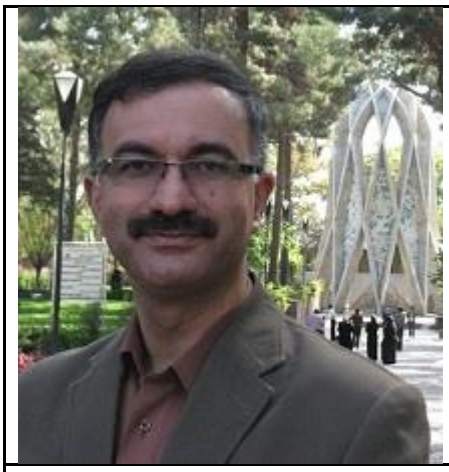

Seyed Mahmoud Taheri

College of Engineering

University of Tehran

Seyed Mahmoud Taheri received the B.Sc. degree in statistics and the M.Sc. degree in mathematical statistics from the Ferdowsi University of Mashhad, Mashhad, Iran, in 1988 and 1991, respectively, and the Ph.D. degree in statistical inference from Shiraz University, Shiraz, Iran, in 2000. He is a Professor with the College of Engineering, University of Tehran, Tehran, Iran. He spent a one-year research opportunity with the Department of Statistics, University of British Columbia, Vancouver, BC, Canada, in 1999 and a one-year sabbatical with the Institute of Probability and Statistics, Vienna University of Technology, Vienna, Austria, from 2009 to 2010. His research interests include statistical inference, Bayesian statistics, probability and statistics in fuzzy environments, and regression modeling for imprecise data.

What is intelligence and who is intelligent?

(Towards a comprehensive and unique definition of intelligence)

What is intelligence, and who is intelligent? Can intelligence be defined as a comprehensive/universal and unique? In psychology and related fields, definition of intelligence is one of the fundamental concepts in the theory and analysis of human behavior. On the other hand, definition of intelligence is a theoretical basis for the design and construction of any intelligent system. In fact, with every definition of intelligence, we will reach a different intelligent system.

In this talk, based on the definitions proposed by two categories of scientists (i.e. 1: psychologists, and 2: experts in intelligent systems), we identify the main components of such definitions. Then, based on these components, we categorize the types of definitions of intelligence. Then, we try to present a comprehensive and unique definition of intelligence, so that encompasses all aspects of intelligence. We will see that, the proposed definition has a strong connection with the notion of uncertainty. As such, the connection between intelligence and uncertainty becomes clearer, and as a result, paves the way forward for human behavior analysts and intelligent systems experts.