

## Assoc. Prof. SEDAT GÖRMÜŞ

### Personal Information

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### Education Information

Doctorate, University of Bristol, Mühendislik Fakültesi, Elektrik&Elektronik, United Kingdom 2004 - 2008

Under Graduate, Karadeniz Technical University, Mühendislik Fakültesi, Turkey 1995 - 1999

### Foreign Languages

English, C1 Advanced

### Certificates, Courses and Trainings

Other, Pan European Management Programme, PEMP - 2, 2013

Other, Pan European Management Programme, PEMP - 1, 2011

### Dissertations

Doctorate, Cooperative Relaying in Wireless Networks., University of Bristol, Elektrik&Elektronik Engineering, Communications Research Laboratory, 2008

### Research Areas

Computer Sciences, Computer Networks, Communications and Network Protocols, Elektrik and Elektronik Engineering, Elektronik, Sensing Devices and Transducers, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Karadeniz Technical University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2021 - Continues

### Advising Theses

GÖRMÜŞ S., Storage Centric Wireless Sensor Networks, Post Graduate, A.Gokce(Student), 2013

GÖRMÜŞ S., Load Coordination Mechanisms for Smart Electricity Grids, Post Graduate, R.Martinez(Student), 2012

GÖRMÜŞ S., Communiation Architectures for AMI Networks, Post Graduate, F.Ramos(Student), 2012

## Jury Memberships

Post Graduate, Yüksek lisans değerlendirme jürisi, University of Bristol, September, 2012

Post Graduate, Yüksek lisans tez , University of Bristol, September, 2011

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Enabling space time division multiple access in IETF 6TiSCH protocol**  
GÖRMÜŞ S., KULCU S.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.6, pp.4151-4166, 2019  
(Journal Indexed in SCI)
- II. **Content Centric Cross-Layer Scheduling for Industrial IoT Applications Using 6TiSCH**  
Jin Y., Raza U., Aijaz A., Sooriyabandara M., Gormus S.  
IEEE ACCESS, vol.6, pp.234-244, 2018 (Journal Indexed in SCI)
- III. **Security for the internet of things: a survey of existing mechanisms, protocols and open research issues**  
GÖRMÜŞ S., AYDIN H., ULUTAŞ G.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.33, no.4, pp.1247-1272, 2018 (Journal Indexed in SCI)
- IV. **Content centric routing in IoT networks and its integration in RPL**  
Jin Y., GÖRMÜŞ S., KULKARNI P., Sooriyabandara M.  
COMPUTER COMMUNICATIONS, pp.87-104, 2016 (Journal Indexed in SCI)
- V. **Reconfiguring Array Codes**  
Sandell M., Tosato F., Gormus S.  
IEEE COMMUNICATIONS LETTERS, vol.19, no.11, pp.1993-1996, 2015 (Journal Indexed in SCI)
- VI. **Opportunistic RPL for reliable AMI mesh networks**  
Gormus S., Tosato F., Fan Z., Bocus Z., Kulkarni P.  
WIRELESS NETWORKS, vol.20, no.8, pp.2147-2164, 2014 (Journal Indexed in SCI)
- VII. **A residential PHEV load coordination mechanism with renewable sources in smart grids**  
Oviedo R. M. , Fan Z., Gormus S., Kulkarni P.  
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, vol.55, pp.511-521, 2014 (Journal Indexed in SCI)
- VIII. **A Comparison of Centralized and Distributed Monitoring Architectures in the Smart Grid**  
Oviedo R. M. , Ramos F., Gormus S., Kulkarni P., Sooriyabandara M.  
IEEE SYSTEMS JOURNAL, vol.7, no.4, pp.832-844, 2013 (Journal Indexed in SCI)
- IX. **Smart Grid Communications: Overview of Research Challenges, Solutions, and Standardization Activities**  
Fan Z., Kulkarni P., Gormus S., Efthymiou C., Kalogridis G., Sooriyabandara M., Zhu Z., Lambotharan S., Chin W. H.  
IEEE COMMUNICATIONS SURVEYS AND TUTORIALS, vol.15, no.1, pp.21-38, 2013 (Journal Indexed in SCI)
- X. **AMI Mesh Networks-A Practical Solution and Its Performance Evaluation**  
Kulkarni P., Gormus S., Fan Z., Ramos F.  
IEEE TRANSACTIONS ON SMART GRID, vol.3, no.3, pp.1469-1481, 2012 (Journal Indexed in SCI)
- XI. **A Mesh-Radio-Based Solution for Smart Metering Networks**  
Kulkarni P., Gormus S., Fan Z., Motz B.  
IEEE COMMUNICATIONS MAGAZINE, vol.50, no.7, pp.86-95, 2012 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. İHA ağları için uyarlanabilir, dengeli ve enerji verimli kümeleme mekanizması

Görmüş S., Kiran H. E.

Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, vol.10, no.1, pp.1-10, 2020 (Other Refereed National Journals)

**II. The reign of EVs? An economic analysis from consumer's perspective**

Fan Z., Martinez Oviedo R., GÖRMÜŞ S., Kulkarni P.

IEEE Electrification Magazine, vol.2, no.2, pp.61-71, 2014 (Refereed Journals of Other Institutions)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Context-Aware Caching in Wireless IoT Networks**  
Akhtari Z., mustafa n., GÖRMÜŞ S.  
2019 11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019
- II. **A Generic Clique Based Distributed Caching Approach For Wireless IoT Networks**  
mustafa n., GÖRMÜŞ S.  
2019 4th International Conference on Computer Science and Engineering (UBMK), Samsun, Turkey, 11 - 15 September 2019
- III. **Dynamic Formation for Unmanned Aerial Vehicles Network**  
KIRAN H. E. , GÖRMÜŞ S.  
2019 4th International Conference on Computer Science and Engineering (UBMK), Samsun, Turkey, 11 - 15 September 2019
- IV. **İNSANSIZ HAVA ARAÇLARI AĞINDA VERİ TRAFİĞİNİ DENGELEYEREK DİNAMİK AĞ FORMASYONU**  
KIRAN H. E. , GÖRMÜŞ S.  
V. SCIENCE, TECHNOLOGY AND INOVATION CONGRESS, Antalya, Turkey, 17 - 21 April 2019, pp.43
- V. **A Storage Centric Approach to Authentication on Internet of Things**  
Boumaiza Y., AYDIN H., GÖRMÜŞ S.  
2nd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2018, Kizilcahamam, Ankara, Turkey, 19 - 21 October 2018
- VI. **A new user authentication mechanism for IETF 6TiSCH protocol**  
AYDIN H., GÖRMÜŞ S.  
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018, pp.1-4
- VII. **A Distributed User Authentication Mechanism for 6TiSCH Protocol**  
AYDIN H., GÖRMÜŞ S.  
2nd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Kizilcahamam, Turkey, 19 - 21 October 2018, pp.470-474
- VIII. **A Storage Centric Approach to Authentication on Internet of Things**  
Boumaiza Y., AYDIN H., GÖRMÜŞ S.  
2nd International Symposium on Multidisciplinary Studies and Innovative Technologies (ISMSIT), Kizilcahamam, Turkey, 19 - 21 October 2018, pp.666-672
- IX. **An Energy Efficient IoT Protocol for Healthcare at Home**  
BEKTAŞ M., GÖRMÜŞ S.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- X. **A Distributed User Authentication Mechanism for IETF 6TiSCH Protocol**  
AYDIN H., GÖRMÜŞ S., Jin Y.  
87th IEEE Vehicular Technology Conference (VTC-Spring), Porto, Portugal, 3 - 06 June 2018
- XI. **QoS for IETF 6TiSCH Protocol**  
Ibrahimova D., GÖRMÜŞ S.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XII. **A New User Authentication Mechanism for IETF 6TiSCH Protocol**

- AYDIN H., GÖRMÜŞ S.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XIII. **A protocol for Internet of Things : IETF 6TiSCH Nesnelerin İnterneti İçin Bir Protokol : IETF 6TiSCH**  
GÖRMÜŞ S., Yavuz A. F.  
25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Turkey, 15 - 18 May 2017
- XIV. **A Novel Energy Aware Routing Function for Internet of Things Networks**  
Erdol H., GÖRMÜŞ S., AYDOĞDU M. C.  
10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017, pp.1314-1318
- XV. **A protocol for Internet of Things : IETF 6TiSCH**  
GÖRMÜŞ S., Yavuz A. F.  
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017
- XVI. **Isolating SDN Control Traffic with Layer-2 Slicing in 6TiSCH Industrial IoT Networks**  
Baddeley M., Nejabati R., Oikonomou G., GÖRMÜŞ S., Sooriyabandara M., Simeonidou D.  
IEEE Conference Network Function Virtualization and Software Defined Networks (NFV-SDN), Berlin, Germany, 6 - 08 November 2017, pp.247-251
- XVII. **6Tisch Protokolünde Döğümler Arası Senkronizasyon**  
GÖRMÜŞ S.  
IEEE SIU 2015, Malatya, Turkey, 16 - 19 May 2015, pp.1-6
- XVIII. **A Storage Centric Approach to Scalable Sensor Networks**  
GÖRMÜŞ S., Koc A. G. , Jin Y., Sooriyabandara M.  
IEEE VTC, Glasgow, United Kingdom, 11 - 14 May 2015, pp.1100-1106
- XIX. **Synchronisation in 6Tisch Networks**  
GÖRMÜŞ S.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.535-539
- XX. **Link Quality Aware and Content Centric Data Aggregation in Lossy Wireless Networks**  
Jin Y., Gormus S., Kulkarni P., Sooriyabandara M.  
IEEE Wireless Communications and Networking Conference (WCNC), İstanbul, Turkey, 6 - 09 April 2014, pp.3082-3087
- XXI. **Energy efficient body area networking based on off-the-shelf wireless sensors**  
GÖRMÜŞ S.  
ACM 8th International Conference on Body Area Networks, Boston, Massachusetts, United States Of America, 30 September - 02 October 2013, pp.103-107
- XXII. **Efficient Cooperative Anycasting for AMI Mesh Networks**  
Gormus S., Bocus M. Z.  
IEEE Global Communications Conference (GLOBECOM), Georgia, United States Of America, 9 - 13 December 2013, pp.2661-2666
- XXIII. **Content centric and Load-balancing Aware Dynamic data Aggregation in Multihop wireless networks**  
Jin Y., KULKARNI P., Gormus S., Sooriyabandara M.  
2012 IEEE 8th International Conference on Wireless and Mobile Computing, Networking and Communications, WiMob 2012, Barcelona, Spain, 8 - 10 October 2012, pp.179-186
- XXIV. **Energy efficient body area networking for mHealth applications**  
DUMANLI S., Gormus S., CRADDOCK I. J.  
2012 6th International Symposium on Medical Information and Communication Technology, ISMICT 2012, La Jolla, CA, United States Of America, 25 - 29 March 2012
- XXV. **WISEMEN White Space for Smart Metering**  
Subramani S., Fan Z., GÖRMÜŞ S., Kulkarni P., Sooriyabandara M., Hau Chin W.  
2012 IEEE PES Innovative Smart Grid Technologies (ISGT), Washington, DC, USA, 16 - 20 January 2012, pp.1-6
- XXVI. **Residential Energy Demand Management in Smart Grids**  
Oviedo R. J. M. , FAN Z., Gormus S., KULKARNI P., Kaleshi D.

IEEE PES Transmission and Distribution Conference and Exposition, Florida, United States Of America, 7 - 10 May 2012

**XXVII. Tree Balancing in Smart Grid Advanced Metering Infrastructure Mesh Networks**

KULKARNI P., Gormus S., FAN Z.

IEEE/ACM International Conference on Green Computing and Communications (GreenCom) / IEEE International Conference on Internet of Things (iThings) / 5th IEEE International Conference on Cyber, Physical and Social Computing (CPSCom), Besançon, France, 20 - 23 November 2012, pp.109-115

**XXVIII. A self organising mesh networking solution based on enhanced RPL for smart metering communications**

Kulkarni P., GÖRMÜŞ S., Fan Z., Motz B.

2011 IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, Lucca, Italy, 20 - 24 June 2011, pp.1-6

**XXIX. Distributed Resource Allocation in Small Cellular Networks - Test-bed Experiments and Results**

KULKARNI P., Gormus S., CHIN W. H. , HAINES R. J.

7th IEEE International Wireless Communications and Mobile Computing Conference (IWCMC), İstanbul, Turkey, 4 - 08 July 2011, pp.1262-1267

**XXX. Opportunistic Communications to Improve Reliability of AMI Mesh Networks**

Gormus S., FAN Z., BOCUS Z., KULKARNI P.

2nd IEEE PES International Conference and Exhibition on Innovative Smart Grid Technologies (ISGT Europe), Manchester, United Kingdom, 5 - 07 December 2011

**XXXI. The POWER of Networking: How Networking can Help Power Management**

Gormus S., KULKARNI P., FAN Z.

1st IEEE International Conference on Smart Grid Communications (SmartGridComm), Maryland, United States Of America, 4 - 06 October 2010, pp.561-565

**XXXII. Application of Multiple-Wireless to a Visual Localisation System for Emergency Services**

EFTHYMIOU C., Gormus S., FAN Z., Calway A., Mayol-Cuevas W., Doufexi A.

21st Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), İstanbul, Turkey, 26 - 30 September 2010, pp.2539-2544

**XXXIII. Implementation of Fast Start-up Equaliser Using TI C6x Processors**

TÜRK K., KAYA İ., GÖRMÜŞ S.

European DSP Education and Research Symposium, Münih, Germany, 1 - 03 April 2006, pp.41-48

**XXXIV. Performance Comparison of Cooperative and Non-cooperative Relaying Mechanisms in Wireless Networks**

Gormus S., Kaleshi D., McGeehan J., Munro A.

IEEE Wireless Communications and Networking Conference, Nevada, United States Of America, 3 - 06 April 2006, pp.890-896

**XXXV. Relaying and routing in wireless networks: a throughput comparison**

Gormus S., Kaleshi D., McGeehan J., Munro A.

63rd IEEE Vehicular Technology Conference, Melbourne, Australia, 7 - 10 May 2006, pp.440-445

## Supported Projects

GÖRMÜŞ S., TUBITAK Project, Yüksek Performanslı Kablosuz Duyarga Ağları, 2015 - Continues

GÖRMÜŞ S., Other Supported Projects, IETF 6Tisch Protocol Implementation, 2015 - Continues

## Activities in Scientific Journals

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, Editor, 2015 - Continues

## **Memberships / Tasks in Scientific Organizations**

IEEE, Member, 2014 - Continues

## **Scientific Refereeing**

IEEE IoT Journal, SCI Journal, November 2016

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES , SCI Journal, December 2015

IEEE COMMUNICATIONS LETTERS, SCI Journal, December 2015

IEEE COMMUNICATIONS LETTERS, SCI Journal, December 2015

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES , SCI Journal, December 2015

TUBITAK Project, December 2015

TUBITAK Project, December 2015

TUBITAK Project, December 2015

IEEE COMMUNICATIONS LETTERS, SCI Journal, November 2015

TUBITAK Project, October 2015

Journal of Information Security and Applications, Other journals, June 2015

IEEE COMMUNICATION LETTERS, SCI Journal, April 2015

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES , SCI Journal, February 2015

IEEE JSAC, SCI Journal, November 2012

Journal of Distributed Sensor Networks, Other journals, June 2012

IEEE Systems Journal, SCI Journal, April 2012

IEEE Network Magazine, SCI Journal, March 2011

IEEE Network Magazine, SCI Journal, March 2011

## **Scientific Consultations**

NETAŞ, Scientific Consultancy, Karadeniz Technical University, Rektörlük, Bilgisayar Destekli Tasarım-Mühendislik-İmalat Uygulama Ve Araştırma Merkezi, Turkey, 2015 - 2016

## **Citations**

Total Citations (WOS):510

h-index (WOS):9

## **Scholarships**

OSIRIS Project, Official Institutions of Foreign Countries, 2008 - Continues

## **Awards**

GÖRMÜŞ S., RDC Award, Toshiba Corporate Research and Development Centre, March 2012

## **Non Academic Experience**

Business Organization (private), Toshiba Research Europe Ltd.

Business Organization (private), Xad Communication Ltd.

Business Organization (private), Provision Communication Technologies