



**Assist. Prof. Dr. Gülsüm Çiğdem Çavdaroğlu**

**1. Name** : Gülsüm Çiğdem Çavdaroğlu

**2. Birth Date** : 1981

**3. Academic Title** : Assistant Professor

**4. Education** :

Degree	Department	University	Dates
BS	Mathematics Engineering	Yıldız Technical University	1998-2003
MS	Remote Sensing and GIS	Yıldız Technical University	2003-2006
PhD	Remote Sensing and GIS	Yıldız Technical University	2006-2013

**5. Academic Titles**

Year	Title	University	Department
2018	Assist. Prof.	Işık University	Information Technologies

**6. Supervised MS and PhD Theses**

1. A Robust Gradient Boosting Model based on SMOTE and NEAR MISS Methods for Intrusion Detection in Imbalanced Data Sets (Saldırı Tespit Sistemleri için Dengesi Veri Setlerinde SMOTE ve NEAR MISS Metotlarına Dayalı Güçlü Gradyan Artırma Modeli), Ahmet Okan Arık, Master of Science, Information Technologies Department, 2022.
2. A Theoretical Comparison of Resnet and Densenet Architectures on the Subject of Shoreline Extraction (Resnet ve Densenet Mimarilerinin Kıyı Şeridi Çıkarımı Konusunda Teorik bir Karşılaştırılması), Mert İlhan Ecevit, Master of Science, Information Technologies Department, 2020.
3. Clinical Decision Making System for Early Diagnosis of Types of SMA Disease (Klinik Karar Sistemi ile SMA Hastalığının Tiplerinin Erken Teşhisi), Çağlayan Onur Taner, Master of Science, Information Technologies Department, 2019.

**7. Publications**

**7.1. Journal Publications (SCI,SSCI,Arts and Humanities)**

1. B. Bayram, H.K. Koca, B. Narin, **G.Ç. Çavdaroğlu**, L. Celik, U. Acar, R. Çubuk, An Efficient Algorithm for Automatic Tumor Detection in Contrast Enhanced Breast MRI by Using Artificial Neural Network (Neubrea), Neural Network World Journal, vol.5, pp.483-498, 2013.

## 7.2. Journal Publications (Non SCI-Expanded)

1. Ahmet, A., & **Gülsüm, Ç.**, Istanbul's Community Mobility Changes During the COVID-19 Pandemic: A Spatial Analysis. *Journal of Data Applications*, 2023.
2. **G.Ç. Çavdaroğlu**, Correlation Analysis between the Community Mobility and Nighttime Lights in the City of Istanbul, Turkey, *International Journal of Innovative Research in Sciences and Engineering Studies (IJRSES)*, Vol. 2, No. 6, pp. 5-10, ISSN: 2583-1658, 2022.
3. **G.Ç. Çavdaroğlu**, M. Gökmen, A Character Segmentation Method to Increase Character Recognition Accuracy for Turkish License Plates, *Mathematics and Computer Science*. Vol. 6, No. 6, 2021, pp. 92-104. doi: 10.11648/j.mcs.20210606.13.
4. **G.Ç. Çavdaroğlu**, Google Earth Engine Based Approach for Finding Fire Locations and Burned Areas in Muğla, Turkey, *American Journal of Remote Sensing*, vol.9, iss.2, pp.72-77, 2021.

## 7.3. International Conference Papers

1. **G.Ç. Çavdaroğlu**, A.O. Arık, Spatio-Temporal Analysis of Istanbul Air Pollution During the Pandemic using Google Earth Engine and Google Community Mobility Reports, 5. International Conference on Data Science and Applications, Online Participation, 7-11 September, 2022.
2. A. O. Arık, **G.Ç. Çavdaroğlu**, An analysis of the spatial attributes on community mobility changes during COVID-19 pandemic using spatial regression, 5. International Conference on Data Science and Applications, Online Participation, 7-11 September, 2022.
3. **G.Ç. Çavdaroğlu**, An Analysis of the Effects of External Factors on Covid-19 Projections, II. International COVID-19 and Current Issues Congress, Babil Yayınevi, Iconsos Publishing House 2021, ISBN: 978-605-74582-5-4, Online Participation, 2021.
4. **G.Ç. Çavdaroğlu**, Trafik Yoğunluk Harita Görüntülerinin Görüntü İşleme Yöntemleriyle İşlenmesi, International Symposium on Innovative Technologies in Engineering and Science - 2016, Alanya, Türkiye, 2016.
5. **G.Ç. Çavdaroğlu**, E. Ergen, CanBus Verilerinin Android Tabletlerde Gösterilmesi, International Symposium on Innovative Technologies in Engineering and Science - 2015, Valencia, Spain, 2015.
6. E. Ergen, **G.Ç. Çavdaroğlu**, Map Based Intersection Collision Avoidance System, ERTICO ITS World Congress 2014, Helsinki, Finland, 2014.
7. **G.Ç. Çavdaroğlu**, E. Ergen, Speed Management At Bends Using LDM, ERTICO ITS World Congress 2014, Helsinki, Finland, 2014.

## 7.4. Book Chapters

1. **G.Ç. Çavdaroğlu**, Managing the Dynamic Geographical Data in Intelligent Transportation Systems Using Local Dynamic Map, *Current Researches in Engineering and Architecture Sciences*, IVPE, First Edition, June 2020, Cetinje-Montenegro, ISBN: 978-9949-46-027-3.

## 7.5. National Journal Publications

2. B. Bayram, **G.Ç. Çavdarođlu**, D. Őeker, S. Klr, A Novel Approach to Automatic Detection of Interest Points in Multiple Facial Images, International Journal of Environment and Geoinformatics 4(2), 116-127, 2017.
3. **G.Ç. Çavdarođlu**, Trafik Yođunluk Harita Grntlerinin Grnt İŐleme Yntemleriyle İŐlenmesi, Academic Platform-Journal of Engineering and Science, 5 (2), 22-28, 2017.
4. **G.Ç. Çavdarođlu**, Akıllı Yz İlinti Blgeleri ve Noktaları, YT Sigma Mhendislik ve Fen Bilimleri Dergisi, 31, 246-261, 2013.

## 7.6. National Conference Papers

1. **G.Ç. Çavdarođlu**, CBS'de Yeni Bir Katman: Yerel Dinamik Harita, Uzaktan Algılama – Cođrafi Bilgi Sistemleri Sempozyumu (UZAL) - 2016, 1083, Adana, Trkiye, 2016.
2. **G.Ç. Çavdarođlu**, E. Ergen, Gml Sistemler İin Yksek Performanslı Harita Veri Yapısı, Ulusal Yazılım Mhendisliđi Sempozyumu (UYMS) - 2015, Vol-1483, Izmir, Trkiye, 2015.
3. **G.Ç. Çavdarođlu**, Semantik Web Altyapısıyla Duygu ve Eylem Modelleme, Ulusal Yazılım Mhendisliđi Sempozyumu (UYMS) - 2014, Kıbrıs ODTU KKK, 2014.
4. **G.Ç. Çavdarođlu**, E. Ergen, DGPS'in LDM'e Uyarlanması, BiliŐim 2013 Kongresi, Ankara, Trkiye, 2013.

## 7.7. Other Publications

1. (Speaker) **G.Ç. Çavdarođlu**, Endstrinin Geleceđi: Byk Veri, Nesnelerin İnterneti, Yapay Zeka, Istanbul Sehir University & TTO, Istanbul, Trkiye, 2017.
2. (Poster) **G.Ç. Çavdarođlu**, The Key Role of the Smart Traffic Applications in the Smart City Systems, ICAS 2016, Istanbul, Trkiye, 2016.
3. (Speaker) **G.Ç. Çavdarođlu**, niversite – Sanayi İŐbirliđi, IEEE Marmara Region Meeting, Dogus University, Istanbul, Trkiye, 2016.
4. (Speaker) **G.Ç. Çavdarođlu**, Android Platformunda OpenCV İle Grnt İŐleme, Android Developer Days, Ankara, Trkiye, 2015.
5. (Poster) **G.Ç. Çavdarođlu**, E. Ergen, M. nat, H. Gezen, S. Arslan, S. Futacı, KoSistem Ar-Ge ve niversite İŐbirlikleri (KoSistem R&D and University Collaboration), SİMP 2015, Konya, Trkiye, 2015.
6. (Poster) **G.Ç. Çavdarođlu**, E. Ergen, KoSistem Ar-Ge'de Srdrlebilirlik, SİMP 2015, Konya, Trkiye, 2015.
7. (Poster) **G.Ç. Çavdarođlu**, E. Ergen, Konum Dzeltme Verilerinin Dinamik Harita Katmanlarında Saklanması, 1. Karayolu Akıllı UlaŐım Sistemleri Kongre ve Sergisi - KAUS, Istanbul, Trkiye, 2014.

## **8. Projects**

### **8.1. PIANiSM (Predictive and Prescriptive Automation in Smart Manufacturing)**

Company: KoçSistem – İstanbul (2018)

Program: ITEA & Tübitak 1509 – International Support Program

Responsibility: Idea Owner, International Coordinator (11 months)

### **8.2. MOS2S (Media Orchestration - Sensor to Screen)**

Company: KoçSistem – İstanbul (2017)

Program: ITEA & Tübitak 1509 – International Support Program

Responsibility: Mentor, Project Manager (5 months)

### **8.3. INSIST (Integrated Service Delivery for Citizens' Safety and Comfort)**

Company: KoçSistem – İstanbul (2016)

Program: ITEA & Tübitak 1509 – International Support Program

Responsibility: Mentor, Project Manager (24 months)

### **8.4. Tüp Boya Kontrol Sistemi**

Company: KoçSistem – İstanbul (2017)

Program: Tübitak TEYDEB 1501 – National Support Program

Responsibility: Project Manager (3 months)

### **8.5. CoMoSeF (Co-Operative Mobility Services of the Future)**

Company: KoçSistem – İstanbul (2015)

Program: Celtic Plus & Tübitak 1509 – International Support Program

Responsibility: R&D Software Developer and Researcher (18 months)

### **8.6. Pixage Hospitality – Sayısal Yayıncılık Uygulaması**

Company: KoçSistem – İstanbul (2015)

Program: Tübitak TEYDEB 1501 – National Support Program

Responsibility: Project Manager (18 months)

### **8.7. Gerçek Dünya Görünümünü Üç Boyutlu Tasarımlarla Zenginleştiren Sunum ve Tasarım Sistemi**

Company: İdegis Teknoloji – İstanbul (2013)

Program: Tübitak TEYDEB 1512 – Entrepreneurship Program

Responsibility: Idea Owner, Project Manager (12 months)

### **8.7. SocialCRM – Social Media Analysis Application**

Company: Proline – İstanbul (2011)

Responsibility: R&D Software Developer (6 months)

### **8.8. GullsEye – Real Time 3D Port Modelling**

Company: Softtech – İstanbul (2009)

Program: Tübitak TEYDEB 1501- National Support Program

Responsibility: R&D Software Developer (12 months)

### **8.9. SISWorld CAD & GIS System**

Company: Sampaş – İstanbul (2005)

Responsibility: R&D Software Developer (24 months)

## 9. Administrative Positions

1. Isik University – Head of Distance Learning Center (2019 - ...)
2. Isik University – Center of Education Technologies Board of Directors (2019 - ...)
3. Isik University - Faculty of Arts and Sciences - Faculty Administrative Board (2019 - ...)
4. Isik University - Head of Management Information Systems Department (2019 - ...)
5. Isik University - Head of Information Technologies Department (2019 - ...)

## 10. Scientific and Professional Membership

1. Editorial Board Member of American Journal of Remote Sensing (2017 - ...)

## 11. Awards and Honours

1. Mobilya Ar-Ge Proje Pazarı 2013 – Entrepreneurship Award

## 12. Courses Taught (Last Two Years)

Year	Semester	Course Name	Hour		Student
			Theoric	Lab	
2022-2023	Fall	BİTE4433 Veri Ambarlama ve Veri Madenciliği (Lisans)	3	0	43
		IT500 Graduate Seminar (Graduate)	0	0	1
		IT586 SPECIAL TOPICS (R&D PROJECT DEVELOPMENT) (Graduate)	3	0	2
		IT590 M.S. Thesis (Graduate)	0	0	3
		ITEC4433 Data Warehousing and Data Mining (Undergraduate)	3	0	42
		MISY4486 Geographical Information Systems (Undergraduate)	3	0	20
		MISY4901 Project (Undergraduate)	0	0	7
		YÖBİ4901 Project (Lisans)	0	0	4
2022-2023	Spring	IT500 Graduate Seminar (Graduate)	0	0	2
		IT590 M.S. Thesis (Graduate)	0	0	7
		IT592 LOCATION BASED APPLICATION DEVELOPMENT (Graduate)	3	0	6
		MISY1102 Advanced Java for Information Management (Undergraduate)	2	2	18
		MISY1106 Database Systems and Applications (Undergraduate)	2	2	40
		MISY1112 Mathematics for Management Information Systems (Undergraduate)	3	0	7
		MISY2244 Information Systems Analysis and Design (Undergraduate)	2	2	32
		MISY4901 Project (Undergraduate)	0	0	10
		YÖBİ1112 Mathematics for Management Information Systems (Undergraduate)	3	0	7
		YÖBİ4901 Project (Lisans)	0	0	9