



# M.Sc. in Communication Systems Engineering



אוניברסיטת בן-גוריון בנגב  
Ben-Gurion University of the Negev

## The Department of Communication Systems Engineering (CSE)

The Department of Communication Systems Engineering was founded in 1997. Its mission is to educate communication systems engineers and provide them with broad knowledge in varied areas of networks and communication technologies, including networks architectures and protocols, network multimedia systems (video and voice), wireless communication, cellular and satellite networks, the Internet of Things, cloud computing and network security.

The main areas of research at the Department include: Wireless and mobile networks; very high-speed technologies; very large communication networks and applications; and network and communication Theory. Many of our faculty conduct research in cooperation with leading corporations in the industry, such as Motorola, Intel and Cisco, as well as participate regularly in both national and international consortia.

Graduates of the Department gain the ability to characterize, analyze, and design comprehensive, full-scale communication systems, including hardware elements (designing the computers, interfaces, and logic circuits); software elements (system analysis, design, and programming); and to manage, analyze, and design public and organizational communication systems. Graduate students performing research in the department earn their M.Sc. and Ph.D. degrees from the Department and many go on to assume leading roles in academia and industry.

### M.Sc. Degree in Communication Systems Engineering

The M.Sc. in CSE program, is a two-year (four semesters) research-oriented program, which aims to provide both training in conducting academic research and specialization in topics related to communication systems and networking. The program consists of graduate-level courses and requires the submission of a research thesis, summarizing the research work that is supervised by Department faculty.

The Department offers two tracks for M.Sc. studies; the regular M.Sc. track, which admits students that already have their B.Sc., and the M.Sc. fast track, which offers the option to start engaging in research from the fourth year of the B.Sc. studies. The latter track is part of a faculty program for outstanding students, which aims to enable excellent students to complete both their B.Sc. studies and their M.Sc. studies within a five-year period.

The Department also offers a specialization track in network security, which differs from the regular programs by requiring specific courses to be taken as part of the track.

The Department makes a significant effort to promote graduate studies (both M.Sc. and Ph.D.) and provide

the students with the best environment for conducting research, as well as training them to become leaders of technological advancement. The efforts include a large selection of graduate courses spanning a broad range of topics, from highly theoretical aspects of networks and communication systems to entrepreneurship. Our graduate students often contribute to the undergraduate study program by serving as teaching assistants (TAs) and laboratory instructors, and are greatly appreciated for their expertise, knowledge, and broad-mindedness.

### M.Sc. Thesis

The M.Sc. Program accepts students into a research oriented M.Sc. program with a thesis (12 credit points). The final M.Sc. grade is composed of the average grade of the courses (50%) and the thesis grade (50%). The research leading to the M.Sc. thesis is carried out during the entire two years of the studies. The student is expected to publish and present the research results in leading international journals and conferences. The thesis is evaluated through a written report and an oral examination.

### Application Requirements

Applicants to the M.Sc. program should hold a B.Sc. degree from an accredited institution in Communication Systems Engineering or in closely related fields at a minimum GPA of 80/100. A TOEFL score of 85/120 or the equivalent score in an internationally recognized English proficiency exam is required. The English proficiency requirement is waived for applicants who received their B.Sc. degree in a program taught in English. GRE is recommended but not required. Additionally, prior to applying to the M.Sc. program, the applicant is expected to contact a potential advisor among the CSE faculty.

### How to Apply

Please visit our online application site at:

<https://apps4cloud.bgu.ac.il/engrg/>

Applications are accepted on a rolling basis. Please check the website for the scholarships application deadline.

### Tuition Fees

Tuition is approximately US\$5,000 per year. Outstanding students may be eligible for scholarships, which cover tuition fees and provide living expenses.

### Further Details

#### The Department of Communication Systems Engineering at BGU:

<http://in.bgu.ac.il/en/engn/cse/Pages/default.aspx>

Director of graduate studies:

Dr. Yehuda Ben Shimol, email: [benshimo@bgu.ac.il](mailto:benshimo@bgu.ac.il)

BGU International - [www.bgu.ac.il/international](http://www.bgu.ac.il/international)