



**Bilkent University**

**Diploma Supplement**

06800 Bilkent, Ankara, Turkey

Bilkent University

bilkent.edu.tr

Diploma No: **131281813**

Diploma Date: **15.06.2013**

*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-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 : **20.05.1990**  
1.4. Student identification number : **20800744**

### 2. INFORMATION IDENTIFYING THE QUALIFICATION

- 2.1. Name of the qualification :  
**Elektrik ve Elektronik Mühendisliği, Lisans**
- 2.2. Main field(s) of study for qualification :  
**Electrical and Electronics Engineering**
- 2.3. Name and status of awarding institution :  
**İ. D. Bilkent Üniversitesi : Özel, Kanunla Kurulmuş, Devlet Tarafından Tanınan Üniversite**  
**İ. D. Bilkent University : Foundation-supported Public Legal Entity, Non-profit, State-recognised**
- 2.4. Name and status of institution administering studies :  
**Same as 2.3.**
- 2.5. Language(s) of instruction/examination :  
**100% English**

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

- 3.1. Level of qualification :  
**First Cycle (Bachelor's Degree)**
- 3.2. Official length of programme :  
**4 years (excluding English Preparatory School), 2 semesters per year, 16 weeks per semester, 240 ECTS**
- 3.3. Access requirements :  
**High school diploma.**  
**Admission to higher education is based on a nation-wide Student Selection Examination (ÖSS)**  
**Certificate of English Proficiency (IELTS score of 6.5, FCE score of C or TOEFL score of 80 in internet based or equivalent in an internationally recognised English Proficiency Examination including the English Proficiency Examination given at the end of the Bilkent University English Preparatory School)**

#### 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

##### 4.1. Mode of study :

**Full-time**

##### 4.2. Programme requirements :

Requirements

**This degree is awarded to students who have successfully completed all courses in the curriculum, including two one-month summer training periods and have a minimum CGPA of 2.00/4.00.**

Objectives

**\* To provide the students with the knowledge and skills needed for high quality engineering work in the field of electrical and electronics engineering by teaching the discipline in a way that emphasises creative and critical thinking, design and communication skills, collaboration, professional and ethical responsibility, and life-long learning.**

**\* To prepare students for advanced study in electrical and electronics engineering by providing a strong background in mathematical and physical principles in addition to engineering sciences.**

##### 4.3. Programme details and the individual grades/marks/credits obtained :

Code	Course Name	Course Category	Bilkent Credits	ECTS Credits	Grade
<b>Semester 1</b>					
CS 101	Algorithms and Programming I	Required	4	7	B+
ENG 101	English and Composition I	Required	3	6	B-
GE 101	Engineering Orientation	Required	1	1	A
MATH 101	Calculus I	Required	4	7	C
PHYS 101	General Physics I	Required	4	6	B
TURK 101	Turkish I	Required	2	1	B
<b>Semester 2</b>					
CS 102	Algorithms and Programming II	Required	4	7	B-
ENG 102	English and Composition II	Required	3	6	B-
MATH 102	Calculus II	Required	4	7	C-
PHYS 102	General Physics II	Required	4	6	B+
TURK 102	Turkish II	Required	2	1	A-
RUS 400	Intensive Russian I	Elective	3	6	B
RUS 410	Intensive Russian II	Elective	3	6	B
<b>Semester 3</b>					
EEE 211	Analog Electronics	Required	4	7	C+
GE 250	Collegiate Activities Program I	Required	0	1	S
HISTR 201	History of Turkish Republic I	Required	2	1	A
HUM 111	Cultures Civilizations and Ideas I	Required	3	4	C+
MATH 241	Engineering Mathematics I	Required	4	7	C+
<b>Semester 4</b>					
ECON 102	Introduction to Economics II	Elective	3	6	A+
EEE 102	Introduction to Digital Circuit Design	Required	4	6	B+
GE 251	Collegiate Activities Program II	Required	1	2	A
GER 111	Basic German I	Elective	3	6	B+
HISTR 202	History of Turkish Republic II	Required	2	1	A
MATH 242	Engineering Mathematics II	Required	4	6	C-
EEE 202	Circuit Theory	Required	4	7	B
EEE 212	Microprocessors	Required	4	6	C
<b>Semester 5</b>					
EEE 299	Summer Training I	Required	0	1	S
EEE 313	Electronic Circuit Design	Required	4	7	C
EEE 351	Engineering Electromagnetics	Required	3	6	D
MATH 110	Discrete Mathematics	Elective	3	6	B
<b>Semester 6</b>					
HUM 112	Cultures Civilizations and Ideas II	Required	3	4	A-
IE 400	Principles of Engineering Management	Elective	3	6	C+
MATH 255	Probability and Statistics	Required	3	7	B
CS 201	Fundamental Structures of Computer Science I	Elective	3	6	C+
ENG 400	Technical and Professional Composition	Required	3	6	B-
<b>Semester 7</b>					
CS 421	Computer Networks	Elective	3	6	B+
EEE 321	Signals and Systems	Required	4	7	A-

EEE 399	Summer Training II	Required	0	1	S
EEE 418	Principles of Electronic Devices	Elective	4	7	B
EEE 495	Electrical and Electronics Engineering Design II	Elective	3	6	B
GE 301	Science Technology and Society	Required	2	1	A-
<b>Semester 8</b>					
EEE 342	Feedback Control Systems	Required	3	6	D+
EEE 424	Digital Signal Processing	Elective	4	7	B-
EEE 431	Telecommunications I	Elective	3	6	D
EEE 436	Wireless Networking Technologies and Applications	Elective	3	6	C
EEE 452	Antenna Engineering	Elective	4	7	D
EEE 491	Electrical and Electronics Engineering Design I	Elective	3	6	B+
GE 304	Technology Society and Professional Development Seminar	Required	1	1	A
*****			<b>TOTAL CREDITS</b>	<b>141</b>	<b>243</b>
*****					<b>*****</b>

#### 4.4. Grading scheme and grades :

The University grading system uses letter grades with pluses and minuses. Letter grades and their grade point equivalents are:

A+	4.00	B+	3.30	C+	2.30	D+	1.30	F	0.00
A	4.00	B	3.00	C	2.00	D	1.00	FX	0.00
A-	3.70	B-	2.70	C-	1.70			FZ	0.00

The letter grades A+ and FX were instituted beginning with the 2010-2011 academic year. Additionally, the letter grade FZ introduced in 2012-2013 academic year spring semester.

Letter grades without grade point equivalents:

I (Incomplete)	: Temporary grade signifying incomplete work; to be later replaced with another grade.
W (Withdraw)	: Student has withdrawn from the course before the end of the semester.
T (Transfer)	: Student has taken the course at another program or another university.
P (In Progress)	: Used for multi-semester courses.
S (Satisfactory) and U (Unsatisfactory)	: Used for non-credit courses.

The semester grade point average (GPA) is computed as the sum of the products (Bilkent credits x quality points) divided by the sum of the Bilkent credits of courses in that semester.

The cumulative grade point average (CGPA) is an overall average computed as the sum of the products (Bilkent credits x quality points) of all the grades divided by the total number of Bilkent credits achieved.

#### 4.5. Overall classification of the qualification :

Genel Not Ortalaması	: 2.69 / 4.00
Cumulative Grade Point Average	: 2.69 / 4.00

## 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

### 5.1. Access to further study :

**May apply to second cycle programmes.**

### 5.2. Professional status :

**This degree enables the holder to exercise the profession.**

## 6. ADDITIONAL INFORMATION

### 6.1. Additional information :

\* The Registrar's Office e-mail: registrar@bilkent.edu.tr

### 6.2. Further information sources :

\* University web site : <http://www.bilkent.edu.tr>

\* Bilkent University Catalogue for Undergraduate and Graduate Programmes : <http://catalog.bilkent.edu.tr>

\* The Council of Higher Education web site : <http://www.yok.gov.tr>

\* The Turkish ENIC-NARIC web site : <http://www.enic-naric.net/members.asp?country=Turkey>

## 7. CERTIFICATION OF THE SUPPLEMENT

7.1. Date: **16.09.2013**

7.2. Name and Signature: **Zeynep Ekmekçioğlu**

(signed) Office

7.3. Capacity: **The Registrar**

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 noncompulsory 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 Bologna Process. The structure of Turkish higher education degrees is based on a two-tier system, except for dentistry, pharmacy, medicine and veterinary medicine programmes which have a one-tier system. The duration of these one-tier programmes is five years (300 ECTS) except for medicine which lasts six years (360 ECTS). The qualifications in these one-tier programmes are equivalent to the first cycle (bachelor's) plus second cycle (master's) degree. 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.

Graduate level of study consists of second cycle (master's)-(yüksek lisans derecesi) and third cycle (doctorate)-(doktora derecesi) degree programmes. Second cycle is divided into two sub-types named as master without thesis and master with thesis. Master programmes without thesis require 60 to 90 ECTS credits and consist of courses and a semester project. 60 ECTS non-thesis master programmes are exceptional, and exist in a few disciplines. The master programmes with a thesis require 90 to 120 ECTS credits, which consists of courses, a seminar, and a thesis. Third cycle (doctorate) degree programmes are completed having earned a minimum of 180 ECTS credits, which consists of completion of courses, passing a proficiency examination and a doctoral thesis. Specialization in medicine, accepted as equivalent to third cycle programmes are carried out within the faculties of medicine, university hospitals and the training hospitals operated by the Ministry of Health.

Universities consist of graduate schools (Institutes) offering second cycle (master's) and third cycle (doctorate) degree programmes, faculties offering first cycle (bachelor's degree) programmes, four-year higher schools offering first cycle (bachelor's) degree programmes with a vocational emphasis and two-year vocational schools offering short cycle (associate's) degree programmes of a strictly vocational nature.

Since 2003, first cycle degree holders may apply directly to third cycle (doctorate) programmes if their performance at the first cycle degree level is exceptionally high and their national central Graduate Education Entrance Examination (ALES) score is also high and their application is approved. For these students, theoretical part of the programmes requires additional courses of 60 ECTS credits.

Admission of national students to short and first cycle degree programmes is centralized 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 foreign 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.

**The Turkish National Qualifications Framework for Higher Education (TYYÇ):** The National Qualifications Framework for Higher Education in Turkey (TYYÇ) developed with reference to the QF for European Higher Education Area and the EQF for lifelong learning was adopted by the CoHE in 2010. The framework has been developed as a part of a single national qualifications framework, which would eventually consists of 8 level national framework covering all levels of educations on completion of the ongoing work at the national level, in which the higher education levels lie on levels between 5 to 8. The levels of the TYYÇ with reference to the European overarching qualifications frameworks as well as that to ECTS credits and student workload are shown below.

TYYÇ LEVELS, QUALIFICATIONS TYPES AND ECTS CREDITS						
Higher Education Levels/Cycles			AWARDS/ DEGREES	LENGTH (Year)	TOTAL ECTS CREDITS (Year x 60 ECTS)	TOTAL STUDENT WORKLOAD (h) (1 ECTS= 25-30h)
QF-EHEA	EQF-LLL	TYYÇ LEVELS				
3	8	8	Doctorate Specialization in Medicine Doctorate in Art	3 (min.)	180 (min.)	4.500 – 5.400
2	7	7	Master's Degree	1 - 2	60 - 120	1.500 – 3.600
1	6	6	Bachelor's Degree	4	240	6.000 – 7.200
Short Cycle	5	5	Associate's Degree	2	120	3.000 – 3.600

