Maria Papadopouli



MARIA PAPADOPOULI

DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF CRETE

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POSITIONS

Professor Department of Computer Science, University of Crete (since September 2017)
Research Associate Institute of Computer Science, FORTH, Greece (since September 2004)
Visiting Professor CSAIL MIT, Fulbright Scholar (Spring 2017, during sabbatical from University of Crete)

PAST EMPLOYMENT

Associate Professor, Department of Computer Science, University of Crete (February 2012-August 2017) Assistant Professor (with tenure), Department of Computer Science, University of Crete (September 2004 – February 2012)

Visiting Full Professor, KTH Royal Institute of Technology, School of Electrical Engineering, Stockholm, Sweden (May 2011 – September 2013)

Adjunct Professor, Department of Computer Science, University of North Carolina, Chapel Hill (July 2006-2009) Assistant Professor (tenure-track), Department of Computer Science, University of North Carolina at Chapel Hill (July 2002 – July 2004, on leave from August 2004 – June 2006)

Visiting Professor, Department of Computer Science, University of Crete (September 2004 - August 2005) **Visiting Researcher,** IBM T. J. Watson Research, IBM, USA, (summer intern 1995, 1999, 2000)

EDUCATION

Ph.D., Computer Science, Columbia University, New York, NY, October 2002

Ph.D. Dissertation "Resource sharing in mobile wireless networks" Advisor: Henning Schulzrinne

M.Phil., Computer Science, Columbia University, New York, NY, May 2002

M.Sc., Computer Science, New York University, New York, NY, May 1994

B.S., Computer Science, University of Crete, Greece, June 1992

AWARDS & DISTINCTIONS

- 1. Comcast Innovation Fund, August 2016
- 2. Fulbright Award 2016 for her visiting professorship at CSAIL MIT in the Spring 2017
- 3. Google Faculty Award for Research Excellence in Academia 2013; Only recipient from a
- University/Research Center in Greece since 2005, 12% of these faculty awards to faculty in European Universities/Research Centers. Acceptance rate < 15% (as of 2013)
- 4. Research Excellence, Investigator-driven Grant (similar to NSF Career Award) 2012–2015
- 5. Best Paper Award 8th Int. Conf. Quality of Multimedia Experience (QoMEX), 2016
- 6. **Honorable mention for papers** in IEEE LANMAN 2010, IEEE LANMAN 2005, ACM Int. Conf. on Modeling, Analysis & Simulations of Wireless & Mobile Systems 2010
- 7. Google and Microsoft grants for academic course development
- 8. UNC Junior Faculty Development Award 2006
- 9. IBM Faculty Award 2004 & IBM Faculty Award 2003
- 10. Best student paper/poster, Advances in Wired & Wireless Comm., IEEE Sarnoff Symposium 2001
- 11. Rank 1st, graduation Department of Computer Science, University of Crete 1992
- 12. Scholarships based on academic achievement, National Scholarship Foundation, Greece (1988–1991)
- 13. Rank 2nd nationwide, National Entrance Exams, Department of Computer Science, University of Crete 1988
- 14. **Prizes** in Examinations in Mathematics, Greek Mathematical Society 1985 –1987
- 15. Rank 1st nationwide, Examination in Mathematics, Greek Mathematical Society 1985

RESEARCH INTERESTS

Networking, analysis and modeling; Quality of Experience; Performance analysis; Mobile computing; Crowdsourcing/sensing systems; IoT; Sensor networks; Network economics and telecommunication markets; Neurosciencedriven network analysis & modeling; Data analytics; Localization;

EARLIER CAREER PATH

During January-March 2002, Maria Papadopouli gave interviews in ten major US academic institutions, receiving several offers to join as a tenure-track assistant professor, such as, an offer from the University of North Carolina at Chapel Hill and from the University of Wisconsin at Madison. She joined University of North Carolina at Chapel Hill which is in the top 20 universities (according to the US News ranking) and has an internationally leading group in network measurements.

PUBLICATIONS

BOOK

1. Maria Papadopouli and Henning Schulzrinne. **Peer-to-peer Computing for Mobile Networks: Information Discovery and Dissemination**. Springer Eds., ISBN: 978-0-387-24427-3, 2009

ARTICLES IN PEER REVIEW JOURNALS

1. Georgios Fortetsanakis, Maria Papadopouli. **Multi-layer Game-Theoretical Analysis of Wireless Markets** via Market Segmentation. ACM/IEEE Transactions on Networking (A* rank). (*Under review*)

2. Georgios Fortetsanakis, Ioannis Dimitriou, Maria Papadopouli. A Game-Theoretical Analysis of Wireless Markets using Network Aggregation. IEEE Transactions on Mobile Computing, May 2016 (A* rank).

3. Paulos Charonyktakis, Maria Plakia, Ioannis Tsamardinos, Maria Papadopouli. **On user-centric modular QoE prediction for VoIP based on machine-learning algorithms**. IEEE Transactions on Mobile Computing, July 2015 (**A* rank**).

4. Georgios Fortetsanakis, Maria Papadopouli. On Multi-layer Modeling and Analysis of Wireless Access Markets. *IEEE Transactions on Mobile Computing* (A* rank), January 2015.

5. Michalis Katsarakis, Paulos Charonyktakis, Georgios Fortetsanakis, Alexandros Kostopoulos, and Maria Papadopouli. "On user-centric tools for QoE-based recommendation and real-time analysis of large-scale markets". *IEEE Communications Magazine*, September, 2014.

6. I. Glaropoulos, A. Vizcaino Luna, V. Fodor and **M. Papadopouli. Closing the gap between traffic workload** and channel occupancy models for 802.11 networks. *Elsevier Ad Hoc Networks 2014*.

7. Dimitris Milioris, George Tzagkarakis, Artemis Papakonstantinou, **Maria Papadopouli**, Panagiotis Tsakalides. **Low-dimensional Signal-Strength Fingerprint-based Positioning in Wireless LANs.** Elsevier Ad Hoc Networks (special issue), November/December 2011.

8. T. Patkos, A. Bikakis, G. Antoniou, M. Papadopouli. Design & challenges of a semantics-based framework for context-aware services. *International Journal of Reasoning-based Intelligent Systems 2009*.

9. G. Tzagkarakis, **M. Papadopouli**, P. Tsakalides. **Trend Forecasting based on Singular Spectrum Analysis of Traffic Workload in a Large-Scale Wireless LAN.** *Elsevier Performance Evaluation*, February 2008.

10. Niko Kotilainen, Lito Kriara, Konstantinos Vandikas, Konstantinos Mastorakis and **Maria Papadopouli**. Location-Based Media Sharing in a MP2P Network. *MC*²R Mobile Computing and Communications Review, January 2008.

11. L. Golubchik, J.C.S. Lui, M. Papadopouli. A Survey of Approaches to Fault Tolerant Design of VOD Servers: Techniques, Analysis & Comparison, Special issue of *Parallel Computing* on Parallel Data Servers & Applications, Vol. 24, Num. 1, Jan 1998.

12. Maria Papadopouli, Leana Golubchik. Support of VBR Video Streams Under Disk Bandwidth Limitations. Special issue of *ACM SIGMETRICS'Performance Evaluation Review (PER)*, December 1997.

ARTICLES IN PEER REVIEW CONFERENCE PROCEEDINGS

1. E. Troullinou, G. Tsagkatakis, A. Palagina, M. Papadopouli, S. Smirnakis, P. Tsakalides, Dictionary Learning for Spontaneous Neural Activity Modeling 25th European Signal Processing Conf. (EUSIPCO), 2017,

2. Michalis Katsarakis, Renata Teixeira, Maria Papadopouli, and Vassilis Christophides. Towards a Causal Analysis of Video QoE from Network and Application QoS. ACM SIGCOMM Workshop on QoE-based Analysis and Management of Data Communication Networks, Co-located with ACM SIGCOMM'16

3. Maria Plakia, Michalis Katsarakis, Paulos Charonyktakis, Ioannis Markopoulos, and Maria Papadopouli. **On user-centric analysis and prediction of QoE for video streaming using empirical measurements.** 8th Int.' Conference on Quality of Multimedia Experience (QoMEX), 2016 *Best Paper Award*

4. Georgios Fortetsanakis, Maria Papadopouli. How Beneficial is the WiFi Offloading? A Detailed Game-Theoretical Analysis in Wireless Oligopolies. IEEE WoWMoM, 2016.

5. Nikolaos Rapousis, Maria Papadopouli. **Performance analysis of a user-centric crowd-sensing water quality assessment system**. CySWater workshop, part of the CPSWeek, 2016.

6. Alexandros Kostopoulos, Maria Papadopouli. Looking for New Allies in Mobile Internet Market. IEEE INFOCOM SDP, 5th Workshop on Smart Data Pricing, 2016.

7. Alexandros Kostopoulos, Ioanna Papafili, Georgios Fortetsanakis and Maria Papadopouli. **Pricing Wireless** Access Services: The Effect of Offloading and Users' Bounded Rationality. 12thWireless On-demand Network systems and Services Conference, 2016.

8. Paul Charonyktakis, Maria Plakia, Michalis Katsarakis, and Maria Papadopouli. **On user-centric QoE prediction for VoIP and video based on machine-learning.** NSF/FCC Workshop Tracking Quality of Experience, Princeton University, October 21-22, 2015.

9. Michalis Katsarakis, Vasileios Theodosiadis, Maria Papadopouli. **Evaluation of a User-centric QoE based Recommendation Tool for Wireless Access.** ACM SIGCOMM Workshop on Crowdsourcing and crowdsharing of Big (Internet) Data, 2015.

10. Nikoloas Rapousis, Michalis Katsarakis, Maria Papadopouli. "QoWater-A crowd-sourcing approach for assessing the water quality." 1st CySWater Workshop, CPS Week, 2015

11. K. Karagiannaki, S. Chonianakis, E. Patelarou, N. Panosopoulou, M. Papadopouli. mMamee: A mHealth Platform for Monitoring & Assessing Maternal Environmental Exposure. 28th IEEE Int' Symposium on Computer-Based Medical Systems, 2015

12. Charalampos Meidanis, Ioannis Stiakogiannakis, Maria Papadopouli. Pricing for Mobile Virtual Network Operators: the contribution of u-map", IEEE DySPAN, 2014 (poster)

13. Michalis Katsarakis, Vasileios Theodosiadis, Manos Dramitinos, Maria Papadopouli. "**u-map: a User-centric QoE-based Recommendation Tool for Wireless Access Markets**", *ACM S3 2013*

14. Georgios Fortetsanakis, Maria Papadopouli, Gunnar Karlsson, Manos Dramitinos, Emre A. Yavuz . To subscribe, or not to subscribe: Modeling and analysis of service paradigms in cellular markets. IEEE DySPAN 2012

15. Georgios Fortetsanakis, Michalis Katsarakis, Maria Plakia, Nick Syntychakis, and Maria Papadopouli. Supporting Wireless Access Markets with a User-centric QoE-based Geo-database, *ACM MobiArch 2012*.

16. George Fortetsanakis, Markos Katsoulakis, **Maria Papadopouli. A novel multi-layer framework for modeling the evolution of spectrum markets and cognitive-radio devices,** IEEE DySPAN, 2011

17. Tasos Alexandridis, Pavlos Charonyktakis, Antonis Makrogiannakis, Artemis Papakonstantinou, Maria Papadopouli. Forthroid on Android: A QR-code based Information Access System for Smart Phones, IEEE LANMAN 2011, 2011

18. Dimitris Milioris, Lito Kriara, Artemis Papakonstantinou, George Tzagkarakis, Panagiotis Tsakalides, **Maria Papadopouli. Empirical evaluation of signal-strength fingerprint positioning in wireless LANs**, 13th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems. 2010. **Honourable mention**

19. I. Tsompanidis, G. Fortetsanakis, T. Hirvonen, M. Papadopouli. A comparative analysis of the perceived quality of VoIP under various wireless network conditions. Int.'Conference on Wired/Wireless Internet Communications (WWIC), 2010.

20. Ilias Tsompanidis, Georgios Fortetsanakis, Toni Hirvonen, Maria Papadopouli. Analyzing the impact of various wireless network conditions on the perceived quality of VoIP. *IEEE* LANMAN 2010. *Honourable mention*.

21. Niko Kotilainen, Maria Papadopouli. You've Got Photos! The design and evaluation of a location-based media-sharing application. 4th Int.' Mobile Multimedia Communications Conference, 2008.

22. T. Patkos, A. Bikakis, M. Papadopouli, G. Antoniou, D. Plexousakis. **Distributed AI for Ambient Intelligence: Issues and Approaches**. *European Conference on Ambient Intelligence* 2007.

23. K. Vandikas, L. Kriara, T. Papakonstantinou, A. Katranidou, H. Baltzakis, **M. Papadopouli. Empiricalbased analysis of a cooperative location-sensing system.** 1st ACM Int. 'Conf. on Autonomic Computing & Communication Systems 2007.

24. George Tzagkarakis, Maria Papadopouli, Panagiotis Tsakalides. Singular Spectrum Analysis of Traffic Workload in a Large-Scale Wireless LAN. ACM/IEEE International Symposium on Modeling, Analysis & Simulation of Wireless & Mobile Systems, 2007.

25. T. Patkos, A. Bikakis, G. Antoniou, M. Papadopouli, D. Plexousakis. A Semantics-based Framework for Context-Aware Services: Lessons Learned and Challenges, 4th International Conference on Ubiquitous Intelligence and Computing, Hong Kong, July 2007. Acceptance percentage 29%.

26. Manolis Ploumidis, **Maria Papadopouli**, Thomas Karagiannis. **Multi-level application-based traffic characterization in a large-scale wireless network.** *IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM)* 2007.

27. M. Karaliopoulos, **M. Papadopouli**, E. Raftopoulos, H. Shen. **On scalable measurement-driven modeling of traffic demand in large WLANs**. *IEEE Workshop on Local & Metropolitan Area Networks*, Princeton 2007.

28. Theodore Patkos, Antonis Mpikakis, Grigoris Antoniou, Maria Papadopouli, Dimitris Plexousakis. A Semantic-based Framework for Context-Aware Pedestrian Guiding Services. *Int.' Works. Semantic Web Technology for Ubiquitous& Mobile Applications.* 2006.

29. Felix Hernandez-Campos, Merkourios Karaliopoulos, **Maria Papadopouli**, Haipeng Shen. **Spatio-Temporal Modeling of Traffic Workload in a Campus WLAN**. 2nd Annual International Wireless Internet Conference 2006. Acceptance percentage 27%.

30. Maria Papadopouli, Michael Moudatsos, Merkourios Karaliopoulos. **Modeling the Roaming in Large**scale Wireless Networks using Real Measurements. *First workshop on advanced EXPerimental activities ON WIRELESS networks and systems*, 2006.

31. Maria Papadopouli, Elias Raftopoulos, Haipeng Shen. Evaluation of short-term traffic forecasting algorithms in wireless networks. *Conf. on Next Generation Internet Design and Engineering*, 2006.

32. Priyank Porwal, Maria Papadopouli. **On-demand channel switching for multi-channel wireless MAC protocols**. *12th European Wireless Conference*, 2006.

33. Felix Hernandez-Campos, Maria Papadopouli. Assessing the Real Impact of 802.11 WLANs: A Large-Scale Comparison of Wired and Wireless Traffic. 14th IEEE Workshop on Local & Metropolitan Area Networks, 2005. (Ranked 1st best paper)

34. M. Papadopouli, H. Shen, M. Spanakis. **Modeling client arrivals at acc points in wireless campus-wide networks**. *14th IEEE Workshop on Local and Metropolitan Area Networks*, 2005. (**Ranked fourth best paper**)

35. Felix Hernandez-Campos and Maria Papadopouli. A comparative measurement study of the workload of wireless access points in campus networks. *16th Annual IEEE International Symposium on Personal Indoor and Mobile Radio Communications*, 2005.

36. Maria Papadopouli, Haipeng Shen, Elias Raftopoulos, Manolis Ploumidis, Felix Hernandez-Campos. Shortterm traffic forecasting in a campus-wide wireless network. *16th Annual IEEE International Symposium on Personal Indoor and Mobile Radio Communications*, 2005.

37. Maria Papadopouli, Haipeng Shen, Manolis Spanakis. **Characterizing the mobility and association patterns of wireless users in a campus**. *11th European Wireless Conf.* Nicosia, 2005.

38. Francisco Chinchilla, Mark Lindsey, Maria Papadopouli. Analysis of wireless information locality and association patterns in a campus. *IEEE INFOCOM* 2004

39. Haris Fretzagias, Maria Papadopouli. Cooperative location-sensing for wireless networks. IEEE *Pervasive Computing&Communications*, 2004. Acceptance percentage 15%.

40. M. Papadopouli, H. Schulzrinne. **Effects of power conservation, wireless coverage & cooperation on data dissemination among mobile devices**. *ACM SIGMOBILE Symp. MOBIHOC* 2001. Acceptance percentage 16%.

41. P. Castro, B. Greenstein, R. Muntz, P. Kermani, C. Bisdikian, M. Papadopouli. Locating application data across service discovery domain. *ACM MOBICOM* 2001 Acceptance percentage 10%.

42. Maria Papadopouli, Henning Schulzrinne. A Performance analysis of 7DS: a peer-to-peer data dissemination & prefetching tool for mobile users. Advances in Wired and Wireless Communications, IEEE Sarnoff Symposium Digest 2001. Best student paper/poster award.

43. Maria Papadopouli, Henning Schulzrinne. **Design & implementation of a P2P data dissemination & prefetching tool for mobile users**. *NY Metro Area Networking Work*. 2001.

44. Maria Papadopouli and Henning Schulzrinne. **Seven Degrees of Separation in Mobile Ad Hoc Networks**. *IEEE GLOBECOM*, 2000, San Francisco.

45. Maria Papadopouli and Henning Schulzrinne. **Network Connection Sharing in an Ad Hoc Wireless Network among Collaborative Hosts**. *NOSSDAV*, 1999

46. Maria Papadopouli, Henning Schulzrinne. "Resource Sharing in an Ad Hoc Wireless Network among Cooperative Hosts", *Dagstuhl Seminar on Mobile Multimedia Communication - Systems &Network*, 1999

47. Maria Papadopouli, Leana Golubchik. A Scalable Video on Demand server for a Dynamic Heterogeneous Environment. *Intl. Workshop on Multimedia Information Systems* 1998. Also, in Proceedings, Lecture Notes in Computer Science, Vol.1508, Springer, 1998.

Top three publications in terms of number of citations in *Harzing's Publish or Perish* with "Papadopouli Maria": 40 (349), 38 (135), 44 (104). H-index 22. Her papers have appeared in the proceedings of some of the most prestigious conferences (e.g., ACM MobiHoc, ACM MobiCom, IEEE Infocom, IEEE Percom, and IEEE Globecom) and journals (e.g., IEEE Trans. on Mobile Computing) in mobile computing & networks. Several of her papers have received honorable mention, best paper awards, or had a high ranking in the reviewing process.

RESEARCH FUNDING – NATIONAL, EUROPEAN & INTERNATIONAL PROJECTS

ROLE: COORDINATOR AND/OR PI

1. UNC Startup Research Funding, 2002-2005 (\$ 250,000)

UNC Junior Faculty Development Award Recipients, 2006

2. European Commission, Marie Curie International Reintegration Grant, 2005-2007 (€ 80, 000)

3. Hellenic Republic Ministry of Development, General Secretariat for Research and Technology, Program "Cooperation with S & T Institutions in non-European Countries - 2005", FORTH - UNC (€60,000)

4. Hellenic Republic Ministry of Development, General Secretariat for Research and Technology. "Advanced services in wireless wide area networks for visitors and tourist-related companies and agencies of Crete-Wireless Information Service" (CRETE-WISE), Co-PI (€ 573,507)

5. ENISA, Position Paper on Mobile Identity Management (€ 4,999)

6. Google, Google AndroidEDU programme, Equipment Award (Androids smart-phones

7. ELKE, University of Crete, Small-scale program. Travel grant (€1,300)

8. General Secretariat for Research and Technology (ESPA), Program "ARISTEIA" Excellence, Investigatordriven. Developing the foundations for modelling and Analysis of Spectrum Markets (CoRLAB) (€386.000, PI, equivalent to the NSF Faculty Career Award)

9. Forthnet, S.A., February 2015-September 2015 (€30.000, PI)

10. Neurocom S.A., May 2015-July 2015 (€14.000,PI)

11. **Fulbright Faculty Award, 2016** for supporting the visiting professorship at CSAIL, MIT during January 2017 until May 2017, sabbatical from University of Crete (PI)

12. Forthnet S.A., July 2016-May 2017 (€40.000, PI)

13. Comcast, Comcast Innovation Fund, January 15th, 2017-January 14th, 2018 (50,000USD, PI).

14. Greek Diaspora Fellowship Program, December 2016-December 2017 for hosting Associate Professor Stelios Smirnakis (Harvard Medical School) to perform joint teaching and research activities on neuroscience-driven analysis and modeling

15. Hellenic Foundation for Research & Innovation, for the support of postdoctoral researchers (call 2017). Dissecting Multi-Neuronal Modules of Computation in the Neocortex. (PIs George Tzagkatakis, Anna Palagina, Co-cordinators & organizers, Maria Papadopouli, Stelios Smirnakis)

ROLE: PARTICIPANT

16. SEV Hellenic Federation of Enterprises, Development of Network Business and Information Technology (\notin 787.200) 17. **EU-FP7** "Autonomous Control of Large-scale Water Treatment Plans based on Self-organized Wireless BioMEM Sensor and Actuator Networks" (**Hydrobionets**), 2012-2015 (\notin 2,350,000)

ACADEMIC FUNDING - MOBILITY PROGRAMS (ROLE: CO-PI/COORDINATOR)

Erasmus+ Collaboration of the Department of Computer Science with the Department of Neurology, Harvard Medical School, 2016-2017 (PI); Erasmus+ Collaboration of the Department of Computer Science with the Department of Neurology, Harvard Medical School, 2017-2018 (submitted proposal, PI); Erasmus+ Leader (Departmental Coordinator); Greek Diaspora Program (Host), 2016 (co-PI)

INVITED TALKS (RECENT SELECTED)

Has given more than 45 invited talks in universities and research labs world-wide, where she presented the outcome of her research activities. Her recent ones include the following:

Industry: Telenor (Norway), Technicolor, Qualcomm, Google (και Youtube) CA, IBM (NY), Intel, Skype, Spotify (Sweden), Ericsson (Sweden), Yahoo Rersearch (Spain), Forthnet (Greece), Neurocom (Greece), Telefonica (Spain), Netflix (CA), AT&T Research (NJ), Apption (NY), Bell-Labs (NJ), Huawei Technologies Co. (France).

Academia: MIT, Boston University, Northeastern University, Georgia Tech, Princeton University, Columbia University, NYU, INRIA, Swedish ICT SICS, ETH-Zurich, Uppsala University, KTH Royal Institute of Technology, Universidade Lusofona.

KEYNOTE TALKS IN CONFERENCES/WORKSHOPS

- 1. ACM SIGCOMM Internet-QoE Workshop 2016, Brazil
- 2. International Master in Service Engineering (IMSE) Graduation Ceremony, 2015
- 3. SQM and INSPIRE Conferences 2012, British Computing Society (had to decline the invitations due to constraints)
- 4. IEEE Broadband Wireless Access Workshop, Globecom 2011(had to decline the invitations due to constraints)

ACADEMIC EXPERIENCE, SERVICE & SUPERVISING RESEARCH

COURSES TAUGHT

Computer Science/Neuroscience Network Analysis, Department of Computer Science, University of Crete, Fall 2017-2018. Interdisciplinary course; Jointly offered with Associate Professor Stelios Smirnakis Department of Neurology, Harvard Medical School. Received the **Greek Diaspora Fellowship**;

Experimenting with mobile computing and peer-to-peer systems, Department of Computer Science, University of North Carolina at Chapel Hill, Spring 2003. Received a **grant from Microsoft** to design and develop this new course;

Computer Networks, *Undergraduate-level* course. Since Fall 2008 (once a year), significant re-structuring & reorganization of the material and its requirements (e.g., project, assignments, workshop);

Discrete Maths, Undergraduate-level course. Fall 2006, 2007;

Mobile computing & wireless Networks. Undergraduate-level course, since Fall 2004- (once every year);

Wireless Networks. Graduate-level course, since Spring 2004- (once every year).

SHORT-TERM COURSES TAUGHT AT OTHER INSTITUTIONS WORLD-WIDE

Computer Networks, International Hellenic University. 30-hour course. Graduate-level course. Spring 2011, Spring 2012, Fall 2012

Mobile computing & wireless networks. Summer school at FORTH-ICS with students from York University, Toronto, Canada. 3-week period. Undergraduate-level course. 2007 and 2013

Invited to give a research-oriented course on mobile computing and wireless networks in the **INFORTE Educational Program, organized by the top universities of Finland** (Helsinki University of Technology, Tampere University of Technology, Oulu University, Jyväskylä University, Turku University, Helsinki University and Helsinki Business School). Host Tapani Ristaniemi, Jyväskylä University.

Form and lead the Mobile Computing Research Activity of the Network and Telecommunications Lab at FORTH-ICS, September 2004-present; Form and lead the "Mobile Computing Research Group" at the University of North Carolina at Chapel Hill, September 2002-July 2005.

GRADUATE STUDENT & POSTDOCTORAL RESEARCHER SUPERVISION

24 M.Sc. students at the Department of Computer Science, University of Crete and University of North Carolina at Chapel Hill

5 Ph.D. students at the Department of Computer Science, University of Crete

14 postdoctoral researchers at the Department of Computer Science, University of Crete, Department of Computer Science, UNC, Institute of Computer Science, FORTH, and KTH School of Electrical Engineering (6 of them co-adviced).

SUPERVISION OF POSTDOCTORAL RESEARCHERS

- 1. Alexandros Kostopoulos, Institute of Computer Science, FORTH (now Research Engineer at Hellenic Telecommunications Organization)
- 2. Manolis Ploumidis, Institute of Computer Science, FORTH (now Software Engineer Researcher at Institute of Computer Science, FORTH)
- **3.** Manos Dramitinos, Institute of Computer Science, FORTH (now Software Engineer Researcher at Athens University of Economics and Business)
- 4. Ioannis Dimitriou, Institute of Computer Science, FORTH (now Assistant Professor, Department of Mathematics, University of Patras)
- 5. Ioannis Stiakogiannakis, Institute of Computer Science, FORTH (now Researcher with Huawei Technologies, Paris)
- 6. Thomas Karagiannis, Institute of Computer Science, FORTH, now Associate Researcher at Microsoft Cambridge, UK
- 7. Merkourios Karaliopoulos, Department of Computer Science, University of North Carolina at Chapel Hill Department of Computer Science, University of North Carolina at Chapel Hill (now in Department of Informatics, Athens University of Economics and Business)
- 8. Dr. Felix-Hernandez Campos, Department of Computer Science, University of North Carolina at Chapel Hill Department of Computer Science, University of North Carolina at Chapel Hill (now in Google)

Collaboration also with the following postdoctoral researchers:

9. Emre Altug Yavuz, KTH Royal Institute of Technology (supervisor Gunnar Karlsson)

- 10. Nancy Panagopoulou, Institute of Computer Science, FORTH (supervisor Panos Tsakalides)
- 11. George Tsagkatakis, Institute of Computer Science, FORTH (supervisor Panos Tsakalides)
- 12. Greg Tsagkatakis, Institute of Computer Science, FORTH (supervisor Panos Tsakalides)
- 13. Alex Fragkiadakis, Institute of Computer Science, FORTH (supervisor Apstolos Traganitis)
- 14. Anna Palagina, Harvard Medical School (supervisor Stelios Smirnakis)

SUPERVISION OF PH.D. THESIS

1. George Fortetsanakis, "A multi-layer game-theoretical framework for modeling wireless access markets", Ph.D. in Computer Science, University of Crete, June 1st, 2016 (Now at EY Greece).

2. Michalis Katsarakis, 2015 – (during December 2015-May 2016 intern at INRIA and during June 2016 –January 2017 military service).

3. Mohamed Mashatshat, 2016 – (co-advised with Prof. Traganitis and Dr. Tragos).

4. Elias Raftopoulos (Ph.D. October 2007-May 2009) Internship at **Microsoft Research**, Cambridge UK (September-December, 2008). Continued and completed his Ph.D. studies at ETH-Zurich (supervised by Prof. Plattner and Prof. Dimitropoulos).

5. Despoina Triantafyllidou, "Exploit link-state routing to improve TCP in mobile ad hoc networks", Ph.D. in Computer Science between LRI, University of Paris-Sud XI, Orsay and University of Crete (co-advising by K. Al Agha and V. Siri), 2009. Now Product Manager in Dimetis GmbH.

PH.D. COMMITTEE MEMBER

- 1. Sophia Nikitaki, 2014. Location Sensing via Sparse and Low Rank Signal Models.
- 2. Iason Polakis, 2014. Online Social Networks From A Malicious Perspective: Novel Attack Techniques and Defense Mechanisms.
- 3. Manolis Ploumidis, 2015. Improving network performance through multipath utilization for wireless mesh networks.
- 4. Valsamakis Ioannis (on-going).
- 5. Emmanouel Spanakis, 2009. Cross Layer Rate Adaptation in Wireless Ad Hoc Networks.
- 5. Kalliroi Flouri, 2009. Distributed Algorithms for Support Vector Machine Training in Wireless Sensor Networks.
- 6. Stephanos Papadakis, 2009. Wireless Network Device Position Location System.
- 7. Georgios Tzagkarakis, 2009. Bayesian Compressed Sensing using Alpha-Stable Distributions.
- 8. Dimitrios Antoniades, 2011. Understanding File and Information Sharing Services in Web. 2.0.
- 9. Charalambos Papadakis, 2011. Improving Routing in Unstructured Peer-to-Peer Systems.

EXTERNAL MEMBER OF PH.D. THESIS COMMITTEE

- 1. Nicholas Tsiftes, Ph.D., **University of Uppsala**, "Storage-Centric System Architectures for Networked, Resource-Constrained Devices", February 2016.
- 2. Rebecca Braynard, Ph.D., **Duke University**, "Wireless MAC Layer Flexibility for Extending Effective System Lifetime".
- 3. Fisayo Omojukan, Ph.D., University of North Carolina at Chapel Hill.
- 4. Athanasios Karapantelakis, M.Phil., Royal Institute of Technology, KTH, 2007
- 5. Niko Kotilainen, Ph.D., University of Jyväskylä, Finland 2007
- 6. Jon-Olov Vatn, Ph.D., Royal Institute of Technology, KTH, 2005, "IP telephony: mobility and security, 2005
- 7. René Serral, Ph.D., Universitat Politècnica de Catalunya, "Towards End-to-End SLA Assessment", January 2009.

GRADUATED M.SC. STUDENTS AT THE UNIVERSITY OF CRETE

1. Evripides Tzamousis, M.Sc. Thesis "On hybrid modular recommendation systems for video streaming" November 2017.

- 2. Xabier Landa, M.Sc. Thesis "Analysis of the impact of video impairments on user engagement for youtube video sessions", July 2017.
- 3. Goizane Garcia, M.Sc. Thesis "Graph-theoretical analysis of small-world patterns in the L2/3 of the visual cortex of mouse", July 2017.
- 4. Paulos Charonyctakis, M.Sc. Thesis "Prediction of the user-centric QoE of VoIP using data mining algorithms", November 9th, 2015.
- 5. Michalis Katsarakis, M.Sc. Thesis "u-map: Empowering Users and Telecom Providers by Employing the Crowd-Sourcing Paradigm" March 23rd, 2015.
- 6. Xaralampos Meidanis, M.Sc., Thesis, "On the Impact of User Demand and Willingness-to-pay on Price Setting of MVNO and MNO Assuming Unlimited Network Capacity", March 23rd 20015.
- 7. Maria Plakia, M.Sc., Thesis, "On User-Centric Analysis and Prediction of QoE for Video Streaming Using Empirical Measurements", April 8th, 2016.
- 8. Nikolaos Rapousis, M.Sc., Thesis, "QoWater A crowd-sourcing approach for assessing the water quality", November 23th, 2016.
- 9. Elias Raftopoulos, B.Sc. Thesis. "Analyzing forecasting algorithms of the traffic load in wireless campuswide infrastructures", University of Crete, February 15th, 2005. M.Sc. Thesis. "Measurement-driven modeling of traffic demand and short term forecasting in large WLANs", September 2007. Now at ETH-Zurich. **Ericsson Award of Excellence in Telecommunications** for his B.Sc. Thesis.
- 10. Antonia Papakonstantinou, M.Sc., Fall 2005. (Now with Nokia Siemens Networks)
- 11. Anastasia Katranidou, M.Sc. Thesis. "Location-sensing using the IEEE802.11 Infrastructure and the Peer-to-Peer paradigm for Mobile Computing Applications", February 2006.
- 12. Konstantinos Mastorakis, M.Sc. Thesis. "Extending CLS: a multimodal collaborative location-sensing system using the IEEE802.11 and Bluetooth", October 2007.
- 13. Manolis Ploumidis, M.Sc. Thesis. "Modeling, forecasting, and application-based characterization of traffic in campus-wide wireless networks", February 2008, University of Crete.
- 14. Lito Kriara, M.Sc. Thesis. "Experimenting with the fingerprinting method, using signal-based measurements for providing positioning information to location-based applications", University of Crete, June 23rd, 2009.
- 15. Elias Tsompanidis, M.Sc. Thesis. "A comparative analysis of the perceived quality of VoIP under various wireless network conditions", University of Crete, September 2010.
- 16. Antonis Makrogiannakis, M.Sc. Thesis "The Development of Applications for Smart-phones and their Performance Analysis using Empirical Measurements", September 22nd, 2011.
- 17. George Fortetsanakis, M.Sc. Thesis "A game-theoretical modeling framework and simulation platform for cellular-based access markets", November 10th, 2011.

GRADUATED M.SC. STUDENTS AT THE UNIVERSITY OF NORTH CAROLINA

- 18. Mark Lindsey, M.Sc. Thesis. "Analyzing and exploiting the spatial locality of information", University of North Carolina at Chapel Hill, May 15th, 2003. Now with Engineers' Consulting Group, Valdosta, Georgia.
- 19. Priyank Porwal, M.Sc., 2005. University of North Carolina at Chapel Hill. Now with Microsoft. Curriculum Vitae Maria Papadopouli
- 20. Francisco Chinchilla, M.Sc., 2006. University of North Carolina at Chapel Hill. Now with Intel.

M.SC. STUDENTS AT THE UNIVERSITY OF CRETE (ON GOING)

- 21. Vasileios Theodosiadis (expected to graduate in Fall 2018)
- 22. Aggelos Sineogiorgos (expected to graduate in Spring 2019)
- 23. Dimitris Theodorakopoulos (expected to graduate in Spring 2020)
- 24. Dimitrios Karagkounis (expected in Fall 2019)

ACADEMIC PROGRAM COORDINATOR

- 1. Erasmus Coordinator of the Department of Computer Science, University of Crete since 2007.
- 2. Leader, Erasmus Mundus Program, Coordinator of the Department of Computer Science, University of Crete, since 2015.

3. International Master in Service Engineering, MSE, Erasmus Mundus Program, Coordinator of the Department of Computer Science, University of Crete, since 12/5/2015.

PH.D. COMMITTEE MEMBER (UNIVERSITY OF CRETE)

- 1. Stephanos Papadakis, 2009. Wireless Network Device Position Location System
- 2. Emmanouel Spanakis, 2009. Cross Layer Rate Adaptation in Wireless Ad Hoc Networks
- 3. Kalliroi Flouri, 2009. Distributed Algorithms for Support Vector Machine Training in Wireless Sensor Networks
- 4. Georgios Tzagkarakis, 2009. Bayesian Compressed Sensing using Alpha-Stable Distributions
- 5. Dimitrios Antoniades, 2011. Understanding File and Information Sharing Services in Web. 2.0
- 6. Charalambos Papadakis, 201., Improving Routing in Unstructured Peer-to-Peer Systems
- 7. Sophia Nikitaki, 2014. Location Sensing via Sparse and Low Rank Signal Models
- 8. Iason Polakis, 2014. Online Social Networks From A Malicious Perspective: Novel Attack Techniques and Defense Mechanisms
- 9. Manolis Ploumidis, 2015. Improving network performance through multipath utilization for wireless mesh networks
- 10. Valsamakis Ioannis (on-going)

PROFESSIONAL ACTIVITIES COMMUNITY SERVICE (SELECTED) EDITOR

1. IEEE Transactions on Mobile Computing, Associate Editor

2. Springer, *Traffic Monitoring and Analysis, LNCS 5537, 1st* Cost Action *Data Traffic and Analysis (TMA)* workshop proceeding

3. Special Issue of the International Journal of Network Management, Wiley, Traffic Monitoring and Network Measurements: from Theory to Practice

PROGRAM CO-CHAIR IN 8 CONFERENCES/WORKSHOPS

- 1. 5th International N2Women (in conjunction with the ACM MobiCom'16)
- 2. 17th IEEE Workshop on Local and Metropolitan Area Networks'10 (general co-chair)
- 3. 1st Cost Action Data Traffic and Analysis (TMA) workshop, (TMA'09)
- **4.** 16th IEEE Workshop on Local and Metropolitan Area Networks (LANMAN'08)
- **5.** 3rd International Workshop on Wireless Network Measurement (WinMee/WiTMeMo'07) in conjunction with WiOPT
- 6. 2nd International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo'06) in conjunction with WiCON
- 7. 1st International Workshop on Wireless Traffic Measurements and Modeling (WiTMeMo'05) in conjunction with MobiSys'05
- 8. 1st, 2nd & 3rd International Workshop on Mobile Peer-to-Peer Computing (MP2P) in conjunction with IEEE Pervasive Computing and Communications Conference (PerCom)

STEERING COMMITTEE

IEEE Workshop on Local and Metropolitan Area Networks International Workshop on Mobile Peer-to-Peer Computing Traffic Monitoring and Analysis (TMA) Workshop

OTHER

Patron Chair: IEEE DySPAN 2012

Student Travel Grant Chair: IEEE DySPAN 2012, ACM MobiCom 2013

Selected Recent Program Committee IEEE PAM 2017, IEEE Infocom 2015; IEEE DySPAN 2012, IEEE DySPAN 2014

Tutorial Chair: Fifth ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc'04); IEEE International Conference on Pervasive Services (ICPS) '05

INDUSTRIAL CONSULTING

CapsicoHealth, Inc. a Silicon Valley-based company in healthcare management and data analytics.

EXPERT PANELS & COMMUNITY SERVICE (SELECTED)

- 1. NSF/FCC Workshop Tracking Quality of Experience in the Internet, October 2015 & February 2017
- 2. International Master Service (IMSE), Erasmus Mundus, Departmental Coordinator/Scientific advisor (June 2015)
- **3.** EU FP7 Support Action EIFFEL Think Tank on the future of the Internet towards the development of the future networked society
- 4. European Cooperation in the field of Scientific and Technical Research, Cost Action, *Data Traffic and Analysis (TMA)*, Management Committee Member, (one of the two Greek representatives in this cost action, in the list of experts), Working Package co-leader
- 5. ENISA Mobile Identity Management Group, 2008
- 6. NSF sponsored mobility models workshop 2007
- 7. ERCIM working group on emobility 2006
- 8. IBM NC Women in Technology Conference 2004
- 9. Research Triangle Regional Partnership, North Carolina, Pervasive Computing, 2003
- **10. Scientific & Technical Advisor:** Developed the curriculum for the undergraduate level courses at the Department of Applied Information Technology & Multimedia in the Technological Educational Institute in Crete, Greece for the systems courses (1999-2000)

DISSEMINATION (SELECTED)

Collected extensive real-life traces from large-scale wireless infrastructures. A significant part of these data, models for wireless traffic demand and statistical analysis scripts are available to the research community via the joint UNC/FORTH repository of traces and models for wireless networks.

PUBLIC MEDIA (SELECTED)

- 1. TEDx talk at Heraklion, February 2015
- 2. Press release for the industrial collaboration with Forthnet May 2015
- 3. Mobile World Congress, Demo, Radio Interview in Barcelona 2014
- 4. National-wide newspaper "Η Εφημερίδα των Συντακτών"
- 5. KTH university magazine (June 2012)
- 6. Local Newspapers: Νέα Κρήτη (8/3/08), Χανιώτικα Νέα (21/9/05);

7. National Broadcast Channel ET-1 Interview to G. Grammatikakis for the series " $T\alpha \mu ovo\pi \dot{\alpha} \tau \eta \varsigma E \pi i \sigma \tau \dot{\eta} \mu \eta \varsigma$ " ("The paths of Science), December 3rd, 2008