Walking on Water
Budding engineers test their ingenuity in the annual RecPlex race. — Page 16
It is that time of year to reflect on the happenings in the School of Engineering (SOE) at Fairfield University. We started the fall of 2016 with a different mix of students than we had been experiencing the past few years. Our undergraduate population stayed steady at more than 270 students, made possible by the great work of Associate Dean Ryan Munden, PhD, in recruiting new transfer students from two-year community college pre-engineering programs in Connecticut.

We are pleased and excited to welcome Adrian Rusu, PhD, as our new chair of Electrical and Computer Systems Engineering (ECSE) as well as Mehdi Safari, PhD, who joined us as a new assistant professor in Mechanical Engineering. Dr. Rusu will be working closely with the faculty in the ECSE Department to reconfigure our programs and restructure our curricula to be more responsive to emerging market needs, especially in computer science and engineering.

The Servo-Robot Group continues as the Fairfield SOE Engineer-in-Residence for 2016 and 2017. Engineers from Servo-Robot Group work in the SOE Applied Research Laboratory at both the graduate and undergraduate level under the direction of Amalia Rusu, PhD, and in close collaboration with Servo-Robot CEO Jean-Paul Boillot.

The Society of Automotive Engineers (SAE) Baja Buggy Team continues to fabricate their first vehicle slated for the June 2017 competition in Illinois. Under the guidance of their advisor Professor Wojna, they have made great community connections for funding and fabrication assistance. We are so pleased to have the assistance of the master artisans at two Bridgeport companies, Dragone Motors and Automotive Restorations.

The Fairfield University Engineers Without Borders (EWB) student chapter continued its successful collaboration with South Dakota State University students in Bolivia. The two slow sand water filters are approximately 90 percent complete for the campus and community in Carmen Pampa, Bolivia after three student-led trips in the summer of 2016.

As I close this message to all of you, I encourage you to read the news articles enclosed to catch up on our activities this past year. We expect many great adventures and accomplishments with our students as we continue to grow and mature.

Sincerely,
Dr. Bruce W. Berdanier, PE, LS, FASCE
Dean of Engineering

Follow us on social media:
FairfieldUniversitySOE
@FairfieldU_soe
@fairfield_u_soe

Message from the Dean
Taking a Lead

In a recent surge of rankings over the last few months, Fairfield University and the School of Engineering have found themselves among top universities in a number of areas — including top rankings for STEM education, starting salaries and overall quality.

The picture that is emerging is an encouraging one: Fairfield is highly regarded. Its programs are among the best in the country. Its students succeed. Taken together it is a hard message not to like.

Fairfield is one of 9 U.S. universities among the list of “rising stars” in global higher education. As reported by Times Higher Education 2016.

Fairfield University’s School of Engineering offers four graduate degree programs as well as graduate certificate programs in a number of specialty areas. Our skilled faculty will help you advance your career by empowering you to better understand complex issues and work more effectively.

• Certificate Programs
• Master of Science in Electrical and Computer Engineering
• Master of Science in the Management of Technology
• Master of Science in Mechanical Engineering
• Master of Science in Software Engineering
• 5 Year BS/MS Programs in Engineering

Aaron Martin, MS in Mechanical Engineering

“I live in Stratford, Conn. and I’m a mechanical engineer. As an associate and as a project manager, I’m in charge of coordinating all the trades for the architect directly with the owner. I’m basically the communication point person between our firm and our client. I looked at several schools in the area and I was impressed with the well-established program.

I was at Fairfield from when I got married all the way until I had my daughter. The flexibility was the best part for me. The professors were really good, really knowledgeable, really understanding when I had work commitments, even family commitments. Take your time at Fairfield and take the classes you want. If you plan it out right, you get exactly the knowledge you want out of it.”

Aaron was able to complete his MS in mechanical engineering while balancing work and family commitments.
Paving the Way for Undergraduate Success

The SOE provides integrated opportunities for students to learn from alumni and sharpen their real-world capabilities by providing greater access to career fairs, internships, discussion panels and networking events throughout the year coordinated with our Career, Leadership & Professional Development Center.

BEYOND THE CLASSROOM

Professional Development Series
From our "backpack-to-briefcase" event to mock interview for internships and jobs, networking with SOE alumni, the Professional Development Series prepares career-ready engineers for the world after graduation.

Community Engagement
The SOE maintains direct relations with area industries and manufacturers. These open lines of communication encourage the flow of information and support to keep the engineering curriculum current and relevant to the industry environment.

Service Learning
An experiential approach to teaching and learning links academic study and community service so that each is strengthened—and both are transformed.

CAREER, LEADERSHIP AND PROFESSIONAL DEVELOPMENT CENTER

The Career, Leadership and Professional Development staff works with undergraduate and graduate students as well as alumni and is committed to helping Stags throughout the career development process.

Comprehensive Services & Tools
• Planning and conducting an internship or full-time job search
• Resume development and critiques
• Interview and networking skills

Stags4Hire
An interactive job and internship site built specifically for Fairfield students.

SOME OF THE COMPANIES THAT HIRE FAIRFIELD SOE GRADS:

- GE
- Nasdaq
- Birkin
- priceline
- BTC Aerospace
- Wind
- RBS
- General Dynamics
- Medtronic

SOE Grad’s Median Starting Salary: $65k
Placement Rate: 96%*

*S of the Class of 2016 secured full-time employment, enrolled in a graduate or professional school, or are participating in a volunteer service program within six months after graduation.

Passion & Purpose:

Our graduates build vital, meaningful lives. They think critically and independently, they know how to lead and how to work together, and they’ve done enough important work in the world to know why their work — and their world — matters.

*of SOE undergraduates are women

Marcia Ariambulo Rodriguez MOT ’15, assistant dean of SOE, advises first-year electrical engineering student Taevon Walker ’20.

6% increase in first-year engineering applications
24% of SOE undergraduates are women
70% increase in transfer engineering applications
26% of SOE undergraduates are under-represented minority students
11:1 undergraduate student-to-professor ratio
RYAN SHEARMAN ’09
Founder & CEO, FUSAR

Less than a month after graduating, mechanical engineering major Ryan Shearman ’09 was hired as an R&D engineer by a leading architectural home hardware company based in New York City. After a short stint on their R&D team, the owner of the company learned about the electric motorcycle Shearman built as part of his senior capstone project at Fairfield and offered him a new, more hands-on position establishing a new manufacturing department at the company’s production facility on Long Island.

Shortly thereafter, Shearman took a position working as a product development engineer for world-renowned jewelry company, David Yurman. He joined the men’s product team, where he was responsible for developing some of the company’s most successful men’s collections.

“It was at Yurman that I had the opportunity to mix my creativity with my experience in manufacturing and bring new and exciting products to the market in ways I hadn’t done before,” said Shearman, who was later approached by a competing company who sought his expertise to help launch its own line of men’s products.

“That’s when things got interesting,” Shearman continued. “Long story short, Yurman offered me six months severance to not take the other job. I accepted their offer and used the next six months to figure out what my next step would be.”

It was during that time that Shearman started tinkering with a new idea and throughout the last few months of 2013, he was able to lay the groundwork for what would become FUSAR — which he says stands for the “fusion of technology and adventure.” He describes it as “the world’s first hardware/software technology platform for action sports.”

MEHDI SAFARI, PhD, joined the School of Engineering as an assistant professor of mechanical engineering in 2016. His research areas are thermal-fluid science, computational fluid dynamics (CFD), turbulent combustion, propulsion, energy efficiency and numerical simulation. Mehdi received his Ph.D. from Northeastern University. In 2014 and previously, he was an assistant professor at Miami University in Oxford, Ohio. He enjoys marathon running and hiking when away from work.

Adrian Rusu, PhD, is the chair of the Electrical and Computer Systems Engineering Department. He comes from Rowan University where he was a professor of computer science. His research expertise is primarily in information visualization, software engineering and edutainment, but he is especially effective in interdisciplinary innovations and student mentoring. Through external collaborations with the industry, he has created research and teaching opportunities worth over $1 million. Dr. Rusu chairs the IEEE-CT Entrepreneurs Network. His son Alex has also joined Fairfield’s SOE this year. As a hobby, Adrian is active as a top-level state soccer referee in Conn.

JEAN-PAUL BOILLOT, chairman and CEO of SERVO-ROBOT continues to serve on the SOE Advisory Board and visit campus monthly to mentor students and faculty. SERVO-ROBOT sponsors Fairfield’s Engineer-in-Residence and Applied Research laboratory programs.

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Alumni Profile - Ryan Shearman ’09

New Engineering Faculty
DOUG LYON
Awards and Honors: Completed sabbatical at Yale University, conducting research in the area of natural language processing.

JAMIE MACBETH


SIHARSHA SRINIVAS SUNDARRAM
Awards and Honors: Named Brinkman Family Professor of Micro/Nano Manufacturing.

Senior design team comprising Calvin Champa, Christopher Gutierrez, Joseph Boothe Luce funding for professional development.


HARVEY HOFFMAN


Jeff Denenberg
Application Development: Developed and released "Punchtrus," a new communications app for Apple and Android phones. It provides fast, hands-free, voice messaging between registered users.

DIDJIGA BELFADEL
Awards and Honors: Received Clare Boothe Luce funding for professional development.


D. Belfadel, Y. Bar-Shalom. "Absolute Radar Registration Using Targets of Opportunity," Accepted for Oral presentation to be presented at Signal Processing, Sensor/Information Fusion, and Target Recognition XXVI; Anaheim, California United States. April 2017


SOE Computer Science Prof’s Research Helps Fight Cyberbullying

After completing his PhD at UCLA and post-doc study at both MIT and at Clemson University, Jamie C. Macbeth, assistant professor of computer science in the School of Engineering, brought his cutting-edge research on cyberbullying prevention to Fairfield last year.

Generally speaking, Dr. Macbeth, a New York City native, conducts research on the intersection between human computer interaction and intelligent systems or artificial intelligence (AI) with the goal to build intelligent systems that can help people — and society — with cyberbullying issues.

Read the full article online at fairfield.edu/soe

AMALIA RUSU
Awards and Honors: Received Clare Boothe Luce funding for professional development.

Named chair of IEEE-CT Joint Chapter of Computer; Systems, Man and Cybernetics; and Social Implications of Technology.
Kristen (Rydberg) Costagliola ’12, a computer engineering major, had a full-time job offer with the Royal Bank of Scotland (RBS) the summer after graduating from Fairfield.

She had test-driven the company by taking an internship with RBS the previous summer. Once full-time, Costagliola entered into an RBS rotational program working in programming languages such as Java, C Sharp and scripting languages such as Perl.

Now, Costagliola is a senior software engineer at Datto, Inc., a data protection company, where she supports its financial systems.

While a student at Fairfield, Costagliola was a Resident Assistant (RA) in Loyola Hall. She was very involved in campus ministry as a Eucharistic Minister and Kairos retreat participant. She also worked at the Help Desk in Computer and Networking Services.

“One of the greatest things I learned at Fairfield was how to learn something new and pick up the skills that are necessary to achieve what you want,” Costagliola said. “I also learned how to find things you are passionate about and pursue those areas and to do something that improves the world around you.”

Reaching Out

A School of Engineering service project helps Bridgeport’s Harding High build a robot for competition.

In the past year, students in Fairfield’s School of Engineering have learned that it takes a village to build a robot. That village extends from the Fairfield campus to Warren G. Harding High School in Bridgeport. It includes students, faculty and staff at both institutions as well as off-site supporters and alumni.

Read the full article online and learn more about service learning courses at Fairfield.edu/soe
This past August, Dean of the School of Engineering Bruce Berdanier, PhD, along with Assistant Dean Marcia Arambulo-Rodriguez traveled to Bolivia with a group of five Fairfield students to build a water filtration system.

Through the Engineers Without Borders (EWB) Fairfield chapter, established in 2015, the group planned extensively throughout the year and had several ventures - this summer and in years past - to complete the mission of clean water for the region.

"Sometimes the students get sick because it’s so high up," said Dr. Berdanier about their home base in Bolivia and partner school, Universidad Academica Campesina, Carmen Pampa (UAC-CP), which is about 90 kilometers northeast of La Paz at nearly 14,000 feet above sea level.

It’s a mountainous, lush and jungle-like region containing about 20 small villages that are served by UAC-CP, which has approximately 700 students. Half the people in these villages still don’t have indoor plumbing so stomach distress from pathogens in the water plagues them.

The area is also starting to experience water pollution from agricultural run-off.

Through Dr. Berdanier, whose international service work expertise spans more than 25 years, Fairfield University’s ventures to Bolivia with EWB have covered a few years and have taken the project from “assessment trips” to determine the needs and complexities of the area and water system, to the hands-on building of a filtration system that’s fed by one of the area’s two waterfalls. The filtration system that was erected during the August trip channels water through layers of sand to eliminate the dirt and parasites. It then transfers the water to a chlorinator to kill actively growing pathogens.

“I have never seen a team comprised of people who came from different worlds and spoke different languages accomplish so much while working together,” said Kacper Laska ‘18, a junior in the School of Engineering who was part of both the planning process and the work trip.

The Fairfield group stayed in dormitories at UAC-CP and worked with local students, South Dakota State University students and other volunteers to bring the project to life.

Tanzania Service Learning Immersion Summer 2017

Fairfield SOE students will travel to the East African nation of Tanzania to install solar panels and experience culture and wildlife.
Student Senior Design teams received funding through the Hardiman-Lawrence research funding endowment to support their research and development work with SOE faculty.

Degree Key
C: Computer Engineer
E: Electrical Engineer
M: Mechanical Engineer
S: Software Engineer

TEAM 1 - Experimental and Numerical Investigation of Advanced Fluidized Bed - Spouted Reactor
Advisors: Dr. S. Etemad, Dr. M. Safari, and Dr. B. Baird (Precision Combustion, Inc., N. Haven, CT)
Number of students: 4 Mechanical
Sanclemente, Gustavo - M
Sorgenti, Stephen - M
Pysarchyk, Michael - M
Cornwell, Geoffrey - M

TEAM 2 - Micromouse Design and Development
Advisor: Dr. U. Balaji
Number of students: 2 Mechanical, 1 Electrical, 1 Computer
Corsello, Vincent - M
Ochoa, Christina - E
Rybacki, Sarah - M
Stewart, Andrew - C

TEAM 3 - A Quiet Shop Vacuum
Advisor: Dr. J. Dennenberg
Number of students: 2 Mechanical, 1 Electrical, 1 Computer
Arabia, Fernando - M
Rinaldi, Christopher - E
Magnotta, Rock - M
Mentonis, Maxwell - C

TEAM 4 - Micro Bioreactor Array for Tissue Engineering Applications
Advisor: Dr. S. Sundaram
Number of students: 4 Mechanical
Gutierrez, Christopher - M
Nguyen, Huy - M
Champa, Calvin - M
Koelsch, Joseph - M

TEAM 5 - Wear Free Transfer of Electrical Power and Fluids to Translating Stages
Advisors: Dr. S. Etemad and Dr. A. Judge (ASML, Wilton CT)
Number of students: 4 Mechanical
Soni, Pinal - M
Orlando, Ethan - M
Japs, Addison - M
McManus, Julia - M

TEAM 6 - Suture Diameter Measurement System
Advisor: Dr. R. Munden and J. Festa (Medronic Inc.)
Number of students: 1 Mechanical, 1 Electrical, 1 Computer
Anastasio, John - M
Garic, Ozemal - E
Kennedy, Daniel - C

TEAM 7 - Automated Unpacking System for Jewelry Charms
Advisors: Dr. M. Zabinski and R. Rossili (Northeast Laser & Electropolish, Monroe, CT)
Number of students: 3 Mechanical, 1 Electrical
Kharbouch, Karen - M
Turano, Dennis - M
Fedele, Maria - M
Ali, Andalib - E

TEAM 8 - Robust Kernel-Based Object Tracking with Multiple Kernel Centers
Advisor: Dr. D. Belfadel
Number of students: 2 Mechanical, 2 Electrical
Wright, Michael - E
Dubie, Kyle - M
Tavcar, Andrew - M
Nussbaum, Kevin - E

TEAM 9 - Aircraft Conflict Resolution Catalogue
Advisors: Dr. Ad. Rusu and M. Paglione (Federal Aviation Administration)
Number of students: 1 Software, 1 Computer, 2 Electrical
Hingorani, Rosina - E
Dimick, Andrew - E
Paulin, Joseph - S
Philippz, Daiana - C

TEAM 10 - Ferrofluid Windmill
Advisors: Dr. R. Munden and Dr. A. Judge (ASML, Wilton, CT)
Number of students: 3 Mechanical, 1 Electrical
Brown, Konel - M
Geaslon, Connor - M
Ashong, Julian - M

Society of Women Engineers Conference 2016

Five Fairfield University students: Christina Ficaro ‘18 (co-president SWE), Kathryn Higgins ‘18 (co-president SWE), Ravina Hingorani ‘17, Sarah Rybacki ‘17 and Maria Fedele ‘17 attended the Society of Women Engineers (SWE) annual conference, the largest event of its kind for women engineers, at the Philadelphia Convention Center this past fall. More than 11,700 women engineers from all over the world attended the weekend conference that included opportunities for networking, special events, awards, information sessions and the WBE16 Career Fair.

2016-17 SOE Senior Design Projects
School of Engineering (SOE) Associate Dean Ryan Munden, PhD, tells his students, “As an engineer, you very well may have another person’s life in your hands. Say you design an airbag sensor — it’s not okay to just say ‘I tried hard.’ It has to work. Period. So, there has to be a time where performance matters.”

And the time where it really does matter is during the annual “Walk-on-Water” competition. Each fall, teams of students, mostly first-years and some sophomores, put their “EG31 Fundamentals of Engineering” course skills to the test with kinetic, project-based design work to build a contraption that must “walk on water” or rather, align with engineering principles to get them efficiently across the RecPlex’s 8-lane, 25-meter pool in record time, for a grade.

“It is a high-stakes event. [The students] have to make it across the pool or they don’t pass. It’s worth 20 percent of their grade,” said Dr. Munden, who helped to re-design the course and introduced the competition five years ago.

Sound harsh? Perhaps a bit. But, Dr. Munden explained that it’s a tried and tested project, and that students have plenty of time to develop their ideas and work out details. When the project first started in 2012, there were 55 student participants from two course sections. Today, there are more than 80 student participants from four course sections.

Emmett Godfrey ’20, a member of this year’s winning team, “A Leg Up,” said the project was “really interesting” and that, in the end, it helped the entire first-year engineering class bond.

“You are forced to work in a team environment and it was a great introduction to what working on a team in real life would be like,” Godfrey said.

The “A Leg Up” team’s winning contraption made it across the pool in 25.3 seconds. The team consisted of Godfrey and his classmates Ryan Attonito ’20, John Callanan ’20, Robert Gonfiantiini ’20, Eric Jiang ’20 and Ryan Morais ’20.

All participating teams had a budget cap of $100 for building the machines. They had to acquire all the materials themselves and were encouraged to use spare, unused and recycled materials.

Moving “beyond the textbook” is what really attracts students to the project, according to Dr. Munden. After the presentations, he schedules team meetings to offer detailed feedback.

“It’s putting it all into action that counts for post-graduation work. All of our students go through the machine shop,” Dr. Munden said. “No matter what field of engineering they end up in, they have to know how things are made and how to be kind to technicians. It’s tricky to make things, especially if they’re going to be things that change the world.”

Read the full article online at Fairfield.edu/soe

Walking on Water

Budding engineers test their ingenuity in the annual RecPlex race.

As an engineer, you very well may have another person’s life in your hands. Say you design an airbag sensor — it’s not okay to just say ‘I tried hard.’ It has to work. Period. So, there has to be a time where performance matters.”

- Dr. Ryan Munden

2017 BEI Scholarships
Jerome Davis ’19
Luis Lopez ’17
Jacob Muoto ’18
Kenia Nsaoba Tum ’17
Ethan Olmstead ’18
Christopher Rinaldi ’17
Gustavo Sanclemente ’17
Pinot Scoi ’17
Andrew Tavcar ’17
Calvin Thomas ’19

Porter Scholarships
Veronica Schroeder Sanchez ’17
Bernadette & John Gustavo Sanclemente ’17
Wondmaineh Girum ’19
Christopher Rinaldi ’17
Courtney Cockings ’17
Matthew Gagliano ’18
Christopher Calitri ’17
Yashodha Savadi ’18
Nicholas Formus ’18
Kerin Nussbaum ’17
Ethan Olmstead ’18
Andrew Tavcar ’17
Jason Alderisio ’17
Calvin Thomas ’19

2016 Student Recognition Awards:
Sarah Kurtz ’19 and Samuel Nguyen ’19

2016 Student Research Awards:
Julia McManus ’17

2016 Student Service Awards:
Alvin Arulmani ’17

2017-2018 Student Organizations & Societies:

Student Accomplishments

NASA Grants and Scholarships awarded to SOE Faculty and Students:
Christopher Gutierrez ’17 received a NASA grant for his project, which focused on creating a device that would have various medical applications, such as testing medicine or drugs on the different types of tissues or organs, and Julia McManus ’17 received a grant to continue to redesign the power transfer in microchip manufacturing equipment. Earlier this semester, four students from the SOE were each awarded $5,000 scholarships for their excellent academic performances: Michael Wright ’17, Ravina Hingorani ’17, Samuel Nguyen ’19 and Sarah Kurtz ’19.

SOE Graduate Service Award:
David José ’16 (MS in mechanical engineering) “can be found teaching undergraduate students on a regular basis and helping them in their lab assignments as part of his graduate assistantship responsibilities... David was the ideal graduate student we expect to see at Fairfield University who not only excels in the classroom but also in the community.” In addition to his academic work, José was the vice president of the Indian Graduate Student Association and an active member of JUHAN.

Graduate Student Life Service Award:
Alvin Arulmani ’17 (MS in mechanical engineering) is a central member of the JUHAN Humanitarian Action Student Group, a graduate assistant with the Center for Faith and Public Life, an international student ambassador and mentor, and a graduate assistant for the Fragile Foundation. Alvin’s dedication to service speaks volumes to his commitment to help others while also to his aspiration to grow as a person in his own right.

National Action Council for Minorities in Engineering:
Kenziel Brown ’17 and Christina Ochoa ’17 each were awarded National Action Council for Minorities in Engineering (NACME) undergraduate research scholarships of $5,000.

National Action Council Minority Scholars Program: David José ’16

IEEE Student Organizations & Societies:
IEEE Tau Beta Phi (Engineering Honor Society)
IEEE Society of Women Engineers
IEEE Engineers Without Borders
IEEE Institute of Electrical and Electronics Engineers
IEEE Society of Automotive Engineers
IEEE Tau Beta Phi (Engineering Honor Society)
IEEE American Society of Mechanical Engineers

Save the Date: 2017-2018
STEM Awards Ceremony - June 6, 2017
Baja Buggy Competition - June 2017
STEM Open House - October 2017
Walk on Water Competition - November 2017
National Engineers Week - February 2018

$5,000
$500
$500
$500
$500
$1,000
$500
$500
$1,000

F shelf 3: A shelf of books with one book titled " isIngeering.

Society of American Military Engineers (SAME) New York City Post Scholarship:
Michael Wright ’17

SAME unites architecture, engineering, construction, facility management and environmental entities and individuals in both the public and private sectors to prepare for - and overcome - natural and manmade disasters, and to improve security at home and abroad. The Post awards 205 scholarships each year to engineering students from more than 65 universities, and this past year, the Peter Kiewit Scholarship went to Michael Wright ’17 in recognition of outstanding leadership, high ethics and scholarship achievement.

Student Organizations & Societies:

Engineers Without Borders
Society of Women Engineers
Institute of Electrical and Electronics Engineers
Society of Automotive Engineers
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SEIEE Annual Conference:

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Society of Women Engineers
Institute of Electrical and Electronics Engineers
Society of Automotive Engineers
Tau Beta Phi (Engineering Honor Society)
American Society of Mechanical Engineers

SEIEE Annual Conference:
Leadership In Academic Excellence

Thanks to the generosity of the Brinkman Family Foundation and the Bannow-Larson Foundation, these endowed positions allow us to attract and retain passionate scholars who love to teach.

SRINARSHA SRINIVAS
SUNDARRAM, PhD
The Inaugural Brinkman Family Foundation Professor of Micro/Nano Manufacturing

The establishment of this professorship is sponsored by the Brinkman Family Foundation and recognizes Dr. Sundarram’s innovative, leading-edge research in nano materials. Dr. Sundarram was selected for this new role because of his pioneering research in the areas of micro/nano manufacturing and his strong commitment to incorporating students into all aspects of his work.

SHAHROKH ETEMAD, PhD
The Inaugural Bannow-Larson Professor of Manufacturing

The establishment of this professorship is sponsored by the Bannow-Larson foundation for the next five years and recognizes Dr. Etemad’s leadership, commitment to students and his work to improve the mechanical engineering program. Dr. Etemad has published more than 40 technical articles and holds over 30 patents and patent applications. In addition to his research in next generation internal combustion engines and teaching excellence, Dr. Etemad has been instrumental in developing external funding for the digital machine laboratory and the materials characterization laboratory.

Biomedical Instrumentation Lab

The BioE curriculum blends theoretical knowledge with hands-on experiential learning which culminates with a yearlong, interdisciplinary team-based capstone design project.

Kerry McHugh ’18
VISION
As an integral component of a comprehensive Jesuit University, the School of Engineering is committed to providing a student-oriented classroom and laboratory environment enhanced by research that enables graduates to become leaders in the quest to solve society’s greatest challenges in service to others.

MISSION
The Fairfield University School of Engineering is dedicated to providing quality educational opportunities in engineering and computer science to a diverse student population. The School emphasizes whole-person development (cura personalis) through its commitment to a unique integration of expertise in innovative technical areas with a strong liberal arts core, preparing graduates for professional practice and graduate education.