

**Assoc.Prof. Dr. Muhammet Gökhan CİNSDİKİCİ**

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**Personal Information**

Birth place : Konak / IZMIR  
 Nationality : T.C.  
 Marriage Status : Married (have one daughter)  
 Current Job Address : Int'l Computer Inst. Ege Univ. 35100, Bornova, İZMİR

**Objective**

To reach career satisfaction with a position in image processing and neural networks which are both challenging and significant to the fulfilment of academic objectives. (Industrial cooperation

is also important)

**Education**

Degree	University	Join	Graduate	Faculty/Dep.	Thesis	Advisor	Rank
PhD.	Ege University	18/09/97	19/04/04	Int'l Computer Inst.	License Plate Recognition Module for Intelligent Transportation Systems.	Prof.Dr.Turhan TUNALI	First 3 88/100
MSc.	Ege University	01/09/95	01/09/97	Computer Eng. Dep.	Neural Network Solutions for ATM Routing & Multicasting Problems.	Prof.Dr. Emrah ORHUN	First 3 92/100
BSc. (honors)	Ege University	01/09/90	28/07/95	Computer Eng. Dep.	Character Recognition with EMAN (Equivalent Mass Attraction Net) Neural Network.	Assoc.Prof.Dr. Yusuf ÖZTÜRK	First 3 84/100

**Employment**

08/2004	- till	Assistant Prof.,	Ege University International Computer Institute	İzmir/Turkey
12/2002	- 01/2006	Cisco Instructor,	Ege University Cisco Regional Network Academy	İzmir/Turkey
12/2000	- 08/2004	Unv.IT Manager,	Ege University Network IT Center	İzmir/Turkey
12/1998	- 08/2004	Research Asst.,	Ege University International Computer Institute	İzmir/Turkey
12/1995	- 12/1998	Research Asst.,	Ege University Computer Eng. Department	İzmir/Turkey

**Academic Projects**

Project0: [2009-2011] Mobile Oculist Assistant (MOA): Importing/Processing/Updating Patients Retina Images by using Mobile PDA

[Budget: \$7000]

Advisor: **Asst.Prof.Dr. Muhammet Gokhan Cinsdikici**

The aim of this project devoted to health care is maintaining a platform for oculists to assist them on retinal image processing through the usage of PDA. PDA supports their decision making by supplying messaging and collaborative table based work on retinal images of the patients.

Project1: [2007-2009] Ege University Campus Car Entrance Tracking System with LPR Project,

[Budget: \$7200]

Advisor: **Asst.Prof.Dr. Muhammet Gokhan Cinsdikici**

In this project, LPR project is adopted for Ege University. This project aims to support security systems in campus. University security department has reported several violations related with unknown automobiles. They keep track of cars manually. This project aims to report all cars automatically and alerts the unidentified cars to security department.

Project2: [2004-2008] Designing and Implementing Non-invasive Electrochemical Measurement Equipment Hardware & Software Systems for Glucoses Inspection. [TUBITAK Project]

[Budget: \$100000]

Advisor: **Asst.Prof.Dr. Muhammet Gokhan Cinsdikici**

In this project, Pharmacy department has designed new non-invasive equipment to measure glucoses. This hardware is located in wrist watch. The base of the watch is covered with special chemicals that react under certain micro voltage energy levels with human tears. My position in this project is constructing a neural network model for estimating threshold level of the glucoses for patient by just reading the measurements.

Project3: [1999-2003] LPR (License Plate Recognition) Project – Supported by Aselsan Military Res./Dev.Co.,

[Budget: \$3000]

Advisor: Prof.Dr.Turhan Tunali

Project Res: **Res.Ass.Muhammed Gokhan Cinsdikici**

In this project, the triggered image (including car and environmental info) is taken as input data. Over this input, we are trying to extract plate-like regions (candidates). First, image is scaled by Kaiser filtering (Also simple interpolation methods are tried). Then vertical edge detection is done. Vertical edges give some clues about plate character density (Some other techniques like symbol searching, line projection tracking are also studied). After isolating all candidate regions (skewed/rotated), they are rotated automatically by Radon/Hough transformation. After rotation is corrected, we segment all candidates into small objects (character-like shapes) with our method of Bidirectional Vertical Thresholding (based on simple gradient direction). Number of objects defines the candidate as real plate. After all character objects are extracted, they are fed into recognition module. This module is composite module of feature extractor (principle component analysis unit) and recognizer (backpropagation neural network). After characters are recognized, the plate conversion is accomplished.

Project4: [2002-2004] GIS System for Ege University – Supported by Ege University  
[Budget \$25000, Project ID: 02-BTAM-001]  
Advisor: Prof.Dr.Fikret IKIZ

As Project Res: **Res.Ass.Muhammed Gokhan Cinsdikici**

This project is designed and implemented for developing GIS maps for Ege University infrastructure. In this work, I have studied on exporting network topology of the Ege University. The fiber optic cabling and Utp Cat5 cable topology for GIS system.

Project5: [2001-2003] E-Learning and ECDL Adaptation for Education in Ege University – Supported by Ege University  
[Budget \$25000, Project ID: 02-BTAM-001]  
Advisor: Prof.Dr.Fikret IKIZ

As Project Res: **Res.Ass.Muhammed Gokhan Cinsdikici**

This project is designed and implemented for developing GIS maps for Ege University infrastructure. In this work, I have studied on exporting network topology of the Ege University. The fiber optic cabling and Utp Cat5 cable topology for GIS system.

Project6: [1996-1997] Neural Network for Pattern Recognition – Supported by Ege University Engineering Department  
[Budget \$5000, Project ID: 94-MUH-003]  
Advisor: Assoc.Prof.Dr.Yusuf Ozturk

As Project Res: **Res.Ass.Muhammed Gokhan Cinsdikici**

Document analysis is the main subject of project. In the project, the text areas and image areas are tried to be differentiated. MAN and MAREN neural network models are studied in the project. The aim of these neural networks is to recognize characters. If the characters show a straight line and the lines are forming paragraph, then the area is marked as text area. If not, the area is marked as image area. Image segmentation and pattern recognition techniques are studied.

## Academic Publications

### Thesis

- |          |  |                                 |                                       |
|----------|--|---------------------------------|---------------------------------------|
| 19/04/04 | <b>PhD.</b> , “License Plate Recognition for Intelligent Transportation Systems”<br><b>Unv:</b> Ege Univ.  | <b>Dep:</b> Int.I Computer Inst | <b>Advisor:</b> Prof.Dr.Turhan TUNALI |
| 01/09/97 | <b>MSc.</b> , “Neural Network Solutions for ATM Routing & Multicasting Problems.”<br><b>Unv:</b> Ege Univ. | <b>Dep:</b> Computer Eng. Dep.  | <b>Advisor:</b> Prof.Dr.Emrah ORHUN   |

### Books

1. **[Cinsdikici M.]**, ODOM W., April 2008, “Cisco ICND Exam Certification Guide (in Turkish)”, Cisco Press/Sistem Yayıncılık, ISBN: 978-975-322-4

### Patents

1. **Cinsdikici M.**, Memiş K., “Traffic Flow Control System”, Patent Application ID: 2007/08506
2. **Cinsdikici M.**, Soner M., , “Tekli manyetik halka üzerinde yapay sinir ağları kullanılarak araç sınıflama sistemi ve yöntemi.”, Patent Application ID: 2011/11266

### Journals [\*] for SCI papers)

1. [\*]Dagdeviren Z., Oğuz K., Cinsdikici, M., 2013, ‘Three techniques for automatic extraction of corpus callosum in structural midsagittal brain MR images: Valley Matching, Evolutionary Corpus Callosum Detection and Hybrid method’ – Engineering Applications of Artificial Intelligence [ISSN 0952-1976], vol(31) pp.101-115, DOI:<http://dx.doi.org/10.1016/j.engappai.2013.10.004>
2. [\*] Meta, S., **Cinsdikici, M.**, 2010, "Vehicle-Classification Algorithm Based on Component Analysis for Single-Loop Inductive Detector", IEEE Transactions on Vehicular Technology, Vol: 59, No: 6, pp: 2795-2805 doi:[10.1109/TVT.2010.2049756](https://doi.org/10.1109/TVT.2010.2049756)
3. [\*] **Cinsdikici, M.**, Memis, K., 2010, "Traffic Flow Condition Classification for Short Sections using Single Microwave Sensor", EURASIP Journal on Advances in Signal Processing, Vol: 2010 (2010), Article ID: 148303. doi: [10.1155/2010/148303](https://doi.org/10.1155/2010/148303)

4. [\*] Ugur, A., Korukoglu, S., Çaliskan, A., **Cinsdikici, M.**, Alp, A., 2009, 'Genetic Algorithm Based Solution for TSP on Sphere', Mathematical & Computational Applications, Vol:14, No:3, pp:219-228
5. [\*] **Cinsdikici M.**, Dogan A., 2009, 'Detection of blood vessels in ophthalmoscope images using MF/ant (matched filter/ant colony) algorithm', Computer Methods and Programs in Biomedicine, - vol:96 (2), pp:85-95, doi:[10.1016/j.cmpb.2009.04.005](https://doi.org/10.1016/j.cmpb.2009.04.005)
6. [\*] **Cinsdikici, M.**, Ugur, A. and Tunali,T, 2007, 'Automatic number plate information extraction and recognition for intelligent transportation system', Imaging Science Journal The, Vol. 55, no.2, pp.102-113 doi:[10.1179/174313107X189212](https://doi.org/10.1179/174313107X189212)
7. [\*] Karlık B., Uzam M., **Cinsdikici M.** and Jones A.H., 2005, 'Neurovision-based logic control of an experimental manufacturing plant using neural net le-net5 and automation Petri nets' - ,Int. Journal of Manufacturing, Vol.16, Numbers 4-5, pp. 527 – 548 doi:[10.1007/s10845-005-1662-5](https://doi.org/10.1007/s10845-005-1662-5)
8. [\*] **Cinsdikici, M.** and Tunali, T., 2003, "License Plate Segmentation for Intelligent Transportation Systems", Proceedings of the 18th International Symposium - on Computer and Information Sciences (ISCIS'04) , Lecture Notes in Computer Sciences, Springer-Verlag, Vol 2869, pp. 439-446.
9. Kurt M., **Cinsdikici M.**, 2008, 'Representing BRDFs using SOMs and MANs', - ACM Siggraph Computer Graphics , vol.42 (3), pp:1-18 doi:[10.1145/1408626.1408630](https://doi.org/10.1145/1408626.1408630)

#### International Conference Papers

1. Candemir, C., Cetinkaya C., Kilicceker O., Cinsdikici M., "[Retina Damar Görüntülerinde Tipik Noktaların Bulanık RBF Modeliyle Sınıflandırması](#)", Sinyal İşleme ve Uygulamaları (SIU'2013), 2013, pid:337
2. Aydın, D., Cinsdikici, M.G., 2009, "An Ant-Based Algorithm to Detection of Blood Vessels in Retinal Images", International Symposium on INnovations in Intelligent SysTems and Applications (INISTA 2009) , pp. 512:516.
3. Cinsdikici, M., Memiş, K., 4-6 June 2008, "Traffic flow evaluation at a short section using multiple regression approach", 7.th European Congress and Exhibition on ITS (Intelligent Transport Systems and Services), ITS'2008 - Geneva Switzerland, paper ID: 2650: <http://www.itsineurope.com/index.cfm?do=timetable.paper&paperID=2650&sessionID=372>
4. Aslan S., Uzer Y., Isik O., Altun M., Cinsdikici M., 27-29 Oct. 2008, "A Simple and Improvable Method for Face Region Extraction", Proc. of ISCIS 2008, pp:162-165 doi:[10.1109/ISCIS.2008.4717884](https://doi.org/10.1109/ISCIS.2008.4717884)
5. Cinsdikici M., Memiş K., 16-20 Nov. 2008, 'Direction-Based Freeway Traffic Flow Classification', PaperID:20416, 15.World Congress on Intelligent Transport Systems, NewYork, USA - Presenter: Ugur Turkoglu [https://1bosweb3.experient-inc.com/Events/ITSA/WorldCongress2008/Agenda/agenda\\_by\\_track.cfm?track=&no=90290&](https://1bosweb3.experient-inc.com/Events/ITSA/WorldCongress2008/Agenda/agenda_by_track.cfm?track=&no=90290&)
6. Karlık B., Cinsdikici M., Jones A.H., 9-21 Oct. 2001, "A Manufacturing Plant Control Using Convolutional Neural Net Le-Net5", NIMIA 2001, SC2001-2001 NATO Advanced Study Institute on Neural Networks For Instrumentation, Measurement, and Related Industrial Applications:Study Cases, Crema, Italy, pp.133-137
7. Cinsdikici M., Yüçetürk A.C, Öztürk Y., 27-29 Oct. 1997, "Partitioned Generalized Euclidean Distance", The Proceedings of the Twelfth International Symposium on Computer and Information Sciences (ISCIS'XII), Antalya, pp:623-628

#### National Conference Papers

1. Aslan, S., Tunali, T., **Cinsdikici, M.**, 2007, "A Comparative Study of Feature Metrics for Classification of Human Passport Photos," Signal Processing and Communications Applications, SIU 2007. IEEE 15th , vol., no., pp.1-4, 11-13 June 2007 doi: 10.1109/SIU.2007.4298721
2. Olgen K., Inceoglu M., **Cinsdikici M.**, Ikiz F., 6-9 Oct 2004, "Geographic Information Systems Infrastructure of Ege Univ. (in Turkish – Ege Universitesi Coğrafi Bilgi Sistemi)", III.Geographic Information Systems Symposium, pp: 375-381
3. **Cinsdikici M.**, 1-4 May 2003, "Technical Review of The Turkish Laws on the subject of VoIP - Transmission of Voice over IP Protocol- (in Turkish - Internet Protokolü Uzerinden Ses İletimi Hakkında İlgili Yasalara Teknik Gözle Bakış)", Information Technologies Symposium-II, Poster ID:131

4. Can O., **Cinsdikici M.**, Bozkurt M., 5 Feb 2003, "Network Specialist Training Program (in Turkish - Bilgisayar agi teknolojileri uzmanligi egitimi)", AB'03 Symposium, paper No:54.
5. Inceoglu M., **Cinsdikici M.**, etc., 2002, "European Computer Driving License (ECDL) Training Program (in Turkish - Avrupa Bilgisayar Kullanim Yeterlilik Sertifikasi (ECDL) Akrediteli bir Bilgisayar Egitim Programinin Uyarlanmasi)", BTIE 2002, pp: 162-166.
6. Yuceturk A.C., **Cinsdikici M.**, Ozturk Y., 23-25 June 1999, "Continuous Learning on Kohonen SOM., VIII. Turkish Artificial Intelligence and Neural Networks Symposium (TAINN'99), pp: 321-328, Bogazici Univ.
7. **Cinsdikici M.**, Toker L., 1998, "Algorithms for Improving Performance of Routing on ATM Networks (in Turkish - ATM Aglarinda Yonlendirme Algoritmalarinin Etkinlestirilmesine Yonelik Algoritma Tasarimlari", IV.INET-TR'98
8. **Cinsdikici M.**, Yuceturk A.C., Ozturk Y., 1997, "A Neural Network Approach to Color Reduction with False Color Elimination", New Trends in Artificial Intelligence and Neural Networks Proceedings, (based on TAINN'97 Symposium), pp:206-210
9. **Cinsdikici M.**, Yuceturk A.C., Ozturk Y., 3-6 Sep 1997, "Neural Networks Solutions for ATM Networks (in Turkish-ATM Networkleri icin Yapay Sinir Agi Cozumleri)", AB'97 Symposium, pp:55-59

### National Newspapers and TV

1. **Cinsdikici M.**, 26 Oct 1999, "Welcome to New Year-Year2K Problem", Yeni Asir Newspaper, p.15
2. **Cinsdikici M.**, 19 Oct 1999, "Interview: Year2K Problem", Ufuga Dogru TV Program, Izmir YeniTV

### Awards - Degrees

3rd degree, Faculty of Engineering,	1995
3rd degree, Department of Computer Engineering,	1995
3rd degree, Regional award of Chemistry (Ege Region),	1990
1st degree, Inter high schools Biology Award,	1990

### Awards – Academic Support

YTMK	Award of Best Paper by Yollar Türk Milli Komitesi	2010
TUBITAK	Award of International Scientific Publication Support,	2003, 2005, 2007, 2009, 2010
Ege University	Award of International Scientific Publication Support,	2003, 2005, 2007, 2009

### Scholarship

NATO-ASI (Advanced Study Institute) Scholarship, 2 weeks (9-20 Oct 2001), Crema, Italya

### As Referee

#### SCI Journals

- a. "Applied Intelligence" Journal Refree, ISSN: 0924-669X, 2008
- b. "IEEE Transactions on Intelligent Transportation Systems", ISSN: 1524-9050, 2008
- c. "IEEE Transactions on Vehicular Technology", ISSN: 0018-9545, 2009
- d. "Computer in Biology and Medicine", ISSN: 0010-4825, 2009
- e. "IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans", ISSN: 1083-4427

#### Conferences

- f. 1<sup>st</sup> International Symposium on Computing in Science & Engineering, ISCSE 2010, *Program Committee*, 3-5 June 2010.
- g. IEEE 18<sup>th</sup> Signal Processing and Communication Application Conference, SIU 2010, *Program Committee*, 22-24 April 2010
- h. 3<sup>rd</sup> IEEE International Conference on Application of Information and Communication Technologies, *Program Committee*, 14-16 October 2009.
- i. First Turkish Conference on BSD Systems, BSDConTR'07, *Program Committee*, 20-21 Oct 2007
- j. Turkish Artificial Intelligence and Neural Networks (TAINN'06) Symposium, *Program Committee*, 21-24 June 2006
- k. International Congress on Information Technology in Agriculture, Food and Environment, ITAFE'03, *Organization committee*, 7 -10 Oct 2003

### Teaching

#### Lectures

2009-	Image Processing.	Ege Univ. Int'l Computer Inst.	(total 2 semester)
2006-	Neural Network Models	Ege Univ. Int'l Computer Inst.	(total 2 semester)
2004-	Distributed Systems	Ege Univ. Int'l Computer Inst.	(total 4 semesters)
2004-	Network Prog	Ege Univ. Int'l Computer Inst.	(total 4 semesters)
2004-	Operating Systems	Ege Univ. Int'l Computer Inst	(total 4 semesters)

2003-2004 Parallel Processing Lab. Ege Univ. Int'l Computer Inst. (total 2 semesters)

### Courses

2002-2004 Cisco Network Academy C. Ege Univ. Computer Center (total 6 semesters)

1997-2000 Network Management C. Ege Univ. Computer Center (total 8 semesters)

### Managed Thesis ([\*] Completed)

Year	Thesis	Student	Sta.
2010 -	RF Based Localization with Neural Nets for Sensor Networks	Melih C. Şerefoğlu	MSc
2010 -	Retina Vessel Extraction with Fuzzy LVQ Based Neural Net	Yasemin Türkoğlu	MSc
2010 -	Similarity Measurement Techniques for Lesion Detection in DR	Onur Kılınççeker	MSc
2010 -	Retina Bifurcation points detection using Fuzzy-ART based RBF NN	Cihat Çetinkaya	MSc
2008 -	Landmarks Detection in Retina Images	G.Kemal Anlı	MSc
2008 -	Optic Disk Boundary Detection in Retina Images	Erman Olca	MSc
2008 [*]	ANN for Length-Based Vehicle Classification Using Single-Loop	Soner Meta	MSc
2007 [*]	Image Registration on Ophthalmoscope Images for Diagnosis	Huseyin Yesil	MSc
2007 [*]	Traffic Flow Control Measurement by SVM	Kemal Memis	MSc
2007 [*]	Composite Associative Memory Model for Image Color Reduction	Gonen Ozsahir	MSc
2007 [*]	Vision Control Module for Rhino Robot -Chess Board Player-	Oguz Ozhan	MSc
2007 [*]	Instant Messaging System Application for Internal Structures	Ali Samay	MSc

### OTHER

#### Members of

- IEEE Member, Member ID: 90131767, 2008, Turkey Section
- IEEE Computational Intelligence Society
- Ulakbim Inter-Universities Network Managers Committee. (Ulak-Y)
- Ege University Bioinformatics & Omics Technology Group
- Turkish Information/Computing Organization (TBD)
- Linux Users Foundation (LKD)
- Ege Univ. Linux Users Group (ELKG), Founder

#### Areas of Interest

Image Processing, Computer Vision, Pattern Recognition, and Learning Systems

#### Campus Network Projects

- 2004, "Ege University ULAKBIM Connection for Turkey & European Geant Academic Backbones", (living project)
- 2002, "Ege University Security Policy Project with Checkpoint Firewall NG3 R55", (living project)
- 2001, "Ege University Superonline Redundant Satellite Connection for Internet"
- 2000, "Ege University Branch Office Frame Relay Connections", (living project)
- 2000, "Ege University Ere Satellite Connection for Internet"
- 1999, "Ege University Entire Campus New Installation with Gigabit Tech. (Eunet-ii) (living project)  
(Includes new 300 switches, 11 Core L3 MLS, 2 Core Router)

#### Certification

Cisco "Fundamentals of Security" Certified Instructor 15/09/2004  
Cisco & Sun "Fundamentals of Unix Administration" Certified Instructor 15/06/2003  
CCNA (Cisco Certified Network Associate) Certified, 9/07/2002  
CCAI (Cisco Certified Academy Instructor) Certified, 9/07/2002  
Cisco Local Academy Instructor, ITU Regional Academy, 5/02/2002  
Sun Solaris Administration I, II, Gantek, 2001

#### Language

English is fluent.

#### Homepage

- <http://ube.ege.edu.tr/~cinsdiki>,
- <http://cinsdikici.com>

#### References

- Prof.Dr.Turhan TUNALI**, Dean of Engineering Faculty, Izmir University of Economics,  
Phone: +90(232) 488 8122, e-mail: [turhan.tunali@ieu.edu.tr](mailto:turhan.tunali@ieu.edu.tr)
- Prof.Dr.Aydin OZTURK**, Ege University, International Computer Inst.,  
Phone: +90(232) 342 3232 ext: 128, e-mail: [aydin.ozturk@ege.edu.tr](mailto:aydin.ozturk@ege.edu.tr)
- Prof.Dr. Serdar KORUKOGLU**, Department Co-Chair, Ege University, Computer Engineering Dep.,  
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