**PhD Position in Avionics Architectures**

We invite applications for a PhD position within focusing on **integrated modular avionics (IMA) platforms**. IMA platforms integrate hardware and software components to support reliable, safe, and predictable avionics systems.

**Required Knowledge**

- Strong background in **computer architecture**, **embedded systems**, or **real-time systems**.

- Solid understanding of **operating systems concepts**, including scheduling, memory management, and inter-process communication.

- Proficiency in **C/C++ or similar low-level programming languages**.

- Good command of **written and spoken English**.

**Desired Knowledge**

- Familiarity with **Integrated Modular Avionics (IMA)** architectures or **safety-critical systems**.

- Experience with **hardware–software co-design**, **FPGA programming**, or **reconfigurable computing**.

- Knowledge of **partitioning mechanisms**, **separation kernels**, and **real-time scheduling policies**.

- Understanding of **cyber-security principles** in embedded or avionics systems.

- Prior exposure to **model-based design** or **formal verification methods** is an asset.

**General Requirements**

- Master's degree (or equivalent) in **Computer Engineering, Electrical Engineering, Computer Science**, or a related discipline.

- Strong analytical and problem-solving skills, with motivation for independent and collaborative research.

- Commitment to producing high-quality research and contributing to publications in leading conferences and journals.

- Willingness to engage in multidisciplinary collaboration within the working group and with external partners.

**Application**

Interested candidates should submit the following documents:

1. Curriculum Vitae (CV)

2. Motivation letter outlining research interests and relevant experience

3. Academic transcripts

4. Contact information for two references

🗓 Review of applications will begin immediately and continue until the position is filled. Selected candidates will work at the Heterogeneous Embedded Systems lab, co-directed by Professors Gabriela Nicolescu and Felipe Gohring de Magalhaes.