H E L L E N I C **R E P U B L I C**

DEMOCRITUS UNIVERSITY OF THRACE

SCHOOL OF ENGINEERING

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Building A' E&CE, University Campus-Kimmeria 67100 Xanthi, Greece

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www.ee.duth.gr

DIPLOMA SUPPLEMENT

(Valid with diploma No 3134)

This Diploma Supplement follows 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 qualification to which this supplement is appended. It should be free from any value judgements, 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): TSILIGKOUDIS

1.2 Given name(s): THEMISTOKLIS

1.3 Date of birth (day/month/year): 24/05/1996
Place, Country of Birth: KAVALA, GREECE

1.4 Student identification number or code (if available): 56850

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1 Name of qualification and (if applicable) title conferred (in original language):
ΔΙΠΛΩΜΑ ΗΛΕΚΤΡΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ ΚΑΙ ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓΙΣΤΩΝ transliterated into: DIPLOMA ILEKTROLOGON MICHANIKON KAI MICHANIKON YPOLOGISTON, in English: DIPLOMA IN ELECTRICAL AND COMPUTER ENGINEERING

2.2 Main field(s) of study for the qualification:
ELECTRICAL AND COMPUTER ENGINEERING

2.3 Name and status of awarding institution (in original language):
ΔΗΜΟΚΡΙΤΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΡΑΚΗΣ, transliterated into: Dimokriteio Panepistimio Thrakis - in English: Democritus University of Thrace, D.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:
Integrated Master

3.2 Official length of programme:
Duration of studies: 5 years / 10 semesters ECTS credits: 300 ECTS

3.3 Access requirement(s):

Apolytirio (Certificate) from Lykeion (High School - Secondary Education) and Pan-Hellenic examinations, by way of special categories or by assessment examinations.

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1 Mode of study:

Full-time

4.2 Programme requirements:

According to the Undergraduate Studies Internal Regulations of the Electrical and Computer Engineering - ECE Department, students obtain a diploma after attending and passing successfully in all the courses of their program of studies and having completed and defended successfully their diploma thesis, accumulating in this way 300 ECTS credits. More analytically: The duration of studies that lead to the diploma in Electrical and Computer Engineering (ECE) is 5 years. The academic year begins in September 1st of every year and ends in August 31st of the next year. The educational period of each academic year is divided in 2 semesters, the Fall and the Spring, each having a 13-week teaching period and a 3-week examination period.
The courses are distributed in 9 instructive semesters, while the last, 10th semester is dedicated in preparing the diploma thesis. The program of studies of the first 6 semesters is common for all students and is referred to as Core Course Program or Fundamental Studies. Beginning in the 7th semester, students select the Specialized Direction of Study that they will follow. The "Directions of Study" are Groups of Elective Courses that exhibit scientific relevance and orientate the knowledge of the graduate Engineer toward one of the basic ECE Directions. It is noted that the granted "Electrical and Computer Engineer" Diploma is a uniform one, and the mandatory basic courses, that are common for all graduates, secure the necessary knowledge to grant this uniform Diploma. At the ECE Department of D.U.TH., there exist three Specialized Directions of Study: a) Energy Electrical Engineering, b) Electronics and Computer Engineering, and c) Telecommunications Engineering. During the 9th semester, depending on the Direction of studies, students elect all the courses they wish to attend following one of the possible offered Directions. In the beginning of the 9th semester, students also select the Diploma Thesis and the successful completion of the Diploma Thesis is mandatory for graduation. In addition, students may elect an optional Practical Training in centers oriented/specialising in consultancy, research or projects and in the industry in lieu of elective courses.
The prerequisites to obtain the ECE Diploma are:
To attend and obtain a passing grade in 65 semester courses: 51 mandatory and 14 elective courses. The final grade of each course is based in the performance of the individual student in various activities, such as mid-term and final examinations, homework, and laboratory reports, depending on the course. All courses are characterized by the number of credit units (Credit Units, C.U.), which are calculated by adding the hours of taught course, tutorials, and half of the hours of laboratory work. The mandatory courses are assigned with 5 or 4 ECTS credits, and the elective courses with 3 ECTS credits.
Completion, writing and successful defense of the Diploma Thesis, which is equivalent to an entire semester of taught courses and provides 30 ECTS credits.
Upon completion of his studies, the graduate of the Department of Electrical and Computer Engineering has acquired the knowledge necessary to practice the profession of Electrical and Computer Engineering or continue studying for a postgraduate diploma.
Specifically, graduates of the Department of Electrical and Computer Engineering upon successful completion of the study program, in addition to the basic knowledge of all fields of the science of Electrical and Computer Engineering and the ability to exercise their profession, have also been trained to have the ability to apply their knowledge successfully in practice, search, analyze and synthesize data and information using the appropriate and modern technologies, adapt to novel situations, to keep abreast of developments and to make decisions, work independently or participating in groups at the local, international and interdisciplinary environment, design and manage projects of various size and complexity generate new ideas in research and promote the free and creative thinking.
In addition to the above competence, which arise from the content and learning outcomes of the core compulsory courses of the study program, each graduate acquires additional specialized competence from the content and learning outcomes of the course of the "Direction of Study" chosen by and from the subject of his diploma thesis. These specialized competence, come from one of the three main "Directions of Study" offered in the Department, namely, (1) Energy Electrical Engineering, (2) Electronics and Computer Engineering and (3) Telecommunications Electrical Engineering,
Increase the general skills of graduates guaranteeing particular scientific knowledge in specific areas of science and Electrical and Computer Engineering Maximize the opportunities for independent and lifelong learning to ensure continuous updating and acquiring of modern knowledge.

Additional information can be found in the web page of the Department, http//www.ee.duth.gr and the Guides of Undergraduate and Post graduate Studies.

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

The courses in which the above mentioned student has been examined and got passing grades, as well as courses for which he/she has received recognition, are the following (C=Compulsory, O=Optional, OD,O1,O2=Optional Direction, CS=Compulsory Selective, CD=Compulsory Direction, S=Specialization):

Course Code	Course Title	Course Type	Grade	Examination period	Examination Type	ECTS
5A1Y03	APPLIED THERMODYNAMICS	C	9	SEPT 2018-2019	Examination	4
5A3Y	INTRODUCTION TO COMPUTER SCIENCE	C	5.5	FEB 2014-2015	Examination	4
5A4YE	SCIENCE PHILOSOPHY	CS	5	JUNE 2018-2019	Examination	3
5B1Y	PHYSICS I	C	5	SEPT 2018-2019	Examination	5
5A5YN	TECHNICAL DRAWING	C	5.5	FEB 2019-2020	Examination	4
5A2YN	CALCULUS OF ONE VARIABLE-LINEAR ALGEBRA	C	5	FEB 2014-2015	Examination	5
5AZ7YN	DISCRETE MATHEMATICS	C	6	JUNE 2018-2019	Examination	5
5B2YN	CALCULUS OF SEVERAL VARIABLES	C	7	JUNE 2014-2015	Examination	5
5B3Y	DIFFERENTIAL EQUATIONS	C	5	JUNE 2016-2017	Examination	4
5B5Y	STRUCTURED PROGRAMMING	C	8.5	FEB 2018-2019	Examination	5
5B7Y	ELECTRIC MEASUREMENTS	C	5.5	SEPT 2016-2017	Examination	5
5B7YE	OPERATIONS RESEARCH I	CS	7.5	JUNE 2014-2015	Examination	3
5Γ1Y	PHYSICS II	C	6.5	SEPT 2018-2019	Examination	4
5Δ6Y	MATERIALS SCIENCE	C	8	JUNE 2016-2017	Examination	4
5Γ2Y	APPLIED NUMERICAL ANALYSIS	C	5	SEPT 2018-2019	Examination	4
5Γ3E	COMPLEX FUNCTIONS AND TRANSFORMS	C	7.5	FEB 2015-2016	Examination	4
5Γ5Y	ELECTROMAGNETIC FIELDS I	C	5	FEB 2019-2020	Examination	5
5Γ6Y	ELECTRIC CIRCUITS I	C	8	SEPT 2018-2019	Examination	5
5Γ6YE	OPERATIONS RESEARCH II	CS	10	FEB 2015-2016	Examination	3
5Γ9YN	OBJECT ORIENTED PROGRAMMING	C	6	JUNE 2018-2019	Examination	4
5Δ5Y	DESIGN OF ELECTRONIC CIRCUITS	C	5	FEB 2017-2018	Examination	5
5Δ10YN	MICROELECTRONICS	C	5	SEPT 2017-2018	Examination	4
5Δ2Y	THEORY OF PROBABILITY AND STATISTICS	C	7.5	FEB 2018-2019	Examination	4
5Δ3Y	ELECTRIC CIRCUITS II	C	5.5	FEB 2019-2020	Examination	5
5Δ4Y	ELECTROMAGNETIC FIELDS II	C	8	FEB 2019-2020	Examination	5
5Γ4Y	TECHNICAL MECHANICS	C	8	FEB 2018-2019	Examination	4

Course Code	Course Title	Course Type	Grade	Examination period	Examination Type	ECTS
5Δ8YE	QUEUEING THEORY	CS	6	JUNE 2016-2017	Examination	3
5E2Y	DESIGN OF DIGITAL SYSTEMS	C	5	JUNE 2016-2017	Examination	5
5E3Y	SIGNALS AND SYSTEMS	C	5	FEB 2018-2019	Examination	4
5E12Y	BASIC PRINCIPLES OF ELECTRICAL MACHINES	C	6.5	JUNE 2018-2019	Examination	5
5E15Y	APPLIED ELECTRODYNAMICS	C	5	SEPT 2018-2019	Examination	4
5E16Y	STRUCTURE AND OPERATION OF POWER SYSTEMS	C	6	JUNE 2018-2019	Examination	5
5E17Y	ALGORITHMS AND DATA STRUCTURES	C	5	FEB 2016-2017	Examination	4
5ΣT1HK	SOUND TECHNOLOGY	CS	7.5	FEB 2016-2017	Examination	3
5ΣT2	ANALOGUE ELECTRONIC CIRCUITS	C	6	SEPT 2016-2017	Examination	5
5ΣT3	BASIC PRINCIPLES OF POWER ELECTRONICS	C	9.5	SEPT 2018-2019	Examination	5
5ΣT26YE	SENSORS	CS	5.5	JUNE 2017-2018	Examination	3
5ΣT22Y	PRINCIPLES OF COMMUNICATION LINKS	C	5.5	SEPT 2018-2019	Examination	5
5ΣT24Y	ORGANIZATION OF COMPUTER SYSTEMS	C	7	SEPT 2018-2019	Examination	4
5E6Y	AUTOMATIC CONTROL SYSTEMS	C	5	SEPT 2016-2017	Examination	4
5Z4	PRINCIPLES OF COMMUNICATIONS SYSTEMS	C	5	FEB 2019-2020	Examination	5
5H14	CONSUMERS ELECTRICAL NETWORKS	C	6	JUNE 2018-2019	Examination	4
5H2	INTERGRATED CIRCUITS	CD	5.5	FEB 2017-2018	Examination	4
5H5	DIGITAL COMMUNICATIONS SYSTEMS	CD	9	JUNE 2019-2020	Examination	4
5H1	OPERATING SYSTEMS	O1	8.5	FEB 2018-2019	Examination	3
5Z1	NETWORKS	CD	7.5	JUNE 2018-2019	Examination	4
5Z2	MICROPROCESSORS AND APPLICATIONS	CD	5	FEB 2019-2020	Examination	4
05Θ23N	OPTOELECTRONICS	O2	6	FEB 2017-2018	Examination	3
5Z31Y	MICROELECTRONICS TECHNOLOGY AND DEVICES	CD	5	SEPT 2019-2020	Examination	4
5ΣT5	MODERN AUTOMATIC CONTROL	CD	7	FEB 2017-2018	Examination	4
5Z37YE	ALGORITHMS AND COMPLEXITY	O1	7	SEPT 2017-2018	Examination	3
5H69Y	ELECTRONIC MEASUREMENTS	CD	5.5	JUNE 2017-2018	Examination	4
5H68Y	VLSI SYSTEMS	CD	6	JUNE 2018-2019	Examination	5
5H9	COMPUTATIONAL INTELLIGENCE	CD	6.5	JUNE 2017-2018	Examination	5
5H29	PHOTOVOLTAIC DEVICES AND APPLICATIONS	O1	6	SEPT 2017-2018	Examination	3

Course Code	Course Title	Course Type	Grade	Examination period	Examination Type	ECTS
5H38	COMPUTER NETWORKS	CD	5.5	JUNE 2018-2019	Examination	5
5H4	DIGITAL SIGNAL PROCESSING	CD	5	JUNE 2018-2019	Examination	5
5Θ34	EMBEDDED SYSTEMS DESIGN	CD	5.5	FEB 2018-2019	Examination	5
5Θ38	COMPUTER SYSTEMS SECURITY	O1	6.5	FEB 2018-2019	Examination	3
5Θ55	QUANTUM COMPUTERS	CD	6	FEB 2018-2019	Examination	5
05Θ10	ROBOTICS	CD	5	FEB 2018-2019	Examination	5
05Θ12	SPECIAL ISSUES OF AUTOMATIC CONTROL SYSTEMS	O1	10	FEB 2018-2019	Examination	3
05Θ27	SPECIAL TOPICS IN MICROELECTRONICS	O1	9	FEB 2018-2019	Examination	3
5Z27	INFORMATION THEORY, CODE THEORY AND CRYPTOGRAPHY	O2	6	FEB 2018-2019	Examination	3
5Θ58	PARALLEL ALGORITHMS AND COMPUTATIONAL COMPLEXITY	O2	10	FEB 2018-2019	Examination	3

Courses ECTS Total (1)	**270**

The column of ECTS presents the credits that correspond to each course.

Exemption is defined as recognition applied when a student carries the ECTS credits from previously completed and recognized studies, e.g. Erasmus.

*Does not count towards diploma.

Diploma Thesis Grade: 10

Thesis ECTS (2): 30

ECTS Total: (1)+(2) **300**

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

According to the Institution's Internal Regulations, the grading system falls into the 0-10 scale as follows:
8.50 - 10 : "Άριστα (Arista) - Excellent"
7.00 - 8.49 : "Λίαν Καλώς (Lian Kalos) - Very Good"
6.00 - 6.99 : "Καλώς (Kalos) - Good"
5.00 - 5.99 : "Επαρκώς (Eparkos) - Fair"
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0.00 - 4.99 : "Ανεπιτυχώς (Anepitichos) - Fail"

At least a grade of 5.0 is required for the successful completion of a course.
The diploma grade (D.G.) is calculated with accuracy to two decimal places by the following expression:

D.G. = (5/6)x(Summation of all grades of courses/Number of courses)+(1/6)x(grade of Diploma thesis)

4.5 Overall classification of the qualification:
"VERY GOOD" 7,03 SEVEN AND THREE HUNDREDTHS

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study:

Access to Post Graduate studies

5.2 Professional status (if applicable):

The Diploma degree in Electrical and Computer Engineering (ECE) 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 "Systems Study and manufacture for generation, transmission, distribution. storage, processing, control and utilisation of energy and information". Graduates of the ECE Department are licensed to exercise the profession of Mechanical-Electrical Engineering by the Technical Chamber of Greece, after passing examinations, and the corresponding professional rights according to the existing legislation of the state.

6. ADDITIONAL INFORMATION

6.1 Additional information:

6.2 Further information sources:

- Website of the Department ECE: <http://www.ee.duth.gr>
- Website of Democritus University of Thrace: <http://www.duth.gr>
- Website of Ministry of Education, Research and Religious Affairs: <http://www.minedu.gov.gr>

7. CERTIFICATION OF THE SUPPLEMENT

7.1 Date: 27/07/2021 **By Rector's Order**

7.2 Name and Signature: **Athanasios Gkougkoudis**

Digitally signed by Athanasios Gkougkoudis
Date: 2021.07.27 12:35:25 EEST

(signature)

7.3 Capacity: **Deputy Secretary of the DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**

7.4 Official stamp or seal:

8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

(i) Structure:
According to the Framework Law (2007), higher education consists of two parallel sectors: the University sector (Universities, Polytechnics, Fine Art Schools, the Open University) and the Technological sector (Technological Education Institutions (TEI) and the School of Pedagogic and Technological Education). The same law regulates issues concerning governance of higher education along the general lines of increased participation, greater transparency, accountability and increased autonomy.

There are also state non-university tertiary Institutions offering vocationally oriented courses of shorter duration (two to three years) which operate under the authority of other ministries.

(ii) Access
Entrance to the various Schools of the universities (Panepistimio) and technological education institutions (Techonoligo Ekpaideftiko Idryma - TEI) depends on the general score obtained by Lyceum graduates on the certificate, as described above (Section 5.iv), on the number of available places (numerous clausus) and on the candidates' ranked preferences among schools and sections.

(iii) Qualifications
Students who successfully complete their studies at Universities and TEI are awarded a Ptychio (fist cycle degree). First cycle programmes last four years for most fields to five years for engineering and certain other applied science fields and six years for medicine. The Ptychio leads to employment or further study at the post-graduate level that includes the one year second cycle leading to the second degree, Metaptychiako Dimpoma Eidikefsis - equivalent to the Master's degree - and the third cycle leading to the doctorate degree, Didactoriko Diploma.
Recent legislation on quality assurance in higher education, the credit transfer system and the diploma supplement defines the framework and criteria for evaluation of university departments and for certification of student degrees. These measures aim at promoting student mobility and contributing to the creation of a European Higher Education Area.
A detailed description of the Greek Education System is offered in the 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)
http://www.eurydice.org