

A. Filiz SUNAR

Professor of Remote Sensing
Istanbul Technical University (ITU)

Civil Engineering Faculty
Geomatics Engineering Department
Ayazaga Campus, Maslak 34469 Istanbul / TURKEY



Office phone: (+90) 212 2853801
Email: fsunar@itu.edu.tr
Web site: <http://web.itu.edu.tr/fsunar/>

EDUCATION

1980 – 1984	BSc , ITU, Geomatics Engineering Department - İstanbul
1984 – 1986	MSc , ITU, Geomatics Engineering Department - İstanbul
1986 – 1991	PhD , ITU, Geomatics Engineering Department - İstanbul

FACULTY APPOINTMENTS

Professor at ITU	2003 – present
Associate Professor at ITU	1996 – 2003
Assistant Professor at ITU	1993 – 1996
Civil Engineering Faculty Board member	2001 – 2003
Co-director of ITU-CSCRS (Center for Satellite Communication and Remote Sensing)	2003 – 2009

ACADEMIC AND PROFESSIONAL INTERESTS

Remote Sensing and Image Processing

- Optical and active microwave remote sensing data analysis
- Thematic mapping and accuracy assessment
- Change detection

Data Fusion

- Use of optical and microwave data fusion methods in natural resources applications
- Data fusion methods and quality assessment of fused image data

Natural Resources Applications

- Crop type mapping and crop yield estimation using multitemporal/multispectral satellite data
- Forest damage analysis (forest fire, insects etc.)
- Oil spill monitoring

Space Technologies - Ground Segment

- Ground Receiving Station
- Earth Observation data and market

TEACHING ASSIGNMENTS AND COURSES

Current Courses

BSc.

- REMOTE SENSING I, Compulsory
- DIGITAL IMAGE PROCESSING, Compulsory
- REMOTE SENSING II, Elective
- REMOTE SENSING II, Elective

MSc.

- Environmental Modeling with GIS and Remote Sensing
(with Prof.Dr. Dursun Şeker)

PhD.

- Radar & Microwave Remote Sensing
(with Prof.Dr. Nebiye Musaoğlu)

Past Courses

BSc.

- REMOTE SENSING, Compulsory
(with Prof.Dr. Derya Maktav - only Meteorological Eng. students)
- COMPUTER PROGRAMMING , Compulsory

Allegato 2 – Curriculum Vitae

- NUMERICAL ANALYSIS , Compulsory
- SURVEYING, , Compulsory
- ANALYTIC GEOMETRY , Compulsory

AWARDS

- First place in ranking of degree in B.Sc., 1984
- Henry Ford European Conservation Awards 1998 - National Award
with International Mediterranean Project participated
- Youth Session Best Poster Award (with Ayda Akkartal, Ozan Türüdü), ISPRS
Congress 2004, Istanbul

NATIONAL / INTERNATIONAL PROFESSIONAL ACTIVITIES

President

ISPRS TC VII (Thematic Processing, Modelling and Analysis of Remotely Sensed Data), for period 2012-2016

Evaluator

Evaluator in **EU H2020-EO-2014** project proposals

Evaluator in **EU FP7-ENV-2010, 2011 and 2012** for Theme 6 (Environment including climate) project proposals

Evaluator in and Project Monitoring Committee member of the '**GÖKTURK-2 Project**' (First Turkish intelligence and exploration satellite launched in Dec. 2012) supported by TUBITAK

Evaluator in ongoing **ITACA FP-7 Project**

Evaluator in **ITU** Scientific Research project proposals

National representative

EGEMP (European Group of Experts on Satellite Monitoring of Sea-based Oil Pollution) (2006-2009)

Invited Lecturer

Monothematic Seminar on the Remote Sensing applications to Land Use and Land Cover, ESA (**European Space Agency**) / EURIMAGE, Frascati, Italy
17 – 20 November 1998

ISPRS WG VI/5 and Student Consortium Summer School, Istanbul, 20 - 25 June 2005

OTEM2006 Summer School, Baia Mare, Romania,

Allegato 2 – Curriculum Vitae

30 July – 9 August 2006

Invited papers/talks

GIS Workshop, Istanbul, 2004

Symposium on Earthquake Prediction Using Space Technology by Monitoring Earthquake Precursors, Istanbul, 2005

Black Sea Commission Workshop, Istanbul, 2005

Caspian Sea & Black Sea Ecology – ENVIROTECH meeting, Istanbul, 2005

NATO ARW, 2006

ISPRS Commission VII - Conference on Information Extraction from SAR and Optical Data, with Emphasis on Developing Countries, 2007

EURISY, “Areas and Mechanisms for Collaboration Between Turkish and European Actors in Space Activities” Conference, 2007

Seminar on “Advances and Future of Photogrammetry, Remote Sensing, and Spatial Information Science” Southwest Jiaotong University, Chengdu, China, December, 2012

Earth Observation Space Technologies and Data Exploitation Workshop, Ankara, March, 2014

INTERGEO-Eurasia, Istanbul, April 2014

IGSM (International Geomatics Student Meeting), ITU, Istanbul June 2014

NASA, Biospheric Sciences Laboratory, Washington DC, November, 2014

Visiting Scholar

1990 - 1991

Helsinki University of Technology, Photogrammetry and Remote Sensing Dept. (Finland)

1995

Bristol University, Geography Department
Participant in MEDALUS (Mediterranean Land Use and Desertification) Project, (England - 9 months)

Professional Courses Attended

14-17 May 1996

User Applications of ERS SAR Data

Allegato 2 – Curriculum Vitae

ESA (European Space Agency), Frascati, Italy

24-27 June 1996

ERS SAR and Other Complementary Spaceborne Sensors
for Land Use and Land Cover Applications
ESA (European Space Agency), Frascati, Italy

Journal Referee

- International Journal of Remote Sensing
- Environmental Monitoring and Assessment
- International Journal of Applied Earth Observation and
Geoinformation
- Land Use Policy
- Fresenius Environmental Bulletin
- Tethys - Journal of Mediterranean Meteorology &
Climatology
- Applied Geomatics

- Mapping Journal (in Turkish, Scientific Board member)
- Journal of Aeronautics and Space Technologies (in Turkish)

Professional Memberships

Remote Sensing Society
International Society of Photogrammetry and Remote Sensing
American Society of Photogrammetry and Remote Sensing
Turkish Chamber of Surveying

STUDENT SUPERVISION

PhD.

1. COŞKUN ÖZKAN, "Classification of Satellite Imagery Data with Artificial Neural Networks", ITU FBE, 2001 (in Turkish)
2. DAMLA UÇA AVCI, "Process - Based Image Analysis for Agricultural Mapping Using Medium Resolution Satellite Data", ITU FBE, 2011
3. ASLI SABUNCU, "Earthquake-induced Building Damage Detection and Analysis Using Remote Sensing Technology", ITU FBE, (in Turkish, **continuing**)
4. BERK HACIAGAOĞLU, "Urban Change Detection Analysis and Modeling", ITU FBE, (in Turkish, **continuing**)

MSc.

1. COŞKUN ÖZKAN, "Forest Fire Analysis with Remote Sensing Data", ITU FBE, 1998, (in Turkish)
2. EMİNE İSPİR, "The Change Analysis of Liquidamber Forest Areas in Köyceğiz Region by Remote Sensing Methods", ITU FBE, 2000, (in Turkish)
3. TOLGA H. AKSOY, "Urban Growth Analysis with Multitemporal Satellite Data: Bursa - Osmangazi Region", ITU FBE, 2001 (in Turkish)
4. FAZIL YAŞA, "Geometric Accuracy Evaluation of High Resolution Satellite Data", ITU FBE, 2004 (in Turkish)

Allegato 2 – Curriculum Vitae

5. GÖKHAN ÖZDEN, "Analysis of the Isparta-Yalvaç Magnesite Deposit's Origins and Geologic Features", ITU FBE, 2004, (with Assoc. Prof.Dr. Fuat YAVUZ, in Turkish)
 6. YELDA TÜRKAN, "Analysis of Changes in Boundary and Areal Extent of the Salt Lake Using Mutitemporal NOAA/AVHRR data", ITU FBE, 2006 (in Turkish)
 7. İLKNUR ÖZKÜRAIPLİ, "Crop Growth Analysis in Rice Planted Fields in Trace-Meric Region Using Multitemporal Satellite Data", ITU FBE, 2006 (in Turkish)
 8. GÖKER BURAK ÇETİN, "ITU-CSCRS Ground Receiving Station Automation & Renovation", ITU FBE, 2007
 9. AYDA AKKARTAL, "Analysis of Oil Spills Discharges in Marmara Sea Using Optical and Radar Data, ITU FBE, 2007, (in Turkish)
 10. AYDA AKKARTAL, "Land Cover Assessment In the Belek Forestland With Multidate Satellite Imagery Using Change Vector Analysis Technique", ITU BE, 2008
 11. KEREM ESEMEN, "Post-fire Evaluation Using SPOT 4 Satellite Images", ITU BE, 2011
 12. BERK HACIAĞAOĞLU, "The Impact of Spatial Resolution in the Analysis of Landscape Types Using Satellite Images", ITU FBE, 2013 (in Turkish)
 13. SEBASTIANO ALIFFI, "Change Detection Analysis Using Landsat Multitemporal Data: A Case Study in Istanbul", Polytechnic Of Turin, 2014 (with Prof. Piero Boccoardo)
 14. ÖZGE KAYMAN, "The Efficiency of Using Different Spectral Indexes in Multitemporal Land Cover/Use Classification: A Case Study in İstanbul, Beylikdüzü District", ITU FBE, 2015 (in Turkish)
-
15. ANALI AZABDAFTARI, "Soil Salinity Analysis and Mapping in Yemisli Area, Adana", ITU FBE, (**continuing**)
 16. ERAY ZIREK, "Change Detection of Seafloor Topography by Modeling Multitemporal Multibeam Echo sounder Measurements", ITU FBE, (**continuing**)
 17. İBRAHİM ALKAN, "Land Use/Land Cover Mapping using Combined LiDAR-Landsat Data: A Case Study in Bergama, Turkey", ITU FBE, (in Turkish, **continuing**)

CONFERENCE ORGANIZATIONS

International / National

- 1) ITU Civil Engineering Faculty, Geodesy and Photogrammetry Engineering Department & Electric-Electronic Faculty, Electronic Telecommunication and Control – Computer Department Seminars and Workshop, Satellite Communication and Current Issues in Remote Sensing, Istanbul, 7-8 June **1994**.
- 2) Computer Use in Civil Engineering, IV. Symp., ITU Civil Engineering Faculty, 14-16 June **1994**.
- 3) Computer Use in Civil Engineering, V. Symp., ITU Civil Engineering Faculty, 17-19 June **1996**.
- 4) 2nd International Symposium on New Technologies for Environmental and Agro-Applications, AgroEnviron-2000, 18-20 October, Tekirdağ, **2000**.
- 5) Seminar on "Monitoring Urban Growth from Space", Istanbul, **2001**.

Allegato 2 – Curriculum Vitae

- 6)** 3rd Symposium on Remote Sensing of Urban Areas, 11 - 13 June, Istanbul, **2002**.
- 7)** 1st Symp. on Studying Land Use Effects in Coastal Zones with Remote Sensing and GIS, Kemer, Antalya, 13-16 August **2003**.
- 8)** 1st National Remote Sensing and Geographic Information Systems Symposium (UZALCBS'2006), ITU, İstanbul, 27-29 October **2006**.
- 9)** 28th EARSeL Sym., “Remote Sensing for a Changing Europe”, ITU, Istanbul, 2-7 June **2008**.
- 10)** 2nd National Remote Sensing and Geographic Information Systems Symposium (UZALCBS'2008), Kayseri, 13-15 October **2008**.
- 11)** 3rd National Remote Sensing and Geographic Information Systems Symposium (UZALCBS'2010), Gebze, 11-13 October **2010**.
- 12)** 4rd National Remote Sensing and Geographic Information Systems Symposium (UZALCBS'2012), Zonguldak, 16-18 October **2012**.
- 13)** ISPRS2013-SSG, “Serving Society with Geoinformatics”, Antalya, 11-17 November **2013**.
- 14)** 5th National Remote Sensing and Geographic Information Systems Symposium (UZALCBS'2014), Istanbul, 14-17 October **2014**.
- 15)** ISPRS Technical Commission VII Mid-term Symposium, Istanbul, 29 September – 2 October **2014**.