

SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING

Website: <https://cde.nus.edu.sg/ece>

Area: Control, Intelligent Systems & Robotics

Host: Assoc Prof Prahlad Vadakkepat

TOPIC	:	R2: a Correct 2-Dimensional Heuristic Bug-based Path Planner
SPEAKER	:	Mr Lai Yan Kai Graduate Student, ECE Dept, NUS
DATE	:	Wednesday, 20 April 2022
TIME	:	12.00PM to 12.30PM 11.30AM to 12.00PM
WEBINAR	:	Join Zoom Meeting https://nus-sg.zoom.us/j/85906036759?pwd=bWlzNXBsQktZZ0d3VE0wTnJIS1IKdz09 Meeting ID: 859 0603 6759 Passcode: 921547

ABSTRACT

R2 is the first correct planner that incorporates vector-based navigation in nature to accelerate global, any-angle path planning in large, sparse maps. These maps are used in many mobile robotics platforms for navigation. Results show that R2 runs faster in large sparse maps compared to traditional planners that use free-space expansions, where R2 may be a hundred times faster. This seminar will show one brief non-convex example using R2.

BIOGRAPHY

Lai Yan Kai received his B.Eng. degree in 2019 from National University of Singapore in Electrical Engineering. He is currently pursuing the PhD degree with the Department of Electrical and Computer Engineering, National University of Singapore. His research interests include path planning for mobile ground robots.

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