Personal information

Surname/First name	**Javad Abbasi-Aghamaleki**
Gender	Male
Date of Birth	January 1, 1985
Marital Status	Married
Nationality	Iranian
Address	Electrical Engineering Faculty, School of Engineering, Damghan University, Damghan, Iran
Telephone	(+98)911-214-8745
Email(s)	j.a.aghamaleki@du.ac.ir, j.a.aghamaleki@gmail.com

Research Interests

Signal Processing	Image & Video Processing, Image & Video Forgery Detection, Data Fusion
Artificial Intelligence	Computer Vision, Machine Learning
Hardware	Embedded Systems, Design & Implementation of Hardware in Controlling Systems

Publications

Journal papers

2016	**Abbasi Aghamaleki, J**. and Behrad, A., 2016. Inter-frame video forgery detection and localization using intrinsic effects of double compression on quantization errors of video coding. *Image Communication*, 47(C), pp.289-302. (ISI Q2)
2017	**Abbasi Aghamaleki, J**. and Behrad, A., 2017. Malicious inter-frame video tampering detection in MPEG videos using time and spatial domain analysis of quantization effects. *Multimedia Tools and Applications*, 76(20), pp.20691-20717. (ISI Q1)
2018	**Abbasi Aghamaleki, J**. and Moayed Baharlou, S., 2018. Transfer learning approach for classification and noise reduction on noisy web data. *Expert Systems with Applications*, 105, pp.221-232. (ISI Q1)
2018	**Abbasi Aghamaleki, J** and Behrad, A., 2018. Detecting double compressed MPEG videos with the same quantization matrix and synchronized group of pictures structure. *Journal of Electronic Imaging*, 27(1), pp.013031-013031. (ISI Q3)
2019	**Abbasi Aghamaleki, J** and Ashkani Chenarlogh, V., 2019. Multi-stream CNN for facial expression recognition in limited training data. *Multimedia Tools and Applications*, 78(16), pp.22861-22882. (ISI Q1)
2020	**Abbasi Aghamaleki, J** and Miresmaili, A., 2020. Shadow Detection in Arial Images Using Improved Ratio Map, *TABRIZ JOURNAL OF ELECTRICAL ENGINEERING*, vol. 50, pp. 317-329.
2021	**Abbasi Aghamaleki, J.** and Ghorbani, A., 2021. Infrared and visible image fusion based on optimal segmenting and contour extraction. *SN Applied Sciences*, *3*(3), p.369.
2021	**Abbasi Aghamaleki, J** and Musavi S. M., 2021. High-speed Noise Reduction in SAR Images Using Sparse Representation, *TABRIZ JOURNAL OF ELECTRICAL ENGINEERING*, vol. 50, pp. 1723-1733, 2021
2022	**Abbasi Aghamaleki, J.,** 2022, Combined and optimized 2-steps ratio map for shadow detection in aerial images, *Multimedia Tools and Applications*, 81(9), pp.13025-13043.

2023	**Abbasi Aghamaleki, J** and Ghorbani, A., 2023. Image fusion using dual tree discrete wavelet transform and weights optimization, *The Visual Computer*, 39(3), pp.1181-1191.
2011	**Abbasi Aghamaleki, J**, Hasanpoor, H. and Ahmadyfard, A., 2011. USING A MOBILE PHONE CAMERA AND IMAGE PROCESSING TECHNIQUES TO DESIGN A TOURIST GUIDE SOFTWARE, *ELECTRONIC INDUSTRIES*, vol. 2, no. 2 (6), pp. 107–126, 2011, [Online]. Available: https://sid.ir/paper/606137/en
Conference papers	
2008	R. Fathi, **J. A. Aghamaleki**, N. Ramazani, B. Hosseini and E. Alizadeh, "The New Method of Hybridization of Fuel Cell-Batteries in Marine Electrical Motors Supply"(In Persian), Iran Radon Floating Conference, Chalous, December 2008.
2009	**J. A. Aghamaleki** and A. Ahmadifard, "Highly Quality Images from a Model" (In Persian), The 15th Iranian Computer Conference, Tehran, March 2009.
2009	**J. A. Aghamaleki** and A. Ahmadifard, "Positioning and Guiding of air equipment using image processing" (In Persian), The 15th Iranian Computer Conference, Tehran, March 2009.
2009	**J. A. Aghamaleki** and A. Ahmadifard, "Aerial Image Processing Using Scale Invariant Features" (In Persian), The 15th Iranian Computer Conference, Tehran, March 2009.
2010	R. Fathi, **J. A. Aghamaleki**, A. Bolbolamiri and H. Fieze, "Application of Lithium Polymer Battery in UUV Propulsion System"(In Farsi), 12th Iranian Marine Industries Conference, November 24, 2010.
2014	S. T. Chaleshtari and **J. A. Aghamaleki**, "Video Frame Forgery Detection Using Decision Tree Based on Feature Selection by Sparse Coding" (In Persian), National Conference of Technology, Energy and Data on Electrical & Computer Engineering, Kermanshah, Iran, June 2014.
2014	**J. A. Aghamaleki**, P. Khodaparast, M. Alina, "Finding the Possibility of Manipulating the video by Examining the Compression Properties" (In Persian), National Conference of Technology, Energy and Data on Electrical & Computer Engineering, Kermanshah, Iran, June 2014.
2014	M. Toorandaz, **J. A. Aghamaleki**, S. Tavakoli, "Detection of Frames Removed in Video Using Decision Tree and Based on Feature Selection by Sparse Coding" (In Persian), Second National Computer Engineering and Information Technology Management Conference, Tehran, Shahid Beheshti University, Tehran, Iran, June 2014.
2014	M. Tabari**, J. A. Aghamaleki**, A. Ghorbani, " Farsi Text Detection in images based on SIFT descriptor and fuzzy dictionary"(In Persian), Third National Conference and First International Conference on Applied Research in Computer and Information Technology, Tehran, November 2014.
2014	S. Ghadikolaie, **J. A. Aghamaleki**, A. Ghorbani, "Brain MRI image classifying for diagnosis of brain tumor by combining c-mean fuzzy and watershed algorithms"(In Persian), Third National Conference and First International Conference on Applied Research in Computer and Information Technology, Tehran, November 2014.

2017	**J. A. Aghamaleki** and M. Musavi, “Improving the Synthetic Aperture Radar Image Quality using Sparse Coding"(In Persian), The 10th Iranian Conference on Machine Vision and Image Processing, Esfahan, 2017.
2018	**J. A. Aghamaleki** and B. S. Matikolai, “Time domain Inter-Frame Video Tampering Localization Using Intrinsic Effects of Compression as the Feature for Matching”, 3rd Iranian Conference of Signal Processing and Intelligence Systems, Shahrood, Iran, 2018.
2019	**J. A. Aghamaleki,** “Detecting manipulation of JPEG compressed images using feature selection and logarithmic law”, The 4th National Conference on Applied Research in Electrical, Mechanical, Computer and Information Technology Engineering, Shiraz, Iran, 2019.
2025	G. Askari and **J. A. Aghamaleki,** “"Optimization of the boundary of homogeneous surface layers of the Earth using radar intensity images with a image processing method based on the RJMCMC algorithm”, The 6th national conference of Iranian geological remote sensing society, Shiraz, June 2025.

Projects

Industry-Academic Research Projects (Roll: Project Lead)

2017-2018	Hybrid positioning system based on local image processing
2018-2019	Analyze and design the appropriate data collection system for use in integrated navigation systems
2020	Native operating system based on Linux
2021-2023	Subsystems of restricted vertical flying surveillance system
2024-2025	Design and system review of an artificial intelligence-based navigation system
2025-2026	Solar panel monitoring system using AI-based thermal sensors and image processing

Independent Research Projects

2022	Facial recognition system based on artificial intelligence
2019	Online fault detection using signal processing approaches
2015	Detecting targets and fusing images in terahertz, visible and IR bands
2014	Design and implementation a low power audio recorder using ADPCM compression algorithm
2009	Design and implementation of battery-fuel cell hybrid light electric boat
2010	Design and implementation of battery-fuel cell hybrid light UAVs
2010	Design and implementation of high-power switching battery-fuel cell hybrid power supply
2011	Design and research on regenerative fuel cells (RFCs) for UAVs
2013	Design and implementation of control system for high power fuel cell
2023	Research, design and implementation of smart systems
2023	Design and implementation of flight computer system
	AND more than 100 other Ended Projects

Work Experiences

Name of employer	**Damghan University**
Occupation	Associate Professor
Main Activities	Researcher Lecturer Supervisor of the MSc and BSc Thesis

Type of Business or Sector	Education
Dates	Working Since September 2015
Name of employer	**Fanavaran Electronic Seraj Co. (**Knowledge-based Company**)**
Occupation	Managing Director
Main Activities	Smart System Design Hardware and Software in control systems System Developer Project Manager
Type of Business or Sector	R&D, Electrical System Developer
Dates	Working Since November 2019
Name of employer	**Fater Industrial Group**
Occupation	Researcher & Electrical System Developer
Main Activities	Researcher System Developer Project Manager Head of Electrical Group
Type of Business or Sector	R&D
Dates	December 2015-December 2019
Name of employer	**Rouzbehan University**
Occupation	Lecturer
Main Activities	Lecturer Supervisor of the MSc Thesis
Type of Business or Sector	Education
Dates	September 2012-June 2016
Name of employer	**Pars Novin Co.**
Occupation	Researcher & Electrical System Developer
Main Activities	Researcher Project Manager Head of Electrical Group
Type of Business or Sector	Applied studies
Dates	December 2013-November2015
Name of employer	**Shomal Industrial Research Co.**
Occupation	Researcher & Electrical System Developer
Main Activities	Researcher Project Implementer Project Manager Head of Electrical Group
Type of Business or Sector	R&D
Dates	February 2009-September 2013

Education Background

Degree	**Doctorate in Electrical Engineering**
Department/Organization	Department of Engineering, Shahed University, Tehran, Iran
Dissertation Title	

Supervisor	Video Forensics and Tampering Detection Using Intrinsic and Statistical Characteristics of Video Formation Process
Dates	Alireza Behrad (Professor)
GPA	September 2011-December 2016 18.66 (out of 20)
Degree	**Master in Electrical Engineering**
Department/Organization	Department of Electrical & Robotic Engineering, Shahrood University of Technology, Shahrood, Iran
Dissertation Title	Aerial Image Processing Using Scale Invariant Features
Supervisor	Alireza Ahmadyfard (Professor)
Dates	September 2008-February 2011
GPA	18.19 (out of 20)
Degree	**Bachelor of Electrical Engineering**
Department/Organization	Department of Electrical Engineering, K.N. Toosi University of Technology
Dissertation Title	ADPCM Algorithm Implementation on FPGA
Supervisor	Yousef Darmani (Professor)
Dates	September 2004-August 2008
GPA	16.85 (out of 20)
Degree	**Diploma in Mathematics and Physics**
Department/Organization	National Organization for Development of the Exceptional Talents (NODET), Babol, Mazandaran, Iran
Dates	September 2000-August 2004
GPA	18.60 (out of 20)

Awards and Honors

1999	Accepted in National Mathematics Olympics
2000	Ranked among Top 0.005% in Iran's National University Entrance Exam (ranked 599th out of 500k participants)
2008	Ranked 5th (out of 45) among bachelor graduates of the Electronic major K.N.Toosi university of technology, Tehran, Iran
2010	Ranked 1st (out of 10) among master graduates of the Electronic major Shahrood University of technology, Shahrood, Iran
2015	Ranked 1st (out of 4) among Doctorate graduates of the Electronic major Shahed University, Tehran, Iran
2012	Best Researcher in Shomal Industrial Research Co.
2013	Best Researcher in Shomal Industrial Research Co.

Teaching Experiences

2015-Now **Damgham University**

- Electronic I&III
- Signals and Systems
- CMOS I
- Electrical Fundamentals
- Electronic LAB
- Electrical Circuits LAB
- Pulse Technics
- Pulse Technics LAB
- Technical language
- Digital Systems II (Microcontrollers)
- Advance Logic Circuits
- Engineering Mathematics

2012-2016	**Rouzbehan University** (MSc courses) • Computer Vision • Image Processing • Video Processing • Digital Signal Processing I • CMOS I
2009-2011	**Allame-Amini University** • Electronic • Logic Circuits • Data Structures • C Programming
2009-2011	**Imam-Sadegh Technical University** • Microcontrollers • Electronics • Communication Systems
2009-2010	**Slamic Azad University (IAU) Ghaemshahr Branch** • Electronics • Electronic Lab

Supervisor of the Thesis

MSc Thesis:

- Image Tampering Detection in JPEG Format Using Intrinsic Compression Effects
- Nonlinear Circuits for UWB Applications
- Farsi Text Recognition in Images Based on SIFT Descriptor and Fuzzy Dictionary
- Concealed Weapon Detection Based on Multi-Spectral Imaging System
- Inter-Frame Tampering Detection in MPEG Video
- Segmentation of MRI Brain Image to Detect Brain Tumor using Fuzzy C-Mean Algorithm and Watershed Algorithm
- MPEG Video Double Compression Detection using Intrinsic Effects of Compression
- Simulation and Design of Orthogonal RC Oscillators with Low Power Consumption for use in Low-Power Telecommunication Systems
- Image Steganography by Combined Classifiers
- Aerial Image Mosaicking using Key Feature Points

PhD Dissertation

- Multiband Image Fusion using Deep Learning

Reviewing Activities

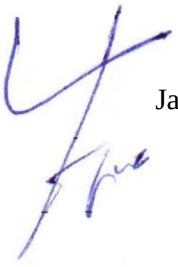
Multimedia Tools and Applications
Neurocomputing
EURASIP Journal on Advances in Signal Processing
Tabriz Journal of Electrical Engineering
Journal of AI and Data Mining
Journal of Electronic Imaging
Iranian Journal of Marine Technology

Attended Training and Workshop Certificates

2012	Programmable Logic Controllers (PLC), Preliminary Qeshm Voltage Co. (Siemens Representative) (40 hrs.)
2012	Programmable Logic Controllers (PLC), Advanced Qeshm Voltage Co. (Siemens Representative) (40 hrs.)
2011	ARM Microcontrollers Nira System Co. (300 hrs.)
2007	Spartan Series FPGA Nasir Co. (200 hrs.)
2018	Automobiles Electrical and Controlling Systems Iran Khodro Co. (60 hrs.)

Software Skills

Programming Language	MATLAB, C, C++, VC, Python, Pascal, Basic, VHDL
Engineering Software	Quartus, ISE, Code Vision, DXP, PSpice, Keil Uvision, SIMATIC Manager
Type Setting	Microsoft Office, LATEX
Others	PLC, AVR, ARM, 8051, 80196, Raspberry Pi B, Orange Pi



Javad Abbasi-Aghamaleki