



## 2019 年海外教师主导原味课程

报告人： Dr. Naoto Fujishima, the Chief Expert of Development Division in the Electronic Devices Business Group in Fuji Electric

报告时间： 9:00am to 12:00am on June 25th, 2019

报告地点： 电机楼 408

报告内容： Process Technologies for Power Devices (半导体工艺制备技术系列讲座之一)

### Abstract

This lecture will focus on process technologies which is used for providing power semiconductor devices. As introduction, power electronics supported by power devices are introduced as the key technologies for realizing sustainable societies. Then feature of power devices is compared with one for LSI, followed by overview of a general semiconductor process flow. Next, individual process modules, such as cleaning, oxidation, diffusion, ion implantation, deposition, planarization, and thinning a wafer are introduced by explaining their principles as well as configuration of equipment. Finally, technology trend and process flow of an IGBT are demonstrated, as an application example of the process technologies.

### Biography of Speaker

Dr. Naoto Fujishima received B.S. degree in Electrical Engineering from Hokkaido University, Japan, in 1985. After the graduation, he joined Fuji Electric and was in charge of R&D of power ICs and design for power devices. He received M.S. and Ph.D. degrees in 1998 and 2003, respectively, both from the Electrical and Computer Engineering at the University of Toronto, Canada. He is currently the Chief Expert of Development Division in the Electronic Devices Business Group in Fuji Electric. His current responsibilities include development of silicon and silicon carbide power devices.

Dr. Fujishima is a board member of PCIM-Asia and a technical committee member of ISPSD.

欢迎同学们参加!

电气学院