

# **Embedded Software Development**



## **PFE Topic 3**

**Evaluation of low power long range communication solutions** 

### Description

Low Power Wide Area Networks (LPWAN) technologies such as LoRa allow the realization of long-range communication between devices and are optimized for low-power consumption.

The purpose of this project is to design and develop an application based on STM32 microcontroller and LPWAN wireless technologies to improve the range of an existing wireless system

### Skills

Embedded-C, Microcontroller, STM32, Wireless communications, Hardware interfaces, Security

## **PFE Topic 4**

**Evaluation of Speech Recognition on microcontrollers** 

### Description

Speech recognition software modules based on Deep Learning or other technologies may be used to command devices by voice.

The purpose of this project is to evaluate the use of speech recognition modules on STM32 to command devices by voice

#### **Skills**

Embedded-C, Artificial Intelligence, Deep Learning, Microcontroller, STM32



