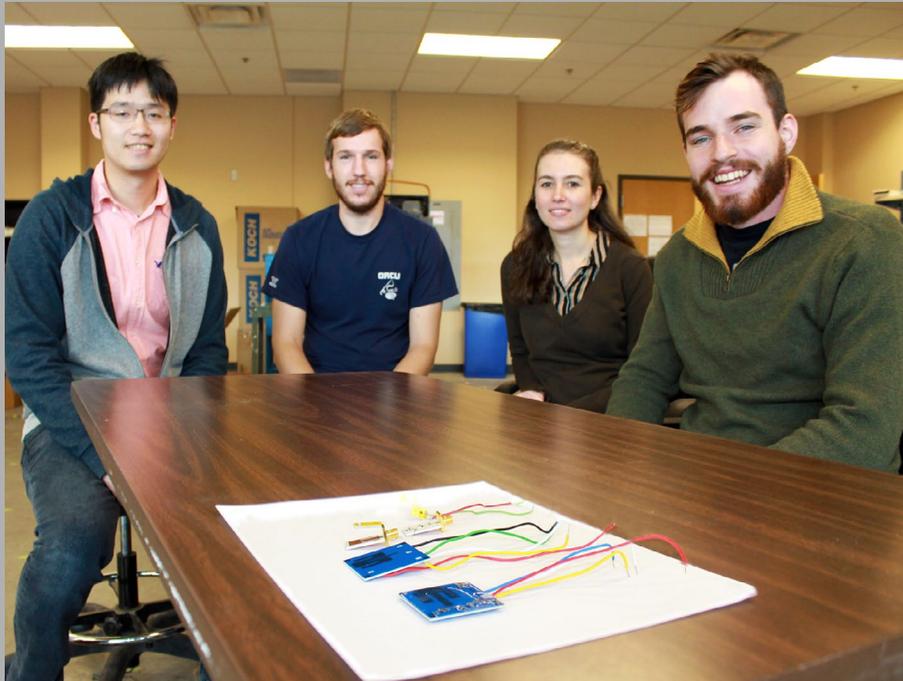# ECE Weekly

The Ohio State University | **Department of Electrical & Computer Engineering**

Wireless Neural Implant Tech Wins NSF Support

The National Science Foundation (NSF) increased its support to advance wireless neural implant technology at The Ohio State University. If fully developed, the funding could lead to unobtrusive and real-time diagnosis and treatment for such neurological disorders as Alzheimer's disease, traumatic brain injury, tremors, Parkinson's disease, addictions, epilepsy and others.

Ohio State's research is managed by ECE Assistant Professor **Asimina Kiourti** (PI), Assistant Professor **Vibhor Krishna** (co-PI, Department of Neurological Surgery), and Professor **Zheng Joyce Wang** (co-PI, School of Communication). Kiourti's research team also includes students **Wei-Chuan Chen**, **Brock DeLong** and **Jack Blauert**. Learn more: **http://go.osu.edu/nsf-implant**

Ohio State InSights: *Emre Koksal*

SCIENCE AND TECHNOLOGY

Defensive driving

ECE faculty member **Emre Koksal** was featured in a recent Ohio State InSights article, highlighting his work in autonomous vehice cybersecurity. More: **http://go.osu.edu/koksal-insight**

Koksal was also involved in a research collaboration between Ohio State and the Transportation Research Center (TRC), which fueled discussions on autonomous vehicles on Capitol Hill this week. He joined **Joanna Pinkerton**, COO of TRC, in Washington on Oct. 3 to brief members of congress. Learn more: **http://go.osu.edu/koksal-trc**

Newest EE/ECE Alumni Society Student Reps

In October, the Ohio State EE/ECE Alumni Society welcomed its newest student representatives, **Meghan Booker**, president of the Undergraduate IEEE organization, as well as **Lucas Newton**, president of the Ohio State Eta Kappa Nu (HKN) chapter.

Learn more about both students: **http://go.osu.edu/eeecereps**

ECE Startup GhostWave featured in WIRED

THE TOP 10 STARTUPS RACING TO REMAKE THE AUTO INDUSTRY

ECE-associated startup, **GhostWave**, received some impressive press in a recent WIRE article featuring the "Top 10 Startups Racing to Remake the Auto Industry." The team behind GhostWave involves retired ECE professor **Eric Walton** and currrent ECE professor **Wladimiro Villarroel**, who teamed up with an Ohio State business alumnus. Find the article here: **http://go.osu.edu/gwwired**

ECE Events Roundup...

ESL Holds Successful 75th Anniversary

Congratulations to the Electro-Science Lab at Ohio State for 75 years of service.

Find a recap of the event here: **http://go.osu.edu/esl75wrap**

2017 Alumni Tailgate

Ideal weather was the backdrop for the 2017 College of Engineering alumni tailgate on Oct. 7. Find pictures of ECE alumni from the day here:

http://go.osu.edu/17-tailgate

CHPPE Open House

The Center for High Performance Power Electronics, CHPPE, held its annual Open House Oct. 6. We grabbed some photos from the tours that day. Find them here: **http://go.osu.edu/chppe17pix**

ECE 'hovering' antenna research hits media

The research work of ECE faculty member **Nima Ghalichechian** received wide exposure this month, after being featured in numerous tech and industry magazines for his work in "hovering" antenna research. The work could boost cellphone signals and beam images straight to televisions by creating antennas that are suspended by a few small posts and are almost entirely floating. The floating allows for the antenna to send a stronger signal to users.

Find one of these stories in The Lantern: **http://go.osu.edu/lanternnima**

ECE Collaboration Assists Ohio State Drone Speed Record

The Ohio State University Aerospace Research Center set a world speed record for an unmanned aerial vehicle (UAV) of any size, pending verification.
Research leaders said, integral to the mission, was the involvement and advice from faculty and researchers in Ohio State's Department of Electrical and Computer Engineering and ElectroScience Laboratory (ESL).

Learn more about the collaboration:
http://go.osu.edu/ece-drone

Alumni Spotlight: **Marilyn Carpenter**

From her role at Emerson Power & Water Solutions, Ohio State Electrical and Computer Engineering alumna **Marilyn Carpenter** ('79) took time for a Q&A session. She offers some insight into her career, advice to new students and discusses the challenges she faced as a female engineer entering the workforce in the 1970s.
Story: **http://go.osu.edu/ece-carpenter**

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