

Curriculum Vitae



محمد رضا اصغری اسکویی

(دکتری تخصصی)

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(PhD)

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تهران، خیابان بخارست هفتم
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Academic Qualifications

Ph.D. in Computer Science, AI & Robotics,
University of Essex, UK, 2009

M.Eng. in Control System Engineering,
University of Tehran, Iran, 1993

B.Eng. in Electrical Engineering, University of
Tehran, Iran, 1991

سوابق تحصیلی

دکتری علوم کامپیوتر (هوش مصنوعی و رباتیک)، دانشگاه اسکس
انگلستان (۱۳۸۸)

کارشناسی ارشد مهندسی برق (کنترل)، دانشگاه تهران (۱۳۷۲)

کارشناسی مهندسی برق، دانشگاه تهران (۱۳۶۹)

Research Interests

AI, Machine Learning, Data Mining, Agent-
Based Modelling, Social Network Analysis

Computer Vision, Robotics, Sensor Fusion,
Adaptive Schemes, Human Robot
Interaction.

Bio-signal Processing, Human Machine Interface,
Rehabilitation,

موضوعات تحقیقاتی

هوش مصنوعی، شناخت الگو، یادگیری ماشین

مدل سازی عامل محور، داده کاوی، تحلیل سیستم و شبکه های اجتماعی

پردازش تصویر، بینایی ماشین، شناسایی اشیاء، ناوبری روبات متحرک

پردازش سیگنال های زیستی، کنترل الکترومایوگرام

Teaching Records

Advanced AI, Machine Learning, Data Mining,
Image Processing, Robot Navigation, Advanced
Programming (C++, Python)

سوابق تدریس

هوش مصنوعی پیشرفته، یادگیری ماشین، پردازش تصویر، داده کاوی

محاسباتی، برنامه ریزی منطق، ناوبری روباتیک، برنامه نویسی پیشرفته

Publications

Journals

Bassiri, Amin, Mohammadreza Asghari Oskoei, and Anahid Basiri. "Particle Filter and Finite Impulse Response Filter Fusion and Hector SLAM to Improve the Performance of Robot Positioning." *Journal of Robotics* 2018 (2018).

Mohammadreza Asghari Oskoei; Farhad Fallahi; Meysam Doostizadeh; Saeed Moshiri, Reinforcement Learning Applied to Multi Agent Modelling, the Case of the Iranian Power Market, *Journal of Iranian Energy Economics Research*, Volume 7, Issue 25, Winter 2018, pp 1-40, (DOI)10.22054/JIEE.2018.9046 (in Persian)

Asghari Oskoei, M. Adaptive Kalman Filter Applied to Vision Based Head Gesture Tracking for Playing Video Games. *Robotics* 2017, 6, 33.

Wang Fang, Mohammadreza Asghari Oskoei, and Huosheng Hu. "Multi-finger myoelectric signals for controlling a virtual robotic prosthetic hand." *International Journal of Modelling, Identification and Control* 27, no. 3 (2017): 181-190.

Asghari Oskoei, M. Ghasemzadeh, M. (2016). Application of Heuristic Rules and Genetic Algorithm in ARMA Model Estimation for Time Series Prediction. *Journal of Information Technology and Management*, ISSN:2008-5893, 8(1): 1-26. (in Persian)

Asghari Oskoei, M. (2015). Application of Sliding Window for Financial Time Series Prediction using Time-Delay Neural Networks. *Journal of Economic Research*, 15(57): 75-108. (in Persian)

Asghari Oskoei, M. Hu, H. (2015). Adaptive Myoelectric Control Applied to Video Game. *Biomedical Signal Processing and Control*, Vol 18, 153-160, 2015, Elsevier

Kheng L. Koay, Dag S. Syrdal, Mohammadreza A. Oskoei, Michael L. Walters and Kerstin Dautenhahn; Social Roles and Baseline Proxemic Preferences for a Domestic Service Robot; *Int J of Soc Robotics*, Springer, DOI 10.1007/s12369-014-0232-4, April 2014

Asghari Oskoei, Mohammadreza; Hu, Huosheng; Gan, John Q; ,Feature-channel subset selection for optimising myoelectric human-machine interface design, *Intl J of Biomechatronics and Biomedical Robotics*, 2,2,195-208,2013,Inderscience

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Support vector machine-based classification scheme for myoelectric control applied to upper limb, "Biomedical Engineering, IEEE Transactions on", 55,8,1956-1965,2008,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Myoelectric control systems—A survey, *Biomedical Signal Processing and Control*, 2,4,275-294,2007,Elsevier

Asghari Oskoei, Mohammadreza; Time Series Prediction Using Neural Networks, *Iranian Journal of Economic Research*, Volume 12, 2002, 163-183 (in Persian)

Book Chapter

Oskoei, M.A., & Hu, H., (2010) 'Using Myoelectric signals to Manipulate Assisting Robots and Rehabilitation Devices', In Alonso, E., & Mondragn, E., (Ed). *Computational Neuroscience for Advancing Artificial Intelligence: Models, Methods and Applications*. Medical Information Science Reference, ISBN-10: 1609600215.

Conferences

Bassiri, Amin, Mohammadreza Asghari Oskoei, and Anahid Basiri. "Enhancing Robot Navigation using Sensor Fusion and Fuzzy Kalman Filter for Obstacle Avoidance", *European Navigation Conference 2018, ENC 2018*

Asl, Azin Shabani, and Mohammadreza Asghari Oskoei. "Depth dependent invariant features applied to person detection using 3D camera." In *Fuzzy and Intelligent Systems (CFIS), 2017 5th Iranian Joint Congress on*, pp. 29-34. IEEE, 2017.

Hosseinpourpia, Mahsa, and Mohammadreza Asghari Oskoei. "GA based parameter estimation for multi-faceted trust model of recommender systems." In *Fuzzy and Intelligent Systems (CFIS), 2017 5th Iranian Joint Congress on*, pp. 160-165. IEEE, 2017.

Abadi, Mohammad Hossein Bamorovat, Mohammadreza Asghari Oskoei, and Ahmad Fakharian. "Side sonar vision applied to Omni-directional images to navigate mobile robots." In *Fuzzy and Intelligent Systems (CFIS), 2017 5th Iranian Joint Congress on*, pp. 97-102. IEEE, 2017.

Khorshidi, Abolfazl, Alireza Mohammad Shahri, and Mohammadreza Asghari Oskoei. "Evolutionary particle filter applied to leader-labor multi-robot localization for communication failure and kidnapped situations." In *Robotics and Mechatronics (ICROM), 2016 4th International Conference on*, pp. 619-624. IEEE, 2016.

Abadi, Mohammad Hossein Bamorovat, Mohammadreza A. Oskoei, and Ahmad Fakharian. "Mobile robot navigation using sonar vision algorithm applied to omnidirectional vision." In *AI & Robotics (IRANOPEN), 2015*, pp. 1-6. IEEE, 2015.

Abadi, Mohammad Hossein Bamorovat, and Mohammadreza Asghari Oskoei. "Effects of mirrors in mobile robot navigation based on omnidirectional vision." In *International Conference on Intelligent Robotics and Applications*, pp. 37-48. Springer, Cham, 2015.

Azimi, M. H. Asghari Oskoei, M. Hu H. (2015). Detecting Human Brain Active Areas Associated with Meaning of Noun Categories From fMRI Data. 22nd Iranian Conference on Biomedical Engineering (ICBME). 26-27 Nov. 2015, Iran.

Aghazadeh, J., Oskoei, M.A. (2014). Modified Genetic Algorithm for Solving n-Queens Problem. 12th Iranian Conference on Intelligent Systems (ICIS), Bam, Iran

Ketabi, H., Oskoei, M.A. (2013). PKavosh: A New Parallel Approach to Motif Finding. Symposium on Artificial Intelligence and Signal Processing (AISP), Sharif University of Technology Tehran, Iran

Li, Ruijiao; Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Towards ROS Based Multi-robot Architecture for Ambient Assisted Living,"Systems, Man, and Cybernetics (SMC), 2013 IEEE International Conference on",,,,3458-3463,2013,IEEE

Li, Ruijiao; Asghari Oskoei, Mohammadreza; McDonald-Maier, Klaus D; Hu, Huosheng; ,ROS Based Multi-sensor Navigation of Intelligent Wheelchair,"Emerging Security Technologies (EST), 2013 Fourth International Conference on",,,,83-88,2013,IEEE

Walters, Michael L; Asghari Oskoei, Mohammadreza; Syrdal, Dag Sverre; Dautenhahn, Kerstin; ,A long-term human-robot proxemic study,"RO-MAN, 2011 IEEE",,,,137-142,2011,IEEE

Asghari Oskoei, Mohammedreza; Walters, Michael; Dautenhahn, Kerstin; ,An autonomous proxemic system for a mobile companion robot,Proceedings of the AISB 2010 Symposium on New Frontiers for Human Robot Interaction,,,,9-15,2010,AIS

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Application of feature tracking in a vision based human machine interface for XBOX,"Robotics and Biomimetics (ROBIO), 2009 IEEE International Conference on",,,,1738-1743,2009,IEEE

Oskoei, Mohammadreza Asghari; Gan, John Q; Hu, Huosheng; ,Adaptive schemes applied to online SVM for BCI data classification,31st Annual International Conference of the IEEE EMBS,,,,2600-2603,2009,

Asghari Oskoei, Mohammadreza; Hu, Huosheng; Gan, John Q; ,Manifestation of fatigue in myoelectric signals of dynamic contractions produced during playing PC games,"Engineering in Medicine and Biology Society, 2008. EMBS 2008. 30th Annual International Conference of the IEEE",,,,315-318,2008,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Adaptive myoelectric human-machine interface for video games,"Mechatronics and Automation, 2009. ICMA 2009. International Conference on",,,,1015-1020,2009,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Myoelectric based virtual joystick applied to electric powered wheelchair,"Intelligent Robots and Systems, 2008. IROS 2008. IEEE/RSJ International Conference on",,,,2374-2379,2008,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Evaluation of support vector machines in upper limb motion classification using myoelectric signal,14th International Conference on Biomedical Engineering: ICBME 2008,,,, 176-181,2008,

Firoozabadi, S Mohammad P; Asghari Oskoei, M; Hu, Huosheng; ,A human-computer interface based on forehead multi-channel bio-signals to control a virtual wheelchair,"ICBME08, Tehran, Iran",,,,2008,

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Application of support vector machines in upper limb motion classification using myoelectric signals,"Robotics and Biomimetics, 2007. ROBIO 2007. IEEE International Conference on",,,,388-393,2007,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,GA-based feature subset selection for myoelectric classification,"Robotics and Biomimetics, 2006. ROBIO'06. IEEE International Conference on",,,,1465-1470,2006,IEEE

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,Evaluation of Separability Measures in GA-based Feature Subset Selection for Myoelectric Classification,13th International Conference on Biomedical Engineering: ICBME 2007,,,, 188-193,2007,

Asghari Oskoei, Mohammadreza; P&I Diagram & Technical Document Management System, Proceedings of Conference of Iranian Society of Instrumentation & Control Engineers, Jun Iran, 1999

Asghari Oskoei, Mohammadreza; What is JAVA?, Newsletter of High Council of Information, Iran, 1995

Asghari Oskoei, Mohammadreza, B. Moshiri and M. Firoozabadi; Motion Pattern Recognition from Multi-Channel EMG signals in Cybernetic Hand by Neural Networks, 7th International Conference on Biomedical Engineering: ICBME 1994,,,,,1994,

Technical Reports

Asghari Oskoei, Mohammadreza; Hu, Huosheng; ,A survey on edge detection methods,,,,,2010,Technical Report CES

Professional Activities

Member of IEEE and Society of Engineering in Biology and Medical (EBM)

Member of IEEE and Society of Computer (SoC)

Reviewer of IEEE Transactions on Biomedical Engineering

Reviewer of IEEE Transactions on Neural Systems and Rehabilitation Engineering

Reviewer for Elsevier Journal on Medical Engineering & Physics

Reviewer for Conferences of IEEE/EMBC, IEEE/ASME, IFAC, IEEE/ROBIO, ICIRA

Academic Projects

Care-o-bot Robot Planning using ROS applied for HRI study, *Uni. of Herts, LIREC, 2011*

Sensor Fusion applied to Person Detection/Tracking using YARP, *Uni. of Herts, LIREC, 2010*

Autonomous Human-Robot Proxemics System for Mobile Robot, *Uni. of Herts, LIREC, 2009*

Vision Based HMI for Xbox, *Uni. of Essex, 2009*

Adaptive Schemes for BCI Systems, *Uni. of Essex, 2009*

Adaptive Myoelectric HMI for Rehabilitation (*Thesis*), *Uni. of Essex, 2005-2008*

Myoelectric Based HMI to Powered Wheelchair & Xbox for amputees, 2008

Simulation of Bipedal Running Robot Actuated by CPG Controllers, *Uni. of Essex, 2007*

Deploying VHDL codes in Handel-C Applied for FPGA Programming, *Uni. of Essex, UK, 2006*

