Related Faculty:
Alex Q. Huang

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Prof. Alex Q. Huang, professor in the Department of Electrical and Computer Engineering, has been selected as a fellow in the prestigious National Academy of Inventors (NAI) for 2018. He was joined this year by Prof. Hal Alper, professor in the McKetta Department of Chemical Engineering. They are the latest faculty members from The University of Texas at Austin to receive this honor, joining 11 previous inductees from the university.

Prof. Huang was chosen for demonstrating “a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development and welfare of society.” He will be officially inducted in a ceremony in Houston on April 11, 2019.

Prof. Huang joins fellow Texas ECE faculty John Goodenough, Robert Heath, and Robert Metcalfe as Fellows of the NAI. This marks the second year in a row a Texas ECE faculty member has been inducted into the NAI. Prof. Robert Heath was inducted in 2017.

Being inducted into the NAI and joining its community of 4,000 accomplished inventors takes more than just innovative thinking. Founded in 2010, the NAI aims to recognize and encourage inventors with patents issued from the U.S. Patent and Trademark Office with an overall emphasis on innovation that clearly benefits society.

Huang, a world-renowned expert in power semiconductor device technology, power electronics, smart grids and renewable energy systems, recently developed a way to integrate solar power generation and storage into one single system, effectively reducing the cost by 50 percent. He is widely recognized for his contributions to the development of the Energy Internet concept and solid-state, transformer-based energy router technology.

Huang has published more than 500 papers in journals and conferences and holds more
than 20 U.S. patents for his inventions, including several based on the Emitter-Turn-Off Thyristor (ETO) technology. During an academic career spanning two decades, Huang has generated more than $200 million in R&D funding.

For Huang, it is a culture of innovation that has helped foster his creativity.

?There isn?t any single lightbulb moment I could point to as the reason I decided to become an inventor,? he said. ?It is a process of thinking propelled by a research setting where innovation is encouraged. I am fortunate to be doing my research at UT Austin. I am surrounded by some of the most inventive minds in the world.?

?As a scientist or engineer, it is quite natural to be an inventor,? Huang said. ?But most of the time your initial ideas have either already been invented or they are flawed in some way. That?s why inventors must have tenacity. You have to keep trying until you get it right.?