

# Maryam S. Mirian

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Born on March 21, 1977

<b>Education:</b> Sep. '04 - Present	<b>Ph.D. in Computer Engineering, Robotics and Artificial Intelligence</b> Faculty of Engineering, University of Tehran, Tehran, Iran GPA : 18.22 Thesis: Learning Attention Control in a Multi-modal Perceptual space
Sep. '00 –June '03	<b>M.Sc. in Computer Engineering, Robotics and Machine Intelligence</b> Faculty of Engineering, University of Tehran, Tehran, Iran GPA: 18.78 / 20.00 <u>Thesis</u> : “ <i>Help Provision, a Mechanism to Improve the Fault-Tolerance of Distributed Systems</i> ”, <u>Grade</u> : 20
Sep. 95 – July. 99	<b>B.Sc. in Computer Hardware Engineering</b> Faculty of Engineering, University of Tehran, Tehran, Iran GPA: 15.89 /20.00
Sep.91 – June 95	High School : Roshangar Complex Physics & Mathematics Diploma, Roshangar high school, GPA 19.02/20
<b>Research Interests</b>	<ul style="list-style-type: none"><li>• Autonomous Robot Learning</li><li>• Active Perception and Multi-modal Attention Control</li><li>• Learning under Uncertainty</li><li>• Image and Text Mining</li></ul>
<b>Publications</b>	[1] <b>Maryam S. Mirian</b> , Majid Nili Ahmadabadi, Babak N. Araabi, Roland R. Siegwart, Comparing Learning Attention Control In Perceptual and Decision Space, LNAI 5395, pp. 242 – 256, 2009, Springer-Verlag Berlin Heidelberg 2009 [2] <b>Maryam S. Mirian</b> , Hadi Firouzi, Majid Nili Ahmadabadi, Babak N. Araabi, Concurrent learning of Task and attention in the decision space,IEEE/ASME Conference on Advanced Intelligent Mechatronics, pp. 1353-1358, Singapore, 14-17 July 2009. [3] <b>Maryam S. Mirian</b> , Majid Nili Ahmadabadi, Hadi Firouzi, Babak N. Araabi, and Roland R. Siegwart, A Novel

Framework for Learning Attention Control in a multi-dimensional sensory space, IEEE IROS'08 Workshop on Robotics Challenges for Machine Learning II, Sep. 2008, Niece, France.

[4] H.Vosughpour, M. Nili, **Maryam S. Mirian**, Hierarchical Functional Concept Formation using Reinforcement Learning, Proceeding of WCECS 2007, ICMLDA

[5] **Maryam S. Mirian**, Babak N. Araabi, Image Retrieval Using image Query by means of color Histograms and Number of straight lines of the image (In FARSI), 3<sup>rd</sup> Conf on Machine Vision and Image Processing, pp 30-37, MVIP 2005, Iran, Tehran

[6] M.S. **Mirian**, M.R. Hejazi, E. Darrudi, Finding Answers through Heuristic Reasoning Mechanism for an Ontology-based Question Answering System, The Second workshop on Information Technology & Its Disciplines, WITID 2004, Kish Island, Iran.

[7] **Maryam S. Mirian**, Majid Nili Ahmadabadi, A Distributed Deterministic Help Scheme to Improve the System Fault Tolerance, World Automation Congress (WAC'04), 2004, Spain.

[8] **Maryam S. Mirian**, Majid Nili Ahmadabad, "Application of Task Redistribution in Non-Homogenous Multi-agent Systems to Improve Fault Tolerance", 9th Annual Conference of Computer Society of Iran, CSICC2004 (in FARSI)

[9] **Maryam S. Mirian**, Majid Nili Ahmadabad, "A Multi-agent Perspective to Fault Clearance", 8th Annual Conference of Computer Society of Iran, CSICC2003 (in FARSI)

[10] **Maryam S. Mirian**, Majid Nili Ahmadabadi, Babak Nadjar Araabi, "A Fault Tolerant Multi-Agent System with Non-Deterministic Decision-Making for Task Allocation", Accepted in ERSA'03, June 23-26, 2003, Las Vegas, Nevada, USA.

[11] **Maryam S. Mirian**, Majid Nili Ahmadabadi, Zainalabedin Navabi, " A New Task Redistribution Method for Fault Clearing in Multi-agent Systems", Proc. of IEEE International Conference on Systems, Man and Cybernetics, Vol. 2, October 6-9, 2002, Hammamet, Tunisia

[12] **Maryam S. Mirian**, Majid Nili Ahmadabadi, Zainalabedin Navabi, "Evaluating Task Redistribution Methods for Fault Clearing in Multi-Agent Systems", ERSA'02, pp219-225, Las Vegas, USA, May 2002



<p><b>Selected Researches and Projects</b></p>	<ul style="list-style-type: none"> <li>• 2008-2009: Designing the Ontology of e-Content in an e-enterprise, in ITRC</li> <li>• 2007-2008: Designing a novel framework for Organizational Learning</li> <li>• 2005: Developing a content-based Image Retrieval with regard to Color and Shape, as the term project of Image Processing course</li> <li>• 2002-2005: Developing a Question Answering System named TeLQAS<sup>1</sup> with major focus on NLP, Query Processing, Text Summarization and Categorization and Crawling from the web</li> <li>• 2005, Using DNA Computing in DNA Security Applications, as the term project of Network Security course</li> <li>• 2005, Developing an Sport Video Classification system, as the term project for Multimedia Systems course</li> <li>• 2004, Proposing a New Task Assignment Strategy based on Personal Motivation Theory, as the term project of Distributed AI and System Identification courses</li> <li>• 2000, Developing a new fuzzy cache replacement algorithm, as the term project of Fuzzy systems course</li> <li>• 2000, Design and Implementation of the vision module of a mobile robot<sup>2</sup> designed for a Robot Contest.</li> </ul>
<p><b>References</b></p>	<p><b>Majid Nili Ahmadabadi, Ph.D.</b>  Associate Professor and Head of Robotics and Machine Intelligence Group  School of Electrical and Computer Eng.  University of Tehran  PO Box 14395/515  Tehran, Iran  Email: <a href="mailto:mnili@ut.ac.ir">mnili@ut.ac.ir</a>  Web: <a href="http://robotics.ut.ac.ir/People/MajidNili.aspx">http://robotics.ut.ac.ir/People/MajidNili.aspx</a></p> <p><b>Babak N. Araabi, PhD</b>  Associate Professor and Head of Control Systems Division  School of Electrical and Computer Eng.  University of Tehran  PO Box 14395/515  Tehran, Iran  Tel: (+98-21) 8863-0024  Fax: (+98-21) 8863-3029  Email: <a href="mailto:araabi@ut.ac.ir">araabi@ut.ac.ir</a>  Web: <a href="http://eng.ut.ac.ir/ece/araabi/">http://eng.ut.ac.ir/ece/araabi/</a></p>

<sup>1</sup> <http://en.wikipedia.org/wiki/TeLQAS>

<sup>2</sup> The robot had 3 major responsibilities: 1) gathering red boxes and recognizing the letters written on them, 2) gathering yellow tennis balls from all over the field, 3) picking up some cans in specific positions of the field. Then the robot had to empty each group of objects in a specific goal.

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