

# PhD Scholarship in Quantum Transport in Nanostructures

University of Southern Denmark



## *Job description*

The Faculty of Engineering at the University of Southern Denmark (SDU) invites applications for a 3-year PhD position at NanoSYD Center in the Mads Clausen Institute (MCI) in Sønderborg. The PhD project is centered on Quantum Transport in Nanostructures. The position **covered by full scholarship** is available as of **September 1, 2019** for a **three-year period**, and the application deadline is **July 3, 2019**.

As a PhD student, you will be carrying out research under supervision of Professor Horst-Günter Rubahn, and co-supervised by Assistant Professor Gufei Zhang. The techniques in focus are **design and fabrication of diamond-based nanostructures/devices as well as ultralow-noise electrical transport measurements under extreme conditions (at low temperatures and in high magnetic fields), alongside a range of standard thin film characterization techniques**. You will be encouraged to develop your own ideas. You will publish and present your work both at international conferences and in high-impact scientific journals. In addition, you will be involved in the daily supervision of Master and Bachelor students and assist in teaching activities.

## *Job Requirements*

**Applicants must have a master's degree (equivalent to a Danish master's degree) in a field relevant to the mentioned PhD project, e.g. condensed matter physics, microelectronics, nanophotonics and so on.**

**Applicants must have solid background knowledge, skills and experience in at least one of the following aspects, nanofabrication (both photolithography and electron beam lithography experience are required), low-temperature electrical transport measurements, and/or solid state physics (mesoscopic physics).**

**A very good capability of communicating scientific results in English, both orally and in writing is required.**

## *Contact*

Motivated students are encouraged to send your cover letter and full CV (with Experimental Skills and possible List of Publications included) to **Assistant Professor Gufei Zhang ([gufei@mci.sdu.dk](mailto:gufei@mci.sdu.dk)) for inquiry**. Promising candidates will be immediately guided through the formal application process. The online application system can be reached via the link below **[https://www.sdu.dk/da/service/ledige\\_stillinger/1047413?sc\\_lang=en](https://www.sdu.dk/da/service/ledige_stillinger/1047413?sc_lang=en)**