

**MSc, Lecturer**

---

**Bahçeşehir University**

**Department of Software Engineering,**

**Faculty of Engineering and Natural Sciences,**

**Çırağan cad. Osmanpaşa Mektebi sok. No:4-6 34353 Beşiktaş, İST**

**+90 533 414 2544**

**EDUCATION**

<b>Degree</b>	<b>Major</b>	<b>University</b>	<b>Year</b>
B.S. (Major)	Computer Engineering	Bahcesehir University	2007
B.S. (Double Major)	Mathematics and Computer Sciences	Bahcesehir University	2007
MSc	Computer Engineering	Bahcesehir University	2010
PhD	Computer Engineering	Bahcesehir University	Thesis stage

**JOURNAL PAPERS**

Cakir, D., Arica. N. (2016). **Facial Landmark Patch Based Action Unit Detection Using Sparse Learning**, Türkiye Bilişim Vakfı Bilgisayar Bilimleri ve Mühendisliği Dergisi, 9 (2), pp. 21-26

Cakir, D. (2015). **Teaching an Introductory Programming Course Through Computer Graphics – An Experimental Approach**, Global Journal on Technology, 08, pp. 234-239.

Cakir, D. & Karahoca, A. (2014). **A review on eyebrow recognition systems in Turkish sign language (TSL)**. *Global Journal of Computer Sciences*, 4(2), 59-64.

Cakir, D. & Karahoca, A. (2014). **The protection of cultural heritage through digitization using virtual museums, A proposed virtual museum model**. *Global Journal of Information Technology*, 4(2), 101-106.

## **PROCEEDINGS / CONFERENCE PAPERS**

Cakir, D., Arica, N. (2016). **Facial Landmark Patch Based Action Unit Detection Using Sparse Learning**, International Conference on Computer Science and Engineering (BMBB, 2016), pp. 195-198, Tekirdag, Turkey

Cakir, D. and Arica, N. **Size variant landmark patches for Facial Action Unit detection**. Information Technology, Electronics and Mobile Communication Conference (IEMCON), 2016 IEEE 7th Annual. IEEE, 2016.

Cakir, D., Arica, N. **Random Attributes for Facial Expression Recognition**, International Conference on Advanced Technology & Sciences (ICAT'15), pp. 518-522, Antalya, Turkey

Cakir, D. **Teaching an Introductory Programming Course Through Computer Graphics - An Experimental Approach**, COMENG 2014

Cakir, D., Karahoca, A., **The protection of cultural heritage through digitization using virtual museums – A proposed virtual museum model**, INSODE 2014

Cakir, D., Karahoca, A., **A review on eyebrow recognition systems in Turkish Sign Language (TSL)**, INSODE 2014

Cakir, D., Karahoca, D., Karahoca, A., GÜNGÖR, A., **Adapting The Suzuki Method to an OOP Course by Using an Inductive Approach**, E-Learning'11, pp. 119-124, Bucharest, Romania – *Best Paper Award*

Cakir, D., Kaptan, S. N., Karahoca, A., **An OOP w/ Java Course Using an Inductive Approach**, Proceedings of The World Congress on Engineering 2010, pp. 421-424, London

## **PATENT(S)**

Cakir, D., Yenidogan. M. (Filed: Oct 24<sup>th</sup>, 2013). **An Algorithm Developed to Track Eye Movements on Mobile Devices (Mobil Cihazlar Icin Goz Takip Sistemi)**, Patent Number: 2013/12375, Turkey

## **PROJECTS**

**2015 – 2017**

### **TÜBİTAK 1001 - 115E310 : Temporal Analysis of Facial Expressions in the Wild Using High Level Facial Attributes and Deep Learning Architecture – PhD Scholar**

This project aims to develop new methods for temporal analysis of facial expressions of one or more people in a video recorded in the wild, using high level attributes and deep learning architecture. After the faces in the video frames are detected, each person's facial landmarks and face tube will be extracted and a deep learning based pose normalization followed by binary and relative attribute based facial representation will be applied. Finally, expression localization and classification will be handled by using a multi-modal and multi-scale deep learning architecture. The software that will be implemented in the scope of this project will enable the offline analysis of facial expressions coming from in the wild video recordings, especially surveillance cameras; which can and will be used in areas that are using big data analytics and business intelligence applications such as customer satisfaction and employee performance analysis.

**2010**

### **MSc Thesis Project**

“Investigating Learning Methodologies of Object Oriented Programming”

The main purpose of the study is to improve object-oriented programming syllabi and increase the achievements of the students of the course. The students' ability of self improvement will be assessed by making inventories. Some of the main topics included in the revised syllabus are as follows: class structure, constructors, functions and prototypes, declaring and initializing instances, abstraction and encapsulation.

**2009 – 2010**

### **CEIS: College of Engineering Information System**

Online Instructor – Course Management System includes lecturer management, publication pursuit, curriculum, and section management. The authorization levels consist of lecturers, chairmen, dean and rector.

**2009 – 2010**

### **GDSHW – Water Database Project, Phase II**

Sponsored by **The Scientific and Technological Research Council of Turkey (TÜBİTAK)**

General Directorate of State Hydraulic Works (**DSİ**) & Bahcesehir University, Phase II  
Graphical interfaces and comparable charts are included.

**2006 – 2009**

### **GDSHW – Water Database Project, Phase I**

Sponsored by **The Scientific and Technological Research Council of Turkey (TÜBİTAK)**

General Directorate of State Hydraulic Works (**DSİ**) & Bahcesehir University, Phase I  
Online water resources' management and observation system for lakes, ponds, barrages and water observatory stations of Turkey: The project aim was to convert all hardcopy documents to the virtual space as well as develop intelligent search systems and efficient resource usage.

2006 – 2007

**BS Thesis Project,**

“Cryptanalytic Time – Memory Trade – Off On Stream Ciphers”

The attack in this project represented a way to break stream cipher algorithms such as LILI – 128 and A5 by inverting the one – way function and reducing the time required for table look up, where the solution space of the problem decreases from  $N$  to  $N/2$ .

**COURSES GIVEN**

Educational Year	Semester	Course Name	Weekly Schedule		# of Students
			Theoretical	Lab	
2019 – 2020	Spring	Object Oriented Programming – Java (SEN1002)	1	2	280
2019 – 2020	Spring	Computer Graphics and Animation (SEN3301)	2	2	24
2019 – 2020	Fall	Introduction to Programming and Computers (SEN1003)	1	2	18
2019 – 2020	Fall	Introduction to Programming – Python (SEN1011)	2	2	592
2018 – 2019	Spring	MS C# Laboratory (SEN2006)	1	2	161
2018 – 2019	Fall	Introduction to Programming – Java (SEN1001)	2	2	356
2017 – 2018	Spring	Object Oriented Programming – Java (SEN1002)	2	2	147
2017 – 2018	Spring	MS C# Laboratory (SEN2006)	1	2	116
2016 – 2017	Spring	Programming with ASP.NET (YZM5540)	3	0	19
2016 – 2017	Spring	Object Oriented Programming – Java (SEN1002)	2	2	66
2016 – 2017	Spring	MS C# Laboratory (SEN2006)	1	2	116
2016 – 2017	Fall	Project Management in Information Technologies (YZM5610)	3	0	40
2016 – 2017	Fall	Introduction to Programming – Java (SEN1001)	2	2	101
2016 – 2017	Fall	Programming Languages (SEN2001)	3	0	136
2015 – 2016	Spring	MS C# Laboratory (SEN2006)	1	2	101
2015 – 2016	Fall	Programming Languages (SEN2001)	3	0	130
2015 – 2016	Fall	Computer Graphics and Animation (SEN3301)	2	2	40
2014 – 2015	Summer	Data Structures & Algorithms I (SEN2211)	2	2	15
2014 – 2015	Summer	Computer Graphics and Animation (SEN3301)	2	2	20
2014 – 2015	Spring	Object Oriented Programming – Java (SEN1002)	2	2	18
2014 – 2015	Spring	Introduction to Programming – Java (SEN1001)	2	2	151
2014 – 2015	Fall	Computer Graphics and Animation (SEN3301)	2	2	59
2014 – 2015	Fall	Programming Languages (SEN2002)	3	0	119
2013 – 2014	Summer (BAU Berlin)	Data Structures & Algorithms I (SEN2211)	2	2	7

2013 – 2014	<b>Summer (BAU Berlin)</b>	Computer Graphics and Animation (SEN3301)	2	2	5
2013 – 2014	<b>Spring</b>	Introduction to Programming – Java (SEN1001)	2	2	311
2013 – 2014	<b>Spring</b>	Programming Languages (SEN2002)	3	0	93
2013 – 2014	<b>Fall</b>	Introduction to Programming – Java (SEN1001)	2	2	112
2013 – 2014	<b>Fall</b>	Computer Graphics and Animation (SEN3301)	2	2	78
2012 – 2013	<b>Summer</b>	Web Programming (SEN3004)	2	2	30
2012 – 2013	<b>Summer</b>	Computer Graphics and Animation (SEN3301)	2	2	14
2012 – 2013	<b>Spring</b>	Web Programming (SEN3004)	2	2	91
2012 – 2013	<b>Spring</b>	Programming Languages (SEN2002)	3	0	74
2012 – 2013	<b>Spring</b>	Object Oriented Programming – Java (SEN1002)	2	2	16
2012 – 2013	<b>Fall</b>	Computer Graphics and Animation (SEN3301)	2	2	60
2012 – 2013	<b>Fall</b>	Data Structures & Algorithms I (SEN2211)	2	2	108
2011 – 2012	<b>Summer</b>	Computer Graphics and Animation (SEN3301)	2	2	8