Master in Information and Communication Systems (ICS) Curriculum Structure – 60 ECTS

1st Semester: October – February

EVALUATION: February and September
COURSES: 5 compulsory courses (5 ECTS each one)

- Introduction to Information and Telecommunication Systems
- Industrial and Real-time Communications
- Internet Technology
- Electronics for Information and Communication Technologies
- Project Management in Telecommunications

2nd Semester: February – June

EVALUATION: June and September
COURSES: 3 compulsory courses and 4 optional (5 ECTS each one)

- Microprocessor Techniques
- Wireless Communications
- Multimedia
- Two of electives:
  - Power Supplies for ICT equipments
  - Microelectronics
  - Satellite and Mobile Communications
  - Computer Modelling and Simulation of Electronic Circuits

FINAL MASTER THESIS: 10 ECTS

About the course:
This is an extramural course developed in an European project in partnership with five European universities and institutes. The course materials are uploaded in an online learning environment – DIPSEIL, and may be performed anywhere. There is no obligation to visit any of the partnership universities, since the teaching is done explicitly online. Course evaluation will be based on the uploaded solutions for each course task in DIPSEIL and on the final master thesis.

Participating institutions:
- UNED-DIEEC: Electrical and Computer Engineering Department, UNED, Spain
- UNED-DSCC: Communication and Control Systems Department, UNED, Spain
- Plovdiv University "Paisii Hilendarski", ECIT Department, Plovdiv, Bulgaria

- Technical University Graz, Institute for Technical Informatics, Graz, Austria
- Cork Institute of Technology, Cork, Ireland
- Technical University Sofia, Sofia, Bulgaria

About the DIPSEIL system:

DIPSEIL (Distributed Internet-based Performance Support Environment for Individualized Learning) is a web-based learning content management system (LCMS). It is based on a unique learning methodology, developed at the Plovdiv University in 2000 and 2001. In comparison with other learning environments, DIPSEIL does not concentrate the learning process on raw theory and long learning materials, but presents the learners with tasks for performance. Each task is practically oriented and closely related to real life situations. Tasks have clearly defined objectives, short theory materials and structured instructions, which guide the learner to reach the objectives. Through performing the task the learner gains knowledge about the stated problem, abilities to identify it and skills to solve it. The theory presented in each task targets only the specific task and concentrates on the specifics of the issue. Because of the practical orientation of the DIPSEIL learning methodology, this environment is perfect for in-house trainings, performance-based higher education and other types of real life problem-based studies. Currently the DIPSEIL environment is fully utilized at the Plovdiv University and several other institutions around Europe use it in their workflow. DIPSEIL is constantly under improvement. One of the newest features include: mobile optimized environment - allowing learners to study on the go and benefit from the mLearning; remote laboratories - gain more abilities by practically applying the knowledge in laboratories, without physically being there - several laboratories around Europe are interconnected through DIPSEIL and learners can utilize the devices there, without leaving the chair. Registration in DIPSEIL is free. For more information, view the following address: http://dipseil.net/ .