HELLENIC REPUBLIC

ARISTOTELEIO PANEPISTHMIO THESSALONIKIS(ARISTOTLE UNIVERSITY OF THESSALONIKI)

FACULTY OF ENGINEERING

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING

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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 Date of birth (day/month/year), Place, Country of Birth:

1.4 Student identification number or code:

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of the qualification and (if applicable) title conferred (in original language):

Δίπλωμα Ηλεκτρολόγου Μηχανικού και Μηχανικού Υπολογιστών (ΗΜΜΥ), Diploma in Electrical and Computer Engineering

2.2 Main field(s) of study for the qualification:

ELECTRICAL AND COMPUTER ENGINEERING with specialization field:

2.3 Name and status of awarding institution (in original language):

Αριστοτέλειο Πανεπιστήμιο Θεσσαλονίκης (Α.Π.Θ.), (Aristoteleio Panepistimio Thessalonikis-Aristotle University of Thessaloniki, A.U.Th.), Public University.

2.4 Name and status of institution (if different from 2.3) administering studies (in original language) :

As in 2.3.

2.5 Language(s) of instruction/examination: Greek

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1 Level of qualification: 1st Cycle

3.2 Official length of programme:

Five years of full-time integrated studies (10 semesters x 13 weeks per semester: 300 to 319 ECTS credits, depending on the elective courses chosen).
ECTS credits are based on the workload students need in order to achieve expected learning outcomes. Workload indicates the time students typically need to complete all learning activities (such as lectures, seminars, projects, self-study, diploma thesis and examinations) required to achieve the expected learning outcomes. 60 ECTS credits are attached to the workload of a fulltime year of formal learning (academic year) and the associated learning outcomes. The student workload ranges from 1500 to 1800 hours for an academic year, whereby one ECTS credit corresponds to 25 to 30 student work load hours.

3.3 Access requirement(s):

Certificate from classified upper secondary education school (Eniaio Lykeio) and success in national level admittance examinations.

4. INFORMATION ON THE CONTENT AND RESULTS GAINED

4.1 Mode of study:

Full-time, physical presence.

4.2 Programme requirements:

The curriculum comprises the core (semesters 1-5) and 3 parallel specializations (semesters 6-10).
The core cycle is common to all students and provides the necessary background knowledge in mathematics, physics and informatics, as well as in Electrical and Computer Engineering (ECE) in the areas of electrical energy, electronic & computer engineering and telecommunications.
At the end of the 5th semester students enroll in one of three 3 distinct areas of specialization: Electrical Energy, Electronic & Computer Engineering, or Telecommunications, where (during semesters 6-9) they attend more applied and technology-oriented courses in ECE, most of which are related to the area of specialization they have chosen.
After completion of the 7th semester, students can start working on their Diploma thesis (equivalent to a Master of Science thesis), which they complete and defend at the final 10th semester in front of a three-member assessment committee of the academic staff.
For the award of the Diploma in Electrical and Computer Engineering, students are required to:
1. Successfully attend 61 semester courses, 33 of which are compulsory core courses, whereas the remaining 28 ones depend on the chosen specialization area as follows:

- Specialization area of Electrical Energy: 16 compulsory and 12 elective courses.
- Specialization area of Electronic & Computer Engineering: 12 compulsory and 16 elective courses.
- Specialization area of Telecommunications: 16 compulsory and 12 elective courses.

The final grade of each course is based on the student's performance in various educational activities, such as midterm and final exams, homework assignments and projects, laboratory reports, etc, depending on the course.
2. Work on, write up and successfully defend a Diploma thesis. The Diploma thesis is equivalent to 8 semester courses and is credited with 30 ECTS units.
In addition, students may enroll in a 3-month student internship (work placement), which is offered as an optional course during the 10th semester in all three specialization areas.
Upon successful completion of the programme requirements, the graduate has the knowledge, expertise and skills to design, implement, support and maintain systems and services for the generation, trasmission, distribution, storage, processing, control and utilisation of energy and information.

4.3 Programme details (e.g. modules or units studied and individual grades/marks/credits obtained):

Diploma, five-year full time integrated undergraduate and first-level postgraduate studies including Diploma Thesis.
Courses that the student has successfully attended, as well as subjects for which the student has received recognition or exemption (COR = Compulsory courses, ELC = Elective courses, OPT = Optional courses, EX = Exchange courses)

Code	Courses	Type	ECTS credits	Grade	Examination period	ECTS Grading
ΓΕ1701	Physics I	COR	5.0			
ΓΕ3202	Introduction to Technical Engineering	COR	5.0			
MA0101	Calculus I	COR	5.0			
ΓΕ3102	Computer Aided Design Techniques	COR	4.0			
HY3302	Computer Systems	COR	5.0			
MA0201	Linear Algebra	COR	5.0			
HK0101	Electric Circuits I	COR	5.0			
MA0401	Differential Equations	COR	5.0			
MA0301	Probability and Statistics	COR	5.0			
HY0201	Structured Programming	COR	5.0			
ΓΕ3001	Applied Thermodynamics	COR	4.0			
MA0102	Calculus II	COR	5.0			
HK0102	Electric Circuits II	COR	5.0			
ΗΛ0101	Electronics I	COR	5.0			
TH2902	Linear Systems & Signal Analysis	COR	5.0			
ΓΕ0201	Materials for Electrotechnics	COR	4.0			
HM0101	Electromagnetic Field I	COR	5.0			
HY3402	Programming Techniques	COR	4.0			
MA0501	Applied Mathematics I	COR	4.0			
ΓΕ0502	Introduction to Electric Power Technology I	COR	4.0			
ΗΑ0201	Digital Systems I	COR	5.0			
HM0102	Electromagnetic Field II	COR	5.0			
HY0301	Numerical Analysis	COR	4.0			
TH3002	Stochastic Signal Processing	COR	4.0			
HY3502	Computer Architecture	COR	5.0			
HK0103	Electric Circuits III	COR	5.0			

	Code	Courses	Type	ECTS credits	Grade	Examination period	ECTS Grading
	AE0304	Automatic Control Systems I	COR	5.0			
	ΓΕ0231	Introduction to Electric Power Technology II	COR	4.0			
	HM0103	Electromagnetic Wave Propagation I	COR	5.0			
	HY3602	Data Structures	COR	5.0			
	TH1405	Analog Telecommunications	COR	4.0			
	ΗΛ0102	Electronics II	COR	5.0			
	ΓΕ0301	Electrical Measurements I	COR	4.0			
	AE0305	Automatic Control Systems II	COR	5.0			
	ΗΛ0104	Electronics III	COR	5.0			
	ΓΕ0303	Electrical Measurements II	COR	5.0			
	ΗΛ0202	Digital Systems II	COR	5.0			
	HY0701	Computer Networks I	COR	5.0			
	HY1501	Operating Systems	COR	4.0			
	HY2501	Microprocessor Systems	COR	5.0			
	TH0302	Digital Signal Processing	COR	5.0			
	HY0702	Computer Networks II	COR	4.0			
	HY0901	Microprocessors & Peripherals	COR	4.0			
	HY1601	Software Engineering	COR	5.0			
	ΗΛ0401	Digital Filters	COR	4.0			
	HY3202	Optimization Techniques	ELC	5.0			
	TH2802	Algorithm Analysis and Design	ELC	5.0			
	MA0701	Discrete Mathematics	ELC	4.0			
	HK0705	Programmable ASIC Devices	ELC	4.0			
	HY3603	Parallel and Distributed Computer Systems	ELC	5.0			
	HY2802	Theory of Computation and Algorithms	ELC	4.0			
	ΓΕ1301	Digital Image Processing	ELC	5.0			
	HK0601	Fuzzy Systems	ELC	5.0			
	HY3604	Embedded Real Time Systems	ELC	4.0			
	ΓΕ3206	Audio/Video Technology: Processing-Transmission-Storage	ELC	3.0			
	ΗΛ1101	Design of VLSI Systems	ELC	4.0			
	HY1001	Database Systems	ELC	4.0			
	HY1401	Pattern Recognition	ELC	5.0			
	HY2700	Computer Security	ELC	3.0			
	HY2902	Multimedia Systems and Virtual Reality	ELC	5.0			
	TH3008	Broadband Networks	ELC	4.0			
	PROJECT						
		Diploma Thesis		30.0			
	TOTAL ECTS						

The Degree is awarded according to the required minimum local credit units and the student may be examined in two more optional courses(section 3, art. 60, Ministerial Decision no Φ1.231/Β1/425, Hellenic Government Gazette no 1099/2000/Β)

Diploma Thesis « »

ECTS grading (A=10%, B=25%, C=30%, D=25%, E=10%) is based on a sample of a minimum of 100 students. If the sample is not sufficient then nothing is noted (according to the Ministerial Decision no Φ.5/89656/Β3, art. 4, Hellenic Government Gazette no 1466/2007/Β). The ECTS grading system is based on the Annex 3 of the ECTS Guide, 2009, and on Crocker, L., & Algina, J. (1986). Introduction to classical and modern test theory. New York: Harcourt Brace Jovanovich College Publishers.

Dissertations or/and Internship projects as well are considered as individual projects and they are not graded based on a previous sample. The same stands for the Erasmus courses for which we accept the grading of the receiving institution and we convert it to the local grade accordingly.

4.4 Grading scheme, and if available, grade distribution guidance :

A scale of 1 to 10 applies to the marks of each subject in the Hellenic Higher Education.
Άριστα (Arista) Excellent: 8.50-10.00
Λίαν Καλώς (Lian Kalos) Very Good : 6.50- 8.49
Καλώς (Kalos) Good : 5.00-6.49
Ανεπιτυχώς (Anepitychos) Fail: 0-4.99
Minimum passing grade : 5

4.5 Overall classification of the qualification (in original language):

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study:

Terminal (end) award giving access to further post-graduate and/or Doctoral studies.

5.2 Professional status (if applicable):

The Diploma in Electrical and Computer Engineering discipline entitles its holder to the legally protected professional title of "Engineer" and certifies his/her knowledge and rights to exercise professional work in the field of "generation, transmission, distribution, storage, processing, control and utilisation of energy and information". Graduates of the ECE School are licensed to exercise the profession of Mechanical-Electrical Engineering by the Techical Chamber of Greece, after passing exams, and the corresponding professional rights according to the existing legislation of the state.

6. ADDITIONAL INFORMATION

6.1 Additional information:

Courses and the Diploma thesis are assessed in a grading scheme scaling from 0.0 to 10.0. The minimum pass grade is 5.0. The final grade of the Diploma degree is based on the grade point average of the courses required for the degree and the grade of the Diploma Thesis (the equivalence of 8 courses).

6.2 Further information sources

About the ECE School:
http://www.ee.auth.gr/
About the AUTh University:
http://www.auth.gr/

Ministry of Culture, Education and Religious Affairs:
http://www.minedu.gov.gr/
Technical Chamber of Greece: http://www.tee.gr/
European Commission: http://www.ec.europa.eu/
For national information sources cf.Sect. 8

7. CERTIFICATION OF THE SUPPLEMENT

7.1 Date:

7.2 Name and Signature: Evdoxia Mavridou

7.3 Capacity: On behalf of the Rector the Head of the Administration Office of the School

7.4 Official Stamp or seal:

This certificate is issued for use in abroad and is signed by the Head of the Administration Office of the School, according to Rector's Decision no 17992/29.01.2015 (Official Journal of the Hellenic Republic 334/10.03.2015, vol. B').

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

Pursuant to the Constitution (article 16, paragraph 5), Greek Tertiary Education is public and gratis. Furthermore, according to the legal framework, it is divided into:

(a) the University sector (A.E.I.): Universities, Technical Universities, Fine Arts School, etc., and
(b) the Technological sector (T.E.I.): Technological Education Institutions and the School of Pedagogic and Technological Education.

Part of the University sector is also, since 1998, the Greek Open University, which provides open and distance -undergraduate and postgraduate- education and training.
There are also state post-secondary non-tertiary Institutions offering vocationally oriented courses of shorter duration (2 to 3 years), which operate under the authority of other Ministries.

All graduates of secondary education (Geniko and Epagelmatiko Lykeio) can be admitted to Higher Education Institutions, depending on the general score obtained in national examinations that take place at the end of the final year of Lyceum. The admission system is based on the number of available places (numerus clausus), the candidates' performance, and the candidates' ranked preferences of Schools. Admission to particular schools may also require a special examination (eg drawing for Architecture, etc.).

Study programmes in Higher Education Institutions last from four to six years, depending on the subject area. Students who successfully complete their studies are awarded a Ptychio / Diploma, which permits employment or further studies at post-graduate level leading to a Metaptychiako Diploma Eidikefsis (2nd cycle) - equivalent to the Master's degree- and to the doctorate degree (3d cycle), Didaktoriko Diploma.
Legislation on quality assurance in Higher Education, the Credit Transfer and Accumulation System (ECTS) and the Diploma Supplement defines the framework and the criteria for the evaluation of Higher Education Institutions, and for the certification of programmes of studies. These measures aim, among others, at promoting student mobility and contributing to the creation of the European Higher Education Area.

A detailed description of the Greek Education System is offered in:

- EURYDICE (<http://www.eurydice.org>) database of the European Education Systems.
- <http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/122EN.pdf> (pages 82,83)