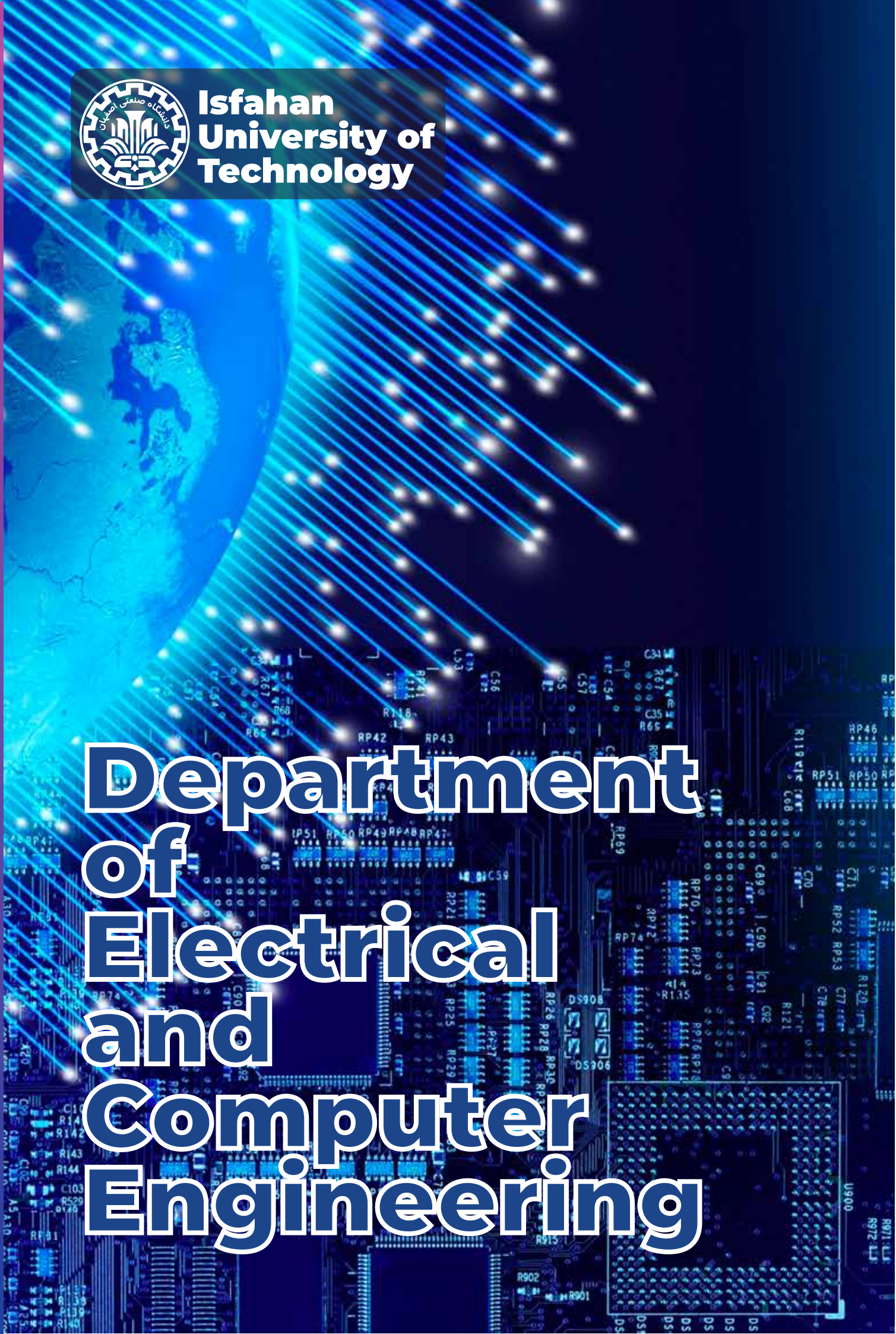
Isfahan
University of
Technology
Department
of
Electrical
and
Computer
Engineering

In The Name of God

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Overview

The Department of Electrical and Computer Engineering at Isfahan University of Technology (IUT) has welcomed the most talented students from throughout the country, for more than four decades. Having continuously flourished in education and research, the department now offers both graduate and undergraduate programs in all the branches of ECE.

The students graduating from our department have had a high success rate in pursuing their career as professional engineers in the national and provincial industry, as industrial managers, or as faculty members of other universities. From the international perspective, our graduates have also found their way into many successful companies in the worldwide industry and into prestigious universities as faculty members or researchers, which has made a great international reputation for our department.

Our first goal in the ECE department is to train creative, innovative, and hard-working students who could develop the skills they need for the future. Towards this aim, in addition to the required courses, we offer hands-on experience in 40 educational laboratories and research opportunities in more than 30 research labs.

Our department has now 75 faculty members, more than 1200 undergraduate students, and about 600 graduate students, in diverse fields of Electrical Engineering (Control, Power, Electronics, Communications, and Biomedical Engineering) and Computer Engineering (Software and Information Technology, Artificial Intelligence, Computer Architecture, Secure Computing, and Computer Networks).

We have also been offering national and international postdoctoral positions, in joint programs with the National Elites Foundation, and Iran National Science Foundation (INSF), which has been a great opportunity for fresh Ph.D. graduates to expand their research while evaluating the options for their future careers.

We are also honored that our alumni have founded and developed successful research centers at IUT such as the APA center, Avionics Research Center, and the Center of Information Technology, which have been by our side in our collaborations with the industry.

Website: **ece.iut.ac.ir**
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Department of Electrical and Computer Engineering

Degree Programs

B.Sc.

140 Credits

- Communications
- Control Systems
- Electronics
- Power
- Software Engineering
- Hardware Engineering
- Information Technology Engineering
- Computer Security
- Intelligent Computer Systems

M.Sc.

23 credits + Thesis with 6 credits

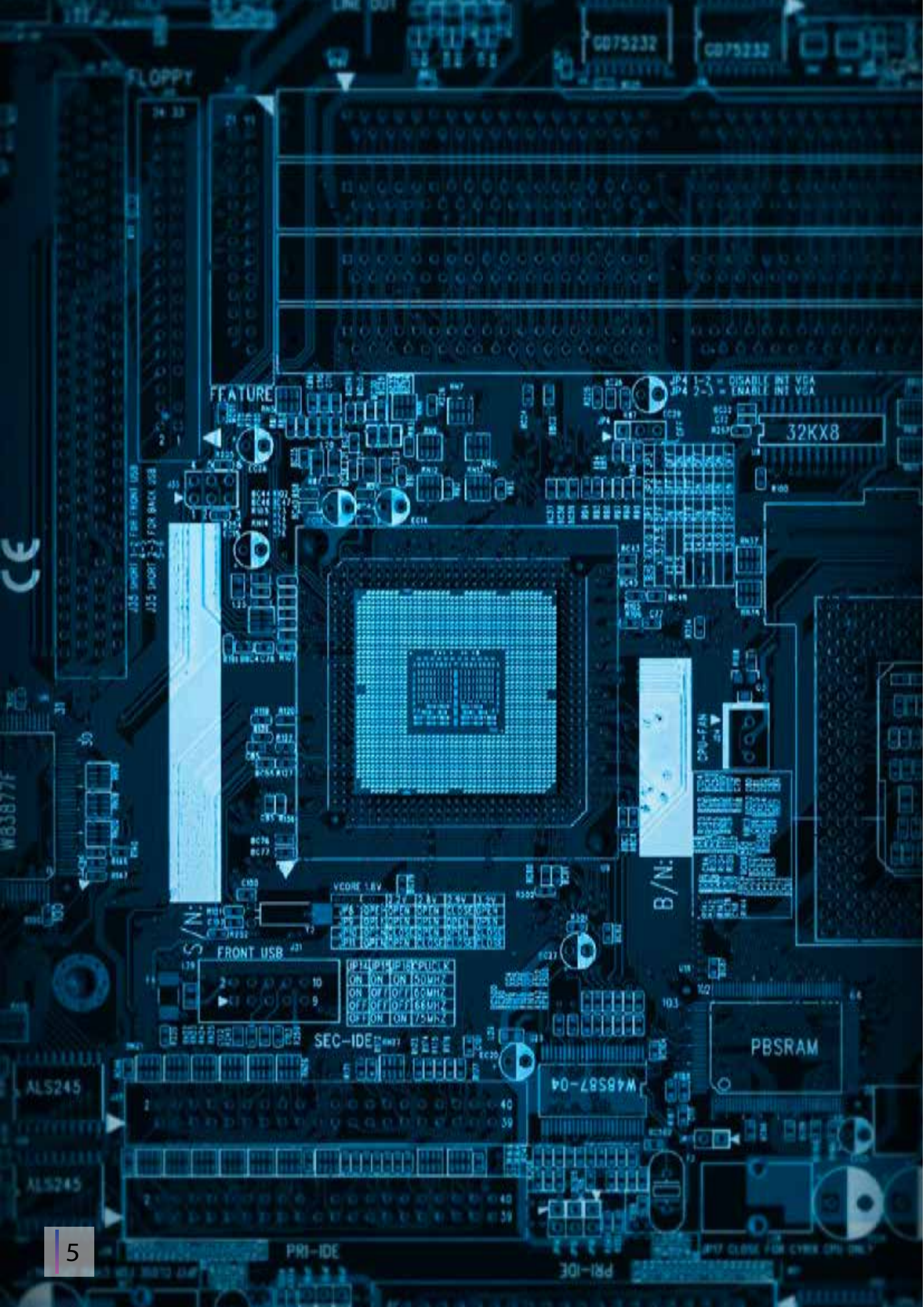
- Bioelectric
- Communications - Systems
- Communications - Fields and Waves
- Communication Networks
- Control Systems
- Integrated Circuits
- Power Electronics, Electric Machines and Drives
- Power Systems
- Software Engineering
- Hardware Engineering
- Artificial Intelligence
- Artificial Intelligence (E-Learning, Course Based)

Ph.D.

18 credits + Dissertation with 18 credits

- Communications - Systems
- Communications - Fields and Waves
- Control Systems
- Electronics
- Power
- Software Engineering
- Hardware Engineering
- Artificial Intelligence

To accomplish a successful B.Sc. in Electrical and Computer Engineering, undergraduate students must take 20 credits in general courses, 20-30 credits in basic courses, 80-90 credits in compulsory courses, 10-20 credits in elective courses, and a project with 3 credits (total 140 credits).
Graduate students must take 6-12 credits in compulsory courses, 9-15 credits from elective courses, two credits from a seminar, and 6 credits from a thesis, overall 29 credits to receive an M.Sc. degree. The Ph.D. program consists of 18 credits of coursework and 18 credits of dissertation. Students must pass the written and oral comprehensive exams after completion of coursework.


FLOPPY
FEATURE
32KX8
PBSRAM
SEC-IDE
PRI-IDE
FRONT USB
ALS245
ALS245

Honors and Awards

1. **Two times winner of the best national student award**
2. **The winner of the best book of the year.**
3. **Three times winner of the distinguished researcher award**
4. **Award winner of outstanding researcher in the national electrical industry**
5. **Winner of the Prof. Jabbehdar educational award**
6. **IUT Distinguished Research Award for Authorship:** *2011*
7. **Tribute to three faculty members as elites in Information technology and communications of the province**
8. **Two times winner of the best B. Sc. supervisor**
9. **Three times winner of best lecturer at IUT**
10. **Three times winner of the best masters' and PhD theses at IUT**
11. **Winner of national and international RoboCup competitions**
12. **First rank: National RoboCup Competition, 2007**
13. **Second Rank: International RoboCup Competition**, Germany 2009
14. **Third rank: National RoboCup Competition**, *2007*
15. **Fifth Rank: International RoboCup Competition,** Japan 2017

16 **Third Rank:**
International Challenge RoboCup Competition, Japan 2017

17 **Second rank:**
National RoboCup Competition, 2018

18 **Second Rank:**
International RoboCup Competition, Portugal 2019

19 **Second Rank:**
International RoboCup Asia-Pacific Competition, 2018

20 **IUT Distinguished Research Award for Authorship:** *2011*

21 **Winner of the best industrial cooperation award**

22 **Winner of the best industrial cooperation award**

23 **Selected as the distinguished IEEE student branch twice**

24 **Several times winner of ACM Student Competition**

25 **Fifth Rank:**
ACM/ICPC Asia Region, 2015

26 **Third Rank:**
ACM ICPC Challenge, 2015

27 **Fourth Rank:**
ACM/ICPC Asia Region, 2016

28 **First Rank:**
ACM ICPC Challenge,*2016*

29 **Second Rank:**
IOT CUP Hackathon

30 **Silver Medal:**
International Olympiad on Micro Electronics

31 **Third Rank:**
National Cybersecurity Competition

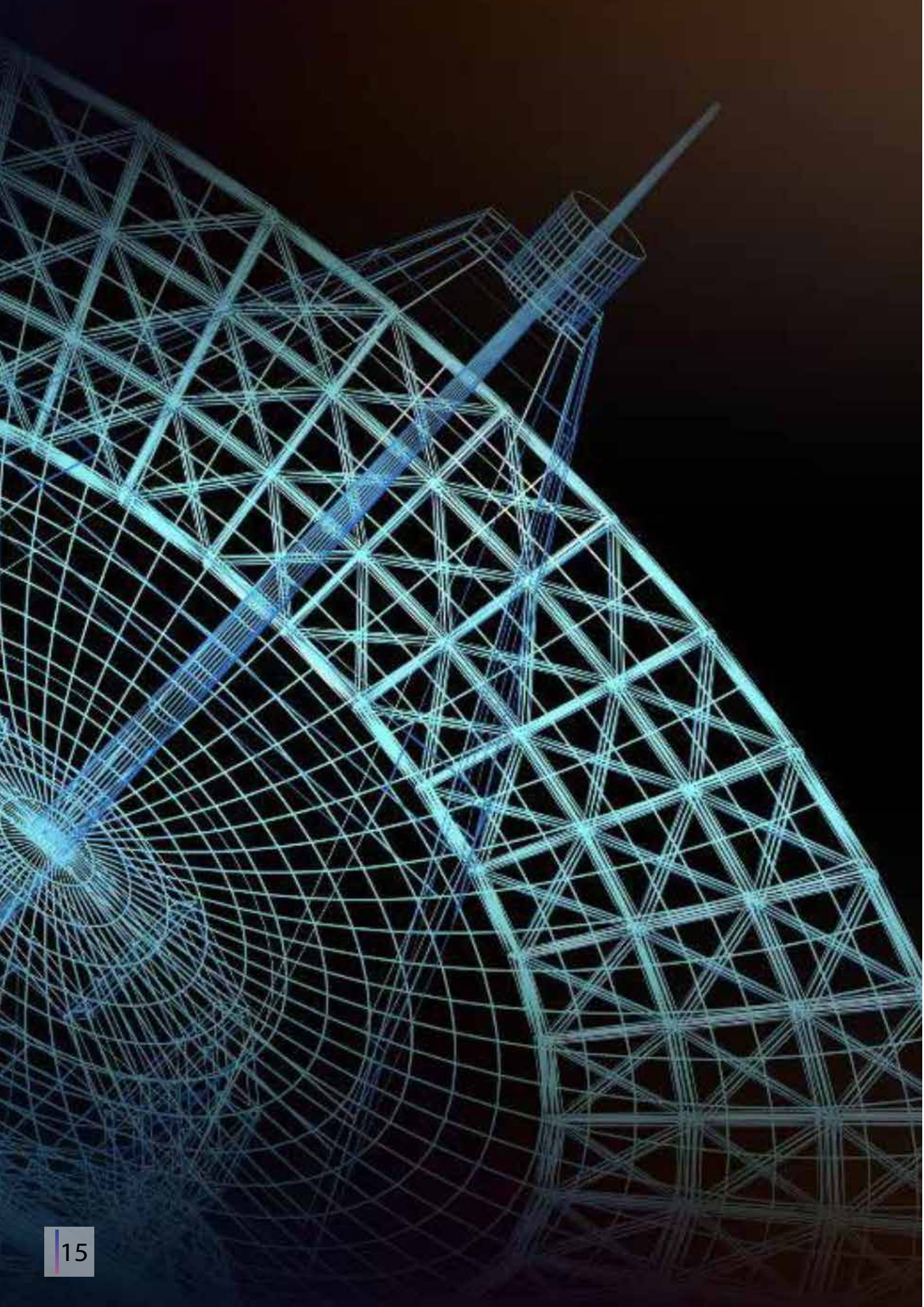
Research Areas

- Control and Automation
- Advanced Control
- Robotics
- Power Electronics and Drives
- Microelectronics
- Photonics
- Microwave and Antenna
- Cryptography and Security
- Switching
- Wireless and Mobile Computing
- Network Security
- Digital Signal Processing
- Image Processing
- Machine Vision
- Information Theory and Coding
- Bioinformatics
- Data Mining
- Hardware Engineering
- Artificial Intelligence
- Pattern Recognition
- Machine Learning
- Embedded Systems
- Internet of Things and Sensor Networks
- Biomedical Engineering- Bioelectric
- Computational Neuroscience
- Game Theory
- Renewable Energies

- 42 funded research projects
- 307 ISI publications
- More than 20 National and International Patents
- 29 state-of-the art research labs
- Various industrial collaborations with:
  - Isfahan's Mobarakeh Steel Company
  - Iran Telecommunication Research Center
  - Isfahan Regional Electric Company

Events, Workshops and Conferences

- Hosting three startup weekend events to motivate and support innovative startup ideas in the fields of electrical and computer engineering and information technology.
- Hosting the national student contest on smart grids.
- Hosting the cybersecurity festival four times.
- Annual laboratory safety workshops for B.Sc. students.
- Annual advanced laboratory safety workshops for graduate students.
- The 10th Iraninan Conference on Machine Vision and Image Processing, 2017.
- The 1st West Asian Colloquium on Optical Wireless Communications, 2018
- The 6th Iranian Conference on Radar and Surveillance Systems, 2019
- The fourth avionics conference 2019.



Labs

- 25 research and educational Labs
- Covering diverse areas within ECE
- Giving service to more than 500 students each year

We would like to express our sincere thanks to the faculty members at the Department of Electrical and Computer Engineering, and our colleagues at International Scientific Cooperation Center (ISCC) for sincere assistance in producing this prospectus.

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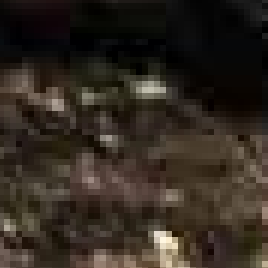
Published by: International Scientific Cooperation Center,
Isfahan University of Technology, Isfahan, Iran. 84156-83111