



UAA Professional Development Seminar Series

Quaternion-valued Neural Networks: Applications in Nonlinear and Large- scale Engineering Problems

Presented by: Arturo Buscarino, Ph.D



ABSTRACT: Quaternion-valued Neural Networks (QNNs) are crucial tools for processing high-dimensional data collected from various engineering problems. Their performance in modeling nonlinear and large-scale systems are impressive. The Seminar will introduce QNNs basics and the latest strategies to further improve QNNs performance, and then focus on their numerous application fields that include control of energy plants and vibrating structures, orbital mechanics, and advanced image processing for nuclear fusion facilities.

BIO: Arturo Buscarino graduated with a degree in Computer Science Engineering in 2004 and received a Ph.D. in Electronics and Automation Engineering, in 2008, at the University of Catania, Italy. Currently, he is an Associate Professor at the University of Catania, and he teaches Nonlinear Systems Control, Process Modeling and Control, and Modeling and Optimization. His scientific interests include nonlinear systems and chaos, advanced neural networks, control systems, cellular nonlinear networks, and plasma engineering. He published more than 250 papers on refereed international journals and international conference proceedings, with H-index 35.

Friday, September 27, 2024

11:45 am - 12:45 pm

EIB 211 or Online Via [YouTube Live](#)