



CURRICULUM VITAE

PERSONAL DETAILS

Name: Fatma zohra CHELALI
Date and place of birth: December, 16th, 1970. Algiers, ALGERIA.
Nationality: Algerian
Work Address: Houari Boumediene University of Sciences & Technology,
PoBox.32, El Alia, Bab Ezzouar, 16111, Algiers
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ACADEMIC EDUCATION

June 2012 Doctorate degree in speech communication. Faculty of electronic and computer science, Houari Boumediene University of Sciences & Technology of Algiers, ALGERIA.
Mai 2006 Magister degree in speech communication. Faculty of electronic and computer science, Houari Boumediene University of Sciences & Technology of Algiers, ALGERIA.
June 1994 Engineer Degree in Telecommunications, Faculty of electronic and computer science, Houari Boumediene University of Sciences & Technology of Algiers, ALGERIA.
June 1989 Baccalaureate in natural science.

AFFILIATIONS

Since June 2011 Member of the IEEE Algerian Sub-Section for 2012, IEEE member 92031821, region R8 -Europe, MEast, Africa.
Since February 2012 Member of IEEE Communications Society for 2012.
Since 2007 Member of the "Association internationale de pédagogie universitaire" (AIPU), Algerian section.
Since 2012 My name appears in Who's who in the world.
Since 2013 My name appears in International Biographical center of Cambridge IBC.
Since July 2012 TPC member and reviewer in the international conference MIC-CSC2012, Image and Speech Processing (SISP) « the 5th International Conference on Communications, Signals and Coding MIC-CSC2012 ». Istanbul, Turkey: 12-14 October 2012. Mosharaka Homepage: "http://mosharaka.net".

TPC member in:

1. Signal, Image and Speech Processing (SISP), Istanbul, Turkey, 12-14 October 2012,
2. Digital Image Processing (DIP), Dubai, UAE, 3-5 October 2014,
3. Computer Vision and Applications (CVA), Milan, Italy, 15-17 August 2014,
4. Speech and Language Processing (SLP), Dubai, UAE, 3-5 October 2014.

<http://mosharaka.net/?Cat=Users&Pag=UsersHome&View=UserSummary&User=1444>

- **December 2014** : Member of the scientific committee of « Conférence Nationale sur le Traitement Automatique de la Parole, NCSP' 2014, CRSTDLA. Algiers, ALGERIA.
- **January 2015**: member of the organizing committee of “2èmes journées du Laboratoire LCPTS”. USTHB, Algiers, ALGERIA.
- **During 2015**: Reviewer in British journal of Applied Science and Technology. www.sciencedomain.org.
- **January 2016, secretary of the Algerian IEEE section.**
- **Janvier 2015** : Membre du comité scientifique et d'organisation des 2èmes journées du Laboratoire LCPTS.
- **Juin 2016** : Membre du comité scientifique et « TPC publication chair » de la 7ème Conférence sur les systèmes de détection : Architectures et Technologies. DAT2017. Du 20a u 22 Février 2017. http://www.seminaires-dat.dz/contenu_Eng/S%C3%A9minaire_Comit%C3%A9.php
- **December 2016**: Member of the scientific committee « The International Conference on Intelligent Cloud Computing » [ICC 2016]. <http://www.ctce2016.org/>.
- **June 2017** : Member of the scientific committee IEEE-ICEE'17, Boumerdes, Décembre 2017.
- **December 2016**: Member of the organizing committee “ journées du Laboratoire LCPTS”JLCPTS2016”. <http://www.lcpts.usthb.dz/>
- **January 2016 to december 2017: secretary of the Algerian IEEE section.**
- **Since Mai 2016** : Responsable of « Telecommunications systems » of Electronics and computer science faculty, USTHB.Algiers.

Research Interest

Pattern recognition

Audiovisual recognition and human-computer interaction,

Speech and image analysis,

Audiovisual compression.

Summary of professional activity

I received my engineering degree in Electronic engineering from University of science and technology Houari Boumedienne of Algiers; ALGERIA (USTHB) in 1994.

I work as Assistant teacher in the high school of Aeronautical Technicians (Ecole supérieure des techniciens de l'Aéronautique ESTA) from 1997 to 2008, I taught courses on Analog and digital telecommunications systems, digital electronics, principal functions in electronics and Microwave systems. I receive an academic certificate for teaching from the Algerian institute of management (Institut international de management d'Alger) in 1999.

I spend a year of post graduation from 2002 to 2003. Then, I received a “magister” degree and doctorate degree in speech communication from electronic engineering and

computing faculty (USTHB) in 2006 and 2012. Actually, I teach courses with telecommunications department on Electromagnetic waves, transmission lines and digital electronics since 2007 in Electronic engineering and computer science Faculty, university of science and technology (USTHB).

MAIN TAUGHT COURSES

Courses taught with the High school of Aeronautical Technicians (Ecole supérieure des techniciens de l'Aéronautique ESTA) from 1997 to 2008:

- Microwaves: transmission lines, waveguide, Microwave oscillator: Magnétron ; klystron ; oscillator GUNN.....).
- Analog and digital telecommunications: Amplitude, frequency and phase modulation, PAM, PAM, PDM, PPM, MIC et DELTA).
- Digital electronics : Numerical circuits.
- Linear electronics: Diodes, transistor, Amplification,etc.

Courses taught with Telecommunications department of Houari Boumediene University of Sciences & Technology (USTHB) of Algiers, ALGERIA

- Theory of transmission lines and electromagnetic wave, (7th and 8th semester for engineering level and 4th semester for electronics LMD),
- Digital electronics: 4th semester for LMD training.
- Transmission lines: 7th semester for master, telecommunications systems).
- Radiocommunications.
- Technical English.
- Basic principles of image processing.

Student Research Supervision

Chaired Master Degrees

About 10 projects

Chaired Engineer Degrees

About 15 projects

Publications

1. FZ. CHELALI , Amar DJERADI, " Primary research on Arabic visemes, Analysis in space and frequency domain", International Journal of Mobile Computing and Multimedia Communication (IJMCMC), published by IGI Global, USA,pp 1-19, DOI: 10.4018/IJMCMC, ISSN: 1937-9412, EISSN: 1937-9404, vol.3 , N°4,2011.

<http://www.igi-global.com/article/international-journal-mobile-computing-multimedia/58902>

2. FZ. CHELALI A .DJERADI et R.DJERADI

“Speaker Identification System based on PLP Coefficients and Artificial Neural Network”, Travail publié dans le journal: Lecture Notes in Engineering and Computer Science Year: 2011 Vol: 2191 Issue: 1 Pages/record No.: 1641-1646. Available in:

<http://www.doaj.org/doaj?func=abstract&id=824969>

3. **Fatma zohra CHELALI** , Amar DJERADI,
“Face Recognition System using Discrete Cosine Transform combined with MLP and RBF
Neural Networks”. International Journal of Mobile Computing and Multimedia
Communication (IJMCMC), published by IGI Global, USA, DOI:
10.4018/jmcmc.2012100102, Volume 4, Issue 4. 1-35, October-December 2012.
<http://dl.acm.org/citation.cfm?id=2440604>

4. **Fatma zohra CHELALI**,Khadidja sadeddine, Amar Djeradi,
Visual speech analysis, application to Arabic phonemes”,
Conference paper (SEDEXS'12), settat, Morocco. Published in special issue «International
Journal of Computer Applications, Foundation of Computer Science, New York, USA.
<http://ijcaonline.org/specialissues/sedex/number2/8364-1015>

5. N. CHERABIT, FZ. CHELALI A .DJERADI, “Circular Hough Transform for
Iris localization”, Science and Technology (p-ISSN: 2163-2669, e-ISSN: 2163-2677),
Scientific & Academic Publishing, USA. (Vol.2, No.5, September 2012).
<http://article.sapub.org/10.5923.j.scit.20120205.02.html>

7. Khadidja Sadeddine, **Fatma zohra CHELALI**, Rachida DJERADI and Amar.
DJERADI, “Visual speaker verification system depending on Arabic syllables”
Journal Name: Computational Linguistics Research, Digital Information Research
Foundation, 2013. <http://www.dline.info/jcl/v4n2.php>

8. **Fatma zohra CHELALI**, Amar Djeradi ,”Face recognition using MLP and RBF
neural network with Gabor and discrete wavelet transform characterization, a
comparative study”, Journal of Mathematical Problems in Engineering (MPE).
Volume 2015 (2015), Article ID 523603, 16 pages,
<http://dx.doi.org/10.1155/2015/523603>.

Numéro special: Computational Intelligence in Image Processing 2014, Guest Editors: Erik
Cuevas, Daniel Zaldívar, Gonzalo Pajares, Marco Perez-Cisneros, and Raúl Rojas.

Publisher: Hindawi Publishing Corporation. **Publication type:** Journals. ISSN: 1024123X,
15635147, **H Index:** 29, impact factor: 0.762.
<http://www.hindawi.com/journals/mpe/aa/523603/>

9. **Fatma zohra CHELALI**, Amar Djeradi,”Audiovisual Speaker identification based on
lip and speech modalities”, The International Arab Journal of Information Technology
IAJIT, , **Publisher:** Zarqa University. **Publication type:** Journals. ISSN: 16833198, **H
Index:** 8. impact factor 0.582. To be published in January 2017.
<http://ccis2k.org/iajit/openconf/author/signin.php>.

10. **Chelali, F.Z.** & Djeradi, “Text dependant Speaker recognition using MFCC, LPC and
DWT”, A. Int J Speech Technol (2017) , vol 20(3), 725-740. <https://doi.org/10.1007/s10772-017-9441-1>
<https://link.springer.com/article/10.1007/s10772-017-9441-1>

11. Nouredine Cherabit, Amar Djeradi and **Fatma zohra Chelali**, “Tracking feature
points of the talking face”, International Journal of Applied Mathematics, Electronics and
Computers, pp 121-125, Vol 4, N4, 2016. ISSN 2147-8228.

International Conference Proceedings

1. **FZ. CHELALI A .DJERADI et R.DJERADI**

Identification de locuteurs à partir de faces propres issue d'une séquence audiovisuelle, colloque TELECOM 2005 & 4ème JFMM, Rabat, Maroc, Mars 2005.

2. **FZ. CHELALI A .DJERADI et R.DJERADI**

Mise en place d'un système de reconnaissance facial basé sur l'approche statistique « Analyse en composantes principales » développée sous l'environnement MATLAB, SETIT 2005, TUNISIA.

3. **CHELALI FZ, A .DJERADI**

“Real time Face Recognition From Video Stream using Eigen Faces”, Artificial Intelligence and Pattern Recognition (AIPR-08), Orlando, FL, USA during July 7-10 2008. ISRST 2008, ISBN 978-1-60651-000-1, pp 75-80.

<http://www.informatik.uni-trier.de/~ley/db/indices/a-tree/c/Chelali:Fatma=Zohra.html>

4. **FZ. CHELALI A .DJERADI et R.DJERADI**

« Linear Discriminant Analysis for Face Recognition », International Conference on Multimedia and Systems. ICMCS'09 ,IEEE- April 02-04, 2009 - Ouarzazate, Morocco. IEEE Catalog Number CFP09050-CDR, ISBN :978-1-4244-3757-3.

http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=5256630

5. **FZ. CHELALI A .DJERADI et R.DJERADI**

“Face Recognition System based on PCA and LDA”, Artificial Intelligence and Pattern Recognition (AIPR-09), Orlando, Florida, USA. during July 13-16 2009. ISRST 2009, ISBN 978-1-60651-007-0, pp 24-34.

<http://www.promoterresearch.org/2009/proceedings-listing-2009/aipr09.html>

6. **CHELALI A .DJERADI et R.DJERADI**

“Face recognition system based on DCT and Neural Network”, Artificial Intelligence and Pattern Recognition (AIPR-10), Orlando, Florida, USA. during July 13-16 2010.

<http://www.promoterresearch.org/2010/proceedings-listing-2010/aipr10.html>

7. **FZ. CHELALI and A .DJERADI**

“Audiovisual speech/speaker recognition, Application to Arabic language”, International Conference on Multimedia and Systems. ICMCS'11 ,IEEE- April 07-09, 2011 - Ouarzazate, Morocco. IEEE Catalog Number CFP 731-3-CDR. ISBN :978 -1-61284-731-3.

8. **CHERABIT , FZ. CHELALI A .DJERADI et R.DJERADI** , “A Robust Iris localization Method of Facial faces”,

International Conference on Multimedia and Systems. ICMCS'11 ,IEEE- April 07-09, 2011 - Ouarzazate, Morocco. IEEE Catalog Number CFP 731-3-CDR. ISBN :978 -1-61284-731-3.

<http://ieeexplore.ieee.org/Xplore/login.jsp?url=http%3A%2F%2Fieeexplore.ieee.org%2Fiel5%2F5931355%2F5945564%2F05945571.pdf%3Farnumber%3D5945571&authDecision=-203>

9. **FZ.CHELALI A .DJERADI** et **R.DJERADI** ,“Speaker Identification System based on PLP Coefficients and Artificial Neural Network”, The 2011 International Conference of Signal and Image Engineering.The World Congress on Engineering 2011 (WCE2011), UK,6-8 juillet 2011.

www.iaeng.org/publication/WCE2011/WCE2011_pp1641-1646.pdf

10. **Fatma Zohra CHELALI**, Amar. **DJERADI**,
” Classifying Arabic visemes, application to lip reading”, paper accepted for the eight Saudi engineering conference SEC-8).

11. **Fatma zohra CHELALI** & Amar. **DJERADI**, “MFCC and vector quantization for Arabic fricatives Speech/Speaker recognition”, The 3rd International Conference on Multimedia Computing and Systems, May 10-12, 2012, Tangier, Morocco.

12. **Fatma zohra CHELALI**,Khadidja sadeddine, Amar **Djeradi**, Visual speech analysis, application to Arabic phonemes”, The 2012 International Conference on Software Engineering, Databases and Expert Systems (SEDEXS'12), settat, Morocco.

13. **Fatma zohra CHELALI**, Amar. **DJERADI** and **Hocine TEFFAHI**, « Caractérisation de voyelles et d'emphatiques berbères en vue d'une identification de locuteurs dépendant de texte », The 5th International Conference on Information and Communication Technologies for Amazigh, 5ème conférence internationale sur les TIC pour l'amazighe. 24 et 25 Novembre 2012, Rabat, maroc.
<http://www.ircam.ma/fr/index.php?soc=annon&rd=278>

14. **Sadeddine Khadidja**, **Fatma zohra CHELALI** and **Rachida DJERADI**,
“Study of bimodal visual speech for Arabic syllables »
International Conference on Computer Applications Technology ICCAT' 2013, January 20-22, Sousse,Tunisia.

15. **Fatma zohra CHELALI** , **Leila. Falek** and Amar. **DJERADI** ,
“Speaker recognition system for Emphatic Berber using Cepstral Analysis and Artificial Neural network”, le 3ème symposium international sur le traitement automatique de la langue et la culture Amazighe. Beni Mellal, Maroc du 02 au 04 mai 2013.

16. **Leila Falek**, **Fatma Zohra Chelali**, **Hocine Teffahi**, **Amar Djeradi**, « Contribution to the characterization of Berber consonants », le 3ème symposium international sur le traitement automatique de la langue et la culture Amazighe. Beni Mellal, Maroc du 02 au 04 mai 2013.

17. . **Fatma zohra CHELALI** and Amar. **DJERADI**, “Face recognition system using Neural Network with Gabor and discrete wavelet transform parameterization”, International Conference of Soft Computing and Pattern Recognition SOCPAR'14, isbn 978-1-4799-5934-1, Tunis, 11-14 august 2014.

<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6996687>

18. **Fatma zohra CHELALI**, Khadidja SADDEDINE, Amar DJERADI et Hocine TEFFAHI, « Système d'identification de locuteurs en mode dépendant et indépendant de texte, appliqué à la langue Arabe et berbère », The 6th International Conference on Information and Communication Technologies for Amazigh, 6ème conférence internationale sur les TIC pour l'amazighe. 24 et 25 Novembre 2014, Rabat, maroc. <http://www.ircam.ma/fr/index.php?soc=annon&rd=362>

19. **Fatma zohra CHELALI** and Amar. DJERADI , “Zernike moments and Histogram of oriented gradient descriptors for face recognition from video sequence”,the 2nd World conference on Complex Systems WCCS'14,November 10-12, 2014, Agadir-Morocco.

IEEE catalog number: CFP1445Y-CDR, ISBN:978-1-4799-4648-8.

http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=7060997&searchWithin%3Dchelali%26filter%3DAND%28p_IS_Number%3A7060873%29

20. **CHERABIT Nouredine**, **DJERADI Amar** et **CHELALI Fatma zohra**, « Tracking feature points on the talking face », The International Conference on Advanced technology and sciences ICAT'14,Turkie,2014.

http://conference.atscience.org/ICAT_conference_programme.pdf

21. **Fatma zohra CHELALI**, Amar. DJERADI and **CHERABIT Nouredine**,”Face recognition system using skin detection in RGB and YCbCr color space”, IEEE-WSWAN'15, Sousse, Tunisie. 21-23 March 2015, ISBN 978-1-4799-8171-7, DOI 10.1109/WSWAN.2015.7210329,

<http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=7175889#>

22. **Khadidja SADEDDINE**, **Fatma zohra CHELALI** and **Rachida. DJERADI**, “Sign Language Recognition Using, PCA, Wavelet and Neural Network”, IEEE-CEIT'2015, Tlemcen, ALGERIA, 25-27 Mai 2015. DOI: [10.1109/CEIT.2015.7233117](https://doi.org/10.1109/CEIT.2015.7233117)

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=7233117>

23. **N.CHERABIT**, **A. DJERADI** and **Fatma zohra CHELALI**, “Facial skin motion localization in a video sequence”, IEEE-CEIT'2015, Tlemcen, ALGERIA, 25-27 Mai 2015. Control, Engineering & Information Technology (CEIT), 2015 3rd International Conference on, 25-27 May 2015, DOI:10.1109/CEIT.2015.7233044.

<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=7233044>

24.**Fatma zohra CHELALI** ,Amar. DJERADI, “CSLBP and OCLBP local descriptors for speaker identification from video sequences”, the 3rd World conference on Complex Systems IEEE-WCCS, November 23-25, 2015, Marrakech-Morocco.

25. **Fatma zohra CHELALI** ,Amar. DJERADI, “Investigation of DCT/PCA combined with Kohonen SOM classifier for human identification”, The International Conference on Electrical engineering (ICEE), December 13-15, 2015.

25. **Fatma zohra CHELALI** ,Amar. DJERADI, “Audiovisual compression techniques using DCT-DWT and LPC codec for audiovisual human machines interfaces”, IntelliSys 2016. London UK, from 21-22 September 2016.

Book Chapters

Fatma zohra CHELALI , Amar DJERADI,

" Primary research on Arabic visemes, Analysis in space and frequency domain",

Contemporary Challenges and Solutions for Mobile and Multimedia Technologies,

DOI: Copyright © 2013. 19 pages ; 10.4018/978-1-4666-2163-3.ch020

DOI: 10.4018/978-1-4666-2163-3, ISBN13: 9781466621633, ISBN10: 146662163X,

EISBN13: 9781466621640.

2. Fatma zohra CHELALI , Amar DJERADI, « Audiovisual Compression Techniques using DCT-DWT and LPC Codec for Audiovisual Human Machines Interfaces", Proceedings of SAI Intelligent Systems Conference (IntelliSys) 2016 pp 1053-1066, publié dans "Lecture Notes in Networks and Systems" book series (LNNS, volume 16), springer. ISBN 978-3-319-56991-8, disponible sur : https://link.springer.com/chapter/10.1007/978-3-319-56991-8_82

National Conference Proceedings

Fatma Zohra CHELALI, A .DJERADI et R.DJERADI

« Système d'identification audiovisuel en utilisant le plus proche voisin »,

Journée du LCPTS06, USTHB, mars 2006.

Fatma Zohra CHELALI, A .DJERADI et R.DJERADI

Identification de locuteurs par l'analyse en composantes principales, International Summer School on signal processing and its applications, Ecole nationale polytechnique, Alger, Algeria, session 2004.

Participation in research Project

Projet CNEPRU 2009-2012 : "Parole et audio visualité en communication personne-système, Code de projet : J0200220090092. Chef du projet : Pr A. DJERADI.

Projet PNR 2011-2013 : Langue berbère et TIC. Chef du projet : Pr H. TEFFAHI.

Projet CNEPRU 2014-2016 « Etude et caractérisation des expressions faciales pour les télécommunications », sous la direction du Pr A. DJERADI. Code du projet : J0200220130091.

LANGUAGES

Arabic Mother language

French Advanced level

English intermediate level

COMPETENCES

Programming

languages

MatLab

Pascal

Software :ISIS-Proteus, Workbench,etc.ADS.