

Date: 11/16/2022 Wednesday 12-1 pm

Location: Virtual (WebEx

<https://umbc.webex.com/umbc/j.php?MTID=mafb6107c16ba1c473626bff354ea1854>)

Title: Mining and Learning from Big Time Series Data

Speaker: Dr. Abdullah Mueen

Associate Professor, Computer Science, University of New Mexico.

Abstract: Big time series data include sequences of observations in time order over large period across many sources. Such data are frequently found in domains including seismology, electrophysiology, engineering, and online social media. In this talk, I will describe my research agenda in developing data mining and machine learning algorithms for big time series data. I will place my work in the context of developing the next generation seismic monitoring pipeline and describe two specific tasks: signal detection and phase classification. I will describe a semi-supervised technique to detect unknown low-magnitude seismic events with the help of known high-magnitude events. I will also describe a time series classification model to classify three-channel seismographs into phases of seismic waves. I will briefly mention my agenda in developing mining algorithms for secure and trustworthy information systems with one example on social bot detection.

Biography: Abdullah Mueen is an Associate Professor in Computer Science at University of New Mexico. He joined UNM as an Assistant Professor in 2013. Earlier he was a Scientist in the Cloud and Information Sciences Lab at Microsoft Corporation. His major interest is in temporal data mining with a focus on social and electrical signals. He has won ACM SIGKDD Test of Time Award in 2022, Junior Faculty Research Excellence Award at UNM in 2019, runner-up award in the Doctoral Dissertation Contest in KDD 2012, and the best paper award in KDD Conference in 2012. His research has been funded by NSF, NIH, AFRL, NEC, Exxon, Microsoft and LANL. Earlier, he earned PhD degree at the University of California at Riverside in 2012 and, BSc degree at Bangladesh University of Engineering and Technology in 2006.