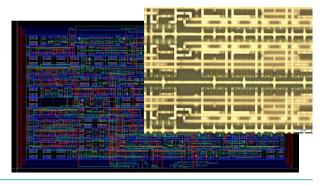


## CMOS technology and integration of devices at KTH May 25, 2022 | 12:00 (CET)



**THE AIM** is to present KTH's CMOS technology including design, fabrication, integration, and performance. We will briefly review historical developments and in detail describe the current state of the Fully Depleted Silicon On Insulator (FDSOI) CMOS technology. Finally, we will describe some use cases and current developments.



THE OFFER is aimed to users from both academia, research institutes and companies. It consists of access to KTH FDSOI CMOS technology including design and fabrication. KTH has developed a basic Process Design Kit, currently implemented in Cadence EDA environment. Besides fabrication of designs with small scale circuits (<100 kTransistors/die) operating at clock frequencies <100 MHz, the offer includes integration of innovative devices with FDSOI CMOS in collaborative projects.





**Assoc. Prof. PER-ERIK HELLSTRÖM** received the Ph.D. degree in 2000. His research is focused on process integration and innovative devices with contributions to SiGe, high-k, and Ge 3D technologies. He is managing the Si process technology line at Myfab KTH and been instrumental in the development of the CMOS technology at KTH.



**Assoc. Prof. SAUL RODRIGUEZ DUENAS** received the Ph.D. degree in 2009. He is circuit design researcher and are responsible for the Electronic Design Automation environment at the Department of Electronics and Embedded Systems, KTH. His research area is mainly focused on ultra-low power circuits for medical applications and integration of novel devices in circuits.



**Dr. MATTIAS EKSTRÖM** received the Ph.D. degree in 2019. He is an expert in semiconductor process technology and device integration. Currently his research is focused SiC and FDSOI technologies for high temperature and harsh environments.



**KTH** is the largest technical university in Sweden with 17.500 students and 5.000 employees. The research and education covers a wide area including natural sciences and all branches of engineering, as well as architecture, industrial management, urban planning, history and philosophy. KTH operates **Electrum Laboratory** in close collaboration with **RISE** as an open access facility for education, research, development, and production of nano and microtechnology devices. The lab includes a 1300 m<sup>2</sup> cleanroom with process lines for device research and manufacturing and in addition 1200 m<sup>2</sup> of state-of-the-art laboratories for, e.g., nanomaterials synthesis and processing, advanced materials and device characterization, and die mounting. www.electrumlab.se