



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. Praveen C. Ramamurthy

Professor
Department of Materials Engineering
Indian Institute of Science

on
“Molecules To Devices: Solid-State
Sensors for Environmental Monitoring”

Date: 15th November, 2022

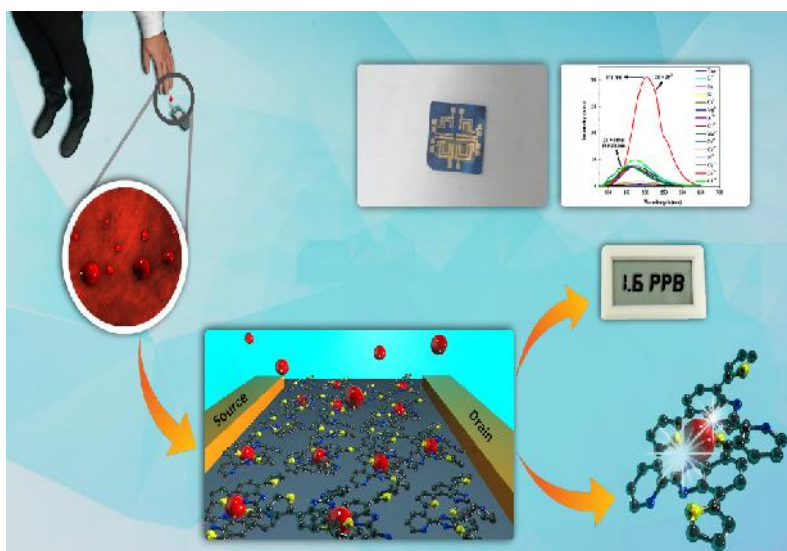
Time: 7:30 PM to 8:30 PM

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

The event will be chaired by
Dr. Sanjiv Sambandan
Indian Institute of Science, Bangalore

Abstract of the Webinar

An example of detection of various contaminants by using conjugated molecules that was carried out will be discussed. The design of the organic molecules is based on charge distribution, size, and geometric shape of analyte and receptor with strategically placed functional groups to interact only with a specific analyte. Various analytes, such as, lead, mercury, arsenic, chromium, zinc, nitrate, urea, toluene, formaldehyde, E-Coli and malonaldehyde were evaluated. These devices have helped in the fabrication of easy-to-use handheld solid-state sensors.



Information about the speaker

Professor Praveen C Ramamurthy received an M.Sc. degree in Polymer Science from the University of Mysore and a PhD from Clemson University in 2004. He worked as an R&D Engineer in Therm-O-Disc, Ohio, USA and as Research Scientist in Hoku Scientific, Honolulu, Hawaii, USA. He joined IISc in the year 2007 and is currently a Professor in the Department of Materials Engineering. His current research focuses on organic electronics and sensors for analytes like VOCs, heavy metal ions, nitrate, and biosensors. He has over 270 peer-reviewed papers published and 21 patents to his credit. At least 18 PhD, 20 Masters and 8 Undergrads have graduated from his group.