FYP Seminar S1 2023
Tuesday, 13th June 2023

Callaghan; Room: VG01, Tuesday

Session chair:	Clayton Carlon				
Academic markers:	**Andrew Fleming**	**&**	**James Welsh**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
9:00	Carlon	Clayton	ELEC4840A	Sound-source localisation using a microphone-array for NUbots	Andrew Fleming
9:20	Maidstone	Jayden	ELEC4840A	Controlling an arm prosthetic using eye tracking and gaze detection	Andrew Fleming
9:40	Boutchard	Sarah	MENG4800A	Disabled Canine Wheelchair	Andrew Fleming
10:00	Bricker	Ian	ELEC4840A	DC-DC Converters for Space Flight	Andrew Fleming
10:20	Bradley	Jack	ELEC4840A	Undersea Communication	Andrew Fleming

Session chair:	Amogh Kappali Sangappa				
Academic markers:	**Sarah Johnson**	**&**	**Andrew Fleming**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
11:00	Hallinan	Christopher	ELEC4840A	FPGA-based heart rate monitor	Sarah Johnson
11:20	Theacos	Kyle	MENG4800A	Heart Rate and Respiratory Rate Monitoring Device	Sarah Johnson
11:40	Bolton	Nicholas	ELEC4840A	Capturing real-life symptom experiences of people living with chronic lung disease	Sarah Johnson
12:00	Keats	Sascha	ELEC4840A	IoT system for patient monitoring	Sarah Johnson
12:20	Smith	Zac	ELEC4840A	AirJet Respirator Electronics Design	Andrew Fleming

Lunch Break

Session chair:	Tasneem Muneera Prottyasha				
Academic markers:	**Sarah Johnson**	**&**	**Rick Middleton**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
13:20	Prottyasha	Tasneem Muneera	ELEC4840A	Resource allocation in IoT systems	Sarah Johnson
13:40	McNamara	Thomas	ELEC4840A	Machine learning to predict outcomes following knee surgery	Sarah Johnson
14:00	Parish	Loren	MENG4800A	Multi-channel MRI/EEG compatible olfactometer with proportional mixing	Rick Middleton
14:20	Mehta	Sakshi	ELEC4840A	Extending an active noise cancellation headphone system for broader use in MRI scanner	Rick Middleton

Session chair:	Peter Salem				
Academic markers:	**Duy Ngo**	**&**	**Behnam Akhavan**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
15:20	Salem	Peter	MENG4800A	Smart Home Solution	Duy Ngo
15:40	Andrews	Zackery	ELEC4840A	Wireless Healthcare Monitoring Systems	Duy Ngo
16:00	Yadav	Cheena	ELEC4840A	Machine Learning to Detect Spacecraft Anomalies	Duy Ngo
16:20	Short	Reubben	ELEC4840A	Science and Engineering Challenge upgrade: virtual maze generator	Behnam Akhavan

Callaghan; Room: VG07, Tuesday

Session chair:	Henry Sylow				
Academic markers:	**Duy Ngo**	**&**	**Lawrence Ong**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
9:00	Sylow	Henry	ELEC4840A	Automated Visual and/or Ultrasonic Defect Detection using IoT Systems and Networks	Duy Ngo
9:20	Olero	Job	ELEC4840A	Smart Home Solution	Duy Ngo
9:40	Stanwell	Julia	MENG4800A	Assessing the nutraceutical effects on neurometabolism in people with MS	Duy Ngo
10:00	Spencer	Max	ELEC4840A	Machine Learning for FM Audio Re-Synthesis	Duy Ngo

Session chair:	Stephen Batcheldor				
Academic markers:	**Lawrence Ong**	**&**	**James Welsh**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
11:00	Batcheldor	Stephen	ELEC4840	Smart Pantry	Lawrence Ong
11:20	Young	Benjamin	ELEC4840A	Audio Localization of Paired Comms For Low Visibility Hazardous Environments	Lawrence Ong
11:40	McKenzie	Dean	ELEC4840A	A Hybrid Presenter: Combining a laser pointer and a remote mouse	Lawrence Ong
12:00	Moore	Dylan	ELEC4840A	Adaptive camouflage for grounded soldiers in combat environments	Lawrence Ong

Lunch Break

Session chair:	Jesse Perrin				
Academic markers:	**Lawrence Ong**	**&**	**Colin Coates**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
13:20	Perrin	Jesse	ELEC4840A	Portable device for personal safety protection validation	Lawrence Ong
13:40	Ben	Natasha	ELEC4840A	Hierarchical coding caching	Lawrence Ong
14:00	Holle	Thomas	ELEC4840A	Rocketry Flight Computer	Lawrence Ong
14:20	Leck	Tiana	MENG4800A	Inverter design & control for a small scale 7-phase variable speed wind turbine	Colin Coates
14:40	Guo	Yuan Chang	ELEC4840A	Beer Pong Robot	Colin Coates

Session chair:	Robin Griffiths				
Academic markers:	**Galina Mirzaeva**	**&**	**Colin Coates**		
Time	Lastname	First name	Course	Project Title	EE Supervisor
15:20	Griffiths	Robin	ELEC4840A	Smart Battery Coordinator	Galina Mirzaeva
15:40	Biosse	Mauro	ELEC4840A	AC Drive based on AC/AC (Matrix) converter	Galina Mirzaeva
16:00	Cooke	Aaron	ELEC4840	Automated Motor Failure Detection and Reporting in Remote Installations	Galina Mirzaeva
16:20	Court-Kriesch	Talesin	ELEC4840	Discrete-Time Control of Power Electronic Converters	Galina Mirzaeva

*Role for session chair:

- To introduce the speakers
- To time keep: 15 mins presentation + 5 mins questions. Session chair to give warning to speakers when there is 2 minutes left to the end of presentation.

FYP Seminar S1 2023

Thursday, 15th June 2023

Callaghan; Room: VG01, Thursday

	Session chair:	Jared Crooks			
	Academic markers:	James Welsh	&	Zhiyong Chen	
Time	Lastname	First name	Course	Project Title	EE Supervisor
9:00	Crooks	Jared	ELEC4840A	High efficiency variable power supply using a hybrid topology	James Welsh
9:20	Cooke	Lachlan	ELEC4840A	Rubik's Cube Solving Robot	James Welsh
9:40	Russo	Tylah	MENG4800A	Nerve Receptor in vivo Stimuli	James Welsh
10:00	Tong	Ziyao	ELEC4840A	Reinforcement learning control of a UR Robot	Zhiyong Chen

	Session chair:	Brian Kosgei			
	Academic markers:	Zhiyong Chen	&	Diego Yanez	
Time	Lastname	First name	Course	Project Title	EE Supervisor
11:00	Kosgei	Brian	ELEC4840A	Wearable real-time thermal stress monitor for defence,...	Zhiyong Chen
11:20	Emerton	Jesse	ELEC4840A	Synchronisation of action potentials in neural networks	Zhiyong Chen
11:40	Latif	Umer Zahid	ELEC4840A	Synchronisation of action potentials in neural networks	Zhiyong Chen
12:00	Cheney	William	MENG4800A	Personal monitoring device	Zhiyong Chen

Lunch Break

	Session chair:	Angelos Karvelis			
	Academic markers:	Colin Coates	&	Zhiyong Chen	
Time	Lastname	First name	Course	Project Title	EE Supervisor
13:20	Karvelis	Angelos	ELEC4840A	High performance control of nine-phase synchronous reluctance drive	Colin Coates
13:40	Morris	Marcus	ELEC4840A	Battery Charge Controller and Alarm System Upgrade	Colin Coates
14:00	Partlin	Nicholas	ELEC4840A	Accessory Breakout Board for Electric Bicycles	Colin Coates
14:20	Spencer	Sam	ELEC4840A	Hybrid Guitar Effects Pedal	Colin Coates

	Session chair:	Raeshel Tabone			
	Academic markers:	Behnam Akhavan	&	Yuen Yong	
Time	Lastname	First name	Course	Project Title	EE Supervisor
15:20	Tabone	Raeshel	MENG4800A	Hybrid Bandages for Wound Healing	Behnam Akhavan
15:40	Lord	Richard	MENG4800A	Plasma Pens for Next Generation 3D Bioprinters	Behnam Akhavan
16:00	Vong	Teng Fong	MENG4800A	Hybrid materials for tissue engineering and regenerative medicine	Behnam Akhavan
16:20	McLeod	Bree	MENG4800A	Computational fluid dynamic analysis of collateral blood flow in ischaemic stroke patients	Yuen K Yong
16:40	Savage	Emily	MENG4800A	Finite element analysis of porous scaffold implant designs for prosthetic	Behnam & Yuen

Callaghan; Room: VG07, Thursday

	Session chair:	Amogh Kappali Sangappa			
	Academic markers:	Diego Yanez	&	Duy Ngo	
Time	Lastname	First name	Course	Project Title	EE Supervisor
9:00	Kappali Sangappa	Amogh	ELEC6840A	Bluetooth Mesh Simulation & Network Analysis	Diego Yanez
9:20	Brown	Cooper	ELEC4840A	Robotic Air Hockey Player	Diego Yanez
9:40	Lawson	Toby	MENG4800A	Computer Vision State Observer	Diego Yanez

	Session chair:	Carlos Andres Sanchez Carvajal			
	Academic markers:	Terry Summers	&	Galina Mirzaeva	
Time	Lastname	First name	Course	Project Title	EE Supervisor
11:00	Sanchez Carvajal	Carlos Andres	ELEC4840A	Grid-Connected Power Conversion Solution for Capacitive Energy Storage	Terry Summers
11:20	Kiczynski	David	ELEC4840A	Arc Flash Mitigation	Terry Summers
11:40	Tram	Evelyn	ELEC4840A	Toolbox for Variable Speed Drive Applications	Terry Summers
12:00	Adams	Hugo	ELEC4840A	Design and Simulation of a Single Phase Laboratory Power Supply	Terry Summers

Lunch Break

	Session chair:	Joel Lomas			
	Academic markers:	Terry Summers	&	Galina Mirzaeva	
Time	Lastname	First name	Course	Project Title	EE Supervisor
13:20	Lomas	Joel	ELEC4840A	Intrinsically Safe HourmeterPrototype	Terry Summers
13:40	Pike	Sam	MENG4800A	Merriwa Microgrid Stability Study	Terry Summers
14:00	Myers	Thomas	ELEC4840A	A Switch Mode DC Current Source	Terry Summers
14:20	Saccaro	Isaac	ELEC4840A	Low-cost invertor for use in bi-directional charging of electric vehicles	Terry Summers

	Session chair:	Thomas Lundy			
	Academic markers:	Galina Mirzaeva	&	Terry Summers	
Time	Lastname	First name	Course	Project Title	EE Supervisor
15:20	Lundy	Thomas	ELEC4840A	Microgrid Demonstration	Galina Mirzaeva
15:40	Du	Ye	ELEC6840A	Advanced drive for a Synchronous Reluctance Permanent Magnet (SRPM) Motor	Galina Mirzaeva
16:00	Johnson	Joseph	ELEC4840A	An electric drive with acoustic shaping and acoustic camouflage	Galina Mirzaeva
16:20	Wright	Kelly	ELEC4840A	Power system state estimation	Galina Mirzaeva

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