



## 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. Shweta Agarwala

School of Engineering and Applied  
Science, Ahmedabad University

on  
“Biodegradable, Soft and Sustainable  
materials: Cornerstone for Green  
Electronics and Bioelectronics”

**Date:** 11<sup>th</sup> November, 2025

**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. Shrutidhara Sarma**

Indian Institute of Technology Jodhpur

## Abstract of the Webinar

Electronics has revolutionized healthcare by enabling real-time monitoring devices, personalized therapies, and advanced diagnostics. However, the materials used have sustainability and biocompatibility concerns. Our research envisions a paradigm shift from rigid, synthetic devices to soft, self-adapting, and biodegradable systems designed to work in harmony with the human body and earth environment. We have developed bio-inspired materials that mirror the mechanical compliance and biochemical functionality of native tissues, optimizing electronic properties. The resulting material and device library supports diverse healthcare applications, including muscle atrophy prevention, eczema management, wound healing, drug delivery, and implantable biosensing. Aim is to create systems that not only heal but also biodegrade, thus healing without harm to the body or the planet.

## Information about the speaker

Dr. Shweta Agarwala is full Professor and Associate Dean at the School of Engineering and Applied Science at Ahmedabad University, India where she leads the pioneering Green Materials and Devices Laboratory. Her interdisciplinary research lies at the cross-roads of materials science, electronics engineering and healthcare technologies. She earned her PhD from the National University of Singapore and was a tenured professor at Aarhus University, Denmark. An active contributor to the scientific community, Shweta has authored over 75 peer-reviewed publications in prestigious journals, books, and conferences. She is co-founder of many ventures. She is a senior IEEE member and is dedicated to advancing gender diversity in engineering.