## Sidi Mohammed SENOUCI

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#### **Education**

December 2009 HdR (Habilitation à diriger des Recherches) in Computer Science, INP Toulouse, France

Thesis title: New protocols to control light infrastructure networks.

1999 - 2003 Ph.D. in Computer Science, University of Pierre et Marie Curie - Paris 6, France

Thesis title: Application of learning techniques in mobile networks.

1998 - 1999 M.Sc. in Computer Science, University of Paris XIII, France

1990 – 1995 Bachelor of Engineering in Computer Science, USTO Oran, Algeria

### **Experience**

## Current Professor, University of Bourgogne (uB), ISAT Nevers

- Leader of the research team EPEE within DRIVE Labs
- Creation of a new activity related to embedded systems and vehicular networks within DRIVE laboratory
- Coordinator of the international Master AESM (Automotive Engineering for Sustainable Mobility)
- Principal uB representative in the European projects ITEA2 CarCoDe (2013-2015) and ITE2 FUSE-IT (2014-2017).

# December 2004 to August 2010 Research Engineer, Orange Labs (France Télécom R&D), Lannion, France

- Project leader of different project within Orange Labs: PRP Spontex (2004-2006) dealing with spontaneous networks, PRONTO (2007-2008) dealing with pervasive networks and other projects (MOVENET, ML9, ML7) dealing with vehicular networks (2009-2010).
- Setting up and/or participation to collaborative projects (FP7 FOTsis, FUI-9 SCOREF, ANR ARESA 2, RIAM MAD GAMES, RNRT SAFARI)
- Setting up new bilateral projects between Orange Labs and academic labs (Stanford U., Plymouth U., Kalgenfurt U., etc.) and industrials (Hitachi Europe, iLab Tokyo, iLab Pekin, iLab Poland)

2002 to 2004 Associate lecturer (ATER), University of Cergy-Pontoise, France

1999 to 2003 Research Assistant, University of Paris 6, Paris, France

Conduct research in the area of wireless networks. My investigations concern the application of learning techniques in mobile networks.

1998 to 1999 Research Assistant, LIPN laboratory, University of Paris XIII, France

1996 à 1998 Research Engineer, URBAT, Tlemcen, Algeria

### **Highlights of research activities**

- Since March 2011, I am in charge of the research team EPEE within DRIVE Labs. I am also responsible of a new activity related connected mobility (vehicular networks, delay tolerant networks, Internet of Things, etc.) and sustainable mobility (V2G, G2V, etc.). From 2005 to 2010, I was in charge of organizing the research activities in Orange Labs (France Telecom R&D) dealing with vehicular and multi-hop networks. I was also involved in research activities related to M2M and sensor networks.
- I have provided many supervision activities and collaborations: I supervised or co-supervised eight PhD thesis that have been defended successfully. I also collaborated with two other PhD students as part of external research contracts funded by France Telecom R&D. I am supervising actually eight PhD thesis. To this, I add several participations to PhD thesis

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- committees (44) and two HDR committee and supervision of a set of M.Sc. internships students.
- I participated in strengthening the international reputation of my institution in the area of wireless networks and particularly: I acted as TPC-Chair of IEEE GIIS (2013 and 2016), co-chair of AHSN Symposium in IEEE Globecom 2011 and co-chair of NGN Symposium in IEEE ICC (2012 and 2017). I was vice-chair of SAC symposium in IEEE Globecom'2010, co-chair VCT Symposium in IEEE WCMC2010, and TPC co-chair of VehiCom2009 Workshop (associated with IEEE IWCMC'2009). I was the founding Chair of Ubiroads2007 workshop (collocated with IEEE GIIS2007). I was the guest editor of a special issue of UBICC journal on Ubiquitous Roads and was the special track co-chair of PIMRC'08 on "Intelligent Transportation and Traffic Telematics Challenges, Applications, and Standardization". I am founding co-editor of the IEEE ComSoc Ad Hoc and Sensor Network Technical Committee (AHSN TC) Newsletter. I also acted as publication and publicity chair of different conferences (CCNC2015, WD2012, etc.) and act as TPC member of the following IFIP, ACM or IEEE conferences and workshops (ICC, GLOBECOM, PIMRC, GIIS, VTC, WiVeC, MWCN, IWWAN, Wireless Days, WITS,...).
- I was the Chair of the IEEE ComSoc TCIIN TC (2014-2015) and member of the IEEE ComSoc AHSN TC. I am a Member of IEEE and the Communications Society and Expert Senior of the French society SEE (Society of Electricity and Electronics). I was an active membre of the inter-group GT NUMATEC Automotive and Transport & Télécom within the PdC (pôle de compétitivité) System@tic from 2008 to 2009.
- I hold 7 international patents on the topic of Wireless networks and published my work in major IEEE conferences (ICC, Globecom, PIMRC, WCNC, NOMS, VTC) and renowned journals.
- Awards:
  - Scientific Excellence Award in uB from October 2011 to now.
  - Senior Expert at SEE society since 2008.
  - o Expert on light infrastructure networks at Orange Labs (2006-2010).
  - Best student paper award "A Multi-Hop-Aware Cooperative Relaying", IEEE VTC'2009 Spring.
  - Best paper Award "A dynamic Q-learning-based call admission control for multimedia cellular networks", IEEE MWCN'2001.

#### List of Publications

- The list of all my publications is accessible here: http://senouci.net/Publications List.html
- Some of my publications:
  - H. Sedjelmaci, SM. Senouci, N. Ansari, "Intrusion Detection and Ejection Framework Against Lethal Attacks in UAV-Aided Networks: A Bayesian Game-Theoretic Methodology", IEEE Transactions on Intelligent Transportation Systems, to appear in 2016.
  - M. Attia, H. Sedjelmaci, SM. Senouci and E. Aglzim, "Game Model to Optimally Combine Electric Vehicles with Green and Non-Green Sources into an End-to-End Smart Grid Architecture", Journal of Networking and Computer Applications – JNCA (Elsevier), to appear in 2016.
  - T. Bouali, SM. Senouci, H. Sedjelmaci, "A Distributed Detection and Prevention Scheme from Malicious Nodes in Vehicular Networks", International Journal of Communication Systems (Wiley), January 2016, DOI: 10.1002/dac.3106
  - S. Mamechaoui, SM. Senouci, F. Didi, G. Pujolle, "Energy Efficient Management for Wireless Mesh Networks with Green Routers", Springer Mobile Network & Applications (MONET), to appear in 2015.
  - H. Sedjelmaci, SM. Senouci, "AECFV: An Accurate and Efficient Collaborative Intrusion Detection Framework to Secure Vehicular Networks », Accepted in Elsevier Computers and Electrical Engineering Journal, April 2015; 43. DOI: 10.1016/j.compeleceng.2015.02.018.
  - O. R. Merad Boudia, SM. Senouci, M. Feham, "A Novel Secure Aggregation Scheme for Wireless Sensor Networks Using Stateful Public Key Cryptography", Ad Hoc Networks Journal (Elsevier), January 2015. doi:10.1016/j.adhoc.2015.01.002
  - M. Jerbi, SM. Senouci, T.M. Rasheed, Y. Ghamri-Doudane, "Towards Efficient Geographic Routing in Urban Vehicular Networks," *IEEE Transactions on Vehicular Technology*, Vol. 58, Issue 9, pp. 5048–5059, November 2009.

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