SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area: Control, Intelligent Systems and Robotics (CISR)

Host: A/Prof Prahlad Vadakkepat

TOPIC	:	**Slip Angle Dynamics for Wheeled Robots and Vehicles**
SPEAKER	:	**Mr. Anandhu Suresh** **Graduate Student, ECE Dept, NUS**
DATE	:	**Tuesday, 9 April 2024**
TIME	:	**11:00AM-12:00PM**
VENUE	:	**Join Zoom Meeting** **https://nus-sg.zoom.us/j/85360448848?pwd=TjB6b1dkRmhuNURTclF6b2o0MHZkZz09** **Meeting ID: 853 6044 8848** **Passcode: 492425**

ABSTRACT

Achieving precise and stable movement in Robotics hugely depends on the underlying model used for the control system and estimator design. For vehicles and wheeled robots, slip angle can model precise motion by modelling the interplay between tire orientation, actual travel, and tire forces. This seminar delves into understanding slip angle dynamics and how to implement it in a rigid body model. This seminar will cover the significance of slip angle and different ways of incorporating slip angle dynamics into your system.

BIOGRAPHY

Anandhu Suresh is a Master of Research student in the Department of Electrical and Computer Engineering (ECE) at the National University of Singapore (NUS), specializing in control, intelligent systems, and robotics. His research focuses on motorcycle stability dynamics and control, drawing on his prior experience of four years developing active stability control systems at TVS Motor Company. Mr. Anandhu's research aims to leverage a robotics approach to develop solutions that improve the roll stability of two-wheeled vehicles, thereby enhancing overall motorcycle stability, safety, and handling characteristics.

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