

PERSONNAL DATA

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Birth Date : 11th July 1963 Sfax (Tunisia)
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Family Status : Married (2 Children)
Profession : **Professor** at ENIS National School of Engineering, sfax Tunisia
Responsibility : **Head of the Research Biomedical Unit 'ATMS'**,
 Advanced Technologies Medicine & Signals,
 ATMS, ENIS, University of Sfax, Tunisia.

**HIGH LIGHTS & QUALIFICATIONS**

<u>DIPLÔMA</u>	<u>SPECIALITY</u>	<u>QUALIFICATION</u>	<u>DATE</u>
Baccalaureate <i>Secondary Education</i>	Math & Science	Good	June 1982
D.E.U.G Diplôme Etudes Universitaire Général	Math & Physics	Good	June 1984
Engineer Principal	Electrical Engineering & Instrumentation	Good	June 1988
A.E.A & D.E.A (ENIT) Master Degree University of Tunis	A.S.T.N Telecommunications Microwave, Biomedical	Very Honorable	March 1993
DOCTORATE ENIS University of Sfax	Electronics (Speech Processing and Medical Healthcare)	Very honorable With Jury felicitation	December 1998
HABILITATION ENIS University of Sfax	Signal Processing for Biomedical (Speech Processing and Medical Healthcare)	Discerned with Jury felicitation	May 2003

BRIEF BIOGRAPHY

Ahmed BEN HAMIDA, born in 1963 in Sfax (Tunisia), graduated in Electrical Engineering 1988, obtained Master degree in Telecommunications 1993 (ENIT School of Engineering, Tunis Tunisia), Doctorate degree (PhD) in 1998 and the HDR degree for research Director 2003, ENIS School of Engineering, Sfax-Tunisia).

Currently, he is the head of 'ATMS' Research unit (Advanced Technologies Medicine & Signals), a novel creation of the year 2010, gathering university researchers in technological sciences (Schools of Engineers, Faculty of Science...), and of the university of Medicine (Two Professors in Medicine, with assistants and doctors). This 'ATMS' creation is original in its direction, where researchers of two various fields are brought together: a technological field and a medical field. It coordinates and takes an active part in ENIS Doctoral Formation in Electronics, more specifically in Signal Processing, in Image Processing and in Telecommunication applications...

Undertaken research was mainly directed according to three topics: Speech processing (for medical), Medical Image processing with all modalities (Stimulation algorithms). Major part of the undertaken research tasks were in co-operation with foreign Laboratories such as GRAMS Université of Sherbrooke Canada in the beginning, LASL Laboratory in Calais France, LAMIH Laboratory in Valenciennes France, GRIF Laboratory at Telecom lille1 France, Neuroscience Laboratory at University CLB Lyon France, CENIR research center at slaprière hospital, Paris France, as well as with several alternatives with industrial companies like TELNET Tunisia...

Various research levels (Master, Doctorate) were being directed around various topics involving Information Technologies and Medical technologies : Recognition and synthesis of word as well as the relevant Algorithms, Medical and satellite image processing, Medical Teledetection, Image, Biometrics, Data fusion and pattern recognition, Biomedical Stimulators and prosthesis, CAD...

Various papers and high level scientific publications could describe more specifically this research in biomedical technologies, such as Elsevier, Maghrebian Annals, IJSP, JAS, JOLPE, GESTS..., and in international conferences such as WMSC, EMBS, CIAP, ISIE, ICSCCP, SSD, JTEA, ATSIP...

High level scientific activities were marked for various circumstances: Invited Professor at the University of Sherbrooke (Canada) for the years 1999-2003, Invited Professor at LASL Laboratory Calais France and GRIF Telecom Lille1 France, Director HDR degree, Director of various Theses, Reviewer of HDR and Thesis degree, Reviewer in high qualified revues, Invited Lecturer in conferences and Work shops, President and chairman of various conferences' sessions...

PROFESSIONAL NIMONIATIONS

- January 1989 : Nomination : **Principal Engineer for** Tunisie-Câbles Society.
Quality control, ISO 900 Normalisation, Research & development...
- September 1991: Nomination : University **Assistant** at ENIS School of Engineering.
Courses assured : Signal processing, Medical electronics, speech processing...
- June 1999 : Nomination : **Associate Professor (MA)** at ENIS School of Engineering.
- October 2003 : Nomination : **Professor (MC)** at ENIS School of Engineering.
- February 2009 : Nomination : Full **Professor** at ENIS School of Engineering.
- **January 2011** : Nomination : Head of ATMS Research Unit funded by Tunisian Government.
- **January 2012** : Nomination : Expert in Biomedical for FP6 European Project
- **January 2014** : Nomination : Coordinator of Sectorial committee in the Ministry of Higher Education for the evaluation of National Graduate Programs.
- **January 2017** : Nomination : Head of ATMS Research Lab funded by Tunisian Government.

Main OBJECTIVES

Signal processing techniques and electronics and computer science for the development of efficient tools and software for various technological problems involving those in medical technologies, in telecommunication... Our research interests and our studies were merely oriented to :

- ❑ Signal Processing : This course aims to present the fundamentals of mathematical modelling of Signals and Systems, with various applications especially for Biomedical field.
- ❑ Speech Processing : This course involve modelling of speech as an important signal for communication, and after we can emphasis on medical rehabilitation for deafs and for measuring the audition levels that could be as clinical needs during diagnosis.
- ❑ Image Processing ; This course will involve the basis of image processing in general, and then we can explore medical images. In this field, we have to explore the several medical modalities such as X Rays, Ultrasounds images, MRI Images with its various sub modalities, the nuclear medicine modalities such as Gamma camera, scintigraphy, PET images etc...
- ❑ Medical Electronics (Images, Prostheses, Medical apparatus, Diagnosis),
- ❑ Communications.

What is your research field? Please give a brief summary. (250 words or fewer)

As the of ATMS Research Lab, the main promoting field is the Medical Image Processing for offering Clinical Aided Tools (or CAD : Computer Aided Diagnosis). Such a needed systems nowadays could be considered as emerging technologies that could not only help clinicians during their hesitations but also contributing to advancing medical imagery apparatus.

List your most significant research publications (no more than five): According to the CV :

1. Lamia Sellami , Olfa Ben Sassi, khalil Chtourou & **Ahmed Ben Hamida**, “Breast Cancer Ultrasound Images' Sequence Exploration Using BI-RADS Features' Extraction: Towards an Advanced Clinical Aided Tool for Precise Lesion Characterization”, IEEE TRANSACTIONS ON NANOBIOSCIENCE, VOL. 14, NO. 7, 2015.
2. Lamia Sallemi, Ines Njeh and StephaneLehericy “Towards A Computer Aided Prognosis for Brain Glioblastomas Tumor Growth Estimation”, IEEE TRANSACTIONS ON NANOBIOSCIENCE, VOL. 14, NO. 7, 2015.
3. Boughariou J., Zouch W., Ben Slima M., Kammoun I., **Ben Hamida A.**, “Highresolution imaging guided EEG source localization : Temporal Effect Regularization Incorporation in LORETA Inverse Solution”, J. Electron. Imaging 24(6), 061204 (2015). [doi: 10.1117/1.JEI.24.6.061204].
4. Fatma Gargouri,1,2,3 Arnaud Mess e,4,5 Vincent Perlberg,1,5,6 Romain Valabregue,1,2 Peter McColgan,7 Lydia Yahia-Cherif,1,2 Sara Fernandez-Vidal,1,2 **Ahmed Ben Hamida**,3 Habib Benali,5 Sarah Tabrizi,7 Alexandra Durr,2,8 and St ephane Leh ericy1,2,9,10*, ‘Longitudinal Changes in Functional Connectivity of Cortico-Basal Ganglia Networks in Manifests and Premanifest Huntington’s Disease’, Human Brain Mapping 37:4112–4128 (2016).
5. R. Trigui a,b,*, J. Mitéran a,**, P.M. Walker a,c, L. Sellami b, **A. Ben Hamida**, ‘Automatic classification and localization of prostate cancer using multi-parametric MRI/MRS’, Biomedical Signal Processing and Control, ELSEVIER, 31 (2017) 189–198.

What teaching innovations or curricular changes have you introduced in the courses you teach?

As for Image Processing ; This course will involve the basis of image processing in general, and then we can explore medical images. In this field, we have to explore the several medical modalities such as X Rays, Ultrasounds images, MRI Images with its various sub modalities, the nuclear medicine modalities such as Gamma camera, scintigraphy, PET images etc...

What current challenges do you face in your teaching? (250 words or fewer)

Teaching with practical skills is our first goal and we are looking for training centres for our students such as hospitals for medical images...

TRAININGS & FOMATION PRE et POST DOCTORATE

DOMAINE	ACTIVITES	DATE
University of Sherbrooke Canada 'GRAMS', 'Groupe de Recherche en Appareillage Médical' Sherbrooke-Canada	Post-doctorate Formation 1- Cadence, PSPICE : Design & electronics 2- Speech processing : Matlab/Simulink	Janvier – Avril 2000
University of Sherbrooke Canada 'GRAMS', 'Groupe de Recherche en Appareillage Médical' Sherbrooke-Canada	Post-doctorate Formation 1- Cadence, PSPICE : Design & electronics 2- Speech processing : Matlab/Simulink	Janvier – Avril 1999
University of Sherbrooke Canada 'GRAMS', 'Groupe de Recherche en Appareillage Médical' Sherbrooke-Canada	Doctorate Formation 1- Research on Signal Processing, on speech, on cochlear prostheses... 2- Implementation : FFT/FIR on DSP	Janvier – Août 1998
University of Sherbrooke Canada 'GRAMS', 'Groupe de Recherche en Appareillage Médical' Sherbrooke-Canada	Doctorate Formation 1- Research on Signal Processing, on speech, on cochlear prostheses... 2- Implementation : FFT/FIR on DSP	Janvier – Août 1997
University of Bordeaux France ENSERB 'Unité Traitement du Signal'	Doctorate Formation Formation : MENTOR software Implementation : Algorithms & DSP	Septembre 1996
SUPELEC Paris France 'Groupe de Recherche en Traitement du signal '	Doctorate Formation 1- Formation : 'Signal Processing Work System' software and various implementations...	Décembre - January 1995
University of Bordeaux France 'Laboratoire Audiologie Expérimentale '	Doctorate Formation 1- Formation : audition measures, medical skills...	Décembre - January 1995
University Paris V France Laboratoire 'Audio-Phono- Prothèses' Paris-France	Doctorate Formation Cochlear Prostheses & Chirurgy Research : Speech Processing & Audition	September, 1994
Normalisation Institute INNORPI –TUNISIE	Industry Formation Quality control ISO 9000	April 1990, 1991

Other PROFESSIONNAL & RESEARCH ACTIVITES

- ❑ Quality Management for Tunisie-Câble society with ISO 9000 Normalisation, 1989-91
- ❑ Cochlear Prosthesis (Deafness Rehabilitation), ENIS Sfax & St Antoine Hospital France, 199-97.
- ❑ Scientific Cooperation with Sherbrooke University (Medical research), 1997-2003.
- ❑ Scientific Cooperation with University of Valenciennes, France (Medical Image Processing for Electrical Cerebral localisation), 2005-2009.
- ❑ Scientific Cooperation with Telecom Lille 1 Institute (Satellite Image Processing), 2006-2009.
- ❑ Medical Expert for images' modalities from 2012...
- ❑ Head of university employment's committee...
- ❑ Head of sectorial committee at the ministry of higher education from 2013...

SELECTED PUBLICATIONS : REVUES / JOURNALS

1. **Ahmed Ben Hamida**, M. Samet, H. Ghariani, M. Drira, 'Stimulation Algorithm For Cochlear Implant Based On Spectral Approach Stimulation', Numéro special, **Annales** maghrébines, Vol.1, Num.5, 1998.
2. **Ahmed Ben Hamida**, 'A Digital Signal Processing Algorithm Dedicated to Hearing Aid Research', EMBEC'99, Special issue, **Journal**: International Federation for Medical Engineering, Vol.37, 1999.
3. **Ahmed Ben Hamida**, 'FFT Based Stimulation Algorithm for Cochlear Prostheses', EMBEC'99, Special issue, **Journal**: International Federation for Medical Engineering, Vol.37, 1999.
4. **Ahmed Ben Hamida**, M. Samet, M. Drira "A Speech treatment Algorithm Based on a Programmable Filter Bank for Cochlear Prosthesis", Innovation and Technology in Biology and Medicine (**Revue ITBM**), Editions Scientifiques et Médicales ELSEVIER, Vol.21, Num.4, pp.217-226, France, 2000.
5. **Ahmed Ben Hamida**, & M. Samet, 'Spectral Approach Based on FFT Applied to Cochlear Implant', Les **Annales** Maghrébines de l'Ingénieur, ENIT AMI/02/02, Volume 15, Number 2, 2003.
6. Hamadi Ghariani, Sonia Zouari, **Ahmed Ben Hamida**, 'Programmable Generator Dedicated to the Preoperative cochlear Stimulation, Libanese Science **Journal**, Vol., Number 2, ISSN 1561-3410, 2004.
7. Dorra Gargouri, **Ahmed Ben Hamida**...'Source-Filter Models for Formants Estimation', **WSEAS Transaction** On Signal Processing, Issue 5, Volume2, May 2006, ISSN 1790-5022, PP.618-625
8. Med A.Kammoun, D.Gargouri, M.Frikha & **A.BenHamida**, 'Cepstrum vs LPC: Comparative Study for Speech Formant Frequencies Estimation', **GESTS International Transactions**, Vol.9, No1, 2006, ISSN1738, pp.87-102.
9. Mohamed Ghorbel, **Ahmed Ben Hamida**, "An Advanced Low Power and Versatile CMOS Current Driver for Multi-Electrode Cochlear Implant Microstimulator", **Journal** Low Power JOLPE, Vol. 2, Num.3, 2006.
10. Med Ghorbel, M.Samet, **A.BenHamida** & Jean Tomas, "16-electrode Fully Integrated and Versatile CMOS Microstimulator Dedicated to Cochlear Implant", **Journal** Applied Sciences, Volume 6, Number 15, September 2006.

11. M. Lahiani, N.BenAmor, H.Ghariani & **A.BenHamida**, 'Adjustable Filtering Structure Design Dedicated to a Programmable Hearing Aid Apparatus', *Int..Journal Physical Sciences*, Vol.1, No4, pp.201-211, ISSN1992, 2006.
12. T. Dallèji, M. Zribi & **A.BenHamida**, 'On the EM Algorithm and Bootstrap Approach Combination for Improving Satellite Image Fusion', *International Journal of Signal Processing*, Vol.4, No 2, ISSN 1304-4487, pp.85-94, 2007.
13. M. Frikha, **A.BenHamida**, 'On the Optimization of Acoustical Analysis and Modelling Techniques for HMM Isolated Word Recognizer', **GESTS International Transaction on Communication and Signal Processing**, Vol.10, No 6, 2007.
14. Mondher Frikha & **Ahmed Ben Hamida**, 'Towards Discriminative Training Estimators for HMM Speech Recognition System', **Journal of App. Sciences**, Vol.7, Num.24, pp. 3891-3899, 2007.
15. Mondher Frikha & **Ahmed Ben Hamida**, 'Noise Robust Isolated Word Recognition Using Speech Feature Enhancement Techniques', **Journal of App. Sciences**, Vol.7, Num.24, pp.3935-42, ISSN 1812-5654, 07.
16. Ahmed RKIK, Mourad Zribi, **Ahmed Ben Hamida**...'Review of Satellite Image Segmentation for an Optimal Fusion System Based on the Edge and Region Approaches', *International Journal of Computer Science and Network Security IJCSNS*, Volume 7, Num. 10, October 2007, ISSN 1304 - 4487, pp. 85-94
17. Ahmed RKIK, & **Ahmed Ben Hamida**, 'On the EM Algorithm and Bootstrap Approach Combination for Improving Satellite Image Fusion', *International Journal of SP, IJSP*, Vol. 5, Num.1, pp. 20-27, 2008.
18. Dorra Gargouri, Med Ali Zerzi & **Ahmed Ben Hamida**, 'Formants Estimation Algorithm In Noisy Environment', *Inter. Transactions Communication Signal Processing*, ©GESTS2008, Vol.9, N°1, pp.87-102, ISSN 1738-9682, 2008.
19. D.Gargouri, M.Frikha, Z.B.Messaoud & **A.BenHamida**, 'Formants' Estimation Algorithm Based On Variable Order Lpc Coding Under Noisy Environment', *Asian Journal Scientific Research*, Vol.1, N°4, ISSN 192, pp.293-309, 2008.
20. Amira Derbel, Fathi Kallel, **Ahmed Ben Hamida**...', 'Bionic Wavelet Transform Based on Speech Processing Dedicated to a Fully Programmable Stimulation Strategy for Cochlear Prostheses', *Asian Journal of Scientific Research - 97-AJSR-DOI*, Vol. 4, No 1, pp. 293-309, ISSN 1922-1454, 2008.
21. Neila Rekik, S.Shabou, **A. Ben Hamida** & M.Samet, 'Programmable Current Source Design Dedicated to an Advanced C.I Micro-stimulator', *ASP JOLPE Journal Low Power Electronics*, Vol.4, N°2, pp.1-12, 2008.
22. W. Zouch, Med B.Slima, I.Feki, Ph.Derambure, A.Taleb-Ahmed & **A.B.Hamida**, 'Shrinking Smooth WMN-FOCUSS Based Method for 3D Neuronal Brain Activity Estimation', *Optical Engineering Journal*, Vol.49, No.11, Nov. 2010.
23. S. Masmoudi, M. Frikha, Med Chtourou & **A.B.Hamida**, 'Constructive Algorithm for isolated word recognition based Artificial Neural Network', *SPRINGER Journal*, 2010-11-05
24. M. Frikha, S. Masmoudi, **A.B.Hamida** & Med Chtourou, 'Advanced classification approach for neuronal phoneme recognition system based on efficient constructive training algorithm', *SPRINGER Journal*, 2012-10-11
25. Kallel F., Ghorbel M., Frikha M., Berger-Vachon C. & **Ben Hamida A.**, 'Dual-channel spectral subtraction algorithms based speech enhancement dedicated to a bilateral cochlear implant'. *Applied Acoustics*, ELSEVIER, (2012), 75:12-20
26. Kallel F., Frikha M., Ghorbel M., Berger-Vachon C. & **Ben Hamida A.**, 'A noise cross psd estimator based on improved minimum statistics method for two-microphone speech

- enhancement dedicated to a bilateral cochlear implant', Applied Acoustic, ELSEVIER (2012), doi:10.1016/j.apacoust.2011.09.008.
27. Kallel F., **Ben Hamida A.**, Laboissière R. & Berge-Vachon C., 'Influence of Frequency Distribution and analysis Rate on Phoneme Intelligibility in Noisy Environment in Simulated Bilateral Cochlear Implant Contexts', Submitted to Applied Acoustic, ELSEVIER, (Ref. No.: APAC-D-10-00327R1), 2011.
 28. Z. Ben Messaoud and **A. Ben Hamida** «Combining Formant Frequency based on Variable Order LPC Coding with Acoustic Features for TIMIT Phone Recognition»; International journal of Speech Technology ; Springer IJST 240, SPRINGER Journal, 2011-11-05
 29. Z. Ben Messaoud, D.Gargouri, S.Zribi and **A. Ben Hamida** «Formant Tracking Linear Prediction Model using HMMs for Noisy Speech Processing»; International Journal of Signal Processing; 5:4 2009.
 30. R.Khemakhem, W. Zouch, **A. Ben Hamida**, A. Taleb-Ahmed and I.Feki, "EEG Source Localization Using the Inverse Problem Methods" International Journal Computer Science & Network, Vol.8 No.11, 04/2009.
 31. R.Khemakhem, O.BenSassi, **A. Ben Hamida** & A.Taleb-Ahmed, 'Monomodal and Multimodal Registration using the ICP Algorithm', ICGST-ACSE- BIME Journal, ISSN:1687-4811, Vol.9, Issue1, 2009
 32. Tijani Dallèji, Mourad Zribi & **Ahmed Ben Hamida**, 'Multi-Source Multi-Sensor Image Fusion Based on Bootstrap Approach The Open Remote Sensing Journal, Vol 2, pp. 1-10, 2009.
 33. Wafa REKIK, Ines KETATA, Lamia SELLAMI Khalil CHTOUROU, Mohamed BEN SLIMA, Su RUAN & **Ahmed BEN HAMIDA**, 'Towards Factor Analysis Exploration Applied to Positron Emission Tomography Functional Imaging for Breast Cancer Characterization', Transactions on Systems, Signals & Devices (TSSD) (subsequently called the "Journal") published by Shaker-Verlag, Vol.6, No.3, pp.1-18, 1861-5252/c 2011TSSD , 2011.
 34. Derbel A., Kallel F., Samet M. & **Ben Hamida A.**, 'Bionic Wavelet Transform Based on Speech Processing Dedicated to a Fully Programmable Stimulation Strategy for Cochlear Prostheses'. Asian Journal of Scientific Research, Asian Network for Scientific Information (2008), 4:293-309.
 35. Derbel A., Ghorbel M., Samet M. & **Ben Hamida A** , 'Real Time Implementation of Cochlear Implant Stimulation Strategy Based on Wavelet Transform', International Journal of Biomedical Engineering and Technology (IJBET), (Accepté 2012).
 36. Rafik Khemakhem, Wassim Zouch, Ines Kammoun, Mohamed BenSlima, Philippe Derambure, Abdelmalik Taleb-Ahmed, Ahmed BenHamida "Cortical Generators Localization in Electroencephalography using SSLOFO: Effect of Electrodes Configuration" Wulfenia Journal, ISSN:1561-882X, Vol 20, No. 3; Mar 2013
 37. Ines Ketata, Lamia Sallemi, Frédéric Morain-Nicolier, Mohamed Ben Slima, Alexandre Cochet, Khalil Chtourou, Su Ruan & Ahmed Ben Hamida, 'Factor Analysis-based Approach for Early Upatke Automatic Quantification of Breast Cancer by 18F-FDG PET Image Sequence, Biomedical Signal Processing and Control, ELSEVIER, ISSN:XXXX, Vol.09, No. X; pp. 19-31, 2013
 38. **Ines Ketata**, Lamia Sallemi, Frédéric Morain-Nicolier, Mohamed Ben Slima, Alexandre Cochet, Khalil Chtourou, Su Ruan & Ahmed Ben Hamida, *Quantification automatique précoce du métabolisme glucidique dans les séquences d'images dynamiques TEP au 18F-FDG, Médecine Nucléaire-Imagerie Fonctionnelle et Métabolique, elsevier, ISSN:XXX, Vol, X, No. X*

39. **Olfa BEN SASSI**, Lamia SALLEMI, Mohamed BEN SLIMA, Khalil CHTOUROU & Ahmed BEN HAMIDA, “Improved Spatial Gray Level Dependence Matrices For Texture Analysis”, *International Journal of Computer Science & Information Technology (IJCSIT)*, ISSN: 0975-4660, vol. 4, no. 6, pp. 209-219, Décembre 2012.
40. **Olfa BEN SASSI**, Lamia SALLEMI, Mohamed BEN SLIMA, Khalil CHTOUROU, Saoussan ZOUARI & Ahmed BEN HAMIDA, “A Fully Automatic Method for Breast Lesions Segmentation in Ultrasound Images”, *CIIT International Journal of Digital Image Processing*, ISSN: 0974-9691, vol. 5, no. 3, pp. 117-126, Mars 2013, **(IF: 0.652)**
41. **Olfa BEN SASSI**, Lamia SALLEMI, Mohamed BEN SLIMA, Khalil CHTOUROU & Ahmed BEN HAMIDA, “Advanced Multi-scale Vector Field Convolution Dedicated to Breast Cancer Ultrasound Image’s Segmentation”, *Imaging Science Journal*, ISSN: 1368-2199, **(IF: 0.575) soumis**
42. **F. Kallel**, R. Laboissiere, , **A. Ben Hamida**, , C. Berger-Vachon, , “Influence of a shift in frequency distribution and analysis rate on phoneme intelligibility in noisy environments for simulated bilateral cochlear implants”, *Applied Acoustics*, ELSEVIER 2013, Vol. 74, pp. 10-17.
43. **M. Frikha**, **S. Masmoudi**, **A. Ben Hamida**, “Advanced classification approach for neuronal phoneme recognition system based on efficient constructive training algorithm”, 2013, *International Journal of Speech Technology*, Springer, ISSN: 13812416, pp. 1997-2012.
44. **M. Ghorbel**, **A. Derbel**, **F. Kallel**, M. Samet & **A. Ben Hamida**, ‘Exploring Wavelet Transform Based Methodology for Cochlear Prosthesis Advanced Speech Processing Strategy’, 2013, *Acta Acustica United with ACUSTICA*, (Ref, No: AAA-D-11-00165R2), Vol.100, 2014, 1-1...
45. T. Dellejia , A. Kallela & A. Ben Hamida, ‘Multispectral image adaptive pansharpening based on wavelet transformation and NMDB approaches’, *International Journal of Remote Sensing*, 35:19, 7069-7098, DOI: 10.1080/01431161. (2014).
46. Ines Njeh, Lamia Sallemi, Mohamed Ben Slima, Khalil Chtourou, Stephane Lehericy, Damien Galanaud, CHokri Mhiri, Ahmed Ben Hamida , “An Advanced Computer-Aided Diagnosis For Brain Glioblastomas Tumor Exploration Using MRI Modality Imaging”, *Wulfenia Biophysics*, Vol 21, No. 10; Oct 2014.
47. Ines Njeh, Lamia Sallemi , Ismael Ben Ayed, Khalil Chtourou, Stephane Lehericy, Damien Galanaud, Ahmed Ben Hamida, “3D multimodal MRI brain glioma tumor and edema segmentation: A graph cut distribution matching approach”, *Elsevier Biomedical Revue, Computerized Medical Imaging and Graphics*, Vol. 40, pp. 108–119, 2015.
48. W. Rekik, S. Le Hégarat, R. Reynaud, A. Kallel, A. Ben Hamida, “Dynamic Estimation of the Discernment Frame in Belief Function Theory: Application to Object Detection”, *Information Sciences*, 306(10), pp. 132149, 10.1016/j.ins.(2015).01.039.
49. Boughariou J., Jallouli N., Zouch W., Ben Slima M., and Ben Hamida A., “Spatial Resolution Improvement of EEG Source Reconstruction using swLORETA”, *IEEE TRANSACTIONS ON NANOBIOSCIENCE*, [doi: 10.1109/TNB. (2015) .2477247].
50. Lamia Sellami , Olfa Ben Sassi, khalil Chtourou & Ahmed Ben Hamida, “Breast Cancer Ultrasound Images' Sequence Exploration Using BI-RADS Features' Extraction: Towards an Advanced Clinical Aided Tool for Precise Lesion Characterization”, *IEEE TRANSACTIONS ON NANOBIOSCIENCE*, VOL. 14, NO. 7, 2015.
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52. Boughariou J., Zouch W., Ben Slima M., Kammoun I., Ben Hamida A., “High resolution imaging guided EEG source localization : Temporal Effect Regularization Incorporation in

- LORETA Inverse Solution”, J. Electron. Imaging 24(6), 061204 (2015). [doi: 10.1117/1.JEI.24.6.061204].
53. Baklouti, R., Mansouri, M., Nounou, H., & Hamida, A. B. " Iterated Robust kernel Fuzzy Principal Component Analysis and application to fault detection". Journal of Computational Science. [doi:10.1016/j.jocs. (2015) .11.005]
 54. Wafa Rekik, Sylvie Le Hégarat-Masclé, Roger Reynaud, Abdelaziz Kallel, Ahmed Ben Hamida, Dynamic object construction using belief function theory, Information Sciences (2016), doi: 10.1016/j.ins. (2016) .01.047.
 55. CHAABANE, M., BAKLOUTI, I., MANSOURI, M., JAOUA, N., NOUNOU, H., NOUNOU, M., BEN HAMIDA, A., DESTAIN, M-F." Nonlinear State and Parameter Estimation Using Iterated Sigma Points Kalman Filter - Comparative Studies", Systems and Control of Nonlinear Equations, Book edited by: Dongbin Lee, Publisher: InTech, ISBN 978-953-51-4714-5, 2016, 25p.
 56. Hind Hallabia, Abdelaziz Kallel, Sylvie Le-Hégarat Masclé & Ahmed Ben Hamida, ‘High Spectral Quality PanSharpening Approach Based on MTF-matched Filter Banks’, Multidimensional Systems and Signal Processing (Springer), October 2016, Vol. 27, Issue 4, pages 831—861, (2016). doi: 10.1007/s11045-016-0421-4, (IF: 1.617)
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 59. M. Zribi a, □, M. Sahnoun a,b , N. Baghdadi c , T. Le Toan a , A. Ben Hamida, ‘Analysis of the relationship between backscattered P-band radar signals and soil roughness’, ELSEVIER Remote Sensing of Environment, 186 (2016) 13–21.
 60. R. Trigui a,b,*, J. Mitéran a,**, P.M. Walker a,c, L. Sellami b, A. Ben Hamida, ‘Automatic classification and localization of prostate cancer using multi-parametric MRI/MRS’, Biomedical Signal Processing and Control, ELSEVIER, 31 (2017) 189–198.

Other publication are not yet officially published...

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