



PROGRAMME

Technical sessions of 5th Wayamba University Research Congress

Our Innovations for National Development



**Senate Research and Higher Degrees Committee
Wayamba University of Sri Lanka**

12th February 2021



Session Chairs and Judging Panel Members
Technical sessions of 5th Wayamba University Research Congress

Session A

Chairperson: Prof. D. P. S. T. G. Attanayaka

Judges: Prof. P. I. P. Perera

Dr. Menuka Udugama

Session B

Chairperson: Prof. N. G. J. Dias

Judges: Dr. Tharinda Vidanagama

Dr. R.A.N Dilrukshi

Session C

Chairperson: Prof. K. D. R. R. Silva

Judges: Dr. Prasanna Gunathilake

Dr. Krishanthi Premarathne

Session D

Chairperson: Prof. H .M .A. Herath

Judges: Dr. Thusitha Karandaketiya

Dr. W. S. Sanjeewa

Program
Inaugural Ceremony
5th Wayamba University Research congress

8.30 a.m.	Registration
9.00 a.m.	Lighting the Traditional Oil Lamp
9.10 a.m.	University Anthem
9.15 a.m.	Welcome Address Dr. W. A. S. Wijesinghe Chairman, Senate Research and Higher Degrees Committee
9.25 a.m.	Address by the Chief Guest Snr. Prof. Udith K. Jayasinghe Vice-Chancellor, Wayamba University of Sri Lanka
9.40 a.m.	Keynote Speech Snr. Prof. Ajith De Alwis Department Chemical and Process Engineering Faculty of Engineering, University of Moratuwa
10.10 a.m.	Awarding of Wayamba University Research Awards
10.45 a.m.	Wayamba University Awards for Service Appreciation
11.00 a.m.	Vote of Thanks: Dr. B. L. W. K. Balasooriya Co-Chair, WURC 2020
11.05 a.m.	National Anthem
11.10 a.m.	Refreshments
11.30 a.m.	Technical Sessions

Technical sessions of 5th Wayamba University research Congress

Session A: Innovations in Agriculture

Venue: Pandith Amaradewa Auditorium

Time: 11:30 a.m. – 3:00 p.m.



Time	Title	Page
11.30 a.m.	Differential Expression of Os11g0655900 Gene and Protein Structure Prediction in Relation to Salt Tolerance in Rice <i>Abhayawickrama B. P., Kottearachchi N. S., Gimhani D. R. and Herath V.</i>	1
11.45 a.m.	Assessment of Genetic Basis of Grain Pigmentation in Sri Lankan Rice Germplasm <i>Welagedara J. W., Gimhani D. R., Kottearachchi N. S. and Wijesinghe J. A. A. C.</i>	3
12.00	Recognition of Two New Species to the Genus <i>Lagenandra</i> in Sri Lanka <i>Yakandawala K., Madola G. K. I. S., Yakandawala D. M. D. and Karunaratne S. B.</i>	5
12.15 p.m.	Sustainable Knowledge Transfer in Rural Communities: Case of Export Agriculture Farmers in Sri Lanka <i>Jayathilake H. A. C. K., Dissanayake U., Jayasinghe-Mudalige U. K., Edirisinghe J. C., Herath H. M. L. K. and Lindara L. M. J. K.</i>	7
12.30 p.m.	Effect of Co-Compost Pellets with Biochar on Growth and Yield of <i>Ipomoea batatas</i> (L.) and Its Residual Fertilizer Effect on <i>Ipomoea aquatica</i> (L.) <i>Pushpakumara A. W. S., Pamarathna T. M. S. L., Weerakkody W. J. S. K., Ranaweera B. and Karunaratne K. H. M. I.</i>	9
12.45 p.m.	The Role of Farmer Perception in Fertilizer Application by Smallholder Rubber Farmers in Kagalle District: A Preliminary Investigation with Bayesian Analysis <i>Balasooriya B. M. D. C., Edirisinghe J. C. and Seneviratne P.</i>	11
1.00 p.m.	Exploring the Impact of Non-Tariff Measures on Sri Lankan Tea Trade: A Bayesian Inference <i>Ranjan K. R. H. M. and Edirisinghe J. C.</i>	13
1.15 p.m.	A Review on Damage Threshold of Root-Knot Nematodes (<i>Meloidogyne</i> spp.) in Crops <i>Peiris P. U. S.</i>	15
1.30 p.m.	Lunch	
2.15 p.m.	Nitrogen and Phosphorus Removal by Cyanobacteria and Eukaryotic Microalgae Isolated from Domestic, Agricultural and Industrial Wastewater <i>Dilshan U. H. B. Y., Balasooriya B. L. W. K. and Bandara N. G. C. A.</i>	17
2.30 p.m.	Microsatellite based Investigation for the Selected Floral Variations of <i>Vanda tessellata</i> (Roxb) Hook. ex G. Don and Other <i>Vanda</i> Species Occurring in Sri Lanka <i>Gunasekara R. S., Yakandawala K., Jayakody S., Wijesundara D. S. A. and Mewan K. M.</i>	19
2.45 p.m.	Evaluation of Growth and Yield of Tomato Plants Grown in Biodegradable Coir Fiber Pots <i>Eranga R. L. A. A., Peiris P. U. S., Wijesekara R. G. S., Abeyasinghe D. C. and Dharmasena C.</i>	21
3.00 p.m.	Determinants of Academic Performance of Undergraduates in Agriculture Faculties of State Universities in Sri Lanka <i>Wijesinghe A. G. K. and Abeynayake N. R.</i>	23
3.15 p.m.	Role of Key Performance Indicators to Revitalize Performance of Research Institutes on Commercial Agriculture <i>Abeysirwardana P. C. and Jayasinghe-Mudalige U. K.</i>	25
3.30 p.m.	Refreshments	

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Session B: Innovations in Applied Sciences & Technology

Venue: Auditorium, Faculty of Applied Sciences

Time: 11:30 a.m. – 3:00 p.m.



Time	Title	Page
11.30 a.m.	Stability of a Zn Rechargeable Cell with a Natural Rubber based Electrolyte <i>Rajapaksha H. G. N., Perera G. A. K. S., Vidanapathirana K. P. and Wijayantha K. G. U.</i>	26
11.45 a.m.	Identifying the Suitability of Sri Lankan Natural Graphite for Electrochemical Double Layer Capacitors (EDLCs) <i>Perera G. A. K. S., Vidanapathirana K. P. and Gunasekera B. P.</i>	28
12.00	Use of an Ionic Liquid based Gel Polymer Electrolyte in an Electrochemical Double Layer Capacitor based on Natural Graphite Electrodes <i>Prasadini K. W., Perera G. A. K. S. and Vidanapathirana K. P.</i>	30
12.15 a.m.	Exfoliated Graphite based Electrochemical Double Layer Capacitor <i>Rajaguru D. S. K., Vidanapathirana K. P. and Perera K. S.</i>	32
12.30 a.m.	Characterization of a Gel Polymer Electrolyte based Electrochemical Double Layer Capacitor <i>Rathnayake R. M. L. L., Perera G. A. K. S. and Vidanapathirana K. P.</i>	34
12.45 a.m.	Radio Frequency Energy Harvesting Circuit for Passive RFID Tag and Sensor Device <i>Wickramasinghe W. M. S. M., Senadeera P. M., and Jayasinghe J. M. J. W.</i>	36
1.00 a.m.	A Study on Simulated Creeping Discharges <i>Ediriweera W. E. P. S., Jayarathne K. L. I. M. P. B., Samarasinghe R. and Lucas R.</i>	38
1.15 a.m.	A Novel Approach for Preparation of Chitosan Nanoparticle based Green Nanofertilizer with Control Release NPK and Enhanced Water Retention in Soil <i>Shantha Siri J. G., Fernando C. A. N. and De Silva S. N. T.</i>	40
1.30 p.m.	Production of Nanofiber from Polyaniline for Textiles Membranes Applications <i>Perera N. W. P. S., Fernando C. A. N. and Herath H. M. T. D.</i>	42
1.30 p.m.	Lunch	
2.15 p.m.	Characterization of Semiconductor Laser Optical Injection Locking for Intensity and Phase Noise <i>Kumarayapa Y. A. A., Samarakkody G. S. and Weerasuriya R.</i>	44
2.30 p.m.	Text Encryption and Decryption with 3×3 Self-Invertible Matrix Generation <i>Upekha T. D. K. and Bandara D. M. S.</i>	46
2.45 p.m.	Efficacy of using SVM on Iot Security Threat Identification under Reduced Feature Set Architecture Compared to J48 and Random Forest Algorithms using UCI Benchmark Data Set <i>Samanwickrama W.D., Munasinghe L. and Perera L. D. R. D.</i>	48
3.00 p.m.	Detection of Foreign Materials in Transparent Containers for Low-Cost Product Quality Monitoring Systems <i>Bandara M. R. H. E., Wijesinghe W. A. S. and Wickramasinghe I. P. M.</i>	50
3.15 p.m.	Developing Image Encryption Process using Self-Invertible Matrix of Hill Cypher Method <i>Wijesinghe W. A. D. C. and Bandara D. M. S.</i>	52
3.30 p.m.	Refreshments	

Technical sessions of 5th Wayamba University research Congress
 Session C: Innovations in Livestock, Fisheries, Food Science & Nutrition
 Venue: Old Board Room, Faculty of Applied Sciences
 Time: 11:30 a.m. – 1.30 p.m.



Time	Title	Page
11.30 a.m.	Modification of a Protocol for Collagen Extraction from the Skin of Commercially Important Fish Species <i>Ampitiya A. G. D. M., Gonapinuwalla S. T., Fernando C. A. N. and De Croos M. D. S. T.</i>	54
11.45 a.m.	Dietary Concentrations of Selected Major and Trace Elements Fed in Dairy Farms of Sri Lanka <i>Weerathilake W. A. D. V., Prathapasinghe G. A., Weerasinghe W. M. P. B. and Sinclair L. A.</i>	56
12.00	Two Species of Undescribed Lion's Mane Jellyfish (<i>Cyanea</i> spp.) Found from Sri Lankan Waters <i>Karunarathne K. D. and De Croos M. D. S. T.</i>	58
12.15 a.m.	Single Dose Efficacy of Herbal Tea on Glycemic Response in Healthy and Hyperglycemic Individuals <i>Chandrasekara G. A. P., Maduwanthi K. K. N., Zafarina M. Z. F. and Chandrasekara A.</i>	60
12.30 p.m.	Living and Farming in the Vicinity of Maduru Oya National Park with Elephants: Solutions Need Thinking Beyond Fences <i>Wilson A. S. C., Jayakody S., Pathmalal U. K. G. K.</i>	62
12.45 p.m.	Effect of Sodium Bicarbonate in the Extraction Process of Curcumin and Its Colour Stability <i>Madhusankha G. D. M. P., Jayasinghe C. V. L. and Perera O. D. N. A.</i>	64
1.00 p.m.	Alteration of Phagocytosis in Leukocytes of Nile Tilapia (<i>Oreochromis niloticus</i>) by Heavy Metals <i>Gallage S.</i>	66
1.15 p.m.	Herbal Yogurt: A Symbiotic Yogurt Alternative for Herbal Porridge ("Kolakenda") <i>Wijewickrama S. N. M., Jayasinghe C. V. L., Jayatilake S. and Perera O. D. A. N.</i>	68
1.30 p.m.	Influence of Giant Freshwater Prawn Introduction on Fisheries Management in Tropical Reservoir: A PEST Analysis <i>Digamadulla D. S., Jayasinghe-Mudalige U. K., Amarasinghe U. S. A., Wijenayake W. M. H. K. and De Croos M. D. S. T.</i>	70
1.30 p.m.	Lunch	

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 Session D: Innovations in Teaching Learning and Management Studies
 Venue: Interactive Lecture Room, Faculty of Applied Sciences
 Time: 11:30 a.m. – 1.30 p.m.



Time	Title	Page
11.30 a.m.	Exploring Teacher Readiness for Incorporating Information Communication Technology to the Advanced Level Classes of Government Schools of Sri Lanka <i>Weerasinghe K. S., Perera N. S., Jayathilake H. A. C. K., Weerakkody W. J. S. K., Gajanayake K. G. M. C. P. B.</i>	72
11.45 a.m.	The Effectiveness of Teaching Information Technology Using the Conventional Methodology and Task-Based Methodology for Medical Undergraduates <i>Nanayakkara P. M., Pieris H. M., Muthuthamby M. M. and Ranathunga R. A. N.</i>	74
12.00	Impact of Managerial Skills of University Administrative Officers towards Organizational Effectiveness <i>Keerthirathna W. M. U., Perera M. A. C. H.</i>	76
12.15 p.m.	A Study on Consumer Preference of Purchasing Hybrid Vehicles in Sri Lanka <i>Herath H. M. A. J.</i>	78
12.30 p.m.	Learning Style Preferences among First Year Medical Students in Wayamba University of Sri Lanka <i>Wickramarathna E. A. A. M., Chandimal K. M. and Ekanayake E. M. D. P.</i>	80
12.45 p.m.	“Light and Dark in Women Strengths” Psychological Capital of Women Entrepreneurs in the SME Sector of Sri Lanka <i>Tennakoon W. D. N. S. M.</i>	82
1.00 p.m.	Identification of the Gaps in the Skills and Attitudes between Sri Lankan Labour and Foreign Labour in the Construction Projects <i>Kesavan M., Dissanayake P. B. G., Pathirana C. K., Deegahawature M. M. D. R. and Silva K. D. R.</i>	84
1.15p.m.	Skilled Migration Phenomenon in Sri Lanka: Analysis of Academics’ Intention to Migrate Abroad <i>Wijesiri B. M.</i>	86
1.30	Lunch	

Contact numbers of Session coordinators

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