

## CURRICULUM VITAE

**Name: Professor Dr Orhan GEMIKONAKLI**

DoB: 31/01/1958

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### Current Status

- Emeritus Professor, Faculty of Science and Technology, Middlesex University
- Dean of Faculty of Engineering, Final International University, Cyprus

### Education

- Lefke Gazi Lisesi, Cyprus, 1970-76
- Middle East Technical University, Ankara, Turkey, 1976-80
- Eastern Mediterranean University (formerly Higher Technological Institute), Cyprus, 1980-84
- King's College London, 1984-89
- Middlesex University, 1999-2001

### Qualifications

- BEng in Electrical Engineering, Higher Technological Institute (now Eastern Mediterranean University), 1984
- MSc in Digital Electronics, Computers and Communications, King's College, University of London, 1985
- PhD in Electronic communications, King's College London, January 1990
  - Investigating the performance of spectrally efficient digital modulations schemes (e.g. M-ary CPSK and QAM) transmitted through non-linear satellite and terrestrial channels in inter-symbol interference, Gaussian and non-Gaussian impulsive noise and co-channel interface environment.
- PGCert (HE), Middlesex University, 2001

### Membership of Professional Bodies and Learned Societies

- MIEEE, 1990-2015
- MIET, The Institute of Electrical Engineers, 1994 - 2018
- CEng, the Engineering Council, 1994 – 2018

### Career Details

August 2020 - to date The Dean of the Faculty of Engineering, Final International University

September 2020 - September 2022, The Acting Dean of the Faculty of Architecture and Fine Arts, Final International University

October 2020 - September 2022, The Director of the Vocational School, Final International University

June – November 2019 Research Professor, University of Camerino, Italy

October 2018 – May 2019 Professor, Middle East Technical University (PT)

Sept 2012 Professor of Telecommunications

2014-18 Faculty International Leader and Director of International Operations

2015 - 2017 Temporary professor, University of Camerino, Italy (PT)

Aug 2007 to Sept 2014, Head of Department, Computer and Communications Engineering (formerly Computer Communications), Middlesex University

Jan – Aug 2007 Acting Academic Group Chair (Computer Communications)

2001-2007 Postgraduate Curriculum Leader, Computer Communications, School of Computing Science, Middlesex University

2003 Principal Lecturer in Computer Communications, School of Computing Science & School of Engineering and Information Sciences, Middlesex University

1997-2003 Senior Lecturer in Computer Communications, School of Electronic Engineering & School of Computing Science, Middlesex University

1994-2004 MSc Telematics & MSc Computer Networks Programme Leader, School of Electronic Eng. & School of Computing Science, Middlesex University

1992-97 Leader of the Signal Processing Research Group, School of Electronic Engineering, Middlesex University

1992-97 Project Coordinator for Undergraduate Programmes, School of Electronic Engineering, Middlesex University

1991-97 Senior Lecturer in Digital Communications  
School of Electronic Engineering, Middlesex Polytechnic/University

1990-91 Lecturer in Digital Communications  
School of Electronic Engineering, Middlesex Polytechnic

1989-90 Post-doctoral research associate in Communications  
King's College London

1986-90 Supervising students' experiments & projects  
King's College London

1985-86 Senior Lecturer  
Eastern Mediterranean University, Famagusta, Cyprus

1984 Assistant Editor  
Ortam Publications

1981 Electrical Technician  
BEM Cement Factory, Famagusta, Cyprus

## Research and Scholarly Activity

### *Research:*

- Most current work: Availability and Performance Analysis of consensus protocols, improving MBUS systems through forward error correction and new routing algorithms (with University of Camerino), modelling and evaluation of consistency protocols (with University of Camerino), modelling and performability evaluation of 5G networks (with METU), the design and evaluation of communication networks through the use of drones for temporary solutions (with University of Camerino and METU), Software Defined Networks (with Middlesex University), Educational Technologies (Eskisehir Universitesi)
- Performability modelling of computer networks: To develop mathematical models to evaluate the performance of multi-server network systems. Work includes work on multi-server systems with break-downs, reconfiguration and rebooting delays, and various repair strategies and performability of Beowulf clusters. A novel technique has been developed to ease the *state space expansion* problem in analytical models.
- Vehicular area networks (VANETs) – design and implementation of a VANET system
- Software Defined Networks
- Performability modelling of wireless sensor networks: Work is in progress in developing accurate models for the performability evaluation of wireless sensor networks.

- Network security: The development of effective security mechanisms/models/frameworks and protocols for both traditional and wireless networks.
- Modelling cellular systems and WLANs, and channel simulation.
- Educational Technologies: Tangible User Interfaces, Virtual Learning Environments, Social Media

### *Teaching, curriculum & programme development*

The development and teaching of various modules.

**UG teaching** (BEng Electronic Engineering, HND Electronics, MEng in Electronic Product Design, BSc Computer Networks, BSc Computer Networks (Mobile Computing), BEng Computer Systems Engineering, BSc Computer Engineering: Digital Communications (Level 3: 1990-98 and 2017, Level 2: 1992-97, Level 3 2017), Analogue Communications (Level 2, 1990-1997), Analogue and Digital Signal Processing (Level 3: 1990-97), Multimedia (Level 3, 1997), Computer Networks (Level 1), Protocols and Implementation (Level 2, 2007-08), Protocols and Implementation (L2, 2007-08), and Wireless LANs and Mobile Computing (Level 2, 2009-10), Host operating Systems and Security (2010-11), Programming for Data Communication and Problem Solving (2013-2018), Engineering Software Development (2014-2018), Distributed Systems (2015-2017), Modelling and Simulation (2018-19), Introduction to C (2018-19), Operating Systems (2018-19), and Statistics for Computer Science (2018-19), Computer Simulation (2018-19, 2020-23), Operating Systems (2018-19), C Programming (2018-19), Probability and Statistics (2018-19), Wireless Communications (2020-21), Communication Systems (2020-2023), Physics (2022-23), Computer Networks (2020-21).

**PG Teaching** (MSc Sensors, MSc Telematics, MSc Computer Networks, MSc BIT): Telematics Systems and Services (1994-1995), Design of Telematics Systems/Network Design (1994-2005), Computer Networks (1994-1998), OOP Programming, Programming for Computer Networks (1997-2003), Network Operating Systems (1997-2001), Network Modelling and Simulation (2004-2007), Network Design, Modelling and Simulation (2007-2014), Programming for Telecommunication (2009-2011), and Digital Transmission Systems (2009-2011), Network Systems and Services (2011-2012), Information Theory (2021-23), Probability Theory and Stochastic Processes (2021-23).

**Leadership in Academic Programme Development:** MSc Telematics, MSc Computer Networks, MSc Computer Network Management, MSc Computer and Network Security, MSc Professional Network Engineering (Portfolio Based), MSc Telecommunication Engineering, MSc Mobile Telecommunication Engineering (Portfolio Based), and BEng/MEng Computer Systems Engineering. Overall responsibility of the development of a suit of undergraduate programmes in computer engineering (Middlesex University London). BEng Artificial Intelligence, BEng Electrical Engineering, BEng Software Engineering, BEng Computer Engineering, MSc Electrical and Electronic Engineering, MSc Software Engineering, Computer Programming (Final International University.)

### **Accreditations:**

Successfully represented the School of Electrical and Electronic Engineering in IEE accreditation of BEng Electronic Engineering and BEng Electronic Engineering and Management Programmes (1993).

Team Leader in the successful BCS accreditation of MSc Computer Networks and MSc Computer Network Management (2006).

BCS accreditation for all UG and PG programmes offered by the Computer Communications Department (November 2011).

### **Public Output from Research and Scholarly Activity**

#### **Publications (2010 – 2021)**

#### **2023:**

1. Marco Marcozzi, Orhan Gemikonakli, Eser Gemikonakli, Enver Ever, Leonardo Mostarda, Availability Model for Byzantine Fault-Tolerant Systems, The 37th International Conference on Advanced Information Networking and Applications, AINA 2023, 29-31 March 2023

#### **2022:**

2. Orhan Gemikonaklı, Veri İletişimi ve Bilgisayar Ağları dersinin Dokunulabilir Kullanıcı Arayüzleri Kullanımı ile Harmanlanmış Öğrenme Ortamında Tasarımı, TYYÇ Kapsamında Lisans Düzeyinde Çevrimiçi Öğrenme Ortamlarının Tasarlanması (e-kitap), PEGEM AKADEMİ, 1 Mart 2022, Ankara
3. Orhan Gemikonaklı, Modelling in Science and Engineering, IV. INTERNATIONAL CONFERENCE ON NATURAL SCIENCES AND TECHNOLOGIES ICONAT-2022, 24-26 August 2022
4. Orhan Gemikonaklı et. al., NARUN: noise adaptive routing for utility networks, INTERNATIONAL JOURNAL OF WEB AND GRID SERVICES, 2022

#### **2021:**

5. Orhan Gemikonaklı, An Innovative Reinforcement Learning-Based Framework for Quality of Service Provisioning Over Multimedia-Based SDN Environments, IEEE TRANSACTIONS ON BROADCASTING, December 2021
6. Orhan Gemikonaklı, "The Lessons Learned from the Environmentally Most Disturbed Lands in Cyprus: The Findings of the two Symposiums Looking into the Urbanization and Environmental Issues of Lefke; Post-mining Reflections from an ex-Mining Town", Invited Speaker, The 5th International Conference on "Natural Resources and Sustainable Environmental Management" 2021, Virtual Conference, 08-11 Kasım 2021
7. Ahmed Aljawad, Ioan Sorin Comsa, Purav Shah, Orhan Gemikonakli, and Ramona Trestian, REDO: A Reinforcement Learning-based Dynamic Routing Algorithm Selection Method for SDN, Conference: IEEE Conference on Network Function Virtualization and Software Defined Networks (NFV-SDN), at: Virtual Conference, November 2021
8. Orhan Gemikonakli et. el., How to Get Information in Online Environments? A Comparison of the Use of Net Generation Tools, JOURNAL OF EDUCATION AND FUTURE-EGITIM VE GELECEK DERGISI, October 2021
9. Yaqoob, M., Gemikonakli, O., Ever, E., Modelling Heterogeneous Future Wireless Cellular Networks: An Analytical Study for Interaction of 5G Femtocells and Macro-cells, Future Generation Computer Systems, Volume 114, January 2021, Pages 82-95, <https://doi.org/10.1016/j.future.2020.07.049> (2020)
10. Kemal Kilic, Orhan Gemikonakli, Leonardo Mostarda, Voronoi Tesselation Based Load-Balanced Multi-Objective Priority-Based Heuristic Optimization for Multi-Cell Region Coverage with UAVs, International Journal of Web and Grid Services, March 2021

#### **2020:**

11. Hamutoglu, N. B., Gemikonakli, DeRaffaele, C., Gezgin, D.M, A Comparative Cross-Cultural Study in Digital Literacy, Eurasian Journal of Educational Research 88, 121-148
12. Hamutoglu, N. B., Gemikonakli, O., Duman, I., Kirksekiz, A., Kiyici, M., Evaluating students experiences using a virtual learning environment: satisfaction and preferences, Educational Technology Research and Development 68 (1), 437-462, doi:10.1007/s11423-019-09705-z
13. Kilic K. I., Gemikonakli, O., Mostarda, L., Multi-objective Priority Based Heuristic Optimization for Region Coverage with UAVs, AINA 2020: 768-779
14. Ullah, Z., Gagliardi, R., Gemikonakli, O., Al-Turjman, F., Network Lifetime Efficiency Based on Equal and Unequal Size Clustering Strategies, AINA Workshops 2020: 905-916
15. Al-Jawad, A., Shah, P., Gemikonakli, O., Comsa, I-S., Trestian, R., Performance Evaluation of Routing Strategies over Multimedia-based SDNs under Realistic Environments, NetSoft 2020: 160-164

## **2019:**

16. Gemikonakli, O. (2019), Dünyada ve Kıbrıs'ta e-Devlet ve Yerel Yönetimlere Yansımaları, II. Lefke Kent Sempozyumu, Lefke Avrupa Üniversitesi, Lefke, Aralık 2019
17. Hamutoglu, Nazire Burcin, Gemikonakli, Orhan, and Gezgin, Deniz Mertkan (2019) A study of the effectiveness of Edmodo on Preservice classroom teachers' views of web-assisted collaborative learning environments, sense of community of classroom, and perceived learning. *Science Education International*, 30 (2) . pp. 128-137. ISSN 2077-2327 (doi:[10.33828/sei.v30.i2.6](https://doi.org/10.33828/sei.v30.i2.6))
18. Ivano Malavolta, Leonardo Mostarda, Henry Muccini, Enver Ever, Krishna Doddapaneni, Orhan Gemikonakli, A4WSN: an architecture-driven modelling platform for analysing and developing WSNs. *Software and Systems Modeling* 18(4): 2633-2653 (2019)
19. Enver Ever, Purav Shah, Leonardo Mostarda, Fredrick A. Omondi, Orhan Gemikonakli: On the performance, availability and energy consumption modelling of clustered IoT systems. *Computing* 101(12): 1935-1970 (2019)

## **2018:**

20. Gemikonakli, O. (2019), Dünyada ve Kıbrıs'ta Güneş Enerjisi Kullanımı ve Lefke için Öneriler, I. Lefke Kent Sempozyumu, Lefke Avrupa Üniversitesi, Lefke, Aralık 2018
21. Gezgin, D.M. Hamutoglu, N.B., Sezen-Gultekin, G. & Gemikonakli, O. (2018). Relationship between nomophobia and fear of missing out among Turkish university students. *Cypriot Journal of Educational Science*. 13(4), 549–561.
22. Malavolta, I., Mostarda, L., Muccini, H., Ever, E., Doddapaneni, K., and Gemikonakli, O., (2018), A4WSN: an architecture-driven modelling platform for analysing and developing WSNs, *Software and Systems Modeling*, ISSN 1619-1366, DOI: 10.1007/s10270-018-0687-0
23. Doddapaneni, K., Tasiran, A., Omondi, F. A., Ever, E., Shah, P., Mostarda, L., and Gemikonakli, O., (2018), Does the assumption of exponential arrival distributions in wireless sensor networks hold?, *IJNet* 26(2): 81-100 (2018)
24. Al-Jawad, A., Shah, P., Gemikonakli, O., Trestian, R., LearnQoS: A Learning Approach for Optimizing QoS Over Multimedia-Based SDNs. *BMSB2018*: 1-6
25. De Raffaele, C., Smith, S., Gemikonakli, O., (2018), An Active Tangible User Interface Framework for Teaching and Learning Artificial Intelligence. *IUI 2018*: 535-546
26. Hamutoglu, N., Gemikonakli, O., Savasci, M., & Gultekin, G. (2018). Development of a Scale to Evaluate Virtual Learning Environment Satisfaction. *International Journal of Assessment Tools in Education*, 5(2), 201 - 222.

## **2017:**

27. Gemikonakli, E., Ever, E., Mapp, G., Gemikonakli, O., (2017), Admission Control and Buffer Management of Wireless Communication Systems with Mobile Stations and Integrated Voice and Data Services, *Telecommunication Systems*, August 2017, Volume 65, Issue 4, pp 663–675
28. Gezgin, D. M., Hamutoğlu, N. B., Gemikonaklı, O., Raman, I., (2017), Social Networks Users: Fear of Missing Out in Preservice Teachers, *Journal of Education and Practice*, Vol 8, No 17, pp. 156-168 (2017)
29. De Raffaele, C., Smith, S., and Gemikonakli, O., (2017), Enabling the effective Teaching and Learning of Advanced Robotics in Higher Education using an Active TUI Framework, *Proceedings of the Africa and Middle East Conference on Software Engineering - AMECSE on December 12, December 2017*
30. De Raffaele, C., Smith, S., and Gemikonakli, O., (2017), Designing a Table-Top Tangible User Interface System for Higher Education, *PROCEEDINGS OF INTERNATIONAL CONFERENCE ON SMART SYSTEMS AND TECHNOLOGIES (SST)* on October 18, 2017

31. Maher Rantisi; Glenford Mapp; Orhan Gemikonakli, (2017), A Smart Sensor Grid to Enhance Irrigation Techniques in Jordan Using a Novel Event-Based Routing Protocol, Multimodal Technologies and Interaction on May 16, 2017
32. De Raffaele, C., Smith, S., and Gemikonakli, O., (2017), Explaining Multi-Threaded Task Scheduling using Tangible User Interfaces in Higher Educational Contexts, Proceedings of the EDUCON2017 Conference, Athens, April 2017
33. Trestian, R., Shah, P., Nguyen, H., X., Vien, Q-T., Gemikonakli, O., and Barn, B., (2017), Towards connecting people, locations and real-world events in a cellular network. *Telematics and Informatics*, 34 (1). pp. 244-271. ISSN 0736-5853 (Published online first)

**2016:**

34. Doddapaneni, K., Tasiran, A. C., Ever, E., Omondi, F., Shah, P., Mostarda, L., and Gemikonakli, O., (2016), Does the assumption of exponential arrival distributions in wireless sensor networks hold?, *International Journal of Sensor Networks* . ISSN 1748-1287 (Accepted/In press)
35. De Raffaele, Clifford and Smith, Serengul and Gemikonakli, Orhan (2016), Teaching and learning queueing theory concepts using tangible user interfaces. In: 2016 IEEE International Conference on Teaching, Assessment, and Learning for Engineering (TALE 2016), 07-09 Dec 2016, Bangkok, Thailand. (Accepted/In press)
36. De Raffaele, Clifford and Smith, Serengul and Gemikonakli, Orhan (2016) The aptness of tangible user interfaces for explaining abstract computer network principles. In: FIE 2016 -The 46th Annual Frontiers in Education (FIE) Conference, 12-15 Oct 2016, Erie, PA, USA.
37. Clifford De Raffaele, Serengul Smith, and Orhan Gemikonakli, The Application of Tangible User Interfaces for Teaching and Learning in Higher Education, Institute for Learning in Higher Education (LiHE), Innovative Teaching and Learning practices in Higher Education (Book Chapter)
38. Clifford De Raffaele, Serengul Smith, and Orhan Gemikonakli, (2016), The suitability of Tangible User Interfaces for the teaching and learning in Higher Education, LiHE'16 Copenhagen Summit Symposium Innovative Teaching and Learning in Higher Education.
39. Paranthaman, V. V., Ghosh, G., Mapp, G., Iniovosa, V., Shah, P., Nguyen, H. X., Gemikonakli, O., and Rahman, S., (2016), Building a Prototype VANET Testbed to Explore Communication Dynamics in Highly Mobile Environments, 11th EAI International Conference on Testbeds and Research Infrastructures for the Development of Networks & Communities, JUNE 14–15, 2016, HANGZHOU, PEOPLE'S REPUBLIC OF CHINA
40. Al-Jawad, A., Shah, P., Gemikonakli, O., Trestian, R., (2016), Compression-based technique for SDN using sparse-representation dictionary. *IEEE NOMS 2016: 754-758*, May 2016, Istanbul
41. Vien, Q-T., Nguyen, H. X., Trestian, R., Shah, P., and Gemikonakli, O., (2016), A hybrid double-threshold based cooperative spectrum sensing over fading channels. *IEEE Transactions on Wireless Communications*. ISSN 1536-1276

**2015:**

42. Kirsal, Y., Ever, E., Mostarda, L., and Gemikonakli, O. Analytical Modelling and Performability Analysis for Cloud Computing Using Queuing System (2015) Proceedings - 2015 IEEE/ACM 8th International Conference on Utility and Cloud Computing, UCC 2015, art. no. 7431489, pp. 643-647.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84965000014&partnerID=40&md5=6e4ea92b6607a0ad50f0b7d0a0f158e0> DOI: 10.1109/UCC.2015.115
43. Ghosh, A., Paranthaman, V. V., Mapp, G. E., Gemikonakli, O., Loo, J., Enabling seamless V2I communications: toward developing cooperative automotive applications in VANET systems. *IEEE Communications Magazine* 53(12): 80-86 (2015)
44. Kirsal, Y., Ever, E., Kocyigit, A., Gemikonakli, O., Mapp, G., (2015), Modelling and analysis of vertical handover in highly mobile environments, *The Journal of Supercomputing* 10/2015; DOI:10.1007/s11227-015-1528-3 · 0.86 Impact Factor

45. Kirsal Ever, Y., Kirsal, Y., Ever, E., Gemikonakli, O., (2015), Analytical Modelling and Performability Evaluation of Multi-Channel WLANs with Global Failures, *International Journal of Computers, Communications & Control (IJCCC)* 08/2015; 10(4):2015. DOI:10.15837/ijccc.2015.4.1465 · 0.75 Impact Factor
  46. Trestian, R., Vien, Q-T., Nguyen, H. X., Gemikonakli, O., (2015), ECO-M: energy-efficient cluster-oriented multimedia delivery in a LTE D2D environment. In: *IEEE International Conference on Communications*, June 8-12, London, UK.
  47. Trestian, Ramona and Vien, Quoc-Tuan and Nguyen, Huan X. and Gemikonakli, Orhan (2015) On the impact of video content type on the mobile device energy consumption. In: *IEEE International Symposium on Broadband Multimedia Systems and Broadcasting*, June 17-19, Ghent, Belgium.
  48. Vien, Quoc-Tuan and Akinbote, Tayo and Nguyen, Huan X. and Trestian, Ramona and Gemikonakli, Orhan (2015) On the coverage and power allocation for downlink in heterogeneous wireless cellular networks. In: *IEEE International Conference on Communications*, June 8-12, London, UK.
  49. Al-Jawad, Ahmed and Trestian, Ramona and Shah, Purav and Gemikonakli, Orhan (2015) BaProbSDN: a probabilistic-based QoS routing mechanism for software defined networks. In: *Network Softwarization (NetSoft)*, 2015 1st IEEE Conference on, 13-17 April 2015, London.
  50. Trestian, Ramona and Shah, Purav and Nguyen, Huan X. and Vien, Quoc-Tuan and Gemikonakli, Orhan, and Barn, Balbir (2015) Towards connecting people, locations and real-world events in a cellular network. In: *The main conference on the scientific analysis of mobile phone datasets (NetMob)*, Orange D4D Challenge, MIT Media Lab, USA.
  51. Doddapaneni, Krishna and Shah, Purav and Ever, Enver and Tasiran, Ali Cevat and Omondi, Fredrick and Mostarda, Leonardo and Gemikonakli, Orhan (2015) Packet arrival analysis in wireless sensor networks. In: *IEEE 29th International Conference on Advanced Information Networking and Applications Workshops (WAINA)*, 2015, 24-27 March 2015, Gwangju, South Korea.
  52. Omondi, Fredrick and Shah, Purav and Gemikonakli, Orhan and Ever, Enver (2015) A framework for energy based performability models for wireless sensor networks. In: *IEEE 29th International Conference on Advanced Information Networking and Applications Workshops (WAINA)*, 2015, 24-27 March, 2015, Gwangju, South Korea.
- 2014:**
53. Kirsal-Ever, Y., Eneh, A., Mostarda, L., and Gemikonakli, O., (2014), Analysing the Combined Kerberos Timed Authentication Protocol and Frequent Key Renewal Using CSP Rank Functions, *TIIS* 8(12):4604-4623 (2014)
  54. Yonal Kirsal · Enver Ever · Altan Kocyigit · Orhan Gemikonakli · Glenford Mapp, A Generic Analytical Modelling Approach for Performance Evaluation of the Handover Schemes in Heterogeneous Environments, *Wireless Personal Communications* 11/2014; 79(2). DOI:10.1007/s11277-014-1929-2 · 0.65 Impact Factor
  55. Ghosh, Arindam and Paranthaman, Vishnu and Mapp, Glenford E. and Gemikonakli, Orhan (2014) Exploring efficient seamless handover in VANET systems using network dwell time. *EURASIP Journal on Wireless Communications and Networking*, 2014 (1). p. 227. ISSN 1687-1499
  56. Vien, Quoc-Tuan and Nguyen, Huan X. and Trestian, Ramona and Shah, Purav and Gemikonakli, Orhan (2014) Performance analysis of cooperative spectrum sensing for cognitive wireless radio networks over Nakagami-m fading channels. In: *2014 IEEE 25th Annual International Symposium on Personal, Indoor, and Mobile Radio Communication (PIMRC)*. IEEE, pp. 738-742. ISBN 9781479949120
  57. Vien, Quoc-Tuan and Nguyen, Huan X. and Gemikonakli, Orhan and Barn, Balbir (2014) An efficient cooperative spectrum sensing under bandwidth constraint with user selection. *Vehicular Technology Conference (VTC Fall)*, 2014 IEEE 80th. pp. 1-5. ISSN 1090-3038

58. Mirzamany, Esmat and Lasebae, Aboubaker and Gemikonakli, Orhan (2014) Comparison between resource reservation protocol and next steps in signalling in mobile IP networks. IET Networks. pp. 1-10. ISSN 2047-4954
59. Ghosh, Arindam and Paranthaman, Vishnu Vardhan and Mapp, Glenford E. and Gemikonakli, Orhan (2014) Providing ubiquitous communication using handover techniques in VANET systems. In: 2014 13th Annual Mediterranean Ad Hoc Networking Workshop (MED-HOC-NET), 2-4 June, 2014, Slovenia, Piran.
60. Mirzamany, Esmat and Lasebae, Aboubaker and Gemikonakli, Orhan (2014) SLA based MT-routing for future internet. In: Wireless World Research Forum Meeting 32, 18-22 May 2014, Marrakech, Morocco.
61. Doddapaneni, Krishna and Omondi, Fredrick and Ever, Enver and Shah, Purav and Gemikonakli, Orhan and Gagliardi, Roberto (2014) Deployment challenges and developments in wireless sensor networks clustering. In: Advanced Information Networking and Applications Workshops (WAINA), 2014 28th International Conference on, 13-16 May 2014, Victoria, Canada.
62. Sule, Clifford and Shah, Purav and Doddapaneni, Krishna and Gemikonakli, Orhan and Ever, Enver (2014) On demand multicast routing in wireless sensor networks. In: Advanced Information Networking and Applications Workshops (WAINA), 2014 28th International Conference, 13-16 May 2014, Victoria, BC.
63. Aiash, Mahdi and Mapp, Glenford E. and Gemikonakli, Orhan (2014) Secure live virtual machines migration: issues and solutions. In: IEEE WAINA 2014, 13-16 May 2014, Victoria, BC, Canada.
64. Mirzamany, Esmat and Lasebae, Aboubaker and Gemikonakli, Orhan (2014) An efficient traffic engineering based on multi-topology routing for future internet. Computer Networks. ISSN 1389-1286
65. Vien, Quoc-Tuan and Stewart, Brian G. and Nguyen, Huan X. and Gemikonakli, Orhan (2014) Distributed space-time-frequency block code for cognitive wireless relay networks. IET Communications, 8 (5). pp. 754-766. ISSN 1751-8628

**2013:**

66. Vien, Quoc-Tuan and Nguyen, Huan X. and Gemikonakli, Orhan and Barn, Balbir (2013) Performance analysis of cooperative transmission for cognitive wireless relay networks. Global Communications Conference (GLOBECOM), 2013 IEEE. pp. 4186-4191. ISSN 1930-529X
67. Omondi, F. A., Ever, E., Shah, P., and Gemikonakli, O., (2013), "Modelling Wireless Sensor Networks for Performability Evaluation", Ad-hoc, Mobile, and Wireless Networks, Series: Lecture Notes in Computer Science. J. Cichon', M. Gebala, and M. Klonowski (Eds.): ADHOC-NOW2013, Lecture Notes in Computer Science 7960, pp. 172-184, 2013. ©Springer-Verlag Berlin Heidelberg 2013
68. Ghosh, Arindam and Vardhan, Vishnu and Mapp, Glenford E. and Gemikonakli, Orhan and Loo, Jonathan (2013) Providing ubiquitous communication using road-side units in VANET systems: unveiling the challenges. In: 13th International Conference on ITS Telecommunications (ITST) 2013, 5-7 Nov, 2013, Finland, Tampere.
69. Mirzamany, Esmat and Lasebae, Aboubaker and Gemikonakli, Orhan (2013) Efficient NSIS mobility support for mobile networks. In: 24th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 08-11 Sep 2013, London, UK.
70. Enver Ever, Orhan Gemikonakli, Altan Koçyigit, Eser Gemikonakli: A hybrid approach to minimize state space explosion problem for the solution of two stage tandem queues. J. Network and Computer Applications 36(2): 908-926 (2013)
71. Eser Gemikonakli, Glenford E. Mapp, Orhan Gemikonakli, Enver Ever (2013), Exploring Service and Buffer Management Issues to Provide Integrated Voice and Data Services in Single and Multi-channel Wireless Networks. AINA 2013: 1056-1063



72. Yonal Kirsal, Enver Ever, Glenford E. Mapp, Orhan Gemikonakli: Enhancing the Modelling of Vertical Handover in Integrated Cellular/WLAN Environments. AINA 2013: 924-930
73. Antinisca Di Marco, Francesco Gallo, Orhan Gemikonakli, Leonardo Mostarda, Franco Raimondi, (2013), Implementing Adaptation and Reconfiguration Strategies in Heterogeneous WSN. AINA2013: 477-483

**2012:**

74. M. A. Azam, J. Loo, U. Naeem, S. K. A. Khan, A. Lasebae, O. Gemikonakli, "A Framework to Recognise Daily Life Activities with Wireless Proximity and Object Usage Data", IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC'12), September 2012, Sydney, Australia
75. Doddapaneni, K., Ever, E., Gemikonakli, O., Malavolta, I., Mostarda, L., Muccini, H., (2012), "Path Loss Effect on Energy Consumption in a WSN", Computer Modelling and Simulation (UKSim), Cambridge, UK, 2012
76. Doddapaneni, K., Ever, E., Gemikonakli, O., Mostarda, L., and Navarra, A., (2012), Effects of IDSs on the WSNs Lifetime: Evidence for the need of new approaches', Third International Symposium on Mobile and Wireless Network Security (MWNS-12), In conjunction with 11th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-12). Liverpool, UK, 25-27 June, 2012.
77. Doddapaneni, K., Ever, E., Gemikonakli, O., Malavolta, I., Mostarda, L., and Muccini, H., (2012), A Model-Driven Engineering Framework for Architecting and Analysing Wireless Sensor Networks, In ACM/IEEE proceedings of Third International Workshop on Software Engineering for Sensor Network Applications SESENA 2012 (conjunction with ACM/IEEE Intl. Conference on Software Engineering, ICSE) June 2-9, 2012, Zurich, Switzerland.
78. Kirsal, Y., Gemikonakli, O. Ever, E., and Mapp, G., (2012), Performance Analysis of Handovers to Provide a Framework for Vertical Handover Policy Management in Heterogeneous Environments, in IEEE Proceedings of 45<sup>th</sup> Annual Simulation Symposium, (ANSS'12), March 26-20 2012, Florida.

**2011:**

79. Kirsal, Y., Ever, E., Gemikonakli, O., Mapp, G., (2011), Modelling and Performability Analysis of WLANs as a Queuing Model with Channel/Access Point Failures and Reconfiguration, European Modelling Symposium (EMS) 2011, Madrid.
80. Kirsal, Y., Ever, E., Gemikonakli, O., Mapp, G., (2011), Critical Review of Analytical Modelling Approaches for Performability Evaluation of the Handover Phenomena in Mobile Communication Systems, IEEE CIT (DSOC) 2011, Paphos, Cyprus.
81. Gemikonakli, E., Mapp, G., Gemikonakli, O., and Ever, E., (2011), Traffic Modelling in WLANs and Cellular Networks, IEEE CCSIE 2011, London, UK.
82. Rantisi, M., Maqousi, A., Mapp, G., and Gemikonakli, O., (2011), The Development of a Dynamic Event-Based Routing in Wireless Sensor Networks for Monitoring Soil Moisture in the Middle east, IEEE CCSIE 2011, London, UK.
83. Gemikonakli, E., Gemikonakli, O., Ever, E., and Mapp, G., (2011), Impacts of Buffering of Voice Calls in Integrated Voice and Data Services, In: Al-Dabass, David and Orsoni, Alessandra and Cant, Richard and Abraham, Ajith, (eds.) Computer Modelling and Simulation (UKSim), 2011 UkSim 13th International Conference IEEE, pp. 507-512. ISBN 9781612847054

**2010:**

84. Kirsal, Y., Gemikonakli, E., Ever, E., Mapp, G., and Gemikonakli, O., (2010), An Analytical Approach for Performance Analysis of Handoffs in the Next Generation Integrated Cellular Networks and WLANs, PMECT 2010, Zurich, Switzerland.
85. Taherkhani, S., Ever, E., and Gemikonakli, O., (2010), Implementation of Non-Pipelined and Pipelined Data Encryption Standard (DES) Using Xilinx Virtex-6 FPGA Technology, IEEE CIT (DSOC) 2010, Bradford, UK

86. Mapp, G., Thakker, D., Gemikonakli, O., (2010), Exploring a New Markov Chain Model for Multiqueue Systems, UKSim-AMSS 2010, 12th International Conference on Computer Modelling and Simulation, Cambridge, UK, March 2010
87. Gemikonakli, O., Ever, E., and Gemikonakli, E., (2010), Performance Modelling of Virtualised Servers, UKSim-AMSS 2010, 12th International Conference on Computer Modelling and Simulation, Cambridge, UK, March 2010
88. Ever, E., Kirsal, Y., and Gemikonakli, O., Performability Modelling of a Kerberos Server with Frequent Key Renewal under Pseudo-Secure Conditions for Increased Security, CITT 2009, Dubai, December 2009, pp. 91-96

### **Research Supervision**

- Brian Brewster, Bachelor of Philosophy (BPhil), Director of Studies, 1995-1997
- Josef Grega, Doctorate (Hungarian), Director of Studies, 1995-1998
- Agozie Eneh (PhD), Director of Studies, 2003-2007
- Michael Cheng (PhD), Second Supervisor, 2004-2008
- Enver Ever (PhD), Director of Studies, 2004-2008
- Yoney Kirsal (PhD), Director of Studies, 2004-2011
- Dhawal Thakker (PhD), Second Supervisor, 2007-2010
- Maher Rantisi (Distance Learning PhD), Director of Studies, 2008-2018
- Eser Gemikonakli (PhD) , Second Supervisor, 2007-2014
- Yonal Kirsal (PhD), Director of Studies, 2008-2013
- Esmat Mirzamany (PhD), Second Supervisor, 2010-2013
- Arindam Ghosh (PhD), Director of Studies, 2010-2016
- Krishna Doddapaneni (PhD), Director of Studies, 2010-2015
- Fredrick Adero (PhD), Director of Studies, 2012-2017
- Ahmed Nihad AbdulMajeed Al-Jawad, Second Supervisor, 2014-2020
- Clifford De Raffaele, Second Supervisor, 2015-2018

### **Membership of University Committee and Task Groups (sample of)**

- Teaching Loads Working Party, January – June 1995
- Academic Planning Committee, 2001-02
- Academic Planning, Quality and Learning Enhancement Committee (APQLE), November 2006-2014
- Academic Standards and Quality Committee (ASQC), 2008-2010
- Student Buddy Scheme Steering Committee, 2011
- Teaching and Learning Committee, 2011-2013
- Articulation Board, 2014-2018
- Board of Accreditations, 2014-2018
- Chair of the Ethics Committee, 2020 - to date
- Member of the University Senate, 2020 - to date
- Advisor to the Innovation Center, 2023
- Member of the Academic Awards and Promotions Committee, 2020 - to date

### **Administrative/Managerial Roles**

August 2020 - to date The Dean of the Faculty of Engineering, Final International University

September 2020 - September 2022, The Acting Dean of the Faculty of Architecture and Fine Arts, Final International University

October 2020 - September 2022, The Director of the Vocational School, Final International University  
Sept 2014-Jan 2018 School International Leader (Director of International Operations)  
Jan 2015-Jan 2018 Academic Management of Middlesex University Malta Campus

Aug 2007-Sept 2014 Head of Department, and Member of School Executive  
Jan-July Academic Group Chair (Acting), 2007  
2005-2008 Link Tutor, DNV-CIBIT, Bilthoven, the Netherlands  
2001-2007 Postgraduate Curriculum Leader (Computer Communications)  
1994-98 Program Leader, MSc Telematics  
1998-2004 Program Leader, MSc Computer Networks  
1992-97 Undergraduate Project Coordinator, School of Electronic Engineering

**Relevant External Activities (sample of)**

- 2022, Organising Committee Member the IV. Int. Conf. On Natural Sciences and Technologies, ICONAT 2022
- Organising Committee Member, 3rd International Conference on Cyprus Issue: Environmental Challenges and Energy Security; (ECES 2022)
- 2021, Organising Committee Member of the 5th International Conference on Natural Resources and Sustainable Environmental Management, NRSEM 2021
- 2019 - Organising Committee Member and Symposium Chair, II. Lefke Kent Sempozyumu
- 2018 - Organising Committee Member and Symposium Chair, I. Lefke Kent Sempozyumu
- IEEE UK&RI Section, Communications Chapter Committee, 1990-95, Student Officer
- CIBIT, Utrecht, Development and Validation of an MSc Programme in Telematics, 1993
- ASME Second Biennial European Joint Conference on Engineering Systems Design and Applications, Session Developer & Session Chair, 1993-94
- TEMPUS Projects, University of Craiova, Romania, 1994
- TEMPUS Projects, University of Miskolc, Hungary, 1994-2000
- Editorial Responsibilities:
  - Member of editorial board, IJATE, 2017
  - Member of editorial board, KSII, 2013
  - Associate Editor: The International Journal of Technology Knowledge & Society, 2005
  - Member of the Editorial Board; International Journal of Electronic Security and Digital Forensics, Inderscience Publishers, 2008
  - Member of International Advisory Board; International Journal of Scholarly Papers "Transformations in Business and Economics", 2010
- Other Programme Committee/Advisory Panel Memberships (Sample of):
  - Annual Symposium on Network Simulation, April 2006-2008
  - International Conference on Security, Sustainability, and Safety, 2008
  - The International conference on the Current Trends in Information Technology, Dubai, 2009
  - IEEE International Conference on Computer and Information Technology, 2010
  - Conference on IT Security for the Next Generation, Kaspersky Laboratories, 2009
  - 25th IEEE International Conference on Advanced Information Networking and Applications ((Distributed and Parallel Systems Track), 2011
  - The International Conference on Computational Intelligence and Communication Networks (CICN2010)
  - International Conference on Cyber Terrorism: a threat to inter-nation, 2011
  - DCNET 2011 – 2012

- Conference Chair
  - IEEE International Conference on Cybernetics and Intelligent Systems, 2008 (Local Chair)
  - The IEEE Conference on Communication, Science & Information Engineering (CCSIE) 2011 (Operations Chair)
  - The IEEE Conference on Communication, Science & Information Engineering (CCSIE) 2011 (Chair)
  - I. Lefke Kent Sempozyumu, December 2018, Conference Chair
  - II. Lefke Kent Sempozyumu, December 2019, Conference Chair
  
- Session Chair (sample of):
  - Conference on Applied Computing (IADIS'05), Algarve, Portugal, February 2005
  - European Simulation and Modelling Multiconference, Riga, June 2005
  - Annual Symposium on Network Simulation, 2006-2008
  - ICTTA, Damascus, Syria, April 2006
  - 40<sup>th</sup> Annual Symposium on Network Simulation, Huntsville, AL, USA, April 2007
  - IEEE International Conference on Cybernetics and Intelligent Systems, 2008
  - AINA 2015
  
- Refereeing papers (sample of):
  - The International Journal of Technology Knowledge & Society, 2005
  - IEEE Globecom, 2006
  - IEEE ICC, 2006
  - Annual Symposium on Network Simulation, 2006-2008
  - Simulation Modelling Practice and Theory (Elsevier Science), 2006
  - Journal of Mathematical Modelling and Algorithms (JMMA), 2006
  - The International Journal of Simulation Modelling Practice and Theory (SIMPAT), 2008
  - The International conference on the Current Trends in Information Technology, 2009
  - The International Journal of Computers and Applications
  - Elsevier, Computers & Operations Research

### **Media Experience**

- Assistant Editor in a daily newspaper, 1984

### **External Examining Experience** (sample of)

- DNV CIBIT, Utrecht, The Netherlands – Role included attendance to assessment boards, examining MSc Projects
  - Programme Validation/Review
  - Various panels (including validations for Foundation Degree - Southgate College, HNC/HND - Swansea Institute of Technology)
  - May 2011 – University of east London; Review of Computing Science UG and PG Curriculum
  - June 2014 – University of East London, Partner Institute in Kuala Lumpur, Malaysia
- External examiner (2012-16):
  - Subject External Examiner for modules associated with B6CNET (Networks) and CNETPG, University of Plymouth

- Subject and Programme External Examiner, FdSc Network Technology, University Campus Suffolk

### **Overseas Links**

- University of Craiova, Tempus Project, 1994
- Miskolc University,  
Research Supervision, supervising and assessing UG projects in Electrical and Electronic Engineering, Tempus Projects (1994-2000)
- British Council's Education Fair  
Ankara, Izmir and Istanbul, Turkey, Sofia (2004)  
1995 – 1999 and 2003-2004
- CIBIT, Utrecht, The Netherlands  
PG Project assessment for MSc programmes, 1994 – 1999; Link Tutor 2006-2008
- British Council's Education Fair, India, February, 2004
- Student interviews and Recruitment, India, February and December 2004, May-June 2009, May-June 2010
- Middle East Technical University, Turkey, Staff Mobility, Socrates, 2007 & 2008
- Uludag University, Turkey, Staff Mobility, Socrates, 2009
- University of Vilnius, Kaunas, Lithuania, Staff Mobility, Socrates, 2010
- University of Camerino, 2014 to date

### **Any Other Relevant Information**

#### OTHER COURSES/CONFERENCES ATTENDED (sample of)

- |            |  |
|------------|--|
| 1995       | Brunel University, Borland C++, 4.5  |
| 1999 -2000 | Cisco Certified Network Associate (CCNA)                                     |
| 2001       | Cisco Certified Academic Instructor (CCAI)                                   |
| 2002-2003  | Cisco Certified Network Professional (CCNP), Completed 2 out of 4 semesters. |

*Previous training at Middlesex University (sample of):*

Pegasus Mail

Appraiser Course

WebCT

Teaching and assessing more students

Short Course on Conducting Interviews, 2005

Financial Management – February 2007

OASISPlus, 2007

Leadership Development, 2007-08

OpNet Modeller, 2008

Podcasting, 2009

Essential Conversation, 2010

Time management, 2011

Leading in a Changing Workplace, 2011

Senior Leadership Development Programme, 2011

Moodle (2013)

**And more...**