

# EPOS Makers' Projects

This area is devoted to makers' projects.

## Year 2016 - Intel Embedded Systems Challenge

- Prescient - Adaptive Context-Aware Monitoring and Control System (Intel Embedded Systems Challenge 2016)

## Semester 2015/2

- Object Tracking with a Radio Controlled Quadcopter (ESL 2015/2)
- Hydraulic System Automation (ESL 2015/2)
- Computer Assisted Driver (ESL 2015/2)
- Indoor Positioning System (ESL 2015/2)
- Home Sustainability Monitor (ESL 2015/2)

## Semester 2017/1

- Wi-Fi for EPOSMote III with the ESP8266 Module (IC 2017/1)
- Multi-party Diffie-Hellman Key Exchange (OS2 2017/1)
- Vehicle Tracker (OS2 2017/1)

## Semester 2017/2

- Multi-party Diffie-Hellman Key Exchange Implementation (OS 2017/2)
- Building Water Management System (OS2 2017/2)
- Adaptive DVFS for EPOS Multicore Schedulers (OS2 2017/2)
- Machine Learning for IoT Data Quality (OS2 2017/2)
- Janela Automatizada (OS2 2017/2)
- Multicarrier Vehicle Telemetry (OS2 2017/2)
- Autonomous Raspberry Mini Car (OS2 2017/2)
- EPOS Post C++11 (OS2 2017/2)
- Smartpark (OS2 2017/2)
- Biometric Access Control (OS2 2017/2)
- Embedded Artificial Neural Network for Data Quality Assessment (OS2 2017/2)
- TSTP Mobile Routing Protocol Implementation (OS2 2017/2)
- Localização RSSI Assistida por Sensor Ultrassom(OS2 2017/2)

## Semester 2018/1

- Plate Recognition From Stolen Cars Using Raspberry (OS2 2018/1)
- Blockchain for Car Black-box (OS2 2018/1)
- Boosting algorithms (OS2 2018/1)
- Cryptographic Hash Functions for Data Integrity (OS2 2018/1)
- Driving Quality Assessment with ML (OS2 2018/1)
- Embedded Machine Learning CoffeEPOS (OS2 2018/1)
- Implementação de PUF - SRAM (OS2 2018/1)
- ML for Fault Detection and Characterization (OS2 2018/1)
- Power analysis of a hardware accelerated AES implementation (OS2 2018/1)
- My Plants (OS2 2018/1)
- Integrity Check for Gateways in IoT (OS2 2018/1)
- IoTea (OS2 2018/1)
- Movement Detector Alarm System (OS2 2018/1)

## Semester 2018/2

- Smart Building Automation: Multivariable Data Sources (OS2 2018/2)
- Gateway Integrity Check in IoT using ECDSA (OS2 2018/2)
- Predictable Synchronisation Algorithms for Asynchronous Critical Sections (OS2 2018/2)
- Smart Vehicle: Blockchain Black-box G6 (OS2 2018/2)
- Smart Vehicle: Blockchain Black-box G8 (OS2 2018/2)
- SmartData Trustfulness II: Off-line Machine Learning for Anomaly Detection at UFSC's IoT Platform (OS2 2018/2)
- Implementation of multiple AES operation modes for authentication and secure transmission (OS2 2018/2)
- Artificial Intelligence Integration with Context-Awareness in Smart Ecosystem (OS2 2018/2)
- Void Detour in Geographic Routing for Wireless Sensor Networks using FTTSTP - G12 (OS2 2018/2)
- Void Detour in Geographic Routing for Wireless Sensor Networks in TSTP - G7 (OS2 2018/2)

## Semester 2021/1 - Autonomous Embedded Systems I

- SmartData on Wheels