

**Internship positions for master and PhD students at massM2M group,  
Department of Electronic Systems, Aalborg University, Denmark**

**Who we are:**

MassM2M group [massm2m.es.aau.dk](http://massm2m.es.aau.dk) is part of Antennas, Propagation and Networking Section at the Department of Electronic Systems, Aalborg University (AAU), Denmark. MassM2M group provides a dynamic research environment and its members are involved in shaping and developing future wireless systems for machine-to-machine (M2M) communications, with a particular focus on the design of novel random/multiple access solutions, protocol reengineering and information and coding theory. AAU is the leading academic institution for electrical and electronic engineering in Denmark, listed in top 10 institutions in the world in the field: [www.shanghairanking.com/Shanghairanking-Subject-Rankings/Electrical-Electronic-Engineering-2016.html](http://www.shanghairanking.com/Shanghairanking-Subject-Rankings/Electrical-Electronic-Engineering-2016.html)

**Potential internship topics:**

- Development and implementation of interference cancellation algorithms in software defined radios, with the emphasis on IEEE 802.11, 802.15.4 and other short-range low-power standards.
- Design of random access algorithms that exploit successive interference cancellation.
- Reengineering/design of RACH (random access channel) of cellular systems, with the focus on LTE-A.
- Physical-layer network-coding and random access.
- Game theory for random access.
- Wireless networked control systems, with the focus on smartgrid/microgrid control applications.

More information about the potential topics can be obtained via the contact provided below. The topics are expected to be aligned with the work carried out in the project Wigrid [www.wigrid.es.aau.dk](http://www.wigrid.es.aau.dk) (see the publications section for more details).

**Prospective candidates should have:**

- Bachelor or master degree in electrical engineering, with the strong background in communications, signal processing and mathematics.
- Excellent academic record.
- Good command of spoken and written English.
- Knowledge of Matlab, C/C++, and/or Python
- Depending on the topic, knowledge of Linux and embedded software programming is a plus.

**Duration of the internship:** 1 to 6 months, depending on candidate's preferences and available budget.

**Tentative number of positions:** 4.

**Internship timeframe:** September 2016 to March 2017. Starting date of the internship will be agreed with the selected candidates. Recruitment will start after 15. August 2016. Interested candidates *without* a EU citizenship are advised to get in contact at their earliest convenience, in order to timely initiate the process of obtaining temporary Danish work/residence permit.

**Coverage of expenses:** Ca. 1000 EUR per month, flat-rate. The amount is sufficient for the expected accommodation and living expenses. The costs of transportation to/from Aalborg *cannot* be covered, due to internal regulations related to internship positions.

Please apply by sending the transcript of your grades, CV and a motivation letter to Čedomir Stefanović, [cs@es.aau.dk](mailto:cs@es.aau.dk). You are welcome to get in touch should you have any questions.