

## **Asst. Prof. MEHMET ŞÜKRÜ KURAN**

### **Personal Information**

**Email:** sukru.kuran@agu.edu.tr  
**Web:** <https://avesis.agu.edu.tr/sukru.kuran>

### **Education Information**

Doctorate, Bogazici University, Institute Of Science, Bilgisayar Mühendisliği, Turkey 2007 - 2012  
Postgraduate, Bogazici University, Institute Of Science, Sistem Ve Kontrol Mühendisliği, Turkey 2004 - 2007  
Undergraduate, Yildiz Technical University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, Turkey 1998 - 2004

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, PHYSICAL LAYER ISSUES OF COMMUNICATION VIA DIFFUSION FOR BIO-NANOMACHINES, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Mühendisliği, 2012  
Postgraduate, CROSS LAYER ROUTING IN WiMAX MESH NETWORKS, Boğaziçi Üniversitesi, Fen Bilimleri Enstitüsü, Sistem Ve Kontrol Mühendisliği, 2007

### **Research Areas**

Computer Sciences, algorithms, Simulation and Modelling, Computer Networks, Communications and Network Protocols, Data Routing, Engineering and Technology

### **Academic Titles / Tasks**

Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2018 - Continues  
Assistant Professor, Abdullah Gul University, Mühendislik Fakültesi, Bilgisayar Mühendisliği, 2015 - 2018  
Assistant Professor, Bogazici University, Institute Of Science, Bilgisayar Mühendisliği, 2015 - 2017

### **Courses**

Spec. Topics in CMPE : Future Internet Opportunities, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Computer Networks, Undergraduate, 2016 - 2017  
Playing with The Past, Undergraduate, 2016 - 2017  
Art of Computing, Undergraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015  
Mobile Programming, Undergraduate, 2016 - 2017  
Architectures of Current and Future Internet, Postgraduate, 2014 - 2015

## Jury Memberships

Post Graduate, Tez Savunma Jürisi, Abdullah Gül Üniversitesi, December, 2016

Post Graduate, Tez Savunma Jürisi, Erciyes Üniversitesi, July, 2015

Post Graduate, Tez Savunma Jürisi, Boğaziçi Üniversitesi, January, 2015

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Transmitter Localization in Vessel-Like Diffusive Channels Using Ring-Shaped Molecular Receivers**  
Turan M., Akdeniz B. C., KURAN M. Ş., Yilmaz H. B., Demirkol I., PUSANE A. E., TUĞCU T.  
IEEE COMMUNICATIONS LETTERS, vol.22, no.12, pp.2511-2514, 2018 (SCI-Expanded)
- II. **A Smart Parking Lot Management System for Scheduling the Recharging of Electric Vehicles**  
Kuran M. Ş., Viana A. C., Iannone L., Kofman D., Mermoud G., Vasseur J. P.  
IEEE TRANSACTIONS ON SMART GRID, vol.6, no.6, pp.2942-2953, 2015 (SCI-Expanded)
- III. **A Novel Pre-Equalization Method for Molecular Communication via Diffusion in Nanonetworks**  
Tepekule B., Pusane A. E., Kuran M. Ş., Tugcu T.  
IEEE COMMUNICATIONS LETTERS, vol.19, no.8, pp.1311-1314, 2015 (SCI-Expanded)
- IV. **CALCIUM SIGNALING: OVERVIEW AND RESEARCH DIRECTIONS OF A MOLECULAR COMMUNICATION PARADIGM**  
KURAN M. Ş., Tuğcu T., Edis B. O.  
IEEE WIRELESS COMMUNICATIONS, vol.19, no.5, pp.20-27, 2012 (SCI-Expanded)
- V. **Interference Effects on Modulation Techniques in Diffusion Based Nanonetworks**  
KURAN M. Ş., Yilmaz H. B., Tuğcu T., Akyildiz I. F.  
NANO COMMUNICATION NETWORKS, no.3, pp.65-73, 2012 (SCI-Expanded)
- VI. **Energy Model for Communication via Diffusion in Nanonetworks**  
KURAN M. Ş., Yilmaz H. B., Tuğcu T., Özerman B.  
NANO COMMUNICATION NETWORKS, no.1, pp.86-95, 2010 (SCI-Expanded)
- VII. **APPLICATIONS OF THE CROSS-LAYER PARADIGM FOR IMPROVING THE PERFORMANCE OF WIMAX**  
KURAN M. Ş., Gür G., Tuğcu T., Alagöz F.  
IEEE WIRELESS COMMUNICATIONS, vol.17, no.3, pp.86-95, 2010 (SCI-Expanded)
- VIII. **A survey on emerging broadband wireless access technologies**  
KURAN M. Ş., Tuğcu T.  
COMPUTER NETWORKS, vol.51, no.11, pp.3013-3046, 2007 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Service Class Differentiation in Scheduling of Electrical Vehicle Recharging**  
Yilmaz H. B., KURAN M. Ş., Eryiğit S.  
Telecommunication Reviews, vol.25, pp.592-604, 2015 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Understanding Communication via Diffusion: Simulation Design and Intricacies**  
ACAR B., AKKAYA A., GENÇ G., Yilmaz H. B., KURAN M. Ş., Tuğcu T.  
in: Modeling, Methodologies, and Tools for Molecular and Nano-scale Communications, Suzuki J., Nakano T., Moore M. J., Editor, Springer, London/Berlin , N/A, pp.1, 2014

**II. MAC Layers of WMAN Technologies**

KURAN M. Ş., Alagöz F., Tuğcu T.

in: Wireless Metropolitan Area Networks: WiMAX and Beyond, Zhang Y., Chen H-H., Editor, Auerback Publications , Boca Raton, pp.129-149, 2006

**Refereed Congress / Symposium Publications in Proceedings**

**I. Channel Model of Molecular Communication via Diffusion in a Vessel-like Environment Considering a Partially Covering Receiver**

Turan M., KURAN M. Ş., Birkan Yilmaz H., Demirkol I., TUĞCU T.

IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom), Batumi, Georgia, 4 - 07 June 2018, pp.153-157

**II. MOL-Eye: A New Metric for the Performance Evaluation of a Molecular Signal**

Turan M., KURAN M. Ş., Yilmaz H. B., Chae C., TUĞCU T.

IEEE Wireless Communications and Networking Conference (WCNC), Barcelona, Spain, 15 - 18 April 2018

**III. Learning Management Systems on Blended Learning Courses: An Experience-based Observation**

KURAN M. Ş., PEDERSEN J. M., ELSNER R.

International Conference on Image Processing and Communications, Bydgoszcz, Poland, 13 - 15 September 2017, pp.1

**IV. Moodle: Practical Advices for University Teachers**

PEDERSEN J. M., KURAN M. Ş.

International Conference on Image Processing and Communications, Bydgoszcz, Poland, 13 - 15 September 2017, pp.1

**V. Colibri: An International Blended Learning Experience based on Real-World Problems**

Pedersen J. M., KURAN M. Ş., Frick J., Mank L.

International Symposium on Project Approaches in Engineering Education (PAEE) – Active Learning in Engineering Education Workshop (ALE) '16, Guiaraes, Portugal, 6 - 08 July 2016, pp.1-10

**VI. Smart Cities Recharged: Improving Electrical Vehicles Recharging by Routine-Aware Scheduling**

KURAN M. Ş., Viana A. C., Iannone L., Kofman D., Mermoud G., Vasseur J. P.

International Workshop on Smart City and Ubiquitous Computing Applications (SCUCA '14) in conjunction with IEEE International Conference on Wireless and Mobile Computing, Networking, and Communications, Larnaka, Cyprus (Kktc), 8 - 10 September 2014, pp.106-113

**VII. Channel Capacity of Calcium Signaling Based on Inter-cellular Calcium Waves in Astrocytes**

HEREN A. C., KURAN M. Ş., Yilmaz H. B., Tuğcu T.

IEEE International Workshop on Molecular and Nano-scale Communications (MONACOM '13) in conjunction with IEEE ICC, Budapest, Hungary, 9 - 13 June 2013, pp.792-797

**VIII. A Tunnel-based Approach for Signal Shaping in Molecular Communication**

KURAN M. Ş., Yilmaz H. B., Tuğcu T.

IEEE International Workshop on Molecular and Nano-scale Communications (MONACOM '13) in conjunction with IEEE ICC, Budapest, Hungary, 9 - 13 June 2013, pp.776-781

**IX. NANO AĞLARDA DİFÜZYON İLE HABERLEŞME ÜZERİNE GELİŞTİRİLMİŞ MODELLER**

KILIÇLI F. N., ÖZSAHİN M. T., KURAN M. Ş., Yilmaz H. B., Tuğcu T.

Akademik Bilişim 2013, Antalya, Turkey, 23 - 25 January 2013, pp.1-5

**X. Co-channel Interference for Communication via Diffusion System in Molecular Communication**

KURAN M. Ş., Tuğcu T.

International ICST Conference on Bio-Inspired Models of Network, Information, and Computing Systems (BIONETICS), York, United Kingdom, 5 - 06 December 2011, pp.199-212

**XI. Modulation Techniques for Communication via Diffusion in Nanonetworks**

KURAN M. Ş., Yilmaz H. B., Tuğcu T., Akyildiz I. F.

IEEE International Conference on Communications (ICC '11), Kyoto, Japan, 5 - 09 June 2011, pp.1-6

- XII. **Effects of Routing for Communication via Diffusion System in the Multi-node Environment**  
 KURAN M. S., Yılmaz H. B., Tuğcu T.  
 IEEE International Workshop on Molecular and Nano-scale Communications (MONACOM '11) in conjunction with  
 IEEE INFOCOM, Şangay, China, 10 - 15 April 2011, pp.461-466
- XIII. **Nanoağlar ve Moleküler Haberleşme Teknikleri**  
 KURAN M. S., Tuğcu T.  
 Akademik Bilişim 2011, Malatya, Turkey, 2 - 04 February 2011, pp.1
- XIV. **Hybrid frame structure for improving network throughput in WiMAX Mesh Networks**  
 Ulutas M. I., Kuran M. S., Tugcu T.  
 2010 5th International Conference on Broadband and Biomedical Communications, IB2Com 2010, Malaga, Spain,  
 15 - 17 December 2010
- XV. **Cross-Layer Routing-Scheduling in IEEE 802.16 Mesh Networks**  
 KURAN M. S., Gür G., Alagöz F., Tuğcu T.  
 International Conference on MOBILE Wireless MiddleWARE, Operating Systems, and Applications, Innsbruck,  
 Austria, 13 - 15 February 2008, pp.1-6
- XVI. **Quality of service in mesh mode IEEE 802.16 networks**  
 Kuran M. S., Yilmaz B., Alagoz F., Tugcu T.  
 SoftCOM 2006 - International Conference on Software, Telecommunications and Computer Networks, Split-Dubrovnik, Croatia, 29 September - 01 October 2006, pp.107-111
- XVII. **YENİ NESİL UYDU AĞLARINDA SIKIŞKLIK KONTROL TEKNİKLERİİNİN PERFORMANS ANALİZİ**  
 KURAN M. S., Tuğcu T.  
 GAP Mühendislik Kongresi, Şanlıurfa, Turkey, 26 - 28 April 2006, pp.1-9

## Supported Projects

- KURAN M. S., EU Supported Other Project, Improving Employability through Internationalization and Collaboration, 2017  
 - Continues
- KURAN M. S., Project Supported by Higher Education Institutions, Abdullah Gül Üniversitesi Eğitim Öğretim Kalite Güvence Uygulamaları Alt Yapısının Geliştirilmesi, 2015 - 2017
- KURAN M. S., TUBITAK Project, Örütü Tanıma ve Analiz Yöntemleri ile Hizmet Kalitesinin Arttırılmasına Yönelik Anormallik Tespit Uygulaması Geliştirilmesi, 2015 - 2017
- KURAN M. S., EU Supported Other Project, Collaboration and Innovation for Better, Personalized and IT-Supported Teaching, 2014 - 2017

## Scientific Refereeing

- Nano Communication Networks, SCI Journal, September 2017
- Nano Communication Networks, SCI Journal, July 2017
- IEEE Transactions on Vehicular Technology, SCI Journal, July 2017
- IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, SCI Journal, June 2017
- IEEE Transactions on Vehicular Technology, SCI Journal, February 2017
- IET Intelligent Transport Systems, SCI Journal, September 2016
- IEEE Communications Letters, SCI Journal, July 2016
- IEEE Transactions on Nanobioscience, SCI Journal, June 2016
- IEEE Transactions on Nanobioscience, SCI Journal, December 2015

## Metrics

**Publication:** 29

**Citation (WoS):** 166

**Citation (Scopus):** 200

**H-Index (WoS):** 5

**H-Index (Scopus):** 6