

Dr. T D C M K Wijayasiriwardena

Research Fellow/ Director

Department of Techno-Entrepreneurship, Manufacturing & Logistics



Qualifications	BSc(Chemistry, zoology & Microbiology), MSc in medicinal plants, Master of Public Management(Reading) at SLIDA, Dip in Herbal Drugs Manufacturing Management & PhD in Pharmacognosy of medicinal plants.
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Specialized Fields	Identification of herbal raw materials, formulation development of herbal and cosmetic products, adulteration detection of herbal cosmetic and food products, value addition to herbal, cosmetic and industrial by-products
Interest Areas	Adulteration detection, formulation development for herbal cosmetic products, entrepreneurship development & manufacturing for industries, capacity building
Publications	<ol style="list-style-type: none">1. PMS.Hansika, PI.Ellawala & TDCMK. Wijayasiriwardena (2024) Purification of crude glycerin from biodiesel production and development of a cost effective car wash. Proceedings of the International conference in frontiers in chemical technology, 101.2. NPM. Gunarathne, NMC. Nayanakantha & TDCMK. Wijayasiriwardena (2024) Formulation and quality assessment of soap-nut antidandruff shampoo, In Proceedings of International research symposium on Traditional Medicine.1363. Chandrasekera CMDV., Perera WGMS & Wijayasiriwardena TDCMK.(2023) Validation of Liquid Toilet Soap as per SLS 1142: 2009 consumer satisfaction survey on liquid toilet soap vs hand wash. 6th biannual research symposium, ITI. 414. Gamage KGUS., Perera WGMS, Wijayasiriwardena TDCMK(2023)Development of a bathing bar as per SLS 1220:2016 and preliminary evaluation of consumer satisfaction. 6th biannual research symposium, ITI. 42.5. Thathsarani HSR., Perera WGMS, Wijayasiriwardena TDCMK Development and Quality assessment of a transparent soap enriched with <i>Aloe vera</i> Linn. 6th biannual research symposium, ITI. 43.6. Vitharana DD., Perera WGMS, Wijayasiriwardena TDCMK(2023), Development of a pet soap based on Traditional claims and premarketing surveillance study.6th biannual research symposium, ITI. 44.7. Pathirana M.P.K.N., Kumarapeli K.A.M.S., Dayananda T.G, Wijayasiriwardena T.D.C.M.K.(2023) Pharmacognostic studies on stem bark of <i>Canarium zeylanicum</i> (Retz.) SLJIM, Vol.08, Issue 01, 698-705.8. T. D. Wijayarathne & T. D. C. M. K. Wijayasiriwardena(2023) GC-MS study of rice bran oil in srilanka. 7th Annual Research Session of the IFSTSL at Food Techno 2023 at BMICH.

9. Samuddrika T.D.Y. , Pakeerathan K. , Kathirgamanathar S. and Wijayasiriwardana T. D. C. M. K.(2023) Screening of market cow's ghee samples to detect adulteration. SLJIM,Vol.08, Issue 01, 680-691.
10. T. D. Wijayarathne, M.I. Munasinghe and Wijayasiriwardana T. D. C. M. K.(2023) Value addition to rice bran oil as toilet soap. SLJIM,Vol.,08, Issue 01, 719-722.
11. Selvaluxmi Kathirgamanathar, BAW. Sahara, MMNP.Gunasekera, TDCMK. Wijayasiriwardana(2023), Qualitative and Quantitative detection of peanut oil adulteration in sesame oil in Chemistry in Sri Lanka. Vol.40, No 02, 32-33.
12. GHUM. Perera, SAS. Jayawardena, PSF. Perera, Ban Zaojun, TDCMK. Wijayasiriwardana (2022), "Effect of drying conditions on beta carotene, ascorbic acid and colour of *Moringa oleifera* Lam. leaf powder in 6th ICMPHP, International Conference on Medicinal plants, herbal products and Hydroponics, Colombo, Sri Lanka.
13. Jayasinghe PAKT & Wijayasiriwardana TDCMK.(2022) Optimization of biodiesel production from high free fatty acid containing coconut oil. Proceedings of 9th International conference on multidisciplinary approaches, University of Sri Jayawardenapura. 36.
14. BAW.Sahara, MMNP.Gunasekara, S.Kathirgamanathar and TDCMK.Wijayasiriwardana(2022)UV-Spectrometric detection of peanut oil adulteration in sesame oil. 6th ICMPHP, International Conference on Medicinal plants, herbal products and Hydroponics, Colombo, Sri Lanka. 88
15. NPKN.Pathirana, KAMS.Kumarapeli, TG.Dayananda and TDCMK.Wijayasiriwardana(2022) Pharmacognostical studies of *Canarium zeylanicum* stem bark and development of mosquito repellent formulations. 6th ICMPHP, International Conference on Medicinal plants, herbal products and Hydroponics, Colombo, Sri Lanka. 26.

Major Projects Undertaken

- Technology developed for identification of genuine bee honey, natural hair cream, anti-inflammatory ointment, instant cough syrup, mosquito repellent liquid vaporizer, air freshener, toilet soap, liquid soap, colognes, blended herbal oils, natural flavored mouth wash, natural based gels etc. based on Traditional knowledge.
- Technology developed for the production of biodiesel from underutilized fixed oils using alcohol which can not be consumed due to aldehydes and other impurities.
- Technology developed for biodegradable vegetable wash, termite repellent.
- Technology developed for biodegradable, non toxic solvent for hardware industry.

1. CURRENT RESEARCH AND OTHER ACTIVITIES

- Production of biodiesel from underutilized fixed oils.
- Development of varnish using cashew nut shell oil as drying oil.
- Development of biodegradable termite repellent from cashew nut shell liquid.
- Adulteration detection of bee honey by qualitative chemical test.
- Development of adulteration detection test kit for sesame oil.
- Development of spectrophotometric test method to detect sesame oil adulteration with peanut.
- Development of adulteration detection test kit for cow ghee.
- Development of TFM rich transparent soap from coconut oil.
- Development of high TFM toilet soap incorporating rice bran oil.
- Development of pet soap incorporating Magosa & Karanja oil.