**MAEGSC Career Event Proposal**

1. **Basic outline of the event**

Name : Career event

Organizer : NTU Mechanical and Aerospace Engineering Graduate Students Club (MAEGSC).

Speaker : Yicheng Zhang

Speaker’s bio : Dr. Yicheng Zhang is a research scientist at the Institute for Infocomm Research (I2R), the Agency for Science, Technology, and Research (A\*STAR). His research interests include solutions for smart cities, air traffic management, transportation electrification. His current work focuses on developing smart mobility solutions for ITS testbed in Singapore. Yicheng obtained his Ph.D. from Nanyang Technological University (NTU) and has since then participated in several industrial and research projects funded by NRF, A\*STAR, EDB, LTA and CAAS. Yicheng has published more than 70 research papers in journals and conferences on ITS-related topics and resource allocations. He received the IEEE Intelligent Transportation Systems Society Young Professionals Travelling Scholarship in 2019, and Singapore Public Sector Transformation Award in 2020.

Venue : Online (Zoom).

Target audience : Graduate students of Nanyang Technological University (NTU).

Tentative Date : 26-Mar-2021

Tentative Time : 5 PM

1. **Objectives of the event**

* To create awareness in graduate students about the importance of interdisciplinary research.
* To encourage graduate students to leverage Artificial Intelligence (AI) and Data Science (DS) tools for their own research.
* To promote collaboration between graduate student organizations of NTU.

1. **Webinar abstract**

V2X technology, sensor, communication, and AI-based methodologies holds the potential to an intelligent transportation system (ITS). The talk shall overview the recent trends in ITS. Innovative ITS concepts and implementations, which leverage enhancements and expansions of urban mobility, shall be discussed. The learning-based traffic flow prediction, traffic parameter identification, and reinforcement learning-based traffic management shall be discussed. Further, the urban traffic signal control in smart cities’ design would be elaborated. Both conventional optimization methods and reinforcement learning-based methods would be introduced to identify the network-wide optimal solutions. Finally, recent trials for implementing the V2X technology and ITS strategies in Singapore would be demonstrated.

1. **Budget breakdown**

| **No.** | **Name** | **No of units** | **Price (SGD)/ unit** | **Total** | **Description** |
| --- | --- | --- | --- | --- | --- |
| 1 | Memento for speaker | 1 | $50.00 | $50.00 |  |
| 2 | Prizes for Quiz winners | 6 | $30.00 | $180.00 | 1st: 40 SGD, 2nd: 30 SGD, 3rd: 20 SGD |
| 3 | Lucky draw | 6 | $20 | $120 | Lucky draw for 6 people $20 each |
| **Total** | | | | **$350.00** |  |

1. **Activities Planned**

| **Time** | | **Duration (minute)** | **Session** | **Description** |
| --- | --- | --- | --- | --- |
| **Start** | **End** |
| 5:00 PM | 5:05 PM | 05 | Speaker Introduction | The speaker’s bio shall be read out. |
| 5:05 PM | 5:30 PM | 25 | Talk about ITS | Speaker will be in charge. |
| 5:30 PM | 5:35 PM | 5 | Quiz 1 | To ensure active participation a quiz question shall be asked. |
| 5:35 PM | 5:55 PM | 20 | Talk about ITS | Speaker will be in charge. |
| 5:55 PM | 6:00 PM | 5 | Quiz 2 | To ensure participation until the end, another quiz question shall be asked. |
| 6:00 PM | 6:15 PM | 15 | Q&As |  |
| 6.15 PM | 6.20 PM | 5 | Lucky draw | To be conducted 6 times |