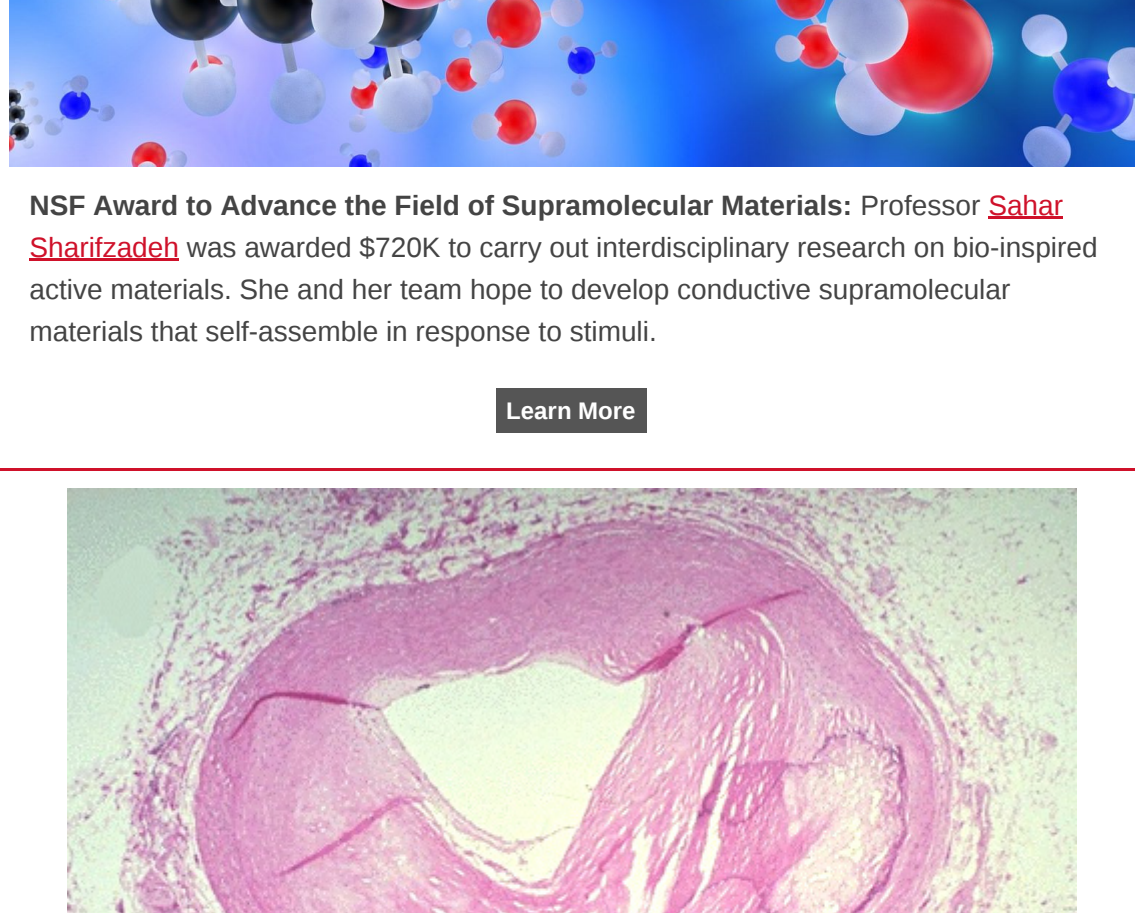
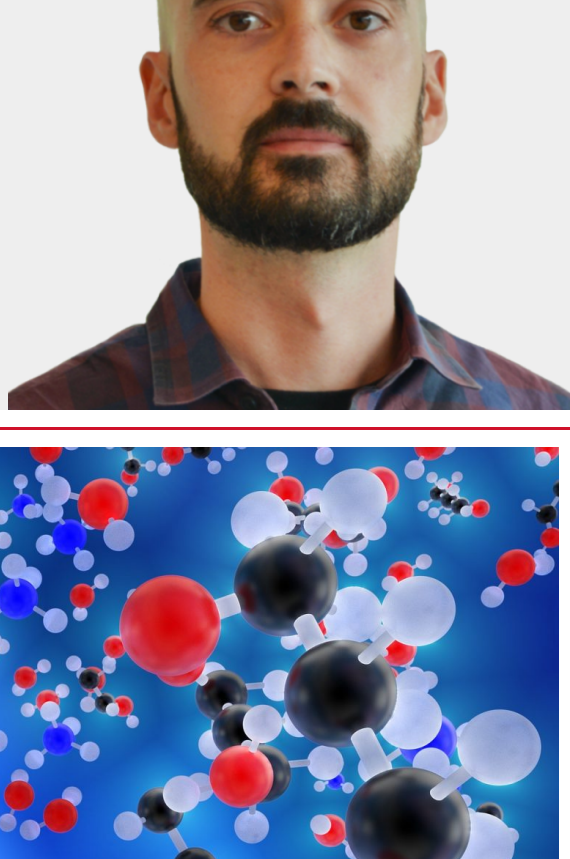


# SPRING 2021 NEWSLETTER

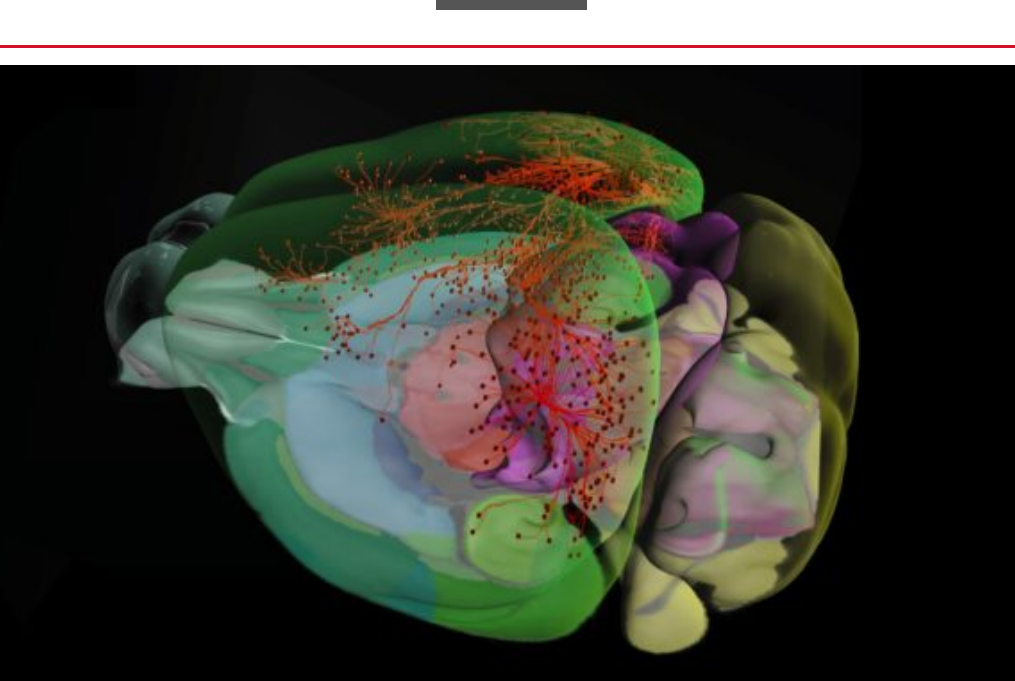
Assistant Professor [Francesco Orabona](#) receives an NSF CAREER Award to develop more automated machine learning algorithms.

[Read more here!](#)



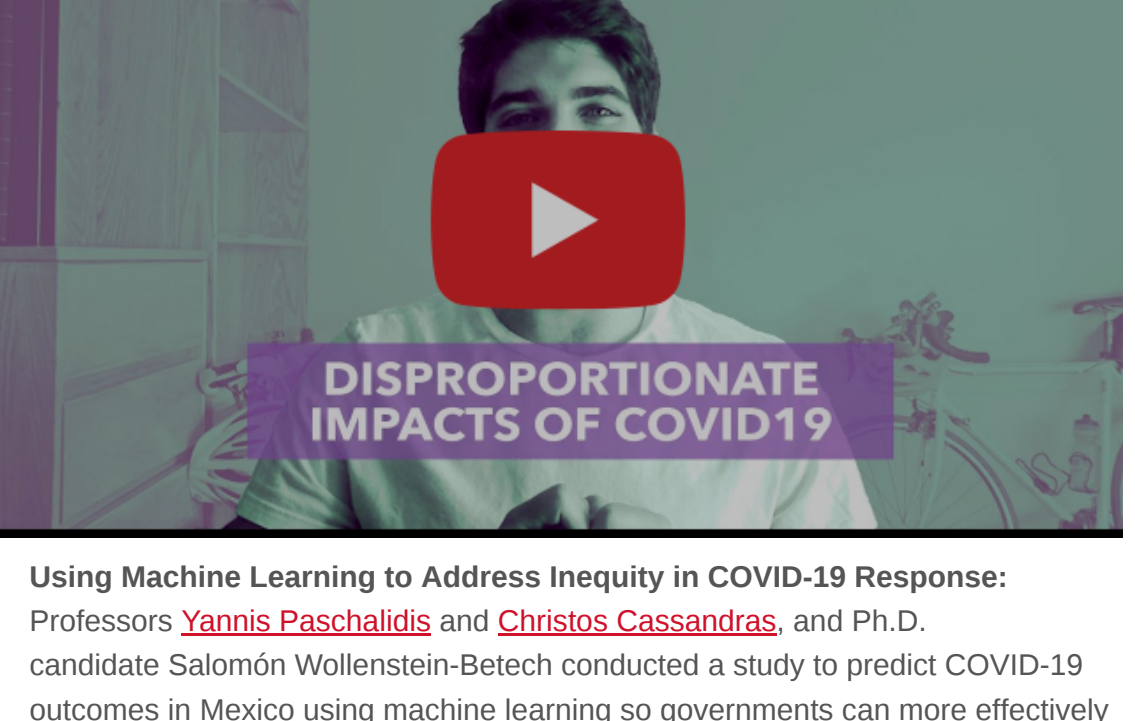
NSF Award to Advance the Field of Supramolecular Materials: Professor [Sahar Sharifzadeh](#) was awarded \$720K to carry out interdisciplinary research on bio-inspired active materials. She and her team hope to develop conductive supramolecular materials that self-assemble in response to stimuli.

[Learn More](#)



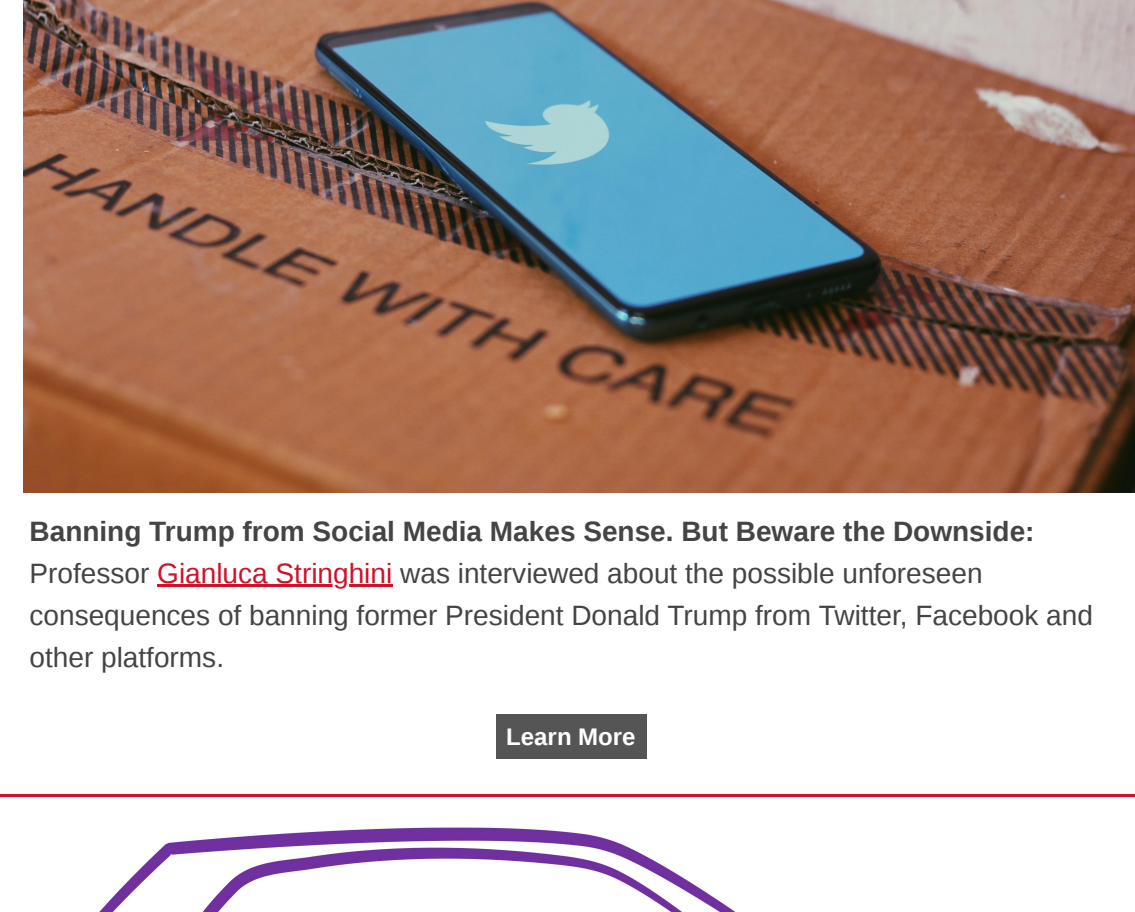
Groundbreaking Biomedical Research: Professor [Ji-Xin Cheng](#) was awarded \$2.4M by NIH to develop in-vivo sensing of vulnerable plaque by an all-optical intravascular ultrasound/photoacoustic catheter. This research can potentially transform the diagnosis of cardiovascular diseases.

[Learn More](#)



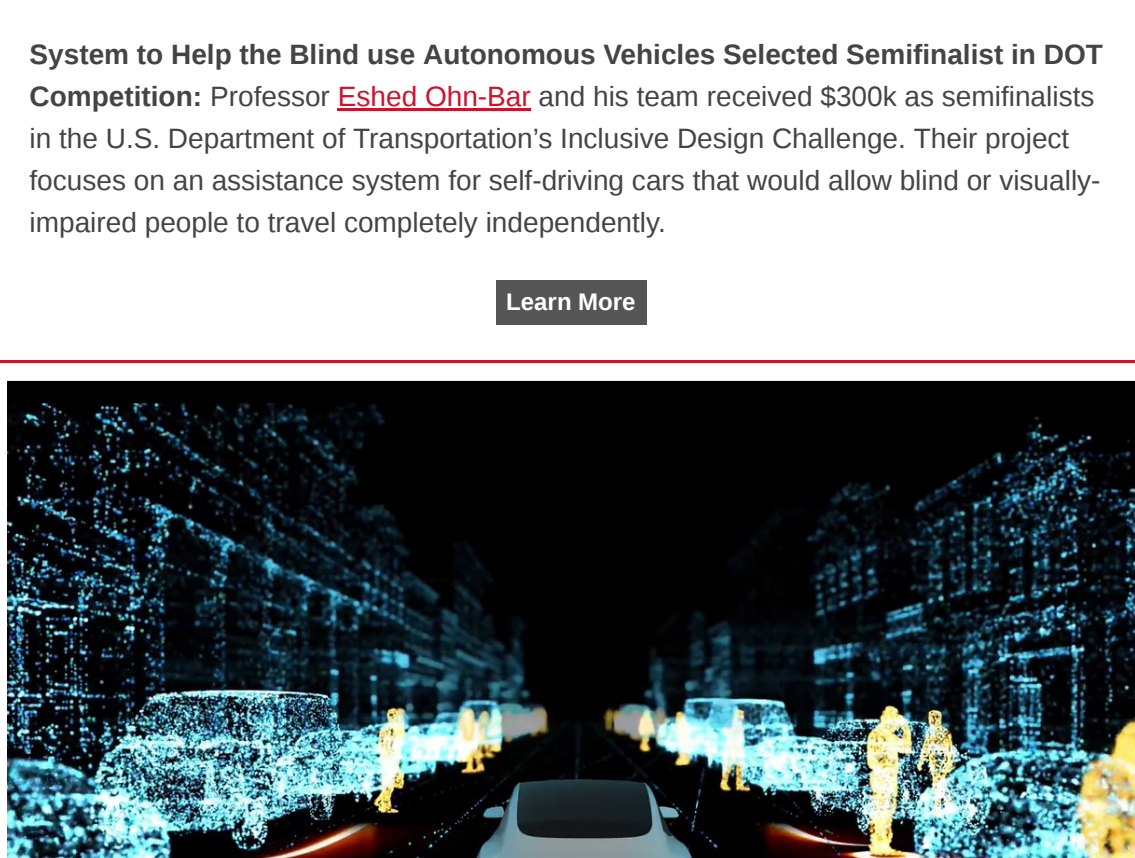
New Device Makes it Easier to Read Brains: Professor [Lei Tian](#) and collaborators from Biomedical Engineering and Biology have developed a Computational Miniature Mesoscope (CM2) that can be attached to a mouse while it freely moves around to detect full cortex-wide brain functions during activity.

[Learn More](#)



Using Machine Learning to Address Inequity in COVID-19 Response: Professors [Yannis Paschalidis](#) and [Christos Cassandras](#), and Ph.D. candidate Salomón Wollenstein-Betech conducted a study to predict COVID-19 outcomes in Mexico using machine learning so governments can more effectively allocate resources.

[Learn More](#)



Banning Trump from Social Media Makes Sense. But Beware the Downside: Professor [Gianluca Stringhini](#) was interviewed about the possible unforeseen consequences of banning former President Donald Trump from Twitter, Facebook and other platforms.

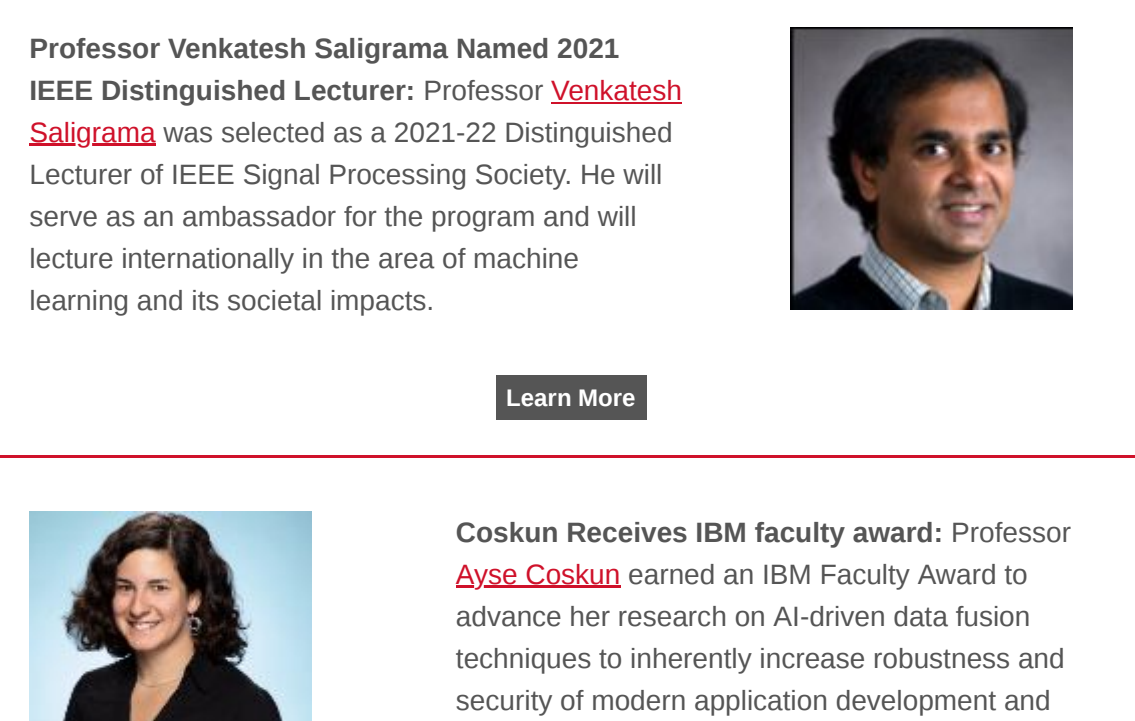
[Learn More](#)



**MOBILITY • ASSISTANCE • SCALE**

System to Help the Blind use Autonomous Vehicles Selected Semifinalist in DOT Competition: Professor [Eshed Ohn-Bar](#) and his team received \$300k as semifinalists in the U.S. Department of Transportation's Inclusive Design Challenge. Their project focuses on an assistance system for self-driving cars that would allow blind or visually-impaired people to travel completely independently.

[Learn More](#)

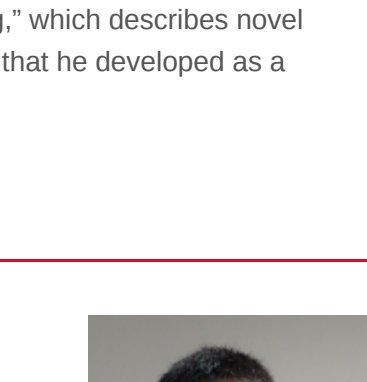


New Frontiers in Self-driving Cars: Professor [Vivek Goyal](#) and his team have been advancing the capabilities of an emerging technology called single-photon lidar to make self-driving cars' imaging abilities more accurate and safer.

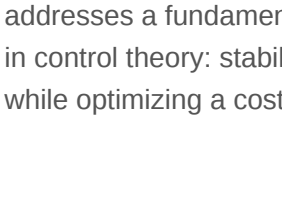
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## FACULTY HONORS

**Moustakas Elected OSA Fellow:** Professor [Theodore Moustakas](#) was elected a Fellow Member of the Optical Society. He is recognized for his "seminal and sustained contributions to optical materials and devices, particularly in nitride semiconductors."



[Learn More](#)



**Densmore Elected AIMBE Fellow:** Professor [Douglas Densmore](#) was elected to the 2021 American Institute for Medical and Biological Engineering College of Fellows. His research expertise lies in electrical engineering. His research he uses to design living systems intended for bio-sensing and bio-remediation applications.

[Learn More](#)

**Professor Venkatesh Saligrama Named 2021 IEEE Distinguished Lecturer:** Professor [Venkatesh Saligrama](#) was selected as a 2021-22 Distinguished Lecturer of IEEE Signal Processing Society. He will serve as an ambassador for the program and will lecture internationally in the area of machine learning and its societal impacts.



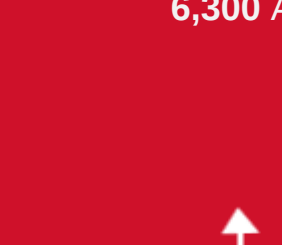
[Learn More](#)



**Coskun Receives IBM faculty award:** Professor [Ayse Coskun](#) earned an IBM Faculty Award to advance her research on AI-driven data fusion techniques to inherently increase robustness and security of modern application development and deployment in the cloud, also known as DevSecOps.

[Learn More](#)

## STUDENT ACHIEVEMENTS



**Joshua Rapp Wins the 2020 IEEE SPS Young Author Best Paper Award:** ECE recent alumnus Joshua Rapp has won the 2020 IEEE Signal Processing Society Young Author Best Paper Award for a paper entitled "A Few Photons Among Many: Unmixing Signal and Noise for Photon-Efficient Active Imaging," which describes novel computational imaging that he developed as a student at BU.

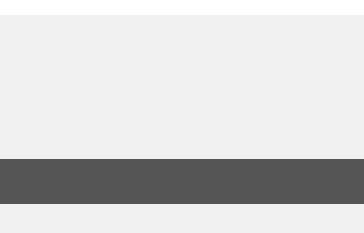
[Learn More](#)



**Wei Xiao Wins 2020 IEEE CDC Outstanding Student Paper Award:** PhD candidate Wei Xiao won a 2020 IEEE Conference on Decisions and Control entitled "Feasibility-Guided Learning for his paper entitled "Feasibility-Guided Learning for Constrained Optimal Control Problems". The paper addresses a fundamental and challenging problem in control theory: stabilizing a dynamical system while optimizing a cost and satisfying constraints.

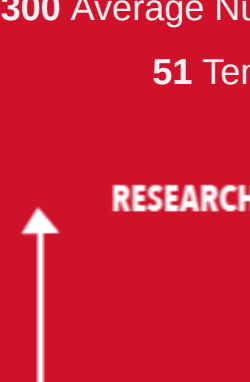


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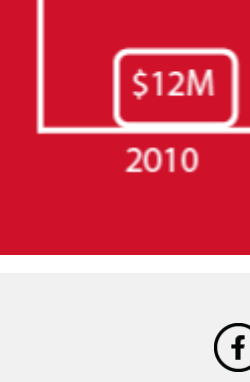


**Fall 2020 ECE Grad Students' Successes:** PhD students in the Electrical and Computer Engineering Department have had a successful year despite many challenges, from winning a scholarship to attend the Grace Hopper Conference and securing a patent to winning best-paper and outstanding innovation awards.

[Learn More](#)



2021 U.S. NEWS AND WORLD REPORT PROGRAM RANKINGS



30% OF ECE BACHELOR'S DEGREES AT BU WERE AWARDED TO WOMEN IN 2019/20 COMPARED TO NATIONAL AVERAGE OF 15%

Most recent data from ASEE

## Distinguished Faculty

4 National Academy Members

3 Current/Former IEEE Society Presidents

44 Society Fellows

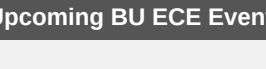
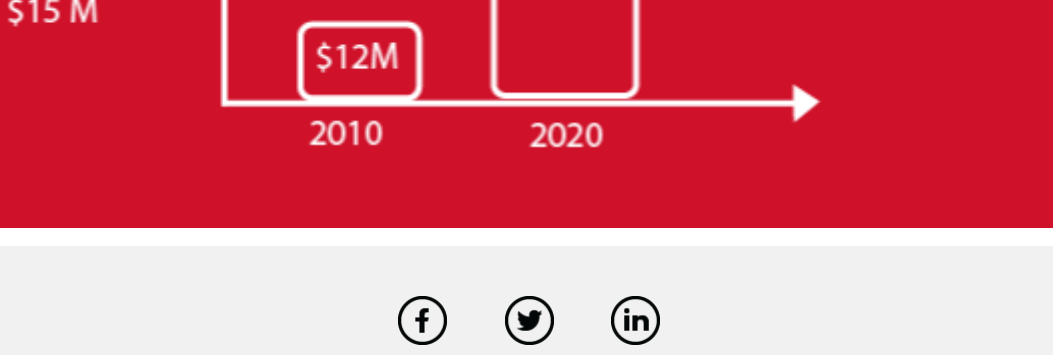
29 NSF, DOE and DOD Early Career Awards

34 Average H-Index per Faculty

6,300 Average Number of Citations per Faculty

51 Tenure-Track Faculty

## RESEARCH FUNDING



Upcoming BU ECE Events