

# Technical Programme : Theme - Physical Sciences RESCON 2023

## Friday, 3rd November 2023

11.00-1.15	Session ID		Session Chairs		Location
	<b>PS1</b>		Prof. Manawadevi. Y. U. Ganehenege		<b>C2.6</b>
			Dr. R. J. K. Udayana Ranatunga		
	Time	Abstract ID	Title		Presenter
	11.00-11:15	18	Ti/TiO <sub>2</sub> SHOTCKY JUNCTION AND HIGHLY PHOTOACTIVE Sb <sub>2</sub> S <sub>3</sub> PHOTOANODE FOR SOLAR WATER SPLITTING		Chathuranga A G Wijerathna
	11.15-11.30	48	REMOVAL OF MAGNESIUM IONS BY FUNCTIONALIZED CARBON NANOTUBE		Sivanayani Selvakumar
	11.30-11.45	54	Modeling Copper Ion Adsorption On Kaolinite By In-situ Measurement of Free Metal Ion Activities		Nalesha Mudannayake
	11.45-12.00	144	Electronically Conducting Donor Acceptor (D-A) type polymer synthesized using 3,4-Ethylenedioxythiophene (EDOT) with Berberine isolated from Coscinium fenestratum		Dhananjani Egodawele
	12.00-12.15	155	ADSORPTIVE REMOVAL OF RHODAMINE B DYE FROM MAGNETIC MnFe <sub>2</sub> O <sub>4</sub> -MONTMORILLONITE NANOCOMPOSITE		Sammani A Kanthage
	12.15-12.30	158	OPTIMIZATION OF THE SOLUTE DESCRIPTORS FOR CITRONELLAL BY GAS CHROMATOGRAPHY AND LIQUID-LIQUID PARTITION SYSTEMS		Pradeep Hewage
12.30-12.45	160	Enhanced Semiconducting Properties in Co-MOF-74 Upon Encapsulation of Aniline Derivatives as Guest Molecules		Thushani P.D.T.S.N Jayasundara	
12:45-1:00	179	ADSORPTIVE REMOVAL OF AMOXICILLIN USING MONTMORILLONITE BARIUM TITANATE NANOCOMPOSITE IN AN AQUEOUS MEDIUM		Roshan Tharindu Bandara	
1:00-1:15	<b>Panel Discussion</b>				

11:00 - 1:00	Session ID		Session Chairs		Location
	<b>PS2</b>		Prof. L.R.A.K. Bandara		<b>C2.5</b>
			Dr. J.P. Liyanage		
	Time	Abstract ID	Title		Presenter
	11:00-11:15	23	A NANOGRAVIMETRIC APPROACH TO STUDY THE PHOTOCATALYTIC ACTIVITY OF NANO TITANIA THIN FILMS		K.R Jaliya Manuda
	11:15-11:30	89	COMPARISON OF X-RAY ATTENUATION IN THE ENERGY RANGE OF 50-80 KEV IN ALUMINIUM AND ZIRCON MINERAL ENCASED IN EPOXY MATRIX		Kalpani M Weerasekara
	11:30-11:45	113	SOUND ABSORPTION PROPERTIES OF STRUCTURES DEVELOPED USING WASTE MATERIALS		Danuka D Senarath
	11:45-12:00	119	THE ENHANCEMENT OF THERMOELECTRIC PROPERTIES OF COPPER IODIDE THROUGH DOPING		dasun t.b kahawaththe
	12:00-12:15	122	SELECTIVE REDUCTION OF GRAPHENE OXIDE DEPOSITED ON HEAT-SENSITIVE SUBSTRATES		Kanishka Hansana Madurawala
	12:15-12:30	182	THICKNESS EFFECT ON THE PHYSICOCHEMICAL PROPERTIES OF ELECTRODEPOSITED ZnTe LAYERS		Olajide I. Olusola
12:30-12:45	195	Layered Marigold-Flower-like CdS/MoS <sub>2</sub> -reduced Graphene Oxide Nanocomposite as an Efficient Electrode Material for Supercapacitor		Lina N Khandare	
12:45-1:00	196	Synthesis of Sb <sub>2</sub> Te <sub>3</sub> nanoparticles by a cost-effective hydrothermal technique and its photodetector applications.		Maruti V Salve	
	<b>Panel Discussion</b>				

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## Lunch Break

15	Session ID		Session Chairs		Location
	<b>PS3</b>		Prof. K. M. S. Wimalasiri		<b>C2.5</b>
			Dr. J. M. Susanthi Jayasinghe		
Time	Abstract ID	Title		Presenter	
2.00-2.15	24	ASSESSMENT OF CYTOTOXICITY OF SELECTED EDIBLE LEAFY PLANTS OF SRI LANKA		Savani Upathakumbura	
2.15-2.30	31	DETERMINATION OF CYTOTOXICITY OF DIFFERENT SOLVENT EXTRACTS OF SOFT STEMS OF DIFFERENT BANANA ( <i>Musa sp.</i> ) CULTIVARS		Nithini Liyadipiptiya	

2:00-4:1

2.30-2.45	83	DETERMINATION OF PHENOLIC CONTENT AND ANTIOXIDANT POTENTIAL OF A NUTRIENT SUPPLEMENT DEVELOPED USING SELECTED LOCAL GRAIN VARIETIES	T.P.Sathsara S. Perera
2.45-3.00	126	ANTI-OBESITY EFFECTS OF A POLYHERBAL MIXTURE	Kanishka C.J Costa
3.00-3.15	132	ANTIDIABETIC AND ANTI-OBESITY POTENTIAL OF OLEANOLIC ACID DERIVATIVES	Tharala D Thennakoon
3.15-3.30	134	Comparative study on nutritional components and antioxidant activities of a local wild grape variety, Ampelocissus indica (L.) Planch and a commercial grape variety, Vitis vinifera L.	Wathsala J Nandasiri
3:30-3:45	139	ANTIOXIDANT ACTIVITY COMPARISON OF COMMON DIFFERENT CURRY LEAVES VARIETIES IN SRI LANKA	Shashikala Udari Wanigasekara
3:45-4:00	Panel Discussion		

2:00-4:00

Session ID		Session Chairs		Location
PS4		Prof. Anura Wickramasinghe		C2.6
		Dr. W. R. Priyanga Wijesinghe		
Time	Abstract ID	Title	Presenter	
2:00-2:15	32	RAPID SYNTHESIS OF PHYTOGENIC SILVER NANOPARTICLES MEDIATED BY PUMPKIN BYPRODUCTS AND EVALUATION OF THEIR ANTIOXIDANT POTENTIAL	A.M.S.H. Aththanayaka	
2:15-2:30	56	MULTI-TARGET INHIBITORY ACTIVITY OF Salicornia brachiata AND Suaeda maritima SEED ON $\alpha$ -AMYLASE, TYROSINASE AND LIPASE	Nimashi Palindi Herath	
2:30-2:45	77	CHARACTERIZATION OF SEED OILS OF FOUR GARCINIA SPECIES TO ASSESS POTENTIAL APPLICATIONS IN COSMETICS AND DIETARY SUPPLEMENTS	K. A. H. Thathsara	
2:45-3:00	78	EVALUATION OF INSECT-REPELLENT ACTIVITY OF PIPER LONGUM (L.) BASED NANO-EMULSIONS FOR THE CONTROL OF SITOPHILUS ORYZAE (L.) (COLEOPTERA: CURCULIONIDAE)	Vinavee Apsara Sandeepani	
3:00-3:15	109	CANARIUM ZEYLANICUM SEED OIL AS A FEEDSTOCK FOR BIODIESEL PRODUCTION	Waruni Keshiya	
3:15-3:30	180	CONFINED NANOCRYSTALLIZATION OF ANTHRANILIC ACID IN A MESOPOROUS ZEOLITE MATRIX	Bimsara K.M.M. Chandrasekera	
3:30-3:45	Panel Discussion			

## Saturday, 4th November 2023

8.00-10.15

Session ID		Session chairs		Location
PS5		Prof. B. S. B. Karunaratne		C2.5
		Dr. B. S. Dassanayake		
Time	Abstract ID	Title	Presenter	
8.00-8.15	8	DEVELOPMENT OF AN ELECTRIC VEHICLE FOR THE DIFFERENTLY ABLED WITH SOLAR ASSIST	E.S. Mohamed	
8.15-8.30	148	Effect of Quaternary Cations on The Efficiency of Quasi-Solid-State Dye-Sensitized Solar Cells	KMSP Bandara	
8.30-8.45	150	OPTIMIZATION OF EFFICIENCY IN DYE-SENSITIZED SOLAR CELLS BY THE INFUSION OF GRAPHENE TO PHOTOANODE	Rampatige P Chandrika	
8.45-9.00	163	ANALYSIS OF AFM IMAGES FOR INVESTIGATING THE MORPHOLOGY AND POROSITY OF FLUORINE-DOPED TIN OXIDE THIN FILMS	Mason Caron	
9.00-9.15	197	CeO <sub>2</sub> /MnO <sub>2</sub> Composite Material for Asymmetric Supercapacitor Applications	Swapnil R Bhosale	
9.15-9.30	198	HYDROTHERMAL SYNTHESIS OF HGTE THIN FILM FOR POSSIBLE APPLICATIONS IN THE DEVELOPMENT OF CDTE SOLAR CELLS.	Aparna Satish Ukarande	
9.30-9.45	201	PERFORMANCE ENHANCEMENT IN ULTRATHIN CIGS SOLAR CELLS USING PLASMONIC NANOPARTICLES – A FINITE DIFFERENCE TIME DOMAIN ANALYSIS APPROCH	Sachin Vijay Desarada	
9.45-10.00	202	COST-EFFECTIVE CIGS THIN FILMS: ELECTRODEPOSITION AND CHARACTERIZATION FOR EFFICIENT SOLAR CELLS	Priyanka U Londhe	
10:00-1:15	Panel Discussion			

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## Tea Break

<b>1:30-2:00</b>		<i>Plenary Talk by Prof. Danny O'Hare @ Conference Hall Block C</i>	
<b>Session ID</b>		<b>Session chairs</b>	<b>Location</b>
<b>PS6</b>		Prof. R.M. Gamini Rajapakse	<b>C2.5</b>
		Prof. T. M. W. J. Bandara	
<b>Time</b>	<b>Abstract ID</b>	<b>Title</b>	<b>Presenter</b>
2:15-2:30	69	DEVELOPMENT OF HUMIDITY SENSING COMPOSITE MATERIAL USING SnO DOPED PHENOL FORMALDEHYDE (PF) DERIVED CONDUCTIVE CHARCOAL	Kamaljith Heshan Galagedara
2:30-2:45	92	LOW-COST COUNTER ELECTRODE PREPARED USING ACTIVATED CARBON DERIVED FROM RICE HUSK FOR DYE-SENSITIZED SOLAR CELLS	Ishara U Weerasinghe
2:45-3:00	115	PREPARATION AND CHARACTERIZATION OF COCONUT SHELL ACTIVATED CARBON BLACK FOR ELECTROPHOTOGRAPHY TONER APPLICATION	Chamodi S Vithana Gamage
3:00-3:15	169	LIGNOCELLULOSIC COIR FIBER ASSISTED FABRICATION A POROUS SHEATH-POROUS CORE POLYANILINE NANOPARTICLES@FIBER COMPOSITE VIA IN-SITU CHEMICAL	Thilanka I Nawarathna
3:15-3:30	181	NANOCOCRYSTALLIZATION OF UREA:4-HYDROXYBENZOIC ACID USING SONOCHEMICAL METHODS	Madara Dinithi M Walpala
3:30-3:45	183	Synthesise of Activated Carbon Titanium Dioxide-Based Composite from Coconut Shell for Optimized and Cost-Effective Supercapacitors	Dananjaya K Bandara
<b>Panel Discussion</b>			

**2:15-3:30**