BEHZAD MORADI

Curriculum Vitae

PERSONAL DETAILS

I am a lecturer at Kermanshah University of Technology with special expertise in *Machine Learning, Bio-inspired Computing,* and *Computer Vision*.

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Address	Department of Computer Engineering, Kermanshah University of Technology, Kermanshah, Iran

EDUCATION

Master of Science in Computer Engineering (Artificial Intelligence) **2009-2012**
Isfahan University of Technology, Isfahan, Iran, GPA: 18.32 / 20

Dissertation	Automated Design of Analog Circuits using Soft Computing Methods
Advisor	Dr. Abdolreza Mirzaei
Grade	18.83 / 20
Description	An elegant synthesis of machine learning and evolutionary computation was proposed to optimally design CMOS analog circuits

Bachelor of Science in Computer Engineering (Hardware Engineering) **2005-2009**
K. N. Toosi University of Technology, Tehran, Iran, GPA: 15.04 / 20

Dissertation	Long Time Quad Relay Controller using AVR Microcontroller
Advisor	Dr. Amir Moosavie Nia
Grade	20 / 20
Description	A microcontroller-based system was designed and implemented to automatically control four home appliances

PUBLICATIONS

JOURNAL PAPERS

- **A New Surrogate-based Optimization Approach for Automated CMOS Analog Circuits Design**
  B. Moradi, Under Review, 2021
- **The New Optimization Algorithm for the Vehicle Routing Problem with Time Windows using Multi-objective Discrete Learnable Evolution Model**
  B. Moradi, Soft Computing, Vol. 24, No. 14, pp. 6741–6769, 2020
- **Multi-Objective Mobile Robot Path Planning Problem through Learnable Evolution Model**
  B. Moradi, Journal of Experimental and Theoretical Artificial Intelligence, Vol. 31, No. 2, pp. 325-348, 2019
- **An Intelligent Evolutionary Computation Approach for Solving the Shortest Path Problem**
  B. Moradi, Journal of Multiple-Valued Logic and Soft Computing, Vol. 30, No. 4-6, pp. 359-377, 2018
- **A New Automated Design Method Based on Machine Learning for CMOS Analog Circuits**
  B. Moradi and A. Mirzaei, International Journal of Electronics, Vol. 103, No. 11, pp. 1868-1881, 2016

CONFERENCE PRESENTATIONS

- **Digital Hardware Implementation of a Biological Central Pattern Generator**

N. Gomar, *B. Moradi*, M. Ahmadi, on the IEEE 61st International Midwest Symposium on Circuits and Systems (MWSCAS) , Windsor, Canada, 2018

- **Solving the Shortest Path Problem through Shuffled Frog-Leaping Algorithm**
  N. Shafiee and *B. Moradi*, on the 2nd International Conference on Signal Processing and Intelligent System, AmirKabir University of Technology, Tehran, Iran, 2016 (In Persian)
- **A New Genetic Algorithm for Solving the Shortest Path Problem**
  S. Khanjani and *B. Moradi*, on the 2nd International Conference on Information Technology, Communications and Telecommunications, Tehran, Iran, 2016 (In Persian)
- **CMOS Analog Circuit Automation using Multi-Objective Learnable Evolution Model**
  B. Moradi, on the 17th Iranian Student Conference on Electrical Engineering, Sharif University of Technology-Intentional Campus-Kish Island, Iran, 2014
- **Automated Design of CMOS Analog Integrated Circuits using Learnable Evolution Model**
  B. Moradi and A. Mirzaei, on the 11th Iranian Conference on Intelligent Systems (ICIS2013), Tehran, Iran, 2013 (In Persian)
- **Automated Design of Optimal Low Power Analog Integrated Circuits using Evolutionary Strategy Algorithm**
  B. Moradi, A. Mirzaei, and R. Mohammadi, on the 2nd Iranian Conference on Electrical Energy Consumption Model Reforming, Ahwaz, Iran, 2012 (In Persian)
- **An Intelligent Method for Automated Analog Integrated Circuits Design using Evolutionary Strategy Algorithm**
  B. Moradi, A. Mirzaei, and M. Dolatshahi, on the 3rd Iranian Electrical Engineering Conference, Azad University, Najaf Abad Branch, Iran, 2012 (In Persian)
- **Using 2DLDA Feature Extraction in Handwritten Persian/Arabic Digit Recognition**
  B. Moradi and A. Mirzaei, on the 6th Iranian Machine Vision and Image Processing Conference (MVIP 2010) , Isfahan, Iran, 2010

BOOKS

- **Evolutionary Computation: Population-based Algorithms**
  B. Moradi, A. Mirzaei, A. Amouzadi, and E. Pakizeh, KUT Publishing, 2019 (In Persian)
- **Data Structures and Algorithms in Java**
  B. Moradi. KUT Publishing, 2017 (In Persian)

PROFESSIONAL EXPERIENCES

ACADEMIC POSITION

- **Faculty member in the Department of Computer Engineering** **2012-present**
  Kermanshah University of Technology, Kermanshah, Iran
- **Head of the Department of Computer Engineering** **2015-2017**
  Kermanshah University of Technology, Kermanshah, Iran

TEACHING

- **Data Structure**
- **Data Mining**
- **Computer Programming**
- **Artificial Intelligence**
- **Microprocessor**
- **Microprocessor Lab**

THESIS ADVISOR

- **A Survey on Machine Learning Techniques for Persian Handwritten Digits Recognition**
- **Persian Digit Recognition through Artificial Neural Networks**
- **Diabetes Disease Diagnosis through Classification Algorithms**
- **Heart Disease Diagnosis through Classification Algorithms**
- **Analysis of Customer Behavior Towards Electronic Banking Services through Data Mining**
- **Solving Mobile Robot Path Planning Problem through a Novel GA-based Method**
- **Solving the Traveling Salesman Problem through Genetic Algorithm**
- **Solving the Shortest Path Problem through the Shuffled Frog Algorithm**
- **A Novel Genetic Algorithm for Solving the Shortest Path Problem**

- **Development of an Android Application for Intelligent University Transportation System**
- **Design and Implementation of an Attendance System**
- **Design and Implementation of an Intelligent Irrigation System**
- **Design and Implementation of an Intelligent PID Controllers**
- **Design and Implementation of an Intelligent Home Appliance Management System**

RESEARCH PROJECTS

- **Automated Home Appliance Control System** **2015**
  Kermanshah University of Technology, Kermanshah, Iran
- **Design and Implementation of a Smart Electromechanical Lock** **2014**
  Kermanshah University of Technology, Kermanshah, Iran
- **Development of an Android Application for introducing of AVR and PIC Microcontroller** **2014**
  Kermanshah University of Technology, Kermanshah, Iran (Advisor)
- **Comprehensive Health and Medical Application Based on Android** **2013**
  Kermanshah University of Technology, Kermanshah, Iran (Advisor)

JOURNAL & CONFERENCE REVIEWER

- **IEEE Access**
- **Journal of Autonomous Intelligence**
- **Industrial Management & Data Systems**
- **Indian Journal of Science & Technology**
- **1st Mathematics Education and Application Conference, Kermanshah, Iran**
- **1st Information Technology Regional E-Conference, Kermanshah, Iran**

SCHOLARSHIPS

- **Melbourne Research Scholarship,** University of Melbourne, 2020
- **Faculty of Information Technology Research Scholarship,** Monash University, 2020

SKILLS

Programming Languages	C/C++, Python, MATLAB, Assembly(80x86), VHDL
Machine Learning Frameworks	TensorFlow, keras
Data Mining Softwares	Weka, SPSS Clementine, RapidMiner
Simulation Tools	Altium Designer, Proteus, Hspice, Pspice, Max plus
Microcontrollers	AVR, ARM
Operating Systems	Windows, Linux, Android

LANGUAGES

English	IELTS: Writing (7), Reading (7.5), Listening (7), Speaking (6.5)

REFEREES

Dr. Abdolreza Mirzaei	Assistant Professor at Isfahan University of Technology, Supervisor of M.Sc. Thesis, *Email: mirzaei@cc.iut.ac.ir*
Dr. Mehdi Khazaei	Assistant Professor at Kermanshah University of Technology, Dean of Faculty of IT, *Email: m.khazaei@kut.ac.ir*
Dr. Mahmood Heshmati	Assistant Professor at Kermanshah University of Technology, Deputy of Education and Research, *Email: m.heshmati@kut.ac.ir*