H.G.I.M. WIJESINGHE

Lecturer in Rubber Processing Technology

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1. PROFILE

A Rubber Technologist mastered in the field of Polymer Science and Technology with research interests on Polymer Technology, Rubber Composite Development, Rubber Product Designing and Polymeric Nanocomposite Development. The objective is to serve the organization by the level best being enthusiastic and self-motivated.

2. EDUCATIONAL QUALIFICATIONS

- MSc in Polymer Science and Technology, Faculty of Applied Sciences, University of Sri Jayewardenepura, Sri Lanka
- BSc(Hons) in Palm & Latex Technology and Value Addition, Uva Wellassa University of Sri Lanka

3. PUBLICATIONS

3.1 Peer Reviewed Journal Articles

- H.G.I.M. Wijesinghe, W.G.T.W. Gamage, P. Ariyananda, H.A.S.L. Jayasinghe and A.N.R. Weerawansha (2016). Optimization of Calcium Carbonate ($CaCO_3$) Loading in Natural Rubber Latex Based Disposable Gloves. International Journal of Scientific and Research Publications, 6(3). pp 266-269. http://www.ijsrp.org/research-paper-0316/ijsrp-p5146.pdf.

- H.G.I.M. Wijesinghe and A.N.R. Weerawansha (2016). Development of Composite Fibre Board (CFB) using Coir Pith and Rice Husk Ash with Phenol Formaldehyde Resin. International Journal of Scientific Research and Development, 3(11). pp 872-875. http://www.ijsrd.com/article/IJSRDV3I110224.pdf.

- H.G.I.M. Wijesinghe, U.N. Ratnayake, A. Alakolanga and N.S. Withanage (2015), Raw Rubber Properties and Viscoelastic Properties of OMMT Clay Filled Crepe Rubber, Journal of Rubber Research Institute of Sri Lanka, Volume 95, pp 39-57.

3.2 Abstracts/Extended Abstracts

- T.A.R.W.M.C.G. Bandara, T.N.B. Etampawala, Sarath Kularathna, H.G.I.M. Wijesinghe and A.M.W.K. Senevirathna (2018). Cellulose Whiskers Extracted from Banana Pseudo-Stem as Reinforcing Filler for Natural Rubber Tyre Tread Compound Using Latex Intercalation Method. Proceedings of 2nd International Research Symposium of Uva Wellassa University, January, 2018. pp 392.

- T.A.R.W.M.C.G. Bandara, H.G.I.M. Wijesinghe (2019). Surface Modification of Cellulose Micro-fibrils extracted from Banana Pseudo Stem using Bis[3-(triethoxysilyl)propyl] tetrasulfide. 3rd International Research Symposium of Uva Wellassa University, *January, 2018. pp 392*

- K.C. Samaraweera, H.G.I.M. Wijesinghe, T.N.B. Etampawala, D.G. Edirisinghe and A.M.W.K. Senevirathna (2018). Silica Extracted from Rice Husk Ash as an Effective Reinforcing Filler for Natural Rubber Composites. Proceedings of 2nd International Research Symposium of Uva Wellassa University, January, 2018. pp 394.

- E.N.N. Nanayakkara, A.P. Attanayake, H.G.I.M. Wijesinghe and A.M.W.K. Senevirathna (2018). Effect of Ethephon Stimulation on Physio-Mechanical Properties of Carbon Black Filled Natural Rubber Vulcanizates. Proceedings of 2nd International Research Symposium of Uva Wellassa University, January, 2018. pp 395.

- U.D.D. Bhagya Malshani, S. Gunawardene, H.G.I.M. Wijesinghe and P.E. Kaliyadasa (2018). Optimization of Mixing Parameters Using Mooney Viscometer of Top and Bottom Profiles in Off the Road Rubber Track Compounds. Proceedings of 2nd International Research Symposium of Uva Wellassa University, January, 2018. pp 411.

- W.L.A.M. Liyanage, H.M.S.K. Herath, H.G.I.M. Wijesinghe and C.R.C. Perera (2018). Use of Coir Fibre Waste as an Effective Raw Material for Fibre Boards Reinforced with Natural Rubber Latex Compounds and Phenol Formaldehyde Resin. Proceedings of 2nd International Research Symposium of Uva Wellassa University, January, 2018. pp 414.

- J.G.I. Nirmani, R.C. Munasinghe, P.E. KAliyadasa and H.G.I.M. Wijesinghe (2017). Effect of Mixer Parameter on Quality and Prodcutivity of Silica Filled Natural Rubber based Solid Tyre Tread Compounds. Proceedings of International Research Symposium of Uva Wellassa University, January, 2017. pp 21.

- P.K.A. Jeewanthi, S.R.W.M.C.J.K. Ranawana, H.G.I.M. Wijesinghe, P.J. Liyanagamage and S. Sudarshana (2017). Optimization of Processing Parameter Ranges for Reduction of Defects in Surgical Glove Production. Proceedings of International Research Symposium of Uva Wellassa University, January, 2018. pp 252.

- H.G.I.M. Wijesinghe, U.N. Ratnayake, A. Alakolanga and N.S. Withanage (2015), Viscoelastic Properties of OMMT filled Fractioned Bleached Crepe Rubber, Proceedings of the Research Symposium of Uva Wellassa University, January 29-30, 2015

3.3 Scientific Presentations

- Viscoelastic Properties of OMMT filled Fractioned Bleached Crepe Rubber – Research Symposium of Uva Wellassa University, January 29-30, 2015

3.4 Theses/Dissertations

- Viscoelastic Properties of Organoclay Filled Nano Crepe Rubber - 2014
- Development of an Oil Resistant NR/NBR Blend Compound Filled with Silica Extracted from Rice Husk Ash (RHA silica) - 2019

4. RECENT RESEARCH PROJECTS INVOLVED

- Oil Resistant NR/NBR Blend Compound Filled with Silica Extracted from Rice Husk Ash
- Development of rubber composite using Natural rubber reinforce with amorphous and Silica extracted from rice husk ash as a cost effective filler
- Development of rubberize sheet using coconut fiber waste
- Effect of mixing parameters for viscosity of carbon black filled rubber compounds during final stage compounding
- Development of rubber compatible fiber pulp using banana pseudo stem
- Preparation and characterization of Centrifuged latex with Low non-rubber content
- A Study on Chafer opening problem arise after Carcuss manufacturing of Pneumatic tyre manufacturing process

5. GRANTS RECEIVED

- Research Grant for short term research (UWU/RG/ST/2019/009), Uva Wellassa University in 2019
- Co-Investigator (UWU/RG/2018/010)

6. THESIS SUPERVISION

- Effect of mixer parameters on quality and productivity of silica filled Natural rubber based solid tyre tread compounds
- Optimization of process parameter ranges for reduction of defects in surgical glove production
- Effect of maturation time of Acrylonitrile butadiene (NBR) latex compound on properties of vulcanized glove films
- Effect of Polybutadiene rubber on curing characteristics of rubber bonding compounds used in pneumatic tyres
- Rubberized fibre board using Coconut fiber waste
- Effect of mixing parameters for viscosity of rubber compounds during final stage compounding
- Developing a rubber compatible fiber pulp using Banana pseudo stem
- Preparation and characterization of centrifuged latex with low non-rubber content
- A study on chafer opening problem arise after Carcuss manufacturing of pneumatic tyre manufacturing process
- Development of rubber composite for durable outdoor floor tiles using reinforced Natural rubber: Styrene butadiene rubber blend extracted from rice husk as cost effective filler
- Optimization of leaching process in order to reduce water consumption within disposable glove production
- Nanotechnological approach for latex preservation system
- Rubberized steel belt gauge improvement and elimination of steel visibility of cold feed extruder
- Identification of a suitable blend of rubber latices in view of achieving improved resistivity of chemical permeation of them in the form of films
- Define the suitable compounding and processing parameters to control cracks & splitting in NR coating supported gloves

- A dual filler system for low-speed solid tyre base compound

7. TEACHING CONTRIBUTION

- Rubber Product Design and Development (PLT 443-2)
- Rubber Processing Technology I (PLT 341 -2)
- Rubber Processing Technology II (PLT 345-2)
- Latex Industrial Machinery (PLT 243-2)
- Industrial Waste Management (PLT 344-1)
- Processing & Value Addition to Plantation Crops (EAG 342-2)
- Field training coordinator (PLT 381-2)
- Industrial training coordinator (PLT 481-0)

8. WORK EXPERIENCE

- Work as a Lecturer in the Department of Export Agriculture, Uva Wellassa University from 2016 to date
- Worked as a Temporary Lecturer in the Department of Export Agriculture, Uva Wellassa University in 2016
- Worked as a Temporary Demonstrator in the Department of Export Agriculture, Uva Wellassa University from 2015 to 2016
- Worked at Lalan Rubbers Private Limited, EPZ Biyagama as a Junior Executive from 2014 to 2015

9. OTHER POSITIONS HELD

- Secretary to the Department Meeting of Department of Export Agriculture from 2018
- Member of Department Curriculum Development Committee
- Coordinator to develop course contents of BSc in Plantation Management & Manufacturing Technology (8 Courses related to Polymer Technology)
- Student Counselor, Faculty of Animal Science and Export Agriculture
- Member of Student Advisory Committee, Uva Wellassa University
- Committee member of sub-committee on Course Module Design and Development, SER for the PR 2018

- Academic sub warden, 2017 & 2018
- Member of University Business Linkage
- Member of Uva Agriculture Development Forum
- Co-coordinator of the CRT Exhibition 2017 Ministry of Planation Industries, BMICH
- Co-coordinator of the track-Crop Production, IRSUWU – 2018

10. RESOURCE PERSON

- Workshop on Bio System Technology for A/L Students in Uva Province - 2016

11. TRAININGS AND WORKSHOPS ATTENDED

- Participated to the Hands on workshop for material characterization, University of Sri Jayewardenepura- 2019
- Participated to the Seminar on Standardization and Quality Control, Uva Wellassa University - 2017
- Participated to the Sub-committee member of the workshop on Gender Equity and Equality - 2018
- Participated to the Workshop on Intellectual Property Rights, Uva Wellassa University - 2019

12. PERSONAL INFORMATION

Surname : WIJESINGHE
Name : ISHARA MADHUSHANKA
Gender : MALE
Marital Status : MARRIED
Nationality : SINHALA