

DEPARTMENT OF COMPUTER SCIENCE

SEMINAR

2023 SERIES

# Traffic Accident Prediction in Doha – an Experience Report

## DATE & TIME

12 OCT 2023 (THU) 11:30 AM – 12:30 PM

## VENUE

WLB 210, The Wing Lung Bank Building for Business Studies,  
Shaw Campus



## DR. YIN YANG

Associate Professor  
Division of Information and Computing Technologies  
College of Science and Engineering  
Hamad Bin Khalifa University, Qatar

## ABSTRACT

In an age where urbanization and vehicular traffic are ever-increasing, the safety of our roads becomes a paramount concern. This seminar focuses on our firsthand experience in researching and developing prediction models for traffic accidents in the zones of Doha, Qatar. One of the primary objectives of our efforts is to optimize the dispatch of traffic police patrol cars to high-risk zones, ensuring a proactive approach towards accident prevention and fostering swift responses when they do occur. Despite the vast literature available on traffic prediction, the practical application of such models in Doha presented significant challenges, predominantly due to the extensive data requirements of existing methods. This talk delves into the innovative model we developed, leveraging multi-graph neural networks, LSTM, and sequence-to-sequence prediction with attention. Furthermore, we will explore the hurdles faced during deployment, the intricacies of conveying the system's workings to end-users, and the strategies employed to navigate these issues. Join us as we share our journey, highlighting the intersection of cutting-edge technology and real-world applicability in the realm of AI-assisted traffic safety.



SPEAKER'S  
BIOGRAPHY



REGISTER NOW