


News

University of Nottingham to play key role in European solar energy technology project

Mon, 07/09/2012 - 2:57pm

✉ [Get today's electronic OEM design headlines and news - Sign up now!](#)

The University of Nottingham has joined a 10 million euro project to develop cost effective, solar generated electricity.

Photovoltaic (PV) electricity generation, converts solar radiation into electricity using solar cell panels. At the moment, producing silicon solar cells involves the use of complicated equipment such as vacuum processes, high temperatures and clean rooms, which makes the cost of energy generated in this way expensive.

Establishing a way to fabricate cost-effective high efficiency solar cells has long been of interest to both academics and industry. The Novel Nanostructured Thin/Thick Film Processing Group, which is based at the University, will be working on the project, entitled "SCALENANO" to develop cost-effective photovoltaic devices and modules based on advanced thin film technologies.

SCALENANO, which is part of the European FP-7 project, runs until 2015, and involves 13 European partners from research institutes, universities and companies, who all have an interest in the development of PV technologies.

Speaking about the project, Professor Kwang-Leong Choy, who is leading the research group at The University of Nottingham, said: "As the global supply of fossil fuels declines, the ability to generate sustainable energy will become absolutely vital. Generating electricity by converting solar radiation into electricity, potentially provides us with an unlimited source of energy.

"At the moment, the production of silicon solar cells involves complicated equipment, vacuum processes and clean rooms which makes the cost of PV cells very expensive. By working together with academic and industrial partners across Europe, we are confident that we will be able to find a way of fabricating cost-effective, high efficiency solar cells, which will benefit businesses and households across the world."

There are issues with the thin film solar cells currently commercialised at the moment, due to challenges with depositing the materials on the cells over a large area, and also the limited supply of Indium, which is used in the production process.

Professor Choy and her group at The University of Nottingham will build on groundbreaking achievements they have already made in the area of thin film solar cell technologies, and will focus both on solving the problem of uniformity and the application of alternatives to Indium to develop high performance and sustainable solar cells.

Speaking about the SCALENANO project, Mike Carr, The University of Nottingham's Director of Business Engagement, said: "The work that Professor Choy and her team are doing in photovoltaic technology is a great example of how innovations developed by researchers at The University of Nottingham can have potentially enormous benefits in industry. We always welcome the opportunity to meet with businesses who are interested in exploring ways in which we can work together to commercialise ideas and launch new products onto the market."

###

For more information about The University of Nottingham's services for business, visit www.nottingham.ac.uk/servicesforbusiness

Original release: http://www.eurekalert.org/pub_releases/2012-07/uon-uon070912.php