

HELLENIC REPUBLIC
UNIVERSITY OF PATRAS



SCHOOL OF ENGINEERING
PARTICIPATING DEPARTMENTS: ELECTRICAL AND COMPUTER ENGINEERING (leader)
PHYSICS
UNIVERSITY CAMPUS, 26500, RIO, PATRAS, GREECE
Email: secretary-postgrad@ece.upatras.gr http://www.ece.upatras.gr

DIPLOMA SUPPLEMENT

This Diploma Supplement is based on the model developed by the European Commission, Council of Europe and UNESCO/CEPES. The purpose of the supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original accompanying qualification to which this supplement is appended. It should be free from any value judgments, equivalence statements or suggestions about recognition. Information in all eight sections should be provided. Where information is not provided, an explanation should give the reason why.

| | | | |
|---|---|---------------------------------|--|
| 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION | | | |
| 1.1 | Family Name(s): | 1.2 | Given Name(s): |
| | | | |
| 1.3 | Student identification number or code: | | |
| | | | |
| 1.4 | Date of birth (day/month/year): | Place, Country of Birth: | |
| | | | |
| 2. INFORMATION IDENTIFYING THE QUALIFICATION OF TITLE | | | |
| 2.1 | Name of the title in original language: | 2.2 | Main field(s) of study for the qualification: |
| | ΔΜΔΕ στην «Κατανομημένη πράσινη ηλεκτρική ενέργεια και τις προηγμένες δικτυακές υποδομές για τη διαχείριση και την οικονομία της» MSc in «Distributed Green Electric Power and the Advanced Network Infrastructure for its Management and Economy» | | Electrical Engineering (Power systems, Communication systems, Computer systems, Control systems) in Green Electric Power |
| 2.3 | Name and status of awarding institutions: | 2.4 | Name and status of institutions administering studies: |
| | University of Patras (HEI), Public University | | As in 3.4 |
| 2.5 | Language(s) of instruction/examination: | | |
| | Greek | | |
| 3. INFORMATION ON THE LEVEL OF THE QUALIFICATION | | | |
| 3.1 | Level of qualification: | 3.2 | Official length of programme: |
| | MSc, 2nd Cycle, 7th level | | Minimum time length of the course is 18 months. |
| 3.3 | Access requirement(s): | | |
| | Candidates for the Interdepartmental Postgraduate Master's Degree should hold a degree in Electrical and Computer Engineering or Computer Engineering and Informatics or Mechanical Engineering or Chemical Engineering or Physics. The degree must be awarded from a Greek University or be recognized as equivalent from the National Academic Recognition Information Centre. Graduates of Technological Educational Institutions from the Departments of Electrical, Telecommunications, Electronics, Computers and Informatics can also be accepted in the course. | | |

4. INFORMATION ON THE CONTENT AND RESULTS GAINED

4.1 Mode of study:

Full-time

4.2 Programme requirements:

In order to receive the Interdepartmental Postgraduate Master's Degree in «Distributed Green Electric Power and the Advanced Network Infrastructure for its Management and Economy» students should complete 90 ECTS. From these 60 ECTS are from the successful completion of 12 courses and more specific: 6 courses in the 1st semester (2 compulsory and 4 elective, 30 ECTS) and 6 courses in the 2nd semester (2 compulsory and 4 elective, 30 ECTS). The Postgraduate Dissertation provides a total of 30 ECTS. The Dissertation is examined and approved by a three-member examination committee appointed by the Special Interdepartmental Committee of the postgraduate programme. The examination committee is chaired by the student's supervisor. The other two members of the examination committee must be: a) in the same field of research with the dissertation, b) members of Faculties or Researchers of Grades A', B' or C' and hold a PhD.

This Postgraduate Study Programme (PSP) aims at providing high quality postgraduate studies in the field of distributed green electric energy and advanced network infrastructure for its distribution and economy. This field concerns the sustainable development with environmental protection and includes the cooperation of power systems, control, telecommunications, computers, digital and analog electronics in the service of electric energy production and advanced distribution infrastructure. Renewable energy sources and advanced distribution grids require modern electronic devices and computer systems, equipped with state-of-the-art telecommunication systems, so that they can be controlled in real-time. Graduates of the course acquire essential qualifications in a continually advancing technology by:

- a) Attending well-organized postgraduate courses that provide a broad knowledge of the field,
- b) Writing a Dissertation under the supervision of an experienced academic researcher.

The scientific field of the PSP covers many modern energy generation and distribution related issues. The purpose, the structure and content of the proposed PSP have solid scientific and academic foundations in accordance with standards universities of Europe and America. The PSP seeks to organize a pilot teaching and research environment (with excellent technological infrastructure, organized cooperation of staff and postgraduate students and a significant number of postgraduate research dissertations) which will provide a major boost to this research field. It covers the needs of the labor market for qualified scientists in areas which contribute to the achievement of sustainable development in an environment rapidly changing technology.

Alumni will explain and solve operational problems and the interconnection problems of dispersed electricity generation units (especially the Renewable energy sources). It would also solve the problems and will evolve the functionality of advanced electricity networks. To achieve the previous will implement intelligent control in real time, using sophisticated electronic devices, computer networks and telecommunications systems. Graduates are offered the opportunity to design the advanced electrical energy systems of the future and the advanced network infrastructure for their management and economy. To plan and will rationalize the deregulated electricity market, to ensure the ecological, sustainable development in an environment rapidly changing technology.

4.3

Programme details: (e.g. modules or units studied), and the individual grades/marks/credits obtained: (if this information is available on an official transcript this should be used here):

Courses that the student has successfully attended are shared in compulsory (C) and elective (E) courses as follows:

| CODE | COURSES | TYPE | Semester | ECTS Credits | Grade | Examination Period | ECTS Grading |
|---------|---|------|----------|--------------|-------|----------------------|---------------|
| DGP_101 | Introduction to Microprocessors and microcomputers | C | A | 5 | 9,0 | FEB 20.. or SEP 20.. | A or Pass (P) |
| DGP_102 | Automatic control systems | C | A | 5 | | » | |
| DGP_113 | Resource management and sustainable development | E | A | 5 | | » | |
| DGP_104 | Advanced networks of electric power systems | E | A | 5 | | » | |
| DGP_105 | Communications Networks featuring the Internet and the Distributed Generation | E | A | 5 | | » | |
| DGP_107 | Computers network for distributed control | E | A | 5 | | » | |

| | | | | | | | |
|---|--|---|---|----|---------|----------------------|---------------|
| DGP_109 | Optimum and robust control of distributed grids and power generating systems | E | A | 5 | | » | |
| DGP_110 | Intelligent (adaptive, fuzzy and evolution) control of electrical energy systems | E | A | 5 | | » | |
| DGP_111 | Economics of natural resources and environment | E | A | 5 | | » | |
| DGP_114 | Financial Management | E | A | 5 | | » | |
| DGP_115 | Marketing | E | A | 5 | | » | |
| DGP_201 | Electrical power systems control and stability | C | B | 5 | | JUN 20.. or SEP 20.. | A or Pass (P) |
| DGP_202 | Communications Networks | C | B | 5 | | » | |
| DGP_203 | Control of voltage source inverters and interaction with the network | E | B | 5 | | » | |
| DGP_204 | Applications of wireless networks in energy | E | B | 5 | | » | |
| DGP_217 | Modern technology of wireless networks | E | A | 5 | | » | |
| DGP_205 | Methodologies of software agents | E | B | 5 | | » | |
| DGP_218 | Systems for resources management | E | B | 5 | | » | |
| DGP_206 | Identificat. and faults isolation in the product. and distribution of electric power | E | B | 5 | | » | |
| DGP_212 | Photovoltaic systems | E | B | 5 | | » | |
| DGP_213 | Business Strategy | E | B | 5 | | » | |
| DGP_214 | Organizational Theory and Behavior | E | B | 5 | | » | |
| DGP_215 | Energy meteorology | E | B | 5 | | » | |
| DGP_301 | MSc Dissertation | C | C | 30 | | In C semester | |
| DIPLOMA GRADE | | | | | (GRADE) | | |
| <p>The successful completion of the MSc in «Distributed Green Electric Power and the Advanced Network Infrastructure for its Management and Economy» prerequisites that the student has successfully attended 4 compulsory and 6 elective courses with 60 ECTS. The minimum passing grade is 5. Moreover the student has completed the Diploma Dissertation under the title «.....», with 30 ECTS. ECTS grading, according to the Φ.5/89656/B3/2007 Ministerial Decision, is based on a sample of a minimum of 100 students and where the sample is insufficient, the characterization "Pass", is noted. The Diploma Dissertation is a unique study and it is not graded.</p> | | | | | | | |

4.4 Grading scheme:

| | |
|---|-------------------------------------|
| 8.50-10.00 | ΑΡΙΣΤΑ (ARISTA) - EXCELLENT |
| 6.50-8.49 | ΛΙΑΝ ΚΑΛΩΣ (LIAN KALOS) – VERY GOOD |
| 5.00-6.49 | ΚΑΛΩΣ (KALOS) - GOOD |
| Minimum passing grade: 5.00 | |
| ECTS Grading | |
| For the most successful students in 10% | A |
| For the next successful students in 25% | B |
| For the next successful students in 30% | C |
| For the next successful students in 25% | D |
| For the last successful students in 10% | E |

4.5 Overall classification (in original language):

8.50 – 10.00 «ARISTA»
6.50 – 8.49 «LIAN KALOS»
5.00 – 6.49 «KALOS»

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study:

5.2 Professional status (if applicable):

Access to postgraduate studies (3rd cycle, PhD)

Unavailable.

6. ADDITIONAL INFORMATION

6.1 Additional information:

6.2 Further information sources:

Unavailable.

Site ΔΜΔΕ: greenpower.upatras.gr/
University of Patras: www.upatras.gr
Department of Electrical and Computer Engineering: www.ece.upatras.gr
Greek Ministry of Education and Religious Affairs, Sport and Culture: <http://www.ypepth.gr/>
European Union: <http://www.ec.europa>

7. CERTIFICATION OF THE SUPPLEMENT

7.1 Date:

7.2 Signature:

7. Capacity:

7.4 Official stamp or seal

Rector of the University of Patras

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

<http://www.eurydice.org>

http://www.eurydice.org/Eurybase/frameset_eurybase.html