

Master in Electrical and Electronics Engineering

meee.ibu.edu.ba

Faculty of Engineering and
Natural Sciences

eng.ibu.edu.ba

IBU | International
Burch
University

PARTICIPANT
of ERASMUS+

ACCREDITED
by HEA

Top Private
University in BH
by WEBOMETRICS



PROGRAM STRUCTURE

The Department of Electrical and Electronic Engineering at the International BURCH University offers two programs for graduate study leading to Master degree diploma:

1. Embedded Systems

2. Smart GRIDS in Electrical Distribution Systems

Both Master programs can be completed in 1 year (60 ECTS) or 2 years (120 ECTS).

The **Embedded Systems program** is designed to provide students with the necessary education, theoretical and practical, to work at a professional level in industries involved in the embedded systems. Students study systems on chip, advanced robotics, embedded programming, and distributed systems. Students gain knowledge in electrical engineering principles in the field of embedded systems and real-time intelligent systems.

The **Smart GRIDS in Electrical Distribution Systems program** is designed to provide students with the necessary education, theoretical and practical, to work at a professional level in industries involved in the distribution and consumption of energy and power. Students study power system control and stability, renewable energy systems, electric power conversion, smart grid's technology, energy management and mathematical and computer modelling. Students gain knowledge in electrical engineering principles in the field of smart distribution system, aspects of power conversion for electricity grids, in particular concerned with the connection of renewable power sources.

3-YEAR MASTER PROGRAM (3+2)

The 2-year Master program consists of 9 courses (54 ECTS), 2 Seminars (12 ECTS), 1 Internship (6 ECTS) and a Master thesis (48 credits) - Total 120 ECTS. This program is suitable for students with first cycle (Bachelor) diploma (at least 180 ECTS) in Electrical Engineering and Mechanical Engineering (related fields) or IT.

Embedded Systems

First Semester	Second Semester
Computational Intelligence	Embedded Programming
Real Time System	Advanced Robotics
Industrial Communication	Discrete Time Control
Advanced Digital Signal Processing	System on Chip
Seminar 1	Seminar 2

Third Semester	Fourth Semester
Department Level Elective	Master Thesis II
Internship	
Master Thesis I	

Smart GRIDS in Electrical Distribution Systems

First Semester	Second Semester
Computational Intelligence	Discrete Time Control
Smart Grid Technologies	Power System Stability and Control
Renewable Energy Sources	Distributed generation and Grid Integration
Advanced Power Electronic	Energy Management
Seminar 1	Seminar 2

Third Semester	Fourth Semester
Department Level Elective	Master Thesis II
Internship	
Master Thesis I	

Elective courses

- Smart Grid Technologies
- Real - Time Systems
- Electrical Machinery II
- Industrial Communication



1-YEAR MASTER PROGRAM (4+1)

The 1-year Master program consists of 6 courses (36 ECTS), Seminar 1 (6 ECTS), and Master's Thesis (18 ECTS) - Total 60 ECTS. This program is suitable for students with first cycle (Bachelor diploma (240 ECTS) in Electrical Engineering and Mechanical Engineering (related fields) or IT.

Embedded Systems

First Semester	Second Semester
Computational Intelligence	Embedded Programming
Real Time System	System on Chip
Industrial Communication	Master's Thesis
Advanced Digital Signal Processing	
Seminar 1	

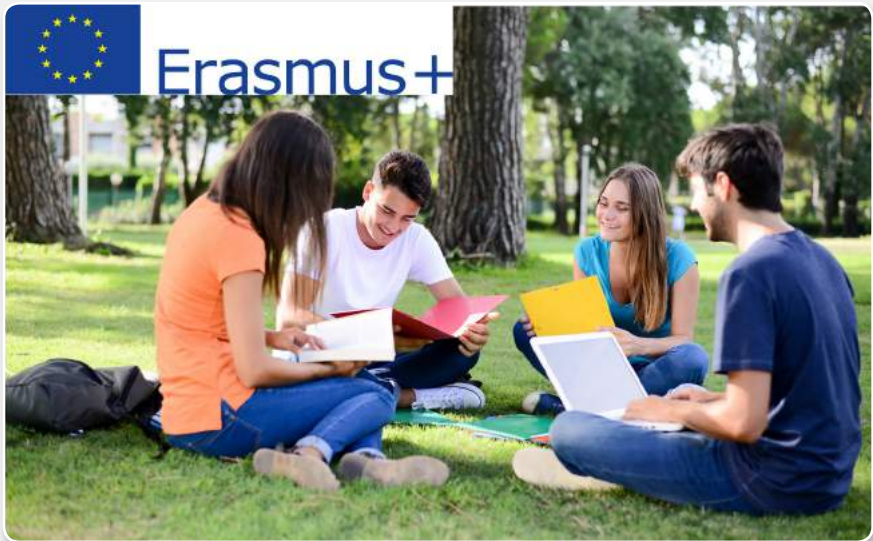
Smart GRIDS in Electrical Distribution Systems

First Semester	Second Semester
Computational Intelligence	Power System Stability and Control
Smart Grid Technologies	Distributed generation and Grid Integration
Renewable Energy Sources	Master's Thesis
Advanced Power Electronic	
Seminar 1	

OPPORTUNITIES

Both Master programs are carried out by the BURCH academic staff and highly qualified professionals from the industry sector. Experts from the field will assist our students in writing their Master thesis and provide them a lot of opportunities to work and closely cooperate with various companies that are their potential future employers.

Students have the opportunity to do one part of their master thesis in the following companies:



International Burch University in cooperation with Riga Technical university and Erasmus+ Programme, gives the opportunity to two master students to continue their studies for the second semester in Latvia.



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ENROLLMENT and GRADUATION REQUIREMENTS AND TUITION FEES

Enrollee must have a GPA of at least 7.0/10, and a sufficient knowledge of verbal/written English language.

In order to graduate, students must meet the following criteria:

- Complete all courses subject to the program
- Complete *Master's Thesis*

Tuition fee for Master in Electrical and Electronics Engineering is 6,000 KM per academic year

ADMISSION

Candidates seeking admission to the Master program in Electrical and Electronics Engineering should present a bachelor's degree or equivalent from a recognized educational institution. All candidates must have a proficiency in use of English language, spoken and written. The final decision concerning the acceptance into the program rests with BURCH faculty management.



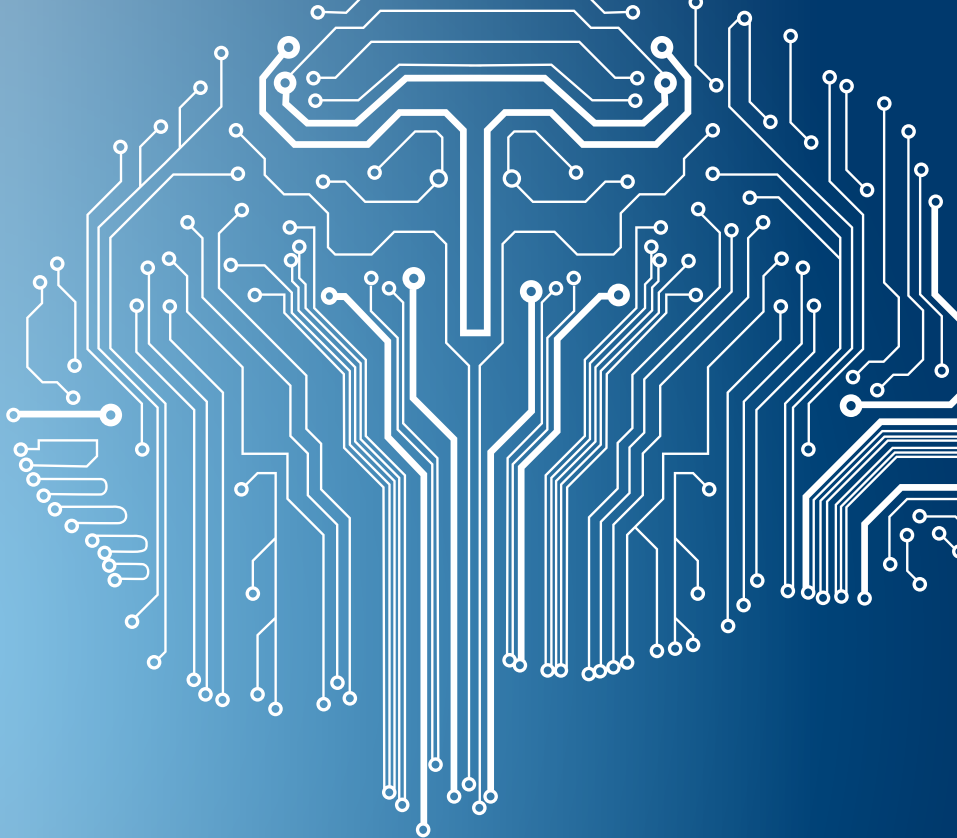
How to Apply?

Applicants must provide the following documentation:

- Completed application form
- Complete Curriculum Vitae indicating professional experience
- Certified copy of bachelor's degree
- Official academic transcripts
- TOEFL, APTIS or BURCH English Proficiency Results (if applicable)
- Two reference letters (professional or academic)
- Five passport-sized photographs

For more information regarding the application please check our website at mee.ibu.edu.ba or send the email to masters@ibu.edu.ba





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