

Contact Information

Professional: Department of Electrical Engineering
Faculty of Science and Technology
University Mohamed Khider Biskra, Algeria
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Education

18/ 01/ 2018 **University Mohamed Khider Biskra, Algeria.**
Qualification to direct electrical engineering research

08/ 06/ 2015 **University Mohamed Khider Biskra, Algeria.**
Ph.D. Electronics- option: Electronics
Thesis: *Biometric Recognition by Multimodal Fusion of 2D and 3D Face*

07/ 12/ 2011 **University Mohamed Khider Biskra, Algeria.**
Master. Electronics- option: Signals and Communications
Thesis: *Study of modalities fusion for biometrics verification (face, voice)*

05/ 06/ 2010 **University Mohamed Khider Biskra, Algeria.**
Engineer. Electronics- option: Communications
Thesis: *Face recognition and verification in biometrics*

Employment and Appointments

11/2017- **Head of the electronics spinneret**

11/2015 - **Lecturer**
Department of Electrical Engineering, University Mohamed Khider Biskra,
Algeria

09/2013 - 10/2015 **Researcher**
Centre de développement des technologies avancées (CDTA), Algeria

Research Interests

Biometrics, 2D and 3D face analysis, person re-identification, computer vision, pattern recognition, machine learning, deep learning, kinship verification using facial images, soft biometrics, development of efficient methods for tensor analysis.

Publications in journals

1. M. Bessaoudi, M. Belahcene, **A. Ouamane**, A. Chouchane, S. Bourennane, Multilinear Side-Information based Discriminant Analysis for Face and Kinship Verification in the Wild, *Neurocomputing*, 329pp. 267-278, 2018. **IF=3.241**
2. O. Laiadi, **A. Ouamane**, A. Benakcha, A. Taleb-Ahmed, Tensor Cross-view Quadratic Discriminant Analysis for Kinship Verification in the Wild, *Signal Processing: Image Communication*, 2018, Minor Revision. **IF= 2.073**
3. O. Laiadi, **A. Ouamane**, E. Boutellaa, A. Benakcha, A. Taleb-Ahmed, A. Hadid, Kinship Verification from Face Images in Discriminative Subspaces of Color Components, *Multimedia Tools and Applications*, December 2018, DOI: 10.1007/s11042-018-7027-9. **IF= 1.541**
4. M. Bessaoudi, M. Belahcene, **A. Ouamane**, A. Chouchane, S. Bourennane, Multilinear Enhanced Fisher Discriminant Analysis for Robust Multimodal 2D and 3D Face Verification, *Applied Intelligence*, November 2018, DOI: 10.1007/s10489-018-1318-8. **IF=1.983**
5. A. Chouchane, **A. Ouamane**, E. Boutellaa, M. Belahcene, S. Bourennane, 3D face verification across pose based on euler rotation and tensors, *Multimedia Tools and Applications*, 77 (16), pp. 20697-20714, 2018. **IF= 1.541**
6. R. Aliradi, A. Belkhir, **A. Ouamane**, A. S. Elmaghraby, DIEDA: discriminative information based on exponential discriminant analysis combined with local features representation for face and kinship verification, *Multimedia Tools and Applications*, January 2018, DOI: 10.1007/s11042-017-5572-2. **IF= 1.541**
7. **A. Ouamane**, A. Chouchane, E. Boutellaa, M. Belahcene, S. Bourennane, and A. Hadid, Efficient Tensor-Based 2D+3D Face Verification. *IEEE Transactions on Information Forensics and Security*. 12 (11), pp. 2751-2762, 2017. **IF=5.824**
8. **A. Ouamane**, E. Boutellaab, M. Bengherabib, A. Taleb-Ahmedc, A. Hadid, A novel statistical and multiscale local binary feature for 2D and 3D face verification. *Computers & Electrical Engineering*. 62, pp. 68-80, 2017. **IF= 1.747**
9. **A. Ouamane**, Stat LBP Feature Extraction and SIEDA Dimensionality Reduction and Classification for Face-Kin Verification, *Journal of Biometrics & Biostatistics*, 2 (2), 2017.
10. **A. Ouamane**, M. Belahcene, A. Benakcha, S. Bourennane, A. Taleb-Ahmed, Robust multimodal 2D and 3D face authentication using local feature fusion. *Signal, Image and Video Processing* 10 (1), pp. 129-137, 2016. **IF= 1.643**
11. A. Chouchane, M. Belahcene, **A. Ouamane**, S. Bourennane, Evaluation of Histograms Local Features and Dimensionality Reduction for 3D Face Verification. *Journal of Information Processing Systems* 12 (3), pp. 468 – 488, 2016.
12. **A. Ouamane**, A Benakcha, M Belahcene, A Taleb-Ahm, Multimodal depth and intensity face verification approach using LBP, SLF, BSIF, and LPQ local features fusion. *Pattern Recognition and Image Analysis* 25 (4), pp. 603-620, 2015.
13. **A. Ouamane**, M. Belahcene, New Multiple Classifier Systems for Face Authentication. *Courrier du Savoir* 18, pp. 53-62, 2014.
14. M. Belahcene, **A. Ouamane**, l'Intégrale Floue dans la Fusion d'un Système Multiclassifieurs pour la Reconnaissance de Visages, *Courrier du Savoir* 17, pp. 167-174, 2013.
15. **A. Ouamane**, M. Belahcene, A. Benakcha, M. Boumehrez, A. Taleb Ahmed, The Classification of Scores from Multi-classifiers for Face Verification. *Sensors & Transducers Journal* 145 (10), pp. 116-118, 2012.

16. **A. Ouamane**, M. Belahcene, A. Benakcha, M. Boumehrez, A. Taleb Ahmed, Identification of Faces by Multimodal Information Fusion of Depth and Color. *Sensors & Transducers Journal* 140 (5), pp. 74-87, 2012.
17. M. Belahcene, **A. Ouamane**, M. Boumehrez and A. Benakcha, Comparaison des Methodes de Reduction d'espace et l'application des SVMs pour la Classification dans L'authentification de Visages. *Courrier du Savoir* 13, pp.116-126, 2012.

Publications in conferences

1. M. Bessaoudi, M. Belahcene, **A. Ouamane**, A. Chouchane, S. Bourennane, A Novel Hybrid Approach for 3D Face Recognition Based on Higher Order Tensor, *Advances in Computing Systems and Applications*, 2019.
2. M. Bessaoudi, M. Belahcene, **A. Ouamane**, S. Bourennane, An Efficient Multimodal 2D and 3D Face Verification Based on Tensor Representation, *International Conference on Pattern Analysis and Intelligent Systems*, October 2018.
3. M. Bessaoudi, M. Belahcene, **A. Ouamane**, A. Chouchane, S. Bourennane, Novel Approach Based on High Order Tensor and Multi-Scale Locals Features For 3D face Recognition, *INTERNATIONAL CONFERENCE on ADVANCED TECHNOLOGIES FOR SIGNAL & IMAGE PROCESSING ATSIP'2018*.
4. R. Aliradi, A. Belkhir, **A. Ouamane**, H. Aliane, A. Sellam, A. Amrane, A. S. Elmaghraby, Face and kinship image based on combination descriptors-DIEDA for large scale features, *21st Saudi Computer Society National Computer Conference (NCC)*, April 2018, DOI: 10.1109/NCG.2018.8592933.
5. O. Laiadi, **A. Ouamane**, A. Benakcha, A. taleb-ahmed, RFIW 2017: LPQ-SIEDA for Large Scale Kinship Verification, *RFIW '17 Proceedings of the 2017 Workshop on Recognizing Families In the Wild*, pp. 37-39, 127/10/2017.
6. M. Belahcene, M. Laid, A. Chouchane, **A. Ouamane**, S. Bourennane, Local descriptors and tensor local preserving projection in face recognition. *2016 6th European Workshop on Visual Information Processing (EUVIP)*, pp. 1-6.
7. **A. Ouamane**, M. Bengherabi, A. Hadid, M. Cheriet, Side-Information based Exponential Discriminant Analysis for Face Verification in the Wild. *2015 11th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition (FG)*, pp. 1-6.
8. A. Chouchane, M. Belahcene, **A. Ouamane**, S. Bourennane, Multimodal face recognition based on histograms of three local descriptors using score level fusion. *2014 5th European Workshop on Visual Information Processing (EUVIP)*, pp. 1-6.
9. **A. Ouamane**, M. Bengherabi, A. Guessoum, A. Hadid, M. Cheriet, Multi scale multi descriptor local binary features and exponential discriminant analysis for robust face authentication. *The IEEE International Conference on Image Processing (ICIP 2014)*, pp. 313-317.
10. A. Chouchane, M. Belahcene, **A. Ouamane**, S. Bourennane, 3D face recognition based on histograms of local descriptors. *2014 4th International Conference on Image Processing Theory, Tools and Applications (IPTA)*, pp. 34-38.
11. Y Himeur, K Ait-sadi, **A. Ouamane**, A Fast and Robust Key-Frames based Video Copy Detection Using BSIF-RMI, *11th International Conference on Signal Processing and Multimedia Applications (SIGMAP'14)*, pp. 40-47.

12. M. Belahcene, A. Chouchane, **A. Ouamane**, 2014 22nd Signal Processing and Communications Applications Conference (SIU), pp. 2269-2274.
13. **A. Ouamane**, M. Belahcene, S. Bourennane, Multimodal 3D and 2D face authentication approach using extended LBP and statistic local features proposed. 2013 4th European Workshop on Visual Information Processing (EUVIP), pp. 130-135.
14. **A. Ouamane**, M. Belahcène, A. Taleb-Ahmed, Fusion d'un Système Multi-Classifieurs par l'intégrale floue de Sugeno et de Choquet pour la Reconnaissance de Visages. JEAFFD'12 Polytechnique Alger le 6,7 Décembre 2012.
15. **A. Ouamane**, M. Belahcene, A. Benakcha, A. Taleb-ahmed, Fusion By Classification Of Scores Multi-Biometric Systems , The Third International Conference on Image and Signal Processing and their Applications, from 2 – 4, Mostaganem – Algeria, December 2012.
16. **A. Ouamane**, M. Belahcene, A. Benakcha, A. Benchenief, A. Taleb Ahmed, The Combination of Scores from a Multi-classifiers for Face Verification. International Conference on Embedded Systems in Telecommunications and Instrumentation (ICESTI'12), Annaba Algeria, 2012.
17. **A. Ouamane**, M. Belahcene, A. Benakcha, A. Benchenief, A. Taleb Ahmed, The Classification of Scores From a Multi-classifiers for Face Verification. Première Conférence Nationale sur les Télécommunications « CNT'2012», Guelma, ALGERIE, Novembre 2012.
18. A. Benchenief, S. Sbaa, **A. Ouamane**, A. Benakcha, La Reconnaissance Automatique de la Parole par les techniques SVMs. Première Conférence Nationale sur les Télécommunications (CNT'2012), Guelma, ALGERIE. Novembre 2012.
19. A. Benchenief, S. Sbaa, **A. Ouamane**, A. Benakcha, Traitement du Signal Vocal " بسم الله الرحمن الرحيم.wav, Première Conférence Nationale sur les Télécommunications (CNT'2012), Guelma, ALGERIE, Novembre 2012.
20. M. Belahcène, **A. Ouamane**, A. Taleb Ahmed, Fusion By Combination Of Scores Multi-Biometric Systems. 3rd European Workshop on Visual Information Processing (EUVIP), pp. 252- 257, 2011.
21. M. Belahcene, A. Ouamane, M. Boumehrez et A. Benakcha, Authentification de visages par les transformations de Hough et Gabor associées à EFM et SVM pour la classification, Colloque d'Informatique. Automatique et Electronique (CIAE), Université Mundiapolis, Casablanca, Maroc, mars 2011.

Awards and Honors

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|--------------|--|
| 30/ 09/ 2015 | Award for btaining PhD degree in three years |
| 26/ 06/ 2012 | Ranked FIRST in Master studies |
| 29/ 06/ 2009 | Ranked FIRST in Bachelor studies |

Teaching and Mentoring

| | |
|------|--|
| 2017 | Numerical analysis (Licence level) |
| 2017 | Digital communication (Licence level) |
| 2016 | Object Oriented Programming (OOP) using C++ (Master level) |
| 2016 | Sensor and measurement (Licence level) |
| 2016 | Digital communication (Licence level) |

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| 2016 | Combinatory logic (Licence level) |
| 2015 | Basic electronics (Licence level) |
| 2015 | Image analysis (Master level) |
| 2013 | Microelectronics (Licence level) |
| 2012 | Math (Licence level) |
| 2011 | Communication (Licence level) |
| 2011 | Microcontroller (Licence level) |

Student Mentoring (PhD student):

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|--------|--|
| 2017- | Oussama Guehairia, Age estimation from a face image, University of Biskra |
| 2017- | Fouaze Moussi, Soft biometrics for tracking and person re-identification, University of Biskra |
| 2016- | Oualid Laiadi, Verification of the relationship between two people by machine learning, University of Biskra |
| 2015 - | Mohcene Bessaoudi, Face recognition based on multidimensional analysis, University of Biskra |

Student Mentoring (Master project):

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|------|---|
| 2018 | Ouamane Mohamed Amine, University of Biskra |
| 2018 | Noureddine Ali, University of Biskra |
| 2017 | Ben Brahim Oussama, University of Biskra |
| 2017 | Soudani safaa, University of Biskra |
| 2017 | Abbassi Ferial, University of Biskra |
| 2017 | Senoussi Soumia, University of Biskra |
| 2017 | Saighi Loubna, University of Biskra |

Research projects

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|-------------|--|
| 2014 - 2017 | 2D, 3D and 4D Facial Recognition - Multi Modal Fusion (RF_FUMM) N° J0201420130027 |
| 2014 - 2016 | Signal Processing for Biometric Systems, Multimedia Security and Criminalistics (BIOSMC) |
| 2014 - 2016 | Advanced Biometric Fusion Techniques: Voice and Face Application (FUSMBIO) |
| 2011 - 2014 | Biometric Recognition (REC_BIOMET) N° j0201420100011 |

Internships in laboratories abroad

02/04/2013 - Laboratoire d'Automatique, de Mécanique et d'Informatique industrielles et Humaines (LAMIH), UMR CNRS 8201, Valenciennes, France
01/05/2013

22/03/2014 - Laboratoire d'Automatique, de Mécanique et d'Informatique industrielles et Humaines (LAMIH), UMR CNRS 8201, Valenciennes, France
21/04/2014

01/12/2014 - Groupe Signaux Multidimensionnels (GSM) Institut Fresnel, UMR-CNRS
19/12/2014 7249, Marseille, France

21/03/2015 - Center for Machine Vision and Signal Analysis (CMVS) University of Oulu,
15/04/2015 Finland

14/12/2017 - Groupe Signaux Multidimensionnels (GSM) Institut Fresnel, UMR-CNRS
24/01/2017 7249, Marseille, France

Reviewer for:

Journals IEEE Transactions on Information Forensics and Security, Journal of Visual Communication and Image Representation, Signal image and video processing journal

Conferences Signal, Computer and electrical engineering journal, Journal of Information Processing Systems,
Second International Workshop on Computer Vision With Local Binary Pattern Variants, European Workshop on Visual Information Processing

Transferable and Other Skills

Programming and modeling languages: C/C++, Matlab, Assembly (μ p 8085 and 8086)

Languages:

Anglais Very good level
French Native level
Arab Mother tongue