CIT
CANADIAN INSTITUTE OF TECHNOLOGY

MASTER OF SCIENCE

COMPUTER ENGINEERING & INFORMATION TECHNOLOGY
"NETWORK AND CYBERSECURITY" PROFILE

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 **COMPUTER ENGINEERING & INFORMATION TECHNOLOGY** "NETWORK AND CYBERSECURITY" PROFILE

The Master of Science in 'Computer Engineering and Information Technology' with a profile in 'Network and Cybersecurity' is a highly industrially relevant and up-to-date program offered by the Canadian Institute of Technology (CIT). It is designed to equip students with the skills and knowledge needed to become future leaders in the fields of cybersecurity, network engineering, and general computer engineering, making them valuable assets in a wide range of industries.

The course is designed by CIT's academic experts and industry professionals to rigorously prepare students to address the ongoing global shortage of network engineers and cybersecurity specialists. It also equips them with additional skills in database management, programming, and advanced project management. Students embark on this intensive program by studying modules taken from the fields of information engineering, cybersecurity, computer networking, JAVA programming, database design and administration. Industrial practices, including the latest approaches adopted by the industry to design and safeguard enterprise networks, are taught.

The essence of this program lies in understanding how to appreciate the vast flow of information coursing through the Internet and the necessity to protect it. The program addresses this by containing modules on: Cloud Computing for Business, Web Engineering and Advanced Cryptography. Strategically important modules also include: Mobile Computing, wireless communications, interconnection networks for multi-computers, communications security and advanced research methods.

Whichever profession the student finally settles upon, the student must develop a sense and culture of critical thinking and reflection to make the correct, reasonable, cost effective and ethical professional judgement. The program builds these skills through a solid understanding of theoretical methods, principles, tools and an examination of fundamental computer engineering and cybersecurity 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

Network Design and Implementation: Design and implement computer networks utilizing the latest technologies and industry best practices.

Cybersecurity Strategy and Solutions: Develop strategies and solutions to protect computer networks from cyber threats and attacks.

Advanced Cryptographic Algorithms: Apply advanced cryptographic algorithms to enhance the security of computer networks and data.

Database Technologies and Management: Gain proficiency in the main database technologies and effectively manage databases for optimal performance and security.

JAVA Programming Proficiency: Master JAVA programming to develop efficient and secure applications for network and cybersecurity purposes.

Cloud Computing for Business: Understand and apply cloud computing technologies in a business context, considering security implications and optimization.

Web Engineering: Develop skills in web engineering to design and manage secure web applications and platforms.

Mobile Computing and Wireless Communications: Learn about mobile computing and wireless communication technologies, considering their security aspects and implications on network design.

Communications Security: Implement security measures to ensure the confidentiality, integrity, and availability of communication systems.

Advanced Project Management: Acquire advanced project management skills to successfully plan, execute, and deliver projects related to network design, cybersecurity, and IT.

Incident Response and Digital Forensics: Develop skills to effectively respond to cybersecurity incidents and conduct digital forensics to investigate and mitigate security breaches, ensuring a thorough understanding of incident handling and evidence preservation.

TYPICAL CAREER OPPORTUNITIES

- Cybersecurity Engineer
- Cybersecurity Specialist
- Network Solutions Architect
- Network Technician
- Network Manager
- Network Analyst
- IT Administrator
- Computer Forensics Analyst
- Defence and Aerospace Sector
- Information Security Consultant
- Ethical Hacking Professional
- External Consultant
- Cloud Security Specialist

- Information Security & Network Manager
- Information Security Professional/Officer
- Security Technology Professional
- Information System Auditor
- Intelligence Analyst
- Database Manager/Administrator
- Database Developer
- CISO (Chief Information Security Officer)
- Security Architect
- Malware Analyst
- Penetration Tester
- Application Security Engineer
- Incident Manager

MASTER OF SCIENCE IN
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First Year

FIRST SEMESTER COURSES

- Advanced Java Programming
- User Interface Design
- Advanced Research Methods
- Advanced Project Management
- Database Design and Administration

SECOND SEMESTER COURSES

- Information and Communication Security
- Cybersecurity
- Network Programming
- Computer and Network Security
- Elective subject

Elective one of:
- Wireless Communications
- Pattern Recognition
- Interconnection Networks for Multi-Computers

Second Year

THIRD SEMESTER COURSES

- Web Engineering
- Cloud Computing and Business
- Mobile Computing
- Advanced Cryptography

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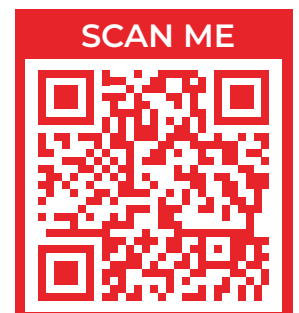
Admission Criteria
The Canadian Institute of Technology requires all candidates to fill out an application form in order to be accepted in one of the Master of Science programs. This form can be filled out on-line or in the premises of the Admission Office.

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.

SCAN ME

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.

SCAN ME

CIT

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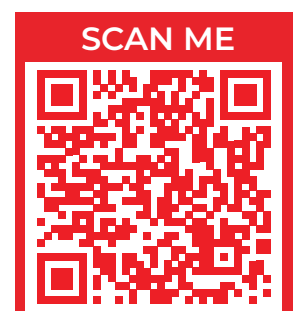
OPEN YOUR DOOR
TO THE WORLD

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