



LUND
UNIVERSITY

MSc in Wireless Communication

LUND UNIVERSITY, SWEDEN

- Master of Science in Communication Systems
- 2 years, full time, 120 ECTS credits
- Faculty of Engineering
- Lund campus
- Application deadline: January 2018
- Programme start: August 2018

Programme overview

The Master's Programme in Wireless Communication prepares students for an exciting career within a rapidly expanding industry. The University has excellent resources in the area of wireless communication, and can offer students the opportunity to learn from world-leading researchers, in state-of-the-art laboratory facilities. Research and education are closely linked within the department. All of our teachers are themselves educated to PhD level or higher, and are actively engaged in research.

The Wireless Communication programme focuses on the physical and lower layers of wireless communication. The aim is to give our students in-depth system knowledge, which in turn requires insights into the various components in a wireless system. The courses included in the programme all hold a high international standard.

In addition to the taught courses, all of our students undertake a research project for their Master's thesis. The project can be academic in nature, or developed within industry, and can be carried out either in Lund or abroad. These projects can sometimes lead to patent registration and successful entrepreneurial initiatives.

The programme features both theoretical and practical learning, as well as plenty of group assignments and presentations, allowing students to develop supplementary skills that further increase their attractiveness on the job market.

Programme modules/courses

COMPULSORY COURSES AND NUMBER OF CREDITS: Digital Communications (7.5), An Introduction to Wireless Systems (7.5), Digital Communication – Advanced Course (7.5),

Antenna Technology (7.5), Wireless Communication Channels (7.5), Network Architecture and Performance (7.5), Wireless System Design Principles (7.5), Multiple Antenna Systems (7.5), Project in Wireless Communications (7.5), Master's degree project (30), electives (22.5 in total).

ELECTIVES: 22.5 credits in total.

Career prospects

The programme provides students with a solid grounding for a career in wireless communication – either in industry or academia. On completion of the programme, our graduates have the necessary skills for both research and development, e.g. understanding and developing future wireless systems, developing wireless networks for special applications and understanding and enhancing existing solutions. The programme also provides an excellent foundation for PhD studies in the field, as shown by the fact that almost 40 percent of our students have continued towards a PhD degree after graduation.

The skills our alumni possess are in high demand globally, particularly within developing markets, and former students can be found all over the world. Many have found work and started their careers in Australia, China and the USA, as well as right here in Lund.

The surrounding area is home to a number of global household brands such as Sony, Ericsson, and Nokia. Other companies with operations close to the University include Huawei, ARM Sweden and Axis. A large proportion of students start working with these companies directly after graduation. Within the near future we will also have new neighbours in the form of two large-scale European and international research centres – ESS and MAX IV – which will both create exciting opportunities for our students.

Entry requirements and how to apply

ENTRY REQUIREMENTS

A Bachelor's degree in electrical engineering, computer engineering, information technology or equivalent including courses in mathematics of at least 20 ECTS credits.



“The teachers are researchers as well, so we are aware of what is going on with the latest research. This close relation between education and research provides first-hand knowledge about how things are right now within industry, what is being developed in terms of trends or technology - like 5G. Lund University is one of the most important research players in this area right now.”

Andrés Felipe García Albarracín, from Colombia





The applicant must have knowledge of probability theory, signal processing, telecommunication, electromagnetic field theory and circuit theory, corresponding to no less than 6 months of study. English Level 6 (equivalent to IELTS 6.5, TOEFL 90). See www.lunduniversity.lu.se for details on English proficiency levels.

HOW TO APPLY

- 1. Apply online:** Go to www.lunduniversity.lu.se/wireless. Click on "Apply" and follow the instructions for the online application at the Swedish national application website www.universityadmissions.se. Rank the chosen programmes in order of preference.
- 2. Submit your supporting documents:** Check what documents you need to submit (i.e. official transcripts, degree diploma/proof of expected graduation, translations, proof of English, passport) and *how* you need to submit them at www.universityadmissions.se.
- 3. Pay the application fee** (when applicable).

SELECTION CRITERIA/ADDITIONAL INFO

The selection is based on academic qualifications.

TUITION FEES

There are no tuition fees for EU/EEA citizens. For non-EU/EEA citizens the tuition fee for this programme is SEK 145 000 per year. See www.lunduniversity.lu.se for details on tuition fees.

About the Faculty of Engineering

The Faculty of Engineering at Lund University (LTH) is among the leading engineering faculties in Europe with over 9,000 undergraduate students and 800 postgraduates. LTH is one of the few comprehensive engineering faculties in Sweden, and in addition to traditional engineering programmes we also offer programmes in architecture and industrial design. With a 50-year long history of research and education excellence, we are well equipped to meet the increasing global demand for more sustainable, connected and user-driven technologies, and to provide our students with the knowledge and skills they need in order to succeed within their chosen field.

About Lund University

Lund University was founded in 1666 and is repeatedly ranked among the world's top 100 universities. The University has 42 000 students and 7 400 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

Lund is the most popular study location in Sweden. The University offers one of the broadest ranges of programmes and courses in Scandinavia, based on cross-disciplinary and cutting-edge research. The compact university campus encourages networking and creates the conditions for scientific breakthroughs and innovations. The University has a distinct international profile, with partner universities in over 70 countries.

Lund University has an annual turnover of SEK 8 billion, of which two-thirds go to research. Our research is characterised by both breadth and strength and, according to independent evaluations, over 30 of our research fields are world-leading.

The establishment of the world-leading facilities MAX IV and ESS will have a major impact on future scientific and industrial development in both materials science and life science. MAX IV, which was inaugurated in June 2016, is the leading synchrotron radiation facility in the world, while the European research facility ESS will be the world's most powerful neutron source when it opens for research in 2023. Adjacent to these facilities, Science Village Scandinavia is also being developed into a meeting place and testing environment for research, education and entrepreneurship.

Learn more at www.lunduniversity.lu.se

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Programme webpage

www.lunduniversity.lu.se/wireless

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