

Department of Electrical and Computer Engineering

Title: « Status and Future of Photovoltaics »

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**Friday, 9th November 2012, 17:30 – 18:30
Room B108 at Council and Senate Building “ Anastasios G. Leventis”
at the University Campus**

Abstract: This presentation gives an overview on the status of photovoltaic technologies. At present, more than 70 GW of photovoltaic modules are installed world wide, most of it in Germany and Italy. Within the next few years, the total installed power will rapidly increase to 100 GW, with crystalline silicon being the dominating technology. In Germany, with an insolation of around 1000 kWh/m² per year, photovoltaic electricity is generated at a cost of 12 cent/kWh. At present, renewable energies have a share of 25 % in the total German electricity production. The insolation conditions of Cyprus with 2000 kWh/m² year would allow to generate photovoltaic electricity for 8 cent/kWh and below. Thus, when taking proper political means to introduce much more photovoltaics, Cyprus would have the chance not only to be the world champion in the use of solar thermal but also in photovoltaics.

Biography: Jürgen Werner studied physics at the University of Tübingen. In 1980 he joined the Max-Planck-Institute for Solid State Research in Stuttgart, to work on his PhD thesis on “grain boundaries in silicon”. From 1985 on, he spent two years in the USA at the IBM Thomas J. Watson Research Center, Yorktown Heights, New York and at Bell Laboratories, Murray Hill, New Jersey. In 1987 he returned to Stuttgart and accepted a position as a permanent scientist at the Max-Planck-Institute. From then on, he started experimental research at solar cells on thin film silicon as well as on the theory of upper theoretical limits of solar cells. In July 1996 he accepted the offer as the director of the Institute for photovoltaics at the University of Stuttgart. Since then, the institute has worked on concepts of 1st, 2nd and 3rd generation solar cells, modules and systems from crystalline silicon, amorphous silicon, Cu(In,Ga)Se₂ as well as on dye sensitized cells. Werner is an author and co-author of more than 300 publications and editor of 11 books. In addition to the Institute of Photovoltaics, he also runs a technology transfer company, the Steinbeis Center Photovoltaics in Stuttgart.



- * The work is funded by the Republic of Cyprus and the European Regional Development Fund through the project with protocol number *ANABAΘΜΙΣΗ/ΠΑΓΙΟ/0308/21* entitled “*Advanced Photovoltaics Research and Testing for Improved Technologies*”
- * CONERCON LTD supports the Photovoltaic Technology group of the University of Cyprus