This book is a tribute to 40 years of contributions by Professor Mo Jamshidi who is a well known and respected scholar, researcher, and educator. Mo Jamshidi has spent his professional career formalizing and extending the field of large-scale complex systems (LSS) engineering resulting in educating numerous graduates specifically, ethnic minorities. He has made significant contributions in modeling, optimization, CAD, control and applications of large-scale systems leading to his current global role in formalizing system of systems engineering (SoSE), as a new field. His books on complex LSS and SoSE have filled a vacuum in cyber-physical systems literature for the 21st Century. His contributions to ethnic minority engineering education commenced with his work at the University of New Mexico (UNM, Tier-I Hispanic Serving Institution) in 1980 through a NASA JPL grant. Followed by several more major federal grants, he formalized a model for educating minorities, called VI-P Pyramid where K-12 students (bottom of pyramid) to doctoral (top of pyramid) students form a seamless group working on one project. Upper level students mentor lower ones on a sequential basis. Since 1980, he has graduated over 114 minority students consisting of 62 Hispanics, 34 African Americans, 15 Native Americans, and 3 Pacific Islanders.

This book contains contributed chapters from colleagues, and former and current students of Professor Jamshidi. Areas of focus are: control systems, energy and system of systems, robotics and soft computing.