

# Dr. Hossein Ebrahimpour-Komleh

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## CURRENT POSITIONS

- **Senior Postdoctoral Research Fellow**, The University of Newcastle, Australia
- **Visiting Scientist**, CSRIO Biomedical Imaging group, Sydney, Australia

## EDUCATION

July 2000- Aug 2004	<b>Ph.D.</b>	Queensland University of Technology, Brisbane, Australia
Dissertation: “ <b>Fractal Techniques for Face Recognition</b> “ Supervisors : <ul style="list-style-type: none"><li>• Dr. Vinod Chnadran</li><li>• Prof. Sridha Sridharan</li></ul> <b>Course:</b> Advanced Information Retrieval (IFN001), Result: <b>7 out of 7 (HIGH DISTINCTION)</b>		
1994 - 1996	<b>M.Sc. (With Honours)</b>	Computer Engineering (Machine Intelligence and Robotics) Amir-Kabir University of Technology (Tehran Polytechnic), Tehran, Iran GPA : 16.09/20.00
<b>Courses:</b> Image Processing, Computer Vision, Natural Language processing, Machine Intelligence, Statistical Pattern recognition, Structural Pattern Recognition, Robotics, Design and Analysis of algorithms, Seminar ( Chaos Theory), Project (Fractal Image Coding)		
1988 - 1993	<b>B.Sc. (First Class Honors)</b>	Computer Engineering (Computer Hardware) Isfahan University of Technology Isfahan, Iran GPA: 16.28/20.00
<b>Selected Courses:</b> Neural Networks, Artificial Intelligence, Expert Systems, Peripheral Devices, Microprocessor( Z80, 80X86, 68000), Microprocessor Lab I & II.(Transputers and Occam Language)		

## RESEARCH INTERESTS

Image and Visual Information Processing, Fractals and Chaos Theory, Computer and Robot Vision, Pattern and Object Recognition, Neural Networks, Biometrics, Medical Image Processing, Artificial Intelligent, Expert Systems, Robotics.

## HONORS and SCHOLARSHIP

- **Visiting Scientist**, CSRIO Biomedical Imaging group, Sydney, Australia
- **Ph.D. Scholarship**, Iranian Ministry of Science, Research and Technology, 2000-2004.
- **M.Sc. With Honours**, Computer engineering, Amir-Kabir University of Technology (Tehran Polytechnic), Tehran, Iran ,1996.

- B.Sc. **First Class Honours**, Computer engineering, Isfahan University of Technology ,1993.
- Ranked **95<sup>th</sup>** among 350,000 students taking Iranian Universities' entrance exam, 1988.

## TEACHING EXPERIENCE

2000-2004	<b>Tutor (Causal)</b>	Queensland University of Technology, Brisbane, Australia <ul style="list-style-type: none"> <li>• EEP104-Real Time Operating system</li> <li>• ITB420-Computer Architecture</li> <li>• BNB007-Professional Studies 1 (Matlab)</li> <li>• EEB321- Analog and Digital Electronics</li> <li>• EEB521- Digital System and Control</li> </ul>
1996-2000	<b>Lecturer</b>	Department of Engineering, The University of Kashan, <ul style="list-style-type: none"> <li>• Microprocessors</li> <li>• Computer Architecture and Digital Design</li> <li>• Peripheral Devices</li> <li>• Advanced Computer Programming</li> <li>• Microprocessors Lab.</li> <li>• Logic Circuit Lab.</li> </ul>
1993-2000	<b>Lecturer (part Time)</b>	Azad University ,Iran <ul style="list-style-type: none"> <li>• Operating System design</li> <li>• Data Structure</li> <li>• Design and Analysis of Algorithms</li> <li>• Computer Graphics</li> <li>• Assembly Language</li> </ul>

## RESEARCH EXPERIENCE

2006-Present	<b>Senior Postdoctoral Researcher</b>	<b>Face Recognition</b>
2005	<b>Postdoctoral Researcher</b>	<b>High-Contrast megavoltage imaging for pre-treatment soft-tissue</b>
2000-2004	<b>PhD Student</b>	<b>Fractal Techniques for Face Recognition</b>
1996 (March –October)	<b>Researcher</b>	<b>Radar Simulation System Project( part of ) Electrical and Computer Engineering Research Center, Isfahan University of Technology , Isfahan , Iran</b>

1995-1996	<b>MSc Student</b>	<b>Fractal Image coding</b>
1992-1993	<b>Researcher</b>	<b>Design a Neural Network System to Control a Mobile Robot, IAA, Isfahan Iran</b>

### **OTHER WORK EXPERIENCES**

1994-1996	<b>Computer Engineer</b>	<b>Hardware Engineer</b> Bahar Computer Co. Tehran , Iran
1994 - 1996	<b>Manager of Computer Centre</b>	<b>Azad University of Garmsar</b>
1993-1994	<b>Computer Engineer</b>	<b>Design a Neural Network System to Control a Mobile Robot, IAA, Isfahan Iran</b>
1991-1993	<b>Computer Engineer</b>	<b>Software Engineer and Developer</b> Majmaeh Omor senfi, Sherkat Mokhaberat Isfahan , Iran

### **COMPUTER PROGRAMMING SKILLS**

- Programming: C, C++, Java, Pascal, Basic, Assembly Language (Z80, 80x86, 68000), Prolog, Lisp, Matlab, HTML.
- Operating Systems: Windows, Unix and Linux, DOS.

### **PUBLICATIONS**

#### **Thesis:**

- 1- H. Ebrahimpour-Komleh, “**Fractal Techniques for Face Recognition**”, *PhD thesis*, Queensland University of Technology, Brisbane, Australia, 2004.
- 2- H. Ebrahimpour-Komleh, “**Fractal Image Encoding and Compression**” (Persian). *Master of Engineering thesis*, Department of Computer Engineering, Amir-Kabir University of Technology, Tehran, Iran, 1996.

#### **Book Chapter:**

- 3- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan “**An Application of Fractal Image-set Coding in Facial Recognition**,” Springer Verlag Lecture Notes in computer science, Vol 3072, Biometric Authentication, pp178-186.

### **Refereed Conference publications:**

- 4- H. Ebrahimpour-komleh, A. Kouzani “Face recognition using ensemble kNN,”2007, Seoul, Korea. Submitted to International Conference on Biometrics (ICB2007), August 27-29,
- 5- H.Ebrahimpour, P.Greer, M.Ebert, S.Ourselin, D.Popescu, “**Evaluation of ART & Feildkamp Algorithms for MegaVoltage CT**. EPSM 2005. Adelaide, Australia
- 6- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan “**Subfractals: A new concept for fractal image coding and recognition**,” APRS Workshop on Digital Image Computing (WDIC2005), Brisbane, Australia
- 7- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan “**Fractal Image-set encoding for Face Recognition**”, *International Conference on Computational Intelligence for Modelling Control and Automation Proceedings (CIMCA 2004)*, pp.664-672.
- 8- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan,” **Facial Image Retrieval Using Fractal Image-Set Coding**”, *2<sup>nd</sup> Workshop on Information Technology & Its Disciplines (WITID 2004)*, Kish Island, Iran.
- 9- H. Ebrahimpour-Komleh, V. Chandran., and S. Sridharan, "**Mathematical Basis for use of fractal codes as features**, " *Image and Vision Computing (IVCNZ) 2002, 26th - 28th November 2002*, University of Auckland, Auckland, New Zealand, vol. 1, pp. 203-208, 2002.
- 10- H. Ebrahimpour-Komleh, V. Chandran, and S. Sridharan, "**Robustness to expression variations in fractal-based face recognition**," *Sixth International, Symposium on Signal Processing and its Applications*, vol. 1, pp. 359-362, 2001.
- 11- H. Ebrahimpour-Komleh, V. Chandran., and S. Sridharan, "**Face recognition using fractal codes**," *Proceedings of International Conference on Image Processing(ICIP)*, vol. 3, pp. 58-61, 2001.
- 12- H. Ebrahimpour-Komleh, V. Chandran, and S. Sridharan, "**Face Recognition using Fractal Codes**," *Third Australasian Workshop on Signal Processing Applications, (WoSPA) 2000*, Brisbane, Australia, 2000.

- 13- H. Ebrahimpour-Komleh, H. Karbasi and H. Jalali, "**An Expert System for ECG Interpretation**," (Persian) *First Iranian Conference on Education, Research and Application*, Tehran University, Tehran, Iran, 1993.

### Joint author journal paper:

- 14- A. Khoshdel, H. Ebrahimpour-komleh, S. Carney "Artificial Neural Network: A Potential Roadmap for Diabetes Renal Risk Assessment," submitted to the *International Journal of Clinical Practice*

### Other Conference papers:

- 15- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan, "**A review of fractal codes as features for human identification**," *Trilateral (Irano-Germano-Armenian) Workshop on: Intelligent Information Technologies in Data Analysis and Control (IITinDAC2004)*, Tehran, Iran, Feb. 2004.
- 16- H. Ebrahimpour-komleh, A. Kouzani "FACE RECOGNITION USING ENSEMBLE BASED TECHNIQUE," submitted to The Seventh International Conference, Montreal, June 25-29, 2007
- 17- H. Ebrahimpour-komleh, V. Chandran, and S. Sridharan, "**A Neural Network Sub-fractal system for face verification**," *6<sup>th</sup> Workshop on Neural Network*, Tehran, Iran, Feb. 2004.

### Invited paper:

- 18- H. Ebrahimpour-komleh, "fractal system for face recognition," *iCi Research Symposium*, QUT, Brisbane, Australia, August 2006.

### Professional Membership

- Member, Association for Computing Machinery (**ACM**).
- Member, Institute of Electrical and Electronics Engineers (**IEEE**).
- Member, **IEEE Computer Society**.
- Member, **APESMA** (Association of Professional Engineers, Scientists and Managers Australia)

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