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| --- | --- |
| PROJECT MANDATORY  200 HOURS = 10 ECTS | |
| ENGINEERS 36 MONTHS – ALL TRACKS  Data Science  Internet of Things  Digital Security  Intelligent Communication Systems  Embedded Systems | **MASTER 24 MONTHS – ALL TRACKS**  Data Science  Digital Security  Internet of Things  Intelligent Communication Systems |
| MASTER SECCLO – 12 MONTHS | |
| PROJECT MANDATORY  180 HOURS = 8 ECTS | |
| MASTER EIT DIGITAL – 12 MONTHS  Digital Cyber Security  Autonomous System | |
| PROJECT MANDATORY  100 HOURS = 5 ECTS | **PROJECT NOT MANDATORY**  **200 HOURS = 10 ECTS** |
| POST-MASTER 18 & 24 MONTHS  Security in Computer Systems and Communications | **CURSUS 6-12 MONTHS** |

# **PROJECT PROPOSAL – FALL 2024**

*\*Please cross out any degrees or tracks that do not apply to your semester project.*

**Name of supervisor(s): Raymond Knopp, Cedric Roux**

If applicable: Name of industrial contact/company:

**Number of students/group max.: 2**

**PROJECT TITLE: BladeRF 2.0 micro xa4 interfacing**

**PROJECT DESCRIPTION:**

* **For 100 hours project**
* **BladeRF** is a popular software-defined radio RF peripheral. It provides 2x2 RF transceivers up to 6 GHz carrier frequency and a high-speed USB3 bus interface. OpenAirInterface (OAI) supported the previous version of BladeRF. The goal of this project is to improve the performance of the digital interface between OAI and the BladeRF 2.0 micro xa4 to harness the full bandwidth of 50 MHz and 2x2 operation.
* **For 180/200 hours project (additional tasks)**

Additional investigations will include preparing the software for incorporation in OAI’s develop branch on gitlab through interactions with the OAI CI/CD team. If time permits, the project will integrate the BladeRF 2.0 micro xa4 into OAI’s automatic testing framework.