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# Graduation symposium Automotive Systems Design/Mechatronic Systems Design

De Zwarte Doos October 23, 2019 TU/e
EINDHOVEN
UNIVERSITY OF
TECHNOLOGY

Date September 18, 2019 Our reference ASD2019 Your reference

M&CS/PDEng Automotive Systems Design

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## **Subject: Program Symposium**

09.00 - 09.15: Welcome and coffee/tea

09.15 – 09.30: Opening by Peter Heuberger (program manager PDEng program Automotive Systems

Design/Mechatronic Systems Design)

09.30 - 09.50: Siddharth Khalate (MSD)

Design of an experimental setup to validate ROP Laser Surgery Device.

[In cooperation with Eindhoven Medical Robotics, Eindhoven]

09.50 - 10.10: Sina Sarneizehdoost (ASD)

Data driven modeling and control system design for the HVAC system of an electric city bus

- improving driving range and comfort.

[In cooperation with VDL Enabling Transport Solutions, Valkenswaard]

10.10 – 10.30: Sahar Etedalidehkordi (MSD)

Motor-assisted floating function for Frencken High-End patient table.

[In cooperation with Frencken Engineering B.V., Eindhoven]

10.30 - 10.50: Break

10.50 – 11.10: Aditya Kamath (MSD)

Enabling remote computation for Soccer Robots using 5G mm-waves.

[In cooperation with blueSPACE, Eindhoven]

11.10 – 11.30: Bahareh Aboutalebian (MSD)

Pedestrian intention and state estimation.

[In cooperation with Eindhoven University of Technology, Eindhoven]



#### 11.30 - 12.10: Abhishek Sharma (ASD)

Development and validation of Advanced Target Analysis for a longitudinal controller.

#### Gürbey Çeken (ASD)

Development and validation of Lateral Control Strategies after exiting the highway. [In cooperation with Valeo Schalter und Sensoren GmbH, Bietigheim-Bissingen, Germany]

#### 12.10 - 13.00: Lunch

### 13.00 - 13.20: Ayush Jain (ASD)

Tribological investigation of polymeric shift fork contact pad. [In cooperation with Punch Powertrain Nederland B.V., Eindhoven]

#### 13.20 – 13.40: **Sabyasachi Neogi (MSD)**

Position Control of a High Speed Nanopositioning stage. [In cooperation with Nearfield Instruments B.V., Rotterdam]

#### 13.40 – 14.00: Mohammad Reza Homayoun (MSD)

Active Contamination Control for high-tech equipment and substrates: Particle generation. [In cooperation with VDL Enabling Technologies Group, Eindhoven]

#### 14.00 - 14.10: Break

#### 14.10 – 14.50: Sergio Fajardo Quintero (ASD)

Enabling simulation technologies for on-board diagnostics development.

# **Mohammad Sadegh Ariannazar (ASD)**

Single-cylinder to multi-cylinder engine performance simulation framework. [In cooperation with DAF Trucks N.V., Eindhoven]

### 14.50 – 15.10: Mohamed Ahmed Abdelalim Hassan Alosta (MSD)

The Smart Carrier: Design of a novel approach to the next generation of line sorters. [In cooperation with Vanderlande Industries B.V., Veghel]

# 15.10 – 15.20: Closure by Prof. H. Nijmeijer (Scientific Director PDEng program Automotive Systems Design/Mechatronic Systems Design)