

Wissam FAWAZ, Ph.D.

Lebanese, married (age: 34)

Home Address

Sarah Bldg,
Mazraa Region, Beirut
Lebanon
Mobile : (+961) 70 81 32 80
E-mail : wissam_f@hotmail.com

Business Address

Lebanese American University
P.O. Box 36 / ECE Dept
Byblos, Lebanon
Tel. : (+961) 9 54 72 54/Ext. 2414
E-mail : wissam.fawaz@lau.edu.lb

EDUCATION

- 2002 – 2005** Ph.D. degree in Computer Engineering, University of Paris 13, France
Dissertation: “Service Life Cycle in Next Generation Optical Networks”
Co-advisors: Prof. Guy Pujolle and Prof. Ken Chen
- 2001 – 2002** M.S. degree in Computer Engineering, University of Paris 6, France
Thesis: “Service Level Agreements in WDM Optical Networks”
Advisor: Prof. Guy Pujolle
- 1996 – 2001** B.E. degree in Computer Engineering, Lebanese University, Faculty of Engineering, Beirut, Lebanon

WORK & ACADEMIC EXPERIENCE

- 10/2012 – Present** Associate Professor of Computer Engineering with tenure at ECE department, Lebanese American University (LAU), Byblos, Lebanon
- 10/2006 – 10/2012** Assistant Professor of Computer Engineering at ECE department, Lebanese American University (LAU), Byblos, Lebanon
- 1/6/2012 – 1/7/2012** Visiting Research Fellow at the Electrical & Computer Engineering Department, University of Paris 13, France
- 1/6/2008 – 1/10/2008** Visiting Researcher at the Computer Science Department, North Carolina State University, Raleigh, Durham, Unites States of America
- 10 / 2005 – 09/2006** Instructor of Computer Engineering, at ECE Department, University of Paris 13, France
- 10/2002 – 9/2005**
- Teaching Assistant at the ECE Department, University of Paris 13, France
 - Invited researcher at ALCATEL Research and Innovation (R&I), Marcoussis, France

SHOLARSHIPS AND AWARDS

- 2008**
- Recipient of a Fulbright Research Award
- 2002 – 2005**
- Recipient of the French Ministry of Research and Education Scholarship for distinguished students

TEACHING ACTIVITIES

- Courses Taught at LAU (2006 – Present)**
- COE321/CSC323: Logic Design
 - COE 593: COE Application

- COE211/COE 212: Computer/Engineering Programming (JAVA)
 - COE431: Computer Networks
 - COE312: Data Structures
 - COE799: Optical Networks (advanced undergraduate/graduate level course)
 - COE599: Queuing Theory (advanced undergraduate/graduate level course)
- Supervision of Students (2006 – Present)**
- Supervised more than 20 undergraduate students in their Capstone Design Projects
 - Supervised 6 graduate students in their Masters Theses
 - Co-supervised 1 Ph.D. student
- Courses Taught at Univ. of Paris 13 (2005 – 2006)**
- Computer Programming, Operating Systems, and Multimedia Networks

ACADEMIC SERVICES AT LAU

- Councils and Committees**
- Member of the Faculty Affairs Committee (2010 –)
 - Member of the School Academic Committee (2012 –)
 - Member of ad-hoc committee looking into standard 8 for NEASC re-accreditation (2013 –)
 - Member of the Library and Information Resources Council (2006 – 2012)
 - Member of the Faculty Senate (2008 – 2011)
 - Member of the Planning and Administrative Council (2006 – 2007)
 - Member of ad-hoc committee for discussing Chapter 7 on Library Resources of the self study for accreditation with NEASC (2008)
- Departmental Services**
- Secretary for the ECE departmental meetings (2006, 2007, and 2010)
 - Member of search committee for ECE tenure-track faculty positions (2007–)
 - Member of the COE Graduate Admission committee (2007–)
- ABET Accreditation**
- Member of the ECE department ABET steering committee
 - Co-author of Chapters 2 and 3 of the self study for COE
 - Gauged the attainment of various ABET outcomes

PROFESSIONAL ACTIVITIES

- Editorial Duties**
- Associate Editor for the IEEE Communications Letters journal
- Technical Reviewer**
- International Journals:
- IEEE Journal on Selected Areas in Communications (JSAC)
 - IEEE Transactions on Communications
 - IEEE Communications Letters
 - IEEE Communications Surveys & Tutorials
 - Performance Evaluation Journal, Elsevier
- International Conferences:

- IEEE International Conference on Communications (ICC) (2007 – 2011), Wireless Communications and Networking Conference (WCNC) (2011 & 2013), and International Conference on Connected Vehicles and Expo (ICCVE) 2013
 - IEEE Global Communications Conference (Globecom) (2008, 2009, 2012, & 2013), Internet Management conference (IM) 2005, and PIMRC 2012
 - IFIP Network of the Future (2010 - 2012), Wireless Days 2008, International Conference on Home Networking 2008, Networking (2005 – 2007), and Net-Con (2003 – 2006)
- Technical Program Committee (TPC)**
- IEEE ICC 2010 & 2011, ICCCN 2011, and WCNC (2011 – 2013)
 - IFIP Network of the Future conference (2010 – 2012)
 - IEEE Globecom 2009, 2012 & 2013 and IEEE PIMRC 2012
 - IFIP/IEEE Wireless Days Conference 2008
 - IFIP World Computer Congress 2010
 - 3rd International Conference on Communications and Information Technology (ICCIT) 2013
- Membership of Professional Affiliations**
- Senior member of the Institute of Electrical and Electronics Engineer (IEEE) and IEEE Communications Society

SKILLS

- Modelling Techniques** Queueing Modeling, Linear Optimization, Discrete Event Simulation, Markov Decision Process, and Dynamic Programming.
- Programming Languages** C, C++, Java, Matlab, and Maple.

PUBLICATIONS

- **International Refereed Journals (21 journal papers)**

- [J1] W. Fawaz, «Improved EDF-based Management of the Setup of Connections in Opaque and Transparent Optical Networks», **Springer Journal of Photonic Network Communications**, Accepted in October 2013.
- [J2] W. Fawaz, R. Atallah and M. Khabbaz, «A First Step Towards the Resolution of the Starvation Problem in Multi-Point-to-Point ICRCNs», **IEEE Communications Letters**, Accepted in September 2013.
- [J3] M. Khabbaz, W. Fawaz and C. Assi, «A Probabilistic and Traffic-aware Bundle Release Scheme for Vehicular Intermittently Connected Networks», **IEEE Transactions on Communications**, vol. 60, issue 11, pp. 3396 – 3406, November 2012.
- [J4] M. Khabbaz, W. Fawaz and C. Assi, «A Simple Free-Flow Traffic Model for Vehicular Intermittently Connected Networks», **IEEE Transactions on Intelligent Transportation Systems**, vol. 13, issue 3, pp. 1312 - 1326, September 2012.
- [J5] M. Khabbaz, W. Fawaz and C. Assi, «Modeling and Delay Analysis of Intermittently Connected Roadside Communication Networks», **IEEE Transactions on Vehicular Technology**, vol. 61, issue 6, pp. 2698 - 2706, July 2012.
- [J6] M. Khabbaz, C. Assi and W. Fawaz, «Disruption-tolerant Networking: A Comprehensive Survey on Recent Development and Persisting Challenges», **IEEE Communications Surveys and Tutorials**, vol. 14, issue 2, pp. 607 - 640, June 2012.

- [J7] M. Khabbaz, W. Fawaz and C. Assi, «Which Vehicle to Select? », **IEEE Communications Letters**, vol. 16, issue 6, pp. 812 - 815, June 2012.
- [J8] W. Fawaz, «Enhancement of Blocking Performance in All-optical WDM Networks via Wavelength Reassignment and Route Deviation», **Elsevier Journal of Computer Communications**, vol. 35, issue 8, pp. 929 - 935, May 2012.
- [J9] M. Khabbaz, W. Fawaz, and C. Assi, «Probabilistic Bundle Relaying Schemes in Two-Hop Vehicular Delay Tolerant Networks», **IEEE Communications Letters**, vol. 15, issue 3, pp. 281 – 283, March 2011.
- [J10] W. Fawaz, Z. Nakad, and M. Aad, «Preemption-enabled Setup of Optical Connections Coupled with Event-driven Rerouting», **IEEE Communications Letters**, vol. 15, issue 2, pp. 250 – 252, February 2011.
- [J11] W. Fawaz, I. Ouais, K. Chen, and H. Perros, «Deadline-based Connection Setup in Wavelength-routed WDM Networks», **Elsevier Journal of Computer Networks**, vol. 54, issue 11, pp. 1792 – 1804, August 2010.
- [J12] Z. Nakad, M. Jones, T. Martin, and W. Fawaz, «Networking in e-Textiles», **Computer Communications Elsevier**, vol. 33, issue 6, pp. 655 – 666, April 2010.
- [J13] W. Fawaz and M. Khabbaz, «Incorporating Mutation Probability into Priority-Aware Protection in Optical Networks», **IEEE Communications Letters**, vol. 13/11, pp. 865 – 867, November 2009.
- [J14] W. Fawaz, T. Sawah, and C. Abou-Rjeily, « Priority-aware Optical Shared Protection: An Offline Evaluation Study», **Elsevier Journal of Computer Communications**, vol. 32, issue 15, pp. 1677 – 1684, September 2009.
- [J15] C. Abou-Rjeily and W. Fawaz, «Space-Time Codes for MIMO Ultra-Wideband Communications and MIMO Free-Space Optical Communications with PPM», **IEEE Journal on Selected Areas in Communications**, vol.26, issue 6, pp. 938 – 947, August 2008.
- [J16] C. Abou-Rjeily and W. Fawaz, « Distributed Information-Lossless Space-Time Codes for Amplify-and-Forward TH-UWB Systems », **IEEE Communication Letters**, vol.11/4, pp. 298–300, April 2008.
- [J17] W. Fawaz, K. Chen, and C. Abou-Rjeily, « A Novel Connection Setup Management Approach for Optical WDM Networks », **IEEE Communication Letters**, vol.11/12, pp. 998–1000, December 2007.
- [J18] W. Fawaz, K. Chen, and G. Pujolle, «Priority-enabled Optical Shared Protection: an Online Efficiency Evaluation Study », **Elsevier Journal of Computer Communications**, vol.30/18, pp. 3690–3697, December 2007.
- [J19] W. Fawaz, F. Martignon, K. Chen, and G. Pujolle, « A Novel Fault Management Approach for DWDM Optical Networks », **ACM/Wiley International Journal of Network Management**, vol. 16, Issue 5, pp. 337–349, September/October 2006.
- [J20] M. Du-Pond, O. Audouin, B. Berde, B. Daheb, W. Fawaz, and G. Pujolle, and M. Vigoureux, « Service Level Agreement in Optical Networks », **Annals of Telecommunications**, vol. 60, No.9-10, pp.1275–1287 , September/October 2005, Hermes Science.
- [J21] W. Fawaz, B. Daheb, O. Audouin, B. Berde, M. Vigoureux, M. Du-Pond, and G. Pujolle, « Service Level Agreement and Provisioning in Optical Networks », **IEEE Communications Magazine**, vol 42, No.1, pp. 36–43 , January 2004.

- **International Refereed Conferences (16 conference papers)**

- [C1] M. Khabbaz, W. Fawaz, and C. Assi, «Modelling and Analysis of Bulk Bundle Release Schemes in Two-Hop Vehicular DTNs», **IEEE Globecom**, Houston, USA, December 2011.
- [C2] M. Khabbaz, W. Fawaz and C. Assi, «A Probabilistic Bundle Relay Strategy in Two-Hop Vehicular Delay Tolerant Networks», **IEEE ICC**, Kyoto, Japan, June 2011.
- [C3] W. Fawaz, A. Sinno, R. Bardan, and M. Khabbaz, «A Novel Event-driven QoS-aware Connection Setup Scheme for Optical Networks», **International Conference on Digital Information and Communication Technology and Its Applications (DICTAP)**, Dijon, France, June 2011 [A. Sinno and R. Bardan, graduate LAU students].
- [C4] W. Fawaz and M. Khabbaz, «Priority-aware Optical Shared Protection Coupled with Mutation Probability», **IEEE Wireless and Optical Communications Conference**, Shanghai, China, May 2010 [M. Khabbaz, graduate LAU student].

- [C5] W. Fawaz, K. Chen, C. Abou-Rjeily and Z. Nakad, «A Simple QoS-based Connection Setup Management Approach for Optical Networks », **IEEE ICC**, Beijing, China, May 2008.
- [C6] W. Fawaz and K. CHEN, « SSTF: A 'Shortest Setup Time First' Optical Connections Setup Management Approach with Quantifiable Success Rate », **IEEE Globecom**, San Francisco, California, USA, November 2006.
- [C7] O. C. Saadbouh, W. Fawaz and K. CHEN, «A Novel Approach for Real Time Flows Scheduling», **IEEE Globecom**, San Francisco, California, USA, November 2006.
- [C8] O. C. Saadbouh, W. Fawaz and K. CHEN, « Une Nouvelle Approche pour la Gestion de Flux Temps Réels Basée sur l'algorithme EDF », **CFIP**, Tozeur, Tunisia, October 2006.
- [C9] O. C. Saadbouh, W. Fawaz and K. CHEN, « A Hybrid EDF/FIFO Queue for Efficient Real Time Flow Handling », **Sixth IEEE International Workshop on Factory Communications System (WFCS)**, Torino, Italy, June 2006.
- [C10] B. Daheb, W. Fawaz, K. Chen and G. Pujolle, « Policy-based Service Provisioning Architecture for Hybrid Photonic Networks », **First IEEE Workshop on "Adaptive Policy-based Management in Management and Control (co-located with Infocom)**, Barcelona, Spain, April 2006.
- [C11] W. Fawaz, F. Martignon, K. Chen and G. Pujolle, « A Novel Protection Scheme for Quality of Service Aware WDM Networks », **IEEE ICC**, Seoul, South of Korea, pp. 1720-1725, May 2005.
- [C12] W. Fawaz, F. Martignon, K. Chen and G. Pujolle, « A Priority-Aware Protection Technique for Quality of Service Enabled Networks », **IFIP Networking**, Waterloo, Canada, pp. 419-430, May 2005.
- [C13] W. Fawaz, F. Martignon, K. Chen and G. Pujolle, « QoS based Protection in WDM Networks », **CFIP**, Bordeaux, France, March 2005.
- [C14] W. Fawaz, B. Daheb, O. Audouin, B. Berde, K. Chen and G. Pujolle, « Policy-based Provisioning in Hybrid Photonic Networks », **IEEE International Workshop on Optical Networks Control and Management, IEEE ONCM part of IEEE ICPP Workshops**, Montreal, Canada, pp. 407-414, August 2004.
- [C15] B. Daheb, W. Fawaz, O. Audouin, B. Berde, K. Chen and G. Pujolle, « Policy-based Hybrid Hierarchical Optical Networks », **IEEE First International Conference on Broadband Networks, IEEE Broadnets**, California, USA, pp. 325-327, October 2004.
- [C16] M. Du-Pond, O. Audouin, B. Berde, B. Daheb, W. Fawaz and G. Pujolle, « SLA in Optical Networks », **IFIP NET-CON**, Oman, pp. 225-237, October 2003.

- **Book Chapters (3 book chapters)**

- [B1] K. Chen and W. Fawaz, «Optical Networks: New Challenges and Paradigms for QoS», **chapter 5 in the book entitled** « End-to-End Quality of Service Engineering in Next Generation Heterogeneous Networks » co-edited by John Wiley & Sons and Hermes Science, pp. 115 – 133, 2009.
- [B2] W. Fawaz and K. Chen, « Survivability-oriented Quality of Service in Optical Networks », **chapter 8 in the book entitled** «End-to-End Quality of Service Engineering in Next Generation Heterogeneous Networks» co-edited by John Wiley & Sons and Hermes Science, pp. 197 – 211, 2009.
- [B3] W. Fawaz and B. Daheb, « Application of MPLS to WDM Optical Networks » **chapter 9 in the book titled** «Control of IP Networks», Hermes Science Edition, pp. 189-215, 2004.