

2020 From Innovation to Impact (FITI 2020)

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FITI 2020: TECHNICAL SESSIONS

Papers - Track 1 : Societal Impact of R & D Innovations

TRACK 1: Societal Impact of R & D Innovations	
Session-1 Chair: Prof. K.P.S. Chandana Jayaratne, University of Colombo	
Venue: Lavender Room, BMICH Time: 11.30 am – 1.00 pm	
Pg.	Abstract Title
1	Determination of Glycaemic Responses of Dairy Yoghurt Incorporated with Spice Oleoresins (<i>Cinnamomum zeylanicum</i> , <i>Curcuma longa</i>)
6	Develop a Value Added Noodles Recipe Incorporating Boiled Palmyrah Tuber Flour to Enhance Health Benefits
11	Identifying an Immunodominant Epitope of Dengue Non-Structural Protein 1 (NS1) in Acute Secondary Dengue Infections for Vaccine Development or Development of Treatment Modalities
16	Use of Confocal Microscopy to characterise DENV infection and NS1 expression in C6/36 and HEPG2 cells in utilizing them as models to screen for the efficacy of antiviral drugs
21	Development of an ELISA to assess Japanese Encephalitis Virus NS1 protein antibody responses in a community cohort in Sri Lanka
12.45 p.m.	Address by the Chair and Q & A Discussion

TRACK 1: Societal Impact of R & D Innovations	
Session-2 Chair: Dr.Asanka Rodrigo (MIEEE), University of Moratuwa	
Venue: Lavender Room, BMICH Time: 1.45 pm – 3.45 pm	
Pg.	Paper Title
25	Development of a Bulk Tea Packaging System
31	Investigating the Feasibility of a Conductive Textile Structure to Indicate Pre-tensioning of Seat-belts
36	Design and Analysis of Hybrid Robotic Mechanisms Using SCARA and RCM Mechanisms
41	Design and Analysis of an Autonomously Guided Vehicle to Minimize the Impact of COVID-19
47	Initial Design of Trusses using topology Optimization in a Deep Learning Environment
53	Preliminary Investigation on n Timber Structures Through Microscopic Analysis
58	Evaluation and Validation using Delphi Method & Field Test for Subfertility Decision Support System
3.30 p.m.	Address by the Chair and Q & A discussion

TRACK 1: Societal Impact of R & D Innovations	
Session-3 Chair: Dr.Rushan A B Abeygunawardana, General Secretary SLAAS	
Venue: Lavender Room, BMICH Time: 4.00 pm – 6.00 pm	
Pg.	Abstract Title
63	Protonated 1,10-Phenanthroline as a Fluorescent Sensor for Fe(II) at Micromolar Level Detections
69	Tea waste derived heterogeneous acid catalyst for esterification of free fatty acids in biodiesel production
74	Designing A Trust and Reputation Framework for Spatial Tasks Allocations Using Fuzzy Method
80	Enhance Biyagama Water Treatment Plant Sludge Properties with Natural and Synthetic Binders
85	Microfluidic Channel Network Analysis of a Lab-on-a-Chip Device Using Electrical Circuit Analogy
89	Forecasting Weekly Rainfall Using Data Mining Technologies
5.45 p.m.	Address by the Chair and Q & A Discussion

Papers - Track 2 : Societal Impact of Social Innovations

TRACK 2: Societal Impact of Social Innovations	
Session-1 Chair: Prof. Jayantha Welihinda, University of Colombo	
Venue: Orchid Room, BMICH	
Time: 11.30 a.m – 1.00 p.m	
Pg.	Abstract Title
93	Poro-therm Clay Wall Panel System for Indoor Cooling
99	Soil as an Innovative Sustainable Flooring Material
105	Development of Edible Vertical Gardening System and Societal Impact of Vertical Gardening Through a Systematic Literature Review
110	Differentiations and Grading of Inventions and Innovations in Sri Lanka
116	Fear of Crime in Urban Environments: A Bibliometric Mapping of the Literature
12.45 p.m.	Address by the Chair and Q & A Discussion

TRACK 2: Societal Impact of Social Innovations	
Session-2 Chair: Prof. Prasad Jayaweera, University of Sri Jayewardenepura	
Venue: Orchid Room, BMICH Time: 1.45 pm – 3.45 pm	
Pg.	Abstract Title
122	Trend Detection in Sinhala Tweets Using Clustering and Ranking Algorithms
128	A Peer Recommendation Model to Avoid Hate Speech Engagements in Multiplex Social Networks
134	A User Experience Measuring Technique to Moderate Social Media Content through Crowdsourcing
140	Devising a Distinguishable Feature Set for Sinhala and English Script Separation on Social Media Images
146	Self-Reflective and Introspective Feature Model for Hate Content Detection in Sinhala YouTube Videos
152	Combination of Trigram and Rule based Model for Singlish to Sinhala Transliteration by Focusing Social Media Text
157	An Approach for Resolving Double Character Segmentation in Sinhala Social Media Text Images
3.30 p.m.	Address by the Chair and Q & A Discussion

TRACK 2: Societal Impact of Social Innovations	
Session-3 Chair: Dr. Chinthaka De Silva, General Secretary SLAAS	
Venue: Orchid Room, BMICH Time: 4.00 pm – 6.00 pm	
Pg.	Abstract Title
163	Dynamic Traffic Light Controlling System Using Google Maps and IoT
168	Emergency Communication Application for Speech and Hearing-Impaired Citizens
174	Do Oil and Gas Sector Economic Policies Influence the Economic Growth in Sri Lanka?
179	Green Human Resources Management in Public and Private Sector Firms in Western Province Sri Lanka
186	Characterization of Virtual Prototyping in 'Refashion' to Augment Circular Apparel Industry
191	Player Ranking in Taekwondo: A Bayesian Elo Rating System
5.45 p.m.	Address by the Chair and Q & A Discussion