

Curriculum Vitae

Personal Information

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| Name: | Orphanoudakis Theofanis |
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Summary

Dr. Theofanis G. Orphanoudakis received his Dipl-Ing. degree in Electrical and Computer Engineering in 1995 and the Ph.D. in Telecommunications in 1998, both from the National Technical University of Athens. Since 2013 he has been an Assistant Professor, in the Department of Sciences & Technology of the Hellenic Open University. Since 2005 he has been involved in several R&D activities as a member of the Optical Networking Group (ong.uop.gr) at the Department of Telecommunications Science and Technology, University of Peloponnese as well as a research associate and consultant to several academic and research institutes, public organizations and private companies. From 1999 to 2005 he led R&D activities in the area of broadband networking components as a Technical Manager of Ellemedia Technologies. From 1996 to 1999, he was a research associate at the Telecommunications Laboratory of the National Technical University of Athens (NTUA). He has participated in several national and EU research programs and has led projects in the areas of broadband networking components, broadband access and optical networks. He has organized seminars and taught several university courses at the undergraduate and graduate levels. From 2008 to 2013 he has been lecturing as an adjunct instructor to the MsC programmes on “Techno-economic systems” organized by National Technical University of Athens and “Advanced Telecommunications Systems and Networks” organized by the University of Peloponnese. From 2005 to 2010 he has been an adjunct assistant professor at the University of Peloponnese. From 1999 to 2006 he has been an adjunct instructor at the University of Applied Science (TEI) of Piraeus responsible for several lab courses in communications. His research interests include converged wireless/wired access network architectures, performance evaluation of MAC protocols for shared broadband systems, traffic engineering, resource management, switching, scheduling, design & implementation of high-speed networking systems, embedded system design and network processor architectures. He has over 70 publications in international journals and conferences in the above-mentioned areas. Dr. Orphanoudakis is a member of the IEEE and the Technical Chamber of Greece.

Degrees

- 1995 -1998 :** **Ph.D., (Excellent) Telecommunications Laboratory, Electrical and Computer Engineering Dept., NTUA, Greece. Thesis title: "Guarantying the Quality of New Services over Hybrid Fiber/Coaxial (HFC) Networks", supervised by Prof. G. Stassinopoulos.**
- 1990 – 1995:** **Dipl.-Ing., Electrical & Computer Engineering, NTUA, Greece. Thesis title: "Design of an Integrated Component for the Implementation of the SAR 3/4 Protocol", supervised by Prof. G. Stassinopoulos.**

Languages

- Greek (native language)
- German (basic knowledge - Zertifikat Deutsch Als Fremdsprache ZdaF- Grundstufe).
- English (excellent - Certificate of Proficiency in English Univ. Of Cambridge).

Work Experience

- 2013–present: Assistant professor, Department of Sciences & Technology, Hellenic Open University
- 2005–2013: Research & Teaching Associate (adjunct assistant professor), Department of Telecommunications Science and Technology, University of Peloponnese , Greece
- 1999–2005: Ellemedia Technologies Ltd., Technical Manager, Broadband networking components group
- 1999–2004: Adjunct instructor at the University of Applied Science (TEI) of Piraeus
- 1996–1999: Research associate at the Telecommunications Laboratory of the National Technical University of Athens
- 1996–2013: Independent contractor to research institutes, public organizations and private companies undertaking RTD projects in the fields of communications networks and systems

Technical Qualifications

He has in-depth knowledge of networking technologies (IP, ATM, xDSL, HFC, PON, WiFi/802.11p, WiMAX, LTE, WDM, circuit, packet and burst switched optical networks), traffic and medium access control, telecommunication protocols and system design, digital system design and network applications.

Digital HW design - verification: Extended experience in SoC architectures, networking system design and high-speed interfaces. Basic knowledge of hardware description languages and design tools VHDL, FPGA and ASIC design flows using Synopsis vsim/dc compiler, Mentor Graphics Modelsim/Leonardo/Renoir, Xilinx ISE/EDK, ALTERA Quartus, Chronology Timingdesigner
Network Simulation platforms: COMNET III, PTOLEMY (6, 7.0, 7.1), OPNET (v4, V10)

SW programming languages/Embedded Development Kits: C, Turbo Pascal, Fortran, Basic, HTML, gawk, perl, Assembly (PowerPC/Hyperstone/microblaze), VHDL, Intel IXA SDK, Cypress EZ-USB FX2LP Development Kit

Experience in multiple OS platforms (UNIX, WINDOWS, LINUX) scripting languages (awk, perl), network analysis applications (tcpdump, hping, ttcp, netperf etc.) and tools (Ethereal, Firewalls/VPNs,

netmonitor, Smatbits analyzer/Smartapps).

Web-site design (HTML/Frontpage), presentation, product brief and promotional material design (Powerpoint, Visio, Adobe Photoshop/ Distiler) and use of open CMS, Wiki platforms etc.

Project Management tool development (scheduling, resource monitoring etc.) using EXCEL/VB and use of commercial platforms

Main RTD Projects

1. **1995-1998** ACTS AC037-ATHOC (ATM Applications over Hybrid Optical Fibre Coax) – Senior researcher
2. **1997-1999** ACTS AC327-AROMA (Advanced Resource Management in Service Integrated and Multi-layered HFC Access Networks) – Senior researcher
3. **1998-1999** ACTS-AC355-PELICAN (Pan-European Lightwave Core and Access Network) – Senior researcher
4. **2000-2002** IST-1999-11449 PRO3 (Protocol Processor Project) – Associate Technical Manager
5. **2003-2004** EUREKA E!3132 NP-MADE (Network Processor for Multi-service Access Devices) – Technical & Administrative Coordinator
6. **2004-2005** EUREKA E!3326 WEBSoc (Wireless Ethernet Bridging System-on-Chip) - Technical & Administrative Coordinator
7. **2006-2007:** TEI Piraeus - «ΑΡΧΙΜΗΔΗΣ II - Ενίσχυση Ερευνητικών Ομάδων στα TEI (ΕΕΟΤ)» Επέκταση της τεχνολογίας Ethernet για χρήση της σε δίκτυα ευρυζωνικής πρόσβασης (Extension of Ethernet technology for use in broadband access networks) – Senior researcher
8. **2006-2008** Network of Excellence-NoE FP6-IST-027497 e-photon/ONe+ – Senior researcher.
9. **2007-2008** NSRF ATT23 NGEAN (Next Generation Ethernet Access Networks) - Technical & Administrative Coordinator.
10. **2008-2011** Network of Excellence-NoE FP7-ICT-216863 BONE (Building the Future Optical Network in Europe), – Senior researcher
11. **2008-2011** FP7-SEC-218000 COCAE (Cooperation Across Europe For Cd(Zn)Te Based Security Instruments), – Senior researcher
12. **2010-2012** Integrated Project (IP) INFSO-ICT 247674 STRONGEST (Scalable, Tunable and Resilient Optical Networks Guaranteeing Extremely-high Speed Transport) - Senior researcher.
13. **2011-2013** National Action Cooperation - Large Scale Cooperative Project CONFES (Converged Network Infrastructure Enabling Resource Optimization and Flexible Service Provisioning) - Senior researcher.
14. **2012-present** "Education and life-long learning" of the NSRF-Research Funding Program: ARCHIMEDES III "Investing in Knowledge Society through ESF" DRAGON (Dynamic Resource Allocation in next Generation WDM Optical Networks) - Senior researcher.
15. **2013-present** Integrated Project (IP) FP7- 317999 IDEALIST (Industry-Driven Elastic and Adaptive Lambda Infrastructure for Service and Transport Networks) - Senior researcher.

University Courses Taught

As a PhD student at the National Technical University of Athens he has acted as a teaching assistant contributing with teaching material for lectures, lab experiments and supervision of three undergraduate students towards their graduate thesis.

• **He is certified ICT seminar instructor (national certification centre ΕΚΕΠΙΣ grades A, B, C.)**

- In 2005 he contributed to a seminar for engineers on Computer Operation and Maintenance organized by the Technical Chamber of Greece (IEKEM/TEE)

• **1999 – 2004: Adjunct instructor at the University of Applied Science (TEI) of Piraeus:**

- 1999-2001 adjunct instructor responsible for lab courses on “Telecommunications Principles” (analogue/digital modulation techniques and channel models using lab equipment and examples using MATLAB/simulink-communications toolbox)

- 2001-2004 adjunct assistant professor, course taught “Telematic Applications I” (topics in network protocols, basic network principles and modeling)

- 2003 adjunct instructor for lab courses on “Internet Protocols” (post-graduate courses in the framework of the Continuous Educational Programme of TEI Piraeus)

• **2005 – 2010: Adjunct assistant professor at the University of Peloponnese:**

- “Stochastic Modeling and Performance Evaluation”, (6th semester, Spring '04-'05, Spring '05-'06, Spring '06-'07, Spring '07-'08, Spring '08-'09)

- “Broadband Access Networks”, (5th semester, Fall'05-'06, Fall'06-'07, Fall'07-'08, Fall'08-'09, Fall'09-'10)

- “Network Simulation Techniques”, (8th semester, Spring '05-'06, Spring '06-'07, Spring '07-'08, Spring '08-'09)

• **2008 – 2013: Post-graduate courses:**

- 2008-2012 “Telecommunications technologies and market operation” in the framework of the MSc programme on “Techno-economic systems” organized by National Technical University of Athens

- 2010-2013 “Optical Communications and Networking” in the framework of the MSc programme on “Advanced Telecommunications Systems and Networks” organized by the University of Peloponnese.

Professional Activities

- Member of the IEEE communications society.
- Member of the Technical Chamber of Greece (TEE)
- Reviewer of the following international scientific journals:
 - Computer Networks Journal (Elsevier)
 - IEEE Micro
 - IEEE Communications Magazine
 - IEEE Communications Letters
 - IEEE Journal of Lightwave Technologies
 - IEEE Journal on Selected Areas in Communications
 - OSA Journal of Optical Networking
 - EURASIP Journal on Wireless Communications and Networking

and a large number of international conferences including ICC, Globecom, ONDM, HPSR etc.

- Member of the organizing committee of the following international conferences:
 - TPC 15th European Conference on Networks and Optical Communications (NOC-2010)
 - TPC 14th European Conference on Networks and Optical Communications (NOC-2009)
 - Local Organizing Committee Photonics in Switching 2006 (PS'06)
 - TPC 8th WSEAS International Conference on Communications (CSCC'04)
 - TPC 2nd WSEAS Intern. Conf. on Electronics, Hardware, Wireless & Optical Communications (EHAC'03)
- Evaluator of proposals for funded actions submitted to the Greek Information Society (Κ.τ.Π.) secretariat of the Ministry of Development under the 3rd EC Funding Programmed (Γ' Κ.Π.Σ.).
- Evaluator of project proposals for funded actions by the Greek Secretariat of Research and Technology (GSRT) under the NSRF COOPERATION Operational Programmed.
- Evaluator of projects funded by the Greek Secretariat of Research and Technology (GSRT) under the NSRF COOPERATION Operational Programmed.

Publications

International journal articles

1. J. D. Angelopoulos, T.G. Orphanoudakis "An ATM-friendly MAC for traffic concentration in HFC Systems", Computer Communications Magazine, Elsevier, vol. 21, No. 6, pp. 516-529, 1998.
2. J. D. Angelopoulos, H. C. Leligou, T.G. Orphanoudakis, J. Pikramenos "Using a multiple priority reservation MAC to support differentiated services over HFC systems", International Journal of Communication Systems, Wiley, vol. 15, pp. 325-340, February 2002.
3. T. Orphanoudakis, S. Perisakis, K. Pramataris, N. Nikolaou, N. Zervos, M. Steck, C. Baumhoh, D. Verkest, C. Ykman-Couvreur, G. Doumenis, F. Karoubalis, I. Theologitou, D. Reisis, G. Konstantoulakis, N. Vogiatzis, "Hardware Architectures for the Efficient Implementation of Multi-Service Broadband Access and Multimedia Home Networks", Telecommunication Systems Journal, Kluwer Academic Publishers, vol. 23, No. 3, 4, pp. 351-367, 2003.
4. H.-C. Leligou, Theofanis Orphanoudakis, John D. Angelopoulos, "Design Complexity Evaluation of an Access Control Mechanism Targeting the Performance Enhancement of Packet-Based GPONs", WSEAS Transactions on Computers, Issue 4, Vol. 3, Oct. 2004, pp. 1113-1119.
5. I. Papaefstathiou, S. Perissakis, T. Orphanoudakis, N. Nikolaou, G. Konstantoulakis, G. Kornaros, D. Pnevmatikatos, K. Vlachos, N. Zervos, "PRO3: A hybrid NPU-architecture for accelerating network processing", IEEE Micro, special issue on Network Processors, Sep/Oct 2004, Vol. 24, No. 5, pp. 20-33.
6. Ch. Kachris, Th. Orphanoudakis, I. Papaefstathiou, G. Kornaros, A. Nikologiannis, N. Zervos, "Performance Evaluation of Queue Management Implementations in Network Processing Units", WSEAS Transactions on Communications, Issue 1, Vol. 4, Jul 2004.
7. Th. Orphanoudakis, Ch. Charopoulos, H.-C. Leligou, "Leaky-Bucket Shaper Design Based on Time Interval Grouping", IEEE Communications Letters, vol. 9, issue 6, pp. 573-575, June 2005.
8. H. C. Leligou, Ch. Linardakis, K. Kanonakis, J. D. Angelopoulos, Th. Orphanoudakis, "Efficient

- medium arbitration of FSAN-compliant GPONs”, *International Journal of Communication Systems*, Wiley, Vol. 19 , Issue 5, pp. 603-617, June 2006.
9. H.-C. Leligou, K. Kanonakis, J. Angelopoulos, I. Pountourakis, T. Orphanoudakis, “Efficient burst aggregation for QoS-aware slotted OBS systems”, *European Transactions on Telecommunications*, Wiley Interscience, Vol.17, Issue 1, pp.93-98, Jan. /Feb. 2006.
 10. K. Vlachos, T. Orphanoudakis, Y. Papaefthiou, N. Nikolaou, D. Pnevmatikatos, G. Konstantoulakis, and J.A. Sanchez-P “Design and performance evaluation of a programmable Packet Processing Engine (PPE) suitable for high-speed network processors units”, *Microprocessors and Microsystems*, Elsevier, Vol. 31, Issue 3, pp. 188-199, May 2007.
 11. A. Stavdas, K. Kanonakis, G. Koukouvakis, H.C. Leligou, Th. Orphanoudakis, J.D. Angelopoulos, “Reservations inside clusters of all-optical core nodes achieve distributed burst aggregation and switching improving efficiency and loss”, *European Transactions on Telecommunications*, Wiley Vol. 19, Issue 1, pp. 33-38, Nov. 2007.
 12. J. D. Angelopoulos, K. Kanonakis, G. Koukouvakis, H.C. Leligou, C. Matrakidis, Th. Orphanoudakis A. Stavdas, “An Optical Network Architecture with Distributed Switching Inside Node Clusters Features Improved Loss, Efficiency and Cost”, *IEEE Journal on Lightwave Technologies*, Vol. 25, Issue 5, pp. 1138-1146, May 2007.
 13. T. Orphanoudakis, H.-C. Leligou, E. Kosmatos, J. D. Angelopoulos, K. Kanonakis, G. Prezerakos, I. Venieris, “Efficient Resource Allocation with Service Guarantees in Passive Optical Networks”, *OSA Journal of Optical Networking*, Vol. 6, No. 6, June 2007.
 14. J. D. Angelopoulos, K. Kanonakis, H.C. Leligou, Th. Orphanoudakis, G. Kornaros, “Multiplexing QoS-differentiated traffic in an Ethernet-based access network”, *The Mediterranean Journal of Computers and Networks*, Vol. 4, No. 2, pp. 54-61, 2008.
 15. A. Stavdas, T. G. Orphanoudakis, A. Lord, H. C. Leligou, K. Kanonakis, C. Matrakidis, A. Drakos, J. D. Angelopoulos, “Dynamic CANON: A Scalable Multi-domain Core Network”, *IEEE Communications Magazine*, Special Issue on Multi-Domain Optical Networks: Issues and Challenges, Vol. 46, Issue 6, pp. 138-144, June 2008.
 16. T. Orphanoudakis, H.C. Leligou, E. Kosmatos, J. D. Angelopoulos “Performance Evaluation of GPON vs. EPON for Multi-Service Access”, *International Journal of Communication Systems*, Wiley Interscience, Vol. 22, Issue 2, pp. 187-202, February 2009.
 17. A. Stavdas, C.(T) Politi, T. Orphanoudakis, A. Drakos, “Optical Packet Routers: How they can Efficiently and Cost-Effectively Scale to Petabit/sec”, *OSA Journal of Optical Networking*, special issue on Optical Routers, Vol. 7, Issue 10, pp. 876-894, Oct. 2008.
 18. G. Kornaros, M. Sund, W. Lautenschlaeger, H. C. Leligou, Th. Orphanoudakis, “Efficient Implementation of a Frame Aggregation Unit for Optical Frame-Based Switching”, *International Journal of Electronics and Communications*, Elsevier, Vol.64, Issue 1, Jan. 2010, pp. 17-28
 19. T. Orphanoudakis, H.-C. Leligou, E. Kosmatos, A. Stavdas, “Future Internet infrastructure based on the transparent integration of access and core optical transport networks”, *IEEE/OSA Journal of Optical Communications and Networking* (special issue on Optical Networks for the Future Internet), Vol. 1, Iss. 2, pp. A205–A218 (2009)
 20. T. G. Orphanoudakis, A. Drakos, H. C. Leligou, A. Stavdas, A. Boucouvalas, “Dynamic Resource Allocation with Service Guarantees over Large Scale Optical Networks”, *IEEE Communications Letters*, Vol. 13, No. 10, October 2009
 21. A. Drakos, T. G. Orphanoudakis, C. (T.) Politi, A. Stavdas, A. Lord, “Evaluation of Optical Core

- Networks Based on the CANON Architecture”, Photonic Network Communications, Vol.e 20, No. 1, Page 75, 2010
22. G. Kornaros, Th. Orphanoudakis “Design and Implementation of High-Speed Buffered Crossbars with efficient Load Balancing for Multi-Core SoCs”, Microprocessors and Microsystems”, Vol. 34, No. 7-8, pp. 301-315, Nov. 2010
 23. K. Kanonakis, H. C. Leligou, T. Orphanoudakis, “Online Flow Characterization for Measurement-Based Admission Control: A Practical Perspective”, International Journal of Research and Reviews in Computer Science (IJRRCS), Vol. 1, No. 4, pp. 149-157, Dec. 2010
 24. C.P. Lambropoulos, T. Aoki, J. Crocco, E. Dieguez, C. Disch, A. Fauler, M. Fiederle, D.S. Hatzistratis, V.A. Gnatyuk, K. Karafasoulis⁶, L.A. Kosyachenko, S.N. Levytskyi, D. Loukas, O.L. Maslyanchuk, A. Medvids, T. Orphanoudakis, I. Papadakis, A. Papadimitriou, C. Potiriadis, T. Schulman, V.M. Sklyarchuk, K. Spartiotis, G. Theodoratos, O.I. Vlasenko, K. Zachariadou, M. Zervakis, “The COCAE Detector: An Instrument for Localization - Identification of Radioactive Sources”, IEEE Transactions on Nuclear Science, Vol. 58, No. 5, Oct. 2011, pp. 2363-2370
 25. A. Drakos, T. G. Orphanoudakis, and A. Stavdas, “Performance benchmarking of core optical networking paradigms”, Optics Express, Vol. 20, Issue 16, pp. 17421-17439 (2012)
 26. T. Orphanoudakis, E. Kosmatos, J. Angelopoulos, and A. Stavdas, “Exploiting PONs for Mobile backhaul”, IEEE Communications Magazine, Vol. 51, No. 2, Feb. 2013, pp. S27-S34.
 27. A. Drakos, C. Matrakidis, T. G. Orphanoudakis, A. Stavdas, “A Node Clustering Algorithm for the CANON Architecture”, IEEE Communications Letters, Vol.17, No. 4, Apr. 2013, pp. 785 – 788
 28. T. G. Orphanoudakis, E. A. Kosmatos, G. Lyberopoulos, D. Kagklis, S. Sartzetakis, K. Demestichas “Network architecture and resource management framework for convergence of mobile and optical access networks”, International Journal of Computers and Communications, Vol. 7, No. 3, 2013, pp. 64-72
 29. E. A. Kosmatos, T. G. Orphanoudakis, H. C. Leligou, E. Tsampasis “Traffic characterization for flexible service delivery in next-generation converged access networks”, International Journal of Computers and Communications, Vol. 7, No. 4, 2013, pp. 107-115

Patents

US 2012/0280131 A1 “Photon/Energy Identifying X-Ray And Gamma Ray Imaging Device (“Pid”) With a Two Dimensional Array of Pixels And System Therefrom”, Nov. 8, 2012, Inventors: Konstantinos Spartiotis, Tuomas Pantsar, (Haralampos Lambropoulos, Theofanis Orphanoudakis

Invited conference papers

1. J. D. Angelopoulos, N. Leligou, Th. Orphanoudakis, G. Pikrammenos, “The role of the MAC protocol in offering QoS to IP services over shared access systems”, IEEE Globecom’99 Conference, Business applications session, Rio de Janeiro 5-9, December 1999.
2. Christos Georgopoulos, George Konstantoulakis, Theofanis Orphanoudakis, Nikos Nikolaou, Jorge-A. Sanchez-P., Nikos Mouratidis, Kostas Pramataris, Nick Zervos “A Protocol Processing Architecture Backing TCP/IP-based Security Applications in High Speed Networks”,

Interworking'2000, NGN-IST-Session, 3-6 October 2000, Bergen Norway.

3. Th. Orphanoudakis, H.-C. Leligou, G. Kornaros, Ch. Charopoulos, "Accurate Scheduler Implementation for Shaping Flows of Variable Length Packets in High-Speed Networking Applications", QoS from Layer 2 to Layer 7 Invited Session, 7th WSEAS International Conference on Communications, July 7-10 2003, Corfu, Greece (Προσκεκλημένος οργανωτής και προεδρεύων της προαναφερθείσας συνεδρίας στο ως άνω διεθνές συνέδριο)
4. Ch. Charopoulos, H.-C. Leligou, G. Stassinopoulos, T. G. Orphanoudakis, G. Kornaros, "Programmable peak-rate Gigabit shaper supporting ATM and packet-oriented traffic", International Conference on Computer, Communications and Control Technologies CCCT'03, July 31 August 1-2, 2003, Orlando, Florida, US.
5. T. G. Orphanoudakis, A. Drakos, C. Matrakidis, C. Politi, A. Stavdas, "A hybrid optical switch architecture with shared electronic buffers", 9th International Conference on Transparent Optical Networks ICTON 2007, July 1-5 2007 Rome, Italy.
6. A. Stavdas, C.(T.) Politi, H. C. Leligou, T. G. Orphanoudakis, J. D. Angelopoulos, C. Matrakidis, A. Drakos, "Multi-granular Optical Cross-Connects for the CANON Network Scenario", 10th International Conference on Transparent Optical Networks ICTON 2008, 2008, UK.
7. T. Orphanoudakis, H.-C. Leligou, E. Kosmatos, A. Stavdas, "Optical metro network architecture based on traffic grooming over hybrid TDM/WDM PONs", 14th European Conference on Networks and Optical Communications (NOC), June 2009, Valladolid, Spain.
8. A. Stavdas, A. Drakos, T. Orphanoudakis, C. (T.) Politi, "Efficient Sub-wavelength Switching Based on Hierarchical Traffic Aggregation", 15th European Conference on Networks and Optical Communications (NOC), June 2010, Faro, Portugal.
9. T. G. Orphanoudakis, C. Matrakidis, C. (T) Politi, A. Stavdas, "Passive Optical Network Design Optimization for Wireless Backhauling", International Conference on Transparent Optical Networks (ICTON) 2011, June 26-30 2011, Stockholm, Sweden.
10. C. Matrakidis, T. G. Orphanoudakis, A. Stavdas, "Performance Evaluation of a Truly Cost-Efficient, Scalable and Green Optical Access Network", Photonics in Switching 2012, Ajaccio (Corsica), France, 11-14 September 2012.
11. T.G. Orphanoudakis, C. Matrakidis, A. Stavdas, H. C. Leligou, "Exploiting state of the art WDM-PON technologies for building efficient FTTC networks", 15th International Conference on Transparent Optical Networks (ICTON), Cartagena, Spain, June 23-27, 2013.
12. C. Politi, C. Matrakidis, T. Orphanoudakis, V. Anagnostopoulos, A. Stavdas, "Planning and operation of elastic flexi-grid optical networks with OFDM variable bandwidth capabilities", 15th International Conference on Transparent Optical Networks (ICTON), Cartagena, Spain, June 23-27, 2013.

Book chapters

1. "Next Generation Networks in Europe - From ACTS to IST", Edited by the ACTS Project InfoBridge (AC 359), ISBN 84-923942-1-8.
2. "Recent Advances in communications and Computer Science", Edited by N. Mastorakis, G.E. Antoniou, C. Manikopoulos, Z. Bojkovic, I.F.Gonos ed., pp. 103-108, WSEAS press, ISBN: 960-8052-86-6 Athens 2003.
3. "Multi-Core Embedded Systems", Edited by George Kornaros, Taylor & Francis Group LLC

CRC Press

Fully refereed conference papers

1. J. D. Angelopoulos, T. G. Orphanoudakis, "A MAC method offering high utilization of the return channel in HFC systems", SPIE Conference, 1996, Boston.
2. J. D. Angelopoulos, T. G. Orphanoudakis, "Control of traffic accessing ATM core networks via HFC systems", NOC'97, June 1997, Antwerp.
3. T. G. Orphanoudakis, J. D. Angelopoulos, "Providing interactivity via CATV networks", NETIES'97, October 1997, Ancona.
4. C. Sierens, K. Venken, R. Hoebke, J. D. Angelopoulos, T. G. Orphanoudakis, M. S. Nunes, "Evaluation of medium access mechanisms in HFC systems with ATM cell transport", SPIE Conference, November 1997, Dallas.
5. Grilo, M.S. Nunes, J.D. Angelopoulos, T.G. Orphanoudakis, "TCP/IP over ATM based HFC Networks", IEE 6th Conference in Telecommunications, April 1998, Endinburgh.
6. H.Fahner, A.Giannitrapani, J.Jähnert, W.Li, S.Wesner, D.Böttle, S.Wahl, F.Orphanoudakis, J.Angelopoulos "ATM-over-HFC-based Access to the Internet for Residential Users", Interworking'98, 1998, Toronto.
7. T. Orphanoudakis, N. Leligou, D. Pantzopoulos, J. Angelopoulos, "Supporting ABR traffic through HFC access networks", NOC'99, June 1999, Delft.
8. J.D.Angelopoulos, N.Leligou, Th.Orphanoudakis, G.Pikrammenos, J.Sifnaios and I.S.Venieris, "Access Control in Shared Access Networks Supporting Internet DiffServ, ONDM2000, February 2000, Athens.
9. Th. Orphanoudakis, N.Leligou, J.D.Angelopoulos, A. Harsanyi, E. Meciu, "Evaluation of IP oriented HFC access protocols", International Zurich Seminar on Broadband Communications, IZS'2000, February 15-17 2000, ETH Zurich, Switzerland.
10. H.C.Leligou, B.Cesar, S.Wahl, Th.Orphanoudakis, "Implementation of access priorities in the medium arbitration of HFC systems", IEEE International Workshop on High performance Switching and Routing, HPSR 2000, June 2000, Heidelberg Germany.
11. G. Konstantoulakis, C. Georgopoulos, T. Orphanoudakis, M. Steck, D. Verkest, G. Doumenis, D. Reisis, N. Nikolaou, J. Sanchez, N. Zervos, "A Novel Architecture for Efficient Protocol Processing in High Speed Communication Environments", 1st European Conference on Universal Multiservice Networks, ECUMN'2000 October 2000, Colmar France.
12. N. Nikolaou, J. Sanchez, T. Orphanoudakis, D. Polatos N. Zervos, "Application Decomposition for High-Speed Network Processing Platforms", 2nd European Conference on Universal Multiservice Networks, ECUMN'2002 April 2002, Colmar France.
13. K. Vlachos, T. Orphanoudakis, N. Nikolaou, S. Perissakis, D. Pnevmatikatos, G. Kornaros, J.A Sanchez and G. Konstantoulakis, "Processing and Scheduling Components in an Innovative Network Processor Architecture", IEEE 16th International Conference on VLSI Design, January 4-8 2003, Taj Palace, New Delhi, India.
14. H.-C. Leligou, I. Papaefstathiou, Th. Orphanoudakis, G. Kornaros, N. Zervos, G. Konstantoulakis, "An Innovative Scheduling Scheme For High Speed Network Processors" ISCAS'03, 2003 IEEE International Symposium on Circuits and Systems, May 25-28 2003, Bangkok, Thailand
15. G. Kornaros, Th. Orphanoudakis, I. Papaefstathiou, "Active Flow Identifiers For Scalable, Qos

- Scheduling” ISCAS’03, 2003 IEEE International Symposium on Circuits and Systems, May 25-28 2003, Bangkok, Thailand
16. Th. Orphanoudakis, G. Kornaros, I. Papaefstathiou, H.-C. Leligou, S. Perissakis, N. Zervos, “Scheduling components for multi-gigabit network SoCs”, May 19–21 2003, SPIE International Symposium on Microtechnologies for the New Millennium, VLSI Circuits and Systems conference, Canary Islands, Spain
 17. G. Kornaros, T. Orphanoudakis, I. Papaefstathiou, “GFS: An Efficient Implementation of Fair Scheduling for multi-Gigabit Packet Networks”, 16th IEEE International Conference on Application-Specific Systems, Architectures and Processors (ASAP2003), June 24-26 2003, The Hague, The Netherlands.
 18. G. Kornaros, T. Orphanoudakis, N. Zervos , “An Efficient Implementation of Fair Load Balancing over Multi-CPU SOC Architectures”, DSD’2003 Euromicro Symposium On Digital System Design Architectures, Methods and Tools Antalya, Turkey, September 3 – 5, 2003
 19. I Papaefstathiou, G Kornaros, T Orphanoudakis, K. Kachris, J. Mavroidis, “Queue Management In Network Processors”, Design, Automation & Test in Europe (DATE2005), Munich, Germany, March 7-11, 2005
 20. H.-C. Leligou, K. Kanonakis, Th. Orphanoudakis, J.D. Angelopoulos, “Traffic aggregation for slotted OBS systems”, ELMAR2005, Zadar Croatia, 8-10 June 2005.
 21. Th. Orphanoudakis, A. Nikoligiannis, I. Papaefstathiou, G. Kornaros, I. Mavroidis, N. Zervos, “Custom Network Processor Design for High-Performance Multiservice Access Concentrators”, 12th International IEEE Workshop on systems, signals & processing, IWSSIP’05, Chalkida, Greece, 22-24 September 2005.
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