Teams from the University of Pennsylvania and Virginia Tech advanced to internationals by solving five and four problems, respectively. The EMU team had a strong showing by quickly solving two problems, with some substantial progress towards a few others. This was good enough for 44th place, and honors as the top team in our area for the second year in a row.

Department News

Renovations in Progress!

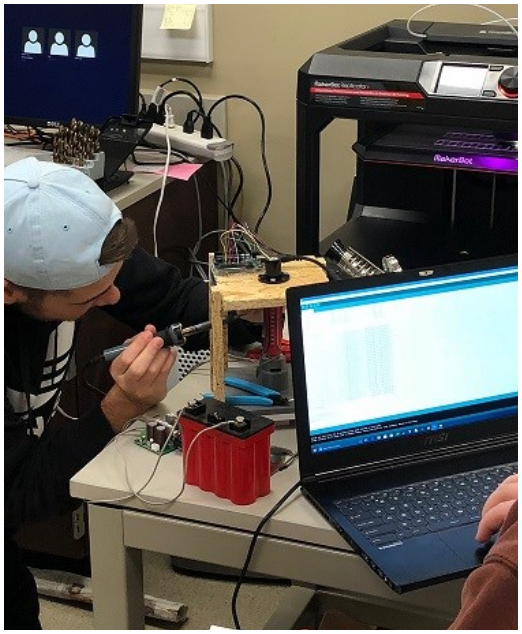
Renovation work began this fall in the lower level, west end of the Suter Science Center, to convert the area that previously housed the Psychology Department into spaces for the new Engineering program. Renovated spaces will include a Mechanics Lab, a Design Lab, a Prototype Lab (housing 3-D printers, a 3-D scanner, and a laser cutter), as well as eight offices for Mathematical Sciences faculty and the building's faculty lounge and conference rooms. More information about the renovations, including how to donate to the campaign, can be found at **www.emu.edu/campaign**.

Tenure-Track Faculty Position

Our search continues to hire an Assistant or Associate Professor of Computer Engineering or Computer Science, beginning in August, 2018. This is a tenure-track position. Recent growth in enrollment in our department, as well as development of our new Engineering program, make this an exciting time to be at EMU! The full job listing is posted at **www.emu.edu/hr/openings**.

Tian's Travels

Dr. Esther Tian, Asst. Prof. of Engineering, presented a talk titled "*Modeling of Leech Swimming Behavior*" on December 20 at the Swiss Federal Institute of Technology in Lausanne (École Polytechnique fédérale de Lausanne, EPFL), in Lausanne, Switzerland, hosted by Dr. Auke Jan Ijspeert at the Biorobotics Laboratory. Dr. Tian also toured Dr. Ijspeert's lab and had discussions with other members in the lab, as they share similar research interests. Dr. Ijspeert is the leading researcher in the biorobotics field. He has published in the Science magazine twice in recent years. Dr. Tian said she is honored to visit his lab and deliver a talk in the Institute of Bioengineering at EPFL.



Work on a final project for Intro to Engineering & Design — soldering can be tedious work when you are on a deadline!

Scholarships

*Information about applying for these scholarships can be found at **emu.edu/dept-scholarships***

Engineering Scholarships Available

Students who declare a major in engineering—concentrating in mechanical or computer engineering—may earn up to $3,000 in addition to need and merit-based awards.

$650,000 Grant for STEM Scholarships

EMU is happy to announce new National Science Foundation funded scholarships available for our STEM majors: Biochemistry, Biology, Chemistry, Computer Science, Engineering, Environmental Sustainability (science track), or Mathematics. This program is called STEM Scholars Engaging in Local Problems (or SSELP). There are three scholarships worth $10,000 a year, and four worth $5,000 a year, available for students entering in the fall of 2018, and again in the fall of 2019. SSELP scholars will have early and consistent inquiry and problem based learning; they will complete research and/or an internship as part of their studies. The grant provides additional funds to send students to conferences to present their work. Students will take a new Science and Engineering Practicum course, designed and co-taught by professors **Daniel King** (Asst. Prof. of Physics) and **Tara Kishbaugh** (Prof. of Chemistry). In this class, they will interact with STEM professionals across different careers and engage in intentional career counseling and skill building. ***If as an alumni, you are interested***

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in mentoring students by talking about your career path, please contact us at SSELP@emu.edu. During their second year, students will complete a project addressing a problem that they identify. As they progress through their studies, they will mentor other students.

Problem Corner

Congratulations to **Denton Yoder** & **Leon Miller** for correctly solving the summer problem by calculating the dog's roaming area to be about 68.2 feet.

New Problem:

The new problem was posed by one of EMU's math majors: You have two porch lights that are both off. Each hour you randomly pick one of them and flip its switch. What is the average number of hours it will take until both lights are on? Bonus: Solve the same problem if you have three lights on your porch.

Send your solution to Owen Byer at byer@emu.edu

Do you know a prospective student who is interested in studying math at EMU?

Contact Owen Byer at byer@emu.edu for information about applying for the Brenneman-Longacher Endowed Math Scholarship.

Recipients receive $1,250/year for four academic years, as long as they continue in the math major.

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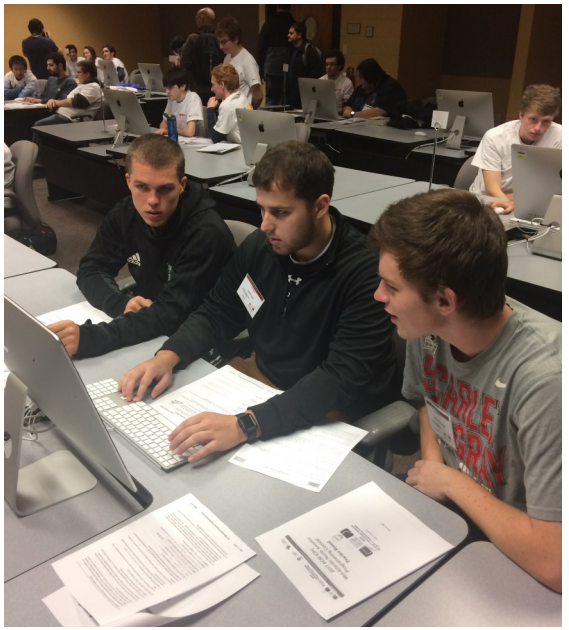
Mathematical Sciences Department
Eastern Mennonite University
www.emu.edu/math Winter 2018

Programmers Compete



For the second year in a row, EMU fielded a team of three top computer science majors for the largest computer science programming contest in the world: the ACM's International Collegiate Programming Contest. EMU's assigned test site was at Virginia Tech, the central site for the 170 teams in the Mid-Atlantic region. The team, O(EMU), comprising **David Nester**, **Austin Huff**, and **Cameron Byer**, were all competing in the contest for their first time. Each team had five hours to solve as many of the eight problems as they could.

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