

# 2025 Completions - Faculty of Engineering

## **Dr. Osama Ali Abdelrahman Ahmed**

(Specialisation: Mechanical engineering) (Conferred: 22-Jan-2025)

Low-Velocity Impact Damage Assessment of CFRP Laminates: A Hybrid Approach with nonlinear Guided Waves and Deep Quantum Neural Networks

## **Dr. Sara Barricella**

(Specialisation: Chemical engineering) (Conferred: 22-Jan-2025)

Bioinspired and biomimetic membranes for enzyme reactions

## **Jackson Taylor Gum**

(Specialisation: Mechanical engineering) (Conferred: 22-Jan-2025)

An Integrated Portable Platform for Effective Drug Delivery to the Respiratory System: Controlling Aerosol Size, Uniformity and Throughput On-demand

## **Dr. Alvin Kah Hwa Hiew**

(Specialisation: Mechanical engineering) (Conferred: 22-Jan-2025)

Improving the damage resistance of tramline crossings through laser cladding

## **Dr. Pengxuan Ji**

(Specialisation: Civil engineering) (Conferred: 22-Jan-2025)

Fracturing Characteristics in Geomaterials with Circular Hole and Flaws under Various Loading Conditions

## **Dr. Daniel Jovic**

(Specialisation: Aerospace engineering) (Conferred: 22-Jan-2025)

An experimental investigation into forced separated flow shear layer instabilities and their effect on a separating-reattaching flow

## **Dr. Ting Rang Ling**

(Specialisation: Mechatronics engineering) (Conferred: 22-Jan-2025)

A Learning Framework for Visual Depth-based Hardness Sensing in Soft Robotic Grasping

## **Dr. Bowen Liu**

(Specialisation: Chemical engineering) (Conferred: 22-Jan-2025)

Simulation-based performance prediction and operation optimisation of hydraulic excavators

## **Dr. Yuxi Liu**

(Specialisation: Civil engineering) (Conferred: 22-Jan-2025)

Underground Structure Stability Compatibility Analysis and Support Optimisation

## **Dr. Brendon Peter McBain**

(Specialisation: Communications technologies) (Conferred: 22-Jan-2025)

Coding Synthetic DNA for Nanopore Sequencing

## **Dr. Anil Kumar Pasam**

(Specialisation: Aerospace engineering) (Conferred: 22-Jan-2025)

Aerodynamics of Rough Cylinders - in Isolation and in Pairs

**Dr. Nicholas Elliott Rosa**

(Specialisation: Electronic and computing) (Conferred: 22-Jan-2025)

Learning to create fairer AI systems for Computer Vision

**Dr. Hafiz Zain Saeed**

(Specialisation: Structural engineering) (Conferred: 22-Jan-2025)

High Strength Grouted Cold-formed Steel Sleeve Intermodule Connection for Concrete Modular Buildings

**Dr. Ian Daryl Sta Maria**

(Specialisation: Mechanical engineering) (Conferred: 22-Jan-2025)

Integrated Oil Emulsion-Ionic Liquid Air Flotation for Microalgae Harvesting

**Dr. Rumaisa Tariq**

(Specialisation: Mechanical engineering) (Conferred: 22-Jan-2025)

Development of hybrid MXene-biochar composite material for energy storage application and synthesis of MAX phase using conventional and microwave heating techniques

**Dr. Neil Tom**

(Specialisation: Electronic engineering) (Conferred: 22-Jan-2025)

Wearable Device Design Using Radar and Bio-Impedance Sensing Techniques for Remote Monitoring of Vital Signs

**Dr. Avishka Shimal Wickramarachchi**

(Specialisation: Biomedical engineering) (Conferred: 22-Jan-2025)

Evaluation of cannula flow dynamics during venoarterial extracorporeal membrane oxygenation

**Dr. Xuelin Zhang**

(Specialisation: Electronic and computing) (Conferred: 22-Jan-2025)

Towards Open World Learning System

**Dr. Haijiao Dong**

(Specialisation: Biomedical engineering) (Conferred: 29-Jan-2025)

Preparation and enzyme-like catalytic mechanism of iron-based nanozymes

**Dr. Yumeng Guo**

(Specialisation: Chemical engineering) (Conferred: 29-Jan-2025)

Preparation of Sulfonated Poly(ether ether ketone) Membranes and Salinity Gradient Energy Conversion

**Dr. Zhenyu Han**

(Specialisation: Geotechnical engineering) (Conferred: 29-Jan-2025)

Spatial Propagation Characteristics and Mechanisms of a Nonpenetrated Flaw in Brittle Materials

**Ruicheng Wang**

(Specialisation: Chemical engineering) (Conferred: 29-Jan-2025)

Effect Of Foam Drainage In Aluminium Melt On Pore Gradient

**Dr. Osama Abbas Idris Hussain**

(Specialisation: Civil engineering) (Conferred: 05-Feb-2025)

Minimizing Cost Overrun in Rail Projects through 5D-BIM

**Dr. Patricio Ignacio Jacobs Capdeville**

(Specialisation: Mechanical engineering) (Conferred: 05-Feb-2025)

DEM analysis of energy dissipation in bulk solids handling and transportation processes in the ironmaking industry

**Dr. Edmund Chong Jie Ng**

(Specialisation: Mechanical engineering) (Conferred: 05-Feb-2025)

Enhancing Microscale Thermal Management with Advanced Carbon Nanostructure Integration

**Dr. Yifan Qin**

(Specialisation: Chemical engineering) (Conferred: 05-Feb-2025)

Multiscale modeling of starch-based food digestion in the intestinal tract for dietary property-based glycemic prediction

**Barathan Rajendran**

(Specialisation: Mechanical engineering) (Conferred: 05-Feb-2025)

Decoupling the role of mechanics, thermodynamics and transport in polymer-based systems

**Dr. Tamara Lee Herzog**

(Specialisation: Environmental engineering) (Conferred: 19-Feb-2025)

River mining pushing the limits of passive remediation for metal recovery from acid mine drainage affected waterways

**Dr. Haodong Huang**

(Specialisation: Materials engineering) (Conferred: 19-Feb-2025)

Core Loss Mechanisms in Soft Magnetic Nanostructures

**Kang Hao Koay**

(Specialisation: Chemical engineering) (Conferred: 19-Feb-2025)

Virtual Reality: Enhancing Engineering Students' Learning in Process Safety

**Dr. Min Ying Liow**

(Specialisation: Chemical engineering) (Conferred: 19-Feb-2025)

Process intensification of biodiesel production catalyzed by low-cost liquid lipase using ultrasound technology

**Dr. Declan McNamara**

(Specialisation: Chemical engineering) (Conferred: 19-Feb-2025)

Enhancing Lithium Sulfur Battery Performance via Advanced Polymeric Anode Coatings

**Dr. Anthony Joseph Micheletto**

(Specialisation: Mechanical engineering) (Conferred: 19-Feb-2025)

Microstructural defects, mechanical properties and bonding integrity of flash-butt welds in premium rail

**Dr. Mevan Bandara Ekanayake**

(Specialisation: Biomedical engineering) (Conferred: 05-Mar-2025)

Deep Learning for Magnetic Resonance Image Reconstruction and Super-resolution

**Dr. Wail Gourich**

(Specialisation: Chemical engineering) (Conferred: 05-Mar-2025)

Enzymatic hydrolysis of methyl esters catalyzed by free liquid lipases for the production of fatty acids

**Dr. Shack Yee Hiew**

(Specialisation: Structural engineering) (Conferred: 05-Mar-2025)

Stress-Strain Behaviour and Constitutive Modelling of Unconfined and Confined Ultra-High-Performance Concrete (UHPC)

**Dr. Linxin Hua**

(Specialisation: Civil engineering) (Conferred: 05-Mar-2025)

Computer vision-based 3D reconstruction and identification of structural defects

**Dr. Abraham Matthews Joshua**

(Specialisation: Chemical engineering) (Conferred: 05-Mar-2025)

Microplastic Recovery In Sodium Chloride Solution Using Bubble Flotation System

**Dr. Jiale Lee**

(Specialisation: Chemical engineering) (Conferred: 05-Mar-2025)

Development of Lead-free Halide Perovskite-based Materials for Efficient Photocatalytic CO<sub>2</sub> Reduction to CH<sub>4</sub>

**Dr. Zhihong Lin**

(Specialisation: Artificial intelligence) (Conferred: 05-Mar-2025)

Cardiovascular Diseases Risk Prediction Based On Retinal Fundus Photography

**Dr. Thon Tan**

(Specialisation: Artificial intelligence) (Conferred: 05-Mar-2025)

Point Cloud-based Vehicle Monitoring Systems using Deep Learning

**Swetha Chowdary Vutlapalli**

(Specialisation: Mechanical engineering) (Conferred: 05-Mar-2025)

Impact of co-solvent concentration on multicomponent metered-dose inhaler formulation properties

**Dr. Zheng Xu**

(Specialisation: Transport engineering) (Conferred: 05-Mar-2025)

Human-Centric Analysis of Critical Scenarios and Operational Efficiency during High-level Autonomous Driving

**Dr. Xin Zhang**

(Specialisation: Artificial intelligence) (Conferred: 05-Mar-2025)

Developing Deep Learning Models Using BioSignals for Monitoring and Assisting Individuals with Motor Disorders

**Dr. Kevin Man Hou Ung**

(Specialisation: Chemical engineering) (Conferred: 19-Mar-2025)

Inorganic composite membranes for high-temperature fuel cells

**Dr. Taeho Oh**

(Specialisation: Transport engineering) (Conferred: 24-Mar-2025)

A Feasible Human-like Multidimensional Driving Behavior Framework Design for Autonomous Vehicles

**Dr. Farah Bilawal**

(Specialisation: Electrical engineering) (Conferred: 02-Apr-2025)

A Smart Tri-band Beam-forming Receiving Antenna for Radiometer

**Dr. Hans Estrella Cainglet**

(Specialisation: Chemical engineering) (Conferred: 02-Apr-2025)

Cellulose Nanomaterials for Sustainable Food Packaging

**Dr. Wei Kean Chong**

(Specialisation: Chemical engineering) (Conferred: 02-Apr-2025)

Development of Highly Effective Zinc Indium Sulfide-Based Photocatalytic System for Solar-Driven Overall Water Splitting

**Dr. Mohsen Dehghanipoodeh**

(Specialisation: Geotechnical engineering) (Conferred: 02-Apr-2025)

Investigation into the Mechanical Behaviour of Timber Chocks in Underground Mining

**Dr. Steven Hao Wan Kok**

(Specialisation: Chemical engineering) (Conferred: 02-Apr-2025)

Design and development of photo-active materials for efficient photocatalytic fixation of nitrogen

**Dr. William Tze Hau Lim**

(Specialisation: Biomedical engineering) (Conferred: 02-Apr-2025)

Finite Element Analysis of Renal Tissue Biomechanics During Shear Wave Elastography

**Dr. Lim Jia You**

(Specialisation: Engineering - other) (Conferred: 02-Apr-2025)

Single-Pixel Image Reconstruction and Super-Resolution using Deep Learning

**Dr. Mary Low**

(Specialisation: Mechanical engineering) (Conferred: 02-Apr-2025)

Enhancing cooling efficiency using corona discharge plasma-activated water via phase change heat transfer

**Dr. Afshin Najafi Ghalelou**

(Specialisation: Electrical engineering) (Conferred: 02-Apr-2025)

Optimal Strategies for Coordinating Distributed Energy Resources in Active Distribution Networks

**Dr. Wei Zhe Ng**

(Specialisation: Chemical engineering) (Conferred: 02-Apr-2025)

Development of enzymatic renewable hydrocarbon fuel production from triacylglycerol: Performance evaluation, process intensification and feasibility studies

**Dr. Sijia Shi**

(Specialisation: Chemical engineering) (Conferred: 02-Apr-2025)

Crystalline porous materials-based nanofluidic membranes for efficient ion separation

**Dr. Chun Kit Sit**

(Specialisation: Materials engineering) (Conferred: 02-Apr-2025)

Development of geometric-adaptive parameters for support-free 3D printing (LPBF) of Inconel 718

**Dr. Weiyang Xiong**

(Specialisation: Biological engineering) (Conferred: 02-Apr-2025)

Intact Plant-food Cells: Nature's Nutrition Capsules

**Haoyang Yuan**

(Specialisation: Engineering - other) (Conferred: 02-Apr-2025)

Enhanced Energy Absorption in Hierarchical Honeycomb Structures Using Foaming Materials: Design, Fabrication, and Characterization via Fused Filament Fabrication

**Dr. Lit Kean Chai**

(Specialisation: Mechanical engineering) (Conferred: 21-Apr-2025)

Microchannel turbulence management with fractal configuration induced flow dynamic: LB Modelling

**Dr. Md Jahid Faruki**

(Specialisation: Electrical and electronic eng and tech general) (Conferred: 21-Apr-2025)

Advancements in Transmitter and Receiver Components for Visible Light Communication Systems

**Dr. Darren Yi Sern Low**

(Specialisation: Materials engineering) (Conferred: 21-Apr-2025)  
Development of Smart Self-Healing Nitrile Gloves using Dynamic Supramolecular Chemistry

**Dr. Zansong Tang**

(Specialisation: Materials engineering) (Conferred: 21-Apr-2025)  
Soft Magnetic Properties and Mass Producibility of Fe-B-based Nanocrystalline Alloys Prepared by Ultra-rapid Annealing

**Dr. Enamul Haque**

(Specialisation: Electronic and computing) (Conferred: 30-Apr-2025)  
Electron-phonon interactions in atomically thin topological insulators

**Dr. Jin Keong**

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 30-Apr-2025)  
Controlling Cardiac Alternans in a 3-Dimensional Electrophysiological Model of the Left Ventricle

**Dr. Wei Jian Lau**

(Specialisation: Communications technologies) (Conferred: 30-Apr-2025)  
Anticipatory and Adaptive Communication Framework for Dynamic Flying Ad Hoc Networks using Artificial Intelligence

**Dr. Liangyu Tay**

(Specialisation: Artificial intelligence) (Conferred: 30-Apr-2025)  
Adaptive Artificial Intelligence Traffic Network Management System for Urban Cities

**Dr. Hanlei Wang**

(Specialisation: Mechanical engineering) (Conferred: 30-Apr-2025)  
Design Optimization of Railway Pantograph-Catenary Systems

**Mengqiao Wang**

(Specialisation: Mechanical engineering) (Conferred: 30-Apr-2025)  
Feature-based Adaptive Process Planning in Material Extrusion

**Dihui Chu**

(Specialisation: Aerospace eng and tech general) (Conferred: 09-May-2025)  
Analysis of driver visual fatigue based on visual focus changes and research on multi-focal plane AR-HUD interface design

**Dr. Ahmad Amiruddin**

(Specialisation: Process and resources engineering general) (Conferred: 14-May-2025)  
Optimizing The Transition to A Low-Carbon Electricity Sector for Indonesia

**Dr. Yifeng Huang**

(Specialisation: Chemical engineering) (Conferred: 14-May-2025)  
Nature-Inspired Devices from Plasmonic Nanomaterials

**Dr. Meng Tang**

(Specialisation: Chemical engineering) (Conferred: 14-May-2025)  
Rigid Polymer Membranes for Crude Oil Fractionation

**Hongyuan Zhang**

(Specialisation: Manufacturing engineering) (Conferred: 16-May-2025)  
Support-Free Process of Laser Powder Bed Fusion for Overhanging Structures

**Dr. Jessica Daaboul**

(Specialisation: Mechanical engineering) (Conferred: 30-May-2025)  
The Green Energy Gamble - balancing net green energy production and ecosystem maintenance energy costs

**Dr. Wei Lin Ng**

(Specialisation: Chemical engineering) (Conferred: 30-May-2025)  
Advancing Catalytic Materials and Sustainable Processes for CO<sub>2</sub> Utilization into Chemicals and Fuels

**Dr. Ziyuan Zhao**

(Specialisation: Materials engineering) (Conferred: 30-May-2025)  
The Theoretical Exploration of New Two-Dimensional Intrinsic Magnetic Topological Materials

**Dr. Nick Tang Soo Kong Ah Sen**

(Specialisation: Engineering - other) (Conferred: 15-Jun-2025)  
Socially-Aware Mobile Robot Navigation

**Dr. Nurul Suhaira Binti Abdullah**

(Specialisation: Mechatronics engineering) (Conferred: 15-Jun-2025)  
Dynamic Process to Improve and Optimize New Microwave Coagulation Process for Specialty Rubber

**Dr. Zahra Esmati**

(Specialisation: Electrical engineering) (Conferred: 15-Jun-2025)  
Analysis and design of arrays of electrically small antennas for power combining in high-power electromagnetic applications

**Dr. Lie Ju**

(Specialisation: Artificial intelligence) (Conferred: 15-Jun-2025)  
Towards Annotation-Efficient Learning for Real-World Medical Image Analysis

**Dr. Haoliang Li**

(Specialisation: Chemical engineering) (Conferred: 15-Jun-2025)  
Understanding the pattern formation from an evaporating plasma drop by simulation

**Dr. Elissar Mikhael**

(Specialisation: Civil engineering) (Conferred: 15-Jun-2025)  
Fate and migration of Per- and Polyfluoroalkyl substances (PFAS) in geosynthetic liner components

**Afri Ahamed Mohamed Rasmi**

(Specialisation: Electrical engineering) (Conferred: 15-Jun-2025)  
Elliptical Electrode Design in QCM: Impact on Liquid Droplet Detection and Biosensing Efficiency

**Dr. Hao Sui**

(Specialisation: Civil engineering) (Conferred: 15-Jun-2025)  
Advancing limestone calcined clay cement (LC3), through activation optimization, microstructural refinement and durability assessment

**Dr. Ming Yong**

(Specialisation: Chemical engineering) (Conferred: 15-Jun-2025)  
Sustainable Lithium Extraction from Brines Using Membrane Technologies

**Dr. Yimo Zhu**

(Specialisation: Geotechnical engineering) (Conferred: 15-Jun-2025)

Assessing Lifetime Resilience of Underground Infrastructure to Multi-Hazard Based on Unified Modelling and Sustainable Optimisation

**Dr. Gopoojithaa Athmarajah**

(Specialisation: Geotechnical engineering) (Conferred: 25-Jun-2025)

Microwave dry-back of granular pavement layers

**Dr. Zihan Chen**

(Specialisation: Chemical engineering) (Conferred: 25-Jun-2025)

Optimization and Evaluation of Catheters in Complex Vascular Systems Using a Coupled CDR-Based Thrombosis Model

**Dr. Jing Ma**

(Specialisation: Materials engineering) (Conferred: 25-Jun-2025)

On the stray current corrosion of copper alloys in soil environments

**Dr. Haozhe Wang**

(Specialisation: Biological engineering) (Conferred: 25-Jun-2025)

Towards Realistic Computer Simulations for Cortical Prosthetic Vision

**Dr. Xingdong Wang**

(Specialisation: Environmental engineering) (Conferred: 25-Jun-2025)

Biochar Aging Under Freeze-Thaw Cycles: Mechanisms of Physicochemical Changes, Heavy Metal Stabilization, and Phosphorus Dynamics

**Dr. Feng Xiao**

(Specialisation: Civil engineering) (Conferred: 25-Jun-2025)

Subsurface Fluid Injection and Induced Fault Reactivation with Hydro-Mechanical Coupling Simulation

**Dr. Zeyu Li**

(Specialisation: Chemical engineering) (Conferred: 07-Jul-2025)

Numerical Investigation of the Mechanisms of Cyclone in Supercritical Water Environments and Dry Powder Inhalation

**Dr. Bryce Paul Ferenczi**

(Specialisation: Artificial intelligence) (Conferred: 09-Jul-2025)

Efficient Deep Learning in Irregular Spatio-Temporal Tasks

**Dr. Eugene Chee Kin Kok**

(Specialisation: Mechanical engineering) (Conferred: 09-Jul-2025)

Deep Learning-based Vision Systems for Agricultural Robots: Overcoming Obscured Apple Orchard Challenges

**Dr. Reuben Yaw Hui Lim**

(Specialisation: Communications technologies) (Conferred: 09-Jul-2025)

A Reliable Communication Framework for UAV Swarm Networks

**Dr. Zaimao Peng**

(Specialisation: Materials engineering) (Conferred: 09-Jul-2025)

Advancing Extrusion-Based 3D Bioprinting: Establishing Universal Correlations Between Rheological Properties and Printability for Efficient Bioink Development

**Dr. Diani Chamathya Sirimewan**

(Specialisation: Construction engineering) (Conferred: 09-Jul-2025)

Optimising Construction and Demolition Waste Handling using Computer Vision Techniques

**Dr. Keenan Zhihong Yap**

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 09-Jul-2025)

2D Material Integrated Two Port Surface Acoustic Wave Resonator Vapour Sensors: Design, Analysis, and Characterisation

**Dr. Nur Atika Nikma Binti Dahlan**

(Specialisation: Chemical engineering) (Conferred: 23-Jul-2025)

Development of polymeric carbon nitride-based photocatalysts for effective solar-driven bacterial disinfection

**Dr. Uthpala Nivandani Ekanayake**

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 23-Jul-2025)

Statics and Small Signal Dynamics of Quantum Thermal Transistors

**Chi Kent Kam**

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 23-Jul-2025)

Aluminium Nitride based Layered One-Port Surface Acoustic Wave Resonator Sensor: Design, Fabrication, and Analysis

**Darren Tze Huei Lee**

(Specialisation: Mechanical engineering) (Conferred: 23-Jul-2025)

Performance Prediction and Optimization of Vacuum Evaporation for Water Treatment Using Machine Learning Methods

**Dr. Zhi Qi Tan**

(Specialisation: Mechanical engineering) (Conferred: 23-Jul-2025)

A Macroscale and Microscale Computational Modelling Study of Sonothrombolysis

**Dr. Quan Yee Tey**

(Specialisation: Chemical engineering) (Conferred: 23-Jul-2025)

Development of a Self-Biased Photoelectrochemical Tandem System for Sustainable Hydrogen Production

**Dr. Junyan Wang**

(Specialisation: Chemical engineering) (Conferred: 23-Jul-2025)

Study on the survival of Lactobacillus rhamnosus GG during freeze-drying, storage, cooking and in vitro gastrointestinal digestion

**Dr. Qing Ye**

(Specialisation: Artificial intelligence) (Conferred: 23-Jul-2025)

Development and Application of Combined CFD and Data-driven Models for Hydrocyclones

**Dr. Mona Ahmed Abdelmoneem Abdelwahab**

(Specialisation: Materials engineering) (Conferred: 06-Aug-2025)

Surface-functionalised porous silicon nanoparticles for targeted treatment of osteosarcoma

**Dr. Zhongxiang Chen**

(Specialisation: Biomedical engineering) (Conferred: 06-Aug-2025)

Objective and Constraint Estimation of Gait via Inverse Optimal Control

**Anurag Damodaran**

(Specialisation: Mechanical engineering) (Conferred: 06-Aug-2025)

Over temperature sensor for cryo-stored biological samples

**Ashenafi Abrham Kassa**

(Specialisation: Mechatronics engineering) (Conferred: 06-Aug-2025)

High-Precision VCM-Driven Flexure-Based Micropositioning Stages: Design, Control, and Implementation

**Dr. Bennet Sam Thomas**

(Specialisation: Chemical engineering) (Conferred: 06-Aug-2025)

Extraction and Separation of Rare Earth Elements from Victorian Brown Coal Fly Ash

**Dr. Srivardhini Veeraragavan**

(Specialisation: Mechatronics engineering) (Conferred: 06-Aug-2025)

Eco-Driving of Connected Autonomous Vehicles at Railway Level Crossings

**Dr. Jing Wu**

(Specialisation: Artificial intelligence) (Conferred: 06-Aug-2025)

Towards Trustworthy AI: Enhancing Privacy and Security

**Dr. Yinfei Xi**

(Specialisation: Civil engineering) (Conferred: 06-Aug-2025)

Integrating High-Level Autonomous Vehicles into The Existing Road Systems: Infrastructure Requirements, Road Design Policies, And Multimodal Operation Strategies

**Dr. Changji Yin**

(Specialisation: Materials engineering) (Conferred: 06-Aug-2025)

Multiscale Modeling and Simulation on Skin Platform and Its Applications

**Dr. Mohammadreza Aghajanzadeh**

(Specialisation: Geotechnical engineering) (Conferred: 20-Aug-2025)

Mechanical Characterisation of Time-dependent Behaviour of Intact Rocks under various Stress Conditions

**Dr. Naghmeh Nasiri**

(Specialisation: Chemical engineering) (Conferred: 20-Aug-2025)

Engineering Functional Nanocellulose Materials

**Dr. Chamalka Kenneth Perera**

(Specialisation: Biomedical engineering) (Conferred: 20-Aug-2025)

Lower Limb Control Architecture To Assist Sit-To-Walk Transitions

**Dr. Dariusz Jacek Skoraczynski**

(Specialisation: Mechatronics engineering) (Conferred: 20-Aug-2025)

Development of Wearable Intention Detection Systems for Predicting Hand Motion using Non-Contact Sensors

**Dr. Hojin Song**

(Specialisation: Mechanical engineering) (Conferred: 20-Aug-2025)

Optimisation-Based Predictive Simulation of the Squat Motion with Total Knee Replacement

**Dr. Simon Ing Xun Tiong**

(Specialisation: Chemical engineering) (Conferred: 20-Aug-2025)

Modeling Multiscale Enzymatic Hydrolysis of Cellulose: Coupled Population Balances for Bridging the Particle and Polymer Scales

**Dr. Yizhe Wang**

(Specialisation: Civil engineering) (Conferred: 20-Aug-2025)

Advancing Human-Robot Collaboration in Construction Structural Assembly through Task Optimization and Augmented Reality Assistance

**Dr. Lam Chang**

(Specialisation: Chemical engineering) (Conferred: 07-Sep-2025)

Development of Zinc Selenide-based reduced Graphene Oxide-mediated Z-scheme Photocatalyst for Photoreforming of Methanol

**Dr. Ming-Wei Chu**

(Specialisation: Mechanical engineering) (Conferred: 07-Sep-2025)

Ferroelectric-Modulated Photocathode BiFeO<sub>3</sub> (BFO) Thin Film Heterostructures via Rare-Earth Substitutions

**Dr. Ben Liu**

(Specialisation: Environmental engineering) (Conferred: 07-Sep-2025)

Towards Sustainable Pretreatment of Spent Lithium-Ion Batteries Through Techno-Environmental-Economic Assessment

**Dr. Yuhang Qiu**

(Specialisation: Artificial intelligence) (Conferred: 07-Sep-2025)

Advanced Modelling for Coke Quality Prediction Based on Neural Networks

**Dr. Zhi Yang Tan**

(Specialisation: Artificial intelligence) (Conferred: 07-Sep-2025)

An Adaptable and Intelligent Railway Transportation System with Novel Ensemble Machine Learning Architecture

**Dr. Ali Vafaie**

(Specialisation: Mechanical engineering) (Conferred: 07-Sep-2025)

Exploring the Potential of High-Frequency Ultrasound as a Means for Modulating Cell Behaviour

**Dr. Wan Ye**

(Specialisation: Materials engineering) (Conferred: 07-Sep-2025)

Development of High Strength Magnesium Alloy for Additive Manufacturing

**Dr. Saeed Askari**

(Specialisation: Chemical engineering) (Conferred: 17-Sep-2025)

Multi-Functional Electro-materials for Advanced Electrocatalysis and Energy Storage

**Dr. Milad Ghorbani**

(Specialisation: Materials engineering) (Conferred: 17-Sep-2025)

Application of Polymer Chemistry Tools to Engineer Nanozyme Antioxidants

**Dr. Jinxing Gu**

(Specialisation: Chemical engineering) (Conferred: 17-Sep-2025)

A Mechanistic Study on Morphology and Performance of Aluminium-Doped Iron Oxides for Ketonisation Reaction

**Dr. Abdollah Khosravian**

(Specialisation: Chemical engineering) (Conferred: 17-Sep-2025)

3D Printed Mixed Matrix Membranes for Small Molecule Separation

**Dr. Tianhao Liu**

(Specialisation: Artificial intelligence) (Conferred: 17-Sep-2025)  
Deep Learning-Based Robotic Frameworks for Fruit Harvesting

**Dr. Michael Luke Ho Gwanjie**

(Specialisation: Mechanical engineering) (Conferred: 17-Sep-2025)  
Thermohydraulic Performance Optimization Utilizing Flow Structures, Streamlined Geometries, and Hybrid Magnetic Nanofluids within Annular Domains

**Dr. Dilini Perera**

(Specialisation: Food processing technology) (Conferred: 17-Sep-2025)  
Storage-induced Hard-to-Cook Phenomenon in Australian-grown Faba and Adzuki beans

**Dr. Sahar Shahali**

(Specialisation: Mechanical engineering) (Conferred: 17-Sep-2025)  
Advancing Sperm Morphology and Motility Analysis Through Artificial Intelligence

**Dr. Yonghang Sun**

(Specialisation: Communications technologies) (Conferred: 17-Sep-2025)  
Enhancing Performance of Low-Precision Lasers in High-Specification Optical Communication Systems

**Dr. Xue Feng**

(Specialisation: Materials engineering) (Conferred: 06-Oct-2025)  
Purification of mRNA and elimination of dsRNA during in vitro transcription

**Dr. Yingchen Hao**

(Specialisation: Transport engineering) (Conferred: 06-Oct-2025)  
Enhancing Safety of Connected Autonomous Intersection Management via Receding Horizon Local Planner

**Dr. Kerry Kunlin He**

(Specialisation: Electrical engineering) (Conferred: 06-Oct-2025)  
Convex Optimization Methods for Quantum Information Theory

**Dr. Calvin Fu Yuan Low**

(Specialisation: Mechatronics engineering) (Conferred: 06-Oct-2025)  
Spectral Beam Splitting and Concentration Mechanism for Stirling Engine-based Concentrated Photovoltaic Thermal System for Flat Rooftop Implementation

**Dr. Arash Pourghorban**

(Specialisation: Civil engineering) (Conferred: 06-Oct-2025)  
Rethinking human perception of indoor thermal environments: an ElectroEncephaloGram (EEG) approach

**Dr. Nenad Stanojevic**

(Specialisation: Mechatronics engineering) (Conferred: 06-Oct-2025)  
Super Coiled Polymers for Actuation and Sensing in Biomedical Applications

**Shao Qi Thun**

(Specialisation: Chemical engineering) (Conferred: 06-Oct-2025)  
Computational Modelling Towards Macro-to-Micro Process System Integration

**Kasun Kalhara Wijayawardhana**

(Specialisation: Mechatronics engineering) (Conferred: 06-Oct-2025)  
Real-time Intent Estimation using IOC for Motion Prediction of Pedestrians on the Urban Roads

**Dr. Shiyi Che**

(Specialisation: Biological engineering) (Conferred: 15-Oct-2025)  
Integrated process design in mRNA manufacturing

**Dr. Ziyu Chen**

(Specialisation: Civil engineering) (Conferred: 15-Oct-2025)  
Carbonation kinetics in cementitious materials: a lab-on-a-chip approach

**Dr. Atefeh Dargahizarandi**

(Specialisation: Geotechnical engineering) (Conferred: 15-Oct-2025)  
Localised and field-scale 3D in-situ stress estimation of rock masses

**Dr. Samira Ebrahimian**

(Specialisation: Chemical engineering) (Conferred: 15-Oct-2025)  
Direct CO<sub>2</sub> Hydrogenation Over Bifunctional Catalysts to Produce Dimethyl Ether

**Dr. Zexuan Hu**

(Specialisation: Automotive vehicle operations) (Conferred: 15-Oct-2025)  
Real-Time Dynamic Path Planning for UAVs in Cluttered Unknown Environments

**Dr. Nina Langer**

(Specialisation: Biomedical engineering) (Conferred: 15-Oct-2025)  
Evaluation of Device-Based Treatment Options for Patients with Heart Failure with Preserved Ejection Fraction

**Dr. Wanqiao Liang**

(Specialisation: Chemical engineering) (Conferred: 15-Oct-2025)  
Advanced Membrane for Ion Separation

**Dr. Yancong Liu**

(Specialisation: Chemical engineering) (Conferred: 15-Oct-2025)  
Modelling and improving liquid behaviors in an ironmaking BF operated with different burden compositions

**Dr. Treshan Nimasha Perera**

(Specialisation: Civil engineering) (Conferred: 15-Oct-2025)  
New Rock Breaking Technology for Future Mining using SREMA

**Dr. Fiona Harshini Roy Desmond Godfrey**

(Specialisation: Geotechnical engineering) (Conferred: 15-Oct-2025)  
New stimulation methodology for deep geothermal energy recoveries: Renewable energy

**Dr. Michael Thomas Scalzo**

(Specialisation: Chemical engineering) (Conferred: 15-Oct-2025)  
Separation of Liquid Organic Hydrogen Carriers with Porous Materials

**Dr. Aeolus Dela Cruz Vilar**

(Specialisation: Biomedical engineering) (Conferred: 15-Oct-2025)  
Development of a biodegradable scaffold for the repair of degenerated intervertebral discs

**Dr. Zicheng Wang**

(Specialisation: Civil engineering) (Conferred: 15-Oct-2025)  
Microwave-induced rock fractures via phase field cohesive zone method and numerical simulation