

# CURRICULUM VITAE

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## OVERVIEW

### Overall Experiences:

- 12 years of automotive R&D experience in PROTON Holdings Berhad (2004-2016) involved with vehicle testing and validation programs which covers R&D activities, feasibility studies, prototyping, instrumentation, performance, engine management system calibration, durability, data collection, concern resolutions, data analysis and reporting.
- Joint UTM in December 2016 as a Senior Lecturer and appointed as the Deputy Director for 'UTM Centre of Low Carbon Transport in cooperation with Imperial College London' (LoCARtic) to manage and execute all internal combustion engine related research and consultation activities. In April 2020 was appointed as Director for UTM Automotive Development Centre (ADC).

### Management Competencies:

- Technology acquisitions and application.
- Operational excellence and constant improvement.
- Prioritizing Team success above all.

### Functional Competencies:

- Research methodologies and processes.
- Engineering testing methodologies and processes.
- Development through engineering approach.

### Leadership Competencies:

- Effective management of cross functional and multi-disciplinary teams.
- Effective planning and decision-making skills.
- Transparent and communication skills.
- Human capital management and capability development.

### Attributes:

- Committed, dedicated and result oriented with proven record of achievements with the Team to deliver challenging assignments under pressure on time and within budget according to corporate governance requirements and principles.
- Adaptable, creative and innovative in providing solutions to technical and operational challenges based on sound fundamental theories and proven methods from experience.
- Lead by example by being hands on and in the frontline of daily operations. Sets high standards for operational efficiency and excellence through implementation of industry best practices and process improvements.

## ACADEMIC QUALIFICATIONS

Year	Qualifications
2001 – 2004	BEng. (Hons.) in Automotive Engineering University of Hertfordshire, UK <ul style="list-style-type: none"> <li>• Majoring in Motorsport.</li> </ul>
2011 – 2016	Doctor of Philosophy (PhD) in Mechanical Engineering Universiti Teknologi Malaysia (UTM), Johor <ul style="list-style-type: none"> <li>• Area of Expertise; Automotive, Internal Combustion Engine, Powertrain Testing, Vehicle Drive Cycle.</li> </ul>

## CAREER CHRONOLOGY

Position	Responsibilities
<p>April 2020 – Present:</p> <p><b>Director,</b> Automotive Development Centre (ADC), Universiti Teknologi Malaysia</p>	<ul style="list-style-type: none"> <li>• Contributing to the development of Group research strategies in conjunction with Pro Vice Chancellors and Deans.</li> <li>• Working with the relevant Deans and Heads of School to implement a Group research strategy.</li> <li>• Leading and managing the development and implementation of the Centre research strategy, performance indicators and targets and the alignment of these with those of the Group and University.</li> <li>• Promoting and supporting the development of a research environment and culture within the Centre which is intellectually challenging and stimulating and focused upon the achievement of research strategies and targets.</li> <li>• Effective management and operation (including financial management) of the Centre in delivery of its strategy, ensuring compliance with relevant legislation and University policy in relation to workplace health and safety, risk management, and ethical practice, line management of staff employed in the Centre / Institute, the mentoring of new staff where appropriate, the provision of an intellectually stimulating environment for staff and research students.</li> <li>• Determining and implementing policy on the provision of support for research students and staff who are members of the Centre over and above support provided by relevant School and Department.</li> </ul>
<p>Dec 2016 – Sept 2019:</p> <p><b>Deputy Director,</b> LoCARTic, Universiti Teknologi Malaysia</p> <p><b>Senior Lecturer,</b> School of Mechanical Engineering, Faculty of Engineering, Universiti Teknologi Malaysia</p>	<ul style="list-style-type: none"> <li>• Assist the Director in managing, administrating and operating LoCARTic.</li> <li>• Drive LoCARTic as a research centre to meet deliverables and targets.</li> <li>• Manage and operate LoCARTic testing facility while ensuring the compliance of Health and Safety procedures and requirements.</li> <li>• Lead all engine-related research activities under LoCARTic.</li> <li>• Continuously seek external and internal grants to conduct research and consultation work.</li> <li>• Continuously establish new and sustain network with the local and international industries and institutions.</li> <li>• Continuously develop new testing methodologies and procedures to support the research and consultation activities.</li> </ul>

	<ul style="list-style-type: none"> <li>• Manage, lead and nurture a team of research officers, technicians, post-doctorate and post-graduate students.</li> <li>• Continuously seek potential post-graduate students under LoCARtic.</li> <li>• Represent LoCARtic in strategic meetings, promotions and marketing events.</li> </ul>
<p>Apr 2007 – Nov 2016:</p> <p><b>Lead Engineer (acting Staff Engineer),</b> Powertrain R&amp;D Department, PROTON Holdings Berhad</p>	<ul style="list-style-type: none"> <li>• Manage, lead and nurture a team of Powertrain Development Engineers (6) and Technicians (12) on PROTON engine development programs and activities.</li> <li>• Responsible to operate and maintain 10 engine test cells in PROTON with annual CAPEX/OPEX worth RM0.5 million.</li> <li>• Manage testing operations, system, resources and infrastructure to support PROTON vehicle development programs.</li> <li>• Lead technical execution and strategic decision-making for PROTON new vehicle programs.</li> <li>• Authorize to approve engine technical reports for vehicle development programs.</li> <li>• Develop new engine testing methodologies and procedures.</li> <li>• Represent PROTON as resident engineer for PROTON engine testing programs outside Malaysia.</li> <li>• Lead the Integration of engine testing in the overall PROTON vehicle development.</li> <li>• Provide inter-department support related to problem resolution, component development and marketing events.</li> </ul>

## ACHIEVEMENTS & CONTRIBUTIONS

### Universiti Teknologi Malaysia, Johor Bahru (Dec 2016 - Present)

- Appointed as Director for ‘Automotive Development Centre’ (ADC).
- Appointed as the Deputy Director for ‘UTM Centre of Low Carbon Transport in cooperation with Imperial College London’ (LoCARtic).
- Established the engine testing capabilities and know-how in LoCARtic.
- Successfully led, managed and completed all engine-related testing under LoCARtic for international automotive component suppliers from 2017 to 2019.
- Successfully initiated, led and secured MoU between LoCARtic and CONTINENTAL AG (Germany).
- Established joint-research through NDAs with several local companies, i.e. KATSANA, Integrasi Erat Sdn Bhd.
- Sustained and built many new networks for LoCARtic with government agencies, industries and institutions.
- Appointed as a committee member by Malaysian Standard for national road transportation standards.
- Appointed as a member of consultancy project for Malaysian Driving Cycle by Malaysian Automotive Institute (MAI).
- Appointed as the Advisor for UTM Society of Automotive Engineers (SAE) Student Chapter.
- Appointed by the Malaysian Department of Skills Development as one of the judges for the Malaysian Worldskill Competition.
- Appointed as NOS
- Appointed as an Academic Advisor for INTI International University.
- Appointed as Subject-Matter-Expert (SME) by Integrasi Erat Sdn Bhd for automotive virtual reality.
- Conducted technical trainings for government and industries, i.e. JKR, PROTON

- Led UTM students to 3<sup>rd</sup> place award in the Malaysian Autonomous Vehicle Challenge.
- Secured and involved with external and internal research grants, i.e. FRGS, GUP COE.
- Appointed as committee member for many internal initiatives under the school, faculty and universities.
- Main-supervisor for one Master student and co-supervisor for three PhD students.

#### PROTON Holdings Berhad, Shah Alam (Oct 2004 – Nov 2016)

- Appointed as PROTON Talent Pool.
- Led the engine development and validation program for Proton's TGDI engine from prototype until the preproduction stage at Lotus (UK) and Shah Alam plant.
- Appointed as the panel judge for the Malaysian Skills Competition for automotive category by appointment of the Ministry of Human Resources.
- Led the engine development and validation program for Proton's VVT engine from prototype until the preproduction stage at Shah Alam plant.
- Led the engine development and validation program for Proton's NE01 turbocharged engine in prototype stage at Shah Alam plant.
- Appointed as the panel member for the National Occupational Skill Standard (NOSS) job descriptors and skill standard development for motorsport technicians by appointment of the Ministry of Youth & Sports.
- Stationing at China to lead and conduct all engine development and validation program for export models.
- Led the engine development and validation program for Proton's turbocharged engine from prototype until the pre-production stage at Lotus (UK) and Shah Alam plant.

#### PROFESSIONAL REGISTRATION

- Professional Engineer, Board of Engineers Malaysia (BEM)
- Institute of Engineers Malaysia (IEM)
- Institution of Mechanical Engineers (IMechE)
- Society of Automotive Engineers (SAE)