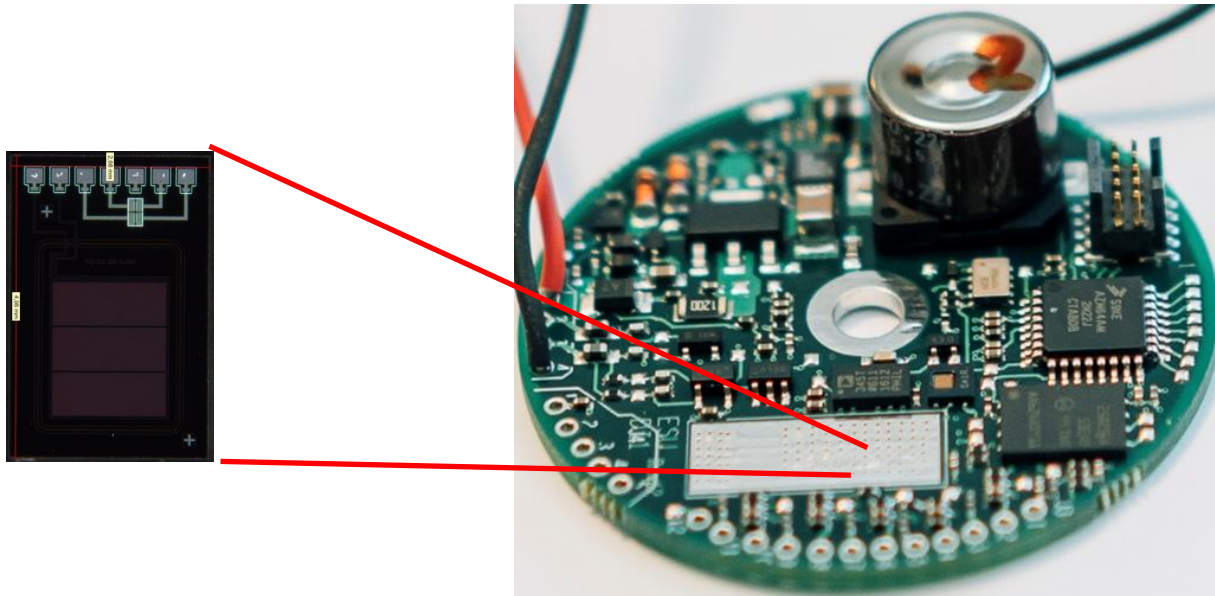


Show-Case “Environmental Supervision Unit, ESU”

Multi sensor unit for environmental monitoring including condensation



The condensation sensor (left) and the ESU (condensation sensor not yet mounted in right picture).

In order to correctly design electronic hardware for reliability there is a need to understand the environment where the electronics are to be used. The ESU is intended to be mounted in locations where the environment needs to be monitored. The ESU stores data on temperature variations vibration levels, relative humidity, occurrence of condensation etc. for later analysis.

The main advantages are:

- Small size for easy assembly in various locations
- Modular concept regarding hardware and software for easy development of derivatives for various sensors and applications.
- Includes a unique condensation sensor developed by CiS

The ESU is designed to meet tough environment regarding temperature, vibration, humidity etc.

The project partners of SMARTER-SI can provide all necessary technologies and building blocks to realise this innovative sensor system with the desired TRL: A condensation sensor (building block by **CiS**) signal analysis (building block by **Hahn-Schickard**) assembly technologies by **CSEM**. Reliability testing such as EMC, HALT/HASS and project management from **Swerea IVF**.

The Swedish SMEs **Setek Elektronik** and **Niranova** contribute with design of hardware and software and also the production of the prototypes. The companies are specialist in electronics hardware for tough environments.