



**Keynote speaker:**

**Name:** Dr. Radu Sporea

**Job position:** Senior lecturer (associated professor)

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**Title of the Presentation:**

**„Thin film transistors, sensors and applications to human-computer interfaces“**

*Short CV :*

Dr Radu Sporea is Senior Lecturer (Associate Professor) in Power Electronics and Semiconductor Devices at the Advanced Technology Institute (ATI), University of Surrey and holds an EPSRC Early Career Fellowship (2021-2026). Prior to this appointment he was Royal Academy of Engineering Academic Research Fellow (2011-2016), EPSRC PhD+ Fellow (2010-2011) and PhD researcher (2006 - 2010) in the same centre. Before joining Surrey, Radu has studied Computer Systems Engineering at “Politehnica” University, Bucharest, Romania, and has worked as a Design Engineer for Catalyst Semiconductor Romania, now part of ON Semiconductor, on ultra-low-power CMOS analog circuits. Current research in Radu's team focuses on three main topics: 1. Advanced semiconductor device design, including transistors with increased tolerance to fabrication variability, improved energy efficiency and high gain. 2. Large area sensors and sensor arrays for smart environments, focusing on multi-modal low-cost integration in commercial manufacturing platforms and mass-market products. 3. Paper-based electronics and physical-digital interaction.

*Abstract:*

Printed and flexible electronics are making their way into an ever increasing range of applications. For their success, innovation at all scales is required. This talk outlines recent developments in our team at two levels. First, newly-developed multi-gate, contact-controlled transistors contribute versatile functionality and tolerance to process variability. Next, within the application realm, a new human-computer interaction platform is proposed: the augmented book (or a-book) brings the richness of digital content to physical books through easy-intuitive and robust electronic systems.