

Foukas Xenofon

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EDUCATION

Oct. 2013 – July 2018 **The University of Edinburgh**
Edinburgh, United Kingdom

School of Informatics

PhD in Wireless Networks and Mobile Systems

Thesis: “*Towards a Programmable and Virtualized Mobile Radio Access Network Architecture*”

Supervisor: Reader Mahesh K. Marina

Oct. 2012 - Sep. 2013 **Imperial College London,**
London, United Kingdom

Department of Computing, MSc in Advanced Computing

GPA: Distinction (86/100) – Distinguished thesis project “*Sampling in a Large Network*” – (82/100)

Supervisor: Prof. Alexander L. Wolf

Sept. 2007- Feb. 2012 **Athens University of Economics and Business (AUEB)**
Athens, Greece

Department of Informatics, BS In Computer Science

GPA: Distinction (9.44/10) (ranked 1st in a class of about 250 students and 3rd since 1983)

Undergraduate thesis titled “k-LWPR: Speeding up LWPR through clustering” - Grade:10/10

Supervisor: Prof. Michalis Vazirgiannis

2004-2007 **2nd High School of Ilion, Athens, Greece**
GPA: 19.7/20

WORKING EXPERIENCE

April 2018 – present

Univeristy of Edinburgh, Edinburgh, United Kingdom, Working as a Research Associate in the research group of Dr. Mahesh K. Marina, focusing on problems relevant to the **5G network architecture & network slicing**.

May 2016 – April 2017

Univeristy of Edinburgh, Edinburgh, United Kingdom and

NCSR “Demokritos”, Athens, Greece, Worked as a Research Associate in the PACER project, which was part of the second open call for experimentation of the European FP7 FLEX project (FIRE LTE testbeds for open Experimentation). Developed a prototype open source Software-

Defined RAN platform called FlexRAN (<http://networks.inf.ed.ac.uk/flexran/>).

July 2013 – December 2014

NCSR “Demokritos”, Athens, Greece, Marie-Curie Early-Stage-Researcher for the GREENET project on green wireless networks.

July 2012 – Sept. 2012

Ecole Polytechnique, Paris, France, Worked at the Informatics Laboratory (LIX) under the supervision of Prof. Michalis Vazirgiannis.

Jan. 2012 – May 2012

GSIS, Athens, Greece, Worked in cooperation with the “General Secretariat for Information Systems” of the Greek Ministry of Finance to create a dictionary with the names of all the Greek streets and settlements.

Nov. 2011 – Feb. 2012

Intracom Telecoms, Athens, Greece, Internship under the supervision of S.Soursos – Developed a simulation model for a smart flooding algorithm for content based networks using OMNeT++.

2009-2010

AUEB, Teaching Assistant in the course “Computational Mathematics”.

PUBLICATIONS

1. X. Foukas, F. Sardis, F. Foster, M. K. Marina, M. A. Lema, M. Dohler, “Experience Building a Prototype 5G Testbed”, In *Proc. 1st International Workshop on Experimentation and Measurements in 5G (EM-5G) in conjunction with ACM CoNEXT 2018 (to appear)*, Dec 2018
2. X.Foukas, K. Kontovasilis and M. K. Marina, “Short-Range Cooperation of Mobile Devices for Energy-Efficient Vertical Handovers”, In *Wireless Communications and Mobile Computing (WCMC) Journal Special Issue on Green Computing and Communications for Smart Portable Devices*, Jan 2018.
3. X. Foukas, M. K. Marina and K. Kontovasilis, “Orion: RAN Slicing for a Flexible and Cost-Effective Multi-Service Mobile Network Architecture”, In *Proc. ACM MobiCom’17*, Oct 2017.
4. G. Tsoukaneri, X. Foukas and M. K. Marina, “ASPIS: A Holistic and Practical Mechanism for Efficient MTC Support over Mobile Networks”, In *Proc. IEEE Mobile and Ad Hoc Sensor Systems (MASS’17)*, Oct 2017.
5. X. Foukas, G. Patounas, A. Elmokashfi and M. K. Marina, “Network Slicing in 5G: Survey and Challenges.”, *IEEE Communications Magazine*, 55(5), pp.94-100.
6. X. Foukas, N. Nikaein, M. M. Kassem, M. K. Marina and K. Kontovasilis, “FlexRAN: A Flexible and Programmable Platform for Software-Defined Radio Access Networks”, In *Proc. ACM CoNEXT’16*, Dec 2016.
7. S. Sivaprakash, X. Foukas, M. K. Marina, “ VALI: An SDN-based management framework for public wireless LANs (Poster)”, In *ACM MobiCom 2016*

8. X. Foukas, K. Kontovasilis and M. K. Marina, "Exploiting Short-Range Cooperation for Energy Efficient Vertical Handover Operations", In *Proc. 11th International Conference on Network and Service Management (CNSM'15)*, Nov 2015.
9. X. Foukas, M. K. Marina and K. Kontovasilis, "Software Defined Networking Concepts," as a chapter in the book on Software Defined Mobile Networks (SDMN): Beyond LTE Network Architecture, Jun 2015.
10. X. Foukas, A. Carzaniga and A. L. Wolf, "Measuring the Mixing Time of a network", In *Proc. 2015 IEEE Conference on Computer Communications (INFOCOM)*, May 2015.
11. X. Foukas, D. Loukatos, K. Kontovasilis and H. Marques, "Energy Requirements of Secure Vertical Handover Operations in the 802.21a Framework", In *Proc. IEEE CAMAD 2014*, Dec 2014.

PROFESSIONAL SERVICE

ACM WiNTECH 2018	Technical Program Committee
IEEE EuCNC 2017-2018	Technical Program Committee
GIIS 2018	Technical Program Committee

Reviewer for journals including IEEE/ACM Transactions on Networking, IEEE JSAC, IEEE Transactions on Wireless Communications, IEEE Transactions on Communications

HONORS AND AWARDS

2017	ACM MobiCom'17 , Best demonstration award for "Orion: A RAN Slicing System"
2017	BT , Finalist at Lime Micro Hackathon organized by the BT Infinity Lab for "Orion: RAN Slicing System over LimeSDR" (One of the 8 finalists out of 60 registrants)
2017	MSN 2017 UK Academic Meeting on Systems and Networks , Received the Brendan Murphy Prize as an outstanding UK PhD researcher in the networks and systems areas.
2015	CNSM 2015 , Received student travel grant for presenting the paper titled "Exploiting Short-Range Cooperation for Energy Efficient Vertical Handover Operations"
2012	Imperial College London , Received departmental scholarship on academic distinction by the Department of Computing
2007	AUEB , Award for high performance in the national wide exams for college admission by the Department of Informatics (ranked 4 th)

COMPUTER SKILLS

- **Programming Languages:** C/C++, Java, Python, Matlab, SQL, Bash, Javascript, Latex
- **Operating Systems:** Linux, FreeBSD, MacOS, Windows
- **Virtualization Platforms/Tools:** OpenStack, Docker, KVM, ETSI OSM, Juju Charms
- **Network Simulators:** NS-3, OMNeT++

LANGUAGES

Greek	Native Speaker
English	Fluent – Certificate of Proficiency in English, University of Cambridge
German	Intermediate – Mittelstufe
French	Basic

OTHER ACTIVITIES

- Main developer of the open source FlexRAN project for Software-Defined Radio Access Networks
- Contributor to the OpenAirInterface open source project, writing code for the MAC and the RRC layer of the RAN