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DR. MAHMUT CAVUR

CONTACT

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EDUCATION

Year	School	Department	Title
2019-2020	Colorado School of Mines	Mining Engineering Department	Post-Doc
2016-2017	Hasan Kalyoncu University	e-MBA	MBA
2011-2016	METU	Geodetic and Geographic Information Technology (GGIT)	Phd
2009-2011	Boğaziçi University	Management Information System (MIS)	M.Sc.
2003-2009	METU	Mining Engineering	B.Sc.

LANGUAGES

Language	Writing	Reading	Listening
English	Advanced	Advanced	Advanced
French	Mid-Level	Mid-Level	Mid-Level

ACADEMIC OBJECTIVES	
Studying about <i>social and humanistic problems</i> using scientific methodologies.	
Developing algorithms, methodologies and technologies for <i>health and safety</i> of miners.	
Developing algorithms, methodologies and Technologies to <i>track and monitor</i> the affects of mining operations on <i>environmantal</i> .	
Developing methodogeis for <i>sustainability</i> of the environment.	
Studying about various problems by using <i>Geographic Information System (GIS)</i> and <i>Remote Sensing (RS)</i> , <i>Machine Learning (ML)</i> and <i>Artificial Intelligence (AI)</i> .	
Developing <i>methodology</i> and <i>algorithm</i> using GIS, RS, ML, AI, and geostatistics.	
Having researches about <i>database</i> and <i>data mining</i> .	
<i>Project management</i> and <i>leadership</i> experience, courses and researches.	
Preparing, writing, and management of <i>International R&D Projects</i> .	
Having experince, researches and lectures about <i>Entrepreneurship</i> .	
Studying about <i>Big Goespatial</i> data and develop tools and techniques to analyze.	
<i>Web-based Information System (WIS)</i> related to geospatial data and satellite data.	
<i>Image data analysis</i> (Remote Sensing) including radar, laser, optic and sensor data.	
Using GIS, RS, statistics on geospatial data, big data, satellite images to <i>analyze risk assessment</i> caused by various phenomena.	
Studying about sensors data (RFID, Wi-Fi etc) for <i>Location Based Servise</i> (LBS) solutions and implementation.	
Developing AI with GIS and RS-dependent data.	

TECHNICAL SKILLS	
System Architecture	SOA.
Developing Tools	Visual Studio, Eclipse, Netbeans, Mingv, RCP.
Database	Oracle, AccesDB, MYSQL, PostgreSQL, String, Hibernate
Geograpgc Information System	ArcGIS, MapInfo, uDig, QGIS, SpaceStat, uDig, gvSIG, DIVA-GIS, TNT-Mips, R.
Remote Sensing	Erdas, ENVI, Matlab, InterImage, ImageJ, Fiji, Clemex, SNAP, SARPROZ.
Programming Languages	Java, Python, Matlab, RScript, MapBasic.
Statistics	Matlab, R, SPSS, KNIME.
Network	TCP-IP.
Operating System	Windows, Linux.
CAD-Systems	Cadkey, Key Creator.
Rock Stability	Slide, Phase2, Micromine.

WORK EXPERIENCE			
Year	Company	Title	Responsibility
2011	ESRI Turkey	Project Engineer	Management of Relational Database
			Management of City Information System
			Management of the Archive Information System
			Management of Network Infrastructure
2012	Boğaziçi University	Project Responsible	Management of the Thesis at the information processing center, supported by the Boğaziçi University as BAP* project.
			Thesis Title: Diffusion of GIS at Municipalities of Istanbul.
2011- 2016	Kuzgun Informatics	R&D Manager	Development a project for open pit mining area of Afşin-Elbistan. The project covers the feasibility of the mine with respect to economic and technical perspectives.
			Development of project for the factory of a mining company. The project covers the feasibility of the mine with respect to economic and technical perspectives.
			Educating employee of the Turkish State Meteorological Service about GIS. To select the optimum locations for wheather measurement devices.
			Management of the KOSGEB-supported** project which is “ Developing an Open Source/Free Software for Reclamation of Mine Site Area ”. uDig was used as open-source GIS software. It was developed several techniques for reclaiming of the open-pit mine.
			Educating employee of the Şanlıurfa Governmental Organization about GIS.
			Educating employee of the Çankırı Governmental Organization about GIS.
			Educating employee of the Eskişehir Governmental Organization about GIS.
			Educating employee of the Sinop Governmental Organization about GIS.
			Consultancy for the Development Agencies of Turkey about the infrastructure of GIS.
			Management of the GEOURBAN project (geourban-fp7-eranet.com). <ul style="list-style-type: none"> - Image processing of Tel-Aviv, Basel, and Tyumen data. - Developing WIS for urban planners to decide and plan the urban with selected indicators.
			Management of the SymNET project with respect to GIS and data part. (http://www.projectsymnet.eu/). It creates a database between several selected countries in order to create a symbiotical network and relations.

			<p>Developing Traffic Accident Analysis Software (Geospatial Analysis Software) for Ankara Police Department (http://www.mahmutcavur.com/sda4udig). Designing and developing user-friendly interfaces for end-users to analyze the accident data collected by GPS on the field.</p>
			<p>Development of Database (PostGre) for a Tubitak*** Project.</p>
			<p>Analysis of the Mogan image using ENVI, ERDAS, and Matlab for a Tubitak project related to contamination of Mogan Lake. Applying RS techniques to understand the contamination for a period of time.</p>
			<p>Management and Development of the free/open-source GIS software. uDig was used to develop new tools and techniques.</p>
			<p>Bursa and Yalova Province Ecological Based Scientific Research Project: GIS Advisory.</p>
			<p>Izmir Province Ecological Based Scientific Research Project: GIS Advisor.</p>
2012-2018	MIneSoft Informatics	General Manager	<p>Management of the SymNET project (Database part). (http://www.projectsymnet.eu/)</p>
			<p>Management and development of the MIneTrack software for real-time tracking of the underground workers and machines. This project was also supported by the KOSGEB (http://www.minesoft.com.tr). RFID-based sensors, Serial-ethernet converters, and RS485 cable were used to develop that system. The system has been sold to 35 underground mines in Turkey for tracking their employees in real-time and analyse them.</p>
			<p>mineTrack Project V2- The project is supported by TUBITAK also for more development:</p> <ul style="list-style-type: none"> - Integration of the gas system with the tracking system. - Integration of the ventilation system with the tracking system. - Optimization system.
			<p>SEN4RUS Project: Exploiting Sentinels for supporting urban planning applications at the city and regional levels in Russia</p> <p>This project is supported by the EU as an ERANET+ project (http://www.sen4rus.eu/). I am the project manager of this project in Turkey side. We have prepared a decision system for selection of indicators to be used for urban planners. We analyzed Sentinels 1, 2 and 3 image data with respect to selected indicators. Lastly, we have now developed a Web-GIS system for visualization of analysis.</p>

			Conculty to Silopi Mine: I analyzed the Sentinels 1A data to understand the deformation caused by the mining operations in Hakkari at Silopi Thermic Central between 2017-2018.
2018-2020	Kadir Has University	Assist. Prof.	Academician in the Department of the Management Information System.
2019-2020	Colorado School of Mines	Mining Engineering Department	Post-Doc Researcher: I worked in a Project with a team at CSM. We developed an Artificial Intelligence algorithm by using several different satellite images to understand the location of the Geothermal Energy Site automatically. The analysis include the deformation analysis, Land Surface Temperature Maps, Fault Density Maps, Mineral Alteration Maps.
			I have been given consultancy to Ciner Wyoming LLC. I have been analyzing satellite radar data in order to monitor surface subsidence in that mine.

ACADEMIC STUDIES

Journal Paper (Indexed):

- ✓ Cavour, M.; Moraga, J.; Duzgun, H.S.; Soydan, H.; Jin, G. Displacement Analysis of Geothermal Field Based on PSInSAR And SOM Clustering Algorithms A Case Study of Brady Field (2021). *Remote Sens.* 2021, 13, 349., Nevada—USA. <https://doi.org/10.3390/rs13030349>
- ✓ Camalan M. and Cavour M. (2020). Development of a supervised classification method to construct 2D mineral maps on backscattered electron images. *TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES.*
- ✓ Camalan M., Cavour M. and Hoşten Ç (2017). Assessment of chromite liberation spectrum on microscopic images by means of supervised image classification. *Powder Technology.* DOI: 10.1016/j.powtec.2017.08.063
- ✓ Çavour, M., & Düzgün, Ş. (2017). “A Framework to Embed Spatial Statistics Toolbox (R Techniques) in Open Source GIS Software (uDig)”. *Journal of Spatial Science.* <http://www.tandfonline.com/doi/full/10.1080/14498596.2016.1230837>. doi: 10.1109/JURSE.2015.7120486

Journal Paper (Other):

- ✓ Camalan M. and Cavour M. (2019). Using Random Forest Tree Algorithm for Evaluating Vertical Cross-Sections in Epoxy Blocks to Get Unbiased Estimates for 3D Mineral Map. *JOURNAL OF POLİTEKNİK.*
- ✓ Cavour, M (2017). Yeraltı Maden İşçilerini Gerçek Zamanlı Takip Etmek İçin RFID Teknolojisine Dayalı Özgün Bir Entegrasyon Metodolojisi. *JOURNAL OF POLİTEKNİK.* DOI: 10.2339/politeknik.391793
- ✓ Cavour, M., & Yılmaz, C. (2016). Madenlerde Yazılım ve İş Güvenliği. *Mimar ve Mühendis.* Sayı 88, Sayfa 70-71, Nisan 2016.

Conference Paper:

- ✓ Cavour, M., Moraga, J., Duzgun, H. S., Soydan, H., & Jin, G. (2021). The DInSAR Analysis with Machine Learning for Delineating Geothermal Sites at the Brady Geothermal Field.
- ✓ Cavour, M. and Demir, E. (2019) RSSI-Based Hybrid Algorithm For Real-Time Pedestrian Tracking In Indoor Environments By Using RFID Technology. 6th International Management Information Systems Conference. 10-12 Oct, 2019, Istanbul, Turkey.
- ✓ Akdur, C., and Cavour, M. (2019) Customer' Adoption of Location Based Application A case study on 'FEED ME CYPRUS' mobile food ordering application in Northern Cyprus. 6th International Management Information Systems Conference. 10-12 Oct, 2019, Istanbul, Turkey.
- ✓ Cavour, M. And Richard, M.D. (2019) Location Based Information System_Proposed Framework of LBS Application. th International Management Information Systems Conference. 10-12 Oct, 2019, Istanbul, Turkey.
- ✓ Cavour, M., et al. "LAND USE AND LAND COVER CLASSIFICATION OF SENTINEL 2-A: ST PETERSBURG CASE STUDY." International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences (2019).
- ✓ Cavour, Mahmut, Mahmut Camalan, Hakkı Ketizmen, and Suud Ađıtođlu. "Sentinel-1 Sar Verileri Kullanılarak Maden Kaymalarını ve Deformasyonlarını İzleme [MONITORING of MINE LANDSLIDE and DEFORMATION USING SENTINEL-1 SAR DATA]," 2019.
- ✓ Akdur, G., Tanova, C., and Cavour, M. (2018) Technology Acceptance in Turkish Republic of Northern Cyprus Public Healthcare: An Empirical Study on Physicians' Interactions with Electronic Health Record (EHR) Systems in State Hospitals. 9. Uluslararası Sağlık ve Hastane Yönetimi Kongresi, Belek, Antalya, Turkey.
- ✓ Aktas, B. and Cavour, M. (2018) Survey of Indoor Positioning Technologies. International Congress of Science, Education and Technology Research. 2018, Ukraine.
- ✓ Çavour, M., & Demir, Ebübekir.(2017) "Methodology of Localization of Moving Objects Using RFID Technology in Indoor Environments". 25th SIGNAL PROCESSING AND COMMUNICATIONS APPLICATIONS CONFERENCE, 2017. Antalya, Turkey.
- ✓ N. Chrysoulakis, M. Marconcini, A. Sazonova, A. Tal, S. Duzgun, E. Parl Charalampopoulou, Z. Mitraka, T. Esch, M. Cavour and C. Feigenwinter. Copernicus Sentinels for Urban Planning in Russia - The SEN4RUS Project. 4th International Conference on Countermeasures to Urban Heat Island (IC2UHI) 31 May 2016, Singapore.
- ✓ Cavour, M.; Kemec, S.; Nabel, L.; Sebnem Duzgun, H., "An evaluation of land use land cover (LULC) classification for urban applications with Quickbird and WorldView2 data," Urban Remote Sensing Event (JURSE), 2015 Joint , vol., no., pp.1,4, March 30 2015-April 1 2015.

- ✓ Çavur, M., Özturan, M., Karaduman, C., & İçli, A. B. (2015). "DIFFUSION OF GIS AT MUNICIPALITIES IN İSTANBUL". In IMCET, April 14-17 2015.
 - ✓ Cavur, M., Duzgun, S., H. Geospatial and NonGeospatial Analysis of Traffic Accident Data A Case Study. 6. Karayolu Trafik Güvenliği Sempozyumu ve Sergisi. Ankara. November, 2015.
 - ✓ Chrysoulakis, N., Esch, T., Parlow, E., Düzgünd, S. H., Tal, A., Sazova, A., Feigenwinter, C., Triantakostas, D., Marconcini, M. and Cavur, M., 2013. "The role of EO in sustainable urban planning and management: the GEOURBAN approach". In Proceeding of the RSCy2013: First International Conference on Remote Sensing and Geoinformation of Environment, held in Pafos, Cyprus, April 8 - 10.
- Conference Poster:**
- ✓ N. Chrysoulakis, M. Marconcini, A. Sazonova, A. Tal, S. Duzgun, E. Parl Charalampopoulou, Z. Mitraka, T. Esch, M. Cavur and C. Feigenwinter. Poster Session presented at Mapping Urban Areas from Space – MUAS 2015; 04-05 November 2015; Frascati, Italy.

CURRENT PROJECTS		
In the context of urban-rural continuity, Web-GIS based Integrated Site Management Model for historic cities: The Case of İznik	Ongoing	Title: It is a TUBITAK 1001 projects. I am a reasercher in this Project repsonible form GIS, image processing processes. Urban conservation of today focusing on historic centers in delineated boundaries is unable to develop an integrated approach to conserve urban areas with their rural environments. The inadequacies of site based urban conservation is improved by the site management approach.
MIneTrack – Undergorund miners tracking system in real-time	Ongoing	It was supported by TUBITAK as 1507 project. Main purpose of this Project is to track miners in undeground environment in real-time by using RFID technology.

LECTURES – This courses have been given in current university.			
Semester	Courses	Explanation	Degree
Spring 2017/2018	IT-413 : Geographic Information Systems	This course aims to provide students with skills and knowledge to identify basic concepts, techniques, analysis methods and management functions for geographic management systems in various context.	Bs
	MIS603 : Location-Based Services	This course aims to provide students with skills and knowledge to identify basic concepts, techniques, analysis methods and management functions for Location-Based Services in various context.	Ms/PhD
Fall 2018/2019	MIS103 : Introduction to Computing	To enable students to become computer literate and make them familiar with information systems both in hardware and software.	Bs
	MIS201 : Foundation of Information Systems	This course aims at giving students knowledge in order to not only use information systems extensively but also be able to analyze information systems from the viewpoint of a business professional to make necessary changes to help firms to win the economic competition as we entered into a society of intelligence.	Bs
	MIS511: Management Information Systems	This course aims at giving students knowledge in order to not only use information systems extensively but also be able to analyze information systems from the viewpoint of a business professional to make necessary changes to help firms to win the economic competition as we entered into a society of intelligence.	Ms/PhD
Spring 2018/2019	MIS201: Foundation of Information Systems	This course will cover the state of the art of hardware, software systems and computer networks that can be used in the business context. Yet, It deals with building an Information System strategy in line with the strategic needs of the company, the development, implementation (including how to address change management issues) and maintenance of Information Systems which create sustainable competitive advantages.	Bs
	IT-413 : Geographic Information Systems	This course aims to provide students with skills and knowledge to identify basic concepts, techniques, analysis methods and management functions for geographic management systems in various context.	Bs
	MIS603 : Location-Based Services	This course aims to provide students with skills and knowledge to identify basic	Ms/PhD

		concepts, techniques, analysis methods and management functions for Location-Based Services in various context.	
Fall 2019/2020	MIS103 : Introduction to Computing	To enable students to become computer literate and make them familiar with information systems both in hardware and software.	Bs
	MIS511: Management Information Systems	This course aims at giving students knowledge in order to not only use information systems extensively but also be able to analyze information systems from the viewpoint of a business professional to make necessary changes to help firms to win the economic competition as we entered into a society of intelligence.	Ms/PhD
Spring 2020/2021	MIS603 : Location-Based Services	This course aims to provide students with skills and knowledge to identify basic concepts, techniques, analysis methods and management functions for Location-Based Services in various context.	Ms/PhD
	MIS511: Management Information Systems	This course aims at giving students knowledge in order to not only use information systems extensively but also be able to analyze information systems from the viewpoint of a business professional to make necessary changes to help firms to win the economic competition as we entered into a society of intelligence.	Ms/PhD

SOCIAL RESPONSIBILITIES

Association	Responsibility	Web Site
Düşhanesi	Charter Member	https://dushanesi.wordpress.com/
TMMOB	Member	https://www.tmmob.org.tr/

FREE-TIME

Sport	I play football soccer, tennis and chess very well.
Düşhanesi	Member and Founder of Düşhanesi Foundation.
TMMOB	Member of TMMOB Foundation.

ABBREVIATION and NOTES

*BAP	Scientific Research Project
**KOSGEB	Small and Medium Enterprise Development Organization
***TUBITAK	The Scientific and Technological Research Council of Turkey