Samtel Centre Talks

This talk series is an effort to share experiences on applied research from experts with the wider IIT Kanpur academic community



Dr. Deepak
Department of Material Science and Engineering, IIT Kanpur

On

"Challenges in developing commercial OLED display in academic environment: Experience from mid **Time**:2000s"

Date: 2nd November 2026
5:10 PM to 6:10 PM
Venue: Samtel Centre Seminar Room (SCDT-105)

The event will be chaired by
Dr. Rituraj, EE, IIT Kanpur

Abstract of the talk

With emergence of OLEDs in 2000s, scientists and engineers in academia lead the way in understanding OLEDs. How to make OLEDs, materials to use, methods of measurements, all these aspects lead to making "good" OLEDs. These OLEDs are a pixel in a display, so it may appear placing many pixels next to each other would do the job. This presentation would show, developing a display from OLEDs would require different engineering skills, not commonly practiced in academia.

Information about the speaker

Deepak obtained his B. Tech. degree in Metallurgical Engineering from the Indian Institute of Technology, Kanpur, in 1987. The graduate studies were completed in Materials Science and Engineering, with a M.S. in 1989 from the University of Florida, Gainesville, Florida (USA) and Ph. D. in 1993 from the University of California, Berkeley, California (USA). Following the graduate studies, he conducted a year-long Post-Doctoral work at the Argonne National Laboratory, Illinois (USA) and then another three years, beginning 1994, were spent in semiconductor device manufacturing and design at the Semiconductor Products Sector of Motorola Inc., Phoenix, Arizona (USA).

Deepak joined IIT Kanpur at the end of 1997 as a faculty member in the department of Materials Science and Engineering, where he worked until 2025. In between he took leave to work with Samtel Color Limited to indigenously develop passive matrix full color OLED displays, making the first OLED display in the country. In 2017 while working at the National Center for Flexible Electronics at IIT Kanpur, he founded a company which makes anti-counterfeiting product in name of Checko (https://checko.ai), based on his research. He holds more than 15 patents and more than 100 research papers to his name.

Research interests of Deepak are in large area flexible electronics. Specifically, he researches thin film transistors, ferroelectric memories and anti-counterfeiting on flexible substrates.