

Compressive Sensing - From Acquisition to Reconstruction

Date: Tuesday, April 6, 2021

Time: 01: 10 PM – 02: 00 PM

Location: [ONLINE](#)

Speaker:

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Abstract:

Compressive Sensing (CS) is a signal processing method that exploits the inherent sparsity of a signal to recover it from samples that are much less than those mandated by the Nyquist theorem. This presentation introduces the essential elements of CS. It includes overviews of the mathematical foundation of CS and the various applications that have made use of CS. The presentation will then move to provide a brief insight about the operating principles of acquiring samples in a compressed manner. Important CS reconstruction approaches belonging to different categories will be introduced. Finally, the discussion will illuminate through some examples from signal and image processing.

Bio:

Mudassir Masood received the B.E. degree in computer systems from the NED University of Engineering and Technology, Karachi, Pakistan, in 2001, the M.S. degree in electrical engineering from King Fahd University of Petroleum and Minerals (KFUPM), Dhahran, Saudi Arabia, in 2005, and the Ph.D. degree in electrical engineering from King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia in 2015. From August 2015 to August 2016, he was a Postdoctoral Researcher at Texas A&M University at Qatar, Doha, Qatar. He is currently an Assistant Professor in the Electrical Engineering Department, KFUPM. His research interests include compressive sensing, massive MIMO, physical layer security, machine learning and related applications.