

Advanced nanomaterials for Solar cell applications

INCP Funded Research Presentations at HiB

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Solar energy is one of the choices to meet the projected electrical energy demand but the current production and installation costs of solar technologies based on Si and inorganic materials such as CdTe, GaAs make it hardly competitive on an energy market still dominated by cheap fossil fuels. In the last few decades, there has been a lot of research interest on various other materials and structures to produce low cost, flexible and easily manufactured Photo Voltaics (PV). In these presentations, we give a general insight into a variety of nanomaterial structures which can be used in solar cell applications. Special emphasis will be given to our research on Dye Sensitized Solar Cells. We will also explain how simulation studies could compliment the experimental studies on design of the new-generation of solar cells.

- 1. State of the art of Solar Cell Technology Research and future developments /Dhayalan Velauthapillai**
- 2. Natural Dye Sensitized Solar Cells based on TiO₂ / Akila Yuvapragasam**
- 3. A study on recombination effects in Dye Sensitized Solar Cells / Venkatraman Ramakrishnan**
- 4. Environmental friendly CZTS materials for future PV technology / Rajesh Govindaraj**
- 5. Computational simulation studies on nano materials for solar cell applications / Murugesan Rasakkannu**

