

### ECE 2023 FALL NEWSLETTER

### click here to check out the BU ECE 2022-23 IMPACT REPORT

### Open Faculty Positions <<<<<<





**Efficiently Secure Computing:** In Part One of our series highlighting BU ECE's contributions to research and education under the umbrella of the CHIPS and Science Act of 2022, <u>Professor Ajay Joshi</u> and his research group are working to address a cloud computing quandary: how can we improve computational efficiency *without* sacrificing security?

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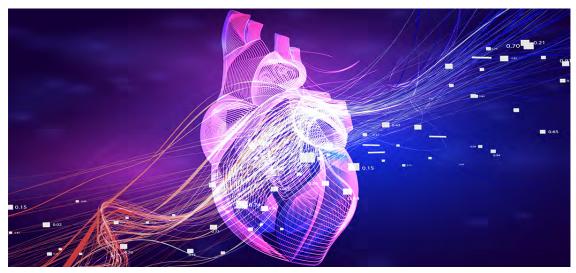


**Garbage to (Bio) Gold:** Professors <u>Rabia Yazicigil</u> and <u>Douglas Densmore</u> are contributing their respective specialties to the multi-disciplinary, multi-sector BioMADE consortium of researchers, brought together under a \$3M industry grant to develop smarter, more efficient bioreactors for converting waste to useful products.

#### Learn More

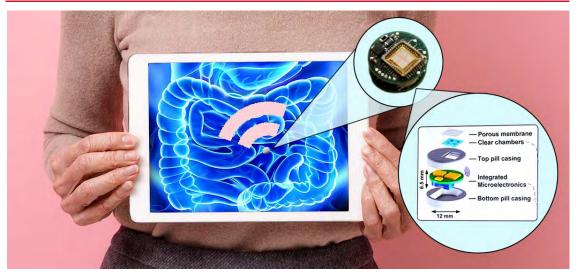


## Engineering health



Al to Ease High Blood Pressure: "Our data-driven model is not just predicting an outcome, it is suggesting the most appropriate medication to use for each patient," according to <u>Professor Ioannis Paschalidis</u>, who is collaborating with physicians and fellow data scientists on the project.

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**The Call is Coming from Inside:** A smart pill no bigger than a blueberry can withstand the stomach's acidic fluids, detect signs of gastrointestinal trouble, and send warning signals to an ordinary smart phone, according to the results <u>Professor</u> <u>Rabia Yazicigil</u> and colleagues shared in *Nature*.

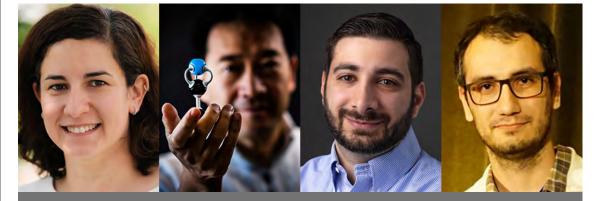




**Ultrafast Lasers Can Speed Up Biological Research:** <u>Professor Michelle Sander</u> and her lab group at Boston University are seeking out new ways to build ultrafast lasers – lasers that emit such short-lasting pulses of light that their duration is difficult to fathom.

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# **ACHIEVEIMENTS**



#### • Stepping Up:

Professor Ayse Coskun has been appointed as the College of Engineering's Interim Associate Dean for Research and Faculty Development.

#### Innovator of the Year:

Professor Ji-Xin Cheng was honored for his accomplishments as a prolific trailblazer who has excelled at bringing his imaging breakthroughs from research to industry.

#### Industrial Impact:

Unchained Labs recently acquired NanoView, a start-up founded by BU ECE alum George Daaboul (ENG'09, 13) around technology he originally developed as a student in Professor Selim Ünlü's lab.

#### • A "Fuzzy" Method, Clarified:

BU ECE alum Sadullah Canakci (PhD'22) and co-authors, including former advisors Professors Ajay Joshi and Manuel Egele, received a Best Paper Award at IEEE HOST 2023 for their work on hardware fuzzing.

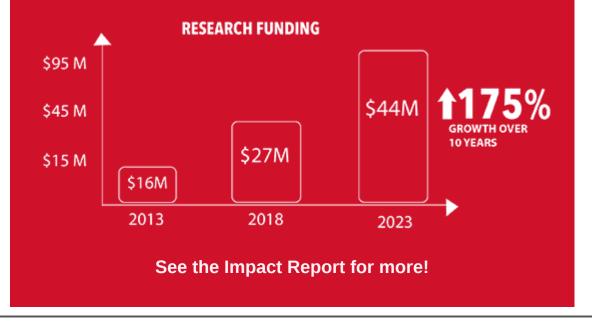
#### **Distinguished Faculty**

4 National Academy Members

3 Current/Former IEEE Society Presidents

**50** Society Fellows

30 NSF, DOE and DOD Early Career Awards
40 Average H-Index per Faculty
8,500 Average Number of Citations per Faculty
51 Tenure-Track Faculty





**Upcoming BU ECE Events**