and more.

An entertaining outing for Beebe’s family was a trip to the grocery store followed by a picnic lunch while parked at Bradley Airport, watching planes take off and land. He loved camping, and the Boy Scouts provided opportunities for leadership and tutelage. Scouting helped Beebe to focus on his goals, with no distractions. He soon achieved the top prize: Eagle Scout.

A friend recognized Beebe’s interest in electronics as he spent time building a stereo system pieced together from junk parts. She pressed him to pursue an engineering education at the University of Hartford, where she intended to study. On a visit to campus, Beebe sat in on a DC Electrical Fundamentals class at the Ward School of Technology (now the College of Engineering, Technology, and Architecture), talked with the dean and then his advisor, all of which helped him realize that electronic engineering technology was a good fit.

Beebe believes that attaining Eagle Scout gave him a huge edge over another candidate holding equivalent qualifications when he applied for his first job at Sennheiser Electronics, a German company specializing in the design and production of a wide range of audio electronics for consumer, professional, and business uses. Over more than 23 years at Sennheiser, Beebe learned three things: he enjoys internationalism, challenges, and building teams. His purpose in life is to nurture others so they can grow. He feels fortunate to have been in a multi-year training program at Sennheiser, which primed him for varied domestic and international leadership roles. He headed sales and marketing in four different countries simultaneously, which required frequent contact with partners in Turkey, Greece, Spain, and Portugal. His role as VP for business in Latin America not only fueled his interest in internationalism and team-building, but has lead to lifelong friendships.

Beebe sees the many steps in his life as blessings. “This doesn’t happen to a person who ate government cheese,” he says. He believes that when he set his life goals at 13, somebody upstairs was listening.
Walter Banzhaf: Still at It!

Walter Banzhaf is enjoying the freedom to do what he wants in retirement and maintains his healthy spirit. “Humor is a wonderful thing,” reflected Banzhaf recently. “It’s the lubricant of life.” In retirement since 2006, he is able to experience life to the fullest with family, travel, sharing his knowledge and experience, and volunteerism.

Banzhaf and his wife, Mattie, recently traveled to Okinawa, Japan, for a son’s wedding reception and now look forward to visiting another son in Oslo, Norway, to help with electrical and plumbing in his new grass-roof home. The couple travel extensively and have visited Sweden, Denmark, Ireland, Argentina, Italy, Peru, Ecuador, Greece, Turkey, and several other countries on the east side of the Adriatic Sea. They also enjoy visits to their daughter and grandchildren in Boston, Mass.

Banzhaf applies his teaching knowledge and experience whenever possible. He enjoys opportunities for consulting, solving electrical mysteries as a Connecticut professional engineer. He diagnosed a major electrical problem at a local church and designed, installed, and maintains a three-building Wi-Fi system for a church in Granby, Conn. Still applying his teaching skills, he tutors the children of a Ward College of Technology alum, which keeps him challenged with pre-algebra and calculus.

A connection with a former adjunct instructor resulted in him editing a book for the American Radio Relay League (ARRL) in Newington, Conn., which led to updating a 1980s book, Understanding Basic Electronics. It is doing very well in the United States, was translated into Chinese, and is the bestselling electronics book in China.

Banzhaf’s volunteerism has never wavered; he is still involved as a volunteer firefighter in Simsbury. With weekdays off in retirement, he is often the only firefighter available in Tariffville. As he nears the mandatory retirement age for firefighters, he hopes to continue to serve as a senior firefighter. He feels he has abilities and knowledge to offer.

Banzhaf is very active in the Tariffville Water Commission, which is working on a State of Connecticut $1.6 million loan/grant proposal to replace a 300,000-gallon water tank that serves 1,300 residents of the village in Simsbury. He also continues to pick up surplus food at a supermarket in Canton and deliver it to the charity Gifts of Love in Avon.

He remains connected through the University of Hartford Emeriti Association, where he only recently handed over his secretary role for website design. Other activities keep him connected to the University, such as participation in events as a former recipient of the Roy E. Larsen Award for Excellence in Teaching.

Twice annually, the Ward College retirees and their spouses meet for lunch to catch up on life, loss, and changes at the University and the college. He’s certainly not done yet, and we look forward to his contributions far into the future.
Samuel I. Ward Dedication

During the October 2015 Hawktober Weekend, the family of Samuel I. Ward, current and former faculty, alumni, and friends of CETA joined in celebration of the naming of The Samuel I. Ward Department of Electrical and Computer Engineering, the Samuel I. Ward Audio Studios, and the Samuel I. Ward Laboratories to remember and honor Samuel I. Ward and his contributions to the history and development of the college.

The University will establish the Samuel I. Ward Lecture Series with alternating annual lectures on technology entrepreneurship and architecture.

[Link to the dedication page](http://hartford.edu/ceta/warddedication.aspx)
CETA LABORATORY AND STUDIO FACILITIES

Dana Hall

101 Biomedical Engineering Laboratory Given by Nancy and Frank X. Hursey ’77

102 The University of Hartford and Pratt & Whitney Manufacturing Metrology Laboratory

103 Mechanical Engineering Research Laboratory I. Given by Wallace Barnes (Hon ’88) and Barbara Hackman Franklin (Hon ’94)

104 Turbomachinery Laboratory

109 Machinery and Power Systems Laboratory

111 Electrical and Computer Engineering Research Laboratory I

120 Samuel I. Ward Audio Recording Suite II

121 Mechatronics/Smart Systems Laboratory

122 Samuel I. Ward Audio Recording Suite I

125 Structural and Transportation Engineering Computer Laboratory

126 Acoustics and Vibration Laboratory

Paul S. Veneklasen Research Foundation
Anechoic Chamber
Paul S. Veneklasen Research Foundation
Reverberation Room

127 Soils Laboratory

129 Mechanics of Materials Laboratory

133 Machine Shop

313 Electrical and Computer Engineering Research Laboratory II

315 VLSI Laboratory

319 Digital Signal Processing Laboratory

320 Computer Classroom II

321 Electrical and Computer Engineering Instrumentation Laboratory II

322 Samuel I. Ward Circuit, Electronics and Digital Laboratory II

323 Robotics and Automation Systems Laboratory

324 Samuel I. Ward Circuit, Electronics and Digital Laboratory I

325 Samuel I. Ward Circuit, Electronics and Digital Laboratory III

402 Microprocessor Laboratory

420 Computer Classroom III

424 Mechanical Engineering Research Laboratory II

426 Mechanical Engineering Design Laboratory

Left, Connor Yeaney BSME ’16 and right, Anthony Vecchiarelli BSE biomedical engineering ’16 working on project in Dana 101: Biomedical Engineering Laboratory. Given by Nancy and Frank X. Hursey ’77.

From left: Justin Starr ’17, Professor Milanovic, and Mark Markiewicz ’18 constructing a wind turbine in Dana 104 Turbomachinery Laboratory.
See-Thru Nuclear Power Plant

Undergraduates Alex Cartwright, biomedical engineering ’17, front; Peter Hill-Ricciuti, mechanical engineering ’18, middle; and Tevin Williams, electrical engineering ’17, back; assisted instructor Jason Smith in relocating and reinstalling the see-thru nuclear power plant.

UT Hall 104 became a dedicated CETA laboratory following the spring 2015 term.

Support CETA!

CETA purchases and maintains a considerable collection of teaching equipment, including more than 400 computers, materials and supplies for our 42 laboratories and studios throughout the ISET Complex (Dana Hall, United Technologies Hall, and the Biology-Chemistry Building) and the Harry Jack Gray Center’s west wing. It is an active environment for lectures and labs, studios, research projects, and testing over a full spectrum of collaborative projects occurring daily. Your support to the Dean’s Special Projects Fund assures that your dollars will be applied directly to CETA. We hope you will consider providing support, at any level, to the Dean’s Special Projects Fund.

Please donate by using our online form or feel free to contact me directly to discuss your interest in support of the College of Engineering, Technology, and Architecture.

Louis Manzione, Dean, CETA

hartford.edu/ceta/donate
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