

# Department of Geology Faculty of Science / University of Peradeniya



# Dr. Nadeesha H. Koralegedara

B.Sc. (Perad.), M.S., Ph.D. (Cincinnati, USA)

#### **Senior Lecturer**

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# **About Me**

I am a senior lecturer attached to the Department of Geology, University of Peradeniya, Sri Lanka. I am dedicated to nurturing the next generation of geoscientists and environmental stewards. I believe in fostering a stimulating learning environment that encourages critical thinking, inquiry-based learning, and hands-on field experiences. My goal is to equip students with the knowledge and skills needed to tackle real-world environmental issues through a solid foundation in geology and interdisciplinary approaches. My research is mainly focused on Environmental Geology / Low temperature Geochemistry. I am particularly fascinated by how geological processes influence environmental change and vice versa, with a keen focus on low-temperature geochemistry as a tool for unraveling complex environmental phenomena.

# **Higher Education Qualifications**



PhD

University of Cincinnati USA (2016)



**MSc** 

University of Cincinnati USA (2011)



BSc

University of Peradeniya Sri Lanka (2007)

### Awards, Scholarships, Memberships & Fellowships



Excellence in Teaching Award - 2024 - University of Peradeniya



Excellence in Research - 2024 - University of Peradeniya



NRC merit award for Scientific Research - 2019



Certificate of merit award for outstanding oral presentation titled "Leachability of metals from FGD gypsum used in agricultural purpose" – awarded by the American chemical society, division of environmental chemistry. Received March 16 -20, 2014.



Presidential award for scientific publications – awarded by National Research Council (NRC) of Sri Lanka. Received January 17, 2014



University award for academic excellence - University of Peradeniya, Sri Lanka, received 2008.



• P.W. Vitanage memorial scholarship for academic excellence - awarded by Geological Society of Sri Lanka (GSSL), received 2007.

# **Positions Held**



Senior Lecturer (ii)- (2017 December - Present)



Co-Editor - Journal of Geological Society of Sri Lanka (JGSSL)- (2018 February - 2020 February)



Grant coordinator - AHEAD-DOR (Geology)- (2018 May - 2023 December)



Secretary - Environmental Science Program- (January 2020 - March 2024)



Senior Treasurer - Environmental Science Society of University of Peradeniya- (2020 - 2024)



Senior Student Counselor - University of Peradeniya- (2019 - present)

### My Teachings

APS4092: Industry and the Environment

ENS4233: Waste and Waste Management

GEO1013: Geological Processes

GEO1041: Earth Materials

GEO2023: Introductory Petrology

GEO3052: Sedimentary petrology

GEO4073: Quaternary Geology

GEO4123: Advanced Sedimentary Petrology

#### Research Interests (Research Fields/ Projects)

Surface geochemistry, Environmental Geology, Waste Management, Value addition to minerals, Microplastics

#### **Ongoing Research and Projects**

- Development of a natural filter for antibiotics removal and in-situ degradation
- Microplastics degradation in soil using geological materials
- Assessment of aquifer quality in relation with chronic kidney disease with unknown etiology in dry zone of Sri Lanka through an integrated approach using isotopes and hydrogeochemistry
- Utilization of red earth deposit in northwestern coastal belt as an economic deposit
- Ni- nanoparticle synthesis from Serpentinite soils

#### **Key Publications**



Nothing to show under this subheading !!!

#### Conferences

35th Annual Technical Sessions of Geological Society of Sri Lanka

**HELD AT**: Oak Ray Hotel, Kandy, Sri Lanka - (February 22nd, 2019)

**TOPIC**: Accumulation of elements in Ipomea aquatica and Amaranthus spinosus growing at municipal solid waste dumping site, Gohagoda, Kandy, Sri Lanka

249th American chemical society (ACS) National Meeting

**HELD AT:** Denver, CO, USA - (March 22-26, 2015.)

**TOPIC**: Use of Flue Gas Desulfurization (FGD) gypsum as an in-situ heavy metal stabilizer in contaminated soil

243rd GSA National Meeting,

HELD AT: Minneapolis, MN, USA - (September 25-29, 2011)

TOPIC: Chemical, Mineralogical and Textural changes of Kope Formation shale

## **My Publications**

Please goto the website.

https://sci.pdn.ac.lk/geology/staff/Nadeesha-Koralegedara