

In accordance with § 107 Section 1 of the Universities Act, the Alpen-Adria Universitaet 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 (full time, temporary contract for 4 years, Employment scheme B1). The minimum gross monthly salary for this assignment amounts to € 2.615,80 (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.

Starting date: as soon as possible.

Duties and Responsibilities

- Research in embedded communication systems with focus on wireless and power line communications (PLC)
- 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

The Embedded Communication Systems Group is a newly constituted group that is led by Professor Andrea Tonello. It works on the design, modeling and analysis of future wireless and power line communication technologies with applications to next generation networks and the smart grid. The group furthermore addresses interdisciplinary questions in the field of measurements and characterization of telecommunication systems, fast prototyping 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, interference mitigation algorithms, massive MIMO, protocols for convergence of heterogeneous networks, radio localization techniques for objects tracking and the delivery of context aware services.

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) and the European Erasmus-Mundus Doctoral College (interactive and cognitive systems).

Required Qualifications

- A university or FH degree (Master or Diplom-Ingenieur) in the field of electrical engineering, telecommunication engineering, computer 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, digital signal processing for communications, wireless communications, power line communication systems
- Experience in electronic measurement and instrumentation and/or DSP/FPGA programming
- Profound knowledge of engineering mathematics
- Programming skills, three or more among : c/C++, MATLAB, LabVIEW, Maple, Java, Python, C-SHARP, VHDL, RTOS, Tiny OS

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-Universitaet 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-Universitaet Klagenfurt, Fachabteilung Personalentwicklung, using the **code 632/14** 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 degree certificates and transcripts of the courses, and any certificate that can prove the fulfillment of the required qualifications.

Deadline for Applications: December 3, 2014

Further information can be obtained on this website or by contacting Professor Andrea Tonello (andrea.tonello@aa.u.at).

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