Davood Babaei Pourkargar was born in Rasht, Iran, in 1986. He received his B.S. and M.S. degrees in Chemical Engineering from Sharif University of Technology in 2008 and 2010, respectively. Since August 2011 he has been with the Department of Chemical Engineering at the Pennsylvania State University, University Park, where he is currently PhD Candidate and Research Assistant. He successfully passed his PhD candidacy and comprehensive examinations in 2012 and 2013, respectively. His research interests include nonlinear, robust and adaptive control of lumped and distributed parameter systems, with application to transport-reaction processes, large scale systems, fluid flows, advanced material processing and Li-ion batteries, nonlinear and chaotic systems dynamics and optimization, and application of artificial intelligence in chemical engineering. His research work has so far resulted in 6 articles in leading scientific journals, 13 papers in refereed conference proceedings and 13 presentations. A description of his research interests and a complete list of his publications can be found at http://www.personal.psu.edu/dzb158/.

Davood has been a member of the American Institute of Chemical Engineers (AIChE) and the Computing and Systems Technology (CAST) division, the Institute of Electrical and Electronics Engineers (IEEE) and the Control Systems Society (CSS), the Society for Industrial and Applied Mathematics (SIAM), and the Control and Systems Theory (SIAG/CST) and the Analysis of Partial Differential Equations (SIAG/APDE) activity groups since 2012. He is also a member of Society of Petroleum Engineers (SPE). He was a former member of IEEE Communication Society (ComSoc) in 2012 and Iranian Society of Instrument and Control Engineers (ISICE), Iranian Association of Chemical Engineering (IAChE) and Iranian Fuzzy Systems Society in 2008-2011.

In addition to meeting the demands of the challenging Chemical Engineering curriculum, he also worked as Research Associate in Process Simulation and Control at Sharif University of Technology, 2010-2011, had two summer internships in Software Developing and Computer Aided Process Design at Namvaran Engineering and Management, and Automation and Control at High Tech Development Institute in 2008 and 2009, respectively. He was Teaching Assistant in Advanced Mathematics, Process Control, Unit Operation, and Basic Principles and Calculation in Chemical Engineering at Sharif University of Technology in 2008-2010. He was the supervisor of Process Control Laboratory at Sharif University of Technology in 2008-2011. He had received 4 certifications from TOTAL Company for Managing Corrosion in Oil & Gas Industry and Reduction of CO2 Emissions by Capture and Storage in 2010, and Drilling Engineering and Exploration through Geophysical Data in 2009.

He has independent research experiences in theoretical mathematics include Differential Geometry, Topology, Linear Algebra and Operational Research. Also during his undergraduate and graduate studies and research, he obtained theoretical knowledge in Engineering Mathematics, Process Dynamics, Simulation, Design and Control, Mathematical Computation,

Numerical Analysis and CFD, Complex Nonlinear Dynamics and Chaos, Robust and Adaptive Control, Optimization, Artificial Intelligence, Applied Object Oriented Analysis and Programming, Distributed Systems Analysis and Fuzzy Logic. He is expert in programming with MATLAB and C++ and has lots of experiences using software in his field of study like HYSYS, ASPEN, COMSOL, MAPLE and MATHEMATICA.

Davood has received the O. Hugo Schuck Best Paper Award in the Application Category from American Automatic Control Council (AACC), the Society of Industrial and Applied Mathematics (SIAM) Student Travel Award and American Control Conference Student Travel Award in 2014, Student Travel Award and the Best Session Presentation Award in American Control Conference (ACC session MoA14) in 2013, Walter R. and Aura Lee Supina Graduate Fellowship in Chemical Engineering at the Pennsylvania State University in 2011, Ministry of Science, Research and Technology of Iran Graduate Fellowship in 2011, Sharif University of Technology Dean Award (Sharif Stars) in 2009, Silver Medal in Iranian National Chemical Engineering Olympiad, Iranian Association of Chemical Engineers Best Undergraduate Student Award, Iran Presidential Award, Ministry of Science, Research and Technology of Iran Award, Sharif University of Technology Exceptional Talents Fellowship and National Institute of Elites Fellowship, all in 2008. He was ranked 3rd among 157 undergraduate and 1st among 124 graduate students in chemical engineering at Sharif University of Technology during his undergraduate and graduate studies. He has been identified two times as the Exceptional Talent at Sharif University of Technology and received honoree admissions for Master and PhD programs in 2008 and 2010.