



SCDT – FlexE Centre Webinar Series

The webinars aim to bring together researchers in Flexible Electronics and allied areas from across India (and other countries) on a single platform to promote professional interaction.

Webinar by



Dr. Surya Prakash Singh

Department of Polymers and Functional Materials, CSIR – Indian Institute of Chemical Technology, Hyderabad

on
“Development of Light-Harvesters for Photonic Devices: From Structure to Function”

Date: 11th July, 2023

Time: 7:30 PM to 8:30 PM

Visit www.iitk.ac.in/scdt/webinars.html to access the zoom link to join the webinar.

The event will be chaired by

Dr. Ajay Perumal

Indian Institute of Science Education and Research, Berhampur

Abstract of the Webinar

Small organic molecules with suitable photophysical and electronic properties have attracted great attention towards Hi-tech applications based on photonic devices, such as dye sensitized solar cells, organic solar cells, emissive displays such as organic light emitting devices; electronic materials, such as organic semiconductors and security printing. Organic solar cells or organic photovoltaics are emerging as one of the promising technologies for renewable energy sources because of their potential low-cost fabrication, color-tunable feature, and mechanical flexibility. Many research activities have endeavoured to develop new organic materials and device configurations for improving the efficiency and practical durability of the devices. Our research groups are actively demonstrating development of new and stable organic molecules for various applications. In this event, I will be presenting our recent development on hole-transport materials for perovskite solar cells. The talk will start with a brief introduction of solar cells followed by industrial application and commercialization of dye molecules.

Information about the speaker

Dr. Surya Prakash Singh is Principal Scientist at Department of Polymers and Functional Materials, CSIR-Indian Institute of Chemical Technology, Hyderabad. He studied chemistry at the University of Allahabad, India, and obtained his Ph.D. degree in 2005. Later, he joined CSIR-Indian Institute of Chemical Technology, Hyderabad as Research associate. After working at Nagoya Institute of Technology, Japan, as a postdoctoral fellow (2006-2008), he joined Osaka University, in 2008 as an Assistant Professor. He worked as a researcher at Photovoltaic Materials Unit, National Institute for Materials Science (NIMS), Tsukuba, Japan (2010-2011). Recently he worked as BASE fellow at University of California, Santa Barbara with Prof. Bazan research group. He has been involved in design and synthesis of materials and molecules for photonic devices, development of new dyes for textiles and photoredox catalysis and published over 215 papers, reviews in peer-reviewed journals and patents, edited two books and author of one book chapter.