

CURRICULUM VITAE



Personal Information

First name :	Abdelkarim
Last name :	ELBAATI
Profession :	Assistant Professor at the Higher Institute of Applied Sciences and Technology of Mahdia (ISSAT Mahdia) Tunisia Researcher at REGIM-Lab (Research Laboratory in Intelligent Machines)
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Education

Academic Formation	2003-2010	PhD thesis in Computer Systems Engineering (CSE) at the National Engineering School of Sfax (ENIS)
	2000-2002	Diploma of Advanced Studies DEA in Electrical Engineering at the National School of Engineers of Sfax (ENIS)
	1998-2000	Master's degree in Electrical Engineering at the Ecole Supérieure des Sciences et Techniques de Tunis (ESSTT)
	1995-1998	Diploma of Higher Studies of Technology in Electrical Engineering, Institut Supérieur des Etudes Technologiques de Nabeul (ISET Nabeul)

Diplomas	March 2010	PhD degree in Computer Systems Engineering (CSE) at ENIS
	October 2002	Diploma of Advanced Studies in Electrical Engineering at ENIS
	June 2000	Master's degree in Electrical Engineering at ESSTT
	February 1998	Diploma of Higher Studies in Technology in Electrical Engineering at ISET Nabeul

Knowledge		
Computer knowledge	OS	MS-DOS, Windows, Linux, Android
	Office Technology	Word, Excel, PowerPoint, FrontPage, Latex.
	Programming languages	Python, C, Matlab&Simulink, Arduino
	Mathematical and simulation tools	Matlab&Simulink, Mplab, Eagle, Workbench, Proteus(ISIS), Python pour raspberry, Arduino, Labview, MikroC, Mikropascal, Mit App Inventor
Languages	Arabic (native language)	Read, Write, Speak
	French	Read, Write, Speak
	English	Read, Write, Speak
Internships		
from 15 January to 14 February 1996	Work internship : STEG district of Mahdia.	
from 13 January to 8 February 1997	Technician internship: maritime refrigeration company "FRIMAR" la Chebba.	
from 2 to 31 August 1999	Internship at STEG district of Mahdia	
academic year 1999-2000	Teaching internship at El Wardia secondary school in Tunis	
from 17 June to 3 August 2004	Research internship at the PSI laboratory of the University of Rouen (France)	
from 20 March to 2 April 2005	Research internship at the PSI laboratory of the University of Rouen (France)	
from 24 June to 24 July 2005	Research internship at the PSI laboratory of the University of Rouen (France)	
from 14 December to 31 December 2006	Research internship at the LITIS laboratory of the University of Rouen (France)	
from 1 March to 30 March 2007	Research internship at the LITIS laboratory of the University of Rouen (France)	
from 11 July to 26 August 2008	Research internship at the IFN of the University of Braunschweig (Germany)	
from 1 to 30 July 2009	Research internship at the LITIS laboratory of the University of Rouen (France)	
from 7 to 19 October 2013	Scientific mission at the LITIS laboratory of the University of Rouen (France)	
from 12 to 19 December 2016	Scientific and educational mission at the University of Lorraine (Nancy-France)	

Openness to the environment	
Social & Cultural Activities	
Animator of the electronic club at the Tunisian Scouts, La Chebba in 2001	
Member of the Tunisian scouts	
Animation and organisation of several cultural events at the youth centre of La Chebba and at the association of the Fans of La Chebba	
Member of the board of the association of the Fans of La Chebba (ecological association), 2014-2016 and member 2011-2019	
Animator of the robotics club at ISSAT of Mahdia, 2016-2022	
Animator of the robotics club of the youth house of La Chebba, 2019-2022 (4th international prize and two 1st national prizes)	
Idea owner and supervisor of the realization of a robot for the hospital of La Chebba (Tunisia) (The fight against COVID-19), 2020	
Educational and scientific events	
Participation in the organisation of pedagogical trainings at the CREFOC of Mahdia	
Member of the organising committee of the WIMTA workshops of the REGIM research group	
Participation in training schools on LATEX, free software and MATLAB	
Participation in the SDN digital document week in Fribourg (Switzerland) in September 2006	
Participation in the organisation of scientific days at ISSAT GAFSA	
President of the scientific days JSTIC'2018 at ISSAT Mahdia	
President of the scientific day on Artificial Intelligence for Agriculture and Health organised at ISSAT Mahdia in 2021	
Participation in the organization of the international scientific days of the environment JSE'2013, JSE'2014 and JSE'2017 at La Chebba	
Trainer in Arduino, Raspberry, Robotics, Proteus, Labview, Mit App Inventor, Matlab/Simulink...	
Project leader for the accreditation of a Professional Master in Artificial Intelligence and Internet of Things at ISSAT of Mahdia	
Teaching	
2000-2002	Secondary school teacher in electrical engineering (CAPES September 2000) and Titular (September 2001) at the Secondary School of Fériana (Kasserine).

2002-2006	Secondary school teacher in electrical engineering at Ksour Essef Secondary School (Mahdia).
2006-2010	Permanent assistant in electrical engineering at the Higher Institute of Applied Sciences and Technology (ISSAT) of Gafsa.
2010-2011	Assistant Professor in electrical engineering at the Higher Institute of Applied Sciences and Technology (ISSAT) of Gabes.
2011-2022	Assistant Professor in electrical engineering at the Higher Institute of Applied Sciences and Technology (ISSAT) of Mahdia.

Subject areas (2011-2022)

Machine Vision	Machine vision systems, image processing
Electronic functions	The operational amplifier and its applications the NE555 timer, the transistor
Programmable Circuits	Architecture and programming of microprocessors and microcontrollers, DSP
Electrotechnics	DC machine, synchronous and asynchronous machine, static converter
Logic systems	Combinatorial and sequential logic
Artificial Intelligence	Heuristic search, neural networks, pattern recognition
Programmable Cards	Arduino, ESP32, Raspberry, STM32

Supervised Masters

Research Master (defended in 2013)	Chayma CHMEK : On-line Arabic handwriting recognition system : Application to the recognition of the names of Tunisian governorates
Professional Master 1 (defended in 2021)	Samia BEN LASSOUED : Automatic reading of forms
Professional Master 2 (defended in 2021)	Nesrine KADRI : Artificial intelligence approaches for trajectory control of the industrial robots
Professional Master 3 (defended in 2014)	Tayçir REJEB : Realization of an underwater robot : physico-chemical study
Professional Master 4 (defended in 2014)	Hana ABDELGHANI : Control of an underwater robot

Professional Master 5 (defended in 2013)	Oumaima BEN HASSENE : Control of a robotic arm
Co-supervised thesis	
PhD. thesis (in progress)	Besma RABHI : Multi-lingual Handwriting Framework based on an integrated Attention Model for online signal recovery (Research Laboratory in Intelligent Machines REGIM-Lab)
Participation in international competitions	
2009 10th International Conference on Document Analysis and Recognition (Spain)	ICDAR 2009 Arabic Handwriting Recognition Competition
2017 14th IAPR International Conference on Document Analysis and Recognition (Japan)	ICDAR2017 Competition on Multi-font and Multi-Size Digitally Represented Arabic Text
The first Online International Robot Competition 2020	4 th place "Protect me" project
Organisation of an international competition	
2021 16th International Conference on Document Analysis and Recognition (Suisse)	ASAR 2021 Competition on Online Signal Restoration Using Arabic Handwriting Dhad dataset
Publications (Conferences)	
1	Ikram Moalla, Abdelkarim Elbaati, Adel.M Alimi, Abdelmajid Benhamadou, « Extraction of Arabic text from multilingual documents », IEEE International Conference on Systems, Man and Cybernetics, Hammamet, Tunisie, Octobre 2002, p 4, volume 5
2	Abdelkarim Elbaati, Moncef Charfi, Abdellatif Ennaji, Adel M. Alimi , « Recovery of Temporal Information from off-line Arabic Handwritten » , AICCSA-05, Caire, Egypte, 2005
3	Abdelkarim Elbaati, Moncef Charfi, Abdellatif Ennaji, Adel M. Alimi , «Extraction and Organization of the Useful Signal of Arabic Off Line Handwritten Tracing», ACIDCA-ICMI'2005, Tozeur, Tunisie, Novembre 2005
4	Abdelkarim Elbaati, Monji Kherallah , Abdellatif Ennaji, Adel M. Alimi , «De l'Hors-Ligne Vers un Système de Reconnaissance En-Ligne : Application à la Modélisation de l'Ecriture Arabe Ancienne», SDN (ANAGRAM 2006), Fribourg, Suisse, Septembre 2006, 30-37
5	Abdelkarim Elbaati, Monji Kherallah , Abdellatif Ennaji, Adel M. Alimi , « Restoration of the temporal order of off-line handwriting by using the genetic algorithm», in Arabic, CSPA'08, Doha, Qatar, April 2008
6	Monji Kherallah, Abdelkarim Elbaati, Haikel Elabed, Adel M. Alimi, « The On/Off (LMCA) Dual Arabic Handwriting Database», Int. Conf. On Frontiers in Handwriting Recognition. Montreal. Quebec. May, 2008, 349-354
7	Abdelkarim Elbaati, Monji Kherallah , Abdellatif Ennaji, Adel M. Alimi , «Arabic Handwriting Recognition Using Restored Stroke Chronology», ICDAR'09, Barcelone, Spain, July 2009 , 411-415
8	Abdelkarim Elbaati, Monji Kherallah , Abdellatif Ennaji, Adel M. Alimi , «Temporal Order Recovery of the Scanned Handwriting», ICDAR'09, Barcelone, Spain, July 2009, 1116-1120
9	Monji Kherallah, Haikal El Abed, Fatma Bouri, Abdelkarim Elbaati, Adel.M Alimi, «Off-line handwriting recognition system based on GA and visual encoding», International

	Workshop on Multilingual OCR, Barcelone, Spain, July 2009, p 13
10	Houcine Boubaker, Abdelkarim Elbaati, Monji Kherallah, Adel.M Alimi, Haikel Elabed, « Online Arabic handwriting modeling system based on the graphemes segmentation», ICPR' 2010, Istanbul, Turkey, Aout 2010, 2061-2064
11	Houcine Boubaker, Aymen Chaabouni, Mohamed Ben Halima, Abdelkarim Elbaati, Haikel El Abed, «Arabic Diacritics Detection and Fuzzy Representation For Segmented Handwriting Graphemes Modeling», SoCPaR'2014 , Tunis, Tunisie, Aout 2014
13	Yahia Hamdi, Houcine Boubaker, Thameur Dhieb, Abdelkarim Elbaati, Adel M Alimi ,“Hybrid DBLSTM-SVM based Beta-elliptic-CNN Models for Online Arabic Characters Recognition”, ICDAR'2019, Sydney, Australie,2019
14	Besma Rabhi, Abdelkarim Elbaati, Yahia Hamdi, Adel M. Alimi ,“Handwriting Recognition Based On Temporal Order Restored By The End-To-End System”, ICDAR'2019, Sydney, Australie,2019
15	Besma Rabhi , Abdelkarim Elbaati , Tarek M. Hamdani , and Adel M. Alimi,” ASAR 2021 Competition on Online Signal Restoration Using Arabic Handwriting Dhad dataset”, International Conference on Document Analysis and Recognition (ICDAR), pp. 366-378, 2021

Publications (Journals)

1	Moncef Charfi, Monji Kherallah, Abdelkarim Elbaati, Adel M. Alimi, « Système de reconnaissance automatique des adresses manuscrites par une representation Betaelliptique», International Journal of Computer Science and Engineering, in Arabic, Volume 1- N°1, Avril 2007, pp 56-78, See errata, Volume 1- N°2, September 2007
2	Abdelkarim Elbaati, Monji Kherallah , Abdellatif Ennaji, Haikel ELABED, Adel M. Alimi , «A New Approach of the Offline Handwriting Temporal Order Restoration by using Genetic Algorithm», International Journal of Computer Science and Engineering, in Arabic, vol. 2, Number 3, 2009: 44-62
3	M. Charfi, M. Kherallah, A. El Baati et A. M. Alimi, “ A New Approach for Arabic Handwritten Postal Addresses Recognition”, International Journal of Advanced Computer Science and Applications, vol. 3, No. 3, 2012, pp. 1-7.
4	Besma Rabhi, Abdelkarim Elbaati, Houcine Boubaker, Yahia Hamdi, Amir Hussain et Adel M. Alimi, “Multi-lingual character handwriting framework based on an integrated deep learning based sequence-to-sequence attention model”, Memetic Computing, vol.13, pp. 459–475, 2021

Publications (Book chapter)

1	Houcine Boubaker, Abdelkarim Elbaati, Najiba Tagougui, Haikal El Abed, Monji Kherallah, Adel M Alimi, « Online Arabic databases and applications», Guide to OCR for Arabic Scripts, pp 541-557, 2012
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