



## 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. Parasuraman Swaminathan

Professor

Department of Metallurgical and Materials  
Engineering

Indian Institute of Technology Madras

on

“Silver nanowires: What are they good  
for? Absolutely ‘everything’”

**Date:** 14<sup>th</sup> March, 2023

**Time:** 7:30 PM to 8:30 PM

Visit [www.iitk.ac.in/scdt/webinars.html](http://www.iitk.ac.in/scdt/webinars.html)  
to access the zoom link to join the  
webinar.

The event will be chaired by

#### Dr. Jeyaraman Sankar

Professor, Indian Institute of Science  
Education and Research, Bhopal

## Abstract of the Webinar

Development of flexible, transparent, conductive films is an integral part of flexible electronics. Among the various materials currently investigated, silver nanowires have emerged as one of the most promising candidates, combining the superior electrical conductivity and optical transparency of the percolation network. Nanowires can also be mixed with other materials to form composites, which vastly expands the application space. Patterned deposition of pure nanowires and composites can greatly aid in the fabrication of devices without additional processing steps. In this talk, I'll give an overview of our group's work on silver nanowires, starting with their synthesis, including composites, patterned deposition by direct writing, and applications in sensors, antennas, heaters, supercapacitors, and low-power displays.

## Information about the speaker

Dr. Parasuraman graduated from Indian Institute of Technology (IIT) Madras, with a Bachelors and Masters degree in Metallurgical and Materials Engineering. He completed his PhD from the University of Illinois at Urbana Champaign. He then worked as a postdoctoral fellow at Johns Hopkins University before joining Intel Corp as an Integration Engineer. He joined IIT Madras in 2013 and is currently a Professor and Head of the Electronic Materials and Thin Films Lab. His group works on printed electronics with a focus on flexible transparent electrodes, sensors, and low-power displays.