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Behzad Moshiri received his M.Sc. and Ph.D. degrees in control systems engineering from the university of Manchester in 1987 and 1991 respectively. He is currently professor of control systems engineering and also was the head of machine intelligence & robotics group at school of ECE, University of Tehran. He was the president of Iranian society of Instrumentation and Control Engineers (ISICE) in 1999-2001. He has been the member of International Society of Information Fusion (ISIF) since 2002 and senior member of IEEE since 2006. He also served as president of Intelligent Systems of Scientific Society of Iran (ISSSI) in 2011-2013. He has been as adjunct professor of department of ECE at university of Waterloo, Canada since May 2014. He is now serving as the chairman of IEEE control system chapter in Iran section since March 2019.

Fusion of Hard and Soft Data, Principles and Practice

Multi-sensor array, usually referred to as sensor/data fusion, is one of the absorbing topics in artificial intelligence and machine learning studies. Generally, "Data Fusion" deals with the synergistic combination of data provided by various knowledge sources and/or sensors to provide a clear perception of a given scene or environment. Hard sensor fusion usually refers to fusion of data obtained from sensors readings and is a well-known and developed discipline with conventional and intelligent approaches. However, the inclusion of soft sensors which refers to data provided by domain experts as reports or context analysis could enhance the accuracy and reliability of decision made by fusion process. Soft sensor has certain merits, such as the ability to model attributes of interest (e.g., emotional level) that hard sensor may not. However, how to combine the hard/soft sensor data efficiently is a challenging problem, especially when the data set becomes large. The use of sensor/data fusion concept has advantages such as "Redundancy", "Complementary", "Timeliness" and "Less Costly Information". In this talk we will present the different levels and models of hard and soft data fusion architectures.