Dr. Shimeng Yu Visits IEEE SSCS USTC Student Chapter

The IEEE Solid-State Circuits Society (SSCS) University of Science and Technology of China (USTC) Student Branch Chapter organized a talk on 26 March 2019 by Dr. Shimeng Yu, associate professor, Georgia Institute of Technology, Atlanta. The lecture was held at the Micro/Nano Electronic System Integration Center, School of Microelectronics, and more than 30 people attended.

Yu briefly discussed recent progress in oxide-based synaptic and neuronal devices in neuromorphic hardware, such as machine-/deep-learning accelerators. He gave an overview of nonvolatile memory and synaptic device candidates, resistive random-access memory synaptic device engineering, analog-to-digital bottleneck, oscillation neuron devices, and ferroelectric field-effect transistor-based synaptic cell design. He also illustrated some of the recent research his group is working on, for example, a doped hafnium(IV) oxide ferroelectric transistor-based synaptic cell design that overcomes challenges to achieve high accuracy for online training.

After the talk, an interactive session was held during which Yu answered questions and shared his experiences.

—Xu Yan and Muhammad Hunain Memon
Cochairs,
SSCS USTC Student Chapter

—Fujiang Lin and Patrick Yue
Advisors,
SSCS USTC Student Chapter

Digital Object Identifier 10.1109/MSSC.2019.2920564
Date of publication: 27 August 2019

Dr. Yu presenting his lecture "Neuro-Inspired Computing With Synaptic and Neuronal Devices."

Chapter members listening intently to Dr. Yu's lecture.

SSCS USTC Chapter members with Dr. Yu (center).