

Company name ESIEE Paris

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Area of interest	Y or N
CIP-01-2016-2017: Telecom	Y
CIP-01-2016-2017: Health	Y
CIP-01-2016-2017: Finance	Y
SEC-10-FCT-2017	Y



UNIVERSITÉ —
— PARIS-EST

une école de la

Competencies

- *Research task force*
 - 4 research departments (70 researchers)
 - 2 joint laboratories:
 - **ESYCOM** (EA 2552): Electronics, communication system and micro systems
 - **LIGM** (UMR CNRS 8049): Laboratory of computer science Gaspar Monge
- *ESIEE Paris' competencies*
 - Computer science and signal processing
 - Telecommunications, electronics and embedded systems
 - Energy, health, environmental and microtechnology
 - Management of innovation

Competencies

- *ESIEE Paris experience in European projects*

Sniffer

A bio-mimicry enabled artificial sniffer

http://cordis.europa.eu/project/rcn/102348_en.html



Cbord

Effective **C**ontainer inspection at **BORDER** control point

<http://www.cbord-h2020.eu>



InForMed

An integrated pilot line for micro-fabricated medical devices

<http://www.informed-project.eu>



Competencies

- *The skills we can bring*

Micro and nano technologies for health sensors development

Sensors – μ instrumentation

Measurement of VOC (Volatile Organic Compounds)

IMPLANTS - Brain Machine Interface (BMI)

Saw device fabrication for mass detection (ADN)

Diamond Electrochemistry sensors

Micro NRM (Nuclear Resonance Magnetic)

MEA (MicroElectrodeArray)

Micro fluidic technology

MEMS development

Real-time systems: scheduling, energy efficiency

Wireless Sensor Network (WSN) design

Competencies

- *The skills we can bring*

Clustering

Image recognition

Deep Learning

High performance computing

Optimization of networks

- **Control / Management / Orchestration planes**

Network Virtualization

Cloud networking

Software defined network

Security of networks

FOG / EDGE computing

Cellular network 5G

- **Cloud RAN**
- **Vehicular communications**

Competencies

- *Micro and nano fabrications of sensors*
 - Cantilevers, bridges, membranes
 - Micro balance (quartz), resonators
 - Piezoelectric material
 - Soft substrates
 - Packaging solutions
 - Surface nano structuration
- **Electronic development**
 - Specific embedded electronics for sensors (amplifiers/ digitalization / post-processing)
 - RF communications & antenna development
 - Wireless links & protocols

Project idea

- **E-Nose** : Measure VOC, Air compounds, pollutant, etc...
- **E-tongue** : Measure in liquid the quality of water (bacteria, etc...)
- Security applications and also health applications (drug detections, early cancer detection...)
- Face recognition and human motion for monitoring video surveillance
- List of the complementary skills you need for your consortium
 - **Biologists, Clinicians, Electrochemists, End users**