

## **Evangelos S. Topalis CV**

### **Electrical and Computer Engineering, Adjunct Lecturer at the University Of Peloponnese, Patras, Greece**

Dr. Evangelos S. Topalis ([topalis@teiwest.gr](mailto:topalis@teiwest.gr)) was born in Patras in 1970. He received his Diploma in Electrical and Computer Engineering from the Department of Electrical and Computer Engineering, University of Patras in 1994. His Ph.D. which was completed in 2002 in the above department, is in the field of Local Automation Networks (Local and Remote Management). His scientific and research interests are in the field of building automation networks, building automation systems, data and control networks, industrial networks, wireless networks, industrial software and information systems over the Internet. From 1995 to 2001 he was a researcher at the Electronics Applications Laboratory of the above department. Since 2002, he is a postdoctoral researcher in the same laboratory. In the years 2001-2003 he was a researcher at the Institute of Industrial Systems - IN.VI.S. He has participated as a member of a research team in many European and Greek research / development projects related to the above interests (such as: "92SYN155", "PAVE 94- # 94BE415 SELLAS", "DIAVLOS EPET I", "PAVE 94- # 94BE380 VELOS", "PENED '99 ED469", "PeSY WESTERN GREECE", "INNACT-RWG 2002-2003", "TELEMATICS RISE No4415 (TAP-DE-3010)", "ESPRIT 24081 Project CHABLIS" EPEAEK", "PAPE NE 2004 - # 04BEN54 - INTRASTET", "PYTHAGORAS II-EPEAEK II", "YPEPTH EPEAEK II - Reinforcement of Computer Science", "YPEPTH - Advanced Telematics Services and Tele-Education Services", "INTERDISCIPLINARY NETWORKS", "Regional ICT FORSEE", etc.). He was also Technical Manager of the project "YPEPTH EPEAEK II - Strengthening Computer Science" in the Department of Electrical and Computer Engineering, University of Patras. During the academic years 2007-2011 he was teaching in the Department of Electrical and Computer Engineering (University of Patras, Greece) at the lecturer level and from 2015 till today, he is also teaching in the Program of Postgraduate Studies entitled "Distributed Green Electrical energy and advanced network infrastructure for management and economy" of the same department. Since 2003, he has been teaching at the Technological Institute of Western Greece (former of Patras), as non-permanent teaching staff at the level of Assistant Professor or Professor of Applied. He has over 23 published papers in scientific conferences and magazines, over 271 references, 13 references from patents, several technical reports / studies / deliverables to various research / development projects and one book with title "Technical Drawing for Electrical Engineers (Electrical and Mechanical Design)" Ed. Ziti Pelagia & Co., which is given in Greek Universities / TEIs, as well as teaching notes in various lab-courses of the Department of Electrical Engineering TE of Technological Institute of Western Greece. His military service was in the field of the Air Force of the Armed Forces as a reserve non-commissioned officer, with the specialization of the Conservator of Electrical Installations and Medium Voltage Substations. He is a member of the Technical Chamber of Greece, the Panhellenic Association of Mechanical and Electrical Engineers and the Hellenic Society of Informatics.

## Publications

### PhD Thesis, Master Thesis /Dissertations

- [M.1] Evangelos Topalis, "*Design & Development of a Network Management Platform Targeted to Support Home Automation Networks and Home Internet Connectivity*", University of Patras, Phd Dissertation, Department of Electrical & Computer Engineering, University of Patras, Patras, 2002.
- [M.2] Evangelos Topalis, Panagiotis Pettas, "*Implementation of a Research System based on Intel's microcontroller family MCS-51*", University of Patras, Diploma/Master Thesis, Department of Electrical & Computer Engineering, Patras, 1994.
- [M.3] Evangelos Topalis, "Design, Development and Implementation of a Research/Training Tool based on the Microcontroller Family INTEL MCS-51", University of Patras, Department of Electrical & Computer Engineering, Applied Electronics Laboratory, University of Patras, Patras, 1996.

### Journals

- [J.1] E. Topalis, G. Orphanos, S. Koubias, G. Papadopoulos, "*A Generic Network Management Architecture Targeted to Support Home Automation Networks and Home Internet Connectivity*", IEEE Transactions on Consumer Electronics, Vol:46, Issue:1, Pages:44-51, February 2000, ISSN:0098-3063, CODEN: ITCEDA, IAN:6540485, DOI:10.1109/30.826380. (Cited: 65 times)
- [J.2] E. Topalis, L. Mandalos, S. Koubias, G. Papadopoulos and I.Nikiforakis, "A novel Architecture for remote Home Automation e-Services on an OSGi platform via high-speed Internet connection ensuring QoS support by using RSVP Technology", IEEE Transactions on Consumer Electronics, IEEE, Vol:48, Issue:4, Pages:825-833, November 2002, ISSN:0098-3063, IAN:7661625, DOI:10.1109/TCE.2003.1196408. (Cited: 22 times)
- [J.3] S. Giannoulis, E. Topalis, A. Athanasopoulos, S. Koubias, "Experimental analysis of heterogeneous wired-wireless networks for data streaming applications utilizing Tinyos CC1000, 802.11, Bluetooth and Ethernet systems", GESTS International Transactions on Computer Science and Engineering, Vol:45, No:1, p. 115-141, March 2008.
- [J.4] A. Prayati, E. Topalis, C. Antonopoulos, S. Giannoulis, A. Athanasopoulos, S. Koubias, "*A Framework Architecture Supporting Interoperability for Heterogeneous Networked Systems*", GESTS International Transactions on Computer Science and Engineering, Vol:45, No:1, p. 53-63, March 2008.
- [J.5] C. Antonopoulos, E. Topalis, A. Prayati, S. Giannoulis, A. Athanasopoulos, and S. Koubias, "*Framework Design supporting QoS-Power Trade-offs for Heterogeneous Networked Systems*", Lecture Notes in Computer Science: Networked-based Information Systems (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), Springer, Volume 5186/2008, ISBN: 978-3-540-85692-4, DOI: 10.1007/978-3-540-85693-1\_9, August 2008, pp. 71-80.

### Conference Proceedings

- [C.1] E. Topalis, G. Orphanos, S. Koubias, G. Papadopoulos, "*A Generic Network Management Architecture Targeted to Support Home Automation Networks and Home Internet Connectivity*", IEEE ICCE'99, IEEE 1999 International Conference on Consumer Electronics, IEEE Consumer Electronics Society, Los Angeles, California, USA, June' 99, Pages:42-43,

ISBN:0-7803-5123-1, IAN:6528611, DOI:10.1109/ICCE.1999.785160. (Cited: 03 times)

[C.2] E. Topalis, M. Georgoudakis, A. Xanthopoulos, S. Koubias, and G. Papadopoulos, "A Network Interface Model for Power Line Home Automation Networks", EuroPES 2001, IASTED International Conference on Power and Energy Systems, Rhodes, Greece, July 3-6, 2001, Pages:484-488, ISBN:0-88986-291-5, ISSN:1482-7891.

[C.3] A. Xanthopoulos, N. Pogas, E. Topalis, K.Efstathiou, and G. Papadopoulos, "Implementation of a Power Line Home Automation Networks Emphasizing on Reusable Components", EuroPES 2001, IASTED International Conference on Power and Energy Systems, Rhodes, Greece, July 3-6, 2001, Pages:489-492, ISBN:0-88986-291-5, ISSN:1482-7891.

[C.4] E. Topalis, S. Koubias, and G. Papadopoulos, "Power Line Home Automation Network Management over Mobile Phones", EuroPES 2002, IASTED International Conference on Power and Energy Systems, Crete, Greece, July 2002, Pages:536-541, ISBN:0-88986-336-9, ISSN:1482-7891. (Cited: 1 time)

[C.5] E. Topalis, S. Koubias, and G. Papadopoulos, "Realization and Evaluation of Two Different Approaches in Internet Connectivity of Power Line Home Automation Network Management", EuroPES 2002, IASTED International Conference on Power and Energy Systems, Crete, Greece, July 2002, Pages:542-545, ISBN:0-88986-336-9, ISSN:1482-7891.

[C.6] E. Topalis, L. Mandalos, S. Koubias and G. Papadopoulos, "QoS support for real-time Home Automation Networks Management via high-speed Internet connection", IEEE ICON 2002, 11th IEEE International Conference on Networks, Singapore, August 2002, Pages:130-135, ISBN:0-7803-7533-5, IAN:7503040, DOI:10.1109/ICON.2002.1033300. (Cited: 07 times)

[C.7] C. Antonopoulos, A. Athanasopoulos, S. Giannoulis, A. Prayati, E. Topalis, S. Koubias, "A Framework Architecture Supporting QoS-Power Trade-offs for Heterogeneous Network Systems", IEEE ETFA 2005, 10th IEEE International Conference on Emerging Technologies and Factory Automation, Facolta' di Ingegneria, Catania, Italy, 19-22 September 2005, Pages:1017-1024, ISBN:0-7803-9401-1, IAN:9084514, DOI:10.1109/ETFA.2005.1612728.

[C.8] S. Giannoulis, C. Antonopoulos, E. Topalis, S. Koubias, "ZRP versus DSR and TORA : A comprehensive survey on ZRP performance", IEEE ETFA 2005, 10th IEEE International Conference on Emerging Technologies and Factory Automation, Facolta' di Ingegneria, Catania, Italy, 19-22 September 2005, Pages:581-587, ISBN:0-7803-9401-1, IAN:9084622, DOI:10.1109/ETFA.2005.1612635. (Cited: 89 times)

[C.9] A. Athanasopoulos, E. Topalis, C. Antonopoulos, S. Koubias, "Evaluation Analysis of the Performance of IEEE 802.11b and IEEE 802.11g Standards", IEEE ICN 2006, 5th International Conference on Networking, Mauritius, 23-26 April, 2006, Pages:141-147, ISBN:0-7695-2552-0, DOI:10.1109/ICNICONSMCL.2006.92. (Cited: 31 times)

[C.10] A. Athanasopoulos, S. Giannoulis, C. Antonopoulos, A. Prayati, E. Topalis, S. Koubias, "Performance evaluation of hybrid wired/wireless LANs for multimedia data streaming", CSNDSP 2006, 5th International Symposium on Communication Systems, Networks and Digital Signal Processing, Patras, Greece, 19-21 July 2006, Pages:280-283, ISBN:960-89282-0-6. (Cited: 01 time)

[C.11] S. Giannoulis, C. Antonopoulos, E. Topalis, A. Athanasopoulos, A. Prayati, S. Koubias, "TCP vs UDP performance evaluation for CBR traffic on Wireless Multihop Networks", CSNDSP 2006, 5th International Symposium on Communication Systems, Networks and Digital Signal Processing, Patras, Greece, 19-21 July 2006, Pages:154-158, ISBN:960-89282-0-6. (Cited: 19 times)

[C.12] A. Athanasopoulos, E. Topalis, C. Antonopoulos, S. Koubias, "802.15.4: The effect of different back-offs on power and QoS characteristics", IEEE ICWMC' 2007, 3rd IEEE International Conference on Wireless and Mobile Communications, Guadeloupe, French Caribbean, March 4-9, 2007, Pages:68-73, ISBN:0-7695-2796-5, IAN:9857772, DOI:10.1109/ICWMC.2007.1. (Cited: 07 times)

- [C.13] A. Athanasopoulos, C. Antonopoulos, E. Topalis, S. Koubias, *“Enhanced MAC Algorithm for Low Latency Applications in beaconless CSMA/CA Ad Hoc IEEE 802.15.4 LR-WPANs”*, WOC 2007, 6th IASTED International Conference on Wireless and Optical Communications (WOC 2007), Montreal, Quebec, Canada, May 30 – June 1, 2007, ISBN:978-0-88986-659-1.
- [C.14] K. Pappa, A. Athanasopoulos, E. Topalis, S. Koubias, *“Implementation of Power Aware Features in AODV for Ad Hoc Sensor Networks. A Simulation Study”*, IEEE ETFA 2007, 12th IEEE Conference on Emerging Technologies and Factory Automation, September 25-28, 2007, Patras, Greece, Pages:1372–1375, ISBN:978-1-4244-0826-9, IAN:9860371, DOI:10.1109/EFTA.2007.4416940. (Cited: 18 times)
- [C.15] T. Fragopoulos, A. Athanasopoulos, A. Vogiatzis, E. Topalis, J. Gialelis, S. Koubias, *“Security and DRM in Indoor/Outdoor Heterogeneous Networking Applications for User – Centric Frameworks”*, IEEE ETFA 2007, 12th IEEE Conference on Emerging Technologies and Factory Automation, September 25-28, 2007, Patras, Greece, Pages:651-656, ISBN:978-1-4244-0826-9, IAN:9824714, DOI:10.1109/EFTA.2007.4416831. (Cited: 05 times)
- [C.16] E. Topalis, A. Prayati, C. Antonopoulos, S. Koubias *“A Framework Architecture Supporting Interoperability for Heterogeneous Networked Systems”*, IEEE MED 2008, 16th IEEE Mediterranean Conference on Control and Automation, June 25-27, 2008, Congress Centre, Ajaccio, Corsica, France, Pages:976–981, ISBN:978-1-4244-2504-4, DOI:10.1109/MED.2008.4602023. (Cited: 1 time)
- [C.17] Christos Vitellas, Spiros Vitellas, Evangelos Topalis, Iordanis Xanthopoulos, *“Electricity demand response management in electrical installations based on forecasting the usage of electrical loads by metered data analysis”*, 1st Energy Tech Forum, Athens, April 1st, 2016.

#### Teaching-Lecture Notes / Books

- [L.1] Book – Technical Drawing for Electrical Engineers (Electrical & Mechanical Drawing) Dr. Vovos Panagis, Dr. Topalis Evangelos, Ziti Pelagia & Sia O.E. Press., ISBN: 978-960-456-455-2, 2015, 1st edition.
- [L.2] Book – Technical Drawing for Electrical Engineers (Electrical & Mechanical Drawing) Dr. Vovos Panagis, Dr. Topalis Evangelos, Ziti Pelagia & Sia O.E. Press., ISBN: 978-960-456-462-0, 2016, 2nd edition.
- [L.3] Book – Technical Drawing (1o Part – Mechanical Drawing) Dr. Vovos Panagis, Dr. Topalis Evangelos, Patras University Press, 2015.
- [L.4] Teaching/Lecture Notes for the course Microcomputers I-Lab (microprocessor INTEL 8085), Department of Electrical Engineering T.E., TEI of Western Greece (former Department of Electrical Engineering, TEI of Patras) - Academic Semester: '05-'16 (Lecturer).
- [L.5] Teaching/Lecture Notes for the course Computer Architecture & Operation-Lab (microprocessor INTEL family x8086), Department of Electrical Engineering T.E., TEI of Western Greece (former Department of Electrical Engineering, TEI of Patras) - Academic Semester: '04-'16 (Lecturer).
- [L.6] Teaching/Lecture Notes for the course Microcomputers II-Lab (microprocessor INTEL 8085), Department of Electrical Engineering T.E., TEI of Western Greece (former Department of Electrical Engineering, TEI of Patras) - Academic Semester: '06-'10 (Lecturer).
- [L.7] Participation in the Teaching/Lecture Notes for the course Microcomputers II-Lab (microprocessor avr), Department of Electrical Engineering T.E., TEI of Western Greece (former Department of Electrical Engineering, TEI of Patras) - Academic Semester: '10-'16 (Lecturer).

#### Technical Reports / Deliverables

[T1] Technical Reports in Project TIDE / RISE, Caring for the Elderly in the Information Society Era, Project reference number: DE 3010, WP1, A Survey of Home Information System and their Relevance to the Elderly and Disabled Environment, 3010, D2.1 "Functional Specifications Report" Technical Report - Vol. I/II, 7 Functional Description of the Home Systems, DE 3010, D3.1 - 1st Progress Report summarising all task activities of WP3, Development, 6 Home systems development, DE 3010, D3.6 - Home Systems Development, DE 3010, WP2, Functional Specification Report (UPAT - GR) Home Systems Module, DE 3010, Technical Document for audit Report, Technical approach for the Home Systems applications.

[T2] Technical Reports in Project PAVE 94 #94VE380, VELLOs, "Optimal Utilization of Energy Management Systems Using High Technology in Cotton Industry", KRITIKOS Manufacturing Inc.

[T3] Technical Reports in Project 94VE415 SELLAS, "Surveillance System - Control Analysis Production Process in Canning Industry", PAVE 94, Canning Industry KOPAIS SA.

[T4] Technical Reports in Project INNACT-RWG 2002-2003, INNOVATIVE REGIONAL ACTION PLAN 2000-2006, European Regional Development Fund (ERDF/ETPA), "Development and Demonstration of Innovative Supply System Package of e-Housing Services in home residents".

[T5] Technical Reports in Project EPEAEK II, Ministry of Education, "Enhancing Computer Studies, Department of Electrical and Computer Engineering, University of Patras. IT Application Manager, WP3 - EPEAEKII, WP4 - EPEAEKII.

[T6] Technical Reports in Project Pythagoras II, EPEAEKII (V795008), "Design and Development of Integrated Real-Time Distributed Systems consisting of Heterogeneous Communication Networks Hybrid Nature (Wired and Wireless). (Design, Development and Implementation of Integrated Real-Time Distributed Systems consisting of Heterogeneous Communication Networks).