

CURRICULUM VITAE AND PUBLICATIONS LIST

CURRICULUM VITAE

Name and Surname: Güray YILMAZ

Date of Birth: 1970

Academic Title: Professor Dr.

Work Address:

Email: gurayy@biruni.edu.tr

Foreign Languages Known (Score and Year): English, C1 Advanced, 2017

Area of Expertise: Engineering and Technology

| Degree | Department/Program | University | Year |
|-------------------|--------------------------------|-------------------------------|------|
| Doctorate | BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ | Istanbul Technical University | 2002 |
| Master's Degree | BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ | Istanbul Technical University | 1995 |
| Bachelor's Degree | BİLGİSAYAR MÜHENDİSLİĞİ BÖLÜMÜ | Istanbul Technical University | 1991 |

Master's Thesis Title (abstract attached) and Thesis Supervisor(s):

Dağıtılmış veritabanı sistemlerinde eşzamanlılık kontrolü

Doctoral Thesis/Proficiency Study/Medical Specialization Thesis Title (abstract attached) and Supervisor(s):

Dağıtılmış nesneye dayalı sistemler için dağıtılmış bileşik nesne modeli

| Position Title | Workplace | Year |
|---------------------|------------------------------|----------------|
| Professor Dr. | Biruni University | 2023-Continues |
| Professor Dr. | İstanbul Arel University | 2021-2023 |
| Associate Professor | İstanbul Esenyurt University | 2020-2021 |
| Associate Professor | İstanbul Kültür University | 2014-2017 |
| Associate Professor | Air Force Academy Command | 2014-2017 |
| Assistant Professor | Air Force Academy Command | 2005-2014 |
| Assistant Professor | İstanbul Kültür University | 2005-2014 |
| Lecturer | Air Force Academy Command | 2002-2005 |
| Lecturer | Air Force Academy Command | 1995-2002 |
| Research Assistant | Air Force Academy Command | 1991-1995 |

Supervised Master's Theses:

1. Büyük veri analizi yöntemleri ve yazılım teknolojileriyle metin madenciliği (2016)
 2. Kısıtlı kaynak kullanılarak düşük maliyetli siber tuzak sistemi kurulması ve yönetilmesi (2016)
 3. Çoklu insansız hava araçlarının görev planlamalarının ve sürdürülebilirliğinin cuda mimarisi kullanılarak genetik algoritma ile gerçekleşmesi (2016)
 4. İnsansız hava araçlarında arazi verilerine dayalı uçuş yönü sınırlamasız konumlandırma sistemi benzetim çalışması (2013)
 5. Arazi Verisine Dayalı Konumlandırma ve Seyrüsefer Sistemi Tasarlanması (2012)
 6. Farklı Ağ Alanları Arası Güvenli Veri Değişimi (2012)
 7. Hareketli Geçici Ağlarda Dağıtılmış İşbirliği ve Güven Esasına Dayalı Saldırı Tespit Sistemleri (2011)
 8. Klinik Rehberlerin Uzman Sistemlere Dönüşürtülmesi (2010)
 9. Karar Destek Sistemlerinin Kullanımı İçin Uygun Bir Model Geliştirilmesi (2009)
 10. An Architectural Model for Content Management in E-Commerce Applications Using Intelligent Agents (2008)
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Supervised Doctoral Theses/Proficiency Studies in Arts:

1. Çoklu otonom insansız hava araçları için paralel programlama tabanlı yol planlaması (2015)
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Roles in Projects:

112E281 no lu TÜBİTAK 1001 AR GE projesi Grup Halindeki Kooperatif İnsansız Hava Araçları için Grafik İşlemcilerin Genel Amaçlı Programlanması Tabanlı Çarpışma Önleme ve Fiziki Engellerden Sakınma Sistemi Tasarımı ve Geliştirilmesi (2013 - 2015)

Administrative Duties:

- Head of Department - Biruni University (2023 - Continues)
 Head of Department - İstanbul Esenyurt University (2022 - 2022)
 Head of Department - İstanbul Rumeli University (2021 - 2021)
 Head of Department - Air Force Academy Command (2007 - 2017)
 Head of Main Science/Science Department - Air Force Academy Command (2002 - 2007)
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Undergraduate and graduate level courses taught in the last two years (If offered, summer courses will also be added to the table):

| Academic Year | Semester | Course Name | Weekly Hours | | Number of Students |
|---------------|----------|--------------------------------|--------------|-----------|--------------------|
| | | | Theoretical | Practical | |
| 2024 | Spring | YAZILIM PROJE YÖNETİMİ | | | |
| 2024 | Spring | COMPUTER NETWORKS | | | |
| 2024 | Spring | OBJECT-ORIENTED PROGRAMMING | | | |
| 2024 | Spring | DATA STRUCTURES AND ALGORITHMS | | | |
| 2024 | Spring | OPERATING SYSTEMS | | | |
| 2024 | Fall | YAZILIM PROJE YÖNETİMİ | | | |
| 2024 | Fall | COMPUTER NETWORKS | | | |
| 2024 | Fall | OBJECT-ORIENTED PROGRAMMING | | | |
| 2024 | Fall | DATA STRUCTURES AND ALGORITHMS | | | |
| 2024 | Fall | OPERATING SYSTEMS | | | |

PUBLICATIONS

A. Articles published in international peer-reviewed journals:

A1. "Real-time Autonomous UAV Formation Flight with Collision and Obstacle Avoidance in Unknown Environment", JOURNAL OF INTELLIGENT AND ROBOTIC SYSTEMS, 2016.

- A2. "A terrain referenced UAV localization algorithm using Binary search method", JOURNAL OF INTELLIGENT AND ROBOTIC SYSTEMS, 2014.
- A3. "Sigmoid limiting functions and potential field based autonomous air refueling path planning for UAVs", JOURNAL OF INTELLIGENT AND ROBOTIC SYSTEMS, 2014.
- A4. "Development of a GPU accelerated terrain referenced UAV localization and navigation algorithm", JOURNAL OF INTELLIGENT AND ROBOTIC SYSTEMS, 2013.
- A5. "Establishing obstacle and collision free communication relay for UAVs with artificial potential fields", JOURNAL OF INTELLIGENT AND ROBOTIC SYSTEMS, 2013.
- A6. "DCOBE: Distributed composite object-based environment", THE COMPUTER JOURNAL, 2005.
- A7. "Integrating Distributed Composite Objects into Java Environment", LECTURE NOTES IN COMPUTER SCIENCES, 2005.

B. Papers presented at international scientific meetings and published in proceedings:

- B1. "Çoklu İnsansız Hava Araçlarının Görev Planlamalarının ve Sürdürülebilirliğinin CUDA Mimarisini Kullanılarak Gerçeklenmesi (Mission Planning and Sustainability for Multiple Unmanned Aerial Vehicles Implementation of Using Genetic Algorithm with CUDA Architecture)", International Conference on Computer Science and Engineering, 2016.
- B2. "Location Search in UAV Video Using Telemetry Data", 1st. International Conference on Computer Science and Engineering, Tekirdağ, 20-23 October 2016., 2016.
- B3. "Route Planning for Multiple Unmanned Aerial Vehicles (UAVs) with Parallel Genetic Algorithm on GPU Using CUDA", International Conference on Advanced Technology & Science (ICAT'16), 2016.
- B4. "Effects of Spectral Clustering on Document Categorization Using Distributed Tools", International Conference on Advanced Technology & Science (ICAT'16), Konya, Turkey, 1-3 September 2016, 2016.
- B5. "Developing Test Infrastructure for Distributed Cost Effective Network Security System Using Limited Resources", International Conference on Advanced Technology & Science (ICAT'16), 2016.
- B6. "An Optimization Approach for Airport Ground Operations with A Shortest Path Algorithm", International Conference on Air Transport (INAIR'15), 2015.
- B7. "Hyperspectral Image Classification Using Support Vector Neural Network Algorithm", 7th International Conference on recent Advances in Space Technologies (RAST 2015), 2015.
- B8. "Etmen Tabanlı Uçuş Eğitimi Uygulaması", The International Educational Technology Conference (IETC 2015), 2015.
- B9. "A New Method for Anomaly Detection and Target Recognition", 7th. International Conference on Unmanned Aircraft Systems (ICUAS'14), 2014.
- B10. "GPGPU Accelerated Real-Time Potential Field Based Formation Control for Unmanned Aerial Vehicles", International Conference on Unmanned Aircraft Systems (ICUAS'14), 2014.
- B11. "Collaborative Learning for Medical Students Using Distributed Virtual Environments", 5th International Future-Learning Conference on Innovations in Learning for the Future 2014: e-Learning, 5-7 May 2014, 2014.
- B12. "Effects of Fuzzy Logic Methods on Distributed System Load Balancing Applications", 4th. World Conference on Innovation and Computer Sciences (INSODE'14), 2014.
- B13. "Parallelization of Bitonic Sort and Radix Sort Algorithms on Many Core GPUs", IEEE 10th International Conference on Electronics, Computer and Computation, (ICECCO 2013), 2013.
- B14. "A Survey on Cloud Computing Technology and Its Application to Satellite Ground Systems", IEEE 6th International Conference on recent Advances in Space Technologies (RAST 2013), 2013.
- B15. "A novel fast and accurate algorithm for Terrain Referenced UAV localization", IEEE 6th. International Conference on Unmanned Aircraft Systems (ICUAS'13), 2013.
- B16. "GPGPU Accelerated Potential Field Based Autonomous Air Refueling Approach for UAVs", International Conference on Unmanned Aircraft Systems (ICUAS'13), 2013.
- B17. "A Novel Approach on Routing Protocol Defense in Ad-hoc Networks", IEEE International Conference on Technological Advances in Electrical, Electronics and Computer Engineering (TAECECE'13), 2013.
- B18. "Routing Misbehavior prevention in AODV", 3rd. World Conference on Innovation and Computer Sciences (INSODE'13), 2013.
- B19. "Development of a GPU Accelerated UAV Localization and Navigation Algorithm Using Digital Terrain Map Data", 5th. International Conference on Unmanned Aircraft Systems (ICUAS'12), 2012.
- B20. "Obstacle Free Airborne Communication Relay Approach by Using Autonomous Unmanned Aerial Vehicles", International Conference on Unmanned Aircraft Systems (ICUAS'12), 2012.
- B21. "Server Based Encryption (SERBASEN) Protocol on Air Gap Network", 5th. International Conference on Information Security & Cryptology (ISC'12), 2012.
- B22. "Logistics Application on Distributed Composite Object Based Environment", 4th. International Conference on Computer and Electrical Engineering (ICCEE 2011), 2011.

- B23. "Wireless Sensor Networks for Space and Solar System Missions", International Conference on recent Advances in Space Technologies (RAST 2011), 2011.
- B24. "Energy and Distance Factor Based Routing Protocol for Wireless Sensor Networks Using Mobile Agents", IEEE 5th International Conference on recent Advances in Space Technologies (RAST 2011), 2011.
- B25. "GIS Applications in Cloud Computing Platform and Recent Advances", IEEE 5th International Conference on recent Advances in Space Technologies (RAST 2011), 2011.
- B26. "A Distributed Cooperative Trust Based Intrusion Detection Framework for MANETs", 7th International Conference on Networking and Services (ICNS 2011), 2011.
- B27. "Automated Scheduling Of University Exams", 2nd International Conference on Information and Multimedia Technology, 2010.
- B28. "The Usage of Clinical Guidelines in Medical Education", 3rd International Future Learning Conference on Innovations in Learning for the Future 2010, 2010.
- B29. "The Clinical Guidelines Usage Towards The Diagnosis and Treatment of H1N1", 5th International Symposium on Health Informatics and Bioinformatics, 2010.
- B30. "An Autonomous Decision Support System Prototype For Suply Management In E-Commerce Systems", IADIS e-Commerce 2008 Conference, 2008.
- B31. "An Architectural Model for Content Management in E-Commerce Applications", IADIS e-Commerce 2007 Conference, 2007.
- B32. "A New Distributed Composite Model for Collaborative Computing", 16th International Symposium on Computer and Information Sciences (ISCIS XVI), 2001.
- B33. "Partitioned Object Models for Distributed Systems", IASTED Int. Conf. on Applied Informatics (AI'2000), 2000.
- B34. "Partitioned Object Models for Distributed Abstractions", 14th International Symposium on Computer and Information Sciences (ISCIS XIV), 1999.
- B35. "Deadlock-Free Wormhole Routing Algorithms for Multiprocessor Systems", 12th International Symposium on Computer and Information Sciences (ISCIS XII), 27-29 October 1997, Antalya-Türkiye, pp. 446-453., 1997.

C. National/international books written or chapters in books:

C2. Chapters in national/international books written:

- C2.1. "Lecture Notes in Computer Science: Artificial Intelligence: Methodology, Systems, and Applications", Springer Verlag, 2016.
- C2.2. "Lecture Notes in Computer Science: Advances in Information Systems", Springer Verlag, 2005.
- C2.3. "Lecture Notes in Computer Science: Scientific Engineering of Distributed Java Applications", Springer Verlag, 2004.

D. Articles published in national peer-reviewed journals:

- D1. "Simulation and Performance Analysis of Distributed Cooperative Trust Based Intrusion Detection Framework for MANETs", Journal of Aeronautics and Space Technologies, 2013.
- D2. "Kablosuz Algilayıcı Ağlar Kullanılarak Belirlenen Bir Bölgenin Çevre Güvenliğinin Sağlanması", Türkiye Bilişim Vakfı Bilgisayar Bilimleri ve Mühendisliği Dergisi, 2013.
- D3. "University Exam Scheduling System Using Graph Coloring Algorithm and RFID Technology", International Journal of Innovation, Management and Technology, 2013.
- D4. "İnsansız Hava Araçları İçin Otonom İniş Sistemi Simülatörü Tasarımı", Bilişim Teknolojileri Dergisi, 2012.
- D5. "Karar Destek Sistemlerinin Kullanımı İçin Uygun Bir Model Geliştirme", Havacılık ve Uzay Teknolojileri Dergisi, 2010.
- D6. "Karar Destek Amaçlı Bir Raporlama Aracı", Bilişim Teknolojileri Dergisi, 2010.

E. Papers presented at national scientific meetings and published in proceedings:

- E1. "Mühendislik Eğitimlerinin İçerik ve Kalitesinin Artırılmasına Yönelik Bir Model Önerisi", 1. Rumeli Mühendislik ve Mimarlık Eğitimi Sempozyumu, 2021.
- E2. "Gezgin Satıcı Probleminin Paralel Genetik Algoritma ile Optimizasyonu (Traveling Salesman Problem Optimization with Parallel Genetic Algorithm)", 23. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SİU'15), 2015.
- E3. "Destek Vektör Sinir Ağları Algoritması ile Hiperspektral Görüntülerde Hedef Bulma (Target Detection in Hyperspectral Images Using Support Vector Neural Networks Algorithm)", 23. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SİU'15), 2015.
- E4. "Honeypot ve Hadoop Tabanlı Bilgi Güvenliği Yönetim Sistemi", 17. Akademik Bilişim Konferansı (AB2015), 2015.
- E5. "HAVACILIK SEKTÖRÜNDE KULLANILAN MOBİL UYGULAMALARIN GÜVENLİĞİ VE MOBİL ARAKATMAN YAKLAŞIMI", 3. Havacılıkta İleri Teknolojiler Konferansı (HİTEK 2014), 2014.

- E6. "HAVACILIKTA BULUT HESAPLAMA KULLANIMI VE BULUT ORTAMINDA SİBER SALDIRILARIN TESPİT EDİLMESİ", 3. Havacılıkta İleri Teknolojiler Konferansı (HİTEK 2014), 2014.
- E7. "İnsanlı-İnsansız Hava Aracı Formasyonunda YPA Tabanlı Otonom Platform Kontrolü", 3. Havacılıkta İleri Teknolojiler Konferansı (HİTEK 2014), 2014.
- E8. "Hiperspektral Görüntüler İle Olağan Dışı Durum Ve Hedef Tespiti (Anomaly Detection and Target Recognition With Hyperspectral Images)", 22. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SİU'14), 2014.
- E9. "SÜREKLİ AKAN VERİLERDE AYKIRILIK TABANLI YENİ YORUM FİLTRELEME YAKLAŞIMI (NOVEL COMMENT FILTERING APPROACH BASED ON OUTLIER ON STREAMING DATA)", 20. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SİU'12), 2012.
- E10. "Kabllosuz Geçici Ağlarda Yönlendirme Saldırılarının Analizi ve Önlenmesi", 4. Ağ ve Bilgi Güvenliği Sempozyumu (ABGS'12), 2011.
- E11. "Dağıtılmış Bileşik Nesne Tabanlı Ortam Üzerinde Lojistik Uygulaması (Logistics Application on Distributed Composite Object Based Environment)", 2. Yazılım Kalitesi ve Yazılım Geliştirme Araçları Sempozyumu (YKGS'10), 2010.
- E12. "Ajan Tabanlı e-Ticaret Sitelerinde İçerik Yönetimi", 3. İstanbul Bilişim Kongresi, 2009.
- E13. "Dağıtılmış Sistemler İçin Yeni Bir Nesne Modeli", Yüksek Performanslı Bilişim Sempozyumu, 2002.
- E14. "Internet Ortamında Ortaklaşa İş Yürütmeyi Destekleyen Yeni Bir Nesne Modeli ve Programlama Arayüzü", 1. Ulusal İletişim Teknolojileri Sempozyumu, 2001.
- E15. "Bileşik Nesne Modeli ve Dağıtılmış Ortamlar İçin Bir Sistem Desteği", Elektrik-Elektronik-Bilgisayar Mühendisliği 9. Ulusal Kongresi, 2001.
- E16. "Geniş Alanlı Ağlar İçin Bir Dağıtılmış Kopyalı Nesne Modeli", 8. IEEE Sinyal İşleme ve Uygulamaları Kurultayı (SİU'2000), 2000.
- E17. "Dağıtılmış Nesne Modelleri", 8. IEEE Sinyal İşleme ve Uygulamaları Kurultayı (SİU'2000), 2000.
- E18. "Bistatik Yapay Açıklıklı Radar Yardımıyla Görüntülemede Ters Dönüşüm Bağıntısı", 5. IEEE Sinyal İşleme ve Uygulamaları Kurultayı (SİU'97), 1997.