

9:30 am	Dr. Dave Irvine-Halliday (Founder & Chair, VLE India) NGO to FPSE – Why only the market place can truly light up the world
10:10 am	Dr Sarah McCormack, School of Engineering (TCD) Generating electricity in cloudy Irish conditions using luminescent materials
10:30 am	Prof. Balz Kamber, School of Natural Sciences (TCD) <i>Using UV laser light to explore for new raw and energy critical materials</i>
10:50 am	Thomas Davies, University of Exeter, UK How artificial light pollution influences wildlife and ecosystems
11:20 am – 11:40 Break	
11:40 am	Bob Ursem, Dept. Biotechnology, Botanic Garden (Delft UT) <i>Plant LED's, latest wafer technologies and bio UV systems with their future</i> <i>prospects</i>
12:20 pm	Prof. Anthony (Tony) Robinson, School of Engineering (TCD) Using cooking fires to generate electricity for charging LED lights and mobile phones in rural Malawi
12:40 pm	Prof. Laurence Gill, School of Engineering (TCD) Using sunlight to provide clean drinking water for rural communities in developing countries

Dr. Dave Irvine-Halliday, Prof. Emeritus Univ. of Calgary; Founder & Chair, VLE India

"NGO to FPSE – why only the market place can truly light up the world"

The presentation will explain the essential (but limited) part that NGO's have played in bringing the 'Gift of Light' to the developing world, and the appreciation that only the market place has the depth, breadth and sustainability to truly light up the world - in our lifetime.

Biography

Interests: LED Lighting, Renewable Energy, Developing World, Fiber Optic Sensors and Communications, and Biophotonics. Founder NGO: "Light Up The World (LUTW)" (1997); Founder FPSE: "Visionary Lighting & Energy (VLE) India" (2009).

Dr Sarah McCormack, School of Engineering (TCD)

"Generating electricity in cloudy Irish conditions using luminescent materials"

This talk will outline current photovoltaic generation in Ireland and describe solar energy research ongoing in Trinity College to optimise the concentration of diffuse solar energy using advanced luminescent solar concentrators.

Biography

Sarah McCormack is based in the Dept. of Civil, Structural and Environmental Engineering and her research interests include solar energy (both electrical generation and thermal) and thermal energy storage within the built environment.

Prof. Balz Kamber, School of Natural Sciences (TCD)

"Using UV laser light to explore for new raw and energy critical materials"

This talk will describe a new analytical method for visualising the concentration of trace elements in natural and engineered materials. It will also illustrate with examples how the method can be used to find the new resources required to produce energy more sustainably.

Biography

Balz Kamber is a Geochemist in Trinity College Dublin whose research centres around the natural and anthropogenically influenced cycles of elements in the Earth surface environment.

Thomas Davies, Environment and Sustainability Institute, University of Exeter, UK

How artificial light pollution influences wildlife and ecosystems

Biography

Thomas Davies is a community ecologist investigating the impact of artificial lighting on plants and invertebrates. His goal is to investigate how artificial lighting can alter structure and composition and to understand these processes. He is especially interested in how human activities alter the structure and functioning of ecosystems.

Bob Ursem, Dept. Biotechnology, Botanic Garden (Delft UT)

"Plant LED's, latest wafer technologies and bio UV systems with their future prospects"

Nursing plants in the complete dark or in more layers of culture will be the future of crop production. Wafers of 30 percent efficiency rate is not the limit of solar energy production. Plant based and bio inspired learning will go beyond these technology applied present limits.

Biography

Bob Ursem is a plant biologist and ecologist, inorganic chemist and physicist at Delft University of Technology whose research interest integrates his background in smart plant solutions and bioinspired learning with a focus on various novel applications in technology.

Prof. Anthony (Tony) Robinson, School of Engineering (TCD)

"Using cooking fires to generate electricity for charging LED lights and mobile phones in rural Malawi"

This talk will describe the development of an off-grid electrical generator that uses the heat from small domestic cook stoves to generate electricity that has been used for charging mobile phones and rechargeable LED lanterns in rural Malawi, Africa.

Biography

Tony Robinson is a Mechanical Engineer in Trinity College Dublin whose research is in the area of thermal science, including the development of novel energy devices for the developing world.

Prof. Laurence Gill, School of Engineering (TCD)

"Using sunlight to provide clean drinking water for rural communities in developing countries"

This talk will describe the development of a water treatment process which uses solar radiation, an abundant resource in most developing countries, to disinfect microbially contaminated water supplies as well as removing arsenic from groundwater sources.

Biography

Laurence Gill is an Environmental Engineer in Trinity College Dublin whose research interests include the fate and transport of both air and water-borne pollutants in the natural and built environment, as well as the development of passive treatment processes.