



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. Ganesh Datt Sharma

Department of Physics
LNM Institute of Information
Technology, Jaipur

on
“Organic solar cells based on
nonfullerene acceptors: Interface
engineering, energy loss analysis and
applications “

Date: 13th May 2025

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. Supravat Karak

Indian Institute of Technology Delhi

Abstract of the Webinar

In recent years, the field of organic solar cells (OSCs) has attracted widespread attention due to its potential for low-cost, high-power conversion efficiency (PCE), and flexibility.

It has witnessed significant progress, marked by the synthesis of novel donor and non-fullerene acceptor molecules, the OSCs processed in glove box attained PCEs approaching 20%.

We have fabricated OSCs completely processed under ambient conditions and obtained overall PCE in the range of 14-16 %.

In our laboratory, we are investigating the effect of different electron transport layers (ETLs) and hole transport layers (HTLs) on photovoltaic performance of OSCs, including semi-transparent, ternary systems and solar cells for indoor applications.

Since the energy loss in the OSCs also determine the overall PCE, we have also investigated the also energy loss analysis in the OSCs.

Information about the speaker

Ganesh D. Sharma has been working as a Senior Professor of Physics, Electronics Communication and Engineering at The LNM Institute of Information Technology, Jaipur (Raj.), India, since December 2015. He obtained his PhD degree from the Indian Institute of Technology, New Delhi in 1985 and then joined JNV University, Jodhpur (Raj.), India, as an Assistant Professor and subsequently as a Professor. He had worked as Dean (R &D), The LNMIIT, Jaipur (Jan 2016 - Dec 2023).

His major specializations are the development of organic solar cells and dye sensitized solar cells Professor Sharma had international research collaboration with Russia, France, Spain, China, Canada and Taiwan and national collaboration with different institutes of national importance as reflected from high research publications. His work has been acknowledged in many journal covers and research highlights. He has research collaboration with different research and universities in India and abroad.