TCSUH Special Seminar

Texas Center for Superconductivity at the University of Houston

Professor Huey-Liang Hwang
President, Asia Pacific Academy of Materials
Director, Photovoltaic Research Center, Shanghai Jiao Tong University

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Establishment of Asian Photovoltaic Association and Gobi Desert PV Project

ABSTRACT

Asia Pacific Academy of Materials (APAM) has the mission to promote international collaboration on science, education, and industry in the Asia Pacific regions. Schemes for APAM promotion towards this aim will be presented. Also, the need and methodology for establishment of the Asian Photovoltaic Association and the Gobi Project are elaborated. Moreover, some successful examples from innovation to commercialization in Taiwan are highlighted. A recent PV project to be launched to develop the Gobi Desert to solve Asian energy problems, particularly experimentation with high temperature superconductivity power transmission lines and feasibility for installation in the Gobi Desert as a turnpike for power transmission is addressed in this talk.

BIO

Huey-Liang Hwang (黃惠良) was born in Mainland China in 1946. He received the B.S.E. and M.S.E. degrees in Electrical Engineering from National Cheng Kung University, in 1969 and 1971, respectively. In 1976 he was awarded the Ph.D degree in Solar Cells from Brown University. Since then he joined the faculty of the Electrical Engineering Department of National Tsing Hua University. He was nominated as the 1st Y.Z. Hsu Scientific Chair (the 1st Chair Professor of Nano Science in Taiwan) since 2002, and Tsing Hua Chair Professor of Electrical Engineering and Computer Science since 2003. Since February 2012, he was appointed as Chair Professor and Director of the Photovoltaic Research Center of Shanghai Jiao Tong University. His research areas include giant area microelectronics (solar cells, displays, medical imaging devices, etc.) and ULSI. He was a pioneering researcher in ternary chalcopyrite semiconductors and he has published more than 450 papers in scientific journals and conference proceedings. He was the Conference Chairman of the first International Symposium on Electronic Devices and Materials (1980), Non-stoichiometry in Semiconductors (1991), 7th International Conference on Solid Films and Surfaces (1994), and 12th International Conference on Ternary and Multinary Compounds (2000).

Dr. Hwang has been elected as a Fellow of IEEE (1994), National Science Council of Republic of China (1996), and American Vacuum Society (1998). Dr. Hwang was elected Academician of Asia Pacific Academy of Materials (APAM) in 1998, and Vice President of APAM in 2000. He was elected President of APAM in 2011.

Dr. Hwang was the founder of the Electrical Engineering Departments of National Tsing Hua University and National Chung Hsing University, and Tze-chiang Foundation of Science and Technology (the most renowned semiconductor engineers training center in Taiwan). He has also founded four companies in the Hsin-chu Science Park: Sinonar Corp., the 1st amorphous Si solar cell manufacturer in Taiwan; Cando Corp., the world's ranking manufacturer in Color Filter, and a major supplier of touch panels for the iPhone and iPad; Integrated Digital Technology Inc., 1st in cell touch panel invention and commercialization; and Lofsolar, the world's 1st manufacturer of color solar cells and modules. Dr. Hwang has been a Visiting Professor at University of Stuttgart, University of Tokyo, Danish Technical University, Stanford University, and Hong Kong University of Science and Technology.

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