TÜRKİYE CUMHURİYETİ
İZMİR KÂTİP ÇELEBİ ÜNİVERSİTESİ
FEN BİLİMLERİ ENSTİTÜSÜ

İZMİR KÂTİP ÇELEBİ ÜNİVERSİTESİ
2010

REPUBLIC OF TÜRKİYE
İZMİR KÂTİP ÇELEBİ UNIVERSITY
GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES

# TEZLİ YÜKSEK LİSANS DİPLOMASI

## Ege Doğan DURSUN

Mezuniyet Tarihi/Graduation Date: 19 Haziran 2023
Diploma No: 2022/392996/090

***Robotik Mühendisliği (İngilizce) Programında*** *gerekli çalışmaları başarı ile tamamlayarak,* ***TEZLİ YÜKSEK LİSANS*** *derecesini tanınan bütün yetkileriyle birlikte almaya hak kazanmıştır.*

*Having satisfactorily completed all requirements of* ***the Programme of Robotics Engineering (English),*** *has been awarded the degree of* ***MASTER OF SCIENCE (WITH THESIS)*** *with all rights and privileges thereto pertaining.*

Prof. Dr. Mehmet ÇEVİK
**FEN BİLİMLERİ ENSTİTÜSÜ MÜDÜRÜ**

Prof. Dr. Saffet KÖSE
**REKTÖR**

İZMİR KÂTİP ÇELEBİ ÜNİVERSİTESİ
2010

# İZMİR KÂTİP ÇELEBİ UNIVERSITY
# DIPLOMA SUPPLEMENT

europass

**Diploma Date**

19.06.2023

**Diploma No**

2022/392996/090

The purpose of the Diploma 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 is free from any value judgements, equivalence statements or suggestions about recognition. This Diploma Supplement model was developed by European Commission, Council of Europe and UNESCO.


**İzmir Katip Çelebi University**

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Web site : www.ikcu.edu.tr
Phone : +90(232) 329 35 35
Fax : +90(232) 386 08 88


## 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

**1.1 Last name (s)**: DURSUN

**1.2 First name (s)**: Ege Doğan

**1.3 Date of birth (day/month/year)**: 12.04.1997

**1.4 Student identification number or code (if available)**: Y210233001

## 2. INFORMATION IDENTIFYING THE QUALIFICATION

**2.1 Name of the qualification and (if applicable) title conferred (in original language)**: Robotik Mühendisliği Tezli Yüksek Lisans Derecesi (Disiplinlerarası)

**2.2 Main field(s) of study for the qualification**: Robotics Engineering (Interdisciplinary)

**2.3 Name and status of awarding institution**

İzmir Kâtip Çelebi Üniversitesi, Devlet Üniversitesi
Izmir Katip Celebi University, State University

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

**2.5 Language(s) of instruction/examination**: English

## 3. INFORMATION ON THE LEVEL AND DURATION OF THE QUALIFICATION

**3.1 Level of the qualification**: Second Cycle (Master's) Degree with Thesis

**3.2 Official duration of programme in credits and/or years**: 2 years (120 ECTS), 4 Semesters, 16-18 weeks per semester

**3.3 Access requirement(s)**

**For Turkish Citizens:**
(1) First Cycle (Bachelor's) Degree diploma. (2) A minimum score of 60 in the Examination for Academic Personnel and Graduate Studies (ALES) or equivalent international examinations scores for graduate-level programmes such as GRE, GMAT, etc., recognised by YÖK. Candidates gain access to the programmes based on their composite scores consisting of the scores on ALES and first cycle degree grade point averages. (3) Foreign Language Proficiency Score. (4) To have the qualifications related to application and acceptance determined in the rules and regulations of the Institute of Science and Technology.

**For International Students:**
(1) First Cycle Degree diploma obtained from universities recognised by YÖK. Candidates gain access to the programmes based on their first cycle degree grade point averages. (2) Foreign Language Proficiency Score. (3) To have the qualifications related to application and acceptance determined in the rules and regulations of the Institute of Science and Technology.

## 4. INFORMATION ON THE PROGRAMME COMPLETED AND THE RESULTS OBTAINED

**4.1 Mode of study**: Full-Time

**4.2 Programme learning outcomes**

**Key Learning Programme Outcomes:**
Students will be able to formulate research problems on robotics and robotics related fields, to conceptualize the valid robotics solutions both pratically and theoritically and also to interpret research findings and draw appropriate conclusions.

**Graduation Requirements:**
Students who have successfully completed at least seven courses in the curriculum, one seminar course and the thesis work and that do not have any F grades with at least 21 national credits and 90-120 ECTS credits, with a CGPA of at least 2.50 on a scale of 0 and 4.00 will be able to graduate.

## 4.3 Programme details, individual credits gained, and grades/marks obtained

| | Course Code | Course Title | Course Category | Institutional Credits | ECTS Credits | Grade |
|---|---|---|---|---|---|---|
| 1st SEMESTER | NAS502.1 | RESEARCH METHODS AND ETHICS | Compulsory | 4,00 | 6,00 | AA |
| | ROE589 | SPECIAL STUDIES | Compulsory | 0,00 | 24,00 | G |
| 2nd SEMESTER | ROE507 | CONTROLLER DESIGN AND ANALYSIS IN ROBOTICS | Elective | 3,00 | 6,00 | AA |
| | ROE509 | PROGRAMMING AND SIMULATION IN ROBOTICS | Elective | 3,00 | 6,00 | AA |
| | ROE590 | SEMINAR | Compulsory | 0,00 | 6,00 | G |
| | ROE516 | FUZZY LOGIC AND ROBOTICS APPLICATIONS | Elective | 3,00 | 6,00 | AA |
| | ROE518 | ANALYSIS AND CONTROL OF ELECTROMECHANICAL SYSTEMS | Elective | 3,00 | 6,00 | BA |
| | ROE514 | SENSORS AND SENSING SYSTEMS | Elective | 3,00 | 6,00 | AA |
| | ROE515 | ARTIFICAL INTELLIGENCE | Elective | 3,00 | 6,00 | AA |
| | ROE500 | THESIS | Compulsory | 0,00 | 48,00 | G |

**Total Credits Obtained : 22,00 (Institutional), 120,00 ECTS**
**Cumulative Grade Point Average (CGPA) : 3,93 out of 4.00**

**4.4 Grading system and (if available) grade distribution table**

The exam grades of the courses are based on 100 full grades. Equivalence is determined according to the following chart according to the letter grade system of the learning status document or 4 full score points. At least CC grades must be taken in order for a course to be considered successful.

| SCORES | GRADES | RATIO |
|---|---|---|
| 90-100 | AA | 4.00 |
| 85-89 | BA | 3.50 |
| 80-84 | BB | 3.00 |
| 75-79 | CB | 2.50 |
| 70-74 | CC | 2.00 |
| 65-69 | DC | 1.50 |
| 60-64 | DD | 1.00 |
| 40-59 | FD | 0.50 |
| 0-39 | FF | 0.00 |

1) When the document is arranged according to the alphabetical system; absence of the lesson is DZ, the state of being successful in the seminar and thesis studies is G, and K is the grade of failure. If the thesis studies are successful, the graduation thesis and the dissertation thesis are given as OL grades.
2) Specialist courses and seminar courses are rated as successful (G) or unsuccessful (K) and are not calculated in the overall grade average.

**CGPA**
When calculating students CGPA, grade point of the student is multiplied by the credit values of the course. The sum of the multiplication of all courses is divided by the sum of credit values of the courses. The result shows student CGPA. If this process is done for courses in one semester, Semester Grade Point Average is found; if it is done for all the courses student takes, the CGPA is found. Grade of a course that a student takes from another university is converted into letter grade if it is not in that form. These letter grades are included in cumulative grade point average (CGPA).

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

Genel Not Ortalaması : 3,93 /4 Başarılı
Cumulative Grade Point Average (CGPA): 3.93 /4 Successful

## 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

**5.1 Access to further study**

Upon successful completion of this programme, students may apply to third cycle programmes.

**5.2 Access to a regulated profession (If applicable)**

This degree is an academically oriented degree and enables the graduate to exercise his/her profession in or a related field of study and/or in research.

## 6. ADDITIONAL INFORMATION

**6.1 Additional information**

**6.2 Further information sources**

| | | | |
|---|---|---|---|
| University web site | : | University's ECTS Course Catalogue: | |
| YÖK/CoHE website | : https://www.yok.gov.tr | YÖKAK/THEQC website | : https://yokak.gov.tr |
| The Turkish ENIC-NARIC website | : https://denklik.yok.gov.tr/enic-naric-tr-tanima-ofisi | TYÇ/TQF website | : https://www.myk.gov.tr/index.php/en/turkiye-yeterlilikler-cercevesi |
| TYYÇ/TQF-HE website | : http://www.tyyc.yok.gov.tr | | |

## 7. CERTIFICATION OF THE SUPPLEMENT

**7.1 Date**

19.06.2023

**7.2 Name and Signature**

Mustafa KAYA

**7.3 Capacity**

Director of Student Affairs

**7.4 Official stamp or seal**

## 8. INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM

### Structure and Degree System

The basic structure of the Turkish National Education System consists of stages of non-compulsory pre-school education, compulsory primary (elementary and middle school) and secondary (high school) education, and higher education. Primary education begins at the age of 5 5 (66 months), lasts eight years and comprises elementary and middle school education, four years each. Secondary education is also four years and divided into two categories as "General High School Education" and "Vocational and Technical High School Education". The entry into these categories is through composite scores obtained from a centralized exam for secondary schools.

Higher education system in Turkey is managed by the Council of Higher Education (CoHE, Yükseköğretim Kurulu-YÖK) which is an autonomous public body responsible for the planning, coordination, governance and supervision of higher education within the provisions set forth in the Constitution of the Turkish Republic and the Higher Education Law. Both state and non-profit foundation universities are founded by law and subjected to the Higher Education Law and to the regulations enacted in accordance with it.

Higher education in Turkey comprises all post-secondary higher education programmes, consisting of short, first, second, and third cycle degrees in terms of the terminology of the European Higher Education Area (EHEA). Undergraduate level of study consists of short cycle (associate's-önlisans derecesi) and first cycle (bachelor's-lisans derecesi) degrees which are awarded after successful completion of full-time two-year (120 ECTS) and four-year (240 ECTS) study programmes, respectively. The structure of first and second cycles is separate except for dentistry, pharmacy, medicine and veterinary programmes which are one-tier systems (lisans ve yüksek lisans bütünleşik programları). The duration of these one-tier programmes is five years (300 ECTS) except for medicine which lasts six years (360 ECTS). The level of qualifications in these one-tier programmes is equivalent to that of second cycle including first cycle.

Graduate level of study consists of second cycle (master's-yüksek lisans derecesi) and third cycle (doctorate-doktora derecesi) degree programmes.

Second cycle degrees are divided into two sub-types named as master with thesis and master without thesis. The master programmes with thesis require 120 ECTS credits, which consist of courses, a seminar, and a thesis. Master programmes without thesis require 60 to 90 ECTS credits and consist of courses and a semester project. These programmes do not give direct access to third-cycle doctoral studies; for access to third-cycle programmes candidates should fulfil the thesis and other requirements of master programmes with thesis. 60 ECTS non-thesis master programmes are exceptional and exist in a few disciplines. Third cycle (doctorate with master degree) degree programmes are completed having earned 240 ECTS credits, which consist of completion of courses, a seminar, passing a scientific proficiency examination and a doctoral thesis. Third cycle (doctorate with bachelor degree) degree programmes are completed having earned 300 ECTS credits, which consist of completion of courses, a seminar, passing a scientific proficiency examination and a doctoral thesis.

Proficiency in art, specialisation in medicine and in dentistry are accepted as equivalent to third cycle programmes, the last two being carried out within the faculties of medicine and dentistry, university hospitals and the training hospitals operated by the Ministry of Health.

Universities consist of graduate schools (institutes) offering second cycle and third cycle degree programmes, faculties offering first cycle programmes, four-year professional higher education schools offering first cycle degree programmes and two-year vocational schools offering short cycle degree programmes.

**Admission requirements:** Admission of national students to short and first cycle degree programmes is centralised and based on a nationwide one/two-stage examination(s) conducted by an autonomous public body (Assessment, Selection and Placement Centre-ÖSYM). Candidates gain access to institutions of higher education based on their composite scores consisting of the scores on the selection examination and their high school grade point averages. Admission to graduate programmes is directly conducted by the higher education institutions (HEIs) within the frameworks of the publicly available national and institutional regulations. Admission of international students to programmes at all levels of higher education can be done by direct applications of candidates to HEIs based on publicly available national and institutional regulations.

**Turkish National Qualifications Frameworks:** The National Qualifications Framework for Higher Education in Turkey (TQF-HE, TYYÇ in Turkish) developed with reference to the QF for European Higher Education Area and the EQF for lifelong learning was adopted by the CoHE in 2010. Later in 2015, the framework became a part of Turkish Qualifications Framework (TQF, TYÇ in Turkish) which was designed as a single framework in harmony with the European Qualifications Framework and displays all qualifications gained through vocational, general and academic programs including primary, secondary and higher education or other learning environments. The framework was referenced with the EQF in 2017.

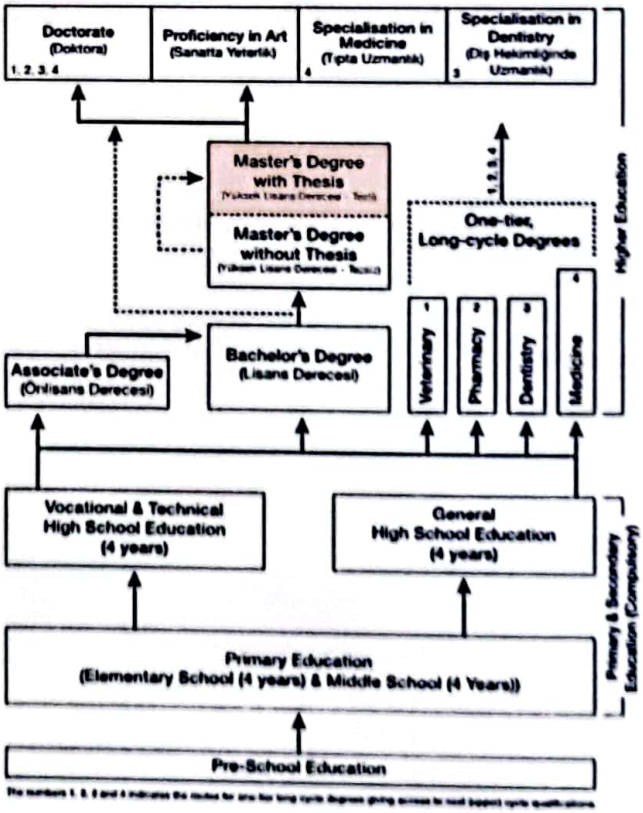
TQF consists of 8 levels in which the higher education lies from 5 to 8. The levels of TQF and TQF-HE with reference to the European Overarching Qualifications Frameworks as well as that to ECTS credits and student workload are shown below.

**Turkish Quality Assurance System:** The Higher Education Quality Council of Turkey (THEQC) was founded as an autonomous public legal entity in 2015, and since then it has been operating at the national level for evaluating the quality levels of higher education institutions' education and research activities and administrative services at institutional level in accordance with the national and international quality standards, and coordinating the processes of institutional accreditation, internal and external quality assurance as well as authorization of independent external evaluation and accreditation organizations. THEQC is a full member of ENQA (The European Association for Quality Assurance in Higher Education) since April of 28, 2020.

**TQF, TQF-HE LEVELS, QUALIFICATIONS TYPES AND ECTS CREDITS**

| Higher Education Levels / Cycles | | | QUALIFICATIONS TYPES | LENGTH (Year) | TOTAL ECTS CREDITS (Year × 60 ECTS) |
|---|---|---|---|---|---|
| QF-EHEA | EQF-LLL | TQF & TQF-HE | | | |
| 3 | 8 | 8 | Doctorate | 4 | 240 |
| | | | Specialisation in Medicine | | |
| | | | Specialisation in Dentistry | | |
| | | | Proficiency in Art | | |
| 2 | 7 | 7 | Master's Degree with Thesis | 2 | 120 |
| | | | Master's Degree without Thesis | 1 - 1,5 | 60 - 90 |
| 1 | 6 | 6 | Bachelor's Degree | 4 | 240 |
| Short Cycle | 5 | 5 | Associate's Degree | 2 | 120 |

**GENERAL STRUCTURE OF THE TURKISH EDUCATION SYSTEM**




Available E-signatures
Mustafa KAYA (Head of the Department of Student Affairs)
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