Prof. Shengyuan Xu
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Biography. Shengyuan Xu received his B.Sc. degree from the Hangzhou Normal University, China in 1990, M.Sc. degree from the Qufu Normal University, China in 1996, and Ph.D. degree from the Nanjing University of Science and Technology, China in 1999. From November 1999 to May 2000 he was a Research Associate in the Department of Mechanical Engineering at the University of Hong Kong, Hong Kong. From December 2000 to November 2001, and December 2001 to September 2002, he was a Postdoctoral Researcher in CESAME at the Universitè catholique de Louvain, Belgium, and the Department of Electrical and Computer Engineering at the University of Alberta, Canada, respectively. Since November 2002, he has joined the School of Automation at the Nanjing University of Science and Technology as a professor.

Dr. Xu was a recipient of the National Excellent Doctoral Dissertation Award in the year 2002 from the Ministry of Education of China. He obtained a grant from the National Science Foundation for Distinguished Young Scholars of P. R. China In the year 2006. He was awarded a Cheung Kong Professorship in the year 2008 from the Ministry of Education of China.

Dr. Xu is a Subject Editor of the Journal of the Franklin Institute, and an Associate Editor of the IEEE Transactions on Cybernetics. His current research interests include robust filtering and control, singular systems, time-delay systems, neural networks, multidimensional systems and nonlinear systems.

Title of Speech: Survey on the Control of Singular Systems

Abstract. Singular systems are described by a set of coupled differential (difference) and algebraic equations, including information on both the dynamic and static constraints of a plant. Since it was introduced in 1974, singular systems have been extensively studied, and a large number of concepts and results based on the theory of state-space systems have been successfully extended to the singular system case. This talk mainly surveys on the concepts and results on the control of singular systems. Possible future research topics related on singular systems are also discussed.