

**Prof. Vilho Lantto**  
**Microelectronics Laboratory**  
**University of Oulu**

## **PROJECTS**

- ***THE EFFECT OF SURFACES AND DEFECTS ON THE GAS RESPONSE PROPERTIES OF SEMICONDUCTING OXIDES AND SULPHIDES.***
- ***STRUCTURAL, ELECTRICAL, OPTICAL AND MECHANICAL STUDIES OF FERROELECTRIC LASER-ABLATED PZT FILMS AND BULK CERAMICS***
- ***NOBLE METAL NANOCATALYSTS ON OXIDE SEMICONDUCTOR SURFACES FOR CHEMICAL SENSING***
- ***NANOCRYSTALLINE PEROVSKITE-LIKE OXIDES WITH  $ABO_3$  AND  $BO_3$  STRUCTURES FABRICATED BY BOTH WET CHEMISTRY AND ADVANCED REACTIVE GAS DEPOSITION FOR DEVICE APPLICATIONS***
- ***BIOLOGICAL AND SYNTHETIC RECEPTORS FOR OLFACTORY SENSING***
- ***FERROELECTRIC THIN FILMS FOR PHOTONIC APPLICATIONS***
- ***NEW MATERIALS AND STRUCTURES FOR SEMICONDUCTOR GAS SENSORS***