

In accordance with § 107 Section 1 of the Universities Act, the Alpen-Adria Universität is seeking to make the following appointment:

**PreDoc Scientist (in German: Universitätsassistent/in)  
in Embedded Communication Systems**

at the Embedded Communication Systems Group, [Institute of Networked and Embedded Systems](#), Faculty of Technical Sciences (temporary contract for 4 years, scheme B1, 80% employment, 32 hours/week). The minimum gross monthly salary for this assignment amounts to € 2.157,20 (14 x p.a.) and can increase in accordance with the provisions of the collective agreement in the case of consideration of previous occupational experience.

**Deadline for Applications: 10<sup>th</sup> August 2016**

**Planned starting date: 1<sup>st</sup> September 2016**

**Duties and Responsibilities**

- Research in embedded communication systems with focus on power line communications, wireless systems, cross-layer networking analysis and simulation.
- Independent research with the aim to submit a dissertation and acquire the PhD
- Teaching in the field of electrical and computer engineering
- Participation in administrative and organizational tasks of the Institute
- Student mentoring
- Assistance in public relations activities of institute and faculty

The Embedded Communication Systems Group is a recently constituted group, led by Professor Andrea Tonello. It works on the design, modeling and analysis of wireless and power line communication (PLC) technologies with application to next generation networks and the smart grid. The group addresses interdisciplinary questions in the field of measurements and characterization of telecommunication systems, electronics for communications and for smart systems, networking and signal processing. Current projects include research on PHY and MAC algorithms for 5G wireless, PLC channel measurements and modeling, design of spectrum agile filter bank modulation techniques, resource allocation algorithms, massive MIMO, protocols for the convergence of heterogeneous wireless-PLC networks, radio localization techniques for vehicles and UAVs navigation.

Our team is very international and dedicated to quality research and teaching. The offices and laboratories are located in the well-equipped [Lakeside Science & Technology Park](#). Working language is English. The Institute cooperates with national and international partners in research and industry. It is part of the research cluster [Lakeside Labs](#) (self-organizing networked systems), the European Erasmus-Mundus Doctoral School (interactive and cognitive systems), the EU training network Advantage (advanced communications and information processing in smart grid systems).

### Required Qualifications

- A university degree (Master or Diplom-Ingenieur) in the field of electrical engineering or telecommunication engineering, graded with at least “good”. The degree must be completed by the time of employment.
- Fluent in written and spoken English.
- Experience in two or more of the following fields: communication theory and systems, electronic systems for communications, wireless communications, power line communications.
- Experience in communication networks analysis and simulation.
- Experience in embedded digital signal processing.
- Profound knowledge of engineering mathematics and statistics.
- Programming skills, three or more among: c/C++, MATLAB, LabVIEW, SystemC, Maple, Java, Python, C-SHARP, VHDL, RTOS, Tiny OS, HFSS, Spice.

### Additional Qualifications

- Good social and communicative competences
- Basic knowledge of German
- First research contributions (in the thesis and with participation in research projects)
- Relevant international experience

This position serves the purposes of the vocational and scientific education of graduates of Master`s or Diploma study programs and set the goal of completing a Doctoral degree / a Ph.D. in Technical Sciences.

Applications of persons who have already completed a subject-specific Doctoral degree or a subject-relevant Ph.D. program therefore cannot be considered.

The Alpen-Adria-Universität Klagenfurt intends to increase the number of women on its faculty, particularly high-level positions, and therefore specifically invites applications by women. Among equally qualified applicants women will receive preferential consideration.

People with disabilities or chronic diseases who are qualified are explicitly invited to apply.

The application must be submitted electronically in pdf format to the Alpen-Adria-Universität Klagenfurt, Dekanatekanzlei /Recruiting using the **code 477/16** via the link <http://www.aau.at/obf>. The application must be written in English and include a letter of motivation, the curriculum vitae (with photo and information about the degrees including date/place/grade, the experience acquired, the thesis title, the list of publications if any and any other relevant information), copy of the degree certificates and transcripts of the courses, and any certificate that can prove the fulfillment of the required qualifications (e.g., the submission of the final thesis/dissertation if required by the study program). The deadline for the applications is 10<sup>th</sup> August 2016.

Further information can be obtained on this website [www.aau.at/jobs/information](http://www.aau.at/jobs/information) or by contacting Professor Andrea Tonello ([andrea.tonello@aau.at](mailto:andrea.tonello@aau.at) – <http://nes.aau.at> ).

Short-listed candidates will be invited to an interview. Travel and accommodation expenses cannot be refunded.