





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



Professor Ravinder Dahiya Professor, Electronics & Nanoengineering University of Glasgow, UK

On "High-Performance Printed Electronics"

Date: 14th December, 2021 **Time**: 7:30 PM to 8:30 PM

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

The event will be chaired by **Prof. Devika Kataria** JK Lakshmipat University

Abstract of the Webinar

The miniaturization led advances in electronics over last more than 5 decades have revolutionized our lives through fast computing and communication. Recent advances in the field are propelled by rapidly growing applications such as wearable systems, electronic skin, flexible displays, m-health and interactive systems etc. These applications require high-performance electronics in flexible form-factors along with sensors, actuators and computing units embedded in soft materials or on unconventional substrates such as plastic and paper. This lecture will present some of the key technologies that are being explored to attain above features. The lecture will focus on high-performance flexible electronics by resource efficient printing. This includes technologies such as system in foil using ultra-thin chips (UTCs) technology and mid to long term solutions such as high-mobility semiconducting materials-based printed electronics. Various methods for printing nano to cm scale structures (e.g., transfer printing, contact printing and direct-roll transfer printing etc.) will also be presented along with devices and circuits developed from them. Finally, the lecture will discuss the application of these enabling technologies in robotics, wearables and healthcare.

Information about the speaker

Ravinder Dahiya is Professor of Electronics and Nanoengineering and EPSRC Research Fellow in the James Watt School of Engineering at University of Glasgow. His group (Bendable Electronics and Sensing Technologies (BEST)) conducts fundamental research in flexible printed electronics, electronic skin, and their application in robotics, prosthetics, and wearables. Prof. Dahiya has published more than 400 research articles, 8 books, and 15 submitted/granted patents and disclosures. He has given more than 160 invited/plenary talks and has led or contributed to many international projects.

Prof. Dahiya is President-Elect of IEEE Sensors Council. He is the Distinguished Lecturer of IEEE Sensors Council and the Founding Editor-in-Chief of IEEE Journal on Flexible Electronics (J-FLEX). He is also the founder of IEEE International Conference on Flexible Printable Sensors and Systems (FLEPS). Prof. Dahiya holds EPSRC Fellowship and received Marie Curie Fellowship and Japanese Monbusho Fellowship in past. He has received several awards, including Technical Achievement award from IEEE Sensors Councils, Young Investigator Award from Elsevier, and 11 best journal/conference paper awards as author/co-author. Prof. Dahiya is Fellow of IEEE.

Samtel Centre for Display Technologies (SCDT) and the National Centre for Flexible Electronics (FlexE Centre) of IIT Kanpur are dedicated to flexible electronics research and commercial deployment respectively For more information Contact: scdt@iitk.ac.in Phone: +91-512-2596622