CURRICULUM VITAE
September 2015

Fathi KALLEL

Assistant Professor, Majmaah University, College of engineering, Electrical engineering department, KSA

Marital Status: Married, two children

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Borth on 28th August 198, Sfax (Tunisia)

Nationality: Tunisian

EDUCATION AND DIPLOMA

2012-Present: *National Engineering School of Sfax (ENIS)-TUNISIA*
  - ***Habilitation, Electrical Engineering.***

2008-2011: *National Engineering School of Sfax, TUNISIA and Claude Bernard University, Lyon-FRANCE*
  - ***PhD, Electrical Engineering (ENIS) and Electronic, Electrotechnic and Automatic (UCBL) (option: Industrial Computer).***
  - ***Thesis:*** Dual-Microphone based speech enhancement algorithms dedicated to a bilateral cochlear implant
  - ***Supervisors:*** Pr. Ahmed Ben HAMIDA (*Tn*) & Pr. Christian BERGER-VACHON (*Fr*)
  - ***Qualification:*** Highly Honorable

2005 – 2006: *National Engineering of Sfax*

  - ***Master degree, Electrical Engineering.***
  - ***Thesis:*** A Digital Signal Processor implementation of a flexible stimulation strategy for cochlear implant.
  - ***Supervisor:*** Pr. Ahmed Ben HAMIDA
  - ***Qualification:*** Good

2002 – 2005: *National Engineering of Sfax*

  - ***Engineer degree, Electrical Engineering (option: Industrial Computer)***
  - ***Thesis:*** Simulation of cochlear implant using digital filter and FFT based vocoders
  - ***Speciality:*** Electrical Engineering
  - ***Supervisor:*** Pr. Ahmed Ben HAMIDA
  - ***Qualification***: Good

1999 – 2000: 9th April School, Sfax.

  - ***Baccalaureate Secondary Education***
  - *** Speciality:*** Sciences
  - ***Qualification***: rather well

Scholarship & TRAINEESHIP

WORK EXPERIENCES

Since September, 2015: **Assistant Professor**, Majmaah University, College of engineering, Electrical engineering department

2014–2015: **Assistant Professor**, National School of Electronics and Telecommunications, Sfax University, (**Digital Signal Processor, Digital and analog Signal processing, Digital and analog modulation, Industrial Programmable Automation (S7-200)**).

2012–2014: **Assistant Professor**, High Institute of Computer Science and Mathematics, Monastir University, (**Digital Signal Processor (Code Composer Studio environment), Digital Signal processing, computer architecture, Digital modulation, Data transmission, wireless communication system**).

2011–2012: **Teaching Assistant**, High Institute of Computer Science and Multimedia, Gabes University, (**Digital Signal Processor (Code Composer Studio environment), Signal processing, computer architecture**).

2007–2011: **Teaching Assistant** (contract), faculty of science, Gabes University, (**Analogic and digital signal processing, Image processing, computer architecture, Digital signal processor, Digital modulation, wireless communication system, Algorithmic and C++ Programming Language**).

2006-2007: **Teaching Assistant** (contract), High Institute of Computer Science and Multimedia, Sfax University (**computer architecture**).

2005-2006
- Temporary assistant, Higher Institute of biotechnologies, Sfax University (C/C++, Biomedical apparatus, Matlab software).
- First and Second Pedagogic training, ENIS.
- English training: Listening for research Purposes, ENIS.

COMPETENCES

Scientifics	Image and Signal processing, statistics, Biomedical apparatus, Digital modulation, wireless communication systems
Engineering software	MATLAB, SIMULINK, Visual C++, Statistica, Code Composer
Programming Languages	C/C ++, VHDL, Pascal and Assembly
Targets	DSP TMS320C6416
Operating Systems	Windows, Dos

RESEARCH INTERESTS

Signal processing techniques and computer science for the development of efficient tools and software for various technological problems involving those in biomedical. Our research interests and our studies were merely oriented to:
- Signal processing (Fast Fourier Transform and Digital Filtering) for cochlear prostheses simulation (Vocoders).

- Implantation of a flexible stimulation strategy for cochlear implant on fixed-point DSP processors (TMS 320C6416).
- Binaural Hearing aid and Binaural Cochlear implant.
- Single channel and microphone array speech enhancement for monaural and binaural biomedical hearing apparatus.
- Data transmission and Radio Frequency link.

PUBLICATIONS

Journal articles

– M. Ghorbel, A. Derbel, **F. Kallel**, M. Samet, A. B. Hamida, **2014**. Exploring Wavelet Transform Based Methodology for Cochlear Prosthesis Advanced Speech Processing Strategy*, **Acta Acustica United With Acustica**, 100: 10-17.

– **F. Kallel**, A. B. Hamida, R. Laboissière et C. Berger-Vachon, **2013**. Influence of a shift in frequency distribution and analysis rate on phoneme intelligibility in noisy environments for simulated bilateral cochlear implants, *Applied Acoustics*, 74: 10-17.

– **F. Kallel**, M. Ghorbel, M. Frikha, C. Berger-Vachon et A. B. Hamida, **2012**. A noise cross psd estimator based on improved minimum statistics method for two-microphone speech enhancement dedicated to a bilateral cochlear implant. *Applied Acoustics*, 73:256-264.

– **F. Kallel**, M. Frikha, M. Ghorbel, A. B. Hamida et C. Berger-Vachon, **2012**. Dual-channel spectral subtraction algorithms based speech enhancement dedicated to a bilateral cochlear implant. *Applied Acoustics*, 73:12-20.

– A. Derbel, **F. Kallel**, M. Samet et A. B. Hamida, **2008**. Bionic wavelet transform base on speech processing dedicated to a fully programmable stimulation strategy for cochlear prostheses. *Asian Journal of Scientific Research*, 1:293-309.

International Proceeding Articles

F. Kallel, A. B. Hamida et C. Berger-Vachon, 2012. Dual-channel multi-band spectral subtraction algorithm dedicated to bilateral cochlear implant. *Handicap 2012*, Porte des Versailles, Paris-France, Juin 2012.

F. Kallel, A. Jeanvoine, A. B. Hamida et C. Berger-Vachon, 2010. Etude de l'effet du mode de stimulation sur l'intelligibilité de la parole en milieu silencieux et en milieu bruité. *Handicap 2010*, Porte des Versailles, Paris-France, Juin 2010.

F. Kallel, D. Daoud, M. Ghorbel, et A. B. Hamida, 2009. Comparaison des différents algorithmes de débruitage du signal de parole pour les aides auditives binaurales. 5*th International Conference: Sciences of Electronic, Technologies of Information and Telecommunications*, Hammamet-Tunisia, March 2009.

– D. Daoud, **F. Kallel**, M. Ghorbel, et A. B. Hamida, 2009. Spatial filtering based speech enhancement for binaural hearing aid. 4*th International Multi-Conference on Systems, Signals and Devices*, Djerba-Tunisia, March 2009.

F. Kallel, A. B. HAMIDA and N. MASMOUDI, 2007. Adjustable FFT Based on Stimulation Algorithm Implementation for Cochlear Prostheses. 4*th International Multi-Conference on Systems, Signals & Devices*, Conference on Communication & Signal Processing, Hammamet-Tunisia.

– A. DERBEL, **F. Kallel**, A. B. Hamida et N. ELLOUZE, 2007. Wavelet-Based Parameterisation of Speech Signal Dedicated to Cochlear Prosthesis", 5*th International Multi-Conference on Systems, Signals and Devices*, Hmmamet-Tunisia, March 2007.

– A. DERBEL, **F. Kallel**, A.B. HAMIDA, 2007. Wavelet Filtering Based on Mellin Transform Dedicated to Cochlear Prostheses. 29*th IEEE International Conference on Engineering in Medicine and Biology Society*, Lyon-France, Octobre 2007.

National Proceeding Articles

2007 – **F. Kallel**, A. B. HAMIDA, 2007. Implémentation sur DSP d'une Stratégie de Stimulation Flexible pour Prothèse Cochléaire Basée sur un Banc de Filtres. *Septièmes Journées Scientifique en Génie Electrique et Informatique (GEI'07)*, Monastir-Tunisie, Mars 2007.

– A. DERBEL, **F. Kallel**, A. B. HAMIDA, N. ELLOUZE, 2007. Conception et Implémentation d'une Stratégie de Stimulation Basée sur la Transformée en Ondelette pour les Prothèses Cochléaires. *Septièmes Journées Scientifique en Génie Electrique et Informatique (GEI'07)*, Monastir-Tunisie, Mars 2007.

LANGUAGE SKILLS

Arabic: native language
French: speaking, reading and writing
Englich: speaking, reading and writing.