

Virtual Singapore 2nd R&D Grant Call Research Briefing

Date: 10th Feb 2017 (Friday)

Time: 2pm to 4.30pm

Venue: CREATE Seminar Room @ 1 Create Way, Level 2, Create Tower, 138602

Agenda

Item	Time	Remarks
1 R&D Grant Call Briefing	2:00pm	
2 VS Demo	2:10pm	
3 Networking Potential ideas/topics for collaboration		

a. Simulation of Urban Heat Island effect using 3D Modelling - Wong Nyuk Hien (NUS)	2:20pm	To discuss the challenges and proposed approaches to study the impact of urban microclimate on building level and cooling energy consumption

b. Trees Modelling Approach on Fluid Structure Interaction, Shading and Evapotranspiration Process - Poh Hee Joo (IHPC)	2:35pm	To discuss on trees modelling and simulation for wind-tree interaction with FSI methodology; as well as tree cooling effect through shading and evapotranspiration process for the evaluation on outdoor thermal comfort.

c. 3D urban models facilitated accurate GPS positioning in Urban Canyon - Liu Enxiao (IHPC)	2:50pm	Investigation of multi-path signals to compensate for the insufficient number of Line-of-Sight (LoS) satellites in urban canyons and to achieve better positioning accuracy.

d. Using National Science Experiment data for map completion and transport visualisation - Li Mo (NTU)	3:05pm	Investigation into the use of NSE mobility data to discover the unmapped pedestrian paths or walkable areas, which helps in developing more efficient and accurate navigation.

e. Data-driven agent-based modelling and simulation of crowds - Hu Nan (IHPC)	3:20pm	To model and simulate crowds realistically under different scenarios via a data-driven approach. Different levels of crowd features related to the visual perception/motion correlating patterns can be extracted from the

		video and interactive (e.g., virtual reality) tools to model the individual and aggregated crowd behaviours.
f.	GIS-based 4D Dynamic Diagnosis System for Real-time Subsurface/Underground Condition Detection – Wang Yixin (I2R)	3:35pm
		To develop toolsets leveraging on Radar Inspection and image processing methods to construct underground 3D models and detect the changes with accurate positioning in urban environments.
g.	An Efficient and Effective Map-matching Algorithm for High-speed City-scale Data Processing – Li Zeng Xiang (IHPC)	3:50pm
		Map-matching is a process to accurately map the GPS trajectories of vehicles or mobile devices to travel routes on road networks. A parallel map-matching algorithm can obtain significantly accuracy, which is highly valuable to support city-scale spatiotemporal data processing.
4	End of Session	4:05pm

For logistics planning purposes, please register at the following link (<http://tinyurl.com/vscall>)

