



ESD on Campus Program

ESD Sparks are Flying at Chulalongkorn University

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Sawatdee krab!

Chulalongkorn University was placed in the center of Bangkok, Thailand since it is the first university in Thailand. It was founded in the 1871, by Rama V, also known as King Chulalongkorn, who provided the concept of the university to provide education in the nation of Siam. As one enters the campus, there is a statue of the founder of the university, Rama V. On his side, stands his son Rama VI. King Vajiravudh, Rama VI, established the university in the name of his father. The buildings are mixed with Thai style temples, integrated with engineering buildings and laboratories. A mix of Thai traditions, and classical engineering university - reminding one of the old engineering buildings in the older US universities.

On this visit, the head of Electrical Engineering department, Professor Choopool Antarasena, provided the tour of the laboratories, as well the head of the Computer Engineering department, Prof. Sartid Vongpraphip. Professor Supavadee Aramvith from International Relations also assisted. In the visit, we had time to spend with the Dean of Chulalongkorn, Dr. Direk Lavansiri.

One of the early contributors to Chulalongkorn University was a graduate of MIT, Gewertz, who helped establish one of the first electrical laboratories. Today, there still stands a High Voltage Research Laboratory (HVRL). When one enters the building with the large spherical electrodes, ceramic insulators, to models of electrical power towers, one is reminded of the MIT High Voltage Research Laboratory (HVRL) built by Van Der Graaf on Massachusetts Avenue (aka Mass Ave) in Boston. When we were given a tour, Professor Komson Petcharaks warned us to cover our ears, as the sparks boomed through the building. ESD, yes... big time ESD events, 100 kilovolts to 1 million volt events.

The university has many other laboratories from semiconductors, electronics, to power applications. Professor Ekachai Leelarasmee provided an enthusiastic tour of his electrical projects. A tour was provided showing the applications from transition of mechanical power to solid state power meters, RF scanning power readers to many others. The applications were valuable to practical solutions that can be applied globally.

Professor Dr. Somsak Panyakeow gave a presentation on his latest work on quantum dots and his interest in nano-structures. As a whole, Chulalongkorn's projects varied from macroscopic systems studying ESD and humidity, to quantum dots.

Being an old and respected engineering institution, signs of respect are shown to the faculty with formal Thai "wai" as every door is entered. Outside the laboratory, piles of student's shoes sit by the door. In this traditional university, students remove their shoes outside the offices.

For the ESD on Campus lecture, it was attended by faculty and students interested in the future of ESD.

So, even in the Land of Smiles, ESD is an issue from 1 Million Volts in power technology, to 10 V HBM in Tunneling Magnetic Recording heads!

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