

# Curriculum Vitae

## Personal Details

*Name:* Shohreh Kasaei  
*Position:* Professor  
Director of Image Processing Lab (IPL)  
*Address:* Department of Computer Science and Engineering, Sharif University  
of Technology, Azadi Ave., Tehran, Iran. P.O. Box 11155-9517  
*Room No:* 823  
*Phone:* +98 21 6616 6646  
*Fax:* +98 21 6601 9246  
*E-Mail:* kasaei[at]sharif[dot]edu  
*Homepage:* <http://sharif.edu/~kasaei>  
*Lab. Website:* <http://ipl.cse.sharif.edu>  
*CE Website:* <http://cse.sharif.edu>  
*Virtual Class:* <https://vc.sharif.edu/ch/kasaei>  
*Last Updated:* May 08, 2021

## Academic Qualifications

### Doctor of Philosophy (Ph.D.):

*Period:* Feb. 1996–Aug. 1998  
*Field of Study:* Image Processing  
*School:* Signal Processing Research Centre (SPRC), School of Electrical Engineering & Computer Science (EECS), Queensland University of Technology (QUT), Brisbane, Australia  
*Thesis Title:* Fingerprint Analysis using Wavelet Transform with Application to Compression and Feature Extraction  
*Inst. Courses:* Advanced Information Retrieval Skills, Modern Signal Processing, Digital Spectral Analysis, Pattern Recognition

### Master of Science (M.Sc.):

*Period:* April 1992– March 1994  
*Field of Study:* 3D Digital Signal Processing  
*School:* Graduate School of Engineering & Science, Department of Electrical & Electronics Engineering, University of the Ryukyus, Okinawa, Japan

*Thesis Title:* A Design Method of 3D AR Lattice Prediction Modeling  
*Inst. Courses:* Advanced Information Processing, Electrical & Information Engineering, Advanced System Engineering

### **Bachelor of Science (B.Sc.):**

*Period:* Sep. 1977–Feb. 1986  
*Field of Study:* Electronic Engineering  
*School:* Department of Electrical & Computer Engineering (ECE), Isfahan University of Technology (IUT), Isfahan, Iran  
*Inst. Courses:* Stochastic Processes, Digital Filters, Communication Circuits, Transmission Systems, Telephone Switching Systems, Communication Theory (1,2), Numerical Analysis, Engineering Statistics & Probability, Engineering Math., General Math. (1,2,3)

### **Positions**

*Period:* Sep. 1999–Present  
*Sponsor:* Sharif University of Technology, Tehran, Iran  
*Position:* Full Professor

*Period:* July 2016–Sep. 2016  
*Sponsor:* Santa Clara University, Santa Clara, CA  
*Position:* Visiting Research Professor, Department of Electrical Engineering

*Period:* Sep. 2012–2014  
*Sponsor:* Sharif University of Technology, Tehran, Iran  
*Position:* Vice-Chairman of Student Affairs, Department of Computer Engineering

*Period:* Jan. 2010–Sep. 2010  
*Sponsor:* Royal Institute of Technology (KTH), Stockholm, Sweden  
*Position:* Guest Professor, Department of Electrical Engineering, Sound & Image Processing group

*Period:* Sep. 2004–2008  
*Sponsor:* Sharif University of Technology, Tehran, Iran  
*Position:* Vice-Chairman of Student Affairs, Department of Computer Engineering

*Period:* March 1995–Aug. 1998  
*Sponsor:* Queensland University of Technology (QUT), Brisbane, Australia  
*Position:* Research Assistant

*Period:* Oct. 1987–Dec. 1990

*Sponsor:* Amirkabir University of Technology, Tehran, Iran  
*Position:* Research Assistant

*Period:* Oct. 1986–Sept. 1987  
*Sponsor:* Industrial Electronic Inc., Isfahan, Iran  
*Position:* Technical Manager

*Period:* 1980–1982  
*Sponsor:* Isfahan University of Technology, Isfahan, Iran  
*Position:* Cultural and Technical Researcher

## **Honors, Grants, & Awards**

*Period:* April 2021  
*Sponsor:* International Conference of Pattern Recognition and Image Analysis  
*Field:* Elected as the keynote speaker

*Period:* Nov. 2011  
*Sponsor:* Machine Vision and Image Processing Conference  
*Field:* Elected as the keynote speaker

*Period:* Dec. 2010  
*Sponsor:* Sharif University of Technology  
*Field:* Elected as a distinguished researcher

*Period:* March 2009  
*Sponsor:* IEEE Iran Section  
*Field:* Elected as the first IEEE Iran Section officer of Women in Engineering (WIE)

*Period:* May 2009  
*Sponsor:* Sharif University Technology  
*Field:* Elected as the first Iranian female full professor in Computer Engineering (Image Analysis)

*Period:* March 2007  
*Sponsor:* IEEE  
*Field:* Elected as the first Iranian female IEEE Senior Member

*Period:* Dec. 2006  
*Sponsor:* IEEE Iran Section Members  
*Field:* Elected as the first Iranian female member of IEEE Iran Section Executive Committee

*Period:* Oct. 2006  
*Sponsor:* Sharif University of Technology

*Field:* Elected as a member of university council

*Period:* Dec. 2002  
*Sponsor:* Sharif University of Technology  
*Field:* Elected as a distinguished researcher

*Period:* 2002–2006  
*Sponsor:* Iran Telecommunication Research Center (ITRC)  
*Field:* Grant towards doing research on fingerprint watermarking

*Period:* Aug. 2001  
*Sponsor:* Electronic Research Center (ERC), Sharif University of Technology  
*Field:* Award towards holding a comprehensive workshop on fingerprint identification

*Period:* 1998–1999  
*Sponsor:* Ministry of Science, Research, and Technology of Iran  
*Field:* Elected as the best Ph.D. student studied in overseas

*Period:* 1996–1998  
*Sponsor:* QUT and Police collaborative, Approved QUT/Industry collaborative  
*Field:* Grant towards doing research on fingerprint compression

*Period:* 1993–1994  
*Sponsor:* University of the Ryukyus  
*Field:* Elected as the best post–graduate student within engineering faculties

*Period:* 1992–1994  
*Sponsor:* Ministry of Science, Research, and Technology of Iran  
*Field:* Post–graduate scholarship

## **Service Activities**

*Period:* Nov. 2018–Present  
*Sponsor:* Sharf University of Technology  
*Field:* Member of Employment and Scientific Committee of the Department of Computer Science and Engineering

*Period:* March 2019  
*Sponsor:* Iranian Society of Machine Vision & Image Processing (ISMVIP)  
*Field:* Scientific Committee Chair of IPRIA 2019

*Period:* Sep. 2018–Present  
*Sponsor:* Amirkabir International Journal of Electrical & Electronics Engineering (AUT-JEE)  
*Field:* Borad of Editors

*Period:* Sep. 2018–Present  
*Sponsor:* Iranian Journal of Information Systems & Telecommunication (JIST)  
*Field:* Borad of Editors

*Period:* Sep. 2017–Present  
*Sponsor:* Iranian Journal of Electical and Electronic Engineering (IJEED)  
*Field:* Borad of Editors

*Period:* April 2017–2020  
*Sponsor:* Iranian Society of Machine Vision & Image Processing (ISMVIP)  
*Field:* Vice President

*Period:* Dec. 2015–Present  
*Sponsor:* IEEE Iran Section  
*Field:* Senior Advisor of IEEE Iran Section Executive Committee of Women in Engineering (WIE)

*Period:* Dec. 2012–2015  
*Sponsor:* IEEE Iran Section  
*Field:* Member of IEEE Iran Section Executive Committee of Women in Engineering (WIE)

*Period:* Aug. 2009–Present  
*Sponsor:* Sharif University of Technology  
*Field:* Author of Singal Processing Glossary

*Period:* March 2009–Feb. 2010  
*Sponsor:* IEEE Iran Section  
*Field:* WIE Officer of IEEE Iran Section

*Period:* Dec. 2008–2010  
*Sponsor:* Computer Society of Iran Members  
*Field:* Member of Computer Society of Iran (CSI) Executive Committee

*Period:* Dec. 2006–2008  
*Sponsor:* IEEE Iran Section  
*Field:* Member of IEEE Iran Section Executive Committee

*Period:* Oct. 2006–2008  
*Sponsor:* Sharif University of Technology  
*Field:* Member of university council

## **Skills**

*Computer Programming:* C, Fortran, and Assemblers  
*CAD Tools:* MATLAB, KHOROS, WaveLab, TFSA, Speed Razer, Aura, and LightWave  
*Operating Systems:* UNIX Workstation, DOS, Windows, and NT  
*Standards:* JBIG, JPEG, H.26x, and MPEG-x  
*Fluent Languages:* Persian, English, and Japanese.

## **Research Interests**

Image/video processing and 3D computer vision with primary emphasis on:  
3D semantic segmentation,  
3D adversarial attack and defense,  
point cloud classification,  
adversarial knowledge distillation,  
autonomous driving cars,  
virtual/augmented reality,  
dynamic 3D pose estimation,  
dynamic 3D action recognition,  
multi-resolution texture analysis,  
scalable video coding, image retrieval,  
video indexing,  
face recognition,  
hyperspectral change detection,  
video restoration, and  
fingerprint authentication.

## **Constructed Courses**

*Title:* *Digital Image Processing*  
*Period:* Spring 2021, Spring 2020, Spring 2019, Spring 2018, Fall 2016, Spring 2016, Fall 2014, Spring 2014, Fall 2012, Fall 2011, Spring 2006, Fall 2003, Spring 2002  
*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Advanced 3D Computer Vision*  
*Period:* Fall 2020, Fall 2019, Fall 2018, Fall 2017, Spring 2016, Spring 2015, Spring 2014, Spring 2013, Spring 2012, Spring 2011  
*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Scientific & Technical Presentation*  
*Period:* Spring 2021, Fall 2020, Spring 2020, Fall 2019, Spring 2019, Fall 2018, Spring 2018, Fall 2017, Spring 2017, Fall 2016, Spring 2016, Fall 2015, Spring 2015, Fall 2014, Fall 2012, Spring 2012, Fall 2011, Spring 2011, Fall 2010, Fall 2009, Spring 2009, Fall 2008, Spring 2007, Spring 2005, Fall 2004, Spring 2004, Fall 2003, Spring 2003

*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Fundamentals of 3D Computer Vision*

*Period:* Fall 2013, Fall 2012, Fall 2011

*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Digital Video Processing*

*Period:* Fall 2015, Fall 2013, Fall 2010, Fall 2009, Spring 2009, Spring 2008, Spring 2007, Fall 2005, Fall 2004

*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Advanced Image Processing*

*Period:* Fall 2008, Fall 2007, Spring 2007, Fall 2006, Spring 2006, Spring 2005, Spring 2004, Fall 2003

*Sponsor:* Sharif University of Technology, Tehran, Iran

*Title:* *Signals & Systems*

*Period:* Fall 2008, Spring 2008, Fall 2007, Fall 2006, Spring 2006, Fall 2005, Fall 2004, Spring 2004, Fall 2003

*Sponsor:* Sharif University of Technology, Tehran, Iran

## **Thesis Supervision**

### **Supervised Ph.D. Theses:**

*Name:* Afrouzian, Reza

*Project Title:* Multiview Reconstruction in Dynamic Sports Scenes

*Period:* 2010–2015

*Name:* Asadi, Maryam

*Project Title:* A Robust and Compressed Descriptor for Action Recognition using 4D Data

*Period:* 2012–2018

*Name:* Dadashi, Nasim

*Project Title:* Adaptive Registration of Endoscopic Videos to MDCT Images for Error Reduction in ENT Navigation Systems

*Period:* 2010–2015

*Name:* Dianat, Rouhollah

*Project Title:* Texture Change Detection in Hyperspectral Images

*Period:* 2004–2010

*Name:* Ershadi Nasab, Sara

*Project Title:* 3D Reconstruction of Human Pose in Multiview Dynamic Scenes  
*Period:* 2010–2018

*Name:* Fooladgar, Fahimeh  
*Project Title:* Supervised Semantic Segmentation of RGB-D Images  
*Period:* 2013–2020

*Name:* Fotouhi, Mehran  
*Project Title:* Homography Matrix Extraction for 3D Positioning of Soccer Players  
*Period:* 2009–2018

*Name:* Hadavi Moghadam, Bentolhoda  
*Project Title:* Porosity Estimation in Electrospun Nanofibers using 3D Image Analysis  
*Period:* 2012–2018

*Name:* Hafez Kolahi, Hasan  
*Project Title:* Noisy-Channel Model for Feature Extraction  
*Period:* 2013–2020

*Name:* Hasanzadeh, Maryam  
*Project Title:* Multispectral Fuzzy Image Segmentation  
*Period:* 2004–2009

*Name:* Jafari, Mehdi  
*Project Title:* Object-Based Adaptive Streaming of Layered-Encoded Video over the Internet  
*Period:* 2001–2007

*Name:* Lotfi, Tayebeh  
*Name:* Mahdavi Nasab, Homayoon  
*Project Title:* Motion Estimation for Very Low Bitrate Video Compression  
*Period:* 2001–2005

*Name:* Mahmoodi, Shirin  
*Project Title:* Change Detection using Texture Analysis  
*Period:* 2004–2008

*Name:* Marvati-Zadeh, Mojtaba  
*Project Title:* Robust Target Tracking using Deep Neural Networks  
*Period:* 2015–2020

*Name:* Mohseni, Hadis  
*Project Title:* Face Recognition in Subspaces based on Nonlinear Dimension Reduction  
*Period:* 2007–2011



*Name:* Naderi, Hanieh  
*Project Title:* Invariance of CNNs to Similarity Transformation  
*Period:* 2016–2022

*Name:* Ramezanpour, Sadegh  
*Project Title:* Video Quality Improvement in a Collection of Smartphones  
*Period:* 2013–2020

*Name:* Sepehrinour, Maryam  
*Project Title:* 3D Reconstruction of Human Body from Single-View Videos  
*Period:* 2013–2020

### **Supervised M.Sc. Theses:**

*Name:* Aghababazadeh, Arash  
*Project Title:* Self-Supervised Image Representation Learning  
*Period:* 2019–2020

*Name:* Abadpour, Arash  
*Project Title:* Color Image Processing using Principle Component Analysis  
*Period:* 2004–2005

*Name:* Abdi, Amir Hossein  
*Project Title:* Diagnosis of Jaw Lesions in Dental Radiographs  
*Period:* 2012–2013

*Name:* Abin, Ahmad Ali  
*Project Title:* Multiface Detection and Tracking  
*Period:* 2007–2008

*Name:* Aghahian Panahi, Mohammad  
*Project Title:* Error Resilient Coding of H.264 for Wireless Networks  
*Period:* 2009–2011

*Name:* Amayeh, Gholamreza  
*Project Title:* Trademark Database Retrieval  
*Period:* 2002–2003

*Name:* Amiri, Ahmad  
*Project Title:* SLAM-based 3D Object Recognition using RGB-D Camera  
*Period:* 2016–2017

*Name:* Amiri, Hakimeh  
*Project Title:* Intraoperative Registration of Non-rigid Tissue for Image-Guided Surgery

*Period:* 2011–2012  
*Name:* Amiri, S. Mohsen  
*Project Title:* Texture Change Detection in Multispectral Images  
*Period:* 2005–2006

*Name:* Araghi, Ali  
*Project Title:* Error Concealment of H.264/AVC for Wireless Networks  
*Period:* 2009–2011

*Name:* Arbab, Mohammad  
*Project Title:*  
*Period:* 2017–2018

*Name:* Arbabi, Hossein  
*Project Title:* Motion Estimation using Complex Wavelet Transform  
*Period:* 2000–2001

*Name:* Ashkar, Nafiseh  
*Project Title:* Inserting Graphical Elements in Multiview Soccer Videos  
*Period:* 2016–2017

*Name:* Azad, Reza  
*Project Title:* 4D Hand Gesture Recognition on RGB-D Videos  
*Period:* 2016–2017

*Name:* Bagheri, Mohammad Reza  
*Project Title:* Synchronization of Multiple Videos of a Scene with Drop Possibility  
*Period:* 2015–2016

*Name:* Bagheri, Mojtaba  
*Project Title:* Multiresolution Video Mosaicing  
*Period:* 2006–2007

*Name:* Behrouzi, Javad  
*Project Title:* Wavelet-Based Digital Image Watermarking  
*Period:* 2003–2004

*Name:* Beizaei, Farzad  
*Project Title:* Human Action Recognition from RGB-D Videos using Deep Networks  
*Period:* 2018–2020

*Name:* Daliran, Soheil  
*Project Title:* Quality Improvement of Anticipated Future Videos by Unsupervised Deep Learning  
*Period:* 2017–2018

*Name:* Darabi, Ali Akbar  
*Project Title:* Hierarchical Object Segmentation to be used in Tracking  
*Period:* 2006–2007

*Name:* Darabi, Halimeh  
*Project Title:* Motion Tracking with Application to Virtual Studios  
*Period:* 2001–2002

*Name:* Dejkam, Arsalan  
*Project Title:* 3D Reconstruction of Deformable Surfaces  
*Period:* 2010–2011

*Name:* Ekhtiari, Zahra  
*Project Title:* 3D Body Pose Estimation and Tracking  
*Period:* 2014–2015

*Name:* Elyasi, Fatemeh  
*Project Title:* Detection and Tracking of Moving Objects using Multiview Cameras  
*Period:* 2013–2014

*Name:* Fatemi, Arezou  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018–2019

*Name:* Feiz, Shirinn  
*Project Title:* Virtual Advertisement Replacement in Multiview Soccer Video  
*Period:* 2015–2016

*Name:* Fahmi, Reza  
*Project Title:* 3D Soccer Ball Tracking with Fixed and PTZ Cameras  
*Period:* 2015–2016

*Name:* Farrokhbakht, Hossein  
*Project Title:* Implementing Particle Filtering on GPU Architecture  
*Period:* 2012–2013

*Name:* Fattahian Peiro, Hossein  
*Project Title:* Error Resilient Video Compression using H.264/AVC  
*Period:* 2007–2008

*Name:* Firusmanesh, Amir Hossein  
*Project Title:* Using H.264 Scalable Video Compression for Distance Learning  
*Period:* 2007–2008

*Name:* Feiz, Shirinn

*Project Title:* Virtual Advertisement Replacement in Multiview Soccer Video  
*Period:* 2015–2016

*Name:* Fotouhi, Mehran  
*Project Title:* Body Skin Detection in Color Images  
*Period:* 2007–2008

*Name:* Fouladi, Sadjad  
*Project Title:* Real-time Graphical Elements Addition to Live and Instant Replays of Broadcast Soccer Videos  
*Period:* 2013-2014

*Name:* Ghadakchi, Vahid  
*Project Title:* Human Action Recognition Using 3D Analysis  
*Period:* 2011-2012

*Name:* Ghaderi, Mojtaba  
*Project Title:* Local Image Sequence Restoration applied on IRIB Archive Resources  
*Period:* 2000-2002

*Name:* Ghelichkhan, Zahra  
*Project Title:* Semantic Segmentation Considering Correlation with RGB-D Data using CNNs  
*Period:* 2019-2021

*Name:* Ghodrati, Amir  
*Project Title:* Human Action Categorization Using Spatiotemporal Features  
*Period:* 2008–2009

*Name:* Gholami, Aminreza  
*Project Title:* Multiview Localization and Tracking of Soccer Players and Ball  
*Period:* 2011–2012

*Name:* Gholizadeh Ansari, Maryam  
*Project Title:* Face Segmentation with Application to Videotelephony Compression  
*Period:* 2001–2002

*Name:* Hadian, Mostafa  
*Project Title:* Calibration of PTZ Cameras from Multiview Soccer Match Videos  
*Period:* 2014–2015

*Name:* Hayati, Barzan  
*Project Title:* Multi-view Multi-object Tracking based on Objective Functions  
*Period:* 2016–2017

*Name:* Hosseini, Reyhaneh

*Project Title:* Logo Detection and Removal from Videos  
*Period:* 2008–2009

*Name:* Jabalbarez, Elham  
*Project Title:* 3D Modeling of Soccer Players from an Arbitrary Viewpoint Using Multiview Images  
*Period:* 2011–2012

*Name:* Jamalifar, Hamed  
*Project Title:* Reference-Free Deformable Surface 3D Tracking  
*Period:* 2010–2011

*Name:* Karami, Mansoureh  
*Project Title:* 3D Reconstruction of Soccer Player using Multiview Videos  
*Period:* 2012–2013

*Name:* Karimi, Nader  
*Project Title:* Semantic Segmentation on Fusion of RGB and Depth Channels of Images using Convolutional Neural Networks  
*Period:* 2018–2020

*Name:* Karimian, Mahmoud  
*Project Title:* Video Categorization Using Semisupervised Learning  
*Period:* 2010–2011

*Name:* Khairi, Masoud  
*Project Title:* Weakly Supervised Semantic Segmentation using Deep Neural Networks  
*Period:* 2019-2020

*Name:* Khalili, Amir Hossein  
*Project Title:* Object Tracking across Uncalibrated Camera Networks  
*Period:* 2006–2007

*Name:* Khameneh, Elyas  
*Project Title:* Multiresolution Image Mosaicing  
*Period:* 2005–2006

*Name:* Khatami Nejhada, Ahmad  
*Project Title:* 4D Human Action Recognition Using a Fixed RGB-D Camera  
*Period:* 2015–2016

*Name:* Lakdashti, Abualfazel  
*Project Title:* Design and Implementation of a Search Engine on Image Databases on the Internet  
*Period:* 2001–2002

*Name:* Mahmoudi, Ali  
*Project Title:* An Efficient Fingerprint Authentication Method  
*Period:* 2002–2003

*Name:* Mazloom, Masoud  
*Project Title:* An Efficient Method for Face Recognition  
*Period:* 2004–2005

*Name:* Mehabadi Mohamadi, Mohamad  
*Project Title:* Improving Robustness of Deep Neural Networks against Adversarial Examples in Images  
*Period:* 2019–2020

*Name:* Merati, Amin  
*Project Title:* Object Segmentation & Tracking in Image Sequences  
*Period:* 2003–2004

*Name:* Milady, Saeed  
*Project Title:* Detection and Removal of Line Scratches in Image Sequences  
*Period:* 2001–2002

*Name:* Moghimi, Mohammad  
*Project Title:* Multiclass Visual Object Recognition based on Cluttered Images  
*Period:* 2008–2010

*Name:* Mohabbati, Bardia  
*Project Title:* Object Tracking in Image Sequences  
*Period:* 2004–2005

*Name:* Mohammadi, Maryam  
*Project Title:* Link Prediction in Bipartite Networks  
*Period:* 2015–2016

*Name:* Mohammadi Kaji, Mahsa  
*Project Title:* Visual Odometry using RGB-D Cameras  
*Period:* 2013–2014

*Name:* Mohammadi Nasiri, Rasoul  
*Project Title:* Multiview Human Tracking Using Uncalibrated Cameras  
*Period:* 2008–2009

*Name:* Mohseni, Hadis  
*Project Title:* Automatic Localization of Cephalometric Landmarks  
*Period:* 2006–2007

*Name:* Moradi, Reza  
*Project Title:* Human Action Recognition Using Expandable Graphical Models  
*Period:* 2011–2012

*Name:* Moteshaker, Zohreh  
*Project Title:* 3D Reconstruction of Soccer Players from an Arbitrary Closeup Viewpoint Using Multiview Videos  
*Period:* 2011–2012

*Name:* Panahandeh, Ghazaleh  
*Project Title:* Video Error Concealment  
*Period:* 2007–2008

*Name:* Pandeh, Hossein  
*Project Title:* Real-time Graphical Elements Addition to Live Broadcast Soccer Videos  
*Period:* 2015–2016

*Name:* Pedram, S.Monireh  
*Project Title:* Image Representation using Tensor Voting  
*Period:* 2006–2007

*Name:* PourRostami, Amin  
*Project Title:* A New Context-Based Lossless Grayscale Image Compression Method  
*Period:* 2005–2006

*Name:* Rahimi, Gholamreza  
*Project Title:* Background Modeling for Tracking Moving Objects  
*Period:* 2009–2011

*Name:* Ramazanpour, Sadegh  
*Project Title:* 3D Human Pose Estimation using Multiview Videos  
*Period:* 2012–2013

*Name:* Ranjbari, Mani  
*Project Title:* Spatial Error Concealment in H.264/AVC  
*Period:* 2006–2007

*Name:* Rashidi, Hossein  
*Project Title:* Visual Simultaneous Localization and Mapping Using an RGB-D Camera  
*Period:* 2014–2015

*Name:* Rohani, Mohammad  
*Project Title:* Applying Active Contour Model for Edge Extraction  
*Period:* 2005–2006

*Name:* Sadeghi, Aryan  
*Project Title:* Multi-Sensor Data Fusion with Deep Learning  
*Period:* 2020–2021

*Name:* Safavian, Nader  
*Project Title:* Content-Based Image Retrieval using Texture & Color Features  
*Period:* 2002–2003

*Name:* Safdarian, Soraya  
*Project Title:* Semantic Segmentation of 3D Point Clouds for Indoor Scene Understanding using Deep Convolutional Neural Networks  
*Period:* 2018–2019

*Name:* SeyedSalehi, Erfan  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018–2019

*Name:* ShabaniNia, Elham  
*Project Title:* Moving Vehicle Tracking Using Multi-Uncalibrated Cameras  
*Period:* 2008–2009

*Name:* Shahinfard, Elham  
*Project Title:* Digital Image Watermarking  
*Period:* 2000–2001

*Name:* Shariatzadeh, S. Mehdi  
*Project Title:* Exemplar-Based Video Completion  
*Period:* 2009–2010

*Name:* Shirzad, Hamed  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018–2019

*Name:* Soleimani Baghshah, Mahdieh  
*Project Title:* Fuzzy-Based Recognition and Learning of Online Isolated Persian Characters  
*Period:* 2004–2005

*Name:* Souri, Yasser  
*Project Title:* Fine-Grained Image Classification  
*Period:* 2014–2015

*Name:* Taghaddosi, Mohsen  
*Project Title:* 3D Mosaicing Using Multiview Videos  
*Period:* 2011–2012



*Name:* Tavakkoli, Alireza  
*Project Title:* Object-Based Video Compression  
*Period:* 2002–2003

*Name:* Tavassolipour, Mostafa  
*Project Title:* Extraction of Important Events in Football Videos Using Video Summarization Techniques  
*Period:* 2010–2011

*Name:* Zarean, Ali  
*Project Title:* Free-viewpoint Soccer Match Video from Overlapping Cameras  
*Period:* 2014–2015

### **Supervised B.Sc. Theses:**

*Name:* Abbaspour Tehrani, Mehdi  
*Project Title:* Detection of Left Ventricular Boundaries in MR Images  
*Period:* 2011–2012

*Name:* Abbaspour, Mohsen  
*Project Title:* Restoration of Noisy and Blurred Image Sequences  
*Period:* 2001–2002

*Name:* Ahmadian, Safa  
*Project Title:* Human Action Recognition using Skeleton Data  
*Period:* 2016–2017

*Name:* Allahverdi, Kamyar  
*Project Title:* Using Computer Vision Methods to Improve Presentation Facilities  
*Period:* 2012–2013

*Name:* Arab, Ali  
*Project Title:* Camera Calibration Using Field Model for Soccer Match Videos  
*Period:* 2013–2014

*Name:* Arya, Atrin  
*Project Title:* Adversarial Attack and Defense on 3D Point Cloud  
*Period:* 2020–2021

*Name:* Attaran Rezaei, Behnam  
*Project Title:* Fingerprint Ridge Extraction & Thinning  
*Period:* 2000–2001

*Name:* Azari, Ali  
*Project Title:* Fingerprint Classification

*Period:* 2000–2001  
  
*Name:* Bagheri, Mohammad Reza  
*Project Title:* Synchronization of Multiple Videos of a Scene with Drop Possibility  
*Period:* 2016–2017

*Name:* Behzadi, Mitra  
*Project Title:* A New Image Registration Method in Elastix Toolbox  
*Period:* 2013–2014

*Name:* Bokharaie, Simin  
*Project Title:* Video Compression based on Object Recognition  
*Period:* 2002–2003

*Name:* Bozorgpour, Afshin  
*Project Title:* Automatic Homography Extraction and Tracking in Soccer Scenes  
*Period:* 2014–2015

*Name:* Ebrahimi, Ghazal  
*Project Title:* Adversarially Robust Self-Distillation  
*Period:* 2020–2021

*Name:* Emad Marvasti, Amir  
*Project Title:* Object Tracking by Particle Filtering Using Environment Geometrical Features  
*Period:* 2013–2014

*Name:* Emad Marvasti, Ehsan  
*Project Title:* Object Tracking by Particle Filtering Using Environment Geometrical Features  
*Period:* 2013–2014

*Name:* Esmailnejhad, Jamshid  
*Project Title:* A General Graph-Embedding-Based Framework for Dimension Reduction  
*Period:* 2011–2011

*Name:* Esmaelani, Leila  
*Project Title:* Video Compression using 3-D Wavelet Transform  
*Period:* 2002–2003

*Name:* Fatemi, Arezou  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018-2019

*Name:* Feizi, Arash

*Project Title:* Image Segmentation with RGB-D Data Using GANs  
*Period:* 2018-2019

*Name:* Forghani, Hossein  
*Project Title:* Vision-Based 3D Object Recognition  
*Period:* 2013-2014

*Name:* Foroughipour, Ali  
*Project Title:* 3D Surface Reconstruction of Brain from MR Images  
*Period:* 2012-2013

*Name:* Fouladi, Sadjad  
*Project Title:* Color Correction in Mosaiced Images of Soccer Matches  
*Period:* 2012

*Name:* Ghane, Ali Reza  
*Project Title:* Color Histogram-Based Image Retrieval from Databases under MPEG7 Standard  
*Period:* 2005–2006

*Name:* Ghassemzadeh, Mona  
*Project Title:* Content-Based Image Retrieval using Color and Texture Features  
*Period:* 2001–2002

*Name:* Gherailu, Hadi  
*Project Title:* Shot Change Detection in Image Sequences  
*Period:* 2001–2002

*Name:* Ghorbanii, Mahdi  
*Project Title:* Adversarial Knowledge Distillation for Image Classification and Semantic Segmentation  
*Period:* 2020–2021

*Name:* Ghotbi, Mohammad Mehdi  
*Project Title:* Investigating Different Multispectral Image Registration Methods  
*Period:* 2007–2008

*Name:* Ghoudarzi, Mohsen  
*Project Title:* Structural Analysis and Character Recognition for Iranian License Plate Recognition  
*Period:* 2004–2005

*Name:* Goli, Lili  
*Project Title:* Unrestricted Adversarial Attack and Defense on Deep Convolutional Neural Networks based on Geometric Transformations  
*Period:* 2020-2021

*Name:* Hadizadeh, Fatemeh  
*Project Title:* Unpaired Image-to-Image Translation  
*Period:* 2021

*Name:* Hajimoradlou, Ainaz  
*Project Title:* Feature Extraction from RGB-D Images for Semantic Segmentation  
*Period:* 2016–2017

*Name:* Hashemi, Hooman  
*Project Title:* Inference of Support Relations on RGB-D Images for Semantic Segmentation  
*Period:* 2016–2017

*Name:* Hosseinzadeh, Mehran  
*Project Title:* Adversarial Attack and Defense in Semantic Segmentation of RGB-D Images  
*Period:* 2020–2021

*Name:* Lesani, Majid  
*Project Title:* A New Method for Iranian License Plate Localization  
*Period:* 2004–2005

*Name:* Karimifar, Shirin  
*Project Title:* Content-Based Image Retrieval using Shape Features  
*Period:* 2001–2002

*Name:* Khodabandeh, Mehran  
*Project Title:* Analyzing Feature Extraction Methods for Gender Detection from Face Images  
*Period:* 2012–2012

*Name:* Lotfian, Sina  
*Project Title:* Calculating Inter-Frame Homography Matrixes for PTZ Cameras in Soccer Matches  
*Period:* 2013–2014

*Name:* Khabbazian, Mohammad Hasan  
*Project Title:* Statistical Models of Digital Images  
*Period:* 2006–2007

*Name:* Mahdavi, Mobina  
*Project Title:* Supervised Semantic Segmentation of 3D Point Clouds  
*Period:* 2019-2020

*Name:* Mahdieh, Mahdis

*Project Title:* Dress Mapping on Query Body from 4 Points of View Using 3D Computer Vision  
*Period:* 2012–2012

*Name:* Mazaheri, Amir  
*Project Title:* Model-based Human Pose Estimation from Multiview Videos  
*Period:* 2012–2013

*Name:* Mikaeili, Aryan  
*Project Title:* Geometric Interpretability of 3D Deep Neural Networks  
*Period:* 2020–2021

*Name:* Moghimi, Mehrdad  
*Project Title:* Virtual Advertisement Replacement in Soccer Fields  
*Period:* 2018–2019

*Name:* Mohammadi, Maryam  
*Project Title:* An Improved GM-PHD Filter for Multiple Target Tracking  
*Period:* 2012–2013

*Name:* Mohammadi Kaji, Mahsa  
*Project Title:* Glioma Diagnosis and Follow up Using MR Images  
*Period:* 2012–2012

*Name:* Mohammadi Nasiri, Rasoul  
*Project Title:* Object Motion Parameter Estimation in 3D Space  
*Period:* 2007–2008

*Name:* Mohsennia, Arsalan  
*Project Title:* 3D Reconstruction of Body Tissue Structures from Biomedical Videos using ASKC  
*Period:* 2012–2012

*Name:* Montazeri, Zahra  
*Project Title:* Visual Odometry using RGB-D Cameras  
*Period:* 2013–2014

*Name:* Moradi, Maryam  
*Project Title:* Robustness of Deep Neural Networks to Adversarial Examples  
*Period:* 2020–2021

*Name:* Naghian, Mohammad  
*Project Title:* Detection of Left Ventricular Boundaries in MR Images  
*Period:* 2011–2012

*Name:* Najafzadeh, Nima

*Project Title:* Multi-Target 3D Tracking  
*Period:* 2013–2014

*Name:* Norouzi, Narges  
*Project Title:* Dress Mapping on Query Body from 4 Points of View Using 3D Computer Vision  
*Period:* 2012–2012

*Name:* Noorbakhsh, Kimia  
*Project Title:* Robustness Improvement of Deep Neural Networks by Representation Learning  
*Period:* 2021

*Name:* Osia, Ali  
*Project Title:* Human Body Pose Estimation Using 3D Point Cloud  
*Period:* 2013–2014

*Name:* Pajoum, Barbod  
*Project Title:* 3D Point Cloud Classification using Generative Adversarial Network  
*Period:* 2020–2021

*Name:* Pakbaznia, Ehsan  
*Project Title:* Fingerprint High-Level Classification  
*Period:* 2000–2001

*Name:* Rahimi, Mohammad Reza  
*Project Title:* Fingerprint High-Level Classification  
*Period:* 2000–2001

*Name:* Raissi Dehkordi, Vahid  
*Project Title:* Still Image Compression using Wavelet Transform  
*Period:* 2001–2002

*Name:* Sabouri, Anooshirvan  
*Project Title:* Rigid Object Motion Tracking  
*Period:* 2002–2003

*Name:* Sadeghi, Mohammad Amin  
*Project Title:* Real-time Multiview Face Detection  
*Period:* 2009–2010

*Name:* Safaei Pour, Morteza  
*Project Title:* Reducing Registration Error between CT and Ultrasound Images  
*Period:* 2012–2013

*Name:* Safarian, Soraya

*Project Title:* Semantic Segmentation of 3D Point Clouds for Indoor Scene Understanding using Deep Convolutional Neural Networks  
*Period:* 2018–2019

*Name:* Salahshour, Mojgan  
*Project Title:* Template Matching & Reconstruction in Sport Scenes with Different View Angles  
*Period:* 2002–2003

*Name:* Salarifard, Razieh  
*Project Title:* Robust Features Extraction for Content-based Video Classification  
*Period:* 2012–2012

*Name:* Salehi, Emad  
*Project Title:* Multi-Sensor Data Fusion by Deep Learning in 3D Object Detection  
*Period:* 2021

*Name:* Salimi, Shima  
*Project Title:* Model-based Human Pose Estimation from Multiview Videos  
*Period:* 2012–2013

*Name:* Samadian, Alireza  
*Project Title:* Player Super-resolution in Soccer Videos  
*Period:* 2016

*Name:* Samie, Farzad  
*Project Title:* Radiometric Correction & Normalization of Satellite Images  
*Period:* 2007–2008

*Name:* SeyedSalehi, Erfan  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018-2019

*Name:* Shariatmadari, Zeinab  
*Project Title:* Change Detection using Hyperspectral Images  
*Period:* 2004–2005

*Name:* Shirzad, Hamed  
*Project Title:* RGB-D Video Generation using GANs  
*Period:* 2018-2019

*Name:* Taghavi Nasrabadi, Zeinab  
*Project Title:* Wavelet Transform Specifications in Image Sequences  
*Period:* 2001–2002

*Name:* Tajik, Kimia

*Project Title:* 3D Reconstruction of Sinuous Using Endoscopy Images  
*Period:* 2012–2012

*Name:* Tahmasebi, Amir Mohammad  
*Project Title:* Enhancement & Foreground/Background Segmentation of Fingerprint Images  
*Period:* 2000–2001

*Name:* Tavakkol, Arash  
*Project Title:* Watermarking of Fingerprint Images  
*Period:* 2004–2005

*Name:* Teimouri, Parshan  
*Project Title:* Multi-Sensor Data Fusion Effect on Scene Perception using Deep Learning  
*Period:* 2021

*Name:* Vahdani, Elahehi  
*Project Title:* Ball Detection in Soccer Match Videos  
*Period:* 2013–2014

*Name:* Yadollahi, Ali  
*Project Title:* Image Retrieval from Database based on an Arbitrary Query  
*Period:* 2012–2012

*Name:* Zargarzadeh, Sahar  
*Project Title:* Semantic Segmentation of 3D Point Cloud Using RGB-D Data  
*Period:* 2019-2020

*Name:* Zohri, Alireza  
*Project Title:* Developing an Augmented Reality Software for Navigation Systems  
*Period:* 2019-2020

## References

- [1] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. Efficient Scale Estimation Methods using Lightweight Deep Convolutional Neural Networks for Visual Tracking. *Springer, Neural Computing & Applications*, (accepted), 2020.
- [2] S. M. Marvasti-Zadeh, L. Cheng, H. Ghanei Yakhdan, and S. Kasaei. Deep Learning for Visual Tracking: A Comprehensive Survey. *IEEE Transactions on Intelligent Transportation Systems*, (accepted), 2020.



- [3] S. Ershadi Nasab, S. Kasaei, and E. Sanaei. Uncalibrated Multi-view Multiple Humans Association and 3D Pose Estimation by Adversarial Learning. *Springer, Multimedia Tools & Applications*, 80(2):2461–2488, Sep. 2020.
- [4] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, S. Kasaei, K. Nasrollahi, and T. B. Moeslund. Effective Fusion of Deep Multitasking Representations for Robust Visual Tracking. *Springer, Visual Computer*, (under 2nd review), 2020.
- [5] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. Adaptive Exploitation of Pre-Trained Deep Convolutional Neural Networks for Robust Visual Tracking. *Springer, Multimedia Tools & Applications*, (accepted), 2020.
- [6] S. Ershadi-Nasab, S. Kasaei, E. Sanaei, E. Noury, and H. Hafez-Kolahi. BodyField: Structured Mean Field with Human Body Skeleton Models and Shifted Gaussian Edge Potentials. *Journal of Information Systems & Telecommunication (JIST)*, (to appear), 2020.
- [7] H. Hafez-Kolahi, S. Kasaei, and M. Soleymani-Baghshah. Sample Complexity of Classification with Compressed Input. *Elsevier, Neurocomputing*, (to appear), 2020.
- [8] M. Sepehrinour and S. Kasaei. NRSfPP: Non-Rigid Structure-from-Perspective Projection. *Springer, Multimedia Tools & Applications*, 80(6):9093–9108, March 2021.
- [9] F. Fooladger and S. Kasaei. Lightweight Residual Densely Connected Convolutional Neural Network. *Springer, Multimedia Tools & Applications*, 79(35):25571–25588, June 2020.
- [10] F. Fooladgar and S. Kasaei. *3M2RNet: Multi-Modal Multi-Resolution Renement Network for Semantic Segmentation*. Springer, Advances in Intelligent Systems and Computing, 2019.
- [11] F. Fooladger and S. Kasaei. A Survey on RGB-D Semantic Segmentation: from Hand-Crafted Features to Deep Convolutional Neural Networks. *Springer, Multimedia Tools & Applications*, 79(7):4499–4524, Feb. 2020.
- [12] B. Hadavi Moghadam, S. Kasaei, and A.K. Haghi. *3D Image Processing in Structural Characterization of Electrospun Nanofibrous Membranes*. Engineered Carbon Nanotubes and Nanofibrous Materials: Integrating Theory and Technique, 2019.
- [13] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. Beyond Background-Aware Correlation Filters: Adaptive Context Modeling by Hand-Crafted and Deep RGB Features for Robust Visual Tracking. *IEEE Transactions on Multimedia*, (submitted), 2018.
- [14] H. Hafez-Kolahi and S. Kasaei. Information Bottleneck and its Applications in Deep Learning. *Journal of Information Systems & Telecommunication (JIST)*, 6(3):119–127, Sep. 2018.

- [15] E. Shabaninia, A.R. Naghsh-Nilchi, and S. Kasaei. A Weighting Scheme for Mining Key Skeletal Joints for Human Action Recognition. *Springer, Multimedia Tools & Applications*, 78:31319–31345, Nov. 2019.
- [16] R. Azad, M. Asadi-Aghbolaghi, S. Kasaei, and S. Escalera. Dynamic 3D Hand Gesture Recognition by Learning Weighted Depth Motion Maps. *IEEE Transactions on Circuits & Systems for Video Technology*, 29(6):1729–1740, June 2019.
- [17] M. Fotouhi, H. Hekmatian, M. A. Kashani-Nezhad, and S. Kasaei. SC-RANSAC: Spatial Consistency on RANSAC. *Springer, Multimedia Tools & Applications*, 78(7):9430–9461, 2019.
- [18] E. Shabaninia, S. Kasaei, and A.R. Naghsh-Nilchi. Understanding Human Actions via Hierarchical Extended Histogram of Weighted 3D Joints. *IEEE Transactions on Human-Machine Systems*, (under review), 2018.
- [19] S. Ershadi-Nasab, S. Kasaei, and E. Sanaei. Regression-Based Convolutional 3D Pose Estimation from a Single Image. *Institution of Engineering & Technology, IET, Electronics Letters*, 54(5):292–293, March 2018.
- [20] E. Shabaninia, A.R. Naghsh-Nilchi, and S. Kasaei. Extended Histogram: Probabilistic Modeling of Video Content Temporal Evolutions. *Springer, Multidimensional Systems & Signal Processing*, 30:175–193, Jan. 2019.
- [21] B. Hadavi Moghadam, S. Kasaei, and A. Khodaparast Haghi. Surface Roughness of Electrospun Nanofibrous Mats by a Novel Image Processing Technique. *World Scientific, Surface Review & Letters*, pages 18300051–183000510, Jan. 2018.
- [22] B. Hadavi Moghadam, A. Khodaparast Haghi, and S. Kasaei. Three-Dimensional Reconstruction and Visualization of Nanofibrous Membrane from Two-Dimensional SEM Images: A Novel Approach for Pore Structure Analysis. *Journal of Membrane Science*, (under review), 2017.
- [23] S. Ershadi-Nasab, E. Noury, S. Kasaei, and E. Sanaei. Multiple Human 3D Pose Estimation from Multiview Images. *Springer, Multimedia Tools & Applications*, 77(12):15573–15601, June 2018.
- [24] E. Shabaninia, A.R. Naghsh-Nilchi, and S. Kasaei. High-order Markov Random Field for Single Depth Image Super-resolution. *Institution of Engineering & Technology, IET, Computer Vision*, 11(8):683–690, Dec. 2017.
- [25] M. Asadi and S. Kasaei. Supervised Spatio-Temporal Kernel Descriptor for Human Action Recognition from RGB-Depth Videos. *Springer, Multimedia Tools & Applications*, 77(11):14115–14135, June 2018.
- [26] B. Hadavi Moghadam, S. Kasaei, and A. Khodaparast Haghi. A Novel User-Friendly Image Analysis Technique for Determination of Electrospun Nanofibrous Mats Thickness. *World Scientific, Nano*, 12(11):17501301–17501309, Nov. 2017.

- [27] M. Asadi, A. Clapes, M. Bellantonio, H. Jair Escalante, V. Ponce-Lopez, X. Baro, I. Guyon, S. Kasaei, and S. Escalera. *Deep Learning for Action and Gesture Recognition in Image Sequences: A Survey*. Springer Series on Challenges in Machine Learning, Gesture Recognition, 2017.
- [28] F. Fotouhi, S. Fouladi, and S. Kasaei. Projection Matrix by Orthogonal Vanishing Points. *Springer, Multimedia Tools & Applications*, 76(15):16189–16223, August 2017.
- [29] B. Hadavi Moghadam, A. Khodaparast Haghi, and S. Kasaei. Structure Analysis of Electrospun Nanofibrous Membranes: A Detailed Review. *Polymers Research Journal*, 3(10), 2016.
- [30] B. Hadavi Moghadam, S. Kasaei, and A. Khodaparast Haghi. An Efficient 3D Data Analysis Method for Surface Roughness Measurement of Nanofibrous Mat. *Polymers Research Journal*, 3(10), 2016.
- [31] N. Dadashi Serej, A. Ahmadian, S. Kasaei, and S. M. Sadrehosseini. A Robust Keypoint Extraction and Matching Algorithm based on Wavelet Transform and Information Theory for Point-Based Registration in Endoscopic Sinus Cavity Data. *Springer, Signal, Image & Video Processing*, 10(5):983–991, Jan. 2016.
- [32] R. Afrouzian, H. Seyedarabi, and S. Kasaei. Pose Estimation of Soccer Players using Multiple Uncalibrated Cameras. *Springer, Multimedia Tools & Applications*, 75(12):6809–6827, June 2016.
- [33] A. Abdi, S. Kasaei, and M. Mehdizadeh. Automatic Segmentation of Mandible in Panoramic X-ray. *SPIE, Journal of Medical Imaging*, 2(4):0440031–0440038, Nov. 2015.
- [34] B. Hadavi Moghadam, A. Khodaparast Haghi, S. Kasaei, and M. Hasanzadeh. Computational-Based Approach for Predicting Porosity of Electrospun Nanofiber Mats Using Response Surface Methodology and Artificial Neural Network Methods. *Journal of Macromolecular Science, Part B Physics*, 54(11):1404–1425, Sep. 2015.
- [35] R. Rouhi, M. Jafari, and S. Kasaei. Benign and Malignant Breast Tumors Classification based on Region Growing and CNN Segmentation. *Elsevier Science, Expert Systems with Applications*, 42(3):990–1002, 2015.
- [36] A.H. Karami, M. Hasanzadeh, and S. Kasaei. Online Adaptive Motion Model-Based Target Tracking Using Local Search Algorithm. *Elsevier Science, Engineering Applications of Artificial Intelligence*, 37:307–318, 2015.
- [37] B. Irannejad, M. Jafari, and S. Kasaei. Automatic Tumor Classification in Brain MR Images Using Metaheuristic Algorithms and Artificial Neural Networks. *Institution of Engineering & Technology, IET, Computer Vision*, (under 2nd review), 2014.
- [38] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. An Efficient Adaptive Boundary Matching Algorithm for Video Error Concealment. *Iranian Journal of Electrical & Electronic Engineers*, 10(3):188–202, Sep. 2014.

- [39] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. A Novel Boundary Matching Algorithm for Video Temporal Error Concealment. *International Journal of Image, Graphics and Signal Processing*, 6(6):1–10, May 2014.
- [40] B. Babagholami, A. Jourabloo, A. Zarghamiand, and S. Kasaei. A Bayesian Framework for Sparse Representation-Based 3D Human Pose Estimation. *IEEE Signal Processing Letters*, 21(3):297–300, March 2014.
- [41] H. Mohseni and S. Kasaei. Head Pose Estimation and Face Recognition Using a Nonlinear Tensor-Based Model. *Institution of Engineering & Technology, IET, Computer Vision*, 8(1):54–65, Feb. 2014.
- [42] H. Mohseni and S. Kasaei. Multiview Face Recognition Based on Multilinear Decomposition and Pose Manifold. *Institution of Engineering & Technology, IET, Image Processing*, 8(5):300–309, May 2014.
- [43] M. Karimian, M. Tavassolipour, and S. Kasaei. A Semi-supervised Method for Multimodal Classification of Consumer Videos. *International Journal of Information & Communication Technology, Ijict*, 4(5):19–26, Dec 2012.
- [44] M. Tavassolipour, M. Karimian, and S. Kasaei. Event Detection and Summarization in Soccer Videos Using Bayesian Network and Copula. *IEEE Transactions on Circuits & Systems for Video Technology*, 24(2):291–304, Feb. 2014.
- [45] A. Ghodrati and S. Kasaei. Human Action Categorization Using Discriminative Local Spatio-Temporal Feature Weighting. *Intelligent Data Analysis*, 16(4):537–550, 2012.
- [46] M. Jafari and S. Kasaei. Adaptive Search Range Decision for Fast Intra- and Inter-Prediction Mode Decision in H.264/AVC. *Indian Journal of Science & Technology*, 4(9):1143–1152, Sep. 2011.
- [47] M. Jafari and S. Kasaei. Automatic Brain Tissue Detection in MRI Images Using Seeded Region Growing Segmentation and Neural Network Classification. *Australian Journal of Basic & Applied Sciences*, 5(8):1066–1079, Aug. 2011.
- [48] E. Shabaninia and S. Kasaei. Codebook Appearance Representation for Vehicle Handover across Disjoint-View Multicameras. *Scientia Iranica*, 18(6):1450–1459, Dec. 2011.
- [49] E. Shabaninia and S. Kasaei. Moving Vehicle Tracking Using Disjoint-View Multicameras. *Iranian Journal of Electrical & Electronic Engineers*, 7(3):168–178, Sep. 2011.
- [50] M. Jafari and S. Kasaei. Fast Intra- and Inter-Prediction Mode Decision of H.264/AVC for Medical Frame Compression based on Region of Interest. *Australian Journal of Basic & Applied Sciences*, 5(5):397–411, May 2011.
- [51] R. Dianat and S. Kasaei. Dimension Reduction of Remote Sensing Images by Incorporating Spatial and Spectral Properties. *International Journal of Electronics & Communications, AEU*, 64(8):729–732, Aug. 2010.

- [52] M. Hasanzadeh and S. Kasaei. A Multispectral Image Segmentation Method using Size-Weighted Fuzzy Clustering and Membership Connectedness. *IEEE Geoscience & Remote Sensing Letters*, 7(3):520–524, July 2010.
- [53] R. Dianat and S. Kasaei. Change Detection in Optical Remote Sensing Images Using Difference-Based Methods and Spatial Information. *IEEE Geoscience & Remote Sensing Letters*, 7(1):215–219, Jan. 2010.
- [54] R. Dianat and S. Kasaei. Dimension Reduction of Optical Remote Sensing Images via Minimum Change Rate Deviation Method. *IEEE Transactions on Geoscience & Remote Sensing*, 48(1):198–206, Jan. 2010.
- [55] T. Lotfi, M. Bagheri, A.A. Darabi, and S. Kasaei. An Efficient Content-Based Video Coding Method for Distance Learning Applications. *Scientia Iranica*, 16(2):85–103, Dec. 2009.
- [56] R. Dianat and S. Kasaei. Change Detection in Remote Sensing Images Using Modified Polynomial Regression and Spatial Multivariate Alteration Detection. *SPIE Journal of Applied Remote Sensing*, 3(1):1–12, Nov. 2009.
- [57] A.A. Abin, M. Fotouhi, and S. Kasaei. A New Dynamic Cellular Learning Automata-Based Skin Detector. *Springer, Multimedia Systems*, 15(5):309–323, Oct. 2009.
- [58] H. Rabbani, M. Vafadoust, and S. Kasaei. Edge Detection Using Discrete Complex Wavelet Transform. *Esteghlal Journal of Engineering*, 28(1):17–35, Sep. 2009.
- [59] M. Ranjbar and S. Kasaei. Spatial Error Concealment: A Novel Exemplar-Based Approach Using Segmentation. *Elsevier Science, Computers & Electrical Engineering*, 35:536–548, 2009.
- [60] M. Soleymani Baghshah and S. Kasaei. An FPCA-Based Color Morphological Filtering for Noise Removal. *Scientia Iranica*, 16(1):8–18, June 2009.
- [61] M. Hasanzadeh and S. Kasaei. Fuzzy Image Segmentation using Membership Connectedness. *EURASIP Journal on Advances in Signal Processing*, 2008:1–13, Dec. 2008.
- [62] A. Abadpour and S. Kasaei. A Novel Color Image Compression Method Using Eigenimages. *Iranian Association of Electrical & Electronic Engineers, IAEEE*, 5(2):45–53, 2008.
- [63] H. Mahdavi-Nasab and S. Kasaei. New Half-Pixel Accuracy Motion Estimation Algorithms for Low Bitrate Video Communications. *Scientia Iranica*, 15(6):507–516, Nov. 2008.
- [64] M. Jafari and S. Kasaei. Fast Intra- and Inter-Prediction Mode Decision in H.264 Advanced Video Coding. *International Journal of Computer Science & Network Security*, 8(5):130–140, May 2008.

- [65] A. Abadpour and S. Kasaei. Color PCA Eigenimages and their application to Image Compression and Watermarking. *Elsevier Science, Image & Vision Computing*, 26(7):878–890, 2008.
- [66] A. Abadpour and S. Kasaei. Principal Color and Its Application to Color Image Segmentation. *Scientia Iranica*, 15(2):238–245, April 2008.
- [67] S. Mahmoudi and S. Kasaei. Contourlet–Based Edge Extraction for Image Registration. *Iranian Journal of Electrical & Electronic Engineers*, 4(1):17–34, Jan. 2008.
- [68] A. Abadpour and S. Kasaei. An Efficient PCA–Based Color Transfer Method. *Elsevier Science, Visual Communication & Image Representation*, 18(1):15–34, Feb. 2007.
- [69] A. Abadpour, S. Kasaei, and S.M. Amiri. Fast Registration of Remotely–Sensed Images for Earthquake Damage Estimation. *EURASIP Journal on Advances in Signal Processing*, pages 1–10, 2006.
- [70] A. Abadpour and S. Kasaei. Unsupervised, Fast and Efficient Color Image Copy Protection. *IEE Proceedings Communications*, 152(5):605–616, Oct. 2005.
- [71] A. Abadpour and S. Kasaei. Pixel–Based Skin Detection for Pornography Filtering. *Iranian Journal of Electrical & Electronic Engineers*, 1(3):21–41, July 2005.
- [72] H. Mahdavi-Nasab and S. Kasaei. New Adaptive Interpolation Schemes for Efficient Mesh–Based Motion Estimation. *Iranian Journal of Electrical & Electronic Engineers*, 1(2):49–58, April 2005.
- [73] M. R. Rahimi, E. Pakbaznia, and S. Kasaei. An Adaptive Approach to Singular Point Detection in Fingerprint Images. *International Journal of Electronics & Communications, AEU*, 58(5):367–370, 2004.
- [74] M. Ghaderi and S. Kasaei. Novel Post–Processing Methods used in Detection of Blotch in Image Sequences. *International Journal of Electronics & Communications, AEU*, 58(1):58–64, Jan. 2004.
- [75] M. Ghaderi and S. Kasaei. Performance Analysis and Improvement of Motion Estimation Techniques with application to Video Restoration. *Sharif Journal of Science & Technology*, (25):100–109, 2004.
- [76] S. Kasaei, M. Deriche, and B. Boashash. A Novel Fingerprint Image Compression Technique using Wavelet Packets and Pyramid Lattice Vector Quantization. *IEEE Transactions on Image Processing*, 11(12):1365–1378, Dec. 2002.
- [77] A. M. Tahmasebi and S. Kasaei. A Novel Adaptive Approach to Fingerprint Enhancement Filter Design. *Elsevier Science, Signal Processing: Image Communication*, 17(10):849–855, 2002.

- [78] S. Kasaei, M. Deriche, and B. Boashash. An Efficient Quantization Technique for Wavelet Coefficients of Fingerprint Images. *Elsevier Science, Signal Processing: Image Communication*, 62(3):361–366, 1997.
- [79] S. Kasaei, M. Deriche, and B. Boashash. Fingerprint Compression Using Wavelet Packet Transform and Pyramid Lattice Vector Quantization. *IEICE Special Section on Digital Signal Processing*, E80-A(8):1446–1452, August 1997.
- [80] H. Hafez-Kolahi, B. Moniri, S. Kasaei, and M. Soleymani Baghshah. Rate-Distortion Analysis of Minimum Excess Risk in Bayesian Learning. In *The 38<sup>th</sup> International Conference on Machine Learning, ICML*, USA, July 2021.
- [81] H. Hafez-Kolahi, Z. Golgooni, S. Kasaei, and M. Soleymani Baghshah. Conditioning and Processing: Techniques to Improve Information-Theoretic Generalization Bounds. In *The 34<sup>th</sup> Annual Conference on Neural Information Processing Systems, NeurIPS*, San Diego, USA, Dec. 2020.
- [82] S. M. Marvasti-Zadeh, H. Ghanei-Yakhdan, and S. Kasaei. COMET: Context-Aware IoU-Guided Network for Small Object Tracking. In *The 15<sup>th</sup> Asian Conference on Computer Vision, ACCV*, Kyoto, Japan, Dec. 2020.
- [83] H. Naderi, L. Goli, and S. Kasaei. Scale Equivariant CNNs with Scale Steerable Filters. In *The 11<sup>th</sup> Iranian and the 1<sup>st</sup> International Conference on Machine Vision & Image Processing, MVIP*, Qom, Iran, Feb. 2020.
- [84] N. Karimi and S. Kasaei. Class Attention Map Distillation for Efficient Semantic Segmentation. In *The 11<sup>th</sup> Iranian and the 1<sup>st</sup> International Conference on Machine Vision & Image Processing, MVIP*, Qom, Iran, Feb. 2020.
- [85] M. Asadi and S. Kasaei. Fusion of Multimodal Deep Networks for Action Recognition with RGB-D Data. In *The 1<sup>st</sup> National Informatics Conference*, Tehran, Iran, Jan. 2020.
- [86] A. K. N. Tehrani, M. Macktoobian, and S. Kasaei. Color Image Segmentation Using a Fuzzy Inference System. In *The 7<sup>th</sup> International Conference on Digital Information Processing and Communications*, pages 78–83, Trabzon, Turkey, May 2019.
- [87] S. M. Marvasti-Zadeh, H. Ghanei-Yakhdan, and S. Kasaei. Rotation-Aware Discriminative Scale Space Tracking. In *The 27<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Yazd, Iran, May 2019.
- [88] F. Fooladgar and S. Kasaei. 3M2RNet: Multi-Modal Multi-Resolution Refinement Network for Semantic Segmentation. In *Computer Vision Conference*, Nevada, USA, April 2019.
- [89] M. N. Sabet Jahromi, M. Bojesen Bonderup, M. Asadi, E. Avots, K. Nasrollahi, S. Escalera, S. Kasaei, T. Moeslund, and G. Anbarjafari. Automatic Access Control Based on Face and Hand Biometrics in a Non-Cooperative Context. In *IEEE Winter Conf. on Applications of Computer Vision*, Lake Tahoe, NV/CA, March 2018.

- [90] Y. Zamani, H. Shirzad, and S. Kasaei. Similarity Measures for Intersection of Camera View Frustums. In *The 10<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Isfahan, Iran, Nov. 2017.
- [91] Y. Zamani, H. Shirzad, and S. Kasaei. A Real-Time Grid-Based Method for Estimating Nearest Neighbors in Euclidean Space. In *The 10<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Isfahan, Iran, Nov. 2017.
- [92] S. M. Marvasti-Zadeh, H. Ghanei-Yakhdani, and S. Kasaei. Adaptive Spatio-Temporal Context Learning for Visual Target Tracking. In *The 10<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Isfahan, Iran, Nov. 2017.
- [93] M. Asadi, H. Bertiche, V. Roig, S. Kasaei, and S. Escalera. Action Recognition from RGB-D Data: Comparison and Fusion of Spatio-Temporal Handcrafted Features and Deep Strategies. In *International Conference on Computer Vision, ICCV, Chalearn Looking at People Workshop*, Venice, Italy, Oct. 2017.
- [94] M. Asadi, A. Clapes, M. Bellantonio, H. Jair Escalante, V. Ponce-Lopez, X. Baro, I. Guyon, S. Kasaei, and S. Escalera. A Survey on Deep Learning-Based Approaches for Action and Gesture Recognition in Image Sequences. In *The 12<sup>th</sup> IEEE International Conference on Automatic Face and Gesture Recognition*, Washington, DC, USA, May 2017.
- [95] B. Hadavi, S. Kasaei, and A. Khodaparast Haghi. An Efficient Method for 3D Reconstruction of Nanofibrous Membranes from Two Perspective Views. In *The 25<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Tehran, Iran, May 2017.
- [96] M. Sepehrinouri and S. Kasaei. Perspective Reconstruction of Non-Rigid Surfaces from Single-View Videos. In *The 25<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Tehran, Iran, May 2017.
- [97] A. Khataminejad, M. Asadi, and S. Kasaei. Skeleton-based Human Action Recognition: A Learning Method based on Active Joints. In *The 12<sup>th</sup> International Conference on Computer Vision Theory and Applications*, Porto, Portugal, Feb. 2017.
- [98] B. Hadavi, S. Kasaei, and A. Khodaparast Haghi. Thickness Estimation of Nanofiber Mats based on 3D Reconstruction. In *The 6<sup>th</sup> International Congress on Nanoscience & Nanotechnology*, Karadj, Iran, Oct. 2016.
- [99] A. Zarean and S. Kasaei. Human Body 3D Reconstruction in Multiview Soccer Scenes by Depth Optimization. In *The 24<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Shiraz, Iran, May 2016.
- [100] F. Fooladgar and S. Kasaei. Learning Strength and Weakness of Classifiers for RGB-D Semantic Segmentation. In *The 9<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 176–179, Tehran, Iran, Nov. 2015.



- [101] M. Sepehrinour and S. Kasaei. Reconstruction of Non-Rigid Structure from Realistic Monocular Video. In *The 9<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 199–202, Tehran, Iran, Nov. 2015.
- [102] M. Hadian and S. Kasaei. Fast Homography Refinement in Soccer Videos. In *The 9<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 185–188, Tehran, Iran, Nov. 2015.
- [103] Y. Zamani, Y. Souri, H. Rashidi, and S. Kasaei. Persian Handwritten Digit Recognition by Random Forest and Convolutional Neural Networks. In *The 9<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 37–40, Tehran, Iran, Nov. 2015.
- [104] S. M. Marvasti-Zadeh, H. Ghanei-Yakhdani, and S. Kasaei. A Novel Video Temporal Error Concealment Algorithm based on Moment Invariants. In *The 9<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 20–23, Tehran, Iran, Nov. 2015.
- [105] F. Fooladgar and S. Kasaei. Semantic Segmentation of RGB-D Images with 3D and Local Neighbouring Features. In *The International Conference on Digital Image Computing: Techniques and Applications, DICTA*, Adelaide, Australia, Nov. 2015.
- [106] A. Bozorgpour, M. Fotouhi, and S. Kasaei. Robust Homography Optimization in Soccer Scenes. In *The 23<sup>rd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 787–792, Tehran, Iran, May 2015.
- [107] N. Najafzadeh, M. Fotouhi, and S. Kasaei. Object Tracking using Kalman Filter with Adaptive Sampled Histogram. In *The 23<sup>rd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 781–786, Tehran, Iran, May 2015.
- [108] N. Najafzadeh, M. Fotouhi, and S. Kasaei. Multiple Soccer Player Tracking. In *International Symposium on Artificial Intelligence and Signal Processing, AISP*, pages 310–315, Mashhad, Iran, March 2015.
- [109] M. Fotouhi, A. Bozorgpour, and S. Kasaei. Automatic Soccer Field Line Recognition by Minimum Information. In *International Symposium on Artificial Intelligence and Signal Processing, AISP*, pages 136–142, Mashhad, Iran, March 2015.
- [110] S. Ershadi Nasab, S. Ramezanpour, S. Kasaei, and E. Sanaei. Efficient Inference in Meanfield Approximation with Adaptive Manifold Filtering. In *The 4<sup>th</sup> International Conference on Computer and Knowledge Engineering, ICCKE*, pages 581–585, Mashhad, Iran, Oct. 2014.
- [111] R. Salarifard, M. Hosseini, M. Karimian, and S. Kasaei. A Robust SIFT-Based Descriptor for Video Classification. In *The 7<sup>th</sup> International Conference on Machine Vision, ICMV*, Milan, Italy, Nov. 2014.
- [112] M. Asadi and S. Kasaei. View Invariant Human Action Recognition Using Fourier-based and Radon-based Point Cloud Analysis. In *International Symposium on Telecommunications, IST*, pages 66–71, Tehran, Iran, Sep. 2014.

- [113] S. Ershadi Nasab, S. Fouladi Ghaleh, S. Ramezanpour, S. Kasaei, and E. Sanaei. Permutohedral Lattice in 3D Point Cloud Processing. In *International Symposium on Telecommunications, IST*, pages 134–139, Tehran, Iran, Sep. 2014.
- [114] M. Karami, R. Afrouzian, S. Kasaei, and H. Seyedarabi. Multiview 3D Reconstruction based on Vanishing Points and Homography. In *International Symposium on Telecommunications, IST*, pages 367–370, Tehran, Iran, Sep. 2014.
- [115] S. Ershadi Nasab, S. Kasaei, and E. Sanaei. RGB-D Scene Segmentation with Conditional Random Field. In *Information and Knowledge Technology, IKT*, pages 289–294, Shahrood, Iran, May 2014.
- [116] M. Asadi, S. Ramezanpour, and S. Kasaei. A New Feature Descriptor for 3D Human Action Recognition. In *The 22<sup>nd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1157–1161, Tehran, Iran, May 2014.
- [117] S. Ershadi Nasab, S. Kasaei, E. Sanaei, A. Ossia, and M. Mobini. Multiview 3D Reconstruction and Human Point Cloud Classification. In *The 22<sup>nd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1119–1124, Tehran, Iran, May 2014, *Best Paper Award*.
- [118] S.E. Mirsadeghi, M. Fotouhi, K. Faez, and S. Kasaei. Feature-Based Image Stitching with Repetitive Patterns Using Local Phase Quantization. In *The 22<sup>nd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1147–1151, Tehran, Iran, May 2014.
- [119] M. Fotouhi, S.E. Mirsadeghi, S. Kasaei, and K. Faez. BSIFT: Boosting SIFT Using Principal Component Analysis. In *The 22<sup>nd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1130–1135, Tehran, Iran, May 2014.
- [120] S. Monji-Azad, S. Kasaei, and A.M. Eftekhari-Moghadam. An Efficient Augmented Reality Method for Sports Scene Visualization from Single Moving Camera. In *The 22<sup>nd</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1064–1069, Tehran, Iran, May 2014.
- [121] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. Improvement of Weighted Boundary Matching Algorithm for Temporal Error Concealment in Videos. In *The 8<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 226–230, Zanjan, Iran, Sep. 2013.
- [122] S. M. Marvasti-Zadeh, H. Ghanei Yakhdan, and S. Kasaei. Dynamic Temporal Error Concealment for Video Data in Error-Prone Environments. In *The 8<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 729–733, Zanjan, Iran, Sep. 2013.
- [123] M. Karimian, M. Tavassolipour, and S. Kasaei. Exploiting Multiview Properties in Semi-Supervised Video Classification. In *International Symposium on Telecommunications, IST12*, pages 837–842, Tehran, Iran, Nov. 2012.

- [124] H. Jamalifar, V. Ghadakchi, and S. Kasaei. 3D Human Action Recognition Using Gaussian Processes Dynamical Models. In *International Symposium on Telecommunications, IST12*, pages 1179–1183, Tehran, Iran, Nov. 2012.
- [125] H. Jamalifar, V. Ghadakchi, and S. Kasaei. Reference-Free Monocular 3D Tracking of Deformable Surfaces. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, pages 395–400, Montreal, Canada, July 2012.
- [126] M. Fotouhi, A. R.Gholami, and S. Kasaei. Particle Filter-Based Object Tracking using Adaptive Histogram. In *The 7<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Tehran, Iran, Nov. 2011.
- [127] S. M. Shariatzadeh, S. Kasaei, and N. Mahdavi-Amiri. An Efficient Down-Sampling Method for Multiresolution Image Completion. In *The 7<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Tehran, Iran, Nov. 2011.
- [128] A. Dejkam and S. Kasaei. A Fast 3D Reconstruction of Inextensible Surfaces Using Adaptive Weights. In *International Conference on Image Information Processing, ICIIIP*, Himachal Pradesh, India, Dec. 2011.
- [129] A. Araghi, M. Agahian Panahi, and S. Kasaei. Error Concealment using Wide Motion Vector Space for H.264/AVC. In *The 19<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 2898–2930, Tehran, Iran, May 2011.
- [130] G. Panahandeh, N.Mohammadiha, and S. Kasaei. A Fast and Adaptive Boundary Matching Algorithm for Video Error Concealment. In *The 4<sup>th</sup> International Conference on Signal Processing and Communication Systems*, pages 1–4, Gold Coast, Australia, Dec. 2010.
- [131] R. Mohammadi Nasiri and S. Kasaei. Motion Segmentation and Shadow Removal Using Improved Gaussian Mixture Model. In *The 18<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 2817–2822, Isfahan, Iran, May 2010.
- [132] R. Hosseini and S. Kasaei. Exemplar-Based Video Logo Detection and Removal. In *The 18<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 2805–2810, Isfahan, Iran, May 2010.
- [133] E. Shabaninia and S. Kasaei. Modeling Attributes of Neighboring Vehicles for Tracking Across Nonoverlapping Cameras. In *The 18<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 526–531, Isfahan, Iran, May 2010.
- [134] N. Baseri Salehi, S. Kasaei, and S. Alizadeh. Face Recognition Using Boosted Regularized Linear Discriminant Analysis. In *The 2<sup>nd</sup> International Conference on Computer Modeling & Simulation, Iccms*, pages 89–93, Sanya, China, Jan. 2010.
- [135] S. Arjomand Analou and S. Kasaei. AdaBoost-Based Face Detection in Color Images with Low False Alarm. In *The 2<sup>nd</sup> International Conference on Computer Modeling & Simulation, Iccms*, pages 107–111, Sanya, China, Jan. 2010.

- [136] M. Mazloom, S. Kasaei, and N. Alemi Neissi. Construction and Application of SVM Model and Wavelet-PCA for Face Recognition. In *The 2<sup>nd</sup> International Conference on Computer and Electrical Engineering, Iccce*, pages 391–398, Dubai, UAE, Dec. 2009.
- [137] M. Mazloom, S. Kasaei, and N. Alemi Neissi. Wavelet Transform and Fusion of Linear and Nonlinear Method for Face Recognition. In *Digital Image Computing: Techniques & Applications, Dicta*, pages 296–302, Melbourne, Australia, Dec. 2009.
- [138] H. Mohseni and S. Kasaei. Tensor-Based Face Representation and Recognition Using Multi-Linear Subspace Analysis. In *The 14<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 658–663, Tehran, Iran, Oct. 2009.
- [139] A.A. Abin, M. Fotouhi, and S. Kasaei. Cellular Learning Automata-Based Color Image Segmentation using Adaptive Chains. In *The 14<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 452–457, Tehran, Iran, Oct. 2009.
- [140] A.A. Abin, M. Fotouhi, and S. Kasaei. Real-Time Multiple Face Detection and Tracking. In *The 14<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 379–384, Tehran, Iran, Oct. 2009.
- [141] M. Fotouhi, M. H. Rohban, and S. Kasaei. Skin Detection using Contourlet Texture Analysis. In *The 14<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 367–372, Tehran, Iran, Oct. 2009.
- [142] E. Shabaninia and S. Kasaei. A Novel Vehicle Tracking Method with Occlusion Handling Using Longest Common Substring of Chain-Codes. In *The 14<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 176–181, Tehran, Iran, Oct. 2009.
- [143] M. Fotouhi, M.H. Rohban, and S. Kasaei. Skin Detection using Contourlet-Based Texture Analysis. In *The 4<sup>th</sup> International Conference on Digital Telecommunications, ICDDT*, pages 59–64, Colmar, France, July 2009.
- [144] H. Palangi and S. Kasaei. Fast and Robust Multiframe Superresolution using Inhibition Principle. In *The 4<sup>th</sup> International Conference on Digital Telecommunications, ICDDT*, pages 82–87, Colmar, France, July 2009.
- [145] H. Fattahian Peiro, A.A. Abin, and S. Kasaei. Error Resilient based on Video Edges of Region of Interest in H.264. In *The 17<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 13–19, Tehran, Iran, May 2009.
- [146] G. Panahandeh, S. Kasaei, and K.H. Sadeghi. A Fast and Adaptive Spatiotemporal Boundary Matching-Based Concealment Method. In *Int. Conference on Signal Processing and Communication Systems*, Gold Coast, Australia, Dec. 2008.
- [147] A.A. Abin, M. Fotouhi, and S. Kasaei. Skin Segmentation based on Cellular Learning Automata. In *Advances in Mobile Computing and Multimedia, MoMM*, pages 254–259, Linz, Austria, Nov. 2008, *Best Paper Award*.

- [148] R. Dianat and S. Kasaei. Improving Regression Method in Change Detection of Remote Sensing Images. In *The 5<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, Tabriz, Iran, Feb. 2008.
- [149] M. Fotouhi, A.A. Abin, and S. Kasaei. Skin Color Detection Using Cellular Learning Automata. In *The 5<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 143–148, Tabriz, Iran, Feb. 2008.
- [150] A.A. Abin, H. Fatahian, and S. Kasaei. New Features for Real-Time Face Detection. In *The 5<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 131–136, Tabriz, Iran, Feb. 2008.
- [151] R. Dianat and S. Kasaei. On Automatic Threshold Selection in Regression Method for Change Detection in Remote Sensing Images. In *The 4<sup>th</sup> International Symposium on Telecommunications, IST*, Tehran, Iran, Aug. 2008, *Best Paper Award*.
- [152] M. Hasanzadeh and S. Kasaei. Integration of Fuzzy Connectedness and Fuzzy Clustering for Image Segmentation. In *The 16<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 84–90, Tehran, Iran, May 2008.
- [153] R. Dianat and S. Kasaei. A New Objective Test Criterion for Multispectral Dimension Reduction Evaluation. In *The 16<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 91–96, Tehran, Iran, May 2008.
- [154] A.H. Khalili, T. Lotfi, and S. Kasaei. Fast and Robust Tracker in Distance Learning Applications Using Uncalibrated Stereo Cameras. In *The 3<sup>rd</sup> International Conference on Information & Communication Technologies: from Theory to Applications, ICTTA*, Damascus, Syria, April 2008.
- [155] M. Hasanzadeh, S. Kasaei, and H. Mohseni. A New Fuzzy Connectedness Relation for Image Segmentation. In *The 3<sup>rd</sup> International Conference on Information & Communication Technologies: from Theory to Applications, ICTTA*, Damascus, Syria, April 2008.
- [156] A.H. Khalili and S. Kasaei. Object Modeling for Multicamera Correspondence Using Fuzzy Region Color Adjacency Graphs. In *The 13<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 637–644, Kish Island, Persian Gulf, Iran, March 2008, *Best Paper Award*.
- [157] A.H. Khalili, M. Bagheri, and S. Kasaei. Object-Based Video Coding for Distance Learning Using Stereo Cameras. In *The 13<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 176–185, Kish Island, Persian Gulf, Iran, March 2008.
- [158] M. Bagheri, T. Lotfi, and S. Kasaei. An Adaptive Method for Moving Object Blending in Dynamic Mosaicing. In *The 13<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 203–210, Kish Island, Persian Gulf, Iran, March 2008.
- [159] A.S. Mirsafian, S.N. Efahani, S. Kasaei, and H. Mobasheri. Analysis of the Growth Process of Neural Cells in Culture Environment Using Image Processing Techniques.

- In *The 13<sup>th</sup> Int'l CSI Computer Conference, CSICC*, pages 732–736, Kish Island, Persian Gulf, Iran, March 2008.
- [160] R. Dianat and S. Kasaei. Histogram Convex Hull Improvement in Automatic Threshold Selection for Change Detection in Remote Sensing Images. In *The 13<sup>th</sup> Annual CSI Computer Conference, CSICC*, Kish Island, Persian Gulf, Iran, March 2008.
- [161] M. Ziaratban, S. Kasaei, and F. Bagheri. A New Video Coding Method with no Transmitted Frame Difference. In *The 13<sup>th</sup> Annual CSI Computer Conference, CSICC*, Kish Island, Persian Gulf, Iran, March 2008.
- [162] M. Bagheri, T. Lotfi, A.A. Darabi, and S. Kasaei. Content-Based Video Coding for Distance Learning. In *The 7<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 1005–1010, Cairo, Egypt, Dec. 2007.
- [163] H. Mohseni and S. Kasaei. Automatic Localization of Cephalometric Landmarks. In *The 7<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 396–401, Cairo, Egypt, Dec. 2007.
- [164] A.A. Darabi, A.H. Khalili, and S. Kasaei. Graph-Based Segmentation of Moving Objects. In *The 4<sup>th</sup> IEEE GCC Conference, GCC*, Manama, Kingdom of Bahrain, Nov. 2007.
- [165] M. Ranjbar and S. Kasaei. Fast and Accurate Image Inpainting for Advanced Video Coders. In *The 4<sup>th</sup> IEEE GCC Conference, GCC*, Manama, Kingdom of Bahrain, Nov. 2007, *Best Paper Award*.
- [166] H. Sajedi, M. Najafi, and S. Kasaei. A Boosted Skin Detection Method based on Pixel and Block Information. In *The 5<sup>th</sup> International Symposium on Image and Signal Processing and Analysis*, pages 146–151, Istanbul, Turkey, Sep. 2007.
- [167] S. Mahmoudi and S. Kasaei. Contourlet-Based Multispectral Image Fusion. In *Visualization, Imaging, and Image Processing*, pages 11–14, Palma de Mallorca, Spain, Aug. 2007.
- [168] H. Ajerlou, M.T. Manzuri Shalmani, and S. Kasaei. PRELIB: PDE-Based Restoration of Lost Image Blocks. In *IEEE 15<sup>th</sup> International Conference on Digital Signal Processing, DSP*, Kardiff, England, July 2007.
- [169] T. Lotfi and S. Kasaei. Image Movement Detection in Distance Learning to be Transmitted via H.264/AVC. In *The 15<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 489–494, Tehran, Iran, May 2007.
- [170] M. Hasanzadeh and S. Kasaei. Multispectral Brain MRI Segmentation based on Fuzzy Classifiers and Evidence Theory. In *The 15<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 1–5, Tehran, Iran, May 2007.
- [171] R. Dianat and S. Kasaei. Analyzing PCA and ICA Methods and Improving their Performance for Multispectral Image Fusion. In *The 15<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Tehran, Iran, May 2007.

- [172] S. Mahmoudi and S. Kasaei. A Contourlet–Based Edge Detection Method for Low Contrast Satellite Images using Information Measurement. In *The 3<sup>rd</sup> International Colloquium on Signal Processing and its Applications, CSPA*, pages 246–249, Melaka, Malaysia, March 2007.
- [173] T. Lotfi and S. Kasaei. Image Registration in E-Learning Applications. In *The 12<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 1442–1447, Tehran, Iran, Feb. 2007.
- [174] R. Dianat and S. Kasaei. Multispectral Image Fusion using Various Types of Principal Component Analysis. In *The 12<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 1827–1834, Tehran, Iran, Feb. 2007.
- [175] M. Ranjbar and S. Kasaei. Moving Cast Shadow Detection using Texture Information. In *The 12<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 1448–1451, Tehran, Iran, Feb. 2007.
- [176] E. Khameneh and S. Kasaei. Mosaicking Images with High Motion Parallax with Application to Video Compression. In *The 4<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 456–461, Mashad, Iran, Feb. 2007.
- [177] M. Kamal and S. Kasaei. An Improved Method for Designing Morphological Filtering based on Genetic Algorithm and Wavelet Transform. In *The 4<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 625–632, Mashad, Iran, Feb. 2007.
- [178] H. Badakhshannoory and S. Kasaei. A Fast and Efficient Wavelet–Based Active Contour Method. In *The 4<sup>th</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, pages 272–275, Mashad, Iran, Feb. 2007.
- [179] S. Koochi, M. Babagholi, T. Lotfi, and S. Kasaei. Video Cut Detection in E-Learning Applications. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, Sharjah, UAE, Feb. 2007.
- [180] R. Dianat, M. Khabbazian, and S. Kasaei. A Fast Method for Prior Probability Selection based on Maximum Entropy Principle and Gibbs Sampler. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, Sharjah, UAE, Feb. 2007.
- [181] M. Hassanzadeh and S. Kasaei. Multispectral Brain MRI Segmentation using Genetic Fuzzy Systems. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, Sharjah, UAE, Feb. 2007.
- [182] G.R. Amayeh, S. Kasaei, and A.R. Tavakkoli. Improvement of Zernike Moment Descriptors on Affine Transformed Shapes. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, Sharjah, UAE, Feb. 2007.
- [183] M. Jafari and S. Kasaei. Fast Intra- and Inter-Prediction Mode Decision in H.264 Advanced Video Coding. In *The 5<sup>th</sup> Asian International Mobile Computing Conference, Amoc*, Kolkata, India, Jan. 2007.

- [184] H. Mahini, S. Kasaei, F. Dorri, and F. Dorri. An Efficient Feature-Based License Plate Localization Method. In *International Conference on Pattern Recognition, ICPR*, volume 2, Hong Kong, August 2006.
- [185] M. Soleymani, S. Bagheri, and S. Kasaei. Fuzzy-Based Recognition and Learning of Online Isolated Persian Characters. In *The 14<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Tehran, Iran, May 2006.
- [186] A. Abadpour and S. Kasaei. Multi-Layer Representation of Grayscale Images and Its Generalization. In *The 14<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Tehran, Iran, May 2006.
- [187] S. Kasaei, M. Amiri, A. Bassirnia, and P. Mansouri. A Fast Method to Approximate Affine-Transform Using Control Points with Noise Reduction. In *The 2<sup>nd</sup> International Conference on Information & Communication Technologies: from Theory to Applications, ICTTA*, Damascus, Syria, April 2006.
- [188] B. Mohabbati and S. Kasaei. Face Localization and Versatile Tracking in Wavelet Domain. In *The 2<sup>nd</sup> International Conference on Information & Communication Technologies: from Theory to Applications, ICTTA*, Damascus, Syria, April 2006.
- [189] M. Soleymani Baghshah, S. Bagheri Shouraki, and S. Kasaei. A Novel Fuzzy Classifier Using Fuzzy LVQ to Recognize Online Persian Handwriting. In *The 2<sup>nd</sup> International Conference on Information & Communication Technologies: from Theory to Applications, ICTTA*, Damascus, Syria, April 2006.
- [190] M. Mazloom and S. Kasaei. Combination of Wavelet and PCA for Face Recognition. In *The 3<sup>rd</sup> IEEE GCC Conference, GCC*, Bahrain, March 2006.
- [191] M. Jafari and S. Kasaei. An Efficient Intra-Prediction Mode Decision Algorithm for H.263 to H.264 Transcoding. In *The 4<sup>th</sup> ACS/IEEE International Conference on Computer Systems and Applications*, pages 1082–1089, Dubai, Sharjah, March 2006.
- [192] M. Jafari and S. Kasaei. An Efficient H.263 to H.264 Transcoder for Inter-Network Communications. In *The 2<sup>nd</sup> International IEEE/Create-Net Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities*, Barcelona, Spain, March 2006.
- [193] H. Rabbani, M. Vafadoust, and S. Kasaei. Line Scratch Removal in Moving Pictures using 3-D Wavelet Transform. In *The 11<sup>th</sup> International CSI Computer Conference, CSICC06*, pages 721–730, Tehran, Iran, Jan. 2006.
- [194] H. Rabbani, M. Vafadoust, and S. Kasaei. Line Scratch Removal in Moving Pictures using Complex Wavelet Transform. In *The 11<sup>th</sup> International CSI Computer Conference, CSICC06*, pages 239–246, Tehran, Iran, Jan. 2006.
- [195] M. Jafari and S. Kasaei. Robust H.263 Video Streaming under Erroneous Transmission Conditions over GPRS Wireless Networks. In *The 4<sup>th</sup> Asian International Mobile Computing Conference, Amoc*, Kolkata, India, Jan. 2006.



- [196] M. Jafari and S. Kasaei. An Efficient Video Transcoding Algorithm Between H.263 and MPEG-4 for Inter-Network Communications. In *The 1<sup>st</sup> IEEE International Conference on Next-Generation Wireless Systems*, Dhaka, Bangladesh, Jan. 2006.
- [197] A. Pourrostami, A. Moradi, S. Kasaei, and M.T. Manzuri. Error Reduction using Prediction Residual Matrices in Fast Block Motion Estimation. In *The 5<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 595–599, Athens, Greece, Dec. 2005.
- [198] H. Pirsiavash, S. Kasaei, and F. Marvasti. An Efficient Parameter Selection Criterion for Image Denoising. In *The 5<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 872–877, Athens, Greece, Dec. 2005.
- [199] A. Abadpour and S. Kasaei. Deliberate Distortion of Color Image and Video Resources for Copyright Protection. In *The 5<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 369–374, Athens, Greece, Dec. 2005.
- [200] M. Jafari and S. Kasaei. VBS Video Coding using Split and Merge Procedure with Hierarchical Quadtree-Structured. In *The 2<sup>nd</sup> Indian International Conference on Artificial Intelligence*, Pune, India, Dec. 2005.
- [201] M. Jafari and S. Kasaei. Robust Transmission of Compressed Video Streams using H.263 over GPRS Wireless Networks. In *The 8<sup>th</sup> International Symposium on DSP and Communication Systems & 4<sup>th</sup> Workshop on the Internet, Telecommunications and Signal Processing*, Sunshine coast, Australia, Dec. 2005.
- [202] M. Jafari and S. Kasaei. Prioritisation of Data Partitioning MPEG-4 Video over GPRS/EGPRS over Mobile Networks. In *Asian Internet Engineering Conference*, pages 68–82, Bangkok, Thailand, Dec. 2005.
- [203] M. Jafari and S. Kasaei. An Efficient H.263 to H.264 Transcoder for Internetwork Communication. In *The 1<sup>st</sup> International Workshop on Network Architecture and Service Models*, pages 1–9, Shanghai, China, Nov. 2005.
- [204] A. Moradi, R. Dianat, S. Kasaei, and M.T. Manzuri Shalmani. Enhanced Cross-Diamond-Hexagonal Search Algorithms for Fast Block Motion Estimation. In *IEEE Conference on Advanced Video and Signal Based Surveillance*, pages 558–563, Como, Italy, Sep. 2005.
- [205] B. Mohabbati and S. Kasaei. An Efficient Wavelet/Neural Network-Based Face Detection Algorithm. In *The 1<sup>st</sup> IEEE and IFIP International Conference in Central Asia on Internet, IFP05*, Bishkek, Kyrgyz Republic, Sep. 2005.
- [206] M. Jafari and S. Kasaei. Prioritisation of Data Partitioned MPEG-4 for Streaming Video in GPRS Mobile Networks. In *The 1<sup>st</sup> IEEE and IFIP International Conference in Central Asia on Internet, IFP05*, Bishkek, Kyrgyz Republic, Sep. 2005.

- [207] H. Mahdavi-Nasab and S. Kasaei. An Efficient Adaptive Interpolation Scheme for Fast Mesh-Based Motion Estimation. In *The 1<sup>st</sup> IEEE and IFIP International Conference in Central Asia on Internet, IFP05*, Bishkek, Kyrgyz Republic, Sep. 2005.
- [208] H. Mahdavi-Nasab and S. Kasaei. Half-Pixel Accuracy Block Matching Motion Estimation Algorithms for Low Bitrate Video Communications. In *The 1<sup>st</sup> IEEE and IFIP International Conference in Central Asia on Internet, IFP05*, Bishkek, Kyrgyz Republic, Sep. 2005.
- [209] A. Abadpour and S. Kasaei. Comprehensive Evaluation of the Pixel-Based Skin Detection Approach for Pornography Filtering in the Internet Resources. In *International Symposium on Telecommunications, IST05*, pages 829–834, Shiraz, Iran, Sep. 2005.
- [210] M. Soleymani, S. Bagheri, and S. Kasaei. A Novel Fuzzy Approach to Recognition of Online Persian Handwriting. In *The 5<sup>th</sup> International Conference on Intelligent Systems Design and Applications, ISDA05*, pages 268–273, Wroclaw, Poland, Sep. 2005.
- [211] A. Abadpour, S. Bagheri Shouraki, and S. Kasaei. A New Method for Fuzzy Agent-Based Color Clustering. In *The 11<sup>th</sup> World Congress of International Fuzzy Systems Association, Ifsa*, Beijing, China, July 2005.
- [212] J. Behrouzi Moghaddam and S. Kasaei. Digital Image Watermarking using Complex Wavelet Transform. In *The 13<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Zanjan, Iran, May 2005.
- [213] R. Farhoodi and S. Kasaei. Text Segmentation from Images with Textured and Colored Background. In *The 13<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Zanjan, Iran, May 2005.
- [214] A. Abadpour and S. Kasaei. An Unsupervised Fast Color Transfer Method. In *The 13<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, Zanjan, Iran, May 2005.
- [215] J. Behrouzi Moghaddam and S. Kasaei. Digital Image Watermarking using Discrete Wavelet Transform and Singular Value Decomposition. In *The 3<sup>rd</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, volume 2, pages 408–414, Tehran, Iran, Feb. 2005.
- [216] A. Abadpour and S. Kasaei. A Novel Color Image Compression Method using Eigenimages. In *The 3<sup>rd</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, volume 1, pages 340–346, Tehran, Iran, Feb. 2005, *Best Paper Award*.
- [217] A. Abadpour and S. Kasaei. Novel Method for Unsupervised Fuzzy Change Detection in Multispectral Remotely Sensed Images. In *The 3<sup>rd</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, volume 1, pages 270–277, Tehran, Iran, Feb. 2005.

- [218] A. Merati and S. Kasaei. Rigid Objects Tracking using Kernel-Based Mean Shift and Background Subtraction. In *The 10<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 85–92, Tehran, Iran, Feb. 2005.
- [219] A. Abadpour and S. Kasaei. A New Fast Robust Color Image Watermarking Method using FPCA Clustering. In *The 10<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 246–251, Tehran, Iran, Feb. 2005.
- [220] A. Abadpour and S. Kasaei. Fast Registration of Remotely Sensed Images. In *The 10<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 61–67, Tehran, Iran, Feb. 2005.
- [221] A. Abadpour and S. Kasaei. A New Tree Decomposition Method for Color Images. In *The 10<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 48–52, Tehran, Iran, Feb. 2005.
- [222] A. Abadpour and S. Kasaei. New Fast Fuzzy Method for Query Region Extraction in Color Images. In *The 10<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 53–59, Tehran, Iran, Feb. 2005.
- [223] S. Kasaei and A. Abadpour. Wavelet–PCA–Based Compression Method for Color Images. In *First Symposium of Wavelets Applications, FSWA*, Tehran, Iran, Feb. 2005.
- [224] M. Mazloom and S. Kasaei. Face Recognition using Wavelets, PCA, and Nueral Networks. In *The 1<sup>st</sup> International Conference on Modeling, Simulation & Applied Optimization, Icmsao*, Sharjah, U.A.E., Feb. 2005.
- [225] A. Merati and S. Kasaei. Real–Time Tracking of Nonrigid Objects using modified Kernel–Based Mean Shift and Optimal Prediction. In *The 1<sup>st</sup> International Conference on Modeling, Simulation & Applied Optimization, Icmsao*, Sharjah, U.A.E., Feb. 2005.
- [226] M. Jafari and S. Kasaei. An Efficient Hybrid Fractal/DCT–Based Video Compression Algorithm. In *The 1<sup>st</sup> International Conference on Modeling, Simulation & Applied Optimization, Icmsao*, pages ICMSA0/05–1–ICMSA0/05–5, Sharjah, U.A.E., Feb. 2005.
- [227] A. Eslami, S. Kasaei, and M. Jahed. Radial Multiscale Cyst Segmentation in Ultrasound Images of Kidney. In *The 4<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 42–45, Rome, Italy, Dec. 2004.
- [228] A. Abadpour and S. Kasaei. A New FPCA-Based Fast Segmentation Method for Color Images. In *The 4<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 72–75, Rome, Italy, Dec. 2004.
- [229] A. Abadpour and S. Kasaei. A Fast and Efficient Fuzzy Color Transfer Method. In *The 4<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Isspit*, pages 491–494, Rome, Italy, Dec. 2004.

- [230] A. Lakdashti, A.M. Moghadam, S. Kasaei, and J. Shanbehzadeh. An Integrated Color and Texture Descriptor based on Complex Wavelet Transform for Image Retrieval Systems. In *The 2<sup>nd</sup> IEEE GCC Conference, GCC*, pages 332–335, Manama, Kingdom of Bahrain, Nov. 2004.
- [231] R. Farhoodi and S. Kasaei. Text Segmentation from Images with Textured and Colored Background. In *The 2<sup>nd</sup> IEEE GCC Conference, GCC*, pages 395–398, Manama, Kingdom of Bahrain, Nov. 2004.
- [232] A. Abadpour and S. Kasaei. A New PCA-Based Robust Color Image Watermarking Method. In *The 2<sup>nd</sup> IEEE GCC Conference, GCC*, pages 326–331, Manama, Kingdom of Bahrain, Nov. 2004.
- [233] N. Safavian and S. Kasaei. Complex Wavelet Transform-Based Color Indexing for Content-Based Image Retrieval. In *The 2<sup>nd</sup> IEEE GCC Conference, GCC*, pages 321–325, Manama, Kingdom of Bahrain, Nov. 2004.
- [234] A. Lakdashti and S. Kasaei. Remotely Sensed Change Detection using Multiresolution Analysis and Motion Estimation. In *Remote Sensing for Environment and Monitoring, GIS Applications, and Geology IV, Proceedings of SPIE*, volume 5574, pages 194–204, Maspalomas, Gran Canaria, Spain, Sep. 2004.
- [235] A. Abadpour and S. Kasaei. A New Principle Component Analysis Based Colorizing Method. In *The 12<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 126–133, Mashhad, Iran, May 2004.
- [236] N. Safavian and S. Kasaei. Usage of Color and Texture of Frequency Layers in Image Retrieval. In *The 12<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 107–113, Mashhad, Iran, May 2004.
- [237] A.R. Tavakkoli, S. Kasaei, and G.R. Amayeh. A Fast VOP Extraction Technique based on Wavelet Transform and Watershed Segmentation. In *The 12<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 83–88, Mashhad, Iran, May 2004.
- [238] B. Mohabbati, R. Ebrahimpour, S. Kasaei, and E. Kabir. Nural Networks Ensembles for Face Recognition. In *International Workshop on Computer Vision, IPM*, page 41, Tehran, Iran, April 2004.
- [239] G.R.Amayeh, S. Kasaei, and A.R.Tavakkoli. A Modified Algorithm to Obtain Translation, Rotation and Scale Invariant Zernike Moment Shape Descriptors. In *International Workshop on Computer Vision, IPM*, page 36, Tehran, Iran, April 2004.
- [240] A.R.Tavakkoli, S. Kasaei, and G.R.Amayeh. A Fast and Efficient Video Object Plane Extraction Method based on Watershed Segmentation. In *International Workshop on Computer Vision, IPM*, page 44, Tehran, Iran, April 2004.
- [241] Arash Abadpour and S. Kasaei. Performance Analysis of Three Likelihood Measures for Color Image Processing. In *International Workshop on Computer Vision, IPM*, page 34, Tehran, Iran, April 2004.

- [242] Arash Abadpour and S. Kasaei. New PCA-based Compression Method for Natural Color Images. In *International Workshop on Computer Vision, IPM*, page 33, Tehran, Iran, April 2004.
- [243] S. Milady and S. Kasaei. A New Method for a Fast Detection and Seamless Restoration of Line Scratches in Motion Pictures. In *The 15<sup>th</sup> IASTED International Conference on Modelling and Simulation*, pages 413–417, Marina del Rey, CA, USA, March 2004.
- [244] A. Abadpour and S. Kasaei. A New Parametric Linear Adaptive Color Space and its PCA-Based Implementation. In *The 9<sup>th</sup> Annual CSI Computer Conference, CSICC*, volume 2, pages 125–132, Tehran, Iran, Feb. 2004.
- [245] A. O. S. Memar and S. Kasaei. A new Approach to Image Compression based on Lifting Scheme and its Implementation of an FPGA. In *The 9<sup>th</sup> Annual CSI Computer Conference, CSICC*, volume 1, pages 80–87, Tehran, Iran, Feb. 2004.
- [246] A. O. S. Memar and S. Kasaei. Implementation of a New Image Compression Technique based on Wavelet Transform on an FPGA. In *The 2<sup>nd</sup> National Computer Conference, NCC*, pages 188–199, Mashhad, Iran, Dec. 2003.
- [247] H. Grailu and S. Kasaei. A New Model to Detect Shut, Fade, and Dissolve in Image Sequences. In *Iranian Conference of Mechatronics Engineering, ICME*, pages 230–236, Qazvin, Iran, May 2003.
- [248] E. Shahinfard and S. Kasaei. Digital Image Watermarking using Wavelet Transform. In *Iranian Conference of Mechatronics Engineering, ICME*, pages 363–370, Qazvin, Iran, May 2003.
- [249] M. R. Rahimi, E. Pakbaznia, and S. Kasaei. An Adaptive Approach to Fingerprint Classification. In *Iranian Conference of Mechatronics Engineering, ICME*, pages 206–213, Qazvin, Iran, May 2003.
- [250] S. Milady and S. Kasaei. Line Scratch Detection and Restoration in Motion Picture Sequences. In *The 11<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, volume 2, pages 658–665, Shiraz, Iran, May 2003.
- [251] Z. Taghvi and S. Kasaei. A Memory Efficient Algorithm for Multi-Dimensional Wavelet Transform based on Lifting. In *IEEE Conference on Acoustics, Speech & Signal Processing, ICASSP*, volume 6, pages 401–404, Hong Kong, April 2003.
- [252] A. S. Avestimehr, K. Naebi, and S. Kasaei. Multirate Structures for Arbitrary Rate Error Control Coding. In *IEEE Conference on Acoustics, Speech & Signal Processing, ICASSP*, volume 4, pages 245–248, Hong Kong, April 2003.
- [253] H. Darabi, S. Kasaei, and A. H. Jahangir. Design and Implementation of a Camera Tracking System with Application to Virtual Studios. In *The 8<sup>th</sup> Annual CSI Computer Conference, CSICC*, pages 216–223, Mashhad, Iran, Feb. 2003.

- [254] M. G. Ansari, S. Kasaei, and M. Tabandeh. Face Detection in Color Images with Application to Image Transfer on Telephone and Internet Lines. In *The 2<sup>nd</sup> Iranian Conference on Machine Vision & Image Processing, MVIP*, volume 1, pages 16–24, Tehran, Iran, Feb. 2003.
- [255] A. Azarian and S. Kasaei. Detection of Singular Points and Classification of Fingerprint Images. In *National Computer Conference, NCC*, pages 451–461, Mashhad, Iran, Dec. 2002.
- [256] Z. Taghavi and S. Kasaei. A Memory Efficient Algorithm for Multi-Dimensional Wavelet Transform based on Lifting. In *The 10<sup>th</sup> IEEE Digital Signal Processing Workshop (accepted)*, Georgia, USA, Oct. 2002.
- [257] S. Kasaei, M. R. Rahimi, and E. Pakbaznia. A Multistage Approach to Fingerprint Classification. In *The 9<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 14.1–14.8, Tehran, Iran, May 2001.
- [258] S. Kasaei. An Efficient Image Compression Technique with Application to Fingerprint Images. In *The 8<sup>th</sup> Iranian Conference on Electrical Engineering, ICEE*, pages 507–516, Isfahan, Iran, May 2000.
- [259] S. Kasaei. Fingerprint Feature Extraction on Reconstructed Images. In *The 5<sup>th</sup> Annual International CSI Computer Conference, CSICC*, pages 46–51, Tehran, Iran, March 2000.
- [260] M. Deriche, S. Kasaei, and A. Bouzerdoum. A Novel Fingerprint Compression Technique using The Wavelet Transform and Piecewise-Uniform Pyramid Lattice Vector Quantisation. In *IEEE International Conference on Image Processing, ICIP*, pages 359–363, Kobe, Japan, Oct. 1999.
- [261] S. Kasaei and M. Deriche. An Efficient Vector Quantization Technique for Wavelet Coefficients. In *IEEE International Workshop on Intelligent Signal Processing and Communication Systems, ISPACS*, pages 213–217, Melbourne, Australia, Nov. 1998.
- [262] W. W. Boles, S. Kasaei, and V. Chandran. Multi-Resolution Representation for Contour-Based Object Recognition. In *IEEE International Workshop on Intelligent Signal Processing and Communication Systems, ISPACS*, pages 218–222, Melbourne, Australia, Nov. 1998.
- [263] S. Kasaei, M. Deriche, and B. Boashash. Fingerprint Feature Extraction using Block-Direction on Reconstructed Images. In *IEEE region TEN Conference, digital signal Processing applications, TENCON*, pages 303–306, Brisbane, Australia, Dec. 1997.
- [264] S. Kasaei and M. Deriche. Feature Extraction from Fingerprint Images. In *Workshop on Signal Processing & its Applications, WoSPA*, pages 85–88, Brisbane, Australia, Dec. 1997.

- [265] S. Kasaei and M. Deriche. Fingerprint Feature Enhancement using Block–Direction on Reconstructed Images. In *First IEEE International Conference on Information, Communication & Signal Processing, ICICS*, pages 721–725, Singapore, Sept. 1997.
- [266] S. Kasaei and M. Deriche. Fingerprint Compression Using a Piecewise–Uniform Pyramid Lattice Vector Quantization. In *IEEE Conference on Acoustics, Speech & Signal Processing, ICASSP*, pages 3117–3120, Munich, Germany, April 1997.
- [267] K. Yamashita, H. Kinjyo, H. Miyagi, T. Nakachi, N. Hamada, and S. Kasaei. A Design Method of 3–D Lattice Predictive Modeling. In *International Technical Conference on Circuits & Systems, Computers and Communications, ITC–CSCC*, pages 820–823, Seoul, Korea, July 1996.
- [268] S. Kasaei, M. Deriche, and B. Boashash. Fingerprint Compression Using a Modified Wavelet Transform and Pyramid Lattice Vector Quantization. In *IEEE region TEN Conference, digital signal Processing applications, TENCON*, pages 798–803, Perth, Western Australia, Nov. 1996.
- [269] S. Kasaei, M. Deriche, and B. Boashash. Performance Analysis of Fingerprint Compression using an Efficient Wavelet Transform Algorithm. In *IEEE International Symposium on Signal Processing & its Applications, ISSPA*, pages 433–436, Gold Coast, Australia, Aug. 1996.
- [270] S. Kasaei, J. Behrouzi, A. Mahmoodi, and A. Tavakkol. Watermarking of Biometrics Information. ITRC, 2006.
- [271] S. Kasaei, J. Behrouzi, A. Mahmoodi, and A. Tavakkol. Digital Image Watermarking Using Wavelet Transform. In *SUT Research Proceedings*, SUT, 2006.
- [272] S. Kasaei and A. Merati. Moving Object Tracking in Image Sequences. In *SUT Research Proceedings*, SUT, 2005.
- [273] S. Kasaei and N. Safavian. Content–Based Image Retrieval. In *SUT Research Proceedings*, SUT, 2004.
- [274] S. Kasaei, G. Amayeh, and A. Tavakkoli. Fingerprint Authentication. In *SUT Research Proceedings*, SUT, 2003.
- [275] S. Kasaei and M. G. Ansari. Object–Based Video Compression. In *SUT Research Proceedings*, SUT, 2003.
- [276] S. Kasaei and M. Ghaderi. Image Sequence Restoration. In *SUT Research Proceedings*, SUT, 2002.
- [277] S. Kasaei and E. Shahinfard. Video Watermarking. In *SUT Research Proceedings*, SUT, 2002.
- [278] S. Kasaei, A. M. Tahmasebi, and B. A. Rezaei. Fingerprint Enhancement followed by Ridge Extraction. In *SUT Research Proceedings*, pages 79–89, SUT, 2001.

- [279] S. Kasaei, M. R. Rahimi, and E. Pakbaznia. A Multistage Approach to Fingerprint Classification. In *SUT Research Proceedings*, pages 91–98, SUT, 2001.
- [280] S. Kasaei. Fingerprint Low-Level Feature Extraction from Compressed Images. In *SUT Research Proceedings*, SUT, 2000.
- [281] S. Kasaei. . In *Research History of Electronic Research Center (ERC)*, SUT, 2000.
- [282] S. Kasaei, W. W. Boles, and V. Chandran. Recognition of Multi-Component Objects using Wavelet Transform. Technical report, QUT, June 1998.
- [283] S. Kasaei, W. W. Boles, and V. Chandran. Object Recognition Procedure. Technical report, QUT, May 1998.
- [284] S. Kasaei, M. Deriche, and B. Boashash. Wavelet Transform Applied for Fingerprint Images. Technical report, QUT, 1997.
- [285] S. Kasaei, M. Deriche, and B. Boashash. Fingerprint Compression Using Uniform and Piecewise-Uniform Pyramid Lattice Vector Quantization. Technical report, QUT, ISBN: 1 86435 250 7, 1996.
- [286] S. Kasaei, M. Deriche, and B. Boashash. Performance Analysis of Fingerprint Compression using a Modified Wavelet Transform Algorithm. Technical report, QUT, ISBN: 1 86435 259 0, 1996.
- [287] Shohreh Kasaei. *Fingerprint Analysis using Wavelet Transform with Application to Compression and Feature Extraction*. Ph.D. dissertation, Queensland University of Technology (QUT), Brisbane, Australia, 1998.
- [288] Shohreh Kasaei. A Design Method of 3-D AR Lattice Prediction Modeling. M.Sc. dissertation, University of the Ryukyus, Okinawa, Japan, 1994.