## **SAIP2016**

# Tuesday 05 July 2016

### Applied Physics (1): APPLIED1 - LT2 (10:00-10:40)

-Conveners: Ernest van Dyk

time	[id] title	presenter
	[376] Power Budget Analysis of Passive Components along an Optical Fibre Link of a Frequency Dissemination System within the MeerKAT Telescope Array	Mr WASSIN, Shukree
40.00		

10:20 [245] Effect of 1.712 GHz RF-Clock Signal Distribution on 10 Gbps 1550.89 nm VCSEL Based Transmission over Single Optical Fibre for Square Kilometre Telescope Array

Mr ISOE, George

#### <u>Applied Physics (1): APPLIED1</u> - LT2 (11:10-12:10)

-Conveners: Phil Ferrer

time [id] title		presenter
11:10 [176] Free-space Optical Communic	ations through Turbulence	Mr COX, Mitchell
11:30 [276] Laser Effect on the RF Signal Optical Fibre	Stability for Clock Signal Distribution over	Ms DLAMINI, Phumla
11:50 [384] Ambient noise tomography (Patransition near Jansenville, Eastern	, , ,	Mr BEZUIDENHOUT, Lucian

### <u>Applied Physics (1): APPLIED1</u> - LT2 (14:00-15:40)

-Conveners: Hartmut Winkler

time	[id] title	presenter
14:00	[58] The relationship between solar irradiance and cloud cover in Durban.	Mr GANYA, Elison
14:20	[271] Study of the performance of a Cadmium Telluride photovoltaic system	Ms DOBREVA, Petja
14:40	[435] Application of Ag nanocubes for efficiency enhancement in organic photovoltaic (OPV) devices	Mr KOTANE, Lesias
15:00	[131] Synthesis and characterization of Titanium dioxide nanotubes using electrochemical anodization system for solar cell application.	Mr LUPIWANA, Mpheleki
15:20	[307] Characterisation of the optical thermometry properties of a phosphor material	Mr ERASMUS, Lucas

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# Wednesday 06 July 2016

### <u>Applied Physics (1): APPLIED</u> - 4B (09:40-10:40)

#### -Conveners: Frederik Vorster

time [id] title	presenter
09:40 [77] Fast neutron radiography observation of water media	absorption through porous Mr DANIELS, Graham
10:00 [412] Residual stress measurements in leached pol X-ray diffraction and Raman spectroscopy techniqu	• •
10:20 [317] Optimising GPU Integration into the ATLAS To	rigger Mr SACKS, Marc

### <u>Applied Physics (1): APPLIED</u> - 4B (11:10-12:10)

#### -Conveners: Alan Matthews

time [id] title presenter

11:10	[247] ADC trigger board for the PROMETEO test-bench of the ATLAS Tile Calorimeter	Mr SPOOR, Matthew
	[340] Facile synthesis of mesoporous NiCo(OH) <sub>2</sub> /CNT composite for high performance energy storage application	Ms UGBO, Faith
	[489] Evaluation of the Technical Feasibility and Economic Viability of Solar Heated underground fixed dome household size digesters suitable for Vhembe district of South Africa.	Mrs MANDADA, Sharon Ntuwiseni

### **Applied Physics (1): APPLIED - 4B (14:00-15:40)**

-Conveners: Irvy (Igle) Gledhill

time	[id] title	presenter
14:00	[367] ESKOM, Irradiance and Sunny Skies - the physics of solar irradiance in South African conditions	Prof. WINKLER, Hartmut
14:20	[354] Solar power prediction model using quantum machine learning algorithm	Mr SENEKANE, Makhamisa
	[186] Effect of Solar tracking on a PV system operating in the CSIR (South Africa)	Dr RORO, Kittessa
15:00	[410] The study of organic photovoltaics with Illumination intensity	Dr RANGANATHAN, Kamalakannan
	[505] Electrical design of and reticulation to solar energy triggered microwave single mode system for sandstones processing: A feasibility study	Mr MARWALA, Tshilidzi

SAIP2016 / Programme Thursday 07 July 2016

# Thursday 07 July 2016

### Applied Physics (1): APPLIED - LT2 (09:40-10:40)

-Conveners: Daniel Wamwangi

time [id] title	presenter
09:40 [237] Solar water geysers - a South African perspective	Dr FERRER, phil
10:00 [232] HYDROGEN FUEL CELL STUDIES USING NEUTRON RADIOGRAPHY	Mr DE BEER, Frikkie
10:20 [509] Physics behind the life cycle and life cycle analysis of artisanal clay brick making	Mr TSHIYOYO, Madjer Monatshiebe

# Applied Physics (1): APPLIED - LT2 (11:10-12:10)

-Conveners: Trevor Derry

time [id] title	presenter
11:10 [193] Simple models for cytoskeleton	Prof. MÜLLER-NEDEBOCK, Kristian
11:30 [535] Division Meeting: APPLIED	Prof. VAN DYK, Ernest

SAIP2016 / Programme Friday 08 July 2016

# **Friday 08 July 2016**

### Applied Physics (1): APPLIED (09:40-10:40)

#### -Conveners: Ncamiso Khanyile

time	[id] title	presenter
	[298] Activated carbon derived from tree bark biomass for high performance electrochemical capacitors	Dr MOMODU, Damilola
10:00	[402] Measurements of Atmospheric Carbon Dioxide in South Africa	Mr MUDAU, Azwitamisi
	[20] Dose perturbation effects of unilateral Ti prosthesis in the dosimetry of 6 MV photon beam	Dr ADE, Nicholas

### <u>Applied Physics (1): APPLIED</u> - LT2 (11:10-12:10)

### -Conveners: Ernest van Dyk

time	[id] title	presenter
11:10	[527] NON-SPECIALIST LECTURE: Photonics Prototyping Facility	Dr NAIDOO, Darryl
	[272] Effect of atmospheric turbulence on entangled photon field generated by	Dr JOSHI, Stuti
	partially coherent pump beam	

## Applied Physics (1): APPLIED (14:00-15:40)

### -Conveners: Timothy Gibbon

time	[id] title	presenter
14:00	[319] Heterogeneous powders ID by means of fracture mechanics	Dr VIGLIATURO, Ruggero
14:20	[266] Efficiency measurement system for thermoelectric devices	Dr MARIOLA, Marco
14:40	[422] Spark Plasma Sintering of 2507 duplex stainless steel	Dr SULE, Richard
	[448] Physical stability of ionic liquid polymers for the recovery of Se and Te from metallurgical aqueous solutions	Ms MOGOMETSI, Mpho
	[12] Preparation and characterization of nanoporous carbon from expanded graphite for high energy density supercapacitor in aqueous electrolyte	Dr BARZEGAR, Farshad