

Prof. George C. Polyzos — Curriculum Vitae

Mobile Multimedia Laboratory
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PROFESSIONAL EXPERIENCE

- Professor of Computer Science, Athens University of Economics and Business (1999-present).
 - *Founder & Director, Mobile Multimedia Laboratory* (<https://mm.aueb.gr/>).
 - *Director, Graduate Computer Science Program*, AUEB (2014-2022).
 - *Director, Computer and Communications Systems Division* (2005-2007 and 2009-2011).
 - *Member, Board of Directors, Research Center*, AUEB (2001-2004 and 2011-2012).
 - *Founder* and in charge of the undergraduate and graduate educational labs of the Department (2001-2017).
 - *Member, Curriculum Committee, Graduate Computer Science Program*, AUEB (2003-2012).
 - In charge of the Infrastructure and Development grants for the Dept. (2003-2008 and 2011-2013). Established a new Graduate Program in CS and a new instructional laboratory. Hired and supervised a staff of five and many other short-term R&D staff.
 - In charge of the *Internship Program* of the Department (2001-2009) and the University (2009-2012).
 - Taught graduate and undergraduate courses on *Wireless Networks and Mobile Communications*, and *Multimedia Systems*, graduate courses on *Next Generation Internet*, *Computer Networks*, on the *Internet of Things*, and *Research Methodology*, and undergraduate courses on *Digital System Design*, *Computer Systems Organization* and *Computer Architecture*.
- Faculty member, Dept. of Computer Science and Engineering, **University of California, San Diego** (1988-2000).
 - *Co-director of the Computer Systems Laboratory*; directed research in the areas of communications networks, Internet protocols, high-performance I/O systems, wireless and mobile communications, distributed multimedia systems, and system performance evaluation. Participated in teams that undertook very large research projects and led many research projects funded by NSF, industry, and the State of California.
 - *Member, Steering Committee, Center for Wireless Communications*, UCSD School of Engineering.
 - *Senior Fellow, San Diego Supercomputer Center*.
 - Taught graduate courses on *Computer Systems Performance Evaluation*, *Communications Networks*, *Wireless Networks*, and *Multiple Access Protocols*, and undergraduate courses on *Computer System Organization*, *Computer Networks*, the *Internet and the World Wide Web*, and *Scientific Applications of Computing*.
- ❖ More than 250 refereed papers published
 - More than 11.900 citations (H-Index = 46; <https://scholar.google.gr/citations?user=y-Mxxa0AAAAJ>)
 - More than 4850 citations in Scopus, excluding self-cites (Author ID: 7004703536)
 - More than 90 citations from Patents
- ❖ Advised 16 PhD students (PhDs awarded: 8 @ UCSD, 8 @ AUEB); advises now 6 PhD students

EDUCATION

- University of Toronto, Dept. of Computer Science: **Ph.D.** (1984-1988, awarded March 1989). Ph.D. Dissertation: *"A Queueing Theoretic Approach to the Delay Analysis for a Class of Conflict Resolution Algorithms"*
- University of Toronto, Dept. of Electrical Engin.: **Master of Applied Science** (1983-1984, awarded March 1985)
 - Master Thesis: *"Tree Conflict Resolution Algorithms: The Non-Homogeneous Case"*
- National Technical University, Athens, Greece: **Diploma of Electrical Engineer** (1977-1982)
 - Diploma Thesis: *"A New Multiple Access Scheme for Local Area Networks"*

CURRENT RESEARCH INTERESTS

- Digital Identity, Self-Sovereign Identity, Decentralized Identifiers, Verifiable Credentials
- Internet Security and Privacy
- Internet of Things, Machine-to-Machine Communications, Ubiquitous Computing
- Internet Architecture and Protocols, Information-Centric Networks
- Wireless Networks
- Mobile Multimedia Communications
- Performance Evaluation of Computer and Communications Systems

RESEARCH PROJECTS AND GRANTS

- **AI Models for Energy Management Systems (AIMEMS)**, subcontract to Plegma Labs’ “energy optimization of building IOT Infrastructures in a Stratified way” (e-PIOTIS) from the 2nd Open Call of H2020 Platoon (6-12/2022).
- **Securing Content Delivery and Provenance (SECOND)**, funded by EU’s H2020 Framework Programme through the 3rd Open Call of project NGI Atlantic, in collaboration with the University of Memphis in the USA (3-9/2022).
- **Selective IoT data sharing (SelectShare)**, funded by EU’s H2020 Framework Programme through an Open Call of project DAPSI, with SMEs Plegma and DomX (2-11/2022).
- **Enabling Zero Trust Architectures using OAuth2.0 and Verifiable Credentials (ZeroTrustVC)**, funded by EU’s H2020 Framework Programme through the 3rd Open Call of project NGI eSSIF-Lab (9/2021-5/2022).
- **Self-Certifying Names for Named Data Networking (SCN4NDN)**, funded by EU’s H2020 Framework Programme through the 1st Open Call of project NGI Atlantic, in collaboration with the University of Memphis in the USA (11/2020-6/2021).
- **Multi-Level DHT Design and Evaluation for IPFS (MLDHT)**, funded by Protocol Labs, USA (7/2020-9/2021).
- **Interoperable Solutions Connecting Smart Homes, Buildings and Grids (InterConnect)**: H2020 (DT-ICT-10-2018-19, 01/10/2019-30/09/2023). InterConnect envisages to contribute to the democratization of efficient energy management, through a flexible and interoperable ecosystem where demand side flexibility can be soundly integrated with effective benefits to end-users.
- **Secure Open Federation for Internet Everywhere (SOFIE)**: funded by EU's H2020 Framework Programme (ICT STREP, with partners: Aalto University, Ericsson, Rovio, Guardtime, Synelxis, Optimum, Eng, Asm Terni Spa, Emotion Srl, 1/1/2018-31/12/2020). Decentralized, secure, semantic interoperation across IoT “silos.” Pilots in energy markets, mixed-reality games and the food chain.
- **Video streaming services with Software-Defined Networking (VSDN)**: Marie Skłodowska-Curie, 2018-2019. Development of a novel SDN-based QoE-aware video streaming platform.
- A thorough study of MPTCP’s convergence latency to TCP-friendliness: PostDoctoral research funding by AUEB-RC (2018-2019).
- **FIESTA-IOT/BeSmart**: Smart IoT Data Collection (funded 2017-2018 by Open Call 3 of H2020 FIESTA-IOT; PI: V.A. Siris)
- **INTER-IoT/ACHILLES**: funded (2017-2018) by EU's H2020 Framework Programme; resulted from the 1st Open Call of **INTER-IoT**, whose aim is to design, implement and test a framework that will allow interoperability among IoT platforms. ACHILLES is focusing on Access-Control for IoT through delegation to 3rd trusted parties.
- **MONROE/NESTOR**: funded by EU's H2020 Framework Programme, NESTOR is a project resulting from the 1st Open Call of the MONROE FIRE project, investigating QoE for mobile video streaming over 4G networks (2016-2018, in collaboration with *StreamOwl*, <https://www.streamowl.com/>, a SME specialized in video QoE).
- **IP Over ICN- the betTer IP? (POINT)**: funded by EU's H2020 Framework Programme (ICT STREP, with partners: Aalto University/Helsinki Institute for Information Technology, RWTH Aachen, University of Essex, CTVC Ltd., INTRACOM TELECOM SOLUTIONS S.A., PRIMETEL PLC, ELL-i open source co-operative, 2015- 2018). The goal of POINT was to develop technology, innovations, and business value chains for commercially viable IP-over-ICN deployment, based on the hypothesis that many current IP-based applications can run ‘better’ on an ICN-based network than on current IP networks. It developed a set of abstractions to enable current IP, TCP, HTTP and CoAP based applications to run on the platform complemented by new resource coordination mechanisms to improve performance.
- **SatNEx-IV**: Satellite Network of Experts IV (2015-2019), funded by the European Space Agency and with CTTC as prime contractor;
 - led Year 1 Work Item 5: Impact of future ICN traffic on multiple access schemes;
 - participated in Year 2 Work Item 4: Enhanced Caching techniques for satellite networks;
 - led Year 3 Work Item 5: Investigation of alternatives to end-to-end security and their trade-offs applied to integrated satellite terrestrial networks.
- **I-CAN**: “Information-Centric Future Mobile and Wireless Access Networks,” under the national funding research program ‘ARISTEIA II’ 2014-2015, its goal being to radically advance the integration of mobile and wireless access technologies by developing an architecture and procedures for future access networks based on ICN.
- **MusiNet**: Comprehensive Design and Implementation of a Networked Music Performance System: funded by the Greek GSRT under the research program “Thales” 2012-2015.
- **Service Delivery over Integrated Satellite and Terrestrial Networks**: funded by the European Space Agency (ESA ARTES 1) with partners: EURESCOM, Fraunhofer FOKUS, TUB, Avanti, 2012-2014.
- **Publish-Subscribe Internet Technology (PURSUIT)**: funded by EU's 7th Framework Programme (FP7 ICT STREP [2013 [Future Internet Award](#), Dublin, Ireland 10 May 2013], with partners: Aalto University/Helsinki Institute for Information Technology, University of Cambridge, RWTH Aachen, Ericsson, University of Essex, Centre for Research and Technology Hellas, CTVC Ltd., 2010-2013). The Internet is effectively moving from interconnecting machines to [interconnecting information](#), questioning the necessity of endpoint identifiers as a foundation of internetworking. Identifiers for information rather than internetworking endpoints promise, among other things, more flexibility in adapting to new services, efficiency improvements, and native multicast support.

Crucial questions addressed were: (1) the role of caching, potentially leading to new concepts for congestion and error control, (2) the role of transport functions, focusing on multipath and multipoint transport (3) service-specific delivery solutions, and (4) support for mobility and disconnected operation. Also, efficient re-allocation of optical resources, bundling of wireless resources, and the socio-economic environment were studied; demonstration and validation in experimental testbeds was undertaken.

- **The Role of Satellite in Future Internet Services (ϕ SAT):** funded by the European Space Agency (ESA ARTES 1) with partners Space Hellas and Thales Alenia Space, 2011-2013.
- **Incentive-Based Power Control in Wireless Networks** of Autonomous Entities with Various Degrees of Cooperation, funded by the research program “Heraklitus II” 2011-2013.
- **Weighted Congestion Games and Radio Resource Management in Wireless Networks:** Proposed a framework for distributed power control with bargaining among users. As case study, we considered application in Femtocell architectures in the context of a future wireless network. (AUEB’s “Basic Research Funding Program” 2011-2012.)
- **Anticipating the Network of the Future-From Theory to Design (Euro-NF):** EU FP7 ICT Network of Excellence investigating architectures for the Network of the Future (35 European partners, 2008-2012).
 - Additional Specific Joint Research Project ‘**Agile SPECTRum Security**’ (ASPECTS), with BTH, U. Passau.
 - Additional Specific Joint Research Project ‘**Governance and Privacy Implications of the ‘Internet of Things’**’ (GOVPIMIT), with U. Aarhus, BTH & U. Passau.
 - Additional Specific Joint Research Project ‘**Energy-Aware Key Management in Mobile Wireless Sensor Networks**’ (E-Key-Nets), with U. Passau & Warsaw U. of Technology.
- **ARCHANGEL—Cell Phone as a Platform for Healthcare Award.** Microsoft Research announced support for academics from ten universities around the world in their research of innovative ways to advance healthcare services and solutions, as well as mitigate the growing healthcare concerns. The aim of the ARCHANGEL project was to design and implement a cost-effective, secure, adaptable and interoperable framework for learning and monitoring the daily behavior of the elderly using advanced sensor networking, machine learning, and controlled interaction with caretakers, based on off-the-shelf sensors and positioning-enabled cellular phones (2010-2012).
- **Publish-Subscribe Internet Routing Paradigm (PSIRP):** funded by EU's 7th Framework Programme (FP7 ICT STREP, with partners: Helsinki Institute for Information Technology, RWTH Aachen, British Telecom, Ericsson, Nokia Siemens Networks, & IPP of the Bulgarian Academy of Science, 2008-2010). The project addressed well known shortcomings of the Internet by proposing a fundamental reform of its paradigms and core technologies. A new Internet architecture, PSI, derived from the pub/sub paradigm was developed, implemented and experimented with. With multicast being the norm and security and mobility designed into the architecture, rather than added on as after-thoughts.
- **Evolved Internet Future For European Leadership (EIFFEL):** EU FP7 ICT Specific Support Action (SSA) addressing the challenges of the Future Internet and the networked society of the future as a whole. Its foundations lie in the EIFFEL think tank formed in July 2006 from a group of individual researchers from both academia and industry, facilitated by the European Commission. (With the following partners: RWTH Aachen, British Telecom, Alcatel-Lucent, JSI, University College London, GET-ENST, EURESCOM; 2008-2010.)
- **End-to-End Security over Heterogeneous Mobile/Wireless Networks,** in cooperation with Columbia University, NY (funded by the Greek General Secretariat of Research and Technology, 2006-2008).
- **Broadcasting and Multicasting over Enhanced UMTS Mobile Broadband Networks (B-BONE):** EU FP6 IST STREP investigating 3G architectures (with C. Courcoubetis, G. Stamoulis and G. Xylomenos from AUEB and a European consortium including Motorola, Alcatel and other industrial and academic partners, 2004-2006).
- **Euro-N/FGI:** EU FP6 IST Network of Excellence investigating 3rd Generation Internet architectures (with C. Courcoubetis and G. Stamoulis from AUEB and many European academic partners, 2004-2008).
- **Mobile Services,** funded by the research program “Pythagoras,” 2004-2006.
- **Mobile Multimedia Communications,** funded by the research program “Heraklitus,” 2003-2006.
- **Mobile Services for Integration of Business Data,** funded by the Greek General Secretariat of Research and Technology, program “ENTER,” 2004.
- **MMAPPS: Market Management of Peer-to-Peer Services:** EU IST project investigating, incentives, rules and market management for peer-to-peer architectures (with C. Courcoubetis from AUEB and a European industrial and academic consortium, 2002-2004).
- **DBGlobe:** EU FET IST project investigating global computing with wireless mobile devices and a data centric view (with M. Vazirgiannis from AUEB and a European industrial and academic consortium, 2002-2004).
- **Market Managed Multi-service Internet:** EU IST project investigating dynamic pricing for Internet services in various Quality of Service provisioning contexts (with C. Courcoubetis from AUEB and a European industrial and academic consortium, 2000-2002).
- **PLATO:** Collaboration with French researchers on Interactive Multimedia Documents (2000-2001).
- **Transmission of Video and Audio with Guaranteed Quality-of-Service over IP Networks:** collaboration with the University of Athens and the University of Crete, funded by the Greek General Secretariat of Research and Technology (2000-2001).
- **Enhanced Performance Protocols for Wireless Access to the Internet:** funded by grants from Rockwell Semiconductor Systems, the TRW Foundation, and the State of California (1998).

- Internet Performance Optimizations for Wireless Links: funded by Sprint Corp. (1997).
- **A Systems Approach to Wireless ATM:** with 10 other investigators of the UCSD Center for Wireless Communications, funded by Sprint Corporation (1997-1999).
- **Multicast for Wireless Networks with Mobile Stations:** funded by National Semiconductor Corporation with matching funds from the State of California (1996-1998).
- **Broadband Wireless Multimedia Communications:** with 10 other UCSD investigators leading an industrial-academic consortium; this investigator led the multimedia effort, one of the three research thrusts (1995-1997).
- **Hierarchical Coding Strategies for Intelligent Congestion Control in ATM Networks:** funded by Orincon Corp. with matching funds from the State of California (1994).
- **Multimedia Networking:** funded by Hitachi Ltd., Japan (1994).
- **Sequoia 2000:** A University of California multi-campus interdisciplinary research project developing computer and communications technology for Global Change research. Funded by Digital Equipment Corporation and many other industrial partners at the level of approximately \$15M (1991-1994).
- CNRI/NSF planning grant to upgrade the Sequoia 2000 Network (a private T1 and then DS3 network spanning 5 sites across California) to a Gigabit Testbed (with J.C. Pasquale, 1994).
- **Analysis and Modeling of High-Speed Networks:** in collaboration with the San Diego Supercomputer Center, funded by a US National Science Foundation grant (1991-1994).
- **Communication Network Architectures for Continuous Media:** funded by Digital Equipment Corporation with matching funds from the State of California (1993).
- **Networking for Digital Continuous Media:** funded by Digital Equipment Corporation with matching funds from the State of California (1992).
- **HP Equipment Grant** for instituting a laboratory for networking courses at UCSD (1991).

OTHER PROJECTS (as PI)

- **eSignature and Erasmus Student eCard in Greece** (eCard), EC funded (CEF), 2018-2020: uptake and use of remote eSignature in the Greek government and connection of the existing Academic eID service to the Greek eIDAS node in order to be used by cross-border **Erasmus** students.
- OpenCourses, 2012-2015: to develop policies, procure infrastructure for and develop online courses at AUEB.
- Infrastructure and Development grants for the Dept. (2003-2008 and 2011-2013). Established a new Graduate Program in CS and a new graduate instructional laboratory. Organized the proposal and the plan for updating the undergraduate curriculum and expanded and modernized the equipment of the undergraduate instructional laboratories. Hired and supervised a staff of five and many other short-term R&D staff.
- Internship Program of the Department (2001-2009) and the University (2009-2012).

INVITED TALKS

- Tutorial, “Self-Sovereign Identity (SSI), Decentralized Identifiers, and Verifiable Credentials with Applications to Access Control, Web Services, the Internet of Things, and Smart Cities,” 27th IEEE Symposium on Computers and Communications, Rhodes, Greece, June 2022.
- Invited panel presentation, “Spectrum Smart Contracts for Ephemeral Connectivity Environments,” panel on “Economy and Business Development for Spectrum Sharing,” 1st BEST NEST Invitational Workshop on New Paradigms in Intelligent Spectrum Management and Regulation: Future Directions, Technologies, Standards and Applications, December 2020.
- Invited panel presentation, “ μ -operators, prosumers, decentralized μ -transactions, specialization, and trade in (dynamic) nG networking,” panel on “On the impact of Economics on 6G technologies,” IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), September 2020.
- Invited panel presentation, “IoT Vision and *Edge Requirements*,” panel on “Infrastructure Requirements for Edge Computing and Communications” ACM SIGCOMM 2018 Workshop on Mobile Edge Communications (MECOMM 2018), Budapest, Hungary, August 2018.
- Invited panelist, 19th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM 2018), moderator of Panel 1: “Mind the Gaps - Network management, security, privacy, and interoperability in IoT spaces” and panelist on Panel 2: “The Brave New World of Data Analytics,” while also panelist on the Panel “IoT security - threats and solutions,” organized by the co-located workshop on “Internet of Things: Smart Objects and Services” (IoT-SoS 2018).
- Invited tutorial at the 8th Advanced Satellite Multimedia Systems Conference (ASMS’16), Palma de Mallorca, Spain, September 2016: “Information-Centric Networking for Content Distribution and Integration of Satellite Communications into the Future Internet”
- University of California, Riverside, June 2016: “Information-Centric Networking for Multimedia Dissemination & the Internet-of-Things”
- Cisco – Ecole Polytechnique Networking Innovation and Research Symposium, Paris Innovation & Research Lab, March 2016: “Information-Centric Networking for the Internet-of-Things”

- Keynote, 3rd International Conference on Multimedia and Human-Computer Interaction (MHCI'15), Barcelona, Spain, July 2015: “Information-Centric Networking for Multimedia Dissemination”
- University of California, Irvine, February 2015: “Publish/Subscribe Internetworking & the H2020 POINT project”
- Carnegie-Mellon University, November 2014: “Information-Centric Networking: Overview and Outlook”
- Singapore University of Technology and Design, July 2014: “Information-Centric Networking: Overview and Outlook”
- Annual Privacy Forum, Athens, Greece, May 2014, panel on ‘Software Defined and Information-Centric Networks and their impact on privacy,’ “Information-Centric Networking Privacy”
- ‘Future Internet Architectures for Military Networks’ workshop, Akershus Fortress, Oslo, Norway, January 2014, “Content-Centric Networking and the Publish-Subscribe Internetworking Architecture”
- PARC (Xerox), Palo Alto, CA, December 2013: “The Publish/Subscribe Information-Centric Networking Architecture: Unique Features and Outlook”
- Korea-EU Workshop: Exploring common research interests in the Future Internet and Cloud, 30/9-1/10/2013, Seoul, S. Korea, “The Publish/Subscribe Information-Centric Networking Architecture: Unique Features and Outlook”
- University of Illinois, Urbana-Champaign, May 2013: “Clean-Slate Information-Centric Publish/Subscribe Internetworking”
- Purdue University, May 2013: “Clean-Slate Information-Centric Publish/Subscribe Internetworking”
- University of Arizona, Tucson, May 2013: “Information-Centric Networking”
- UCLA CS dept. seminar, March 2013: “Information-Centric Networking and the PSI Architecture”
- IEEE Computer Communications Workshop, Sedona, AZ, November 8, 2011: participation in the panel on Information-Centric Networking, introducing “The Publish-Subscribe Internet Architecture”
- Infosys Technologies Ltd., Bangalore, India, December 23, 2011: “Information-Centric Networking & the Publish-Subscribe Internet (PSI) Architecture”
- First International Conference on Wireless Technologies for Humanitarian Relief, Kerala, India, December 19, 2011: “Context-Aware Information Delivery in Assistive Environments over a Publish-Subscribe Internet”
- 4th SatCom Day, Panel Session on ‘ISI & Future Internet’ (Brussels, Belgium, October 18-19, 2011, collocated with the 14th General Assembly of the Integral Satellite Communications Initiative, a European Technology Platform): “*Information-Centric Networking as a main Future Internet technological pillar--What is its applicability to SatCom?*”
- Euro-NF International Workshop on Traffic and Congestion Control for the Future Internet (March 31-April 01, 2011, Volos, Greece): “*Information-Centric Networking and the PSI (Pub/Sub Internet) Architecture*”
- Wireless World Research Forum (23rd meeting: ‘Cognition and Cooperation in the Mobile Internet,’ Beijing, China, October 2009), Invited Speaker: “*User Provided and Community Networks as μ -Operators in Cognitive Dynamic Spectrum Access*”
- ICCCN 2009 (San Francisco, CA, August 2009), Distinguished Invited Speaker: “ *μ -Operators, User-Provided, Community, and Cognitive Networks in Open Spectrum Access*”
- IEEE WoWMoM 2009 (Kos, Greece, June 2009), on the panel on *The Future of Wireless Video: Winning Strategies*
- ICT Mobile Summit 2009 (Santander, Spain, June 2009) Panel: *Towards a Mobile-friendly Internet*
- Future Internet Architectures Workshop—New Trends in Service Architectures (Santander, Spain, June 2009) Panel: “ *μ -Operators & Trust in Cognitive Networking*”
- IEEE PIMRC 2008 Panel: *Building the Internet of the Future – The Wireless Challenge*
- IEEE LANMAN 2008 Panel on *Ubiquitous Community Wireless Networks: Reality or pipedream? Opportunities, challenges, pitfalls*: “Past, present and future of Wireless Communities: Is rivaling cellular in their future?”
- IEEE PIMRC 2007 Panel: *Wireless Challenges*: “Community Networks, P2P Nets and μ -Operators”
- *Keynote Address*, 9th IEEE/ACM MSWiM 2006 Symposium, Torremolinos, Malaga, Spain, October 2006: “A Peer-to-Peer Approach to Cellular Communications”
- *P2P Colloquium*, Technical University of Darmstadt, Germany, December 2005
- KTH, Stockholm, Sweden, June 2005
- 1996 DIMACS/IEEE/AT&T *Internet Workshop* at Rutgers University, NJ
- NRC Democritos, Athens, Greece, July 1995
- 1995 and before: AT&T Bell Laboratories; Columbia University; Digital Equipment Corporation; Harvard University; Hughes Network Systems; IBM Thomas Watson Research Center; NCR; Olivetti Research Center, California; Universite de Montreal; Universite Laval; University of British Columbia; University of Delaware; University of California, Irvine; University of California, Los Angeles; University of California, Riverside; University of California, Santa Barbara; University of Wisconsin-Madison.

AWARDS

- Best paper award:
N. Fotiou, V.A. Siris, G.C. Polyzos, Y. Kortessniemi, D. Lagutin, “Capabilities-based access control for IoT devices using Verifiable Credentials,” Proc. IEEE Workshop on the Internet of Safe Things, in conjunction with the 43rd IEEE Symposium on Security and Privacy, San Francisco, CA, USA, May 2022.
- Best paper award:
N. Fotiou, V.A. Siris, G.C. Polyzos, “Interacting with the Internet of Things using Smart Contracts and Blockchain Technologies,” Proc. 7th International Symposium on Security and Privacy on Internet of Things (SPIoT) in conjunction with the 11th International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage (SpaCCS), Melbourne, Australia, December 2018.
- Best demo award:
N. Fotiou, G. Xylomenos, G.C. Polyzos, H. Islam, D. Lagutin, T. Hakala, E. Hakala, “ICN enabling CoAP Extensions for IP based IoT devices,” ACM SIGCOMM Conference on Information-Centric Networking, Berlin, Germany, September 2017.
- *Future Internet Award* to the EU FP7 research project “PURSUIT” (for which I was the AUEB PI, awarded during the Future Internet Assembly, Dublin, Ireland 10 May 2013, <http://www.fp7-pursuit.eu/PursuitWeb/?p=967>)
- Best paper award:
N. Fotiou, G.F. Marias, G.C. Polyzos, “Access Control Enforcement Delegation for Information-Centric Networking Architectures,” ACM SIGCOMM workshop on ‘Information-Centric Networking,’ Helsinki, Finland, August 2012.
- Best student paper award for the paper with my Ph.D. student N. Fotiou as lead author:
N. Fotiou, G.F. Marias, G.C. Polyzos, “Fighting Spam in Publish/Subscribe Networks Using Information Ranking,” 6th Euro-NF Conference on Next Generation Internet, Paris, France, June 2010.
- NCR Award for Excellence in Teaching, UCSD, 1991.
- UCSD Chancellor’s Summer Faculty Fellowship, 1989.
- University of Toronto Open Doctoral Fellowship (1984-1986).
- Young Engineers’ Contest award for best paper in IEEE MELECON '83, Athens, Greece (1983).
- Award of the Technical Chamber of Greece (1982).

EXTERNAL MEMBER OF PHD COMMITTEES OR EXAMINER

- University of California, Irvine, CA, USA
- Technical University of Berlin, Germany
- University of Athens, Athens, Greece
- KTH, Stockholm, Sweden
- University of Oslo, Oslo, Norway
- RWTH Aachen, Aachen, Germany
- University College London, UK

External pre-examiner for:

- Aalto University, Helsinki, Finland
- University of Jyväskylä, Jyväskylä, Finland
- University of Helsinki, Helsinki, Finland

PROFESSIONAL ACTIVITIES

- Editorial Board member, *IEEE Transactions on Mobile Computing* (2017-2021).
- Editorial Board member, *Journal of Reliable Intelligent Environments* (JRIE), Springer (2014-present).
- Steering Committee Member, WG 6.8 IFIP TC6 **Wireless and Mobile Networking** Conference (2014-present).
- Steering Committee Chair, ACM SIGCOMM **Information-Centric Networking** Conference (2013-2016).
- Co-organizer: [DI2F: Decentralising the Internet with IPFS and Filecoin](#), in conjunction with the [IFIP Networking](#) conference, Aalto University, Espoo, Finland, June 2021.
- Organizer and Chair:
 - 2020 NDSS Symposium workshop on Decentralized IoT Systems and Security (DISS), San Diego, CA, USA
 - 2019 NDSS Symposium workshop on Decentralized IoT Systems and Security (DISS), San Diego, CA, USA
 - 2018 NDSS Symposium workshop on Decentralized IoT Security and Standards (DISS), San Diego, CA, USA
- ACM SIGCOMM Workshop on **Mobile Edge Communications** MECOMM’2017, UCLA, CA, USA (with ACM SIGCOMM 2017), co-chair/co-organizer MECOMM’2018, Budapest, Hungary (with ACM SIGCOMM 2018), Steering Committee Member
- Workshop on **Information Centric Fog Computing** (ICFC) in conjunction with IFIP Networking 2017, Stockholm, Sweden (co-chair/co-organizer)
- General co-chair, MobiQuitous 2020

- Workshop on **Multimedia Streaming in Information-Centric Networks (MuSIC)**, co-founder & Steering Committee Member
 - 2015 in conjunction with the IEEE International Conference on Multimedia and Expo (ICME), Torino, Italy
 - 2016 in conjunction with the IEEE INFOCOM, San Francisco, CA, USA
 - 2017 in conjunction with the IEEE Intern. Conference on Multimedia and Expo (ICME), Hong Kong, China
- TPC Co-chair, Workshop on Multimedia Streaming in Information-Centric Networks (MuSIC) in conjunction with the 2015 IEEE International Conference on Multimedia and Expo (ICME 2015), Torino, Italy (2015).
- TPC Co-chair, ACM SIGCOMM Workshop on Information-Centric Networking (2013).
- Steering Committee Member, ACM SIGCOMM Workshop on Information-Centric Networking (2011-2013).
- Member of the *IEEE Internet Award Committee* (2008-2011).
- Steering Committee, **Future Network & MobileSummit** (2010-2012).
- Future Internet track chair, Future Network & MobileSummit, June 2010, Florence, Italy.
- Steering Board, **Euro-NF Network of Excellence** (Anticipating the Network of the Future—From Theory to Design, EU FP7 ICT, 2008-2012).
- On the editorial board of *Wireless Communications and Mobile Computing*, Wiley InterScience (2000-2010).
- Guest editor, *IEEE Personal Communications*, special issue on “**European R&D on Fourth-Generation Mobile and Wireless IP Networks**,” December 2001 (with P. Mähönen).
- Guest editor, *ACM Mobile Networking (MONET)*, special issue on “**Mobile Multimedia Communications**” (with A.T. Campbell).
- Guest editor, *IEEE JSAC*, special issue on “**Network Support for Multipoint Communication**” (with M. Ammar and S. Tripathi).
- Guest editor, *Computer Networks*, special issue on “**Signaling and Management in ATM Networks**” (with C.S. Albanese, J.A. Bannister, M. Veeraraghavan and M. Zitterbart).
- Co-chair, Program Committee, 6th IEEE International Workshop on **Mobile Multimedia Communications (MoMuC’99)**, San Diego, CA, USA, November 1999 (with A.T. Campbell).
- Has served as reviewer and panelist for the U.S. **National Science Foundation** and the **European Commission** and reviewer for the California MICRO program, the Greek Research and Technology Program, the Swiss National Science Foundation, the European Coordinated Research on Long-term Challenges in Information and Communication Sciences & Technologies ERA-Net, and many journals, conferences and workshops.
- Technical Program Committee member for many conferences, symposia and workshops.
- Senior Member of the ACM, Member of the IEEE.

Graduated Ph.D. Students (@UCSD)

- Vachaspathi (**Vach**) **Kompella**, Bell Labs Fellow, Vice President & General Manager, IP Networks Division, Nokia (Dissertation: “Multicast Routing Algorithms for Multimedia Traffic,” co-advised with J. Pasquale, 1993).
- **Haining Liu**, Software Architect, First Data Corporation (Dissertation: “Buffer Size and Packet Loss in a Tandem Queueing Network,” co-advised with R. Cruz, 1993).
- **Kimberly Claffy**, Resident Research Scientist, SDSC/UCSD and Head, Cooperative Association for Internet Data Analysis (CAIDA), <http://www.caida.org/> (Dissertation: “Internet Traffic Characterization,” 1994).
- **Barbara Pasquale** (Dissertation: “Characterizing the I/O Behavior of Scientific Applications,” 1995).
- Hanrijato (**Henry**) **Sariowan**, Technical Program Manager, Google (ex-Lockheed Martin senior engineer, ex-VP Strategic Technology Planning, Path 1 Network Technologies; Dissertation: “A Service-Curve Approach to Performance Guarantees in Integrated-Service Networks,” co-advised with R. Cruz, 1996).
- **George Xylomenos**, Professor, Department of Informatics, AUEB, <http://mm.aueb.gr/~xgeorge/> (Dissertation: “Multi-Service Link Layers: An Approach to Enhancing Internet Performance over Wireless Links,” 1999).
- **Paul Blair** (Dissertation: “System Level Solutions to Maximizing Utilization of Wireless Packet Cellular Communications Over Rayleigh Fading Channels,” co-advised with J. Pasquale, 2002).
- Margaritis (**Akis**) **Margaritidis**, Unisystems, <http://www.unisystems.gr/> (Dissertation: “Enhancing the Quality of Multimedia Data Transmission over Wireless Links,” co-advised with J. Pasquale, 2003).

Graduated Ph.D. Students (@AUEB)

- **Yannis Thomas**, Senior Researcher AUEB/MMLab (Dissertation: “Multipath Internet Transport” 2018).
- **Vaggelis Douros**, Postdoctoral Researcher at RWTH Aachen University (ex-Orange, Paris, France; Dissertation: “Incentives-Based Power Control in Wireless Networks of Autonomous Entities with Various Degrees of Cooperation” 2014).
- **Nikos Fotiou**, Senior Researcher, AUEB/MMLab (Dissertation: “Information-Centric Networking: Security Requirements and Solutions” 2014).
- **Pantelis Frangoudis**, TU Vienna, Austria (ex INRIA; Dissertation: “User-Centrism in Wireless Networking” 2012).
- **Konstantinos Katsaros**, Project Manager and Senior Researcher I-SENSE/ICCS/NTUA (ex: Intracom Telecom, UCL PostDoc; Dissertation: “An Information-Centric Overlay Network Architecture for Content Distribution and Mobility Support” 2010).
- **Christopher Ververidis**, Innovation and Business Development Manager, HYPERTECH (Dissertation: “Energy Efficient and Adaptive Service Advertisement, Discovery and Provision for Mobile Ad Hoc Networks” 2008).
- **Elias Efstathiou**, independent consultant (ex-manager, First Data Corp.; Dissertation: “A Peer-to-Peer Approach to Sharing Wireless Local Area Networks” 2006).
- **Efstratios Diamadis**, High-School Principal, (Dissertation: “Support for Awareness and Assessment Mechanisms in Remote Collaboration Applications for Distance and Virtual Learning Environments,” in Greek, 2006).

Graduated M.Sc. Students (with Thesis @AUEB)

- Vasilios Kalos, “Verifiable Credentials Selective Disclosure: Challenges and Solutions” 2021
- Stefanos Plastras, “Internet of Things Gateway Access Control” 2020
- Iosif Sakos, “Consensus in Blockchain” 2019
- Petros Gketsopoulos, “Quality-of-Experience Improvement and Fairness for Video Streaming using SAND” 2019
- Iason Diavatis, “A QoE-fairness optimisation framework for DASH over SDN ” 2019
- Iakovos Pittaras, “Interacting with the Web of Things using Blockchains” 2019
- S. Drossos, “Creating a ‘Store of Value’ platform for cryptocurrencies” 2019
- P. Salteris, “Real Time Fault Detection in Network Gateways” 2019
- Sp. Lepeniotis, “Access control policy definition using XACML” 2018
- G. Kavvadias, “SDN Topology Management for IoT Architectures” 2018
- D. Mendrinou, “Tag-Based SDN Traffic Engineering” 2018
- Chr. Karapapas, “Broadcast Encryption and Applications” 2016.
- G. Andrianesis, “Applications of Multipoint Communications in the Internet of Things” 2016 (in Greek).
- N. Argyros, “Smart Hotel AC Manager” 2016 (in Greek).
- A. Adamos, “Addressing the ‘Packet Storm’ effect in Core Mobile Networks through Network Function Virtualisation & Software Defined Networking,” 2015.
- C. Sakkas, “NFV Infrastructure Monitoring,” 2015.
- A. Tsolakou, “Device-to-Device Communications: Exploiting Wi-Fi Direct for Spectrum Sharing in LTE,” 2015.
- D. Arvanitis, “CoAP: An Application Layer Protocol alternative and the Internet of Things,” 2015 (in Greek).
- S. Pavlidou, “Bitcoin and its Anonymity,” 2014 (in Greek).
- D. Sykaras, “Femtocell Networks: Interference Management and Business Models,” 2012.
- D. Charoulis, “Simulating Mobility in a Realistic Networking Environment,” 2012.
- K. Kokoli, “Attribute-Based and Context-Aware Information Lookup for the Internet of Things,” 2012.
- M. Giannikos, “Secure and context aware information retrieval for the Internet of Things,” 2012.
- V. Giannaki, “Smart Caches for Mobility Support in a Publish/Subscribe Network Architecture,” 2011.
- D. Zografos, “Spectrum Sensing and Reporting on WLANs,” 2009.
- V. Kalaitzidakis, “Botnet Detection Using Honeypots,” 2009.
- E. Trouva, “The Mobile Phone as a Platform for Assisting the Independent Living of Aging People,” 2009.
- M. Syrigos, “Design and Implementation of a System to Record and Recognize Activities of Daily Living,” 2009.
- K. Dasoulas, “Study and Implementation of an Integrated System for Recording the Actions of Individuals Outdoors,” 2009.
- G. Plakia, “Structure and Evolution of a Large-Scale Wireless Community Network—The case of the Athens Wireless Metropolitan Network,” 2009.
- M. Sidiropoulos, “Botnets: Detection and Evasion Techniques,” 2009.
- G. Papamathaiakis, “Design and Implementation of an Intelligent System for the Analysis and Evaluation of Space Sensor Data,” 2008 (in Greek).
- E. Panaousis, “Optimizing IEEE 802.11 WLAN Performance in a Dense Shared Spectrum Environment,” 2008.
- E. Douros, “Transmission Power Control for WLANs for the Optimization of Social Fairness,” 2008 (in Greek).
- S. Dimopoulos, “Global Scale WLAN Roaming: Architecture & Evaluation,” 2007 (in Greek).
- Ch. Stefanidis, “A Protocol for Enterprise Network Interconnection,” 2007 (in Greek).
- M. Kontopoulou, “Evaluation of Grid User Behavior with Trust Measurement Mechanisms,” 2007 (in Greek).

- S. Athanaileas, "An Extension of the AODV Routing for Service Discovery in MANETs," 2007 (in Greek).
- J. Aggelopoulos, "Application of Network Tomography in Wireless Sensor Networks," 2007 (in Greek).
- E.C. Stefanis, "Reciprocity Strategies in the Peer-to-Peer Wireless Network Confederation: Building Trust in an Anarchic Setup," 2006.
- D. Paraskevaidis, "Services Architecture on top of the Peer-to-Peer Wireless Network Confederation," 2006.
- D. Pediaditakis, "In-Network Processing and Data Aggregation in Wireless Sensor Networks," 2006.
- P. Frangoudis, "The Peer-to-Peer Wireless Network Confederation Protocol: Design Specification and Performance Analysis," 2005.
- S. Papageorgiou, "Wireless Multicast Security with Mobile Hosts," 2005 (in Greek).
- Supervised 14 more M.Sc. Theses since 2001 (in Greek).

Graduated M.Sc. Students (@UCSD)

- F.-P. Chang, "Modeling of Digital Continuous Media over ATM Networks," M.Sc. Thesis, 1996.
- J.K. Han, "A Study on Layered Coding for ATM Networks using Hierarchical JPEG," M.Sc. Thesis, 1995.
- J. Hose, "A Simulation of the Service Curve-based Earliest Deadline First Scheduling Discipline," M.Sc. Thesis, 1995.
- P. Krishna, "Models for Variable Bit Rate Video Sources," M.Sc. project, 1994.
- K. Taylor, "Prototype Video Multicasting over a Local ATM Testbed," M.Sc. Thesis, 1994.
- N. Groschwitz, "Traffic and Delay Patterns on the NSFNET Backbone," M.Sc. Thesis, 1993.
- D.C. Etherton, "Approximating FDDI Synchronous Mode Guarantees through Kernel Modification," M.Sc. Thesis, 1993.
- M.M. Johnson, "FDDI Performance Guarantees for Real-Time Traffic in the Absence of a Synchronous Mode," M.Sc. Thesis, 1992.
- R.B. Taarit, "Extending FDDI Synchronous Mode Guarantees to Interconnected Networks," M.Sc. Thesis, 1992.
- A. Chadha, "Image Compression Standards and Hierarchical Coding," M.Sc. project, 1992.
- K.C. Claffy, "Location Transparent Connection Management," M.Sc. project, 1991.

PUBLICATIONS

A. Journal Publications

- [A.1] G.C. Polyzos, M.L. Molle, A.N. Venetsanopoulos, "Performance Analysis of Finite Nonhomogeneous Population Tree Conflict Resolution Algorithms Using Constant Size Window Access," *IEEE Transactions on Communications*, vol. 35, no. 11, pp. 1124-1138, November 1987.
- [A.2] V.P. Kompella, J.C. Pasquale, G.C. Polyzos, "Multicast Routing for Multimedia Communication," *IEEE/ACM Transactions on Networking*, vol. 1, no. 3, pp. 286-292, June 1993.
- [A.3] K.C. Claffy, G.C. Polyzos, H.-W. Braun, "Measurement Considerations for Assessing Unidirectional Latencies," *Internetworking: Research and Experience*, vol. 4, no. 3, pp. 121-132, September 1993.
- [A.4] G.C. Polyzos and M.L. Molle, "A Queueing Theoretic Approach to the Delay Analysis for the FCFS 0.487 Conflict Resolution Algorithm," *IEEE Transactions on Information Theory*, vol. 39, no. 6, pp. 1887-1906, November 1993.
- [A.5] G.C. Polyzos and M.L. Molle, "A Queueing Theoretic Methodology for Performance Analysis of Separable Window Access Conflict Resolution Algorithms with Variable Length Elementary Events," *Queueing Systems: Theory and Applications*, vol. 16, no. 3-4, pp. 339-361, 1994.
- [A.6] K.C. Claffy, H.-W. Braun, G.C. Polyzos, "Tracking Long-term Growth of the NSFNET," *Communications of the ACM*, vol. 37, no. 8, pp. 34-45, August 1994 (special issue on "Internet Technology").
- [A.7] J.C. Pasquale, G.C. Polyzos, E.W. Anderson, V.P. Kompella, "The Multimedia Multicast Channel," *Internetworking: Research and Experience*, vol. 4, pp. 151-162, 1994.
- [A.8] D. Karvelas, M. Papamichail, G.C. Polyzos, "Fair DQDB: The Rotating Slot Generator Scheme," *Journal of High Speed Networks*, vol. 4, pp. 255-273, 1995.
- [A.9] K.C. Claffy, H.-W. Braun, G.C. Polyzos, "A Parameterizable Methodology for Internet Traffic Flow Profiling," *IEEE Journal on Selected Areas in Communications*, vol. 13, no. 8, pp. 1481-1494, October 1995.
- [A.10] V.P. Kompella, J.C. Pasquale, G.C. Polyzos, "Optimal Multicast Routing with Quality of Service Constraints," *Journal of Network and Systems Management*, vol. 4, no. 2, pp. 107-131, 1996.
- [A.11] G. Xylomenos and G.C. Polyzos, "IP Multicast for Mobile Hosts," *IEEE Communications Magazine*, vol. 35, no. 1, pp. 54-58, January 1997.
- [A.12] J.C. Pasquale, G.C. Polyzos, G. Xylomenos, "The Multimedia Multicasting Problem," *Multimedia Systems*, vol. 6, no. 1, pp. 43-59, January 1998.
- [A.13] J.K. Han and G.C. Polyzos, "Multi-Resolution Layered Coding for Real-Time Image Transmission: Architectural and Error Control Considerations," *Real-Time Imaging*, vol. 4, no. 4, pp. 275-298, August 1998.
- [A.14] G. Xylomenos and G.C. Polyzos, "IP Multicast Group Management for Point-to-Point Local Distribution," *Computer Communications*, vol. 21, no. 18, pp. 1645-1654, December 1998.
- [A.15] G. Xylomenos and G.C. Polyzos, "Internet Protocol Performance over Networks with Wireless Links," *IEEE Network*, vol. 13, no. 4, pp. 55-63, July-August 1999.

- [A.16] G. Xylomenos and G.C. Polyzos, "Link Layer Support for Quality of Service on Wireless Internet Links," *IEEE Personal Communications*, vol. 6, no. 5, pp. 52-60, October 1999.
- [A.17] H. Sariowan, R.L. Cruz, G.C. Polyzos, "SCED: A Generalized Scheduling Policy for Guaranteeing Quality-of-Service," *IEEE/ACM Transactions on Networking*, vol. 7, no. 5, pp. 669-684, October 1999.
- [A.18] M. Margaritidis and G.C. Polyzos, "MobiWeb: Enabling Adaptive Continuous Media Applications over Wireless 3G Links," *IEEE Personal Communications*, vol. 7, no. 6, pp. 36-41, December 2000.
- [A.19] M. Margaritidis and G.C. Polyzos, "Adaptation Techniques for Ubiquitous Internet Multimedia," *Wireless Communications and Mobile Computing*, vol. 1, no. 2, pp. 141-63, April-June 2001.
- [A.20] G. Xylomenos, G.C. Polyzos, P. Mähönen, M. Saaränen, "TCP Performance Issues over Wireless Links," *IEEE Communications Magazine*, vol. 39, no. 4, pp. 52-58, April 2001.
- [A.21] G. Xylomenos and G.C. Polyzos, "Quality of Service Support over Multi-Service Wireless Internet Links," *Computer Networks*, vol. 37, no. 5, pp. 601-615, November 2001.
- [A.22] P. Blair, G.C. Polyzos, M. Zorzi, "Plane Cover Multiple Access: A New Approach to Maximizing Cellular System Capacity," *IEEE Journal on Selected Areas in Communications*, vol. 19, no. 11, pp. 2131-2141, November 2001.
- [A.23] S. Soursos, C. Courcoubetis and G.C. Polyzos, "Pricing Differentiated Services in the GPRS Environment," *Wireless Networks*, vol. 9, no. 4, 2003 (special issue on "Wireless Mobile Internet").
- [A.24] G. Xylomenos and G.C. Polyzos, "A Multi-service Link Layer Architecture for the Wireless Internet," *International Journal of Communication Systems*, vol. 17, no. 6, pp. 553-574, 2004 (special issue on 'QoS Support and Service Differentiation in Wireless Networks').
- [A.25] E.T. Diamadis and G.C. Polyzos, "Efficient Cooperative Searching on the Web: System Design and Evaluation," *International Journal of Human-Computer Studies*, vol. 61, no. 5, pp. 699-724, November 2004.
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- [A.27] C.N. Ververidis and G.C. Polyzos, "Service Discovery for Mobile Ad Hoc Networks: A Survey of Issues and Techniques," *IEEE Communications Surveys and Tutorials*, vol. 10, no. 3, 2008.
- [A.28] C.N. Ververidis and G.C. Polyzos, "A Routing Layer Based Approach for Energy Efficient Service Discovery in Mobile Ad Hoc Networks," *Wireless Communications and Mobile Computing*, vol. 9, no. 5, pp. 655-672, May 2009.
- [A.29] E.A. Panaousis, C. Politis, G.C. Polyzos, "Maximizing Network Throughput—Power Control Using Game Theory in a Shared Open Spectrum," *IEEE Vehicular Technology Magazine*, vol. 4, no. 3, pp. 33-39, September 2009.
- [A.30] E.C. Efstathiou, P.A. Frangoudis, G.C. Polyzos, "Controlled Wi-Fi Sharing in Cities: a Decentralized Approach Relying on Indirect Reciprocity," *IEEE Transactions on Mobile Computing*, vol. 9, no. 5, pp. 1147-1160, August 2010.
- [A.31] S. Arkoulis, I. Marias, P.A. Frangoudis, J. Obereneder, A. Popescu, M. Fiedler, H. de Meer, G.C. Polyzos, "Misbehavior Scenarios in Cognitive Radio Networks," *Future Internet*, vol. 2, no. 3, Special Issue on 'Security for Next Generation Wireless and Decentralized Systems,' Guest Editors: A. Koenig & R. Steinmetz, September 2010.
- [A.32] K.V. Katsaros, G. Xylomenos, G.C. Polyzos, "MultiCache: an Overlay Architecture for Information-Centric Networking," *Computer Networks*, vol. 55, no. 4, pp. 936-947, Elsevier, Special Issue on 'Architectures and Protocols for the Future Internet,' Guest Editors: T. Wolf & L. Eggert, March 2011.
- [A.33] V.G. Douros and G.C. Polyzos, "Review of Some Fundamental Approaches for Power Control in Wireless Networks," *Computer Communications*, vol. 34, no. 13, pp. 1580-1592, 2011.
- [A.34] P.A. Frangoudis, V.P. Kemerlis, G.C. Polyzos, "Wireless Community Networks: An Alternative Approach for Nomadic Broadband Network Access," *IEEE Communications Magazine*, vol. 49, no. 5, pp. 206-213, May 2011.
- [A.35] N. Fotiou, G.C. Polyzos, D. Trossen, "Illustrating a Publish-Subscribe Internet Architecture," *Telecommunication Systems*, Springer, vol. 51, no. 4, Special Issue on 'Future Internet Services and Architectures: Trends and Visions,' pp. 233-245, December 2012 (first published online: February 2, 2011).
- [A.36] G. Xylomenos, X. Vasilakos, C. Tsilopoulos, V.A. Siris, G.C. Polyzos, "Caching and Mobility Support in a Publish-Subscribe Internet Architecture," *IEEE Communications Magazine*, Special Issue on 'Information-Centric Networking,' vol. 50, no. 7, pp. 52-58, July 2012.
- [A.37] G.F. Marias, J. Barros, M. Fiedler, A. Fischer, H. Hauff, R. Herkenhoener, A. Grillo, A. Lentini, L. Lima, C. Lorentzen, W. Mazurczyk, H. de Meer, P.F. Oliveira, G.C. Polyzos, E. Pujol, K. Szczypiorski, J. Vilela, T. Vinhoza, "Security and Privacy Issues for the Network of the Future," *Security and Communication Networks*, John Wiley & Sons, Ltd., vol. 5, no. 9, pp. 987-1005, September 2012.
- [A.38] N. Fotiou, G.F. Marias, G.C. Polyzos, "Access Control Enforcement Delegation for Information-Centric Networking Architectures," *ACM SIGCOMM Computer Communication Review*, vol. 42, no. 4, pp. 497-502, October 2012 (selected for journal publication as best paper of the 2012 ACM SIGCOMM workshop on 'Information-Centric Networking'—same as [C.127]).

- [A.39] C. Doukas, N. Fotiou, G.C. Polyzos, I. Maglogiannis, "Cognitive and Context Aware Assistive Environments Using Future Internet Technologies," Special Issue on 'Cognitive Systems for Assistive Environments,' *Universal Access in the Information Society*, Springer, June 2013 (DOI: 10.1007/s10209-013-0299-y).
- [A.40] P. Zhang, N. Fotiou, B.E. Helvik, G.F. Marias, G.C. Polyzos, "Analysis of the Effect of InfoRanking on Content Pollution in Peer-to-Peer Systems," *Security and Communication Networks*, John Wiley & Sons, Ltd., vol. 7, no. 4, pp. 700-713, April 2014 (DOI: 10.1002/sec.773, published online: 28 June 2013).
- [A.41] N. Fotiou, K. Katsaros, G.C. Polyzos, M. Sarela, D. Trossen, G. Xylomenos, "Handling Mobility in Future Publish-Subscribe Information-Centric Networks," *Telecommunication Systems*, Springer, vol. 53, no. 3, pp. 299-314, 2013 (Special Issue on 'Mobility Management in the Future Internet'; DOI: 10.1007/s11235-013-9699-9; online since July 2013).
- [A.42] G. Xylomenos, C.N. Ververidis, V.A. Siris, N. Fotiou, C. Tsilopoulos, X. Vasilakos, K.V. Katsaros, G.C. Polyzos, "A Survey of Information-Centric Networking Research," *IEEE Communications Surveys and Tutorials*, vol. 16, no. 2, pp. 1024-1049, 2014. (DOI 10.1109/SURV.2013.070813.00063).
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- [A.44] P.A. Frangoudis and G.C. Polyzos, "On the Performance of Secure User-Centric VoIP Communication," *Computer Networks*, Elsevier, vol. 70, pp. 330-344, September 2014.
- [A.45] P.A. Frangoudis and G.C. Polyzos, "Security and Performance Challenges for User-Centric Wireless Networking," *IEEE Communications Magazine*, Special Issue on 'User Centric Networking,' December 2014.
- [A.46] P.A. Frangoudis and G.C. Polyzos, "Reputation-Based Crowdsourced Wi-Fi Topology Discovery," *Computer Networks*, Elsevier, vol. 79, no. 14, pp. 1-16, March 2015.
- [A.47] N. Fotiou, K.V. Katsaros, G. Xylomenos, G.C. Polyzos, "H-Pastry: An inter-domain topology aware overlay for the support of name-resolution services in the future Internet," *Computer Communications*, Elsevier, vol. 62, no. 15, pp. 13-22, May 2015 (DOI: 10.1016/j.comcom.2015.02.003).
- [A.48] N. Fotiou, A. Machas, G.C. Polyzos, G. Xylomenos, "Access control as a service for the Cloud," *Journal of Internet Services and Applications*, Springer, vol. 6, no. 1, June 2015.
- [A.49] G.C. Polyzos and N. Fotiou, "[Building a reliable Internet of Things using Information-Centric Networking](#)," *Journal of Reliable Intelligent Environments*, Springer, vol. 1, no. 1, pp. 47-58, July 2015.
- [A.50] P.A. Frangoudis, G.C. Polyzos, G. Rubino, "Relay-Based Multipoint Content Delivery for Wireless Users in an Information-Centric Network," *Computer Networks*, vol. 105, no. C, pp. 207-223, Elsevier, August 2016.
- [A.51] X. Vasilakos, V.A. Siris, G.C. Polyzos, "Addressing Niche Demand based on joint Mobility Prediction and Content Popularity Caching," *Computer Networks*, vol. 110, pp. 306-323, December 2016.
- [A.52] V.A. Siris, N. Fotiou, A. Mertzianis, G.C. Polyzos, "Smart application-aware IoT data collection," *Journal of Reliable Intelligent Environments*, Springer Nature Switzerland, March 2019 (<https://doi.org/10.1007/s40860-019-00077-y>).
- [A.53] V.A. Siris, P. Nikander, S. Voulgaris, N. Fotiou, D. Lagutin, G.C. Polyzos, "Interledger Approaches," *IEEE Access*, vol. 7, pp. 89948-89966, July 2019. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8755830>
- [A.54] S. Voulgaris, N. Fotiou, V.A. Siris, G.C. Polyzos, M. Jaatinen, Y. Oikonomidis, "Blockchain Technology for Intelligent Environments," *Future Internet*, vol. 11, no. 10, October 2019 (<https://www.mdpi.com/1999-5903/11/10/213/htm>).
- [A.55] N. Fotiou, G.C. Polyzos, "Name-based security for Information-Centric Networking architectures," *Future Internet*, vol. 11, no. 11, November 2019 (<https://doi.org/10.3390/fi11110232>).
- [A.56] V.A. Siris, D. Dimopoulos, N. Fotiou, S. Voulgaris, G.C. Polyzos, "Decentralized authorization in constrained IoT environments exploiting interledger mechanisms," *Computer Communications*, Elsevier, vol. 152, pp. 243-251, February 2020 (<https://doi.org/10.1016/j.comcom.2020.01.030>).
- [A.57] Y. Thomas, M. Karaliopoulos, G. Xylomenos, G.C. Polyzos, "Low Latency Friendliness for Multipath TCP," *IEEE/ACM Transactions on Networking*, vol. 28, no. 1, pp. 248-261, February 2020 (<https://ieeexplore.ieee.org/document/8959366>).
- [A.58] Y. Thomas, G. Xylomenos, G.C. Polyzos, "Multipath Congestion Control with Network Assistance," *Computer Communications*, Elsevier, vol. 153, pp. 264-278, March 2020 (<https://doi.org/10.1016/j.comcom.2020.01.071>).
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- [A.60] S. Chadoulos, I. Koutsopoulos, G.C. Polyzos, "Mobile Apps Meet the Smart Energy Grid: A Survey on Consumer Engagement and Machine Learning Applications," *IEEE Access*, vol. 8, pp. 219632-219655, December 2020 (<https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9285206>).
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- [A.63] T. Elo, S. Ruutu, E. Arzoglou, Y. Kortensniemi, D. Lagutin, V. Hoseini, G.C. Polyzos, “Improving IoT Federation Resiliency With Distributed Ledger Technology,” *IEEE Access*, vol. 9, pp. 161695-161708, November 2021. (<https://doi.org/10.1109/ACCESS.2021.3131143>)
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- [A.65] N. Fotiou, V.A. Siris, G. Xylomenos, G.C. Polyzos, “IoT Group Membership Management using Decentralized Identifiers and Verifiable Credentials,” *Future Internet*, vol. 14, no. 6, June 2022. (<https://doi.org/10.3390/fi14060173>)
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B. Journal Editorials, Textbook, Patent, Book Articles, and White Papers

- [B.1] C.S. Albanese, J.A. Bannister, G.C. Polyzos, M. Veeraraghavan, M. Zitterbart, Editorial for the Special Issue on “Signaling and Management in ATM Networks,” *Computer Networks and ISDN Systems*, vol. 29, no. 5, March 1997.
- [B.2] M. Ammar, G.C. Polyzos, S. Tripathi, Editorial for the Special Issue on “Network Support for Multipoint Communication,” *IEEE Journal on Selected Areas in Communications*, vol. 15, no. 3, pp. 273-276, April 1997.
- [B.3] G.C. Polyzos, “Multicast Algorithms,” *The Encyclopedia of Electrical and Electronics Engineering*, J.G. Webster, ed., John Wiley & Sons, 1999. (Updated and revised as: G.C. Polyzos and K. Katsaros, “Multicast,” 2007.) <http://dx.doi.org/10.1002/047134608X.W5302>
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- [B.6] P. Mähönen and G.C. Polyzos, Editorial for the Special Issue on “European R&D on Fourth-Generation Mobile and Wireless IP Networks,” *IEEE Personal Communications*, vol. 8, no. 6, December 2001.
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