



CIT
CANADIAN INSTITUTE
OF TECHNOLOGY

MASTER OF SCIENCE

**SOFTWARE
ENGINEERING**

www.cit.edu.al

OUR MASTER PROGRAMS

Canadian Institute of Technology offers high quality educational programs ranging from Master of Science in Business of Information Technology, Digital Marketing, Business Administration, Finance & Accounting, Computer Engineering & IT and Software Engineering. Designed for students interested in pursuing a career in these fields, you will get a start in the job market, and may gain exemptions from professional qualifications.

You will develop a professional understanding of these programs, applicable to real world jobs.

Canadian Institute of Technology commits on delivering quality education through its highly qualified domestic academic staff with teaching experience abroad as well as international academic staff.



Study with McGraw Hill, one of the biggest educational publishers in the world.

Improve your English skills and increase employment opportunities by gaining access to an international career.

A connected and supportive network.

Teaching process is based on the best international educational practices, empowering graduates with creative, innovative, entrepreneurial skills, and a passion for knowledge.

WHY MASTER OF SCIENCE IN SOFTWARE ENGINEERING

The Master of Science in Software Engineering is an industrially relevant and up-to-date program offered by the Canadian Institute of Technology (CIT) designed to equip students with the skills and knowledge to become future software engineering leaders.

Students embark on this exciting program by studying modules from the fields of computer science, electronic engineering, computer networking, and mathematics. They learn industrial practices, including the latest approaches adopted by the industry for designing, writing, debugging, and maintaining software, along with usability testing.

The heart of the program is built upon understanding what precisely the end-user wants and then developing a software solution to meet this requirement. The importance of successfully completing a project is a key aspect of this program and is duly recognized through the inclusion of the compulsory module, 'Advanced Project Management'. This course emphasizes the comprehension of concepts and their proper application by teaching theoretical methods, principles, profilers, and debugging tools. It is reinforced by an examination of fundamental software development issues and processes in contemporary industrial practices.

Students are encouraged to cultivate a culture of critical thinking and reflection, enabling them to make informed, cost-effective, and ethical professional judgments. The program builds these skills through a solid understanding of theoretical methods, principles, tools and an examination of fundamental software development issues and processes.

To help the student seamlessly step into industry, internship opportunities are offered and built into this graduate program. This enables students to work with real-world problems utilizing emerging technologies and solutions alongside fellow software professionals. Teamwork is highly valued in the industry, and this is encouraged, with a strong emphasis on providing proper attribution and credit to the creators of the work that complete the assignment. Students on this program at CIT are encouraged to form lifelong networks as they are our future industrialists and entrepreneurs.

TARGET SKILLS



Technical Domain: Apply the latest emerging software development technologies and practices to construct robust software products and offer software solutions to industrial, manufacturing and medical problems.



Technical Domain: Offer solutions (programmes) which will be based on service-oriented architecture where necessary.



Technical Domain: Scaled solutions (applications) related to the size of the problem.



Technical Domain: Deliver integrated solutions using the standard mode of software development, which may include large-scale business applications.



Organisational Domain: Manage the in-house and outsourced development of software projects whilst always contributing to business processes through a process of analysis, design and optimisation in response to the dynamic needs of the organisation.



Crosscutting Domain: Analyse the social and complex external impacting factors along with the relevant software related legal, regulatory, ethical and professional issues in business and technical decision-making.



Crosscutting Domain: Comply with GDPR (General Data Privacy Regulation) when handling data.



Crosscutting Domain: Communicate effectively with technical, business and user/customer audiences and the stakeholders of the project.



Crosscutting Domain: Develop depth in a selected area of expertise in software engineering.



TYPICAL CAREER OPPORTUNITIES

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- AI & Machine Learning Programmer
 - Database Designer & Manager
 - Decision Support System Developer
 - Business Analyst
 - Enterprise Information System Designer
 - System Administrator
 - Information Designer
 - Information Specialist
 - Business Information Systems (BIS)
 - Software Developer
 - Software Architect
 - E-commerce Developer
 - Software Architect
 - Software Project Manager
 - Website/Webpage Manager
 - Software Tester
 - Games Developer
 - Management Systems
 - Defence and Aerospace
 - Healthcare Informatics

MASTER OF SCIENCE IN SOFTWARE ENGINEERING

First Year

FIRST SEMESTER COURSES

- Advanced Java Programming
- Advanced Algorithms & Data Structures
- Communication for Software Engineering
- Advanced Project Management
- Database Design and Administration

SECOND SEMESTER COURSES

- New programming Languages
- Computer and Network Security
- Advanced Software Evolution
- Information and Communication Security
- Intellectual Property Laws for Engineers

Second Year

THIRD SEMESTER COURSES

- Principles, Methods and Tools for Software Testing
- Soft Computing and Intelligent Systems
- Artificial Intelligence, Machine Deep Learning
- Mobile Application Development
- Elective Subject

Choose one of:

- Wireless Networks - LANs & WANs
- Robotics

FOURTH SEMESTER COURSES

- Internship
- Thesis

HOW TO APPLY

Master of Science Program (National Students)

The first step to admission in a Master's program at CIT is to complete the application form, which is available at www.cit.edu.al. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

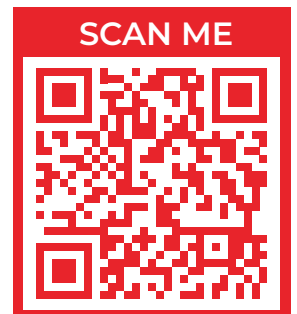
Admission Criteria

The Canadian Institute of Technology requires all candidates to fill out an application form in order to be accepted in one of the Master of Science programs. This form can be filled out on-line or in the premises of the Admission Office.

Students will be eligible for admission to one of the Master's programs if they meet the following criteria:

- Have successfully completed their studies in the Republic of Albania and obtained the relevant diploma, from a first study cycle "Bachelor" program or an integrated second study cycle program, accredited at the moment of the student graduation;
- Have an average GPA, preferably, no lower than 7.5;
- Demonstrate English language proficiency at the B1 level or higher.

Applications are open throughout the year, and registration takes place during September and October.



Master of Science Program (International Students)

Admission Criteria

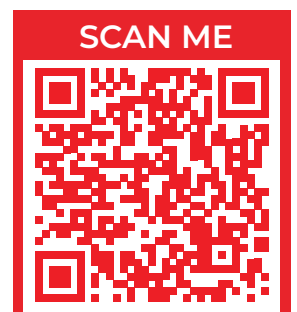
The Canadian Institute of Technology requires all international candidates to fill out an application form in order to be accepted in one of the Master of Science programs. An Admissions Officer will then contact you to provide further details about the pre-registration process and the required documents for this stage.

International students will be eligible for admission to one of the Master's programs if they meet the following criteria:

- Have successfully completed their studies and obtained the relevant 'Bachelor' program diploma from an accredited program at the time of their graduation;
- Have an average GPA, preferably, no lower than 7.5;
- Demonstrate English language proficiency at the B1 level or higher.

Applications are open throughout the year, and registration takes place during September and October.





International students are required to apply to the Albanian Education Service Center (QSHA) for the recognition of their diplomas.





**OPEN YOUR DOOR
TO THE WORLD**

Canadian Institute of Technology
Str. "Xhanfize Keko" No.12
("Xhura" Complex near TV Klan)
Tirana-Albania
+355 (0) 42 22 9778 | +355 (0) 67 40 42 042
info@cit.edu.al
www.cit.edu.al

 Canadian Institute of Technology
 Canadian Institute of Technology - CIT
 @CITECHNOLOGY
 canadian_institute_of_tech