

Curriculum Vitae

Dr Paris Flegkas

Personal Details

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| Name | Paris Flegkas |
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| Web | http://www.inf.uth.gr/~pflegkas/ |
| Nationality | Hellenic |
| Foreign Languages | English (proficiency level), French |

Education

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| Oct. 1999 - Jul. 2005 | PhD in Computer Networking, sponsored by the Centre for Communications Systems Research (CCSR), Electrical & Electronic Engineering Department, University of Surrey, UK. Thesis title: «Policy-based Quality of Service Management in IP Networks». |
| Sep. 1998 - Sep. 1999 | MSc with distinction in Telematics (Communications & Software), Electrical & Electronic Engineering Department, University of Surrey, UK. |
| Sep. 1992 - Feb. 1998 | Diploma (equivalent to MEng) in Electrical & Computer Engineering, Aristotle University of Thessaloniki, Greece, Grade:7.2/10. |
| Sep. 1988 - Jun. 1991 | High-school diploma, 3rd High School of Volos, Greece, Grade:18.2/20. |

Awards and Scholarships

- Distinguished Scientist award by the Geek Military Service.
- Scholarship awarded by CCSR, University of Surrey, UK for carrying out the PhD studies in Computer Networking (1999-2002).
- Scholarship by the Engineering and Physics Research Council (EPSRC) and the Department of Trade and Industry (DTI), UK for carrying out the MSc in Telematics studies.
- Awarded the MSc *with distinction* in Telematics (Communications & Software) by the Electronic Engineering Department, University of Surrey, UK (Sept. 1999).

Work Experience

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| Jul 06- Today | Postdoctoral Researcher in the Department of Computer and Communications Engineering, University of Thessaly, Volos, Greece. Responsible for the European Projects 5G-VICTORI, 5G-PICTUE, 5G-XHAUL, EU FP7 Codelance, EU FP7 PURSUIT, EU Onelab2. |
| Oct 06 – Today | Adjunct Lecturer/MSc Studies Instructor, in the Department of Computer and Communications Engineering, University of Thessaly, Volos, Greece. |
| Oct. 03 - Jun. 05 | Senior Research Fellow in the Networks Group of the Centre for Communications Systems Research (CCSR), Electrical & Electronic Engineering Department, University of Surrey, UK. Responsible and guiding the group participation in the Research Projects EU IST MESCAL, UK EPSRC PAQMAN, and industrial collaborative projects. I was also responsible for the Networks and Service Managements labs and supervised MSc projects and PhD students. |

- Apr. 01 - Sep. 03 Research Fellow in the Networks Group of the Centre for Communications Systems Research (CCSR), Electrical & Electronic Engineering Department, University of Surrey, UK. Working in the EU IST TEQUILA, and the UK EPSRC/DTI PRONET projects. I also supervised MSc student projects.
- Oct. 01 - Jul. 05 Web Administrator of the Networks Group, in the Centre for Communication Systems Research, University of Surrey, UK.
- Oct. 01 - Jul. 05 Computer Systems Administrator of the Networks Group, in the Centre for Communication Systems Research, University of Surrey, UK.
- Jul. 97 - Aug. 97 Network Support Engineer in the METKA industry in Volos, Greece.

Teaching Experience

From the year 2000 and onwards, I was supervising MSc projects every year in the Dept. of Electrical Engineering in the University of Surrey. From 2002 to 2005, I was responsible for the lab course of the module Network and Services Management and Control. Please note that in most UK Universities, lecturing cannot be done by PhD Candidates but only by permanent academic staff. Since 2003, I have been supervising PhD students in areas related to Policy-based Management of Wireless Ad hoc Networks and Conflict Detection and Resolution for QoS Management in IP Networks.

In 2006, after joining the University of Thessaly, I was also responsible for Computer Networks I lab course, teaching Network Programming and network simulations using NS-2. Since September 2008, I am an adjunct Lecturer responsible for the modules of Advanced Telecommunications Systems and Internet Protocols Design where material from Network and Service Management and representative protocols from layers are taught. Finally, I am also an MSc collaborating instructor, teaching two courses in the MSC programme of University of Thessaly and have been supervising PhD Students, in areas related to 5G Wireless Networks Management and future Internet Architectures.

Research Areas

- 5G Networks
- Software Defined Networks
- Network Function Virtualisation
- Future Network Architectures
- Content-aware Networks/Publish/Subscribe Networks
- Policy Analysis (Conflict Detection and Refinement)
- Network Management Architectures and Technologies
- Policy-based Network and Service Management
- Network Monitoring and Control, SLA Monitoring, Monitoring Techniques
- Network Management Technologies based on Web Services/XML, Distributed Object Technologies and Mobile Agents.
- Policy-based Resource Management
- Traffic Engineering for Quality of Service
- Mobile Ad-hoc Networks

Other Scientific Activities

Member of International Institutes and Organisations: Communications Society of the Institute of Electrical and Electronics Engineers, Special Interest Group in Communications (SIGCOMM) Association for Computing Machinery ACM.

Reviewer in the following International Journals and Conferences: IEEE Network, IEEE Communications, IEEE Journal of Selected Areas in Communications (JSAC), IEEE Communications Letters, Computer Communications Journal (Elsevier), Computer Networks Journal (Elsevier), Journal of Network and Systems Management (JNSM), IEE Electronic Letters, QoFIS 2001-2003, IM 2001 και 2003, NOMS 2000-2002, IPOM 2002, DSOM 2001-2002, MMNS 2004, Policy 2002-05.

Thesis/Projects

- PhD Thesis: «Policy-based Quality of Service Management in IP Networks», Electrical & Electronic Engineering Department, University of Surrey, UK July 2005 (Supervisor: Prof. George Pavlou)
- MSc Project: «Quality of Service Monitoring using Mobile Agents in IP Networks», Electrical & Electronic Engineering Department, University of Surrey, UK July 2005 (Supervisor: Prof. George Pavlou)
- Undergraduate Final Year Project: «Statistical Modeling the behavior of the ionospheric frequencies», Electrical and Computer Engineering 1997 (Prof. Thomas Xenos)

Publications

International Journals

- 1.A. Tzanakaki, M. Anastasopoulos, I. Berberana, D. Syrivelis ; P. Flegkas, T. Korakis, et al., “Wireless-Optical Network Convergence: Enabling the 5G Architecture to Support Operational and End-User Services”, IEEE Communications Magazine, Volume: 55, Issue: 10, Oct. 2017.
- 2.Gutiérrez, Jesús, Nebojsa Maletic, Daniel Camps-Mur, Eduard García, Ignacio Berberana, Markos Anastasopoulos, Anna Tzanakaki, Paris Flegkas et al., “5G-XHaul: a converged optical and wireless solution for 5G transport networks”, Transactions on Emerging Telecommunications Technologies, January, 2016.
- 3.V. Sourlas, P. Flegkas and L. Tassiulas, "A Novel Cache Aware Routing Scheme for Information-Centric Networks", in Computer Networks – Elsevier, Volume 59, pp. 44-61, February 2014.
- 4.V. Sourlas, L. Gkatzikis, P. Flegkas, L. Tassiulas, "Distributed Cache Management in Information-Centric Networks", IEEE Transactions on Network and Service Management (TNSM), 2013.
- 5.M. Diallo, V. Sourlas, P. Flegkas, S. Fdida, L. Tassiulas, "A content-based publish/subscribe framework for large-scale content delivery", Elsevier Computer Networks, Vol. 57, No. 4, pp. 924-943, March 2013.
- 6.V. Sourlas, P. Flegkas, G. S. Paschos, D. Katsaros, and L. Tassiulas, "Storage Planning and Replica Assignment in Content-Centric Publish/Subscribe Networks", to appear in the S.I. on Internet-based Content Delivery, Computer Networks Elsevier 2011.

- 7.M. Charalambides, P. Flegkas, G. Pavlou, J. Rubio-Loyola, A. Bandara, E. Lupu, M. Sloman, *Policy Conflict Analysis for DiffServ Quality of Service Management*, under revision in IEEE Transactions on Network and Service Management (TNSM), 2008.
- 8.J. Rubio-Loyola, J. Serrat, M. Charalambides, P. Flegkas, G. Pavlou, *A Methodological Approach Towards the Refinement Problem in Policy-based Management Systems*, δημοσιεύθηκε στο επιστημονικό περιοδικό IEEE Communications, series on Network and Service Management, Vol. 44, No. 10, pp. 60-68, IEEE, October 2006.
- 9.A. Bandara, E. Lupu, A. Russo, N. Dulay, M. Sloman, P. Flegkas, M. Charalambides, G. Pavlou, *Policy Refinement for DiffServ Quality of Service Management*, δημοσιεύθηκε στο επιστημονικό περιοδικό IEEE Transactions on Network and Service Management (TNSM), Vol. 3, No. 2, pp. 2-13, IEEE, Second quarter 2006.
- 10.M. Howarth, M. Boucadair, P. Flegkas, N. Wang, G. Pavlou, P. Morand, T. Coadic, D. Griffin, H. Asgari, P. Georgatsos, *End-to-end quality of service provisioning through Inter-provider traffic engineering*, δημοσιεύθηκε στο Computer Communications, Vol. 29, No. 6, pp. 683-702, Elsevier, March 2006.
- 11.M. Howarth, P. Flegkas, G. Pavlou, N. Wang, P. Trimintzios, D. Griffin, J. Griem, M. Boucadair, P. Morand, H. Asgari, P. Georgatsos, *Provisioning for Inter-domain Quality of Service: the MESCAL Approach*, δημοσιεύθηκε στο IEEE Communications, IEEE Communications Magazine, Vol. 43, No. 6, pp. 129-137, June 2005.
- 12.G. Pavlou, P. Flegkas, S. Gouveris, A. Liotta, *On Management Technologies and the Potential of Web Services*, δημοσιεύθηκε στο IEEE Communications Magazine, ειδικό τεύχος για XML-based Management of Networks and Services, τόμ. 42, αρ. 7, σελ. 58-66, εκδόσεις IEEE, Ιούλιος 2004.
- 13.P. Trimintzios, G. Pavlou, P. Flegkas, P. Georgatsos, A. Asgari, E. Mykoniati, *Service-driven Traffic Engineering for Intra-domain Quality of Service Management*, δημοσιεύθηκε στο *IEEE Network*, ειδικό τεύχος για Network Management of Multi-service Multimedia IP-based Networks, τόμ.17, αρ. 3, σελ. 29-36, εκδόσεις IEEE Press, Μάιος 2003.
- 14.P. Trimintzios, T. Bauge, G. Pavlou, P. Flegkas, R. Egan, *Quality of Service Provisioning through Traffic Engineering with Application to IP-based Production Networks*, δημοσιεύθηκε στο Journal of Computer Communications, ειδικό τεύχος για Performance Evaluation of IP Networks and Services, τόμ. 17, αρ. 8, σελ. 845-860, εκδόσεις Elsevier Science Publishers, Μάιος 2003.
- 15.P. Flegkas, P. Trimintzios, G. Pavlou, *A Policy-based Quality of Service Management System for IP Differentiated Services Networks*, δημοσιεύθηκε στο *IEEE Network*, ειδικό τεύχος για Policy-Based Networking, τόμ. 16, αρ. 2, σελ. 50-56, εκδόσεις IEEE Press, Μάρτιος/Απρίλιος 2002.
- 16.P. Trimintzios, I. Andrikopoulos, G. Pavlou, P. Flegkas, D. Griffin, P. Georgatsos, D. Goderis, Y. T'Joens, L. Georgiadis, C. Jacquenet, R. Egan, *Management and Control Architecture for Providing IP Differentiated Services in MPLS-based Networks*, δημοσιεύθηκε στο IEEE Communications Magazine, ειδικό τεύχος για IP-Oriented Operations and Management, τόμ. 39, αρ. 5, σελ. 80-88, εκδόσεις IEEE Press, τεύχος Μαΐου 2001.

Book Chapter

- Internet Traffic Engineering, in the book "Quality of Future Internet Services", Jon Crowcroft, Michael Smirnov, Springer-Verlang, 2003.

Peer-reviewed Conferences

- C1. Daniel Camps-Mur, Paris Flegkas, Dimitris Syrivelis, Qing Wei, Jesus Gutierrez, "5G-XHaul: Enabling scalable virtualization for future 5G Transport Networks", IUCC 2016, En2ESO Workshop, Granada, Spain, December 2016.
- C2. A. Tzanakaki, M. Anastasopoulos, D. Simeonidou, I. Berberana, D. Syrivelis, T. Korakis, P. Flegkas, D. Camps Mur, I. Demirkol, J. Gutiérrez, E. Grass, Q. Wei, E. Pateromichelakis, A. Fehske, M. Grieger, M. Eiselt, J. Bartelt, G. Lyberopoulos, E. Theodoropoulou, 5G Infrastructures Supporting End-User and Operational Services: The 5G-XHaul Architectural Perspective IEEE International Conference on Communications Workshops (ICC) 23 (pp. 57-62), May 2016.
- C3. Vasilis Sourlas, Panos Georgatsos, Paris Flegkas and Leandros Tassiulas, "Partition-based Caching in Information-Centric Networks" in 7th IEEE International Workshop on Network Science for Communication Networks (NetSciCom) (in conjunction with IEEE INFOCOM), Hong kong, April 2015.
- C4. Vasilis Sourlas, Paris Flegkas, Panos Georgatsos and Leandros Tassiulas, "Cache-Aware Traffic Engineering in Information-Centric Networks," in IEEE 19th International Workshop on Computer Aided Modeling and Design of Communication Links and Networks (CAMAD), Athens, Greece, December 2014.
- C5. Konstantinos Poularakis, Vasilis Sourlas, Paris Flegkas and Leandros Tassiulas, "On Exploiting Network Coding in Cache-Capable Small-Cell Networks," in Smart Video-multicast for Next-generation Multi-hop Networks (SmartVision) workshop of 19th IEEE Symposium on Computers and Communications (IEEE ISCC 2014), Madeira, Portugal, June 2014.
- C6. Vasilis Sourlas, Paris Flegkas and Leandros Tassiulas, "[Cache-Aware Routing in Information-Centric Networks](#)," IFIP/IEEE International Symposium on Integrated Network Management (IM 2013), pp. 582-588, Ghent, Belgium, May 2013.
- C7. Paris Flegkas, Vasilis Sourlas, George Parisis, Dirk Trossen, "Storage Replication in Information-Centric Networking", Proceedings of the 2013 IEEE International Conference on Computing, Networking and Communications (ICNC), pp. 850-855, San Diego, USA, January 2013
- C8. Dimitris Syrivelis, George Parisis, Dirk Trossen, Paris Flegkas, Vasilis Sourlas, Thanasis Korakis, Leandros Tassiulas, "Pursuing a Software Defined Information-centric Network", Proceedings of the 2012 European Workshop on Software Defined Networking (EWSDN), IEEE, pp. 103-108, Darmstadt, Germany, October 2012.
- C9. George Parisis, Ben Tagger, Dirk Trossen, Dimitris Syrivelis, Paris Flegkas, Leandros Tassiulas, Charilaos Stais, Christos Tsilopoulos, George Xylomenos, "Demonstrating an Information-Centric Network in an International Testbed", Proceedings of the International ICST Conference, TridentCom 2012, Springer, pp. 400-402, Thessaloniki, Greece, June 2012.
- C10. Vasilis Sourlas, Paris Flegkas, Lazaros Gkatzikis, Leandros Tassiulas, "Autonomic Cache Management in Information-Centric Networks", Proceedings of the IEEE/IFIP Network Operations and Management Symposium (NOMS 2012), pp. 121-129, Hawaii, April 2012.
- C11. Dirk Trossen, Xenofon Vasilakos, Paris Flegkas, Vasilis Sourlas, George Parisis, "Mobility Work Re-Visited Not Considered Harmful", Proceedings of the IEEE Workshop on Mobile Computing and Networking Technologies (WMCNT 2011), Budapest, Hungary, October 2011.

- C12. M. Diallo, S. Fdida, V. Sourlas, P. Flegkas, L. Tassioulas, *Leveraging caching for Internet-scale content-based publish/subscribe networks*, Proceedings of the IEEE International Conference on Communications ICC2011, 5-9 June, Kyoto, Japan 2011.
- C13. V. Sourlas, G. S. Paschos, P. Mannersalo, P. Flegkas and L. Tassioulas, *Modeling the dynamics of caching in content-based publish/subscribe systems*, Proceedings of the 26th ACM Symposium On Applied Computing (SAC), Taiwan, March, 2011.
- C14. V. Sourlas, P. Flegkas, G. S. Paschos, D. Katsaros, L. Tassioulas, *Storing and Replication in Topic-Based Publish/Subscribe Networks*, Proceedings of the IEEE Globecom 2010 Next-Generation Networking and Internet Symposium, Miami, USA, December 2010.
- C15. V. Sourlas, G. S. Paschos, P. Flegkas, L. Tassioulas, *Mobility Support through Caching in Content-based Publish/Subscribe Networks*, Proceedings of the 5th International Workshop on Content Delivery Networks (CDN 2010) in conjunction with 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing (CCGrid 2010), Melbourne, Australia, May 2010.
- C16. V. Sourlas, G. Paschos, P. Flegkas, L. Tassioulas, *Caching in Content-based Publish/Subscribe Systems*, δημοσιεύθηκε στα πρακτικά του συνεδρίου IEEE GLOBECOM, Hawaii, December 2009.
- C17. V. Sourlas, P. Flegkas, G. Paschos, L. Tassioulas, *Distribute, Store and Retrieve Management Policies on Wireless Ad-Hoc Networks using the Content Delivery Publish/Subscribe Paradigm*, δημοσιεύθηκε στα πρακτικά του συνεδρίου IEEE/IFIP ACNM pp. 14-20, New York, Ιούνιος 2009.
- C18. V. Sourlas, P. Flegkas, L. Tassioulas, *Policy Distribution using the Publish/Subscribe Paradigm for Managing MANETs*, δημοσιεύθηκε στα πρακτικά του συνεδρίου IEEE/IFIP Management of Multimedia and Mobile Networks and Services (MMNS'2008), pp. 14-20, Σάμος, Ελλάδα, Σεπτέμβριος 2008.
- C19. J. Rubio-Loyola, J. Serrat, M. Charalambides, P. Flegkas, G. Pavlou, *A Functional Solution for Goal-oriented Policy Refinement*, δημοσιεύθηκε στα πρακτικά του συνεδρίου IEEE Workshop on Policies for Distributed Systems and Networks (Policy'2006), Οντάριο, Καναδάς, pp. 133-144, Ιούνιος 2006.
- C20. M. Charalambides, P. Flegkas, G. Pavlou, J. Rubio-Loyola, A. Bandara, E. Lupu, A. Russo, N. Dulay, M. Sloman, *Dynamic Policy Analysis and Conflict Resolution for DiffServ Quality of Service Management*, δημοσιεύθηκε στα πρακτικά του συνεδρίου NOMS2006 IEEE/IFIP Network Operations & Management Symposium, Βανκούβερ, Καναδάς, pp. 294-304, Απρίλιος 2006.
- C21. Javier Rubio-Loyola, Joan Serrat, M. Charalambides, P. Flegkas και G. Pavlou, *GOREMOCH: A Distributed Goal-oriented Policy Refinement Environment*, δημοσιεύθηκε στα πρακτικά του συνεδρίου NOMS2006 IEEE/IFIP Network Operations & Management Symposium, Βανκούβερ, Καναδάς, Απρίλιος 2006.
- C22. M. Charalambides, P. Flegkas, G. Pavlou, A. Bandara, E. Lupu, A. Russo, N. Dulay, M. Sloman, *Policy Conflict Analysis for Quality of Service Management*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου Policy for Distributed Systems and Networks (Policy 2005), Στοκχόλμη, Σουηδία, pp. 99-108, εκδόσεις IEEE, Ιούνιος 2005.
- C23. J.R. Loyola, J. Serrat, M. Charalambides, P. Flegkas, G. Pavlou, A. Lafuente, *Using Linear Temporal Model Checking for Goal-Oriented Policy Refinement Frameworks*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου Policy for Distributed Systems and Networks (Policy 2005), Στοκχόλμη, Σουηδία, pp. 181-190, εκδόσεις IEEE, Ιούνιος 2005.

- C24. A. Bandara, E. Lupu, A. Russo, N. Dulay, M. Sloman, P. Flegkas, M. Charalambides, G. Pavlou, *Policy Refinement for DiffServ Quality of Service Management*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου IM'2005, IEEE/IFIP Integrated Management Symposium, Νίκαια, Γαλλία, pp. 469-482, εκδόσεις IEEE, Μάιος 2005.
- C25. M. Howarth, P. Flegkas, G. Pavlou, P. Trimintzios, H. Asgari, D. Griffin, J. Griem, M. Boucadair, P. Georgatsos, *An Architectural Framework for Inter-domain Quality of Service Provisioning*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου IM'2005, IEEE/IFIP Integrated Management Symposium, Νίκαια, Γαλλία, εκδόσεις IEEE, Μάιος 2005.
- C26. P. Flegkas, P. Trimintzios, G. Pavlou, A. Liotta, *Design and Implementation of a Policy-based Resource Management Architecture*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου IM'2003, IEEE/IFIP Integrated Management Symposium, Κολοράντο, ΗΠΑ, σελ. 215-229, εκδόσεις Kluwer, Μάρτιος 2003.
- C27. P. Trimintzios, P. Flegkas, G. Pavlou, L. Georgiadis, D. Griffin, *Policy-based Network Dimensioning for IP Differentiated Services*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου IPOM2002, IEEE Workshop on IP Operations Management, Ντάλας, Τέξας, ΗΠΑ, σελ. 171-176, εκδόσεις IEEE Press, Οκτώβριος 2002.
- C28. P. Trimintzios, T. Bauge, G. Pavlou, L. Georgiadis, P. Flegkas, R. Egan, *Quality of Service Provisioning for Supporting Guaranteed Services in IP Networks*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου GLOBECOM2002, IEEE Global Telecommunications Conference 2002, Taipei, Taiwan, Vol. 3, pp. 2473-2477, 2002.
- C29. P. Trimintzios, P. Flegkas, G. Pavlou, *Policy-driven Traffic Engineering for Intra-domain Quality of Service Provisioning*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου QoSIS02, International Workshop on Quality of future Internet Services, Ζυρίχη, Ελβετία, pp. 179-193, Springer Οκτώβριος 2002.
- C30. P. Flegkas, P. Trimintzios, G. Pavlou, I. Andrikopoulos, F. Cavalcanti, *On Policy-based Extensible Hierarchical Network Management in QoS-enabled IP Networks*, δημοσιεύθηκε στα πρακτικά του διεθνούς συνεδρίου POLICY'01, IEEE Workshop on Policies for Distributed Systems and Networks, Μπρίστολ, Ηνωμένο Βασίλειο, σελ. 230-246, Ιανουάριος 2001.
- C31. P. Flegkas, P. Trimintzios, I. Andrikopoulos, G. Pavlou, *Considerations on Policy-based Network Management*, Proceedings of the London Communications Symposium (LCS), London, UK, September 2000.