

## Profile

**A scientist in the field of Agricultural Engineering having graduated BSc in Agriculture (Special) and MSc in Agricultural and Bio Systems Engineering with research interests on Design and Development of Farm Machineries, Renewable Energy Management, Testing and Evaluation of Farm Machineries and Modern Technological Applications in Agriculture. The objective is to full utilization of my capabilities, while making a significant contribution to the success of the organization.**

### FULL NAME

Muthuthanthrilage  
Piyaruwani Charithangi

### NATIONALITY

Sri Lankan

### CIVIL STATUS

Married

### POSTAL ADDRESS

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### MOBILE

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### E- MAIL

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### ORCID

<https://orcid.org/0009-0006-6226-1347>

## Academic Qualifications

**MPhil** in Agriculture (Reading), Faculty of Agriculture, Rajarata University of Sri Lanka, Sri Lanka *Research Topic:* Feasibility Assessment of the Chopper Harvester for Appropriate Mechanization of Sugarcane Harvesting in Sri Lanka

**MSc.** in Agricultural and Bio-Systems Engineering, Post Graduate Institute of Agriculture, University of Peradeniya, Sri Lanka (Effective Date -12.09.2019)

*Directed (Research) Study:* Mathematical Modeling of Edible Fraction of *Elabatu* (*Solanum melongena* var. *insanum*) Based on Fruit Physical Attributes

**BSc.** in Agriculture (Special), Faculty of Agriculture, Rajarata University of Sri Lanka (Effective Date -12.08.2015), (Second Class Upper Division)

Specialization Field: Agriculture Engineering ,*Dissertation* : Design and Development of an Efficient Smoker for Bee Keeping Industry in Sri Lanka



## ***Work Experience***

- April 2022 - Present      **Lecturer (Probationary)** in Agricultural Engineering, Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University of Sri Lanka
- Jan. 2018 - April 2022      **Lecturer (Probationary)** in Farm Machinery Technology, Department of Mechanical Technology, University College Kuliypitiya, Kuliypitiya, Sri Lanka
- 2019 onwards              **Visiting Lecturer**, National Institute of Plantation Management (NIPM), Athurugiriya, Sri Lanka
- Jun 2018 – Jun 2020      **Visiting Lecturer**, Sri Lanka Institute of Advanced Technological Education (SLIATE) -Gampaha, Naiwala, Sri Lanka
- July 2017 -Jan 2018      **Temporary Lecturer** in Farm Machinery Technology, University College Kuliypitiya, Kuliypitiya, Sri Lanka
- Nov. 2015 – June 2017      **Temporary Demonstrator**, Department of Agricultural Engineering and Soil Science, Faculty of Agriculture, Rajarata University of Sri Lanka

## ***Research, Publications and Innovations***

- ***Peer Reviewed Journal Articles***

Relationship Between Edible Fraction and Physical Attributes of Elabatu (*Solanum melongena* l. var. *insanum*) Fruit, Journal of Dry Zone Agriculture, 9 (1), pp 66- 80 (September 2023), Charithangi M.P. and Dharmasena D.A.N

An Investigation on Different Tillage Practices to Enhance the Productivity of Sugar Cane in Tropical Regions – A Review, Himalayan International Journal of Agriculture, Volume – 4, Issue – 02 (April, 2023), Pp 59-63, Charithangi M.P. and Gunapala H.M.M.S

Nut Cracking Machine for *Terminalia catappa* (Tropical Almond/ *Kottamba*), Rajarata University Journal, Volume 6 – Issue 2 (December 2021),Kahandage P.D., Pathirana M.A.B.L, Balasuriya A, Weerasooriya G.V.T.V, Piyathissa S.D.S, Charithangi M.P., Kosgollegedara E.J. and Ariyawansa T

Impact on Agronomic and Harvesting Practices on Tea Yield (*Camellia senensis*); The Study in Small Holder's Tea Lands, Passara, Sri Lanka, Himalayan International Journal of Agriculture, Volume – 2, Issue – 02 (July –

August 2021), Pp 15-24, Charithangi M.P. and Suneth H.M.M

- **Abstracts/Extended Abstracts**

Design and Development of an Efficient Smoker for Bee Keeping Industry in Sri Lanka, Undergraduate Research Symposium Proceedings, Rajarata University of Sri Lanka ,Pp 24

Charithangi MP, Rambanda M, Atapaththu DMK, Samarakoon SAMC and Perera DPL

- **Scientific Presentations**

Charithangi M.P., Kahandage P.D., Weerasooriya G.V.T.V., and Hapuarachchi A.S.K. (2017) Designing, development and performance evaluation of harvesting equipment for pepper (*Piper nigrum*), First International Symposium, Eastern University of Sri Lanka, Pp 85 – 93

Charithangi M.P., Rambanda M., Atapaththu D.M.K., Samarakoon S.A.M.C. and Perera D.P.L. (2015) Design, development and evaluation of the performance of an electrical bee smoker for bee keeping industry in Sri Lanka, Third International Research Symposium, Rajarata University of Sri Lanka, Pp 204- 213

B.G.R.R Bandara, M.P Charithangi, M.D.S.W, Goonathilake, and H.M.T.P Herath., Potential Species of Plants and Growing Substrates for Roof Greening in Tropical Regions., International Research Symposium – 2021 University of Vocational Technology, Sri Lanka, Pp 248 – 255

- **Theses/Dissertations**

Design and Development of an Efficient Smoker for Bee Keeping Industry in Sri Lanka – 2015

Mathematical Modeling of Edible Fraction of *Elabatu (Solanum melongena var. insanum)* Based on Fruit Physical Attributes - 2019

- **Patents**

Invention of a Flow Regulated Electrical Bee Smoker, (No: LK/P/1/18736), National Intellectual Property Office, Sri Lanka

Invention of a Wooden Roti Maker (In Process), National Intellectual Property Office, Sri Lanka

- **Recent Research Projects Involved**

Design and Development of Sugarcane Trash Remover, Feasibility Assessment of the Chopper Harvester for appropriate mechanization of Sugarcane harvesting in Sri Lanka

## ***Teaching Contribution***

### ***Uva Wellassa University of Sri Lanka***

Energy Management in Tea Processing	(T)
Latex Industrial Machinery	(T)
Farm Machinery and Mechanization	(T)
Farm Designing and Construction	(T + P)
Agricultural Meteorology and Climatology	(T + P)
Pesticide Formulation and Application	(T + P)

### ***University College Kuliyaipitiya***

Investigation of field conditions for optimum operation of farm machinery	(T +P)
Applications of principles of laminar flow	(T +P)
Operation of internal combustion engine	(T +P)
Hazards and safety in workplace	(T +P)
Manufacture of appropriate farm machinery	(T +P)
Quality assurance of products and services	(T +P)
Services and repairs of hydraulic systems and their components	(T +P)
Systematic design procedures of appropriate farm machinery	(T +P)
Theory of motion of machine components and their inertia forces	(T +P)
Selection and application of machine elements in farm machinery	(T +P)
Selection and application of material in manufacture of farm machinery	(T +P)
Quality management systems – process planning	(T +P)
Basic workshop practices	(T +P)
Engineering drawings	(T +P)
Surveying and leveling	(T +P)

Hydraulics (T +P)

***National Institute of Plantation Management***

Machinery and equipment for cultivation and primary processing (T +P)

Principles of operation & maintenance of agricultural machinery and infrastructure (T +P)

Agricultural Engineering (T +P)

***Advanced Technological Institute (Naiwala)***

Aquaculture (T+P)

Agro-meteorology and principles of crop production (T+P)

***Thesis Supervision (Co – Supervisor)***

Undergraduate

- Determination of curing and physico-mechanical properties of natural rubber (nr) based green composite developed by incorporation of corn husk leaf powder and corn husk fiber
- Effect of different water and nutrient level on growth and yield parameters of chilli (*Capsicum annum*) on coir pith medium
- Study on the rainfall erosivity and control measures on soil erosion in low elevation tea fields

***Special Courses and Trainings***

2021	Training on " <b>Certificate in Teaching Technical and Vocational Education in Competency Based Training</b> " Conducted by University of Vocational Technology
2022	Training Programme on <b>Climatic change and Agricultural Sustainable Development for Developing Countries</b> , Ministry of Commerce of the People's Republic of China
2020	Training programme on <b>Personal Development</b> , University College Kuliypitiya, Sri Lanka

- 2017 Certificate course in **C++ programming**, ESOFIT Institute, Bandarawela, Sri Lanka
- 2015 Training programme on **Quality Management**, University of Vocational Technology, Sri Lanka
- 2015 Diploma Course in **Human Resource Management**, Anuradhapura District Chamber of Commerce Industry & Agriculture, Anuradhapura, Sri Lanka
- 2014 **In-Plant Training Programme** at Lanka Sugar Company, Pelwatte, Sri Lanka
- 2013 Training programme on **Designing and Application of Micro Irrigation for Commercial Agriculture**, Farm Mechanization Training Center (FMTC), Anuradhapura, Sri Lanka
- 2013 Certificate course in **Tamil Language**, Cultural Centre, Rajarata University of Sri Lanka
- 2013 Training Programme on **Personality Development and Career Guidance**, Rajarata University of Sri Lanka
- 2013 Training programme on **Post-Harvest Technologies**, Institute of Post -Harvest Technology, Anuradhapura
- 2013 Training programme on **Operation and Maintenance of Two Wheel and Four Wheel Tractors**, Farm Mechanization Training Centre (FMTC), Anuradhapura
- 2013 Training programme on **Operation and Maintenance of Farm Machineries**, Farm Mechanization Training Centre (FMTC), Anuradhapura
- 2010 Training programme on **Induce Breeding and Seed Production** at National Aquaculture Development Authority of Sri Lanka (NAQDA)
- 2010 Certificate course in **Information Technology**, Comp Tech Institute, Wellawaya, Sri Lanka
- 2010 Diploma course in **English Language**, Marga Institute, Tangalle, Sri Lanka

## ***Leadership and Professional Activities***

- 2023 Member of the Organizing Committee, International Research Conference, Uva Wellassa Univerisity of Sri Lanka
- 2023 **Session Coordinator**/ Undergraduate Research proposal and final presentation (Agricultural Engineering Track) & Industrial Training Presentation, Uva Wellassa Univerisity of Sri Lanka
- 2022 **Member** of the Organizing committee - Second Annual 3 MT competition organized by Faculty of Animal Science and Export Agriculture, Uva Wellassa Univerisity of Sri Lanka
- 2022 **Member** of the Organizing Committee, Academic Session - 2022 organized by Department of Export Agriculture, Uva Wellassa Univerisity of Sri Lanka
- 2022 - Present **Field Training Coordinator**, Export Agriculture Degree Programme, Uva Wellassa Univerisity of Sri Lanka
- 2022 - Present **Secretary** to the Curriculum Development Committee of BSc. (Hons) in Agricultural Enterprise Development and Management degree program, Uva Wellassa University, Sri Lanka
- 2021 **Assistant Student Counselor** - University College Kuliypitiya, Sri Lanka
- 2020 - 2021 **External Supervisor / Invigilator** – Open University of Sri Lanka, Kuliypitiya, Sri Lanka
- 2019 **Co-control examiner** – GCE A/L Bio Systems Technology Stream Practical Examination , Department of Examinations, Sri Lanka
- 2018 – April 2022 **Course Coordinator** – Farm Machinery Technology Course , University College Kuliypitiya, Sri Lanka
- 2018 – April 2022 **Lecturer in Charge** – Examination Board, University College Kuliypitiya, Sri Lanka

- 2016            **Committee Member** -8<sup>th</sup> Annual Undergraduate Research Symposium,  
Faculty of Agriculture, Rajarata University of Sri Lanka
- 2015            **Vice Secretary** – Soil Science Society – Faculty of Agriculture, Rajarata University of  
Sri Lanka
- 2015            **Re-presenter** – “Wanni Innoveta -2015 Exhibition” Organized by the Three Forces  
Sri Lanka
- 2012            **Batch Representative** -2009/2010 Batch, Faculty of Agriculture, Rajarata University  
of Sri Lanka
- 2003- 2004        **Senior Prefect** – Kumaradasa Maha Vidyalaya, Wellawaya, Sri Lanka
- 1997- 1998        **Junior Prefect** – Kumaradasa Maha Vidyalaya, Wellawaya, Sri Lanka

### ***Membership Associates***

- 2021            Lifetime Full Member, International Society for Development and Sustainability  
(ISDS) (Membership ID : M13110246)
- 2021            Annual Member, International Society of Precision Agriculture (ISPA), (Membership  
ID : ISPA – 02166)
- 2021            Life Member, Young Scientist Forum (YSF), National Science and Technology  
Commission, Sri Lanka (NASTEC) (Membership ID: Y/C/11)
- 2021            Life Member, Sri Lanka Association for the Advancement of Science (SLAAS)  
(Membership ID: 11375/B)
- 2004            Volleyball Team, Kumaradasa Maha Vidyalaya, Wellawaya, Sri Lanka
- 2004            Netball Team, Kumaradasa Maha Vidyalaya, Wellawaya, Sri Lanka



## ***Personal Attributes***

Knowledge-Hungry, Eager to Meet Challenges and Quickly Assimilate Newest and Latest Technologies, Skills, Concepts and Ideas

Results-Driven Achiever and Effective Team Leader with Exceptional Interpersonal Skills

Exceptionally Motivated Self-Starter and Creative Problem-Solver Who Works Hard and Loves a Challenge