PANAGIOTIS TRAKAS

EDUCATION

Sep 2013 - May 2019	**International PhD in Signal Theory and Communications** *Polytechnic University of Catalonia (UPC), Barcelona, Spain* • Thesis: "Traffic offloading in Future Heterogeneous Mobile Networks" • Graduation with honours: *Cum Laude* |Advisors: Prof. Ferran Adelantado Freixer, Prof. Christos Verikoukis, Prof. Jordi Pérez-Romero Other Committee Members: Prof. Luis G. Alonso Zarate, Prof. Juan L. Navarro Mesa, Prof. Thrasyvoulos Spyropoulos
Sep 2006 - Nov 2012	**Diploma in Electrical and Computer engineering**, (BSc and MSc Equivalent) Telecommunications Major *Aristotle University of Thessaloniki, Greece* • Diploma Thesis: "Physical layer simulation of base station-mobile terminal 4G communication according to LTE-A wireless standard" |Advisor: Prof. George K. Karagiannidis, Grade: 10/10

WORK EXPERIENCE

Jul 2021 - Present Jan 2019 - Jul 2021	**Senior Associate** **Associate** *Axon Partners Group Consulting, Madrid, Spain* • Participation in regulatory, business strategy and research projects for clients in Europe, Middle East and Latin America • Participation in research on the regulation for Artificial Intelligence, and the strategic requirements for the cyber resilience of a middle eastern country • Preparation of proposals for the award of public tenders

Aug 2013-Aug 2016	**Researcher at the EU FP7 project CROSSFIRE:** **"Uncoordinated network strategies for enhanced interference, mobility, radio resource, and energy saving management in LTE-Advanced networks"** *Open University of Catalonia (UOC), Barcelona, Spain*

- Research on LTE-Advanced and future 5G RAN architecture, high-level telecommunication stakeholders strategies for profit maximization through mobile data offloading, QoE-aware resource allocation, smart data pricing
- Collaborated with researchers in Centre Tecnologic de Telecomunicacions de Catalunya (CTTC)
- Participated in dissemination activities including public talks at the UOC, CTTC and the University of Barcelona (UB)

Sep 2015 - Dec 2015	**Visiting Researcher** *NEC Europe Ltd, Heidelberg, Germany*

- Visiting researcher at NEC Europe Ltd Heideberg, Germany
- Design of a QoE-aware cell selection algorithm for profit and network performance maximization in 5G networks, and submission of a paper presented at IEEE Globecom 16'

TEACHING EXPERIENCE

Corporate training:

- Continuous knowledge transfer to junior associates (person to person and group presentations) and provision of training sessions to clients in Europe and Middle East

SKILLS

Computer Skills:

- Programming Languages: C++
- Mathematical Computing and Data Processing: Matlab, MS Excel

Theoretical Background:

- Telecommunications: Wireless/Cellular Communications, Network Management, 4G and 5G, telecommunications regulations
- Mathematics: Linear Algebra, Statistics, Probability Theory, Stochastic Processes, Game Theory, Machine Learning
- Strong scientific writing and presentation skills

Other tools:

- Word Processors: LaTeX, MS Word
- Operating Systems: Microsoft Windows

Languages:

- Greek: Native Fluent

- English: Fluent

- Spanish: Limited working proficiency

PUBLICATIONS

Journal Publications

- P. Trakas, F. Adelantado and C. Verikoukis, *"Network and Financial Aspects of Traffic Offloading With Small Cell as a Service,"* in IEEE Transactions on Wireless Communications, vol. 17, no. 11, pp. 7744-7758, Nov. 2018, doi: 10.1109/TWC.2018.2870419.

- P. Trakas, F. Adelantado and C. Verikoukis, *"QoE-Aware Resource Allocation for Profit Maximization Under User Satisfaction Guarantees in HetNets With Differentiated Services,"* in IEEE Systems Journal, vol. 13, no. 3, pp. 2664-2675, Sept. 2019, doi: 10.1109/JSYST.2018.2876894.

Conference Proceedings

- P. Trakas, F. Adelantado and C. Verikoukis, *"A novel learning mechanism for traffic offloading with small cell as a service,"* 2015 IEEE International Conference on Communications (ICC), 2015, pp. 6893-6898, doi: 10.1109/ICC.2015.7249424.

- P. Trakas, F. Adelantado, N. Zorba and C. Verikoukis, *"A quality of experience-aware association algorithm for 5G heterogeneous networks,"* 2017 IEEE International Conference on Communications (ICC), 2017, pp. 1-6, doi: 10.1109/ICC.2017.7996869.

- P. Trakas, F. Adelantado, N. Zorba and C. Verikoukis, *"A QoE-Aware Joint Resource Allocation and Dynamic Pricing Algorithm for Heterogeneous Networks,"* GLOBECOM 2017 - 2017 IEEE Global Communications Conference, 2017, pp. 1-6, doi: 10.1109/GLOCOM.2017.8254131.

Whitepapers

- S. Tew, G. Metaxas and P. Trakas, *"The European Commission's proposed AI Act: a global regulatory paradigm?,"* white paper by Axon Partners Group Consulting, May 2021

Working Papers

- P. Trakas, *"Cost-efficient resource allocation for the provision of EMBB and vehicular URLL communications with Deep Reinforcement Learning"* Under preparation for submission to IEEE Transactions on Wireless Communications

- P. Trakas, *"Deep Reinforcement Learning algorithm for the cost minimisation of massively deployed IoT"* Under preparation for submission to IEEE Transactions on Wireless Communications

REVIEWS

Journals/Magazines

- IEEE Transactions on Green Communications and Networking

- IEEE Communications Magazine

- Elsevier Computer Communications

Conferences

- IEEE ICC 2015-2019

- IEEE Globecom 2014-2018

- IEEE PIMRC 2017

- IEEE CAMAD 2014, 2016

- IEEE ICT 2017

- IEEE WCNC 2015, 2017

- IEEE CLOUDNET 2016

- IEEE VTC Fall 2016

- IEEE EuCNC 2015

GRANTS

Aug 2013 - Aug 2016   Overall budget: €3.44m EU funded FP7 project CROSSFIRE (Agreement No: 317126)
"Uncoordinated network strategies for enhanced interference, mobility, radio resource, and energy saving management in LTE-Advanced networks"
Role: Research Member
Info: https://cordis.europa.eu/project/id/317126