



## Postdoctoral Researcher in Communication Systems

[080721]

Last day of application: August 31. Reference number: 2008/156

A Postdoc skilled in synchronization of digital communication systems 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 research focus is on defining and analyzing methods for phase recovery and synchronization in multilevel demodulation, such as QAM, for fiber-optical communications. You should have a PhD degree in digital communications or signal processing with emphasis on synchronization.

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 qualifications are also a plus.

**The employment is supposed to begin** no later than Jan. 1, 2009, but preferably sooner. Mention in your application when you can begin. The duration is one year, with a possible extension of another year. Up to 20 % of this time will be devoted to teaching or supervision. A monthly salary is paid.

Your application must include: CV including publication list, diplomas and transcripts from your MS and PhD degrees, contact details of your PhD supervisor and other reference persons, and a short (max one page) description of your strengths most relevant for the project.

**The preferred application format is by email.** If possible, merge all your application documents into one single PDF file. Send the application to [registrator@adm.chalmers.se](mailto:registrator@adm.chalmers.se) and state the reference number 2008/156 in the subject line. Last day for application is August 31.

It is also acceptable to submit the application by regular mail, to the adress: Registrator, Chalmers University of Technology, 412 96 Gothenburg, Sweden.

**Do not send paper documents if you apply by email.**

**For questions, please contact any of:**

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**Links**

Chalmers: [www.chalmers.se](http://www.chalmers.se)

[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

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