Amel Ben Slimane

Assistant Professor

Name: Ben Slimane
First Name: Amel
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✔ PERSONAL DATA

Date of Birth: 04 September 1961
Nationality: Tunisian
Gender: Female

✔ KEY WORDS

Assistant Professor, Electrical Engineering, Computer Engineering, Information Technology, Electronics, Networks, Signal Processing, Automation, Computer Architecture, Microprocessors, Mathematics. Programming.

👥 EDUCATION

2003 — **Ph. D. in Electrical Engineering**
University of Tunis El Manar / National School of Engineers of Tunis (ENIT)
Title: *Contribution to event detection on the signal and its wavelet transform by mathematical morphology; Application to instantaneous pitch tracking on voiced speech*
With Highest Distinction

1986 — **Master's Degree in Electrical Engineering: System Analysis and Digital Processing**
University of Tunis El Manar / National School of Engineers of Tunis
Title: *Contribution to speech signal processing by mathematical morphology techniques*
With Highest Distinction

1985 — **Engineering Degree in Electrical Engineering**
University of Tunis El Manar / National School of Engineers of Tunis

💼 WORK EXPERIENCE

Since 2015 — **Assistant Professor**
Department of Computer Science and Engineering
AlBaha University/ Faculty of Computer Science and Information Technology, KSA

2003–2015 — **Assistant Professor**
Department of Embedded Systems and Networks
University of Manouba / National College of Computer Sciences, Tunisia

1990–2003, — **Lecturer**
Department of electrical engineering
University of Tunis, Higher College of Science and Technology of Tunis (ESSTT)

1988– 1990 — **Lecturer**
Department of electrical engineering
University of Gabes,. Higher Institute of Techniques of Gabes,Tunisia

1986– 1988 — **Senior Engineer**
Regional Institute of Computer Sciences and Telecommunications, Tunis, Tunisia

Academic and Administrative Responsibilities

2015–2022   Coordinator, Engineering & Computer Science Department, female Section, Faculty of Computer Science and Information Technology, AlBaha University.

2011–2014   Chair of Computer Science Department, National College of Computer Sciences (ENSI).

2011–2014   Member of scientific board, National School of Computer Sciences.

Since 2012   Member of scientific board, Mediterranean Institute of Aeronautics Maintenance, Tunis

Professional Activities

Teaching Experience

Graduate Courses: speech processing, wavelet transforms and time frequency analysis, stochastic processes and their applications, automatic speech recognition, Operating System Security, Introduction to Cybersecurity, Advanced Probability and Statistics.

Undergraduate Courses: Electrical circuits, Electronics, Digital Electronics, Computer Architecture, , Microprocessors, Automation and Control, Advanced Engineering Mathematics, Digital Signal Processing and Systems, Digital Transmission, Analog Transmission, Networks, Calculus, Matrices and Linear Algebra, Discrete Structures, probability and statistics. Java Programming.

Supervising Experience

Undergraduate students

Up to 6 undergraduate students per year

Graduate students

Master's Degree in Electrical Engineering: System Analysis and Digital Processing

Adel Hidri, 'Evaluation system of an algorithm for the determination of the instants of glottal closure on a database provided with the laryngograph signal, ENIT, January 2004

Anis Kacem, 'A Comparative study of wavelet transform based algorithms determining the instants of glottal closure', ENIT, April 2004.

Mohamed Ali Annabi, 'Detection of the glottal closure instants in the presence of noise by multiscale analysis adapted to the pitch', ENIT, August 2005.

Master's Degree in Electrical Engineering: Automation

Hassene Seddik, 'Determination of the most discriminative parameters for speaker identification, ESSTT, May 2004.

Wajdi Elghezaeil, 'Determination of the instants of glottal closure on maxima of wavelet transform', ESSTT, July 2004

Master's Degree in Computer Science: Artificial Intelligence

Imtinan Saad Alghamdi, 'Deep Learning for Speech Emotion Classification', Faculty of Computer Science and Information Technology, Albaha University. June 2023.

Co-Supervision of Ph.D. students

Ph.D. in Electrical Engineering

Wajdi ELghezaeil, 'Speaker recognition under co-channel context', ESSTT, February 2014 **(with Pr. Ezzedine Ben Braiek)**

Research Activities

Interests:

Speech Processing, Speaker Recognition, Speech Recognition, Speech Emotion Recognition

JOURNAL PUBLICATIONS

[1] Wajdi Ghezaiel, Amel Ben Slimane, Ezzedine Ben Braiek, "Wajdi Ghezaiel, Nonlinear Multiscale Decomposition by EMD for Co-channel Speaker Identification", Multimedia Tools and Applications, 2016, ISSN 1573-7721

[2] Wajdi Ghezaiel, Amel Ben Slimane, Ezzedine Ben Braiek, "On Usable Speech Detection by Linear Multi-Scale Decomposition for Speaker Identification"-International Journal of Electrical and Computer Engineering (IJECE)-Vol.6, No.6, December 2016, pp. 2766~2772-ISSN: 2088-8708

[3] Wajdi Ghezaiel, Amel Ben Slimane, Ezzedine Ben Braiek, "Speaker Models Based on Voiced Segments for Speaker Assignment System", World Symposium on Web Applications and Networking (WSWAN 2015) March 2015 ,Sousse, Tunisia.- Proceedings Editor:Tagoug, N.ISBN:9781510809703

[4] W. Elghezaiel, A. Ben Slimane and E. Ben Braiek, *'Usable Speech Detection Based on Empirical Mode Decomposition',* In IET Electronic Letters, Vol. 49, Issue 7, March 2013. ISSN 0013-5194

[5] W. Elghezaiel, A. Ben Slimane and E. Ben Braiek, *'Improved EMD usable speech detection for co-channel speaker identification'* Lecture Notes in Computer Science, Advances *in* Non-Linear Speech Processing, Book series, vol. 7911, pp. 184-191, 2013.

[6] W. Elghezaiel, A. Ben Slimane and E. Ben Braiek, *'Usable Speech Assignment for Speaker Identification under Co-Channel Situation'.* International Journal of Computer Applications IJCA, Vol. 59, Issue 18, pp. 7-11, December 2012.

[7] W. Elghezaiel, A. Ben Slimane and E. Ben Braiek, '*Evaluation of a multi-resolution dyadic wavelet transform method for usable speech detection',* In World Academy of Science, Engineering and Technology Journal WASET, Vol. 79, pp. 829-833, Jully 2011.

[8] A. Ben Slimane, B. Zouabi, N. Ellouze, '*Traitement Morphologique du Signal de Parole'*, Les Annales Maghrébines de l'Ingénieur, vol. 12, N° Hors Série, pp. 383-387, November 1998.

LANGUAGE PROFICIENCY

Arabic: fluent written and spoken
French: fluent written and spoken
English: fluent written and spoken

COMPUTERS SKILLS

- Python, Java, Matlab , Maple, Assembler, Pascal, C+, Electronic Workbench, ISIS
- Word, Excel, Power point, Latex

TRAVEL EXPERIENCES

England, Germany, France, Italy, Spain, Belgium, Greece, Turkey, Saudi Arabia, Tunisia

Other Activities

❖ Co-founder and vice president of the Association of Tunisian Researchers in Communication and Computing Technologies (ACTTIC), 2011 to present. www.hanalb.org
❖ Consultant at National Agency of Scientific Research Promotion (ANPR), Tunisia, 2014. www.anpr.tn
❖ Organizing Committee member, Intl. Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2014), Tunisia, May 2014. www.hanalab.org/wiopt2014
❖ Organizing Committee member, Intl. School on Cooperative Robots and Sensor Networks (RoboSense 2012), Tunisia, December 2012.
❖ Organizing Committee member, The IEEE Mediterranean Electro-technical Conference (MELECON 2012), Tunisia, March 2012. www.melecon2012.org