


Monday September 5th	
8:15 – 8:45 Registration (Stewart Miller Building Atrium) 8:45 – 9:00 Dr Byron Mason “Conference Programme”	
9:00 – 9:15 Professor Chris Rielly, Chair in Chemical Engineering Dean of the School of Aeronautical, Automotive, Chemical and Materials Engineering “Welcome and Introduction to Loughborough University”	
9:15 – 9:45 Keynote speech 1 “Powertrain and Vehicle Development - A personal journey” Dr Tony Pixton Former Chief executive, Advanced Propulsion Centre, UK	
Session 1: 9:45 to 10:45	
P6-14 Model Predictive Control of a Parallel Plug-in Hybrid Electric Vehicle Relying on Dynamic Programming Optimization and Extended Backward-Looking Powertrain Model; Soldo Jure; University of Zagreb	
P6-26 Turbogenerator Energy Recovery Model, Simon Petrovich, Euro Vehicle Technology AB,	
P6-6 Modelling of Solid Oxide Fuel Cell for a Gas Sensor Application; Yusei Fujii, Loughborough University	
10:45 to 11:10 Coffee (25 min)	
Session 2: 11:10 to 12:30	
P6-12 Battery Prototype Testing for Real-life Applications – A Case Study on Lithium-Sulfur, Abbas Fotouhi, Cranfield University	
P6-9 Advanced Diagnostics of Batteries for Electric Vehicles Battery, Buddhi Senake-Ralalage, Loughborough University	
TP6-20 Experimental Investigations of Flash Boiling Spray Wall Impingement Using Laser-Induced Exciplex Fluorescence, Qiu Shuyi, Shanghai Jiao Tong University	
P6-21 Model Predictive Control of Hybrid Vehicles with Engine Start/Stop Decision, Temi Jegede, Loughborough University	
12:30 to 13:30 Lunch	
13:30 – 14:15 Keynote speech 2 “Engineering and Socio-Economic Aspects of Sustainable Energy and Transportation” Professor Mark Ehsani Robert M. Kennedy Endowed Chair Professor of Electrical Engineering Electrical and Computer Engineering, Texas A&M University	
Session 3: 14:15 to 15:15	
FP6-25 Flow and Combustion Modelling of Solid Oxide Fuel Cell Under an Electrolyte Breach, Brian Wong, Loughborough University	
FP6-7 Effect of Cell-to-Cell Variation on Fuel Cell Performance, Tom Fletcher, Bath University	
FP6-2 Battery Electric Vehicle Thermal System Modelling: Concept phase, Bilal Muhammad, Tata Technologies	
15:15 to 15:35 Coffee	
Session 4: 15:35 to 17:00	
FP6-29 Vehicle Emissions Control for Euro7 & Beyond: Challenges and Opportunities, Fakhar Mahmood, Saudi Aramco	
TP6-23 Progress Overview on Research of Applicable Bio-Fuels and Gasoline ICEs, Xubin Song, International Journal of Powertrains	
TP6-24 Powertrain efficiency and performance improvement by introducing adjustable DC-link voltage, David Sedarsky, Chalmers University of Technology	
17:00 Finish and support for visitors (as required)	
18:30 to 21:00 Conference Dinner Burleigh Court, Loughborough University	



<p>Tuesday September 6th, 8:30 – 9:00 Registration AAE Loughborough University</p>	
<p>9:00 – 9:45 Keynote speech 3 “Digital twin or digital cousin: Purpose driven fidelity” Elliot Hemes Managing Director, IPG Automotive’s UK consulting group</p>	
<p>Session 4: 9:45 to 10:45</p>	
<p>P6-8 Controller Architectures for Autonomous Driving (AD) Vehicles, Simon Petrovich, Euro Vehicle Technology AB, Sweden</p>	
<p>P6-30 Investigation of Energy Consumption of Platoons in Traffic, Graham Hodgson, Loughborough University</p>	
<p>FP6-15 Robust Interaction-based reinforcement learning of an Autonomous Driving Agent for the Real World with Position Control, Naing Kyaw, University of Wolverhampton</p>	
<p>10:45 to 11:10 Coffee (25 min)</p>	
<p>Session 5: 11:10 to 12:30</p>	
<p>FP6-10 Attraction-Enhanced Hybrid Feature Selection in Development of Indicated Thermal Efficiency Soft Sensors, Ji Li, Birmingham University</p>	
<p>P6-18 A Repeated Measurements Approach to SoH Battery Modelling of Cyclic Aged Data in a Laboratory Environment, Mark Cary, Lancaster University</p>	
<p>FP6-17 Accelerated Real-World Deep Reinforcement Learning for Collision Avoidance of an autonomous vehicle in crowded traffic Environments, Naing Kyaw, University of Wolverhampton</p>	
<p>12:30 to 13:30 Lunch</p>	
<p>13:30 – 14:15 Keynote speech “Multivariable Control in 40 minutes” Prof Jan Maciejowski, Emeritus Professor of Control Engineering, Emeritus Fellow of Pembroke College, Cambridge University</p>	
<p>Session 6: 14:15 to 15:15</p>	
<p>FP6-19 Regularised Iterative Generalised Least Squares, with Optimal Selection of the Hyper-Parameter, for Identifying Nonlinear Phenomenological Models with Application to Li-ion Cell State of Health Modelling, Mark Cary, Lancaster University</p>	
<p>P6-3 Metricising and modelling transient cycle combustion stability, Ed Winward, Loughborough University</p>	
<p>P6-4 Decomposing time series inputs and outputs from a physical system, Jack Prior, Loughborough University</p>	
<p>15:15 to 15:35 Coffee</p>	
<p>Session 7: 15:35 to 17:00</p>	
<p>P6-16 Decentralised Testing without Trust, Tom Dwyer, Blockchain Integrated Technology Systems- BITS</p>	
<p>FP6-11 Particle Swarm Optimization of the Equivalent Consumption Minimisation Strategy Energy Management System for an Indirect Type Fuel Cell Hybrid Electric Vehicle, Fanggang Zhang, Birmingham University</p>	
<p>TP6-22 Control of adjacent gearshift process with multiple clutches based on multi-objective optimization, Xiangyang Xu, Beihang University.</p>	
<p>17:00 Finish and Support for visitors (as required)</p>	
<p>19:30 to 21:30 Drink PILLINGS BOAT HOUSE BAR</p>	



<p>Wednesday September 7th</p> <p>AAE Loughborough University</p>	
<p>9:00 – 9:45 Keynote speech 5</p> <p>“Adaptive and Predictive Control of PHEV Powertrains”</p> <p>Professor Joško Deur Faculty of Mechanical Engineering and Naval Architecture of the University of Zagreb</p>	
<p>Session 8: 9:45 to 10:45</p>	
<p>P6-1 Holistic xHEV Vehicle Modelling and Energy Visualization, Alex Wray, Loughborough University</p>	
<p>P6-21 Model Predictive Control of Hybrid Vehicles with Engine Start/Stop Decision, Temi Jegede, Loughborough University</p>	
<p>P6-5 A simplified approach to fast nonlinear model predictive control, Wen Gu, Loughborough University</p>	
<p>10:45 to 11:10 Coffee (25 min)</p>	
<p>Session 9: 11:10 to 12:30</p>	
<p>TFP6-13 Model-based monitoring of combustion pressure measuring chains for closedloop control in Hypercar engine applications, Dave Rogers, Kistler Instrumente AG.</p>	
<p>P6-8 Bridging the Gap from L2 to L4 Autonomous Driving Systems, Simon Petrovich, Euro Vehicle Technology AB, Sweden</p>	
<p>End of conference and support for visitors (as required)</p>	
<p>12:30 - Tour of Facilities of Loughborough University Powertrain Group</p>	