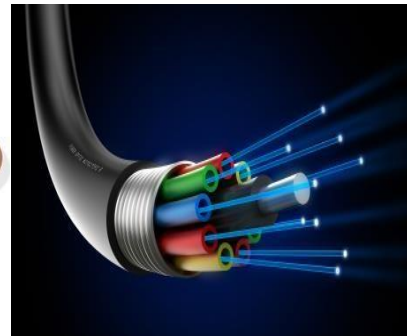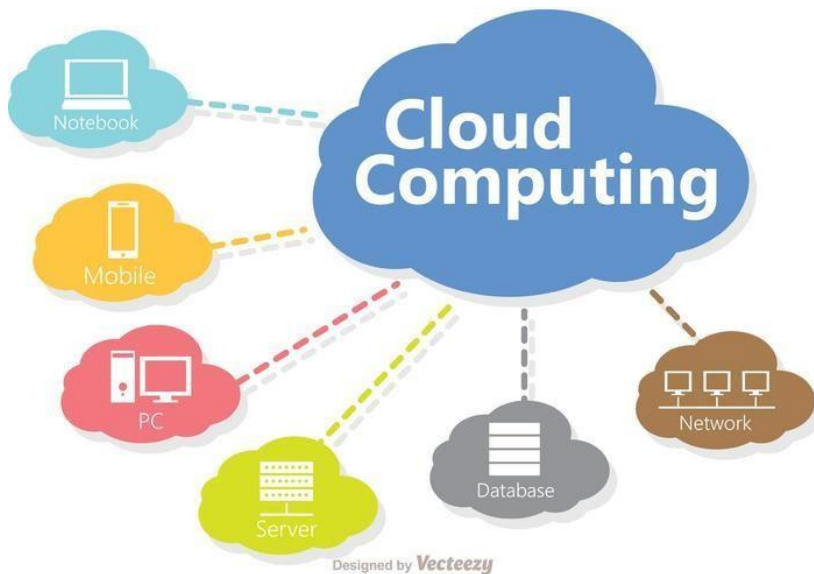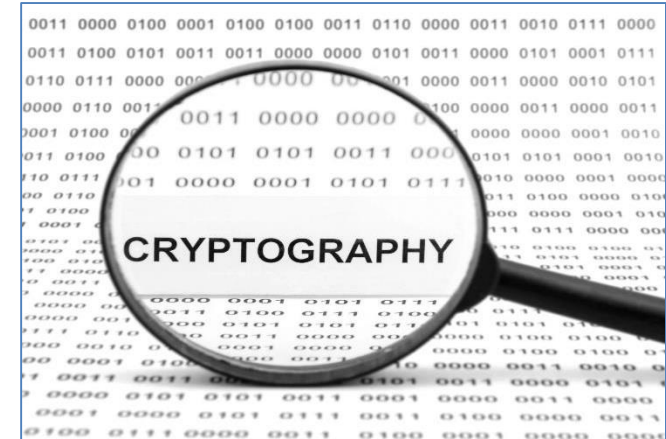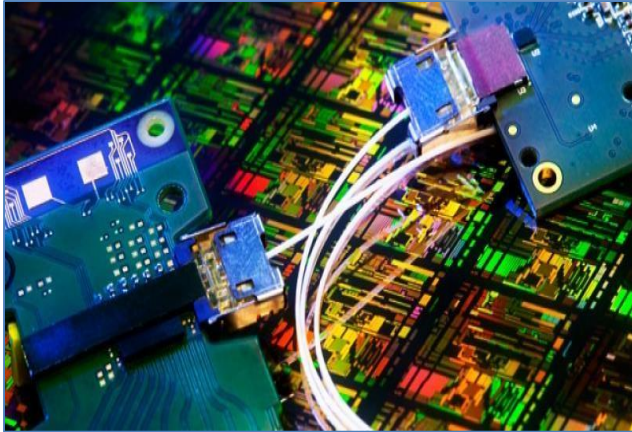ΤΜΗΜΑ ΠΛΗΡΟΦΟΡΙΚΗΣ ΑΠΘ

Postgraduate Programme «Communication Networks and Systems Security»

Postgraduate Programme
«Communication Networks and Systems Security»

➢ The international environment of telecommunications and digital communications is changing radically
- fiber optic networks,
- optical-wireless networks
- 5G/6G networks

➢ Plenty of Apps
- IoT, autonomous cars, online gaming, personal cloud services, remote health services, etc

➢ Safety is essential
- in the fight against electronic crime,
- in the protection of intellectual property in the digital age,
- in the protection of personal data and ensuring the confidentiality of communications.

Postgraduate Programme
«Communication Networks and Systems Security»

➢ The School of Informatics, AUTh, since 2018-19 offers a

Postgraduate Programme with the title:

> ### Communication Networks & Systems Security

➢ **Objective:** specialization in Communication Networks and/or Systems Security, in the following areas:

- ➢ Core networks
- ➢ Access networks, wireless and optical networks
- ➢ Cloud technologies
- ➢ Photonic technology/ Optical switching
- ➢ New generation of components and systems
- ➢ Cryptography
- ➢ Security of wireless and optical networks
- ➢ Internet Security
- ➢ Security and privacy of information and systems

Duration of Studies -ECTS

➢ The duration of studies is defined as a minimum of <u>3 semesters</u> for full-time postgraduate students

   ➢ the time spent preparing the diploma thesis is also included,

➢ Part-time study is possible for working students

   ➢ with a total duration of studies of six <u>6 semesters</u>.

➢ 90 ECTS

Courses

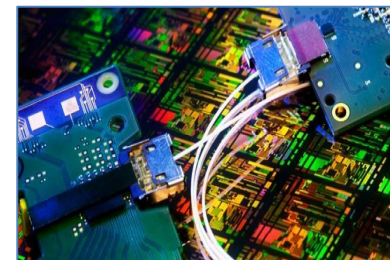**Specialization: Communication Networks**

Semester A

- Network Infrastructure– CC

- Optoelectronic Systems Technology– CC

- Distributed Processing in Grids and Clouds– E

- Advanced Topics on Networks– E
- Network Vulnerability Control – E
- Advanced Topics on Biological Nanonetworks –CC
- Internet of Things- E

Semester B

- Optical Networks: Architectures and Security Issues- CC

- Wireless Networks: Architectures and Security Issues- CC
- Advanced Topics on Optical Switching- CC

- Advanced Topics on Network Security- E
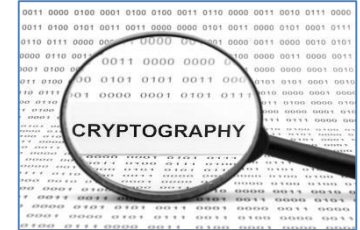- Modelling, Simulation and Performance Evaluation on Parallel and Distributed Systems -E

Semester C

Diploma Thesis

Courses

Semester A

- Cryptography – CC

- Software and Computer Systems Security–CC

- Advanced Topics on Networks– E

- Distributed Processing in Grids and Clouds– E
- Network Infrastructure – E
- Network Vulnerability Control – CC

Semester B

- Optical Networks: Architectures and Security Issues– CC

- Wireless Networks: Architectures and Security Issues– CC
- Advanced Topics on Network Security– CC

- Advanced Topics on Optical Switching– E
- Modelling, Simulation and Performance Evaluation on Parallel and Distributed Systems -E

Semester C

Diploma Thesis

Academic Staff

Teaching Personnel

- G. Papadimitriou (Professor)
- E. Karatza (Emeritus Professor)
- A. Miliou (Professor)
- P. Nikopolitidis (Professor)
- N. Pleros (Professor)
- P. Katsaros (Associate Professor)
- S. Petridou (Associate Professor)
- K. Draziotis (Assistant Professor)
- K. Kantelis (Assistant Professor)
- G. Pallas (IT Center AUTH, responsible for the network infrastructure)

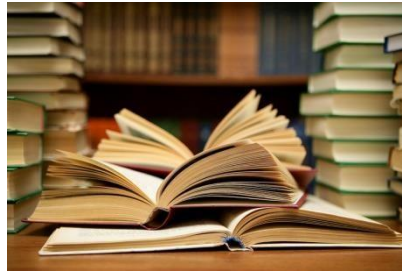# Research in the field

Activity during the last eight years
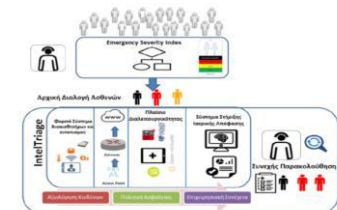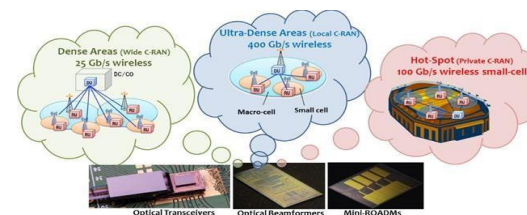
18 Books

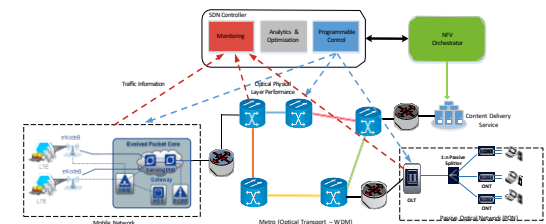- 5 in English
- 13 in Greek

>950 Research publications

- International Scientific Journals
- International Conferences

>30 Research and Development Projects

- EU
- National agencies
- NATO

5G-PHOS concept and vision
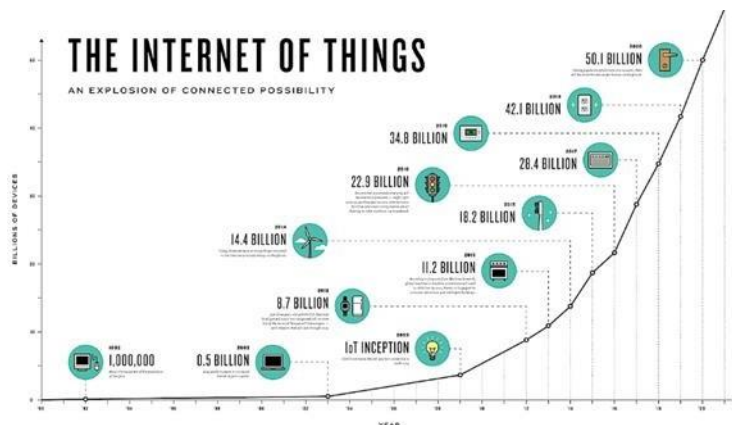
Employment prospects

Operators

- Systems Security Administrator
- Network Security Manager
- Network Architecture (+ cloud and Data Centers)
- Network administrator
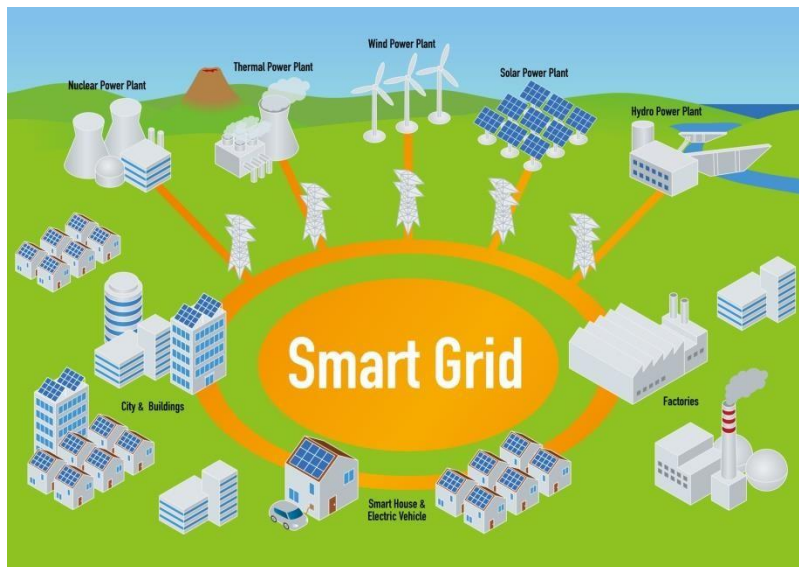
Banks

Research Projects

Employment prospects

Industry

- Systems Security Administrator
- Network Security Manager
- Network Architecture (+ cloud and Data Centers)
- Network administrator

Energy

- Safety and reliability management
- Designing energy efficient networks (Topology, Reliability, Flexibility)
- Network management

Thank you for your attention!

Information / Contact

School of Informatics Secretariat: pms_info@csd.auth.gr
Professor Amalia Miliou: amiliou@csd.auth.gr

Apply at: http://cnss.csd.auth.gr/admisions

Contact numbers: 2310998930, 2310998709, 2310998410