

**School of Engineering and Technology**  
**2021 RHD Symposium**  
**Day 1 - Monday 6<sup>th</sup> December**

Zoom link – <https://cqu.zoom.us/j/88119861086?pwd=ZitucEFKTkdOTkdvWVVLWlh0VEJ3Zz09>

Password: 706361

*Please note these are Queensland times (AEST)*

**8:40 Registration, speakers check in**

**9:00 Welcome**

- Acknowledgement of Country
- Introductions and Housekeeping – Dr Santoso Wibowo, PRC, School of Engineering and Technology
- Symposium Chair – Prof Steven Moore, Deputy Dean Research, School of Engineering and Technology
- Welcome – Prof Steve Hall, Dean, School of Engineering and Technology

**9:30 Session 1**

Toshi Sinha	Prof B Verma	Convolutional neural network architecture with exact solution
James Jephcott	Dr A Chiou	Slicing software improvements for FDM 3D printing
Roksana Jahan Tumpa	Dr S Skaik	Towards development of group-based assessment design framework: Project management academics' perspectives
Mahdi Ayazi	Prof M Rasul	Performance and emission characteristics of diesel engine fuelled with ternary blends of diesel, biodiesel and bioethanol fuels
Chetanpal Singh	Dr S Wibowo	A deep learning framework for sentiment analysis of social media data

**10:45 Morning Tea Break**

**11:15 Session 2**

Josiah Koh	Dr M Cowling	A proposal to measure the impact of automated response systems on meeting student learning outcomes
Gopi Akella	Dr S Wibowo	Incorporating blockchain technology for smart and sustainable farming: An architecture to improve the value chains and minimise intermediaries using smart contracts and decentralised applications (dApps)
Mahdieh Azimi Adeg Morteza Pasha	Dr M Mirzababaei	Soil stabilization using natural bio-polymers: Towards a sustainable geo-environment
Abdur Rauful Jamil Nibir	Dr J Hassan	Machine learning framework for UAV-Assisted IoT networks
Ashim Nikunj Chapagain	Dr S Grandhi	A HOTE model for the adoption of blockchain technology: A case of Australian retail organisations
Chunpeng Zhai	Dr M Rahat	Investigating the effectiveness of culturally related computational humour and empathetic functions in English as an additional language acquisition in a digital environment

Lynda Andeobu	Dr S Wibowo	Green ICT: Environmentally sustainable e-waste management at a regional level in Australia
Shaben Kayamboo	Dr B Ray	Prediction through machine learning to reduce rate of fault occurrence and increase reliability of photovoltaic systems
Wie Kiang Hi	Dr S Wibowo	Lantana camara invasive plants detection using a deep learning approach

**13:00 Lunch**

**14:00 RHD Milestones**

- Staff from the School of Graduate Research

**15:00 Afternoon Tea Break**

**15:20 Q&A Session**

- Informal question and answer session facilitated by Dr Santoso Wibowo. Will include staff from School of Graduate Research.

**16:00 Close**

## School of Engineering and Technology 2021 RHD Symposium Day 2 - Tuesday 7<sup>th</sup> December

**Zoom link – <https://cqu.zoom.us/j/88119861086?pwd=ZitucEFKTkdOTkdvWVVLWlh0VEJ3Zz09>**

Password: 706361

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**8:40 Registration, speakers check in**

**9:00 Session 3**

Mitchell D. Woodbright	Prof B Verma	Autonomous deep feature extraction based method for epileptic EEG brain seizure classification
Don Skerman	Prof C Cole	Efficient daily track monitoring system
Noura Tegoan	Dr S Wibowo	Development and implementation of mixed reality (MR) technology in teaching Arabic language for middle school students: A case of teachers' perspectives in New South Wales
Mohammad Mehedi Hasan	Prof M Rasul	Fast pyrolysis of macadamia nutshell: Process optimisation using response surface methodology and bio-oil characterisation at optimum condition
Shuyue Zhang	Prof M Spiragin	Experimental investigation on rolling contact fatigue damage of rail material with surface defects
Thihagoda Gamage Pubudu Sanjeevani	Prof B Verma	A novel evolving classifier with a false alarm class for speed limit sign recognition
Md Mahmudul Hassan	Prof M Rasul	Development and challenges of a solar-assisted biodigester system

**10:45 Morning Tea Break**

**11:15 Session 4**

Mohd Mostafizur Rahman	Prof M Rasul	Flat plate solar water heating system with hybrid nanofluids: Efficiency, energy, economic, and environmental study
Top Bahadur Pun	Dr A Neupane	Quantification of root-knot nematode using image analysis
Jay Somasundaram	Prof M Rasul	Self-regulation for learning: A control theory perspective
Varun Yarehalli Chandrappa	Dr B Ray	Smart irrigation management model using intelligent Internet of Things
Tej Shahi	Prof W Guo	Late leaf spot (LLS) disease detection in peanut using UAV multispectral imagery

**12:30 Lunch****13:30 Session 5**

Daniel Parsons	Dr M Malouf	Wildlife hazard event reporting improvements
Priyanga Muruganantham	Dr S Wibowo	A deep learning approach for predicting crop yield from satellite images
Dhanushki Perera	Dr Z Abunada	Integrated coupled human and natural system complexity management for climate change adaptation policies using ANN tool
Susnata Bhattacharya	Dr B Ray	A parsing framework for semi-structured streaming IoT gateway log data using an integration of neural OpenIE with contextualized word embedding approaches
Basim Azam	Pro B Verma	Relationship aware context adaptive feature selection framework for image parsing
Gjorgji Babarovski	A/Prof A Jayasuriya	Pedagogy for virtual laboratories for higher education
Sai Ruthwick Madas	Dr R Narayanan	Enhancement of electrical and thermal performance of a photovoltaic thermal (PVT) system
Wen-Yu Chang	Dr M Tom	Development of intelligent software for people at risk of type 2 diabetes to facilitate diet optimisation and self-management
Adrian Rapucha	Dr R Narayanan	Evaluation of hydronic heating and cooling system with heat pump and smart management in the Australian residential sector
Anupam Makhija	Dr M Jha	Use of game-based learning platform to enhance curiosity and engagement through feedback strategies
Camila Avila Arias	Dr M Tom	Development of a robotic arm operated with limited user's interactions to automate kitchen tasks

**15:15 Wrap up****15:30 End of symposium**