

EDUCATION

University of Rennes 1, France	PH.D. IN COMPUTER SCIENCE with highest honors	2001 – 2005
Lebanese University, Beirut, Lebanon	B.E. IN ELECTRICITY AND ELECTRONICS with highest honors	1996 – 2001

WORK EXPERIENCE

Rafik Hariri University, Lebanon	ASSOCIATE PROFESSOR	Sept. 2015 - Onward
Mobinets, Lebanon	RAN/CORE PRODUCT MANAGER	Oct. 2012 – Aug. 2015
RWTH Aachen University, Germany	SENIOR RESEARCHER POST-DOCTORAL RESEARCHER	Nov. 2010 – Sep. 2012 Mar. 2009 – Oct. 2010
Barcelona Tech (UPC), Spain	POST-DOCTORAL RESEARCHER	Feb. 2006 – Feb. 2009
Telecom Bretagne - visiting UPC	POST-DOCTORAL RESEARCHER	Apr. 2005 – Jan. 2006
Telecom Bretagne, Rennes, France	RESEARCH ASSISTANT	2001 – 2005

PROJECT AND PRODUCT MANAGEMENT

Grant for GO-ON: Green self-Organizing mOBile Networks project from Lebanese university
Project manager for the European FP7 project ARAGORN on cognitive resource management (CRM) for home networks
Project manager for CIRION project with Huawei on deploying CRM in cellular networks
Preparation of industrial, Lebanese, and European project (FP7 SME) proposals
Product line manager for “RAN & core manager” modules in Mobinets NEP that includes RAN and core inventory, dimensioning, planning, optimization, traffic forecasting, PM and FM
Contribution to RFI and RFP preparation, and requirement collection from customers

RESEARCH ACTIVITIES

Machine learning for Medical applications
Green and smart networking
Planning and optimization tools for cellular systems
Root cause analysis-based fault management tools
Architecture, generic interfaces, algorithms, and implementation for cognitive networks, radio environment maps, and minimization of drive-tests (MDT) in SON and HetNet
Statistical RRM techniques for 5G, femtocell, LTE/LTE-A, & UMTS systems
Empirical and statistical modeling, and uncertainty assessment for traffic and propagation patterns
Metrics to evaluate the efficiency of RRM and spectrum management techniques
Software defined radio (teaching experience using WARP and USRP boards)
Contribution to projects PETRUS, COGNOS, COSMOS, NEWCOM, NEWCOM++, E²RII, E³, ARAGORN, CIRION, FARAMIR, ACROPOLIS, GO-ON

TEACHING ACTIVITIES

Courses

2004 – Onward

ENGR 600 - Engineering Research Methods

Rafik Hariri University

CCEE 564 – Machine Learning and Data Mining (new course)

CCEE 562 – Artificial Intelligence

CCEE 552 – Cryptography and Network Security (new course)

CCEE 551 – Digital Signal Processing

CCEE 545 – Advanced Mobile communications (new course)

CCEE 543 – Mobile communications

CCEE 522 – Advanced Communication Systems

CCEE 498 – Special Topics in CCE: Cognitive Networks (new course)

CCEE 461 – Internet Engineering and Web Programming

CCEE 454 - Networking

CCEE 449 – Wireless communications

CCEE 411 – Web Programming

CCEE 341/441 – Communications Systems

COSC 221/214 – Programming I/Introduction to programming

ENGR 200 – Engineering for the community

STRI 412 – Telecommunications Mobiles

Lebanese University

Traitement de Signal (new course)

MSETITTI-7104.a – Principles & Architectures of Cognitive Radios (new course)

RWTH Aachen

IPNP MERIT – IP networks and protocols

UPC

ELE 208 – Radiocommunications

CNAM

ELE 113 – Base de transmission de transmissions numériques II

Lab Supervision

2001 – 2012

CCEE 454L – Networking Lab (new course)

Rafik Hariri University

SDR laboratory -Informations- und Kommunikationstechnik (new course)

RWTH Aachen

Small, Embedded, Advanced and Generic Objects Laboratory

Protocols and architectures (Router Configuration)

Telecom Bretagne

GSM show

Teaching Assistant

2001 – 2005

Network architecture, GSM planning, Networking basics

Telecom Bretagne

Student Supervision

2005 – Onward

Supervising 1 PHD student, 2 visiting researchers, 14 graduate students, and 8 undergraduate projects

Telecom Bretagne

Lebanese University

USJ

RWTH Aachen

RHU

PROFESSIONAL ACTIVITIES AND AWARDS

BEST PAPER AWARDS

"Influence of Spatial Statistics of Spectrum Use on the Performance of Cognitive Wireless Networks," MSWIM 2012

"A Real Time Emulator Demonstrating Advanced Resource Management Solutions," WPMC 2007

EXEMPTED FROM MASTER DEGREE BASED ON B.E FINAL YEAR PROJECT

CONTRIBUTION TO NGMN ALLIANCE, ETSI RRS, FP7 CONCERTATION MEETINGS, AND IEEE DYSpan-SC

ASSOCIATED EDITOR FOR IEEE ACCESS (OUTSTANDING ASSOCIATE EDITOR OF 2017 IN IEEE ACCESS)

GUEST EDITOR FOR SI ON ADVANCES IN 5G CELLULAR NETWORKS AND ASSOCIATED TECHNOLOGIES, PHYCOM, ELSEVIER

CONFERENCE CHAIR

Workshop Green networking 2010, in conjunction with Broadnets 2010 conference

Transmission Technologies track in IEEE VTC Spring 2009 conference

TECHNICAL PROGRAMME COMMITTEE FOR INTERNATIONAL CONFERENCES AND WORKSHOPS

BalkanCom'19, IJCDs'19, CICN'18, ICSigSys'18-19, SigTelCom'18, Menacom'18, ICACCI'17-18, Coral'16-17, IWSS'16-17, MCV'15, ICC'11-15&18-19, Globecom'11-13&15&17-18, PIMRC'08-09&11-12&16-17, WCNC'12&14-16,19, CoCoNet'15,18, FutureHetNets'14, VTC'09&11-16,19, MACNET'13, ICNC'12,19, PIMRC-WS-CRN'11, WiMob 08-09

REVIEWER FOR INTERNATIONAL JOURNALS AND CONFERENCES (IEEE, IET, ACM, SPRINGER, ELSEVIER)

SESSION CHAIR IN DIFFERENT CONFERENCES (IEEE, ACM)

MEMBER OF A PHD STUDENT COMMITTEES AT UPC AND UNIVERSITY OF VERSAILLES

DOCTORIALES 2004 (LANNION-FRANCE): AWARD OF BEST INNOVATE PROJECT (GROUP WORK)

RHU CISCO ACADEMY, FOUNDER AND MAIN CONTACT

ORGANIZING WORKSHOPS ON MATLAB, WEKA, AND PYTHON

MEMBER OF THE ACADEMIC AND CURRICULUM COMMITTEE AT RHU

SKILLS AND PERSONAL PROFILE

ARCHITECTURE, STANDARDS, AND CONCEPTS: Cognitive radio, carrier management, femtocell, HetNet, 5G/LTE-A/LTE/UMTS/GSM, IEEE 802.22/11/16, traffic forecast, MDT, network optimization, SS7, REM, IN, core

PROGRAMMING AND TOOLS: PYTHON, C, WEKA, MATLAB, R, NS2, SDL, WinProp, VisIt, SPLAT, GNU radio, WARPLab, RapidMiner

LANGUAGES: Arabic (Mother tongue), English/French (fluent), Spanish (Advanced), German/Catalan (Basic)

HOBBIES: Reading; cooking; table tennis; traveling

ATTRIBUTES: creative and problem-solver; strong ability to work under pressure and handle parallel tasks; social and always seeking to learn and grow; team oriented with excellent verbal communication skills