

ENZCon 2016 Programme (17 & 18 November, 2016) V 1.6

Thursday, 17 November	
08:30	Registration opens (Location: Outside of Laby LT118) – <i>Please note that the registration desk will be open during all tea and lunch breaks, allowing those arriving later to register.</i>
09:00	Poster and tech demo setup
09:30	Morning Tea, Poster & Demo Session (Outside of Laby LT118)
10:30 Oral Presentation Session 1: Software (With welcome address by Dale Carnegie) (Location: Laby LT118 – Session Chair: Dale Carnegie)	
Elliot Varoy, Nasser Giacaman and Gerard Rowe. Enhancing Students’ Conceptual Understanding Using Visualisation Software and Collaboration	
Michael Hayes. Semi-automated electrical circuit drawing with Lcapy	
Jason Long, Jim Murphy, Dale Carnegie and Ajay Kapur. Improving the Accuracy of Musical Robots with Programmable Logic	
Blake Johnston, Bridget Johnson and Ajay Kapur. A New Framework for Interactive Control of Mechatronic Instruments	
12:00	Lunch break
12:00 – 13:00 ENZCon Annual General Meeting (Location: Laby LT118)	
13:30 Oral Presentation Session 2: Sensing (Location: Laby LT118 – Session Chair: Rick Millane)	
Jason Sun, Rainer Künnemeyer, Andrew McGlone and Nathan Tomer. Investigation of Light Transmission in Healthy and Rotten Onions	
Michael Hayes and Ian Platt. A preliminary investigation for an electromagnetic ground water flow measuring device	
Michael Frampton and Michael Hayes. A system for non-destructively determining variation in acoustic speed within a harvested tree stem.	
Malcolm Morrison and Colin Fox. Vector Green's Functions for Electrodynamics Applications	
15:00	Afternoon Tea
15:40 Oral Presentation Session 3: Control (Location: Laby LT118 – Session Chair: Michael Hayes)	
Michael Hutchins and Jonathan Scott. Speed Control of Small Motors Through the Cuk Converter Topology	
Andrew Martin and Timothy Molteno. Real-time control using sequential inference and Bayesian decision theory	
Faiz Rasool, Syed Adeel Ali and Muhammad Waseem Soomro. A MATLAB ToolBox for the Bit-Stream Implementation	
Andy Soundy, Daniel Schumayer and Tim Molteno. GPS Estimates in the Presence of Correlated Noise	
19:00	Conference Dinner: Mac’s Brew Bar http://www.macsbrewbar.co.nz/restaurant.html

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Friday, 18 November**09:30****Morning Tea****10:00****Oral Presentation Session 4: Short Talks, Imaging, and Astronomy**

(Location: Laby LT118 – Session Chair: Jonathan Scott)

Sponsor Address by RF Test Solutions Limited (<http://www.rftest.co.nz/>)

Short Talk: Timothy Molteno.

SkyPi: All-sky camera network for meteorite tracking

Short Talk: Arunkumar Jayakumar, Tejas Trivedi, Deepak Sharma, Marilou Rebosura and Latha Karthigaa Murugesan.

Real Time Applications of Electrochemical Impedance Spectroscopy - A Technical Assessment

James McPherson and Tim Molteno.

Architecture for the Transient Array Radio Telescope version 3 (TART3)

Rick Millane.

Imaging with x-ray free-electron lasers

Max Scheel, Tim Molteno and Phill Brown.

Transient Array Radio Telescope: Calibration and Aperture Synthesis**11:40****Lunch break****12:20****Oral Presentation Session 5: Signals and Systems**

(Location: Laby LT118 – Session Chair: Jim Murphy)

Daniel Schumayer and Timothy Molteno.

On a representation of feedback shift-registers

Itay Ben-Dom and Catherine Watson.

Towards Vocal Health Assessment From The Speech Signal

Romain Arnal and Rick Millane.

Effects of non-uniform sampling on phase retrieval

Sam Dirks and Jonathan Scott.

Precision Crystal Frequency Reference Disciplined Using Mains Power**13:45****Afternoon Tea****14:30****Oral Presentation Session 6: Power & Wireless**

(Location: Laby LT118 – Session Chair: Timothy Molteno)

Rahat Hasan and Jonathan Scott.

Fractional Behaviour of Rechargeable Batteries

Michael Frampton and Michael Hayes.

Wireless Treetap: a new electronic device for time-of-flight tree-stiffness measurement.

Loren Kersey, Phill Brown, Daniel Schumayer and Timothy Molteno.

Aspects of Quartz Operation in Viscous Fluid

T Lee, R B Kennedy, R A Bodnar, Jonathan Scott and W Redman-White.

Wireless Power and Network Synchronisation for Agricultural and Industrial Remote Sensors using Low Voltage CMOS Harvesting and Data Demodulator IC

Elliot Baptist, Rainer Künnemeyer, Philip Rowe and Paul Martinsen

Scalable Wireless Network for Remote Sensors: Range Testing**16:10****Short Break****16:20 – 16:40****Closing Remarks & Prizes**

(Location: Laby LT118)