

Sami Touati, Ph.D.
Assistant Professor, Dept. of Computer Engineering (CEN)
College of Computer and Information Sciences (CCIS)
King Saud University, P.O. Box: 51178, Riyadh, Saudi Arabia.

Research Interest: *Mobile Digital Communications, Space Communications, Radar, Air Traffic Control, Statistical Signal Processing, Speech Processing & Digital Sound, Image Processing, Wavelets and Wavelet Packets, Data Mining, Artificial Intelligence.*

EDUCATION

1999 – 2002: Ph.D. “Estimation of HOS and Cyclic Components of Cyclostationary Signals using Wavelets and Wavelet Packets”, Université Paris XI, France.

1998 – 1999: M.Sc. in Signal Processing and Automatic Control, Supélec, Paris, France.

1997 – 1998: M.Sc. in Applied Mathematics (Numerical Analysis), Université Paris VI, France.

PROFESSIONAL EXPERIENCE

2011- Now: Assistant Professor, King Saud University, Riyadh, Kingdom of Saudi Arabia.

2006 – 2010: Researcher, Aviasys, ACS Engineering, (in collaboration with Eurocontrol), France.

2005 – 2006: Researcher, CEA (Commissariat de l'Energie Atomique, Atomic Energy Agency), Saclay, France.

2006 : Assistant Professor, ENSEA (Ecole Nationale Supérieure de l'Electronique et de ses Applications, College of Electronics and its Applications), Cergy, France.

2005 : Assistant Professor, UBS (Université de Bretagne Sud), France.

2003 – 2004: Researcher, Supélec (Ecole Supérieure de l'Electricité), France.

2000 – 2002: Lecturer, Ecole Polytechnique, France.

1999: Lecturer, UVM (Université de Marne-La-Vallée), France.

1999 – 2002: Research Officer, Paris XI, France.

TEACHING EXPERIENCE

Present: (at KSU)

Digital Communications CEN466; Introduction to Data Transmission CEN342; Graduation Projects 1&2 CEN492; Graduation Project 3 CEN493.

2012 (1st and 2nd semester at KSU):

Digital Image Processing, Masters CEN545; Intelligent Systems, Masters CEN556.

2011 (1st and 2nd semester at **KSU**):

Digital Speech Processing, Masters CEN547; Intelligent Systems, Masters CEN556.

2006: IT, Data Structures, Simply and Doubly Linked Lists, Data Basis. **ENSEA** (Paris).

2005: Statistics, ANOVA, Multivariate Analysis, R, S-Plus, Medical Applications. **UBS** (France).

2000 – 2002: Speech Processing & Digital Sound (with many projects), Image Processing, Wavelets and Wavelet Packets, Markov Chain, Genetic Algorithms. **Ecole Polytechnique** (Paris).

1999: Maths (Optimization), Signal Processing, Automatic Control. **MLV** (Paris).

RESEARCH EXPERIENCE

2012 – 2013:

Cognitive Radio Networks: research projects RC130398, RC1303100, Research Center, CCIS, KSU.

Cooperative Radio: research project RC121278, Research Center, CCIS, KSU.

Model Checking : research project, RC121280, Research Center, CCIS, KSU.

2006 – 2010: Signal Processing & Communications: ATC (Aircraft Traffic Control), Tracking; Ground Station; DSP, Space Communication, Digital Communication.

2005 – 2006: THz Spectroscopy using Wavelets and Wavelet Packets, Data Mining, Classification, Mass Spectroscopy, Statistics.

2003 – 2004: Wireless Digital Communications, Joint Channel Estimation and Turbo-Demodulation, Turbo-Codes.

1999 – 2002: Wavelets and Wavelet Packets, Theory, Conception and Applications to HOS, Communications, Image and Speech.

PUBLICATIONS

Journal papers

1. S. Touati, H. Boujemaa, N. Abed, "Interference Aware Routing protocols for underlay cognitive radio networks", accepted in Transactions on Emerging Telecommunications Technologies, August 2013.
2. S. Touati, H. Boujemaa, N. Abed, "Cooperative HARQ protocols for Underlay cognitive Radio Networks", submitted to Transactions on Emerging Telecommunications Technologies, Sept. 2013.
3. S. Touati, H. Boujemaa, "Static Hybrid Multihop Relaying", submitted to Annals of Telecommunications, Springer, June 2013.
4. S. Touati and J-C. Pesquet, "Some results on the wavelet packet decomposition of non-stationary processes", Journal of Applied Signal Processing, vol. 2002, no 11, pp. 1289-

1295, Nov. 2002.

5. Mounira Taileb, Sid Lamrous and Sami Touati, "Non Overlapping Hierarchical Index Structure for Similarity Search", in the International Journal of Computer Science, vol. 3, number 1, pp. 29-35, 2008.

Conference papers

1. S. Touati, H. Boujemaa, N. Abed, "Cooperative HARQ protocols for Underlay Cognitive Radio Networks", EUSIPCO (European Signal Processing Conference) , Marrakech, 9-13 September 2013.
2. S. Touati, H. Boujemaa, "Static Hybrid Multihop Relaying", to appear in EUROPMENT, Electronics, signal processing and communication systems, Venice 28-30 September 2013.
3. S. Touati, H. Boujemaa, N. Abed, "Interference Aware Routing Protocols for Underlay Cognitive Radio Networks", to appear in EUROPMENT, Electronics, signal processing and communication systems, Venice 28-30 September 2013.
4. M. Taileb and S. Touati, "NOHIS-Tree: High-Dimensional Index Structure for Similarity Search", ICIKM, 2011, 8 pages.
5. Mounira Taileb, Sid Lamrous and Sami Touati, "Overlapping Hierarchical Index Structure for Similarity Search", in the Proceeding of the International Conference on Computer, Electrical, Systems Science and Engineering CESSE'08, Cairo, Egypt, 2008, 7 pages.
6. S. Touati, "An EM-MAP channel estimation algorithm for OFDM systems", ICASSP, 2006, 4 pages.
7. I. B. Hmida, S. Touati and al., "Ressource reservation scheme with optimal channel classification", PIMRC'2005, 8 pages.
8. S. Touati, J-M. Mamfoumbi and P. Duhamel, "Semi-blind channel estimation for OFDM systems via an EM-Block algorithm", EUSIPCO'2004, Vienna, Austria, September 2004, 5 pages.
9. S. Touati, "Wavelet estimation of cyclopectra, the case of unknown cyclic frequency", ISIT2003, Yokohama, Japan, June - July 2003, 5 pages.
10. S. Touati et J-C. Pesquet, "Cyclic frequency estimation by wavelet-thresholding", NSIP'03, Grado, Italy, June 2003, 4 pages.
11. S. Touati et J-C. Pesquet, "Wavelet estimation of cyclopectra", ICASSP, Hong Kong, April 2003, 4 pages.
12. S. Touati et J-C. Pesquet, "Wavelet-thresholding for bispectrum estimation", EUSIPCO, Toulouse, France, September 2002, 4 pages.
13. S. Touati et J-C. Pesquet, "Wavelet-packet decomposition of cyclostationary signals", NSIP'01, Baltimore, USA, June 2001, 4 pages.

CONTACT DETAILS



(+966) 544523407



stouati@ksu.edu.sa, dstouati@gmail.com



CEN, CCIS, King Saud University, P.O. Box 51178, Riyadh 11543, KSA.