

Solar Cells – Physics, Technology and Application

GUEST SPEAKER

Prof Joachim Luther

Solar Energy Research Institute of Singapore

When: **18th May 2010, 3.00 p.m. to 4.00 p.m.**

Where: **Institute of Microelectronics, Singapore**

11 Science Park Road Singapore Science Park II Singapore 117685

Abstract

A future global sustainable energy system will be based to a large extent on solar energy. In the area of electricity supply, solar photovoltaic energy conversion will play a decisive role. This talk will give a compact overview on today's photovoltaic technologies: materials, PV cells and PV modules. Both wafer and thin-film technologies will be discussed. The focus will be on silicon based technologies. Particular emphasis will be on cost reductions of today's market technologies through higher energy conversion efficiency, lower material consumption, application of new materials and optimisation of manufacturing technologies.

Speaker Biography



Prof Joachim Luther obtained his Ph.D. in atomic physics at the University of Hanover in 1970. From 1974 to 1993 he taught at the University of Oldenburg as professor for applied physics. His main research topics were oceanographic laser remote sensing and the physics of renewable energy sources. In 1992 Prof Luther became a member of the board of directors of the International Solar Energy Society. He has been a member of numerous other international and German committees on solar energy research and technology transfer. From 1996 to 1998, he was a member of the "Energy Research" task force of Germany's Scientific Council. From 1997 to 2000, he was president of the EUREC Agency, which brings together 40 research institutes in the area of renewable from EU member states. From 1993 until 2006 he served as director of the Fraunhofer Institute for Solar Energy Systems and professor for solid state physics and solar energy at the University of Freiburg.

From 2000 to 2004, Prof Luther served as an adviser to the German government as a member of the "Scientific Council on the Global Environmental Change". Twice, he was spokesperson for the German Solar Research Association. In addition, he held several crucial positions within the Fraunhofer Society, Germany's largest organisation for applied research. Since 2008, Prof Luther is the Chief Executive Officer of the Solar Energy Research Institute of Singapore (SERIS), www.seris.sg. He became a member of the International Panel of Experts (IPE) on Sustainability of the Built Environment for the Building and Construction Authority of Singapore (BCA) in 2008. Prof Luther is also a member of the Steering Committee on Environmental Sustainability (CES) of Singapore's Housing and Development Board (HDB). Prof Luther won a number of awards, including the European Becquerel Prize "for outstanding merits in photovoltaics" and the German Environmental Award 2005 of the Deutsche Bundesstiftung Umwelt. In 2008 he was recognised by the TIME magazine as a "Hero of the Environment" and won in 2009 the "Christopher Weeks Achievement through Action Award" by the International Solar Energy Society (ISES).

Registration

Pre-registration is required. Closing date is 15th May 2010. To register, please log on:
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