Doç.Dr. ÖMER KORÇAK

Kişisel Bilgiler

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Biyografi

Ömer Korçak received his B.S. (with high honors), M.S. and Ph.D degrees all in Computer Engineering from Bogazici University, in 2002, 2004, and 2009 respectively. Currently, he is an associate professor and vice chair in Marmara University, Computer Engineering Department, Istanbul, Turkey. In 2011, he worked as a visiting researcher at Deutsche Telekom Laboratories, Berlin. His main research interests are in the general area of network optimization, network economics and game theory, with applications to wireless and broadband networks.

Eğitim Bilgileri

Post Doktora, Technische Universitaet Berlin, Deutsche Telekom Laboratories, Almanya 2011 - 2012
Doktora, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), Türkiye 2004 - 2009
Yüksek Lisans, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Yl) (Tezli), Türkiye 2002 - 2004
Lisans, Boğaziçi Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, Türkiye 1997 - 2002

Yabancı Diller

İngilizce, C1 İleri

Yaptığı Tezler

Doktora, Routing and Network Mobility Management in Next Generation Satellite Networks, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Dr), 2009
Yüksek Lisans, Learning-based Wavelength Assignment in Optical Burst Switching Networks, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği (Yl) (Tezli), 2004

Araştırma Alanları

Kablosuz İletişim, Bilgisayar Bilimleri, Algoritmalar, Bilgi Güvenliği ve Güvenilirliği, Bilgisayar Ağları, Oyun Kuramı

Akademik Unvanlar / Görevler

Yrd.Doç.Dr., Marmara Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2011 - Devam Ediyor

Akademik İdari Deneyim

Marmara Üniversitesi, Mühendislik Fakültesi, Bilgisayar Mühendisliği Bölümü, 2012 - Devam Ediyor

Yönetilen Tezler

Korçak Ö., Path and Task Planning for Multiple Mobile Robots in Smart Warehouse, Yüksek Lisans, A.BOLU(Öğrenci), 2021
Korçak Ö., DESIGN OF A QUEUE-BASED MICROSERVICES ARCHITECTURE AND PERFORMANCE COMPARISON WITH MONOLITH ARCHITECTURE, Yüksek Lisans, K.CEBECİ(Öğrenci), 2019
Korçak Ö., Internet of things based waste and service management in quick service restaurants, Yüksek Lisans, K.AYTAÇ(Öğrenci), 2018
Korçak Ö., Energy and data rate modeling in user provided networks with incentive mechanisms, Yüksek Lisans, K.ULUDAĞ(Öğrenci), 2018
KORÇAK Ö., Gap free load balancıng ın ıwreless lan networks usıng cell breathıng technıque, Yüksek Lisans, İ.Demirci(Öğrenci), 2014
Korçak Ö., Development of supporter sharing sites: Weaknesses and shortcomings of existing social networks and a case study, Yüksek Lisans, Y.YILMAZ(Öğrenci), 2013

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

I. **Distribution Games: A New Class of Games with Application to User Provided Networks**
Tasci S. E., Shalom M., KORÇAK Ö.
IEEE Access, cilt.10, ss.122796-122811, 2022 (SCI-Expanded)

II. **IoT based intelligence for proactive waste management in Quick Service Restaurants**
Aytac K., KORÇAK Ö.
JOURNAL OF CLEANER PRODUCTION, cilt.284, 2021 (SCI-Expanded)

III. **Adaptive Task Planning for Multi-Robot Smart Warehouse**
Bolu A., KORÇAK Ö.
IEEE ACCESS, cilt.9, ss.27346-27358, 2021 (SCI-Expanded)

IV. **Sequential bargaining based incentive mechanism for collaborative Internet access**
Uludag K., Tasci S. E., KORÇAK Ö.
JOURNAL OF NETWORK AND COMPUTER APPLICATIONS, cilt.170, 2020 (SCI-Expanded)

V. **Cell breathing algorithms for load balancing in Wi-Fi/cellular heterogeneous networks**
Demirci I., KORÇAK Ö.
COMPUTER NETWORKS, cilt.134, ss.140-151, 2018 (SCI-Expanded)

VI. **Operator Collusion and Market Regulation Policies for Wireless Spectrum Management**
KORÇAK Ö., Iosifidis G., Alpcan T., Koutsopoulos I.
IEEE TRANSACTIONS ON MOBILE COMPUTING, cilt.15, sa.10, ss.2537-2549, 2016 (SCI-Expanded)

VII. **Efficient integration of HAPs and mobile satellites via free-space optical links**
KORÇAK Ö., ALAGÖZ F.
COMPUTER NETWORKS, cilt.55, sa.13, ss.2942-2953, 2011 (SCI-Expanded)

VIII. **Virtual topology dynamics and handover mechanisms in Earth-fixed LEO satellite systems**
KORÇAK Ö., ALAGÖZ F.
COMPUTER NETWORKS, cilt.53, sa.9, ss.1497-1511, 2009 (SCI-Expanded)

IX. **Exploring the routing strategies in next-generation satellite networks**

ALAGÖZ F., KORÇAK Ö., JAMALIPOUR A.
IEEE WIRELESS COMMUNICATIONS, cilt.14, sa.3, ss.79-88, 2007 (SCI-Expanded)

X. **Priority-based adaptive routing in NGEO satellite networks**
KORÇAK Ö., Alagoez F., JAMALIPOUR A.
INTERNATIONAL JOURNAL OF COMMUNICATION SYSTEMS, cilt.20, sa.3, ss.313-333, 2007 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

I. **AQM-of-Things: Special Queue Management Approach for Internet of Things**
AYTAÇ K., KORÇAK Ö.
Avrupa Bilim ve Teknoloji Dergisi, cilt.20, ss.171-180, 2020 (Hakemli Dergi)

II. **Design of an Enterprise Level Architecture Based on Microservices**
Cebeci K., KORÇAK Ö.
Bilişim Teknolojileri Dergisi, cilt.13, sa.4, ss.357-371, 2020 (Hakemli Dergi)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

I. **Dark Activity Detection in AIS-Based Maritime Networks**
Gorkem B. N., Caglayan B., Karaca E., Karabulut C., KORÇAK Ö.
34th Conference of Open Innovations Association FRUCT, FRUCT 2023, Riga, Letonya, 15 - 17 Kasım 2023, ss.35-40

II. **Multi-Tenant Management in Secured IoT Based Solutions**
Aytac K., KORÇAK Ö.
32nd Conference of Open Innovations Association FRUCT, FRUCT 2022, Tampere, Finlandiya, 9 - 11 Kasım 2022, cilt.2022-November, ss.56-64

III. **AQMoT: Implementation of Special Queue Management Approach for Internet of Things**
AYTAÇ K., ÖZDEMİR H., TÜRKOĞLU M., DİLMAÇ M. M., KORÇAK Ö.
30th Conference of Open Innovations Association FRUCT, Oulu, Finlandiya, 27 Ekim 2021

IV. **Path Planning for Multiple Mobile Robots in Smart Warehouse**
BOLU A., KORÇAK Ö.
The 7th International Conference on Control, Mechatronics and Automation, Delft, Hollanda, 6 - 08 Kasım 2019

V. **A Novel Genetic Algorithm Selection Method and Implementation in IoT Domain**
AYTAÇ K., AĞLARCI B., KORÇAK Ö.
Proceedings of the 25th Conference of Open Innovations Association FRUCT, Helsinki, Finlandiya, 5 - 08 Kasım 2019

VI. **On fair and efficient bandwidth sharing in user provided networks**
Tasci S. E., KORÇAK Ö.
33rd International Conference on Information Networking, ICOIN 2019, Kuala-Lumpur, Malezya, 9 - 11 Ocak 2019, ss.442-447

VII. **IoT Based Smart Staff Allocator in Quick Service Restaurants**
Aytac K., KORÇAK Ö.
23rd Conference of Open Innovations Association FRUCT, Bologna, İtalya, 13 - 16 Kasım 2018, ss.48-54

VIII. **IoT edge computing in quick service restaurants**
AYTAÇ K., KORÇAK Ö.
16th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), 2018, 7 - 11 Mayıs 2018

IX. **Energy and Rate Modeling of Data Download over LTE with respect to Received Signal Characteristics**
Uludag K., KORÇAK Ö.
27th International Telecommunication Networks and Applications Conference (ITNAC), Melbourne, Avustralya, 22

- 24 Kasım 2017, ss.430-435

X. **User Provided Network System with Incentive Mechanism**
Ozlu A., Uludag K., KORÇAK Ö.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Türkiye, 15 - 18 Mayıs 2017

XI. **Incentivizing User Provided Connectivity for Enhanced Quality of Service**
Tasci S. E., KORÇAK Ö.
27th IEEE Annual International Symposium on Personal, Indoor, and Mobile Radio Communications (PIMRC), Valencia, İspanya, 4 - 08 Eylül 2016, ss.1761-1767

XII. **Gap-free Load Balancing Algorithms in Wireless LANs using Cell Breathing Technique**
Demirci I., KORÇAK Ö.
8th IEEE International Conference on Advanced Networks and Telecommunication Systems - (IEEE ANTS), New Delhi, Hindistan, 14 - 17 Aralık 2014

XIII. **Competition and Regulation in a Wireless Operator Market: An Evolutionary Game Perspective**
KORÇAK Ö., Iosifidis G., Alpcan T., Koutsopoulos I.
6th International Conference on Network Games, Control and Optimization (NetGCooP), Avignon, Fransa, 28 - 30 Kasım 2012, ss.17-24

XIV. **Collusion of operators in wireless spectrum markets**
KORÇAK Ö., ALPCAN T., IOSIFIDIS G.
10th International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt), 14 - 18 Mayıs 2012

XV. **Equilibrium strategies in a channel sensing game in cognitive radio networks**
Korçpak Ö.
8th IEEE and IFIP International Conference on Wireless and Optical Communications Networks, WOCN2011, Paris, Fransa, 24 - 26 Mayıs 2011

XVI. **Link layer handover in earth fixed LEO satellite systems**
KORÇAK Ö., ALAGÖZ F.
IEEE International Conference on Communications (ICC), 14 - 18 Haziran 2009

XVII. **Efficient Networking in an Integrated HAP and Mobile Satellite Systemwith Optical Links**
KORÇAK Ö., ALAGÖZ F.
WOCN: 2009 IFIP INTERNATIONAL CONFERENCE ON WIRELESS AND OPTICALCOMMUNICATIONS NETWORKS, 19 - 21 Mart 2009, ss.207-211

XVIII. **Multi-state virtual network architecture for next generation satellite networks**
KORÇAK Ö., ALAGÖZ F.
IEEE GLOBECOM, 26 - 30 Kasım 2007

XIX. **Optimal beam management in earth-fixed satellite systems**
Korçak Ö., Alagöz F.
2007 International Workshop on Satellite and Space Communication, IWSSC'07, Salzburg, Avusturya, 12 - 14 Eylül 2007, ss.43-47

XX. **Analysis of priority based adaptive routing in satellite networks**
KORÇAK Ö., ALAGÖZ F.
International Symposium on Wireless Communication Systems, 10 - 12 Eylül 2007

XXI. **Deflection routing over prioritized intersatellite links in leo satellite networks**
KORÇAK Ö., ALAGÖZ F.
ICTTA, 24 - 28 Nisan 2006

XXII. **A new approach for wavelength assignment in optical burst switching networks**
Korçak Ö., Zeren M., Alagöz F.
2005 International Conference on Wirelessand Optical Communications Networks, Dubai, Birleşik Arap Emirlikleri, 6 - 08 Mart 2005, ss.131-135

XXIII. **Performance evaluation of adaptive and static routing algorithms and contention resolution techniques in LEO satellite constellations**
Korçak Ö., Kaya I., Çalikli H. G., Alagöz F.

RAST 2005 - 2nd International Conference on Recent Advances in Space Technologies, İstanbul, Türkiye, 9 - 11 Haziran 2005, cilt.2005, ss.207-212

XXIV. **Priority Based Adaptive Shortest Path Routing in IP over LEO Satellite Networks**
KORÇAK Ö., ALAGÖZ F.
23rd AIAA international Communication Satellite Systems Conference (ICSSC'05), 23 - 25 Eylül 2005

Desteklenen Projeler

Korçak Ö., Soytürk M., TÜBİTAK Projesi, Wi-Fi Sensörler Yardımıyla Wi-Fi Erişiminin ve Veri Trafiğinin İzlenmesi, 2017 - 2020
Korçak Ö., TÜBİTAK Projesi, Kullanıcı Kaynaklı Ağlar için Teşvik Mekanizmaları, 2015 - 2019
Korçak Ö., Yükseköğretim Kurumları Destekli Proje, Kablosuz Spektrum Piyasasında Operatörlerin Anlaşarak Tekelleşmesi ve Buna Karşı Alınabilecek Tedbirler, 2012 - 2016

Metrikler

Yayın: 36
Atıf (WoS): 120
Atıf (Scopus): 194
H-İndeks (WoS): 5
H-İndeks (Scopus): 5

Akademi Dışı Deneyim

Tekhnelogos
TU-Berlin (Deutsche Telekom Laboratories)