

CURRICULUM VITAE



Dr. Mohamed Othmani

Assistant professor, Computer Science,
Vice dean, Director of internships, Faculty of Sciences,
Gafsa University, Tunisia.

Personal information:

- ▶ Name: Mohamed Othmani
- ▶ Nationality: Tunisian
- ▶ Minor speciality : Artificial intelligent, Image processing, Deep Learning
- ▶ Academic Position: Assistant professor, Computer Science, Gafsa University, Tunisia
- ▶ Professional Activities: Vice dean, Director of internships, Faculty of Sciences, Gafsa University
- ▶ Date and place of Birth: 25-12-1976 at Tozeur, Tunisia
- ▶ Professional Address: Department of Computer Science, Faculty of Sciences, Gafsa University, Tunisia.
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Degrees:

- ▶ Doctorate (Ph.D.) Degree: Computer Systems Engineering at the National School of Engineers of Sfax, Sfax University, Tunisia, March 2012, mention: Right Honourable. Subject: Contribution to the study of training algorithms of multidimensional wavelet networks and their applications (2D and 3D computer graphics), November 2007- March 2012.
- ▶ Master Degree: New Technologies of Dedicated Computer Systems at the National School of Engineers of Sfax, Sfax University, Tunisia, June 2007. Subject: Optimizing training algorithms of Beta wavelet networks and their applications (Machine Learning), September 2005-June 2007.

- ▶ Engineering degree: Computer science engineering at the National School of Engineers of Sfax, Sfax University, Tunisia, June 2003. September 1977- June 2003.
- ▶ Baccalaureate: mathematic: June 1997.

Educational Responsibilities :

- ▶ The vice dean, Director of internships, Faculty of Sciences, Gafsa University, Tunisia. (Now)
- ▶ Member of sectoral committee of the university habilitation of Bachelor, Master, Doctor Degree of computer science at the Ministry of Higher Education, Tunisia. (January 2018 to present)
- ▶ Coordinator of master degree of computer systems engineering, Dept. of Computer Science, Gafsa University, Tunisia (Dec 2017- Dec 2018)
- ▶ President and editor of habilitation committee of master degree, Computer Science, Dept. of Computer Science, Gafsa University, Tunisia. (December 2017 to present)
- ▶ President of faculty Recruitment Committee of Computer Science and computer Engineering contractual assistant, Gafsa University, Tunisia. (January 2019 to present)
- ▶ Member of faculty Quality Assurance Committee, Faculty of Sciences, Gafsa University, Tunisia. (January 2019 to present)
- ▶ Member of the steering team for the project of developing strategic management for higher education institutions
- ▶ Member of organizing committee, registration and finance chairs of The International Conference on Internet of Things, Embedded Systems and Communications (IINTEC 2017-2018-2019) (<http://www.iintec.org/committees/>).
- ▶ Member of faculty Quality Assurance Committee, Dept. of Computer Science, University College in Jamum, Umm Al-Qura University, KSA (2012-2017).
- ▶ Member of polarization committee, Dept. of Computer Science, University College in Jamum, Umm Al-Qura University, KSA (2012-2017).
- ▶ Member of faculty Recruitment Committee, Dept. of Computer Science, University College in Jamum, Umm Al-Qura University, KSA (2012-2017).
- ▶ Chairman of software courses, Dept. of Computer Science, University College in Jamum, Umm Al-Qura University, KSA (2012-2017).
- ▶ Member of scientific council. Higher Institute for Applied Science and Technology (HIAST), Gafsa University, Tunisia, (2010 to 2012).
- ▶ Coordinator of internships and graduation projects, HIAST, Gafsa University, Tunisia, (2010 to 2012).
- ▶ Coordinator of continuous training, Higher Institute of Technological Studies of Gafsa, General direction of Technological Studies, Tunisia (2005-2009).

Professional Experiences (Total experience: 16 years):

Teaching Experiences:

- ▶ Since September 2017: Assistant professor, Dept. of Computer Science, Faculty of Sciences, Gafsa, Tunisia.
- ▶ September 2012-2017: Assistant professor, Dept. of Computer Science, University College in Jamum, Umm Al-Qura University, KSA.
- ▶ September 2010-2012: Assistant, Dept. of Computer systems Engineering, HIAST, Tunisia.
- ▶ September 2009-2010: Assistant, Dept. of Computer Science, Faculty of Sciences, Gafsa, Tunisia.
- ▶ September 2003-2009: Technologist Assistant, Dept. of Computer systems Engineering, Higher Institute of Technological Studies of Gafsa (HITS), Tunisia.

Master Courses taught : Computer Systems Engineering

Faculty of Sciences of Gafsa :

- ◆ Image processing
- ◆ Machine Learning
- ◆ Information Theory
- ◆ Petri Networks

Bachelor Courses taught :

Faculty of Sciences of Gafsa:

- ◆ Artificial intelligence
- ◆ Multimedia applications
- ◆ Programming
- ◆ web development
- ◆ Compilation
- ◆ Graph Theory
- ◆ Language theory
- ◆ Matlab and Simulink programming

University College in Jamum:

- ◆ Computer Graphics
- ◆ Multimedia System,
- ◆ Theory of computation

- ◆ Computer Architecture
- ◆ Programming

Higher Institute for Applied Science and Technology of Gafsa :

- ◆ Algorithmics and programming
- ◆ Web programming,
- ◆ Basic concepts of computer networks
- ◆ Network modeling
- ◆ Computer Architecture

Higher Institute of Technological Studies of Gafsa :

- ◆ Web programming,
- ◆ Advanced Web programming,
- ◆ Multimedia, Internet,
- ◆ Introduction to Computer sciences,
- ◆ Advanced Programming
- ◆ Object-Oriented Conception of Information Systems (UML)

Training

- ◆ Training seminar “Second International Researcher Development Week” organized by “Granada University” in Granada, 25–29 March 2019.
- ◆ Certification official of Microsoft technology associate :Introduction to programming using Python
- ◆ certification official of Microsoft technology associate : Introduction to programming using JavaScript
- ◆ Learn Python Basics for Data Analysis
- ◆ Introduction to deep learning
- ◆ Trainer: Deep learning with Python
- ◆ English Training: How to Read Research Articles, Writing Research Articles, Speaking In Academic Setting, Listening In Academic Setting.
- ◆ Winter School on the Documentary Publishing System: LaTeX, ECO-LATEX, Monastir, Tunisia
- ◆ Winter School on the Valorisation of Innovation by Patents, EHVIB, Sousse, Tunisia
- ◆ ...

Research activities:

Fields of Interest

- ▶ Machine Learning
- ▶ Deep learning
- ▶ Image processing

- ▶ 3D object modeling.
- ▶ 3D object reconstruction and representation
- ▶ 2D and 3D image segmentation and classification
- ▶ Artificial intelligence
- ▶ Data approximation
- ▶ Signal processing
- ▶ Theory and tools of wavelet networks,
- ▶ Optimization Algorithms , ...

Research affiliations:

- ▶ Since 2005: Member of the Research Group on Intelligent Machines (**REGIM**). REGIM-Lab. is a Research Laboratory in Intelligent Machines (code LR11ES48) located in the National School of Engineering, University of Sfax, Tunisia.

Research Projects :

1. President of project: A novel Approach for 3D Mesh Parameterization and Reconstruction using wavelet network. Project Supported by the Institute of Scientific Research and Revival of Islamic Heritage at Umm Al-Qura University (project 43508004).
2. Co-President: A new multicast service plan with data integration to ensure the quality of service delivery and optimal use of resources over optical networks with label switching. Project Supported by the Institute of Scientific Research and Revival of Islamic Heritage at Umm Al-Qura University (project 43608005).

Master Students -Supervisor

1. Sawssen Khaldi: Analysis and Segmentation of High Resolution Images: Application to Satellite Images
2. Nourène Nafti: Detection of lung tumor by artificial neural network
3. Mouna Benali: Contribution to the object detection in images using deep learning.
4. Amel Hidouri: Declarative approach for the discovery of 'high utility' motifs in transactional databases
5. Jihen Fourati: Decision Support System for the Management and Ordering of Pilgrims (Transport by Train of Holy Places)
6. Dorsaf Salah: Reasoning with dependent information sources and its application to online social networks
7. Ala Gannich: Logic-based Approach for Reasoning over large data Streams
8. Wafa Mbarek: Supervised Approaches for Satellite Image Classification using

deep learning

9. Ahmed Khlifi: Moving Objects Detection and Tracking from a video sequence
10. Mliki Nadhira: Community detection approaches in large graphs based on cohesive structures (Under supervision)
11. Abidi Salma: Community Detection in Social Networks (Under supervision)

Co-supervision of thesis students

1. Ala Gannich: Contributions to the Semantic Segmentation of 3D Three-dimensional Medical Images by Convolutional Neural Networks
2. Jihen Fourati : A Deep Learning Strategy For Classifying The Diagnosing Simulation Results And To Recognize The Different Attack Patterns.
3. Khawla Ben Salah: HSFV-based biometric approach using deep learning for human authentication.

Publications

Revues :

1. Mohamed Othmani, Yassine Khlifi, Azhaar Jaan, “*An improved wavelet network approximation for 3D surface reconstruction*”. International Journal of Engineering Intelligent Systems. CRL Publishing Ltd. vol: 25, pp. 103-111, 2017.
2. Mohamed Othmani, Yassine Khlifi, “*3D Object Model Reconstruction Based on Polywogs Wavelet Network Parametrization*”, International Journal of Computer, Electrical, Automation, Control and Information Engineering Vol:10, No:7, 2016.
3. Mohamed Othmani, W. Bellil, C. Ben Amar and Adel M. Alimi, “*A novel approach for high dimension 3D object representation using Multi-Mother Wavelet Network*”, Multimedia tools and applications, Springer Science+Business Media, LLC 2011, 1-18.
4. Mohamed Othmani, W. Bellil, C. Ben Amar and Adel M. Alimi, “*A new structure and training procedure of Multi-Mother Wavelet Network*”, International Journal of Wavelets, Multiresolution and Information Processing:World Scientific Publishing Company. Vol. 8, No. 1 (2010) 149–175.
5. Yassine Khlifi, Majed m. Algethemi, Mohamed Othmani “ *A novel multicast scheme with grooming for QoS provision and resource optimization over optical label switching (OLS) networks*” Journal of Optical Communications

(JOC), 2018.

6. Ala Ghennish, Mohamed Othmani “*Enumeration of Maximum K-truss Without Redundancy*”, Journal of Computer and System Sciences, Elsevier. (under review)
7. Mohamed Othmani ‘A hybrid approach based on Active Shape Model And Deep Neural Network For Lung Cancer Detection and recognition’ IET Image Process. © The Institution of Engineering and Technology (under review)

Book :

8. Mohamed Othmani: "*Optimisation des algorithmes d'apprentissage des réseaux d'ondelettes*". European University Editions. Number of pages : 100. ISBN-13: 978-3-8381-8773-0. January 2014.

Chapter book :

9. Wajdi Bellil, Mohamed Othmani, Chokri Ben Amar, Adel M. Alimi "A new algorithm for initialization and training of Beta multi-library wavelets neural network".Advances in Robotics, Automation and Control, pp 199 220, October 2008.

International conferences :

10. Nourène Nafti, Mohamed Othmani, " A Novel Approach of Lung Tumor Detection Using Deep Neural Network ", International Conference on Internet of Things, Embedded Systems and Communications, IINTEC 2019.
11. Mouna Benali, Mohamed Othmani, "A Vehicle Detection Approach Using Deep Learning Network", International Conference on Internet of Things, Embedded Systems and Communications, IINTEC 2019.
12. Dorsaf Salah, Badran Raddaoui, Mohamed Othmani, " Argumentative Approach for the Truth Discovery: The Role of Source Dependence", International Conference on Internet of Things, Embedded Systems and Communications, IINTEC 2019.
13. Mohamed Othmani, Yassine Khelifi, "3D Object Model Reconstruction Based on Polywogs Wavelet Network Parametrization", 18th International Conference on Signal Processing and Multimedia Applications. ICSPMA 2016. Jul 18-19, Venice Italy, 2016.
14. Mohamed Othmani and Chokri Ben Amar, "A high dimension 3D object representation using Multi-Mother Wavelet Network", 5TH International

Symposium on Image/Video Communications over fixed and Mobile Networks, I S I V C 2 0 1 0.

15. Mohamed Othmani, W. Bellil, Chokri Ben Amar, and Adel M. Alimi, "*3D object modeling using Multi-Mother Wavelet Network*", The eighth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-10).
16. Mohamed Othmani, Wajdi Bellil et Chokri Ben Amar, "*Approximation des objets 3D par réseaux d'ondelettes tridimensionnelles*", Traitement et analyse de l'information : Méthodes et Applications (TAIMA'09), pp 207-213 (2009).
17. Wajdi Bellil, Mohamed Othmani, Chokri Ben Amar. "*Initialization by Selection for multi library wavelet neural network training*", Proceeding of the 3rd international workshop on artificial neural networks and intelligent information processing ANNIIP07, in conjunction with 4th international conference on informatics in control, automation and robotics, ICINCO, pp30-37, 2007.

LANGUAGES:

- ▶ Arabic: native language
- ▶ English: written, spoken and read
- ▶ French: fluent