



## 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. Parikshit Sahatiya**

Department of Electrical and Electronics  
Engineering  
BITS Pilani Hyderabad Campus

on  
“2D Materials Based Flexible and  
Wearable Devices”

**Date:** 14<sup>th</sup> October, 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 Biswajit Saha**  
Indian Institute of Technology  
Gandhinagar

### Abstract of the Webinar

Conventional electronic devices fabricated on rigid crystalline semiconductors wafers have evolved with the motivation to miniaturize thereby realizing faster, smaller and densely integrated devices. A parallel research that is rapidly evolving for future electronics is to integrate the property of flexibility and stretchability of substrates to develop human friendly devices. The talk will deal with the different accepts of fabrication of flexible devices and their challenges. Also, a systematic way of determining the correct choice of materials for the use of physical sensors would be discussed. The later part of the talk will deal with the development of various flexible and wearable devices fabricated and prototyped in the lab some of which include the applications such as human motion monitoring, smart bed, artificial e-skin, gait detection and many other consumer electronic applications. Few of the concepts about decoupling stimuli and multimodal sensing would be discussed. The last part of the talk will deal with the development of 2D materials based flexible optoelectronic devices.

### Information about the speaker

Dr. Parikshit Sahatiya received his PhD degree from Indian Institute of Technology Hyderabad, India. Post PhD, he joined Redpine Signals Inc. as Research Scientist. Currently, he is an Associate Professor in the Department of Electrical and Electronics Engineering, BITS Pilani Hyderabad Campus. Dr. Sahatiya has published more than 120 Journal articles, 7 Indian patents, 2 US patents and have delivered talks nationally and internationally. Dr. Sahatiya's lab is currently funded by the Government (ANRF), DRDO, DST, ISRO and Industry grants and has a fully equipped lab for the development of various 2D materials-based devices. Dr. Sahatiya serves as an Associate Editor for many leading journals. Dr. Sahatiya has received Young Scientist and Medal Lecture at ICLED 2023, Singapore. Dr. Sahatiya is director and co-founder of “Sparshacare Innovations Pvt Ltd”. Dr. Sahatiya has served as a visiting Assistant Professor at Purdue University and Tufts University, USA. Dr. Sahatiya is a member of the Royal Society of Chemistry and also Materials Research Society.