



PhD topic #9: Design and optimisation of IoT sensor systems for home automation

In the context of home automation, one or more sensor networks are set up to collect the data, process it and send it to a destination. A set of constraints are present during the design and implementation of sensor systems (transmission reliability, synchronisation, power consumption, communication protocols, data transfer, etc.). The aim of the thesis is to optimise the design and implementation of such systems. As an application, the thesis will focus on the reliable and continuous monitoring of the elderly in an automated home environment.

- The doctoral candidate will be supervised by Dr Nabih Alaoui and Dr Mohammed Boulmalf.
- Applicants must have a Master (or equivalent) in telecoms, computer science or equivalent field.
- Good skills in networks and communication theory, and a good command of English are required. Prior research experience is viewed positively but is not necessary.
- Applications should be emailed to [ticlab-admin@uir.ac.ma](mailto:ticladmin@uir.ac.ma) and doctorat@uir.ac.ma