



**Department of Geology**  
**Faculty of Science / University of Peradeniya**



**Dr. Dilan M. Ratnayake**

*BSc (Perad.), PhD (Okayama)*

**Senior Lecturer**

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## About Me

I trained as a stable-isotope geochemist and astrobiologist during my PhD and postdoctoral research at Okayama, Japan (2019-2025). I have extensive experience in clean-room geochemical analysis and in developing precise analytical techniques using mass spectrometry. My research covers petrology, analytical chemistry, cosmochemistry, and astrobiology. I am particularly interested in understanding how Earth's geochemical evolution has influenced the development of life, and how life, in turn, has shaped geochemical processes. As a senior lecturer, I strive to help students develop critical thinking skills and address complex research questions through a multidisciplinary approach.

## Higher Education Qualifications

**PhD**

Okayama University  
Japan  
(2024)

**BSc**

University of Peradeniya  
Sri Lanka  
(2017)

## Awards, Scholarships, Memberships & Fellowships



Okayama University Science, Technology, and Innovation Creation Fellowship - 2023

## Positions Held



Senior Lecturer (Grade ii) (University of Peradeniya)- (01st November 2025 - Present)



Visiting Lecturer (Env. Sci MSc Program, PGIS, University of Peradeniya)- (July 2025 - Present)



Co-Coordinator MSc in Disaster Management- (July 2025 - Present)



Member, Board of Study, Earth Science, PGIS, University of Peradeniya- (09th July 2025 to present)



Temporary Lecturer (University of Peradeniya)- (08th June 2025 - 31st October 2025)



Post Doctoral Fellow (Okayama University)- (April 2024- March 2025)

## My Teachings

-  ACL4001: Environmental Archaeology
-  ENS511: Geological Environment
-  GEO2052: Economic Geology
-  GEO2082: Photogeology
-  GEO3042: Igneous Petrology
-  GEO3093: Analytical Techniques in Geology
-  GEO3132: Advanced Economic Geology

## Research Interests (Research Fields/ Projects)

Geochemistry, Astrobiology, Geobiology, Metamorphic Petrology

## Ongoing Research and Projects



**Reconstructing Ancient Bloomery Iron Smelting in North Central Sri Lanka: An Integrated Archaeometallurgical and Computational Approach**

URG/SCI/2026/1



**pH-Dependent Passive Uptake of Hydrofluoric Acid by Proximal Tubular Cells: Implications for Tubular Injury under Dehydration and Heat Stress and Its Relevance to CKDu in the Dry Zone of Sri Lanka**

291\_MRG\_2026

## Key Publications



Nothing to show under this subheading !!!

## Conferences



Nothing to show under this subheading !!!

## My Publications

Please goto the website.

<https://sci.pdn.ac.lk/geology/staff/Dilan-Rathnayake>