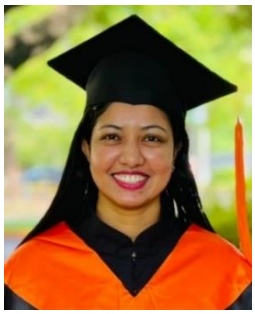
LALANI RANDIKA FERNANDO



Address: M404, Chemical Material Building, 145 Xingda Rd., South Dist., Taichung City 402, Taiwan R.OC.
Phone: +886-980-754-795, +94-711-867-789
E-mail: fernandolalani@gmail.com

Self-motivated, creative and hard-working individual seeking an opportunity to excel in a professionally competent academic and research environment that encourages innovation and to utilize my skills and knowledge in Physics and other related subjects.

Education

2020.02 - Current

Master of Material Science and Engineering

National Chung Hsing University, Taiwan
Grade Point Average : **3.54/4.30**

2013- 2016

Bachelor of Science (Special Degree in Physics)

University of Peradeniya - Sri Lanka
Second Class Honors-Upper Division.
Course Duration: 4 Years
Medium of Instruction: English
Grade Point Average : **3.47/4.00**

Research Interests

Materials Synthesis and Processing, Nanostructured Biomaterials and Biomedical applications, Nanotechnology, Surfaces & Interfaces

Publications

2020

- **First author journal Publication**

Lalani Fernando, Karunananda Pemasiri, Buddhika Dassanayake "Combined effects of rice husk ash and nylon fiber on engineering properties of cement mortar" **SN Applied Sciences** volume 2, Article number: 379 (2020) https://doi.oor/10.1007/s42452-020-2198-1

2017

- **Abstract Publication**

"Assessment of the combined effects of rice husk ash and nylon fibre on engineering properties of cement mortar" Published on 9th November 2017 at the **PGIS Research Congress 2017**, at Postgraduate Institute of Science, University of Peradeniya.

Research Experience

2020-2021

- **Master Research**

"**The biocompatibility and antimicrobial activity of Copper(II) oxide hybridized with Nano silicate platelets**".

Supervisors: Prof. Jenn-Ming Song and Prof. J.J. Lin

In this research we cultivated Cupric Oxide nanoparticles on Nano silicate platelets which are obtained from exfoliation of sodium montmorillonite clays. Nano silicate platelets were first invented by Professor J.J.Lin, a professor at National Chung Hsing University. The main aim of this project was to improve the antimicrobial activity by reducing the aggregation of nanoparticles and reduce the cytotoxicity towards mammalian cells with the effect of Nano silicate platelets.

2016

- **Undergraduate research project**

"**Assessment of combined effects of rice husk ash and nylon fiber on engineering properties of cement mortar"**

Supervisors: Dr. B.S. Dassanayake and Dr. B.M.K. Pemasiri

Focus of the research was to improve the performance of conventional cement mortar by incorporating Rice husk ash and Nylon fiber. The effects of Rice husk ash and Nylon fiber on the physical properties of cement mortar were observed.

2015

- **Extensive Survey**

Undergraduate seminar project – "**Corrosion inhibition techniques and their development**"

Supervisor: Dr. V.A. Seneviratne

A deep study on the Corrosion inhibition techniques and the current development in the field. The written and oral materials relevant to the study were awarded at the undergraduate seminar series – 2015, where it was evaluated by a panel of physicists of the Department of Physics, University of Peradeniya.

Skills

Hands-on experience on **SEM**, **TEM**, **AFM**, **FTIR**, **DLS** and **UV visible spectroscopy**

Teaching Experience

2020.03-present

Teaching Assistant

Department of Material Science and Technology, National Chung Hsing University, Taiwan

2017.11 – 2019.11

Teaching Assistant

Department of Materials Technology, Rajarata University of Sri Lanka

2017.01 – 2017.11

Teaching Assistant

Department of Physics, University of Peradeniya, Sri Lanka

Duties

Demonstrating and supervising of practicals, compiling of accompanying handouts, supplementary notes and quizzes. Conducting revision sessions at the end of each semester and assisting in the semester end examinations. Conducting tutorial discussion classes pertaining to course work and correcting the submitted tutorials of undergraduate students.

Standardized Test Scores

2019

International English Language Testing System (IELTS – Academic Module)

- Speaking: 7.5
- Listening: 7.0
- Reading: 7.0
- Writing: 6.0
- **Overall Band Score: 7.0**

Public Outreach

2017

Teaching in "Science Camp": A science seminar series conducted by the Science Resources center affiliated with Faculty of Science, University of Peradeniya especially targeting high school students of under-facilitated schools in Sri Lanka.

2017

Teaching sessions series conducted by the Science Resources center affiliated with University of Peradeniya targeting high school students.

Languages

English (fluent), Mandarin (basic), Sinhala (native)

References

- **Prof. Jenn-Ming Song**

Department of Material Science and Engineering, National Chung Hsing University, Taiwan
samsong@dragon.nchu.edu.tw
+8864-22840500406

- **Dr. B.S. Dassanayake**

Department of Physics, Faculty of Science, University of Peradeniya, Sri Lanka – 20400
buddhid@gmail.com, buddhikad@pdn.ac.lk,
+94773799967, +94812394587

- **Dr. V.A. Seneviratne**

Department of Physics, Faculty of Science, University of Peradeniya, Sri Lanka – 20400
sene7403@yahoo.com,
+94812394606, +9476927323