

# **2019 From Innovation to Impact (FITI 2019)**

**Colombo, Sri Lanka  
22 November 2019**



**IEEE Catalog Number: CFP19W45-POD  
ISBN: 978-1-7281-6723-7**

**Copyright © 2019 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP19W45-POD
ISBN (Print-On-Demand):	978-1-7281-6723-7
ISBN (Online):	978-1-7281-6722-0

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# TABLE OF CONTENTS

<b>BRILLE, AUDITORY AND TACTILE TOOL FOR CHILDREN WITH VISUAL IMPAIRMENTS</b> .....	1
<i>Ashani Shalika Ranasinghe</i>	
<b>AN INNOVATION IN CAREER GUIDANCE IN HIGHER EDUCATION: EFFECTIVENESS AND SUSTAINABILITY OF INSTITUTIONALIZATION OF SERVICE LEARNING IN THE UNIVERSITY OF COLOMBO</b> .....	4
<i>Preethi Udagama ; Chandana Wijayanama ; Manjula Vithanapathirana</i>	
<b>SOCIETAL IMPACT OF THE RESEARCH STUDY ON GOVERNANCE OF UPSTREAM-DOWNSTREAM INTERFACE OF TSUNAMI EARLY WARNING - THE CASE OF SRI LANKA</b> .....	9
<i>Nuwan Dias ; Dilanthi Amaratunga ; Richard Haigh ; Sarath Premalal ; Senaka Basnayake</i>	
<b>THE REQUIRED MODIFICATIONS AND THE EFFECTIVENESS OF THE CURRENT AWARENESS PROGRAMS FOR THALASSAEMIA DISEASE MANAGEMENT AND PREVALENCE CONTROLLING IN SRI LANKA</b> .....	15
<i>Tharaka Chathuranga ; Charmalie Nahallagellage</i>	
<b>DECODING THE SOCIETAL TRANSITIONS ON ENVIRONMENTAL INNOVATION UNDER VERNACULAR TIMBER CONSTRUCTION PRACTICE IN SRI LANKA</b> .....	20
<i>Malsha S. Mendis ; Rangika Umesh Halwatura</i>	
<b>BEING TECTONIC: SOCIAL INNOVATION THROUGH MUD-CONCRETE (MC) TECHNOLOGY</b> .....	26
<i>Malsha S. Mendis ; Rizna Arooz ; Rangika Umesh Halwatura</i>	
<b>DEVELOPMENT OF A DIFFUSION BASED FORTIFICATION SYSTEM AND PROCESS TO IMPROVE THE IRON AND ZINC CONTENT IN RICE</b> .....	31
<i>Haily Seneviratne ; Manju Gunawardana ; Ananda Hettiarachchy ; Niranjan Rajapaksha</i>	
<b>DEVELOPMENT OF A COMPOSITE FLOUR BASED PASTA PRODUCT ENRICHED WITH BACILLUS COAGULANS GBI-30,6086</b> .....	37
<i>K. I. N. Piyadasa ; O. D. A. N. Perera</i>	
<b>COMPARISON OF GUAR AND XANTHAN GUMS ADDED GLUTEN-FREE MUFFINS FROM TRADITIONAL YAM “MAHA ANGILI ALA” (DIOSCOREA ALATA) FLOUR</b> .....	42
<i>Sasika Kalhari ; Isuru Wijesekara</i>	
<b>CURCUMIN ETHANOLIC EXTRACTION AND ITS’ STABILITY IN FOOD APPLICATIONS</b> .....	46
<i>R. M. M. P. Rathnayaka ; G. D. M. P Madhusankha ; O. D. A. N. Perera</i>	
<b>DEEP LEARNING BASED APPAREL PRODUCT DEVELOPMENT SYSTEM</b> .....	52
<i>S. D. M. W. Kularatne ; A. N. I. Nelligahawatta ; Dharshana Kasthurirathna ; S. A. Wickramage</i>	
<b>A PRELIMINARY STUDY ON THE USE OF SOIL AS A FLOOR FINISHING MATERIAL</b> .....	58
<i>Harsha Galabada ; Rangika Umesh Halwatura</i>	
<b>Author Index</b>	