

**VTT**

**beyond  
the obvious**

# Miniaturized hyperspectral imaging solutions



# Enabling new applications and business

**Our R&D customer companies generate award-winning sensor products to boost their growth business - three San Francisco Photonics West Prism Award finalists and two winners!**

- Experienced hyperspectral imager design-and building team with track-record to meet high-performance requirements for demanding sectors like small satellites, medical and diagnostics and drones
- MEMS-based volume-scalable technology enables future possibilities for mobile and IoT: spectral imaging for autonomous systems, smart homes and consumer health
- External R&D partnerships enable providing full application solutions with artificial intelligence and algorithms development

## Customized prototype examples

### Small satellites and new space

- CubeSat-compatible space-qualified hyperspectral imagers for Vis-VNIR and SWIR
- Miniaturized spectrometers for IR

### Stand-off detection and UAVs

- UV-range hyperspectral imaging for ship emissions of SO<sub>2</sub> and NO<sub>x</sub>

### Precision agriculture

- Wide wavelength range instruments (500 - 1600 nm) for measuring fertilization, irrigation need and plant diseases

### Medical and diagnostics

- Hyperspectral imager for fast skin cancer screening
- Hyperspectral microscopes

### Hand-held, mobile and IoT

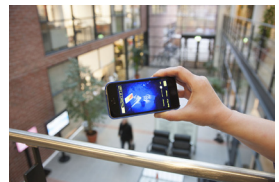
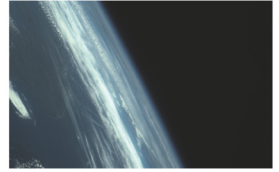
- Volume-scalable MEMS FPI technology for mobile hyperspectral imaging in Vis/VNIR (600 – 900 nm)
- Wearable/mobile CO<sub>2</sub> gas sensors, hydrocarbon sensing

**Ask us more!**

**Antti Näsälä**

Research Team Leader

Tel. +358 40 671 6266



**VTT** beyond the obvious

[www.vttresearch.com](http://www.vttresearch.com)