# 2023 Completions - Faculty of Engineering

### Dr. Fan Du

(Specialisation: Chemical engineering) (Conferred: 17-Jan-2023)

Internal Flows in an Evaporating Colloidal Drop

#### Dr. Umma Habiba

(Specialisation: Chemical engineering) (Conferred: 17-Jan-2023) Lithium-ion-conducting membrane for selective lithium extraction

#### Dr. Hui Jean Lim

(Specialisation: Chemical engineering) (Conferred: 17-Jan-2023)

Development of Quartz Crystal Microbalance-Based Biosensors for Detection of Infectious Diseases

### Dr. Hetti Arachchige Ravi Tharaka Wijesekara

(Specialisation: Electronic & computing) (Conferred: 17-Jan-2023)

Quantum thermo-optical devices

## Dr. Feifei Zhang

(Specialisation: Chemical engineering) (Conferred: 17-Jan-2023)

Development of carbon-supported metal alloy nanoparticles and single atom electrocatalysts for cathodic

hydrogen and oxygen reduction reactions

## Dr. Jiangqi Zhu

(Specialisation: Materials engineering) (Conferred: 17-Jan-2023)

Comparative study of Al-Mg-Ti(-Sc-Zr) alloys fabricated by cold metal transfer and electron beam additive

manufacturing

#### Dr. Arshia Fathima

(Specialisation: Chemical engineering) (Conferred: 01-Feb-2023)

Spontaneous Copper Electrowinning in Microbial Electrochemical Systems using Enriched Halophilic

Electroactive Bacterial Consortia

### Dr. Songbo Hu

(Specialisation: Civil engineering) (Conferred: 01-Feb-2023)

Identification and Prevention of Crane Operational Hazards by Integrating BIM and Pathfinding Algorithm in

Construction Planning

## Dr. Premlatha Jagadeesan

(Specialisation: Biomedical engineering) (Conferred: 01-Feb-2023)

Development of an engineered skin substitute for the treatment of burn injuries

## Dr. Prasanth Karaiyan

(Specialisation: Chemical engineering) (Conferred: 01-Feb-2023)

In silico screening, biochemical characterization, and structural analysis of recombinant dimethylsulfide monooxygenases catalysing nicotinamide adenine dinucleotide:flavin mononucleotide oxidoreduction

## Dr. Guanyu Lai

(Specialisation: Materials engineering) (Conferred: 01-Feb-2023)

Extrusion-based bioprinting of human vascular-like constructs: exploration and development

### Dr. Huikai Li

(Specialisation: Materials engineering) (Conferred: 01-Feb-2023)

Creating Multiphase Steels Using Laser Powder Bed Fusion of Mixed Powders

#### Dr. Yu Qi

(Specialisation: Chemical engineering) (Conferred: 01-Feb-2023)

Deactivation of Zeolitic Catalyst by the Poisoning of Ni Speciation and Its Control

## Dr. Surakshya Shrestha

(Specialisation: Biomedical engineering) (Conferred: 01-Feb-2023)

A miRNA-based strategy to improve osteogenesis in hydrogels for bone tissue engineering

### Ziaul Hague Shuvro

(Specialisation: Mechanical engineering) (Conferred: 01-Feb-2023) Modeling the Mixing and Heat Transfer of Nanofluids in Laminar Flow

## Dr. Haoyu Song

(Specialisation: Materials engineering) (Conferred: 01-Feb-2023)

Microstructural Optimization and Elevated Temperature Creep Enhancement of Nickel-based Superalloy

IN738LC by Selective Laser Melting

#### Dr. Yuan Yue

(Specialisation: Materials engineering) (Conferred: 01-Feb-2023)

Molecular Dynamics Simulation of Twin Dislocation Interactions in Magnesium

#### Dr. Mohamed Mabrouk Abdelfattah Ammar

(Specialisation: Mechatronics engineering) (Conferred: 15-Feb-2023)

Robotic Fibre Placement of Thermoset Composites (Automated Manufacturing and Composites

Characterisation)

## Dr. Seyed Amin Assadzadeh Birjandi

(Specialisation: Civil engineering) (Conferred: 15-Feb-2023)

Computer Vision Construction for Operation Safety Level Monitoring

## Dr. Balinee Balachandran

(Specialisation: Civil engineering) (Conferred: 15-Feb-2023)

Development of a novel Green Cement (GC) from waste: Application towards Construction Industry

## Dr. Jing Shuet Chan

(Specialisation: Mechanical engineering) (Conferred: 15-Feb-2023)

Enhancement in Wastewater Treatment Processes via High Frequency Acoustic Waves

## Dr. Jun Yi Lim

(Specialisation: Electrical engineering) (Conferred: 15-Feb-2023)

Real-time Aggressive Action Recognition using Deep Learning in a Multifarious Setting

## Dr. Eric Shen Lin

(Specialisation: Mechanical engineering) (Conferred: 15-Feb-2023)

Liquid marbles: Study of their mechanics and applications

#### Dr. Udeshini Ishani Manatunga

(Specialisation: Civil engineering) (Conferred: 15-Feb-2023)

Preconditioning of mineral bearing rock formations for permeability enhanced in-situ leaching application

### Joshia Christa Pradana

(Specialisation: Chemical engineering) (Conferred: 15-Feb-2023)

Evaluating The Feasibility Of 3D-printed Gyroid Packing In Improving The Anaerobic Digestion Of Palm Oil Mill

Effluent (POME)

## Dr. Jose Gabriel Arganaras

(Specialisation: Electronic engineering) (Conferred: 02-Mar-2023)

Radar-based Smart Shoes for Fall Prevention

## Dr. Georgia Alice Whitney Hunter

(Specialisation: Materials engineering) (Conferred: 02-Mar-2023)

Modelling and Design of Additive Manufactured Brick-and-Mortar Structures

## Dr. Tony Huynh

(Specialisation: Materials engineering) (Conferred: 02-Mar-2023)

Synthetic Porous Polymers and Naturally Derived Materials for the Tissue Engineering of a Scapholunate Bone-

Ligament-Bone Construct

## Dr. Arden Hui Ming Phua

(Specialisation: Manufacturing eng & tech general) (Conferred: 02-Mar-2023)

A Digital Twin for Powder Spreading in Metal Additive Manufacturing

## Dr. Dayan Bandara Rathnayake

(Specialisation: Electrical engineering) (Conferred: 02-Mar-2023) Control Design of Inverter-based Resources in Power Systems

#### Dr. Erfan Rezaei

(Specialisation: Chemical engineering) (Conferred: 02-Mar-2023)

Phase Equilibria of Carbon Dioxide Capture from Binary Gas Mixtures (Flue and Biogas) using Semi-Clathrate

Hydrates

## Dr. Suthakaran Sivagnanasuntharam

(Specialisation: Geotechnical engineering) (Conferred: 02-Mar-2023)

Advancement of current intelligent compaction technology for asphalt pavement layers

## Dr. Shibani Veeraragavan

(Specialisation: Biomedical engineering) (Conferred: 02-Mar-2023) Elastohydrodynamic Origins of Flagellar Beat Transitions in Sperm

## Yik Kang Ang

(Specialisation: ) (Conferred: 15-Mar-2023)

Rainfall-Runoff Modeling Using a Self-reforming Neuro-Fuzzy System

### Dr. Soon Hong Chew

(Specialisation: Mechanical engineering) (Conferred: 15-Mar-2023)

The Basis of Fractal Generated Turbulence on Finned-tube Heat Exchanger Forced Convective Heat Transfer

Augmentation

### Dr. Ze Yang Ding

(Specialisation: Mechatronics engineering) (Conferred: 15-Mar-2023)

Deep Learning for Reliable Soft Sensor Development

## Dr. Shashika Madhusanka Gajanayake

(Specialisation: Geotechnical engineering) (Conferred: 15-Mar-2023)

Development of a Sustainable Method for the Extraction of Methane Gas from Subaquatic Hydrate Reservoirs

#### Dr. Mun Chon Ho

(Specialisation: Electronic & computing) (Conferred: 15-Mar-2023)

Traffic Congestion Reduction using Trip Calibration, Vehicle Rerouting, and Traffic Light Control in Intelligent

Transportation System

#### Dr. Monika Michalska

(Specialisation: Materials engineering) (Conferred: 15-Mar-2023)

Low-temperature nickel oxide hole-transporting layers for perovskite solar cells

#### Dr. Ali Shan

(Specialisation: Transport engineering) (Conferred: 15-Mar-2023)

Joint design and performance evaluation of first-mile shared autonomous vehicle mobility and railway transit

networks

## Dr. Xin Zou

(Specialisation: Transport engineering) (Conferred: 15-Mar-2023) Modelling Public Perception and Acceptance of Autonomous Vehicles

## Dr. Rezan Adnan Moh'D Al-Jafary

(Specialisation: Biomedical engineering) (Conferred: 29-Mar-2023) Construction of a Simulation-Based ECMO Educational Suite

### Dr. Punthila Erandi Jayarathne

(Specialisation: Transport engineering) (Conferred: 29-Mar-2023)

Cycling to the train station: realising the latent demand and capitalising on the opportunities of the COVID-19

disruption

## Dr. Nguyen Hoai An Le

(Specialisation: Mechanical engineering) (Conferred: 29-Mar-2023) Acoustofluidic applications in the synthesis and delivery of nanomedicine

## Dr. Chen Li

(Specialisation: Materials engineering) (Conferred: 29-Mar-2023)

Exploration of Hybrid Additive Manufacturing: Rolling Assisted Direct Energy Deposition of Inconel 718

Superalloy

## Dr. Shamseldin Awad Hagahmed Mohamed

(Specialisation: Chemical engineering) (Conferred: 29-Mar-2023)

Carbon dioxide conversion to polycarbonates via CO2/cyclohexene oxide copolymerization over heterogeneous zinc cobalt catalyst

### Dr. Charanjit Kaur Surjit Singh

(Specialisation: Chemical engineering) (Conferred: 29-Mar-2023)

Spray-drying of Pickering emulsion stabilized by chitosan/alginate for microencapsulation and controlled

delivery of palm tocotrienols

## Dr. Ricky Sutopo

(Specialisation: Electronic & computing) (Conferred: 29-Mar-2023)

An Adaptive Framework for Optimized Passenger Flow in Urban Public Transportation Networks Using Deep Learning

## Dr. Charles Troeung

(Specialisation: Mechanical engineering) (Conferred: 29-Mar-2023)

Design and Modelling of Tendon-Driven Continuum Robots Based on Pseudo-Rigid Body and Constraint

**Analysis** 

#### Dr. Shun Wu

(Specialisation: Materials engineering) (Conferred: 29-Mar-2023)

Development of additively manufactured nickel-based superalloys toward optimal creep performance

## Dr. Yanjun Yang

(Specialisation: Mechanical engineering) (Conferred: 29-Mar-2023)

Towards shared autonomy in laparoscopic surgery: a foot interface controlled endoscope-holding robot

## Dr. Xinyue Yao

(Specialisation: Mechanical engineering) (Conferred: 29-Mar-2023)

Acoustic Emission Study of Fatigue Crack Progression in Additive Manufactured Components

#### Dr. Hassan Ali Abid

(Specialisation: Mechanical engineering) (Conferred: 21-Apr-2023)

PCR techniques with miniature samples

#### Dr. Mohamed Amsal

(Specialisation: Mechanical engineering) (Conferred: 21-Apr-2023) Investigation of Evaporation and Combustion Characteristics of Biodiesel

## Dr. Sobhan Hatami

(Specialisation: Civil engineering) (Conferred: 21-Apr-2023)

Engineering Multiphase Flow in Fractures Using Silica Sol Gels as Blocking Agents

## Dr. Fatemeh Heydari

(Specialisation: Electrical engineering) (Conferred: 21-Apr-2023) Wearable monitoring vital sign system based on Bio-impedance

## Dr. Ezhilsabareesh Kannadasan

(Specialisation: Mechanical engineering) (Conferred: 21-Apr-2023)

Spectral energy cascade and scale interaction analysis in a spatially evolving turbulent channel flow

## Dr. Chang Liu

(Specialisation: Chemical engineering) (Conferred: 21-Apr-2023)

Design and engineering of functional nanobodies for biosensing applications

### Dr. Chawaphon Prayoonyong

(Specialisation: Electrical engineering) (Conferred: 21-Apr-2023)

Coherent comb sources on a photonic chip

#### Dr. Yee Wen Teh

(Specialisation: Chemical engineering) (Conferred: 21-Apr-2023)
Development of Bi2WO6-Based Z-Scheme Photocatalytic
Systems for the Reduction of Carbon Dioxide into Methane

### Dr. Zhuyuan Wang

(Specialisation: Materials engineering) (Conferred: 21-Apr-2023)

Polymer-assisted Scalable Exfoliation of 2D Materials and Their Application for CO2 Energy Harvesting

#### Dr. Mohamad Fahmi Bin Azlan

(Specialisation: Mechanical engineering) (Conferred: 04-May-2023)

Optimization of Horizontal Axis Wind Turbine Performance through Novel Hybrid Passive Flow-Field Control

Technique

#### Dr. Yon Sin Chan

(Specialisation: Mechanical engineering) (Conferred: 04-May-2023)

Upper Extremity Musculoskeletal Analysis of Oil Palm Fresh Fruit Bunch Harvesting

## Dr. Wanqing Chen

(Specialisation: Engineering - other) (Conferred: 04-May-2023)

Engineering Properties of Two-dimensional (2D) Materials by Ultraviolet (UV) Light

## Dr. Margeaux Hodgson-Garms

(Specialisation: Biomedical engineering) (Conferred: 04-May-2023)

Towards improved clinical translation of MSC therapies: A comprehensive comparative characterisation of iPSC

and tissue-derived MSCs

### Dr. Guanghui Ma

(Specialisation: Communications technologies) (Conferred: 04-May-2023)

Handover Management in Hybrid LiFi and WiFi Networks

### Alireza Zarei

(Specialisation: Chemical engineering) (Conferred: 04-May-2023)

Catalytic Role of Waste Tyre Char in the Upgrading of Biomass Pyrolytic Bio-Oil

## Dr. Md Didarul Islam

(Specialisation: Electrical engineering) (Conferred: 17-May-2023)

Real-time Simulation, Control, and Monitoring of Modular Multi-level Converter

## Xingchen Du

(Specialisation: Civil engineering) (Conferred: 17-May-2023)

DIC Deformation Measurement and CNN-based Crack Quantification of Concrete under Biaxial Compression

## Dr. Seyed Mostafa Hallaji

(Specialisation: Civil engineering) (Conferred: 17-May-2023)

A Digital Twin-driven framework for predictive maintenance in water infrastructure using BIM and Deep

Learning

## Dr. Ted Sian Lee

(Specialisation: Mechanical engineering) (Conferred: 17-May-2023)

Piezoelectric on Fractals Induced Flow Dynamic: Turbulence Management

### Dr. Zunaira Naseem

(Specialisation: Structural engineering) (Conferred: 17-May-2023)

Graphene-engineered Polymer cement composites: Antifoaming mechanism enabled performance

enhancement

## Dr. Wei Hong Ng

(Specialisation: Civil engineering) (Conferred: 17-May-2023)

Structural Behaviours of Concrete-filled Steel Tubular (CFST) Connections with Innovative One-sided Bolts

## Dr. Bryan Ee Xern Ang

(Specialisation: Biomedical engineering) (Conferred: 31-May-2023)

Bacterial concentration and detection with ultrasound

#### Dr. Kristian Hendrata

(Specialisation: Chemical engineering) (Conferred: 31-May-2023)

A Facile Method of Surface Modification using Octadecyltrichlorosilane for the Fabrication of Superhydrophobic

Coating and Optimization to Improve Transparency

#### Dr. Chia Chun Lee

(Specialisation: Mechanical engineering) (Conferred: 31-May-2023)

Experimental and Computational Studies on Alternative Liquid Fuels in Laminar Coflow Diffusion Flames

## Dr. Fenge Lin

(Specialisation: Chemical engineering) (Conferred: 31-May-2023) Three-dimensional gold nanowires composites for soft elastronics

## Dr. Jingwei Liu

(Specialisation: Civil engineering) (Conferred: 31-May-2023)

Automatic Road Distress Monitoring for Maintenance using Artificial Intelligence

#### Dr. Jun Zhou

(Specialisation: Civil engineering) (Conferred: 31-May-2023)

Highly Stable Aqueous Foams as Improved Fracking Fluid for Unconventional Reservoirs

## Dr. Qinwen Liu

(Specialisation: Chemical engineering) (Conferred: 09-Jun-2023)

Experimental and Numerical Simulation Research on Oxy-fuel Co-Combustion of Coal and Biomass in Fluidized

Beds

## Yuan Zhe Aw

(Specialisation: Chemical engineering) (Conferred: 15-Jun-2023)

Encapsulation of bioactive lipophilic curcumin using Pickering emulsion for food-grade hydrogel and aerogel

applications

## Dr. Michell Kim Ting Chee

(Specialisation: Chemical engineering) (Conferred: 15-Jun-2023)

Photocatalytic Seawater Splitting for Hydrogen Evolution by Graphitic Carbon Nitride-based Photocatalysts

## Dr. Wanrui Hu

(Specialisation: Civil engineering) (Conferred: 15-Jun-2023)

Dynamic Fracturing and Fragmentation of Rock Materials: Effect of Strain Rate and Confinement

## Dr. Alexander Dac Nguyen

(Specialisation: Materials engineering) (Conferred: 15-Jun-2023)

Magnetotransport and Temperature Dependent Resistivity Measurements in Disordered Bi2Te3

#### Dr. Yu Xuan Teo

(Specialisation: Mechanical engineering) (Conferred: 15-Jun-2023)

Biomechanics Study of Oil Palm Fruit Harvesting: Towards the Use of Assistive Exoskeleton

## Junlin Yan

(Specialisation: Materials engineering) (Conferred: 15-Jun-2023)

Use of Atomic Layer Deposition for Charge Transport Layers and Interface Modification in Perovskite Solar

Cells

## Dr. Yasin Zabihinia Gerdroodbari

(Specialisation: Electrical engineering) (Conferred: 15-Jun-2023)

Control and Management of Distributed Energy Resources in Smart Distribution Networks

### Dr. Jie Zhao

(Specialisation: Chemical engineering) (Conferred: 15-Jun-2023)
Strategies for Efficient and Stable Perovskite Solar Cells and Modules

## Dr. Hongyu Zhou

(Specialisation: Mechanical engineering) (Conferred: 15-Jun-2023) Adaptive Grasping with Tactile Sensing for Robotic Fruit Harvesting

### Dr. Sulaiman Abdullah Said Al Hasani

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 10-Jul-2023) Accelerated Magnetic Resonance Imaging using Non-Fourier Encoding in Parallel Compressive Sensing and Deep learning Frameworks

## Dr. Rashed Ali N Alsharif

(Specialisation: Civil engineering) (Conferred: 10-Jul-2023)

Occupant Comfort Versus Building Energy Performance: Generalisable Artificial Intelligence Frameworks for

Optimum Trade-offs

## Dr. Nooshin Asadi

(Specialisation: Chemical engineering) (Conferred: 10-Jul-2023)

Experimental and Computational Investigation of Ionic Liquid-Assisted Formaldehyde Synthesis via Direct CO

Hydrogenation

## Dr. Nathan Toshihiro Eden

(Specialisation: Chemical engineering) (Conferred: 10-Jul-2023) Lithium Separations Using Advanced Porous Material Composites

## Dr. Huaiyu Liu

(Specialisation: Materials engineering) (Conferred: 10-Jul-2023)

Textures and Mechanical Properties of Extruded Mg Alloys Containing Rare-earth Elements

## Dr. Adrian Chun Minh Loy

(Specialisation: ) (Conferred: 10-Jul-2023)

Transformation Of Glycerol To High-Value Chemicals Using Ceria Based Catalysts: A Selective Hydrogenation

Roadmap

### Dr. Jie Luo

(Specialisation: Materials engineering) (Conferred: 10-Jul-2023)

Mechanical Stability of Austenite

## Dr. Abhishek Pandey

(Specialisation: Materials engineering) (Conferred: 10-Jul-2023)

Intergranular corrosion of 316L stainless steel manufactured by laser powder bed fusion

## Dr. Sheik Ambarine Banon Auckloo

(Specialisation: Materials engineering) (Conferred: 13-Jul-2023)

Fabrication and characterization of electrospun polyurea nanocomposite films and vacuum-assisted carbon

fibre/polyurea composites

#### Dr. Zafira Binti Madzin

(Specialisation: Environmental engineering) (Conferred: 13-Jul-2023)

Performance of spent mushroom compost biochar as filter media in metal retention pond system for heavy

metal removal in abandoned mine water

#### Dr. Liuxin Chen

(Specialisation: Civil engineering) (Conferred: 13-Jul-2023)

Modelling of hydro-mechanical shakedown and ratcheting of unsaturated granular materials

### Dr. Samuel Gershom Easanesan

(Specialisation: Automotive engineering) (Conferred: 13-Jul-2023)

The application of flow control for bluff body drag reduction

### Dr. Panahsadat Fasihi

(Specialisation: Mech and industrial eng and tech general) (Conferred: 13-Jul-2023)

Improving Wear and Rolling Contact Fatigue Performance of Railway Rails Using Friction Modifiers and Laser

Cladding

## Dr. Dimuthu Nilusha Jayasingha

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 13-Jul-2023)

Joint design of precoder and estimator for networked state estimation

## Dr. Mei Wern Andrea Liew

(Specialisation: Electrical engineering) (Conferred: 13-Jul-2023)

Deep Learning Techniques in MRI images for Brain Cancer Segmentation and Detection through Domain

Adaptation via Dataset Fusion and Semi Supervised Learning strategies

## Siyuan Liu

(Specialisation: Chemical engineering) (Conferred: 13-Jul-2023)

Gold nanowire based biosensors for thermal and mechano transduction monitoring

## Dr. Anumol Mathai

(Specialisation: Communications technologies) (Conferred: 13-Jul-2023)

3D Transparent and Specular Object Inspection

## Dr. Khanisya Palaniandy

(Specialisation: Materials engineering) (Conferred: 13-Jul-2023)

Synthesis and characterization of high performance aliphatic polyurea composites for corrosion protection

### **Abu Naushad Parvez**

(Specialisation: Materials engineering) (Conferred: 13-Jul-2023)

Etch rate study of inductively coupled plasma reactive ion etching of image reversal AZ 5214E photoresist coated multiple inorganic substrates.

### Dr. Boya Zhao

(Specialisation: Chemical engineering) (Conferred: 13-Jul-2023) Concepts Toward Efficient Back-Contact Perovskite Solar Cells

### Dr. Abhishek Kumar Arya

(Specialisation: Materials engineering) (Conferred: 14-Jul-2023)

Optimization Of Geometrical Parameters For Chemical Vapor Deposition Of Uniform And Multilayer Graphene On Metals And Alloys For The Improved Corrosion Resistance

#### Dr. Chen Chen Er

(Specialisation: Chemical engineering) (Conferred: 26-Jul-2023)

Mechanistic Insights into the Fundamentals of Photocatalytic Reduction of Carbon Dioxide from First Principles Density Functional Theory Studies

## Dr. Marina George

(Specialisation: Materials engineering) (Conferred: 26-Jul-2023)

Design and fabrication of nanostructured surfaces for mammalian and bacterial cellular manipulation

## Dr. Xumeng Liu

(Specialisation: Communications technologies) (Conferred: 26-Jul-2023)

Adaptive optical equalization for optical communication systems

### Dr. The Danh Phan

(Specialisation: Transport engineering) (Conferred: 26-Jul-2023)

Machine learning for activity-based models: Toward personalised preferences and mobility tastes

### Dr. Rahul Sharma

(Specialisation: Chemical engineering) (Conferred: 26-Jul-2023)

Functionalised Cellulosic Materials

## Dr. Ankit Shringi

(Specialisation: Construction engineering) (Conferred: 26-Jul-2023)

Mixed Reality for Enhancing Hazard Recognition and Safety Performance in Construction Operations

### Dr. Chuqi Wan

(Specialisation: Civil engineering) (Conferred: 26-Jul-2023)

Mechanical performance of elliptical one-sided bolts for structural assembly

### Dr. Fatema-Tuz Zohra

(Specialisation: Electrical engineering) (Conferred: 26-Jul-2023)

Health Monitoring of Mining Conveyor Belt using RFID Sensors: A ML Based Approach

#### Dr. Qianying Guo

(Specialisation: Chemical engineering) (Conferred: 09-Aug-2023)

Microstructure Characterization of CsPbIBr2 perovskite material with potassium incorporation

### Dr. Marcelo Henriques Da Silva

(Specialisation: Environmental engineering) (Conferred: 09-Aug-2023)

Interactions between waterholes and riparian vegetation in remote and data-scarce dryland anabranching rivers

## Dr. Changhui Li

(Specialisation: Chemical engineering) (Conferred: 09-Aug-2023)

Development of a novel nebulizer based on the numerical and experimental study of the aeresolization

mechanisms

#### Dr. Mahsasadat Naseri

(Specialisation: Transport engineering) (Conferred: 09-Aug-2023)

Built environment and active travel during COVID-19

## **Dr. Yubing Ouyang**

(Specialisation: Civil engineering) (Conferred: 09-Aug-2023)

The impact of moisture on the deformation of porous media: Al-assisted nanomechanics approach

## Dr. Luis Alberto Verdugo

(Specialisation: Chemical engineering) (Conferred: 09-Aug-2023)

Separation of Graphite from Lithium Metal Oxides in Spent Lithium Ion Batteries Using Flotation Technology

### Dr. Urvashi Bothra

(Specialisation: Materials engineering) (Conferred: 18-Aug-2023)

Structural and Spectroscopic Investigation of Nanomorphology in Bulk Heterojunction Organic Solar Cells

## Dr. Mohit Singh Choudhary

(Specialisation: Electronic engineering) (Conferred: 18-Aug-2023)

Highly EMI-Immune Nano-Scale Integrated Circuits For High-speed Wireline Communication

## Dr. Pallavi Goswami

(Specialisation: Civil engineering) (Conferred: 18-Aug-2023)

Hydrological Droughts in a Changing Climate: Non-stationarity in Low Flow Regimes

## Dr. Anil Kumar

(Specialisation: Geotechnical engineering) (Conferred: 18-Aug-2023)

Statistical and machine learning models for the evaluation of geophysical and geomechanical data

## Dr. Ami Lalit Mehta

(Specialisation: Biomedical engineering) (Conferred: 18-Aug-2023)

Fabrication and development of a blood-brain barrier microfluidic chip to mimic the brain vasculature

## Dr. Sumit Kumar Maurya

(Specialisation: Materials engineering) (Conferred: 18-Aug-2023)

Understanding the deformation and fracture behavior of AI/Ti nanolayered metal composites

#### Dr. Uzma Bano Memon

(Specialisation: Chemical engineering) (Conferred: 18-Aug-2023)

2D material system for toxic gas sensing

### Dr. Prasanna Ravindran Kamal Prakash Nair

(Specialisation: Biomedical engineering) (Conferred: 18-Aug-2023)

Using SAW devices to explore cell-sorting and biosensing for the diagnosis of blood cell pathologies in point-ofcare settings

#### Dr. Alhad Parashtekar

(Specialisation: Materials engineering) (Conferred: 18-Aug-2023)

Grain size stabilization, and the effect of grain size and stoichiometry on supercapacitor behaviour of nickel oxide

#### Dr. Prashant Vivek Patil

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 18-Aug-2023)
Robust state and unknown input estimation: novel algorithms for practical use and predictive control schemes

## Dr. Shachi Saluja

(Specialisation: Biomedical engineering) (Conferred: 18-Aug-2023)

Ophthalmic drug delivery with porous silicon microparticles

#### Dr. Nimita Shinde

(Specialisation: Engineering - other) (Conferred: 18-Aug-2023)

Memory-efficient structured convex optimization

#### Dr. Kesav Unnithan Sreekuttan Lakshmi Devi

(Specialisation: Environmental engineering) (Conferred: 18-Aug-2023)

Rapid flood inundation mapping and modelling approaches for large-scale data-scarce regions

## Dr. Dhairya Rajendra Vyas

(Specialisation: Mechanical engineering) (Conferred: 18-Aug-2023) Modelling Granular Collisions with Smooth Particle Hydrodynamics

## Dr. Cheav Por Chea

(Specialisation: Structural engineering) (Conferred: 23-Aug-2023) Robotization of Construction for Reciprocal Frame Structures

## Dr. Brian Jong

(Specialisation: Chemical engineering) (Conferred: 23-Aug-2023)

Electrosynthesis of sustainable chemicals and energy with Escherichia coli

## Dr. Muhammad Tahir Lakhiar

(Specialisation: Structural engineering) (Conferred: 23-Aug-2023)

Web Crippling Resistance of Glass Fibre-Reinforced Polymer Sections Strengthened with Fibre-Reinforced

**Epoxy Composite** 

### Hao Liu

(Specialisation: Materials engineering) (Conferred: 23-Aug-2023)

Modification of ZnO Electron Transport Layers with Benzoic Acid Derivatives in Non-fullerene-based Organic Solar Cells

### Dr. Tianyu Zhu

(Specialisation: Computer engineering) (Conferred: 23-Aug-2023)
Towards End-to-End Deep Learning for Visual Detection and Tracking

## Dr. Zhenqi Cai

(Specialisation: Civil engineering) (Conferred: 06-Sep-2023)

Self-Drilling Screw Connections for Pultruded Fibre Reinforced Polymer Composites

## Dr. Siqi Deng

(Specialisation: Chemical engineering) (Conferred: 06-Sep-2023)

Microfabrication and Design Techniques for Back-Contact Perovskite Solar Cells

## Dr. Cheng Liu

(Specialisation: Chemical engineering) (Conferred: 06-Sep-2023)

Development of Low-emission Pyro-hydrolysis Technology for HCl Regeneration from CaCl2 Waste

#### Zhi Hui Chin

(Specialisation: Mechatronics engineering) (Conferred: 20-Sep-2023)
Design and Development of a Stiffness Varying Soft Robot Arm Module

## Dr. Yi An Lim

(Specialisation: Chemical engineering) (Conferred: 20-Sep-2023)

Efficient microalgae-based carbon capture through optimisation of mixing mechanisms in flat panel

photobioreactors

## Dr. Chin Chyi Loo

(Specialisation: Materials engineering) (Conferred: 20-Sep-2023)

Nanoscale Electrical, Mechanical, and Optoelectronic Properties of III-nitrides via Advanced Atomic Force

Microscopy

## Dr. Seyedeh Mahnaz Modarresi Saryazdi

(Specialisation: Biomedical engineering) (Conferred: 20-Sep-2023)

A novel stem cell and biomaterial strategy to help repair the damaged brain following ischemic stroke

## Yuhao Zeng

(Specialisation: Civil engineering) (Conferred: 20-Sep-2023)

Numerical Modelling and Analysis of Underground Caverns for Pumped Storage Hydropower

## Dr. Mohammad Fahimizadeh

(Specialisation: Materials engineering) (Conferred: 04-Oct-2023)

Developing a smart, sustainable and multifunctional biological self-healing system for cementitious composite

materials

## Dr. Trong Khoa Ho

(Specialisation: Electronic engineering) (Conferred: 04-Oct-2023)

Ka-band Phase Shifter for Tri-band (L/Ku/Ka-bands) Soil Moisture Smart Antenna Array

### Dr. Jia Wei Leng

(Specialisation: Chemical engineering) (Conferred: 04-Oct-2023)

Corrosion of Magnesium Anodes in Magnesium-air Battery

#### Dr. Muhammad Abu Bakr Siddique Pengwah

(Specialisation: Electrical engineering) (Conferred: 04-Oct-2023)

Advanced Data-Driven Techniques to Improve Visibility and Models of Power Distribution Networks

### Dr. Kevin Hutomo Putera

(Specialisation: Chemical engineering) (Conferred: 04-Oct-2023)

Detection and assessment of microdamage accumulation on the Anterior Cruciate Ligament

## Dr. Kar Ying Thum

(Specialisation: Biomedical engineering) (Conferred: 04-Oct-2023)

Right Heart Flow Dynamics with Mechanical Circulatory Support of the Pulmonary Circulation

## Dr. Amir Tophel

(Specialisation: Geotechnical engineering) (Conferred: 04-Oct-2023) Proximal Estimation of Soil Density using Sensing and Modelling

### Dr. Amardeep Singh Dhillon A/L Gurdir Singh

(Specialisation: Electrical and electronic engineering and technology- other) (Conferred: 18-Oct-2023) Zinc Oxide/SU-8/ultra-thin silicon/SU-8: A new multi-layered substrate to facilitate facile microfabrication of flexible one-port Lamb wave resonator sensors

## Dr. Sarah Emad Kadhum Al-Baiaty

(Specialisation: Geotechnical engineering) (Conferred: 18-Oct-2023) Gas Sealing Integrity of Cement-Bentonite Slurry for Cut-off Walls

## Dr. Robin Kuok Cheong Chan

(Specialisation: Other engineering and related tech general) (Conferred: 18-Oct-2023) Investigation into Urban Traffic Mobility in Malaysia for Intelligent Transportation System

#### Khai Hoe Lee

(Specialisation: Mechatronics engineering) (Conferred: 18-Oct-2023) Unmanned Surface Vehicle (USV) for Water Sampling and Monitoring

## Dr. Kai Liu

(Specialisation: Biomedical engineering) (Conferred: 18-Oct-2023) Study on the Haemolysis in Porous Media for Blood Separation

## Dr. Jun Mann Loh

(Specialisation: Chemical engineering) (Conferred: 18-Oct-2023)

Process development of enzymatic biodiesel production from sludge palm oil using a low-cost liquid lipase from Aspergillus oryzae

## Dr. Chathuri Jayamali Maha Madakalapuge

(Specialisation: Geotechnical engineering) (Conferred: 18-Oct-2023)

Advancement of Pavement Design for Practical Use Incorporating Climatic Effects for Unbound Pavements with Thin Seals

### Dr. Yasmin Nazirah Binti Mohd Zaifullizan

(Specialisation: Mechanical engineering) (Conferred: 18-Oct-2023)

Investigation Of Thermo-Kinetic Characteristics of Pyrolysis Products From Oil Palm Biomass and Pyrolysis Modeling using Hybrid Artificial Intelligence

### Dr. Thi Mai Nguyen

(Specialisation: Civil engineering) (Conferred: 18-Oct-2023)

Using an L-band radiometer for moisture measurement in road construction

## Dr. Zhixiong Song

(Specialisation: Aerospace engineering) (Conferred: 18-Oct-2023)

Mechanics and Applications of Frugal Manufactured Materials and Functional Surfaces

#### Dr. Kah Hui Tan

(Specialisation: Materials engineering) (Conferred: 18-Oct-2023)

Electrochemical interaction between ferroelectric BiFeO3 thin film and water

### Dr. Farin Yazdan Parast

(Specialisation: Mechanical engineering) (Conferred: 18-Oct-2023) Microfluidic Cell Sorting and Analysis for Assisted Reproduction

### Dr. Kai Yen Yong

(Specialisation: Mechanical engineering) (Conferred: 18-Oct-2023)

Ultrafast water permeation property of carbon nanostructured functionalised surfaces

## Dr. Yogita Ahuja

(Specialisation: Mechanical engineering) (Conferred: 01-Nov-2023)

Evaluating Friction stir welding (FSW) as a novel thermomechanical technique for creating high strength copper

composites

## Dr. Prakash Aryal

(Specialisation: Chemical engineering) (Conferred: 01-Nov-2023)

Reactive Flash Volatilisation of Waste Grassy Biomass for Hydrogen Production

#### Dr. Kal Dean Backman

(Specialisation: Mechatronics engineering) (Conferred: 01-Nov-2023) Learning to Assist and Communicate in Shared Autonomy Systems

## Dr. Mohammad Ziauddin Chowdhury

(Specialisation: Chemical engineering) (Conferred: 01-Nov-2023)

Organic Electrolytes For Rechargeable Zn-Air Battery

## Dr. Cheng May Fung

(Specialisation: Chemical engineering) (Conferred: 01-Nov-2023)

Development of Phosphorus-based Systems for Efficient Photocatalytic Carbon Dioxide Reduction to Methane

## Dr. Kaushal Kabit Kishore

(Specialisation: Geotechnical engineering) (Conferred: 01-Nov-2023)

The development of quantitative moisture monitoring methods for intelligent soil compaction using ground penetrating radar

### Dr. Yan Lu

(Specialisation: Chemical engineering) (Conferred: 01-Nov-2023) Low Dimensional Noble-metallic Nanomaterials for Soft Bioelectronics

#### Dr. Mak Nguoy Lamn

(Specialisation: Biomedical engineering) (Conferred: 01-Nov-2023)

Computational modelling of thermochemical processes during thermochemical ablation in biological tissue

## **Mahmoud Mohamed Sayed Moursy**

(Specialisation: Structural engineering) (Conferred: 01-Nov-2023)

Uplift Analysis of Isolated Spread Footings for Overhead Transmission Lines Under Drained Loading: A

Parametric and Comparative Study

#### Dr. Nitish Rai

(Specialisation: Chemical engineering) (Conferred: 01-Nov-2023)

Novel strategies towards stable perovskite solar cells

### Dr. Hajar Samadian

(Specialisation: Biomedical engineering) (Conferred: 01-Nov-2023)

Folate Binding Protein for Cancer Treatment

## Dr. Senarathna Asanka Sanjeewa Kumara De Silva

(Specialisation: Geotechnical engineering) (Conferred: 15-Nov-2023)

Advanced characterisation of bituminous emulsion treated unsealed road materials for improved dust

suppression and mechanical performance

## Miranda Ming Ge

(Specialisation: Engineering education) (Conferred: 15-Nov-2023)

An Investigation of Children's and Parents' Perceptions of Engineers and Engineering

#### Dr. Kaveh Mirzaei

(Specialisation: Civil engineering) (Conferred: 15-Nov-2023)

Al-based geometric quality inspection of construction projects with point clouds

## Dr. Yunyan Xing

(Specialisation: Computer engineering) (Conferred: 15-Nov-2023) Towards Clinical Acceptance of Artificial Intelligence in Healthcare

### Dr. Zeeshan Ali

(Specialisation: Applied mathematics) (Conferred: 29-Nov-2023)

Theoretical and Computational Study of Fractional-order Mathematical Models for Infectious Diseases

## Dr. Babak Khadiviboroujeni

(Specialisation: Geotechnical engineering) (Conferred: 29-Nov-2023)

Investigation into the Fracturing Process of Intact Rocks under various Stress Conditions

## Dr. Yanjian Lian

(Specialisation: Civil engineering) (Conferred: 29-Nov-2023)

A multiphysics computational SPH framework for solving coupled THM problems in geomechanics

## Dr. Izabela Elzbieta Milogrodzka

(Specialisation: Biomedical engineering) (Conferred: 29-Nov-2023) Fusion Peptide-modified Nanoparticles as Therapeutic Delivery Vehicles

## Dr. Van Doan Vu

(Specialisation: Materials engineering) (Conferred: 29-Nov-2023)

Advancing Organic Electronics: Polymorphism and Molecular Orientation

#### Dr. Herath Mudiyanselage Kosala Sananthana Herath

(Specialisation: Electronic engineering) (Conferred: 13-Dec-2023)

Floquet Engineering of Nanostructures

### Dr. Olivia Joan Kendall

(Specialisation: Mechanical engineering) (Conferred: 13-Dec-2023)

Microstructure, Residual Stresses and Mechanical Properties of Laser Clad Rail Components

#### Dr. Si Phu Me

(Specialisation: Electrical engineering) (Conferred: 13-Dec-2023)

Transient Stability Analysis and Enhancement of Grid-forming Inverters in the Presence of Energy Storage

Systems

## Dr. Yohashama P Sivagnana Kumaran

(Specialisation: Engineering - other) (Conferred: 13-Dec-2023)

Approximations to Relativistic Quantum Theory in the Non-Relativistic Regime

#### Dr. Zhihao Pan

(Specialisation: Automotive engineering and technology - other) (Conferred: 13-Dec-2023)

Smart pavement crack detection and repair

### Dr. Siti Hanifah Adiiba

(Specialisation: Chemical engineering) (Conferred: 13-Dec-2023)

Enzymatic hydrolysis of crude palm oil to free fatty acids for the development of alcohol-free phytonutrients recovery process

**,** ,

## Dr. Zhao Qing Tang

(Specialisation: Civil engineering) (Conferred: 13-Dec-2023)

Towards a sustainable and high-performance geopolymer binder system through nanotechnology and waste reuse

### Dr. Navid Tourani

(Specialisation: Structural engineering) (Conferred: 13-Dec-2023)

Strain-Rate-Dependent Effects of Nanomaterials on the Microstructure of Cementitious Composites and the Implications for Mechanical Performance, Failure, and Fragmentation

## Dr. Tharushi Devindi Wanigasekara

(Specialisation: Biomedical engineering) (Conferred: 13-Dec-2023)

Engineering techniques to improve Prehospital Extracorporeal Cardiopulmonary Resuscitation (pECPR)

## Dr. Yiping Wu

(Specialisation: Mechanical engineering) (Conferred: 13-Dec-2023)

Rolling Contact Fatigue Crack Initiation and Growth in Flash-butt Rail Welds in Heavy-haul Railways

## Dr. Chun Chen

(Specialisation: Materials engineering) (Conferred: 14-Dec-2023)

Microstructure And Mechanical Behaviour Of Biodegradable Zn-Cu-Ag Alloys

## Dr. Xuelian Cheng

(Specialisation: Computer engineering) (Conferred: 18-Dec-2023) 3D Scene Understanding and Reconstruction with Neural Networks

## Dr. Smriti Shrestha

(Specialisation: Food processing technology) (Conferred: 18-Dec-2023)

Protein-based Value Addition of Underutilised Pulses

# **Dr. Michael Nicholas Stavropoulos**

(Specialisation: Aerospace engineering) (Conferred: 18-Dec-2023)
Resonance and the Underlying Coherent Structures in Supersonic Round Twin Jets