

**Asst. Prof. Dr. Orhan Dagdeviren**

Department of Computer Engineering

Izmir University

Uckuyular, Izmir

TEL: (232) 246 49 49

EMAIL: orhan.dagdeviren@izmir.edu.tr, orhandagdeviren@gmail.com

WWW: <http://www.orhandagdeviren.com>

AREAS OF INTEREST

- Distributed system design, integration, and analysis
- Wireless communications and networking
- Mobile ad hoc and wireless sensor networks

EDUCATION**Ege University, International Computer Institute***Doctor of Philosophy in Computer Engineering*

2006-2010

Dissertation Title: Cluster and Backbone Based Communication Architectures for Distributed Applications in Wireless Sensor NetworksResearch Areas: Clustering and Virtual Backbone Formation Methods, Graph Theory, Hardware Agents, Middleware Services, Wireless Sensor NetworksAdvisor: Professor Kayhan ErciyasCourses: Grid Computing, Advanced Computer Architecture, Agent based Software Development, Algorithmic Approaches on Graph Theory, Algorithm Complexity Theory, Special Topics on Telecommunications, Wireless Sensor Networks.Cum GPA: 92.57 / 100**Izmir Institute of Technology***Master of Science in Computer Software*

2004-2006

Dissertation Title: A Cluster Based Communication Architecture for Distributed Applications in Mobile Ad hoc NetworksResearch Areas: Clustering, Virtual Backbone Formation, Distributed Mutual Exclusion, Mobile ComputingAdvisor: Professor Kayhan ErciyasCourses: Paralel Algorithms, Computational Number Theory, Computer Applications in Medicine and Biology, Advanced Operating Systems, Advanced Network Security, Analysis and Design of Advanced Algorithms, Real Time and Embedded System Design.Cum GPA: 3.93 / 4.00*Bachelor of Science in Computer Engineering*

2000-2004

Dissertation Title: Registrar's Office Information SystemRelated Work: A web-based information system which is implemented by Java. Three-tier architecture is implemented with J2EE and open source projects (Hibernate, Struts, Log4j) on Websphere Application Developer.Advisor: Assist. Prof. Tugkan TuglularCum GPA: 3.48 / 4.00

RESEARCH EXPERIENCE**Ege University, International Computing Institute***Distributed Computing and Wireless Sensor Networks Research Group, Member*

2008-Present

Izmir Institute of Technology*Department of Computer Engineering, Research Assistant*

2004-Present

Researching for the distributed computing and distributed algorithms as applied to mobile ad hoc networks, wireless sensor networks and grids. Also studying for the security issues.

TEACHING EXPERIENCE**Izmir Institute of Technology**

- *Spring 2010:*
 1. Microprocessors: Graded laboratory studies.
 2. Computer Networks: Graded Homeworks.
 3. Data Structures: Graded Homeworks.
- *Fall 2010:*
 1. Introduction to Algorithms: Prepared labs and Graded Homeworks.
 2. Computer Architecture: Graded labs.
- *Spring 2009:*
 1. Numerical Computation: Graded Homeworks. Give a short course related to FORTRAN.
 2. Client Server Systems: Graded Homeworks.
 3. Embedded Computing
- *Fall 2009 (Both in UBE and IYTE):*
 1. Introduction to Computer Engineering: Graded Homeworks.
 2. Network Programming: Graded Homeworks.
 3. UBE- Distributed Algorithms: Graded Homeworks.
 4. UBE- Distributed Systems: Graded Homeworks.
- *Spring 2008:*
 1. Client Server Systems: Graded Homeworks.
 2. Microprocessors: Graded laboratory studies.
- *Fall 2008:*
 1. Data Structures: Graded Homeworks.
 2. Object Oriented Programming: Graded Homeworks.
- *Spring 2007:*
 1. Database Design and Management: Created and graded homeworks and laboratory studies.
 2. Logic Design: Graded laboratory studies.
- *Fall 2006:*
 1. Computer Architecture: Graded laboratory studies.
 2. Microprocessors: Graded laboratory studies.
- *Spring 2006:*
 1. Microprocessors: Graded laboratory studies.
- *Fall 2005:*
 1. Operating Systems: Created and graded homeworks and laboratory studies.
 2. Network Programming: Created and graded homeworks and laboratory studies.

INDUSTRIAL EXPERIENCE

Iztek A.S

2004 July – 2004 December

Work for IYTE-OBS. For details please see IYTE-OBS under PARTICIPATED PROJECTS section.

PARTICIPATED PROJECTS

IYTE-GRID

2007 – 2008

Worked for the construction of a small cluster consisting of 8 workstations. Installed and configured necessary software for this system like Scientific Linuz, Torque, etc. This system is still active and it is planned to integrate with the National GRID.

IYTE-OBS (REGISTRAR'S OFFICE INFORMATION SYSTEM)

2003 – 2005

Worked as a software developer for the Registrar's Information System. Java based technologies are used. Registrar's Information System is still used in Izmir Institute of Technology.

PUBLICATIONS

Books

- Orhan Dagdeviren, Kayhan Erciyes, Deniz Cokuslu, A Communication Architecture for Mobile Ad hoc Networks: Cluster based Protocols for Distributed Applications, ISBN:978-3-639-24923-1, VDM Verlag. *Invited Publication*
- Deniz Cokuslu, Kayhan Erciyes, Orhan Dagdeviren, Topology Control for Mobile Ad hoc Networks: A Dominating Set Based Approach, ISBN:978-3-639-25703-8, VDM Verlag. *Invited Publication*

SCIE Indexed International Publications

- Orhan Dagdeviren, Ilker Korkmaz, Fatih Tekbacak, Kayhan Erciyes, A Survey of Agent Technologies for Wireless Sensor Networks, IETE Technical Review, 2010, to be published.
- Orhan Dagdeviren, Kayhan Erciyes, Graph Matching-Based Distributed Clustering and Backbone Formation Algorithms for Sensor Networks, Oxford The Computer Journal, 2010.
- Aysegul Alaybeyoglu, Kayhan Erciyes, Aylin Kantarci, Orhan Dagdeviren, Tracking Fast Moving Targets in Wireless Sensor Networks, IETE Technical Review, 2010.
- Kayhan Erciyes, Orhan Dagdeviren, Deniz Cokuslu, Deniz Ozsoyeller, A Survey of Graph Theoretic Clustering Algorithms in Mobile Ad hoc Networks and Wireless Sensor Networks, Journal of Applied and Computational Mathematics, 2007.
- Orhan Dagdeviren, Kayhan Erciyes, Deniz Cokuslu, A Merging Clustering Algorithm for Mobile Ad hoc Networks, ICCSA 2006, Springer Verlag LNCS , Volume 3981 / 2006, pp. 681-690.
- Deniz Cokuslu, Kayhan Erciyes, Orhan Dagdeviren, A Dominating Set Based Clustering Algorithm for Mobile Ad hoc Networks, ICCS 2006, Springer Verlag LNCS, Volume 3991 / 2006, pp. 571-578.
- Kayhan Erciyes, Orhan Dagdeviren, Resat Umit Payli, Performance Evaluation of Group Communication Architectures in Large Scale Systems using MPI, GADA 2006, Springer Verlag LNCS, Volume 4276, pp.1422-1432.
- Orhan Dagdeviren, Kayhan Erciyes, Deniz Cokuslu, Merging Clustering Algorithms in Mobile Ad hoc Networks, ICDCIT 2005, Springer Verlag LNCS, Volume 3816 / 2005, pp. 56-61.

Other International Publications

- Aysegul Alaybeyoglu, Orhan Dagdeviren, Aylin Kantarci, Kayhan Erciyes, A Distributed Wakening based Target Tracking Protocol for Wireless Sensor Networks, International Symposium on Parallel and Distributed Computing, IEEE, 2010.
- Fatih Tekbacak, Ilker Korkmaz, Orhan Dagdeviren, Senem Kumova Metin, Application and Performance Analysis of Cache Effectuated Merge Sort Algorithms, ICAST, 2010.
- Aysegul Alaybeyoglu, Orhan Dagdeviren, Kayhan Erciyes, Aylin Kantarci, Performance Evaluation of Cluster-based Target Tracking Protocols for Wireless Sensor Networks, ISCIS 2009, IEEE.
- Radosveta Sokullu, Ilker Korkmaz, Orhan Dagdeviren, GTS Attack: An IEEE 802.15.4 MAC Layer Attack in Wireless Sensor Networks, IARIA International Journal On Advances in Networks and Services, vol. 1(2), 2009. *Invited Publication*
- Radosveta Sokullu, Orhan Dagdeviren, Ilker Korkmaz, On the IEEE 802.15.4 MAC Layer Attacks: GTS Attack, SENSORCOMM08, IEEE, 2008. *Best Paper*
- Kayhan Erciyes, Deniz Ozsoyeller, Orhan Dagdeviren, Distributed Algorithms to Form Cluster based Spanning Trees in Wireless Sensor Networks, ICCS 2008, Springer Verlag LNCS.
- Orhan Dagdeviren, Kayhan Erciyes, A Hierarchical Leader Election Protocol for Mobile Ad hoc Networks, ICCS 2008, Springer Verlag LNCS.
- Orhan Dagdeviren, Kayhan Erciyes, A Software Architecture for Shared Resource Management in Mobile Ad hoc Networks, SOFSEM 2007, Springer Verlag LNCS, Volume 4362, pp. 224-234.
- Radosveta Sokullu, Ilker Korkmaz, Orhan Dagdeviren, Anelia Mitseva, Neeli Prasad, An Investigation on IEEE 802.15.4 MAC Layer Attacks, in Proceedings of the International Symposium on Wireless Personal Media Communications (WPMC'07 Jaipur, India), 2007.
- Kayhan Erciyes, Orhan Dagdeviren, Deniz Cokuslu, Modelling and Simulation of Wireless Sensor and Mobile ad hoc Networks, in Proceedings of the International Conference on Modelling and Simulation (MS'06 Turkey), 2006.
- Orhan Dagdeviren, Kayhan Erciyes, A Distributed Backbone Formation Algorithm for Mobile Ad hoc Networks, ISPA 2006, Springer Verlag LNCS, Volume 4330, pp.219-230.

National Publications

- Aysegul Alaybeyoglu, Orhan Dagdeviren, Aylin Kantarci, Kayhan Erciyes, Telsiz Duyarga Aglarinda Hizli Hareket Eden Hedefler icin Kume Tabanlı Hedef İzleme Algoritması, IEEE SIU 2009.
- Orhan Dagdeviren, Fatih Tekbacak, Kayhan Erciyes, Telsiz Duyarga Aglarinda Kumeleme ve Yonlendirme Islemi icin Gezgın Etmen Kullanımı, Akademik Bilisim 2009.
- Orhan Dagdeviren, Ilker Korkmaz, Grid Uzerinde Gerceklenen Matris Islemlerine bir Portal Uzerinden Erisim, Akademik Bilisim 2009.
- Deniz Ozsoyeller, Kayhan Erciyes, Orhan Dagdeviren, Duyarga Ađları icin bir gama Eşuyumcusu Tasarım ve Uygulaması(Design and Implementation of a gama Synchronizer for Sensor Networks), IEEE SIU 2008.
- Bora Kumova, Orhan Dagdeviren, Fatih Tekbacak, Deniz Cokuslu, IYTE GRID, Innoventure 07.

DISSERTATIONS

[D3] Orhan Dagdeviren, Cluster and Backbone based Communication Architectures for Distributed Applications in Wireless Sensor Networks, Izmir, Turkey, 2010 (Phd. Dissertation).

[D2] Orhan Dagdeviren, A Cluster Based Communication Architecture for Distributed Applications in Mobile Ad hoc Networks, Izmir Institute of Technology, Izmir, Turkey, 2006 (M.Sc. Dissertation).

[D1] Orhan Dagdeviren, Fatih Tekbacak, Zafer Kaban, Eray Balat, Registrar's Office Information System, Izmir Institute of Technology, Izmir, Turkey, 2004 (B.Sc. Dissertation).

TECHINICAL SKILLS

Operating Systems: Windows, Linux, TinyOS

Programming Languages: Java, C, C++, nesC

Simulators: ns2, Tossim

Platforms: IBM Websphere Application Developer

Tools: LaTeX, Microsoft Office Tools

Open Source Projects: Hibernate, Struts, Log4j, Java Cryptography Extensions

Web Programming: HTML, JavaScript, CSS, XML

Databases: IBM DB2, SQL

HONORS AND AWARDS

- Best Paper Award at IEEE SENSORCOMM08 for the publication: On the IEEE 802.15.4 MAC Layer Attacks: GTS Attack
- Biographical profile is selected to be listed in Marquis Who's Who in the World (25th and 26th edition).
- Ranked at the 3th place (3.48/4.00) and listed in Honors List in undergraduate education in Izmir Institute of Technology. (Listed in Honors List for 3 times and High Honors List for 4 times in undergraduate education in Izmir Institute of Technology)
- Awarded for the studies in Registrar's Information System from the Rector of Izmir Institute of Technology.
- Leader of Iztech Campus Wide Mathematics League Champion Team(O. Dagdeviren, F. Tekbacak, Z. Kaban, E. Balat, G. Gokyer).

HOBBIES

- Pets
- Soccer

REFERENCES

Dr. Kayhan Erciyes
Professor
Computer Engineering Department
Rector
Faculty of Engineering
Izmir University
232 246 49 49
kayhan.erciyes@izmir.edu.tr

Dr. Tugkan Tuglular
Assistant Professor
Department of Computer Eng.
Izmir Institute of Technology
232 750 78 75
tugkantuglular@iyte.edu.tr

Dr. Tolga Ayav
Assistant Professor
Department of Computer Eng.
Izmir Institute of Technology
232 750 78 78
tolgaayav@iyte.edu.tr