

Curriculum Vitae

Ramin Mehran

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Education

- *Master's Degree in Electrical Engineering* GPA: 16.60/20 (Grade A) 2003-2006
Thesis Title: "Dynamic Modeling of Context in Control", Advisors: Prof. Lucas, Dr. Fatehi
- *BS in Electrical Engineering* 1998-2003
Thesis: *Software Module for Synthesis of 3D Human Faces from 2D images*

Standard Tests

TOEFL (iBT): 104/120 (Reading 29, Listening 27, Speaking 20, Writing 28) Date: Dec. 2006
GRE: Quantitative 760, Verbal 330, Analytical Writing 3.5 Date: Oct. 2004

Research Interests

- Computer Vision, Image Processing, Pattern Recognition
- Machine Learning, Intelligent Systems, Artificial Intelligence

Research, Accomplished Projects, and Academic Activities

- Real-time Universal Adaptive Control System *Research Engineer at K.N.Toosi Univ.* 2007
- Design of a novel dynamic evolving neuro-fuzzy controller: inspired from the role of context in human mind *Master's Thesis* 2006
- Design of an novel online data-driven partitioning method based on Swarm Intelligence *Master's Thesis* 2006
- Optimizing the partitioning of Locally Linear Model Tree algorithm with Particle Swarm Optimization *Master's Thesis* 2005
- Optical character recognition system based on SVM classifiers for cursive documents *Software developer and designer at PayaSoft co.* 2004
- Design of neural network for statistical natural language processing of personal information forms *Software developer and designer at PayaSoft co.* 2003
- 3D human face synthesis based on two orthogonal images *BS thesis* 2002
- GA-based design of goal seeking and obstacle avoiding controller for Khepera, the benchmark mobile robot *Intelligent Systems Course* 2002
- Design and implementation of a fast vision system for tracking small objects for a mobile robot *National Contest of Robotics* 2001

Publications

1. **Ramin Mehran**, Alireza Fatehi, Caro Lucas, Babak Najar Araabi. "Particle Swarm Extension to LOLIMOT", Sixth International conference on Intelligent Systems Design and Applications (ISDA), China, 2006. (IEEE indexed)
2. **Ramin Mehran**, Hamed Pirsiavash, Farbod Razzazi, "A Front-end OCR for Omni-font Persian/Arabic Cursive Printed Documents", Digital Image Computing: Techniques and Applications (DICTA2005), Cairns, Australia, Dec. 2005. (IEEE indexed)
3. Hamed Pirsiavash, **Ramin Mehran**, Farbod Razzazi, "A Robust Free Size OCR for Omnifont Persian/Arabic Printed Document using MLP/SVM," 10th Iberoamerican Congress on Pattern Recognition, Havana, Cuba, Lecture Notes in Computer Science, LNCS 3773, pp. 601-610, Nov. 2005, Springer Verlag.
4. **Ramin Mehran**, Amin Shali, Farbod Razzazi, "Statistical Correction-Rejection Strategy for OCR Outputs in Persian Personal Information Forms", Proceedings of 2nd International Conference on Information Technology and Applications (ICITA 2004, IEEE sponsored), Harbin, China, 2004, p 247-249.
5. Hessam Mohammad Hosseini, Payam Amani, **Ramin Mehran**, Alireza Fatehi, "Cell design using FCM clustering based on stochastic model of motion of mobile user", 7th Iran Conference on Intelligent Systems, accepted and will be published in 2006 [in Persian]
6. **Ramin Mehran**, Hamid Reza Zamani, "A Robust Method for Watermarking based on Wavelet Transform", *Nasir technical magazine of K.N. Toosi university*, Vol. 3, pp. 87-91, 2002 [in Persian]
7. **Ramin Mehran**, Hamid Reza Zamani, "A Robust Method for Watermarking based on Wavelet Transform", Fourth Iran Student Conference on Electrical Engineering (ISCEE01), Tehran, Iran 2001. [in Persian]
8. **Ramin Mehran**, "Implementation of a Steganography Method for Information Hiding in Digital Images", Third Iran Student Conference on Electrical Engineering (ISCEE2000), Tehran, Iran 2000. [in Persian]

Technical Reports

9. Ramin Mehran, Alireza Fatehi, "Behavior Based System: a Survey", technical survey for seminar's course, 2005
10. Ramin Mehran, Hamid D. Taghirad, "Nonlinear control of Dual Spin Spacecraft", technical report for nonlinear control course, 2005
11. Ramin Mehran, Hamed Pirsavash, Farbod Razzazi, "A Survey on Optical Character Recognition System for Persian Script", 2004
12. Ramin Mehran, Hamid Abrishami Moghadam, Mohammad Shahram Moin, "Design and Implementation of a Software Module for Synthesis of 3D Human Faces from 2D images", BSc. thesis, 2003

Teaching Experiences

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|--|-------------------------------------|--------------------------|------|
| • EE Dept. K.N.Toosi Univeristy of Tech. | Fuzzy Control Systems | <i>Teacher Assistant</i> | 2006 |
| • EE Dept. K.N.Toosi Univeristy of Tech. | Introduction to Intelligent Systems | <i>Teacher Assistant</i> | 2005 |
| • EE Dept. K.N.Toosi Univeristy of Tech. | Introduction to Intelligent Systems | <i>Teacher Assistant</i> | 2004 |

Professional Experiences

- EE Dept. K.N.Toosi University of Tech., Research Engineer, Universal Control Project 2006
- PayaSoft co.
 - System Designer and Software Developer, Cursive Printed OCR 2003~2005
 - System Designer and Software Developer, Handwritten OCR 2002~2003

Technical Skills

Programming Languages: MATLAB, C/C++/VC++, Pascal/Delphi, C#, PHP, *Databases:* SQL, MySQL, MS Access *Web:* PHP, HTML/DHTML, JavaScript *Packages:* MATLAB, SIMULINK,

Extra Curriculum Activities

- Chair for two session at 7th Iran Student Conference: Intelligent control and automation session. (2005)
- Member of software developing team of Pixelpost, the open-source content management system for photographers. (2005)
- Participating in two national robotics contests. (2001-2002)
- Founder/head of B.S student research group on image processing, EE dept. of K.N. Toosi University. (2002–2003)
- Member/founders of the first educational team in K.N.Toosi University. (1999-2003)

International Memberships

- IEEE, since 1999

Courses

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| • Robotics | • System Identification |
| • Neural Networks | • Optimal Control |
| • Adaptive Control | • Advanced Engineering Mathematics |
| • Nonlinear Control (ranked 1st) | • Seminar on Behavior Based Systems |
| • Digital Control (ranked 1st) | • Introduction to Intelligent Systems |
| • Distributed AI (audited) | • Bio-computing (audited) |