



## 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.*

### Abstract of the Webinar

Epidermal electronics is new application field in which highly flexible devices can be transferred directly onto the skin and employed for the monitoring of different bio/physical parameters.

In order to achieve such goal, it is necessary to develop a device architecture that can match the mechanical properties of the human skin, but also a procedure that allows such devices to be transferred in a reliable way, while preserving their performances. After reviewing the state of the art of highly conformable electronics, I'll show the recent results we have achieved in the development of tattoo-like electronic systems. Such devices/circuits can be easily fabricated on sub-micrometer thick plastic substrates and transferred onto different kind of substrates (fabric, clothes, prosthetic limbs) and also directly onto the skin, and employed for a wide range of applications, from the realization of matrices of tactile transducers, to the development of tattooable electrodes for the recording of different bio-signals.

### Information about the speaker

Piero Cosseddu obtained his Ph.D. in Electronic and Computer Science Engineering in 2007 at the University of Cagliari. He is currently an Associate Professor in the Department of Electrical and Electronics Engineering of the University of Cagliari, Italy. His research activity has been mainly focused on the field of Organic Electronics with particular attention towards the design, fabrication and characterization of organic semiconductor-based devices on flexible plastic substrates, and their application for the development of innovative sensing systems for different application areas, such bio-chemical sensors, wearable electronics and artificial skin.

### Webinar by



#### Dr. Piero Cosseddu

Department of Electrical and Electronic Engineering  
University of Cagliari, Italy

**“Tattoo-like electronic systems a new generation of wearable devices”**

**Date:** 11<sup>th</sup> June, 2024

**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. Ravindra Kumar Jha**

Indian Institute of Technology Guwahati