RezaHoseinnezhad

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research areas

multi-object filtering
robust fitting
machine vision
drive-by-wire
vehicle dynamic control

teaching areas

mechatronics
autonomous systems
signals & systems
DSP
image processing
probability & statistics
stochastic processes
sensor fusion
machine vision

education

1996– 2002 PhD – Electrical Engineering — The University of Tehran, Tehran, Iran
Intelligent path planning of mobile robots using sensor data fusion
Thesis Score: 100/100
Awarded the distinguished thesis of the year 2002, University of Tehran

1994– 1996 MSc – Electrical Engineering — The University of Tehran, Tehran, Iran
Adaptive set point regulation of unknown nonlinear dynamics by hybrid neural-classical controllers
Thesis Score: 97.50/100
GPA: 86.40/100

1990– 1994 BSc – Electronic Engineering — The University of Tehran, Tehran, Iran
GPA: 90.00/100

career history

Academic

2016 – now associate professor — Victoria, Australia
School of Engineering, RMIT University

2010 – 2015 senior lecturer — Victoria, Australia
School of Engineering, RMIT University

2008 – 2010 research fellow — Victoria, Australia
EEE Department, The University of Melbourne

2003 – 2010 research fellow — Victoria, Australia
Faculty of Eng. & Industrial Sciences, Swinburne University of Technology

2002 – 2003 assistant professor — Tehran, Iran
ECE Department, University of Tehran

Industry

2002 – 2003 scientific advisor — Tehran, Iran
Tehran Regional Electric Company (TREC)

1999 – 2002 electrical engineer — Tehran, Iran
Petrochemical Ind. Design Equip. Manufacturing Co. (PIDEMCO)

awards

2013 L&T innovation award — Sch. Aerospace, Mech. & Manuf. Eng, RMIT University
Awarded for development of project-based learning courses and laboratories

2013 best paper award — Saigon, Vietnam
International Conference on Control, Automation and Information Sciences

2013	outstanding contrib. award Awarded for overall outstanding performance in teaching and research	Sch. Aerospace, Mech. & Manuf. Eng, RMIT University
2006	Vice Chancellor research award Awarded for outstanding research performance in early career award category	Swinburne University of Technology
2003	distinguished thesis award Awarded for outstanding PhD research	University of Tehran, Iran
2000	Monbusho scholarship Awarded by the Japanese Government	Okinawa, Japan

teaching experience

2010 – now	automated system design lecturer & course coordinator Project-Based Learning course, developed from scratch	RMIT University
2010 – now	autonomous systems lecturer & course coordinator Project-Based Learning course, developed from scratch	RMIT University
2010 – 2015	mechatronics principles lecturer & course coordinator Project-Based Learning course, developed from scratch	RMIT University
2009	control 1 lecturer	The University of Melbourne
2004 – 2008	robotics & mechatronics project 1 lecturer & laboratory instructor	Swinburne University of Technology
2004 – 2008	robotics & mechatronics project 2 lecturer & laboratory instructor	Swinburne University of Technology
2001 – 2002	engineering statistics & probability lecturer & course coordinator	University of Tehran
2001 – 2002	signals & systems lecturer & course coordinator	University of Tehran
1996 – 1999	electric circuits 1 lecturer	University of Tehran
1996 – 1999	electronics 1 lecturer	University of Tehran
1996 – 1999	linear control systems lecturer	University of Tehran

invited talks and media appearance

2017	KNT-University Keynote Speaker at Iranian Electrical Engineering Conference	Tehran, Iran
2016	The University of Chile Keynote Speaker at IEEE RAS Int. Workshop on Vision, Robotics and Tracking Applications	Santiago, Chile
2015	Fudan University Recent Developments in Multi-Bernoulli Solutions for Multi Target Tracking	Shanghai, China
2015	University of Electronic Science and Technology of China Recent Developments in Multi-Bernoulli Solutions for Multi Target Tracking	Chengdu, China

2014 University of Adelaide — Adelaide, Australia
Recent Advances in Random Set Solutions for Computer Vision

2014 University College London — London, UK
Recent Advances in Bayesian Multi-Object Filtering Using Random Set Theory

2011 Changshu Institute of Technology — Jiangsu, China
Recent Applications of Random Set Theory in Multi-Object Estimation and Tracking

2010 University of Adelaide — Adelaide, Australia
Stochastic Geometry for Visual Tracking

2010 University of Adelaide — Adelaide, Australia
High-Breakdown Robust Estimation

2010 IEEE Signal Processing Chapter, Curtin University of Technology — Perth, Australia
Multi-Object Estimation in a Stochastic Geometric Framework

2010 CISR, Deakin University — Victoria, Australia
Visual Multi-Target Tracking Using Random Finite Sets

2010 Business Week — Published online
Toyota's woes raise questions about auto electronics

2010 Center for Multimedia Communication, Rice University — Heuston, USA
Joint Detection and Tracking of Multiple Targets from Video

postgraduate supervision

Completed

2016 Dr Khalid Yousif — RMIT University
3D SLAM in texture-less and structure-less environments using rank order statistics
Graduate destination: Software Engineer (Autonomous Driving - Localization & Mapping), Faraday Future

2015 Dr Amirali Khodadadian Gostar — RMIT University
Adaptive Multi-Target Filtering in Random Set Framework
Graduate destination: Postdoctoral research fellow, RMIT University

2015 Dr Kotler Per Tey Tee — RMIT University
Development of Signal Processing and Control Systems for Electrical Discharge Machining
Graduate destination: Development Engineer, ANCA Pty Ltd, Australia

2015 Dr Marjan Hadian Jazi — RMIT University
Statistical analysis of visual data segmentation
Graduate destination: Postdoctoral Research Fellow, La Trobe University

2014 Dr Chunyun Fu — RMIT University
Development of Electronic Differentials for High-Performance Electric Cars
Graduate destination: Lecturer, Chongqing University

Current

Bogoda Lanka — RMIT University
Intelligent Air Traffic Monitoring and Control

Tharindu Rathnayake — RMIT University
Multi-Object Tracking using Random Finite Sets

Alireza Sadri — RMIT University
Maximised Statistical Use of Geometry/Shape Constraints

Samar Shahbazzadeh — RMIT University
Machine Vision for Live Animal Inspection

Ching Nok To — RMIT University
Minimum Roll Control of Autonomous Vehicles

Yeibir V. Mosquera — RMIT University
Combined Fuel Cell-Battery-Supercapacitor Propulsion System

Sabita Panicker — RMIT University
Distributed Multi-Sensor Management for Multi-Object Estimation

selected scholar contributions

2015 - Now — Member of Organising Committee
IEEE International Conference on Control, Automation and Information Sciences (ICCAIS)

2010 — Assessor
The Australian Research Council, Centre of Excellence Program

2008 – now — Assessor
The Australian Research Council, Discovery and Linkage Project Programs

2005 – now — Reviewer
IEEE Tran. on Signal Processing,
IEEE Tran. on Aerospace & Electronic Systems,
IEEE Trans. on Vehicular Electronics,
IEEE Trans. on Industrial Electronics,
IEEE Journal of Selected Topics in Signal Processing,
Pattern Recognition, and many other journals.

research grants

2017 – 2018 — Australian Meat Processor Corporation (AMPC) Grant — $280,000
Alireza Bab-Hadiashar, Reza Hoseinnezhad
Intelligent solutions for boxed beef trim export enhancement

2016 – 2018 — ARC Grant LP160101081 — $301,597
Reza Hoseinnezhad, Ba-Ngu Vo, Alireza Bab-Hadiashar, David Accadia
Crowd tracking and visual analytics for rapidly deployable imaging devices

2016 – 2018 — ARC Grant LP160100662 — $356,250
Alireza Bab-Hadiashar, David Suter, Reza Hoseinnezhad, Adrian Neugebauer
Visual intelligence for safe vehicle operation in industrial environment

2016 – 2018 — ARC Grant DP160104662 — $419,552
Ba-Ngu Vo, Reza Hoseinnezhad, Philip Hodgkin, Andrey Kan
Multi-Object Estimation for Live Cell Microscopy

2016 – 2018 — Australian Meat Processor Corporation (AMPC) Grant — $950,348
Peter Torley, Harsham Gill, Ewan Blanch, Benu Prasad, Andrew M. Osborn, Kourosh Kalantar Zadeh, Alireza Bab-Hadiashar, Reza Hoseinnezhad
Educational Pathways: Creating a Highly Skilled Meat Industry

2015 – 2016 — Commonwealth Gov. Research Connection Grant RC48071 — $98,676
Reza Hoseinnezhad
Development of Machine Vision Technologies for Automated Activity Detection

2015 Victorian Gov. Technology Development Voucher TDev396 $62,500
Reza Hoseinnezhad
Development of Advanced Computer Vision Technology for Smart Time-Lapse Photography

2014 – 2017 Australian Meat Processor Corporation (AMPC) Grant $445,600
Alireza Bab-Hadiashar, Reza Hoseinnezhad, Harsham Gill
Automated Visual Inspection and Preparation of Live Animals for Meat Processing

2014 – 2017 DSTO Capability & Technology Demonstrator Project $1,600,000
John Andrews, Chun Wang, Bahman Shabani, Chi Pok Cheung, Reza Hoseinnezhad
The development & demonstration of a low signature, rechargeable & portable energy supply using reversible hydrogen fuel cells to support forward operating bases capability & technology demonstrator

2013 – 2016 ARC Grant LP130100521 $385,000
Alireza Bab-Hadiashar, David Suter, Reza Hoseinnezhad, John Mo, Ba-Ngu Vo, J Kelvin
Intelligent collision avoidance system for mobile industrial platforms

2013 – 2016 ARC Grant DP130104404 $295,000
Ba-Ngu Vo, Reza Hoseinnezhad
A Stochastic Geometric Framework for Bayesian Sensor Array Processing

2005 – 2008 ARC Grant LP0561923 $186,664
Alireza Bab-Hadiashar, Reza Hoseinnezhad, David Suter
Data Fusion Techniques for Electro-Mechanical Braking Systems

patents

- Kotler Ter Pey Tee, Patrick Gerard Boland, Reza Hosseinnezhad, Milan Brandt, John Mo, Pulse and Gap Control for Electrical Discharge Machining Equipment, Patent Number PCT/AU2014/000076, published in 04/08/2014.
- Reza Hoseinnezhad, Signal Processing Methods and Apparatus (Missing Data Handling by A Multi-Step Ahead Predictive Filter), Published as International Patent WO/2006/092026 in 08/09/2006; Chinese Patent CN101147041 in 19/03/2008; European Patent EP1859226 in 28/11/2007; Canadian Patent CA2599693 in 08/09/2006.
- Reza Hoseinnezhad and Peter Harding, Signal Processing and Position Determining Apparatus and Methods, Published as International Patent WO2005124487 in 29/12/2005; US Patent US2008039957 in 14/02/2008; Japanese Patent JP2008503810 in 07/02/2007; European Patent EP1759253 in 07/03/2007; Chinese Patent CN1981251 in 13/06/2007; Canadian Patent CA2571403 in 29/12/2005.

publications

Note: The titles of some publication items are click-able links to the preprint versions of the manuscripts. In some cases, there are also links to MATLAB codes at the end of the listed item.

book chapters

[1] Amirali K. Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, A Novel Task-Driven Sensor-Management Method in Multi-Object Filters Using Stochastic Geometry, in Current and Future Developments in Artificial Intelligence, Edited by Faria Nassiri-Mofakham, Bentham Science Publisher, Vol. 1, Chapter 9, pp. 295-335, 2017.

[2] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Parametric segmentation of nonlinear structures in visual data: An accelerated sampling approach, in Nonlinear Approaches in En-

gineering Applications 2, Edited by Reza Jazar and Liming Dai, Springer Science & Business Media Publisher, ISBN: 978-1-4614-6876-9, Chapter 9, pp. 257-277, 2014.

[3] John P.T. Mo, Songlin Ding, Andrew Mackie, Milan Brandt, Shoujin Sun, Reza Hoseinnezhad, Richard Webb, Design of exotic materials machining system, in Advances in Engineering Materials, Products and Systems Design, Editor: Aleksandar Subic, Trans Tech Publications, ISBN-13: 978-3-03785-585-0, pp. 36-46, 2013.

[4] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Nonlinearity in an Electromechanical Braking System: Development of a Smart Caliper, in Nonlinear Approaches in Engineering Applications, Edited by Reza Jazar and Liming Dai, Springer Science & Business Media Publisher, ISBN: 978-1-4614-1468-1, Chapter 9, pp. 265-282, 2012.

journal articles

[1] Suqi Li, Wei Yi, Reza Hoseinnezhad, Bailu Wang, Lingjiang Kong, “Multi-object Tracking for Generic Observation Model Using Labeled Random Finite Sets,” IEEE Transactions on Signal Processing, Accepted in 3 October 2017.

[2] Suqi Li, Wei Yi, Reza Hoseinnezhad, Giorgio Battistelli, Bailu Wang, Lingjiang Kong, Robust Distributed Fusion with Labeled Random Finite Sets, IEEE Transactions on Signal Processing, Accepted in 18 September 2017.

[3] Xiaoying Wang, Reza Hoseinnezhad, Amirali K. Gostar, Tharindu Rathnayake, Benlian Xu, Alireza Bab-Hadiashar, “Multi-Sensor Control for Multi-Object Bayes Filters," Signal Processing, Published Online, July 2017, DOI: 10.1016/j.sigpro.2017.07.031

[4] Amir Dadashnialehi, Alireza Bab-Hadiashar, Zhenwei Cao and Reza Hoseinnezhad, “Reliable EMF-sensor-fusion-based Antilock Braking System for BLDC Motor In-Wheel Electric Vehicles,” IEEE Sensors Letters, Volume 1, Issue 3, May 2017, DOI: 10.1109/ LSENS.2017 .2705087

[5] Yasser Mafinejad, Abbas Kouzani, Khalil Mafinezhad and Reza Hosseinnezhad, “Low Insertion Loss and High Isolation Capacitive RF MEMS Switch with Low Pull-In Voltage,” International Journal of Advanced Manufacturing Technology, Published Online, May 2017, DOI: 10.1007/ s00170-017-0558-9

[6] Amirali K. Gostar, Reza Hoseinnezhad, Weifeng Liu and Alireza Bab-Hadiashar, Sensor-management for multi-target filters via minimization of posterior dispersion, IEEE Transactions on Aerospace and Electronic Systems, Published Online, June 2017, DOI: 10.1109/ TAES.2017.2718280

[7] Amirali K. Gostar, Reza Hoseinnezhad, Tharindu Rathnayake, Xiaoying Wang and Alireza Bab-Hadiashar, Constrained sensor control for multi-object tracking using Cauchy-Schwarz divergence, IEEE Signal Processing Letters, Volume 24, Issue 9, pp. 1313–1317, September 2017.

[8] Wei Yi, Zhenhua Chen, Reza Hoseinnezhad, Rick S. Blum, Joint estimation of location and signal parameters for an LFM emitter, Signal Processing, Volume 134, pp. 100–112, May 2017.

[9] Khalid Yousif, Alireza Bab-Hadiashar, Reza Hoseinnezhad, 3D SLAM in texture-less environments using rank order statistics, Robotica, Volume 35, Issue 4, pp. 809–831, April 2017.

[10] Wei Yi, Meng Jiang, Reza Hoseinnezhad, Bailu Wang, Distributed Multi-Sensor Fusion Using Generalized Multi-Bernoulli Densities, IET Radar, Sonar & Navigation, Volume 11, Issue 3, pp. 434–443, March 2017.

[11] Wei Yi, Meng Jiang, Reza Hoseinnezhad, The Multiple Model Vo-Vo Filter, IEEE Transactions on Aerospace & Electronic Systems, Volume 53, Issue 2, pp. 1045–1054, April 2017.

[12] Bailu Wang, Wei Yi, Reza Hoseinnezhad, Suqi Li, Lingjiang Kong, Xiaobo Yang, Distributed Fusion with Multi-Bernoulli Filter based on Generalized Covariance Intersection, IEEE Transactions on Signal Processing, Volume 65, Issue 1, pp. 242–255, January 2017.

[13] Amirali K. Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Multi-Bernoulli sensor selection for multi-target tracking with unknown clutter and detection profiles, Signal Processing, Volume 119, pp. 28–42, February 2016.

[14] Ruwan Tennakoon, Alireza Bab-Hadiashar, Zhenwei Cao, Reza Hoseinnezhad, David Suter, Robust model fitting using higher than minimal subset sampling, IEEE Transactions on Pattern Analysis and Machine Intelligence, Volume 38, Number 2, pp. 350–362, February 2016.

[15] Khalid Yousif, Alireza Bab-Hadiashar, Reza Hoseinnezhad, An overview to visual odometry and visual SLAM: Applications to mobile Robotics, Intelligent Industrial Systems, Volume 1, pp. 289–311, November 2015.

[16] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Multi-Bernoulli Sample Consensus for Simultaneous Robust Fitting of Multiple Structures in Machine Vision, Signal, Image and Video Processing, Volume 9, Issue 7, pp. 1727–1736, October 2015. MATLAB Code

[17] Marjan Hadian Jazi, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Statistical Analysis of 3D Optical Flow Separability in Volumetric Images, IET-Computer Vision, Volume 9, Number 6, pp. 895–902, 2015.

[18] Chunyun Fu, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Reza Jazar, Electric Vehicle Side-Slip Control via Electronic Differential, International Journal of Vehicle Autonomous Systems, Volume 13, Number 1, pp. 1–26, 2015.

[19] Amirali Khodadadian Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Multi-Bernoulli Sensor Control via Minimization of Expected Estimation Errors, IEEE Transactions on Aerospace and Electronic Systems, Volume 51, Number 3, pp. 1762–1773, July 2015. MATLAB Code

[20] Chunyun Fu, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Reza N. Jazar, Direct Yaw Moment control for Electric and Hybrid Vehicles with Independent Motors, International Journal of Vehicle Design, Volume 69, Number 1-4, pp. 1–24, 2015.

[21] Shafriza Nisha Basah, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Analysis of planar-motion segmentation using affine fundamental matrix, IET Computer Vision, Volume 8, Number 6, pp. 658–669, 2014.

[22] Xin X. Dou, John Andrews, Milan Simic, Reza Hoseinnezhad, John Mo, Optimal power management of final load and electrolyser in a solar hydrogen power generation system, Materials Science & Engineering, Volume 511-512, pp. 661–668, 2014.

[23] Chunyun Fu, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Simon Watkins, Electronic differential for high-performance electric vehicles with independent driving motors, International Journal of Electric and Hybrid Vehicles, Volume 6, Number 2, pp. 108–132, 2014.

[24] Kotler Ter Pey Tee, Reza Hoseinnezhad, Milan Brandt, John Mo, Study on Application of Interval Type 2 Fuzzy Logic Control for Gap Width Controller Used in EDM Machine, Applied Mechanics and Materials (Chapter 7: Robotics, Automation and Control System), Volume 365-366, pp. 863–869, August 2013.

[25] Marjan Hadian Jazi, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Analytical analysis of motion separability, The Scientific World Journal, Volume 2013, pp. 1-15, DOI: http://dx.doi.org/10.1155/2013/878417, 2013.

[26] Amirali Khodadadian Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Robust Multi-Bernoulli Sensor Selection for Multi-Target Tracking in Sensor Networks, IEEE Signal Processing Letters, Volume 20, Number 12, pp. 1167-1170, 2013.

[27] Stephen Saric, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Ian Hocking, Analysis of Forklift Accident Trends within Victorian Industry (Australia), Safety Science, Volume 60, pp. 176-184, 2013.

[28] Ba-Tuong Vo, Ba-Ngu Vo, Reza Hoseinnezhad, Ronald P.S. Mahler, Robust multi-Bernoulli filtering, IEEE Journal of Selected Topics in Signal Processing, Volume 7, Number 3, pp. 399-409, 2013.

[29] Howard K.H. Ip, Reza Hoseinnezhad, John Mo, Milan Brandt, A survey of control methods for electrical discharge machining process, Recent Patents on Electrical & Electronic Engineering, Volume 6, Number 1, pp. 7-28, 2013.

[30] Kotler Ter Pey Tee, Reza Hoseinnezhad, John Mo, Milan Brandt, Pulse discrimination for electrical discharge machining with rotating electrode, Machining Science and Technology, Volume 17, Issue 2, DOI: 10.1080/10910344.2013.780559, 2013.

[31] Reza Hoseinnezhad, Ba-Ngu Vo, Ba-Tuong Vo, Visual tracking in background subtracted image sequences via multi-Bernoulli filtering, IEEE Transactions on Signal Processing, Volume 61, Issue 2, pp. 392-397, January 2013. MATLAB Code

[32] Chunyun Fu, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Side-Slip Control for Nonlinear Vehicle Dynamics by Electronic Differentials, Nonlinear Engineering, Volume 1, pp. 1-10, 2012. DOI 10.1515/nleng-2012-0006.

[33] Reza Hoseinnezhad, Ba-Ngu Vo, Ba-Tuong Vo, David Suter, Visual tracking of numerous targets via multi-Bernoulli filtering of image data, Pattern Recognition, Volume 45, Issue 10, pp. 3625-3635, October 2012. MATLAB Code

[34] Reza Hoseinnezhad, Alireza Bab-Hadiashar, An M-estimator for High Breakdown Robust Estimation in Computer Vision, Computer Vision and Image Understanding (CVIU), Volume 115, Issue 8, pp. 1145-1156, 2011.

[35] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Efficient Antilock Braking by Direct Maximization of Tire-Road Frictions, IEEE Trans. Industrial Electronics, Volume 58, Issue 8, pp. 3593-3600, 2011.

[36] Anna Bourmistrova, Milan Simic, Reza Hoseinnezhad, Reza Jazar, Autodriver algorithm, Journal of Systemics, Cybernetics and Informatics, Volume 9, Number 1, pp. 59-66, 2011.

[37] Reyhaneh Hesami, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Range segmentation of large building exteriors: A hierarchical robust approach, Computer Vision and Image Understanding (CVIU), Volume 114, Issue 4, pp. 475-490, April 2010.

[38] Reza Hoseinnezhad, Alireza Bab-Hadiashar, David suter, Finite sample bias of robust estimators in segmentation of closely spaced structures: A Comparative Study, Journal of Mathematical Imaging and Vision (JMIV), Volume 37, Issue 1, pp. 66-84, May 2010.

[39] Shafriza Nisha Basah, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Conditions for motion-background segmentation using fundamental matrix, IET Computer Vision, Volume 3, Issue 4, pp. 189-200, 2009.

[40] Masoud Dehghan, Reza Hoseinnezhad, Estimation of components reliability in petrochemical plants using a neural-Weibull lifetime model, Chemical Engineering Communications, Volume 196, pp. 1 15, 2009.

[41] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Recent Patents on Measurement and Estimation in Brake-By-Wire Technology, Recent Patents on Electrical Engineering, Volume 2, Issue 1, pp. 54-64, January 2009.

[42] Peyman Naderi, Seyed Mohammad Taghi Bathaee, Reza Hoseinnezhad, Reza Chini, Fuel Economy and Stability Enhancement of the Hybrid Vehicles by Using Electrical Machines on Non-Driven Wheels, International Journal of Electrical Power and Energy Systems Engineering, Volume 1, Issue 4, pp. 248-259, December 2008.

[43] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Tony Rocco, Real-Time Clamp Force Measurement in Electro-Mechanical Brake Calipers, IEEE Transactions on Vehicular Technology, Volume 57, Issue 2, pp. 770-777, March 2008.

[44] Stephen Saric, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Clamp Force Estimation for a Brake-by-Wire System: A Sensor Fusion Approach, IEEE Transactions on Vehicular Technology, Volume 57, Issue 2, pp. 778-786, March 2008.

[45] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Consistency of robust estimators in multi-structural visual data segmentation, Pattern Recognition, Volume 40, pp. 3677-3690, May 2007.

[46] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Peter Harding, Calibration of resolver sensors in electro-mechanical braking systems: A modified recursive weighted least squares approach, IEEE Transactions on Industrial Electronics, Volume 54, Issue 2, pp. 1052-1060, April 2007.

[47] Reza Hoseinnezhad, Stephen Saric, Alireza Bab-Hadiashar, Timothy Barry, Estimation of clamp force in brake-by-wire systems: A step-by-step identification approach, SAE Transactions Journal of Passenger Cars: Mechanical Systems, SAE Paper 2006-01-1154, Volume 115-6, pp. 1088-1097, March 2007.

[48] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Fusion of redundant information in brake-by-wire systems, using a fuzzy Voter, Journal of Advances in Information Fusion (JAIF), Volume 1, Issue 1, pp. 35-45, July 2006.

[49] Reza Hoseinnezhad, Position sensing in by-wire brake callipers using resolvers, IEEE Transactions on Vehicular Technology, Volume 55, Issue 3, pp. 924-932, May 2006.

[50] Reza Hoseinnezhad, Alireza Bab-Hadiashar, Missing data compensation for safety-critical components in a drive-by-wire system, IEEE Transactions on Vehicular Technology, Volume 54, Issue 4, pp. 1304 1311, July 2005.

[51] Behzad Moshiri, Parisa Eslambolchilar, Reza Hoseinnezhad, Fuzzy clustering approach using data fusion theory and its application to automatic isolated word recognition, International Journal of Engineering, Volume 16, No. 4, pp. 329-336, December 2003.

[52] Reza Hoseinnezhad, Behzad Moshiri, Mohammad Reza Asharif, Improved pose estimation for mobile robots by fusion of odometry data and environment map, Journal of Intelligent and Robotic Systems, Volume 36, No. 1, pp. 89-108, January 2003.

[53] Reza Hoseinnezhad, Behzad Moshiri, Mohammad Reza Asharif, "Integration of Pseudo Information Measures, A New Method for Sensor Data Fusion, Journal of Faculty of Engineering, University of Tehran (JFE), Vol. 36, No. 3, pp. 321-331, December 2002.

[54] Mohammad Reza Asharif, Behzad Moshiri, Reza Hoseinnezhad, Intelligent mobile robot perception by using a new concept for sensor data fusion: Pseudo information measure, ISA Transactions, Volume 41, Issue 3, pp. 283-302, July 2002.

[55] Behzad Moshiri, Mohammad Reza Asharif, Reza Hoseinnezhad, A new approach to self-localization for mobile robots using sensor data fusion, International Journal of Engineering, Volume 15, No. 2, pp. 145 156, July 2002.

[56] Behzad Moshiri, Mohammad Reza Asharif, Reza Hoseinnezhad, Pseudo information measure: A new concept for extension of Bayesian fusion in robotic map building, International Journal of Multi-Sensor and Multi-Source Information Fusion, Volume 3, Issue 1, pp. 51-68, March 2002.

[57] Mohammad Reza Asharif, Behzad Moshiri, Reza Hoseinnezhad, Environment mapping for mobile robot navigation using sensor data fusion: A Dempster-Shafer reasoning theory approach, Bulletin of the Faculty of Engineering, University of the Ryukyus, Okinawa, Japan, Volume 60, pp. 127-132, September 2000.

conference papers

[1] Amir Dadashnialehi, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Deep Learning for Texture Classification Via Multi-wavelet Fusion of Scattering Transforms, Proceedings of the International Conference on Mechatronics (IEEE-ICM 2017), 13-15 February 2017, Australia.

[2] Zhenhua Chen, Wei Yi, Reza Hoseinnezhad, Lingjiang Kong, Xiaobo Yang1, "Emitter Localization Based on Signal Waveform Estimation," 2017 IEEE Radar Conference, Seattle, Washington, 8–12 May 2017.

[3] Tharindu Rathnayake, Reza Hoseinnezhad, Ruwan Tennakoon, Alireza Bab-Hadiashar, "Labeled Multi-Bernoulli Tracking for Industrial Mobile Platform Safety," IEEE International Conference on Mechatronics (ICM 2017), Churchill, Australia, February 13-15, 2017.

[4] Alireza Sadri, Ruwan Tennakoon, Reza Hoseinnezhad and Alireza Bab-Hadiashar, "MCMC based Sampling Technique for Robust Multi-Model Fitting and Visual Data Segmentation," The Sixth Conference on Image Processing Tools and Applications, Oulu, Finland, December 2016.

[5] Meng Jiang, Wei Yi, Reza Hoseinnezhad, Lingjiang Kong, Adaptive Vo-Vo Filter for Maneuvering Targets with Time-Varying Dynamics, 19th International Conference on Information Fusion, Heidelberg, Germany, 5-8 July 2016.

[6] Meng Jiang, Wei Yi, Reza Hoseinnezhad, Lingjiang Kong, Distributed Multi-Sensor Fusion Using Generalized Multi-Bernoulli Densities, 19th International Conference on Information Fusion, Heidelberg, Germany, 5-8 July 2016.

[7] Amirali Khodadadian Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Multi-Bernoulli Sensor Control Using Cauchy-Schwarz Divergence, 19th International Conference on Information Fusion, Heidelberg, Germany, 5-8 July 2016.

[8] Amirali Khodadadian Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, OSPA-based sensor control, Proceedings of 2015 International Conference on Control, Automation and Information Sciences (ICCAIS 2015), Changshu, China, pp. 214–218, 29-31 October 2015.

[9] Marjan Hadian Jazi, Alireza Bab-Hadiashar, Reza Hoseinnezhad, Theoretical analysis of Hough Transform optimal cell size: Segmentation of nearby lines, Proceedings of IEEE International Conference on Image Processing Theory, Tools & Applications (IPTA'15), Orléans France, pp. 163–168, 10–13 November 2015.

[10] Tharindu Rathnayake, Amirali Khodadadian Gostar, Reza Hoseinnezhad, Alireza Bab-Hadiashar, Labeled Multi-Bernoulli Track-Before-Detect for Multi-Target Tracking in Video, 2015 International Conference on Information Fusion, Washington DC, USA, pp. 1353–1358, July 2015.

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