

Darshana Senarathna

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| Full name | : Dapana Durage Tharindu Trishan Darshana Senarathna |
| Name with initials | : D.D.T.T.D. Senarathna |
| Date of Birth | : July. 12. 1994 |
| Gender | : Male |
| Nationality | : Sri Lankan |

**PROFILE**

An applicant with research experience in **Analytical Chemistry, Nanotechnology, Aquatic Ecology** and **Food Science and Technology** with a desire to get advanced knowledge through active participation in research and academics aspire to become a leading Scientist.

**EDUCATION**

**University Education**

02/2016 – 03/2020

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| **Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka.**  B.Sc. Food Production and Technology Management (Special)  **Undergraduate research**  **Title:** A novel method to remove excess phosphate ions in water using vaterite polymorph of calcium carbonate nanoparticles  **Department of Chemistry, Faculty of Science, University of Peradeniya, Sri Lanka**.  **Supervisors**: Prof. R.M.G. Rajapakse  Dr. W.M.H.K. Wijenayake |  | **Number of credits:** 121  **Major subjects:**  Chemistry  Food Science  Aquaculture and Fisheries  Livestock  Agriculture  Environmental Science  **Other subjects:**  Human Nutrition  Animal Nutrition & Nutritional Biochemistry |

**Current CGPA**: 3.71/4.0 scale

**Collegiate Education**

2011 - 2014

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| **School: St. Aloysius' College, Galle, Sri Lanka.**  G.C.E A/L Examination  **Steam:** Biological Science |  | **Subjects and grades:**   |  |  | | --- | --- | | Chemistry | : A | | Biology | : B | | Physics | : C | |

**Secondary Education**

2005 – 2010

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| **School: St. Aloysius' College, Galle, Sri Lanka.**  G.C.E O/L Examination |  | **Achievements:**  A bright pupil to become 1st or 2nd out of 50 pupils in each class with special awards for **Geography** and **Agricultural science**.    Passed the G.C.E O/L Examination in 2010 with 7 ‘A’ passes and 2 ‘B’ passes**.** |

**Language Proficiency and Computer Literacy**:

English Language

* International English Language Testing System **(IELTS – 2020 January 04). Overall** **band 7.0 (Speaking – 7, Reading 7, Writing 6.5, Listening 6.5)**
* Successfully completed Certificate course in Spoken English and Grammar in American Collage of Higher Education (Obtained Honors level), 2016.
* Successfully completed certificate course in English and Japanese in Rural educational development and vocational training academy (First place) 2009
* Undergraduate Studies were conducted in English medium at the Wayamba University of Sri Lanka.
* Distinction Pass in English in O/L Examination, 2010.

Computer

* Excellent computer literacy
* Working experience in Microsoft Office packages and basic statistical software
* Successfully completed Certificate Course in Computer Applications in American College of Higher Education (Obtained Distinction level). 2016

**PROFESSIONAL EXPERIENCE**

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| **Teaching Assistant/Demonstrator**  Department of Aquaculture & Fisheries,  Faculty of Livestock Fisheries and Nutrition  Wayamba University of Sri Lanka | 10/03/2020 - update  **Course In-charge,**  Freshwater Food Resources Management & Limnology  Crustacean & Molluscs Farming Systems |
| **Technical Assistant (Part-time)**  Department of Chemistry,  Faculty of Science,  University of Peradeniya | 26/08/2019 – 25/10/26  AHEAD-ICE grant of Faculty of Science, University of Peradeniya.  To develop a Novel Lacto-Vegetarian Aloe Vera Yoghurt |
| **In-plant Trainee Research Student**  Department of Chemistry,  Faculty of Science,  University of Peradeniya | 23/09/2019 – 20/12/2019  Conduct research on Nano-materials and their application in water treatment |

**PUBLICATIONS:**

**Abstract:**

1. **D.D.T.T.D. Senarathna**, R.M.G. Rajapakse, K.H.D.N. Abeysooriya, and W.M.H.K. Wijenayake. 2019. Removal of phosphate ions in water using vaterite polymorph of porous calcium carbonate nanoparticles. Proceedings of Seventh International Symposium on Water Quality and Human Health: Challenges Ahead 6 – 7 December 2019, Postgraduate Institute of Science, University of Peradeniya -Sri Lanka, 28p.

2. **D.D.T.T.D. Senarathna**, R.M.G. Rajapakse, K.H.D.N. Abeysooriya, and W.M.H.K. Wijenayake. 2020. Aqueous phosphate removal behavior of chemically synthesized vaterite nanoparticles: Isotherms and Kinetic study. Proceedings of 7th Ruhuna International Science and Technology Conference 22 January 2020, Faculty of Science, University of Ruhuna, Matara, Sri Lanka, 14p.

3. **D.D.T.T.D. Senarathna**, R.M.G. Rajapakse, K.H.D.N. Abeysooriya, and W.M.H.K. Wijenayake. 2019. A novel method to remove excess phosphate ions in water using vaterite polymorph of calcium carbonate nanoparticles’ Proceedings of the Sixth Undergraduate Research Symposium 10 December 2019, Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka, 76p.

4. R.M.A.D. Buddhika, M.M.M.G.P.G. Mantilaka, **D.D.T.T.D. Senarathna**, K.H.D.N. Abeysooriya and S. Wijethunga. 2020. Synthesize of a biochar using hotel sewage sludge and its application for aqueous cadmium removal. Undergraduate Research Symposium on Agricultural Engineering & Green Technology. Department of Agricultural Engineering, Faculty of Agriculture, University of Ruhuna.18 p.

**Full Research Articles:**

**Article in preparation, D.D.T.T.D. Senarathna**, R.M.G. Rajapakse, K.H.D.N. Abeysooriya, and W.M.H.K. Wijenayake. 2020. Selective phosphate removal from aqueous solutions and wastewaters using chemically-synthesized vaterite polymorph of porous calcium carbonate nanoparticles under optimized conditions, Journal of Separation and Purification Technology (Elsiver).

**Article in preparation, D.D.T.T.D. Senarathna**, T. Vithushana, W.M.H.K. Wijenayake. 2020. Development of novel commercially viable stirred yogurt with prolonged shelf life incorporating osmotically dehydrated *Aloe vera* (A*loe barbadensi*Mmiller) gel.

**Awards:**

Best Presenter Award in UReS (University Undergraduate Research Symposium, 3 minutes thesis presentation) Wayamba University of Sri Lanka: 2019

**Research projects**

1. **Development of a Bio-plastic using the scales of Indian Carp species** (Under the supervision of Dr. R.G.S Wijesekara, for innovation in Aquaculture Engineering, Wayamba University of Sri Lanka, 2018).
2. Undergraduate Research to A novel method to **remove excess phosphate ions in water using vaterite polymorph of calcium carbonate nanoparticles**’, 2019.
3. In plant training research project (I), **Synthesize of a biochar using hotel sewage sludge and its application for aqueous cadmium removal**, 2019-2020.
4. In plant training research project (II), **Removal of Cadmium and Lead using chemically synthesized vaterite polymorph of Calcium carbonate nanoparticles**, 2019 – 2020.
5. In plant training research project (IV), **Removal of fluoride ions in water using Hydroxyapatite nanoparticles developed from dolomite**.
6. **Encapsulation of curcumin nanoparticles extracted from turmeric using calcium carbonate nanoparticles and analysis of its antimicrobial properties**. 2020.
7. Development of a **Novel Lacto-Vegetarian set yoghurt by incorporating osmotically dehydrated Aloe Vera gel as a stabilizer substitute** (As a Technical Assistant under Professor M.M.A.N Navaratne, Department of Chemistry, Faculty of Science, University of Peradeniya, ICE grant . 2019-2020).
8. Development of the livelihood of rural by introducing the ornamental fish farming (Under community-link project, 2018)
9. **Development of novel commercially viable stirred yogurt with prolonged shelf life incorporating osmotically dehydrated Aloe vera (Aloe barbadensiMmiller) gel.** 2020

**EXTRA-CURRICULAR ACTIVITIES**

* Member of the Science Association of St. Aloysius' College, Galle, 2013.
* Secretary, Geography Society of St. Aloysius' College, Galle, 2010.
* President of the Literature Society, St. Aloysius' College, Galle, 2005.
* Secretary of the Buddhists Students’ Association St. Aloysius' College, Galle, 2010.
* Active participation in track and field events in sport meets, St. Aloysius' College, Galle.
* Participation in Agriculture quiz programmes and received victories. Where and when
* The presenter and the active member of AQRES (Aquatic Recourses Explorers Society) of Wayamba University of Sri Lanka (2018).
* Member of the University Student - Staff Liaison Committee, 2018-2019.

**PROFESSIONAL BACKGROUND**

Conferences and Symposia

* Seventh National symposium of Air Quality Management, Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka 2018.
* International Symposium of Water and Air Pollution, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka, 2019.
* Seventh International Symposium on Water Quality and Human Health: Challenges Ahead, Postgraduate Institute of Science, University of Peradeniya, Sri Lanka, 2019 (As a Presenter).
* Seventh Ruhuna International Science and Technology Conference 2020, University of Ruhuna, Sri Lanka, 2020 (As a Presenter).
* Sixth Undergraduate Research Symposium, Wayamba University of Sri Lanka. Year, 2019 (As a Presenter).

Workshops and Exhibitions

* Scientific Training Workshop on Air Quality Awareness and Management at Postgraduate Institute of Science, University of Peradeniya 2018.
* Workshop on Emotional Intelligence at Wayamba University of Sri Lanka, 2016.
* Innovator and exhibit developer in nanotechnology with Sri Lanka Institute of Nano Technology for “Shilpa Sena” exhibition conducted by the Ministry of Science Technology and Research, Sri Lanka 2019.
* Exhibit Developer and Presenter at “Wayambin Deyata – 2019” educational exhibition.

**FUTURE RESEARCH INTERESTS**

* Analytical Chemistry and Nanotechnology in water treatment, waste water management and solid waste management
* Food Science, Nutrient Encapsulation, food packaging and product development
* Environmental Sustainability and Ecotoxicology
* Freshwater Ecology, Limnology and Integrated Water Resource Management
* Water and Coastal management with Chemical Oceanography
* Eutrophication, Marine resources and Aquaculture

**NONRELATED REFEREES**

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| Prof. R.M.G. Rajapakse  Senior Professor,  Department of Chemistry,  Faculty of Science,  University of Peradeniya,  Peradeniya, Sri Lanka.  Tel: +94812394421  Email. rmgr@pdn.ac.lk | Dr. W.M.H.K. Wijenayake  Senior Lecturer,  Department of Aquaculture and Fisheries,  Faculty of Livestock Fisheries & Nutrition  Wayamba University of Sri Lanka,  Makandura, Sri Lanka.  Tel: +94312299874  Email. wmhiranyakelum@gmail.com |
| Dr. Upamali Peiris  Lecturer,  Biostatistics Unit,  Faculty of Livestock Fisheries & Nutrition,  Wayamba University of Sri Lanka,  Makandura, Sri Lanka.  Tel: +94779486813/+61435807612  Email. u.peiris@cqu.edu.au |  |

I hereby certify that the above particulars furnished by me are true and accurate to the best of my knowledge.

Yours sincerely,

Darshana Senarathna