



ASSIST. PROF. DR. AYŞEGÜL TÜYSÜZ ERMAN
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Computer Engineering
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1. **Name** : Ayşegül Tüysüz Erman
2. **Date of Birth** : 17.06.1980
3. **Academic Title** : Assist. Prof. Dr.
4. **Education** :

Degree	Department	University	Date
B.Sc.	Computer Engineering	Yeditepe University	2004
M.Sc.	Computer Engineering	Boğaziçi University	2006
PhD.	Computer Science	University of Twente	2011

5. Academic Titles :

Title	Department	University	Date
Assistant Professor	Computer Science & Engineering	Işık University	2012
Associate Professor			-
Professor			-

6. Supervised MS and PhD Theses

6.1. MS Theses

1. **Thijs Mutter**, "Partition-based Network Load Balanced Routing in Large Scale Multi-sink Wireless Sensor Networks," MS Thesis, University of Twente, 2009

6.2. PhD Theses

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7. Publications

7.1. Publications in International Peer-reviewed Journals

1. Tüysüz Erman A., Dilo A., and Havinga P., "A virtual infrastructure based on honeycomb tessellation for data dissemination in multi-sink mobile wireless sensor networks", EURASIP Journal on Wireless Communications and Networking, 2012. *SCI-E Indexed*.
2. Tüysüz Erman A., Dilo A., van Hoesel L., and Havinga P., "On Mobility Management in Multi-sink Sensor Networks for Geocasting of Queries", Sensors Journal, MDPI, 11 (12). pp. 11415-11446, 2011. *SCI-E Indexed*.
3. Tüysüz Erman A., van Hoesel L., Havinga P., and Wu J., "Enabling mobility in heterogeneous wireless sensor networks cooperating with UAVs for mission critical management", IEEE Wireless Communications Magazine, 15(6):38–46, 2008. *SCI Indexed*.
4. Tüysüz A. and Alagöz F., "Satellite Mobility Pattern Scheme for Central and Seamless Handover Management in LEO Satellite Networks", In Journal of Communications and Networks (JCN), vol. 8, no. 4, 451-460, pp. 451-460, December 2006. *SCI Indexed*.

7.2. International Conference Publications (published in conference proceedings)

1. Tüysüz Erman A. and Havinga P., "Data dissemination of emergency messages in mobile multi-sink wireless sensor networks," In Med-Hoc-Net'10: Proceedings of the 9th IFIP Annual Mediterranean Ad Hoc Networking Workshop, pp. 1–8, Juan Les Pins, France, June 2010. IEEE.
2. Tüysüz Erman A., Dilo A., and Havinga P., "A fault-tolerant data dissemination based on Honeycomb Architecture for Mobile Multi-Sink wireless sensor networks," In ISSNIP'10: Proceedings of 6th International Conference on Intelligent Sensors, Sensor Networks and Information Processing, pp. 97–102, Brisbane, Australia, Dec 2010. IEEE.
3. Tüysüz Erman A., Mutter T., van Hoesel L., and Havinga P., "A cross-layered communication protocol for load balancing in large scale multi-sink wireless sensor networks," ISADS'09: Proceedings of the 9th International Symposium on Autonomous Decentralized Systems, pp. 1–8, March 2009.
4. van Hoesel L., Tüysüz Erman A., and Havinga P., "Combined Coverage Area Reporting and Geographical Routing in Wireless Sensor-Actuator Networks for Cooperating with Unmanned Aerial Vehicles," In 3rd ERCIM Workshop On eMobility, pp. 43–54, Enschede, The Netherlands, May 2009. Centre for Telematics and Information Technology, University of Twente.
5. van Hoesel L., Tüysüz Erman A., and Havinga P., "Ideas on node mobility support in schedule-based medium access," ISSNIP'08: Proceedings of 4rd International Conference on Intelligent Sensors, Sensor Networks and Information Processing, pp. 539–544, December 2008.

6. Tüysüz A. and Alagöz F., and Erman K., "A New Algorithm for Handover Management in LEO Satellite Networks," In Proc. of IEEE GLOBECOM 2006, San Francisco, USA, December 2006.
7. Tüysüz A. and Alagöz F., "Satellite Mobility Pattern Based Handover Management Algorithm in LEO Satellites," In Proc. of IEEE International Conference on Communications (ICC'06), Istanbul, Turkey, June 2006.

7.3. International Books or Book Chapters

1. Tüysüz Erman A. (2011), "*Multi-sink mobile wireless sensor networks: dissemination protocols, design and evaluation*," PhD thesis, University of Twente, CTIT Ph.D.-thesis series No. 11-206 ISBN 978-90-365-3251-8
2. Tüysüz Erman A., Schwartz R. S., Dilo A., Scholten H., and Havinga P., "Infrastructure Assisted Data Dissemination for Vehicular Sensor Networks in Metropolitan Area," to appear in book "Roadside Networks for Vehicular Communications: Architectures, Applications and Test Fields", IGI-Global, 2012.
3. Tüysüz A. and Yıldırım M., "A New Algorithm for Horizontal Handover Management in Wireless Mobile Networks," In New Trends in Computer Networks, Imperial College Press, Istanbul, Turkey, October 2005.

7.4. National Journal Publications

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7.5. National Conference Publications

1. Tüysüz A., Yıldırım M., and Alagöz F., "Kablosuz Üstüne Bindirmeli Ağlarda Mobil IPv6 Tabanlı El Değiştirmeler," Conference on Academic Information'05 (Akademik Bilişim 2005), Gaziantep, Turkey, 2005.

7.6. Other Publications

1. Tüysüz Erman A., van Hoesel L., and Havinga P., "Enabling Mobility in Wireless Sensor Networks Cooperating with UAVs for Mission-Critical Management," In DCOS'08: Proceedings of the 4th IEEE/ACM International Conference on Distributed Computing in Sensor Systems (Poster Paper), Santorini Island, Greece, June 2008. IEEE/ACM.

8. Research Projects

- Researcher in AWARE Project, [*Platform for Autonomous self deploying and operation of Wireless sensor-actuator networks cooperating with AeRial objEcts*](#), European Union Project, 2007-2009

- Post-doctoral researcher in RECONSURVE-NL Project, *A Reconfigurable Surveillance System with Smart Sensors and Communication for detecting small non-cooperative ships*, ITEA2 Project, 2011-2012
- TÜBİTAK-TEYDEB, *TCM (Turkcell Communication Module)* project, April 2012
- İstanbul Development Agency, *Lifeguard Sensors* project, July 2012, under submission.

9. Administrative Positions

- Vice Chair, Turkish Student Association at Twente University (TUSAT), 2008-2009

10. Scientific and Professional Membership

- Member, IEEE Communications Society

11. Awards and Honors

- Full scholarship awarded by the Yeditepe University
- Graduated as a high honor student (both in B.Sc. and M.Sc.)

12. Courses Taught (over the last two years)

Academic Year	Course's Name	Weekly Hours			Number of Students
		Theory	PS.	Lab.	
2011-2012	Introduction to Programming	3	0	2	72
	Wireless Sensor Networks	3	0	0	23

13. Other Academic and Professional Activities

Reviewer in the following journals:

- Elsevier Science, Computer Communications Journal
- Elsevier Science, Pervasive and Mobile Computing Journal
- Oxford University Press, Computer Journal
- IEEE Transactions on Vehicular Technology
- InderScience, International Journal of Sensor Networks
- Turkish Journal of Electrical Engineering and Computer Science
- Reviewer in many international conferences (SECON, ISSNIP, ICC, etc.)

Technical Committee Member in International Conferences:

- The 8th International Conference on Geo-information for Disaster Management (Gi4DM 2012)