

Assistant Professor in Communication Systems

[080707]

Last day of application: August 31. Reference number: 2008/157

An Assistant Professor skilled in digital communications is needed for the FOCUS project (Fiber Optical Communication Systems) at Chalmers University of Technology.

The recently formed FOCUS project (Fiber Optical Communication Systems) at Chalmers University of Technology is pleased to announce several open positions. We perform frontline theoretical and experimental research in fiber optic communications. Our aim is to co-optimize optics, electronics, and algorithms - a very promising path to next generation, lower cost, dynamic, and spectrally efficient high performance optical networks.

The FOCUS environment comprises the Photonics Laboratory at the Department of Microtechnology and Nanoscience and the Communication Systems Group at the Department of Signals and Systems. These two research laboratories employ a total of 40 people, of which around 15 are currently involved within the project. The research strategy is that researchers with different background (photonics or digital communications) work together on the same problems.

This position is affiliated with the Communication Systems Group. A similar position with the Photonics Laboratory is announced separately.

Chalmers University of Technology is located in Gothenburg on the scenic west coast of Sweden. It is among the top research schools in Europe. The research environment is international and candidates of any nationality are welcome to apply.

Job description and qualifications

The main research objective is analyzing and realizing novel optical transmission technologies. You should have a PhD degree in digital communications or signal processing, with experience in at least one of the areas spectrally efficient modulation, adaptive modulation, channel coding, or synchronization. Some research experience on a postdoctoral level would be an advantage.

Furthermore, you should have an interest in applying your skills to optical communications. Some experience in this field is an advantage but not a requirement. An interest in interdisciplinary communication with researchers from other fields is essential, as are skills in mathematical analysis. You should be fluent in English, have good collaborative skills, and have good abilities to communicate your results in writing and in

presentations. Teaching experience is an advantage.

About the assistant professor position

Assistant Professor is an appointment that offers an opportunity to qualify for higher research positions both in academia and in society at large. The appointment is for two + two years of full-time employment. An assistant professor is expected to reach the Swedish docent level (in Swedish "oavlönad docent") within the four years. After two years the progress is assessed. This position consists of approximately 80 % research and 20 % teaching. In teaching, the co-supervision of Ph.D. students is also included.

The application shall be written in English and include the following items:

1. Description of your research and pedagogical qualifications, as well as other qualifications;
2. Curriculum Vitae (CV);
3. Complete list of publications;
4. Plans for future work, both scientific and educational, if appointed;
5. Two reference persons who can be contacted by Chalmers (describe your association with them);
6. Copies of your best scientific publications (not more than 5);
7. Copies of a maximum of 5 other publications (such as pedagogy, and popular science).

Please consult the two documents, "Information for applicants for a teaching post at Chalmers" and "Qualifications: How they are presented, documented and assessed". The documents can be found on the web:

[Applicantinformation.pdf](#)
[qualifications.html](#)

The application shall preferably be sent electronically and shall consist of two pdf documents:

One designated "APPLICATION, 2008/157 and your last name", containing items 1 - 5 in the listing of material to be included in the application.

One designated "APPENDICES, 2008/157 and your last name", containing items 6 and 7 in the listing of material, and any other possible appendices.

The files may be compressed (zipped).

The reference number 2008/157 must be written on the first page of the application. This page shall also contain a list of all parts, in both files, that together constitute the full application.

The application shall be sent to registrator@adm.chalmers.se

If the application is delivered in paper format, it must be prepared in twoidentical packages, each with a list of contents. It shall be possible to send these packages, without repacking them, to the assessors.

Address

Regstrar
Chalmers University of Technology
SE-412 96 Göteborg
Sweden

Phone: +46 (0)31 772 1000

Your application should be received at the address above no later than August 31. 2008.

For further information, please contact any of:

- Assoc. Prof. Erik Agrell, Communication Systems, agrell@chalmers.se, phone +4631 772 1762
- Assoc. Prof. Arne Svensson, Head of department, Signals and Systems, arne.svensson@chalmers.se, phone +4631 772 1751

Trade union representatives:

Jan Lindér SACO, Monia Orrbacke TCO, Ralf Berndtsson SEKO.

More information about the department can be found on the webpage:

- [Communication Systems Group >>>](#)
- [Photonics Laboratory >>>](#)

Keywords: advanced modulation formats, channel coding theory, coded modulation, digital communications, fiber optic communication systems, fiber optical communications, mathematical analysis, multilevel modulation, open position, optical fiber, PhD student, photonics, signal processing, synchronization algorithms, telecommunications, timing recovery

Union representatives

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