

GeoChronicle Panorama is an open-access, annual publication with one issue in each year containing Student-teacher relevant articles on Earth System Science (Earth, Climate and Environment). It is published under the aegis of the **CEHESH TRUST OF INDIA**, Keonjhar-758 001, Odisha, India. The publication encompasses articles on Earth, climate, and Environmental Sciences focusing the societal needs and relevance viz. mineral deposits and their modern techniques of mineral exploration, groundwater, remote sensing, GIS, stratigraphy, petrology, sedimentology, economic geology, industrial application of earth materials, sustainable mining and beneficiation and advances in earth sciences; climate change and its impacts and solution mechanisms; pollution and global warming, Environmental catastrophe and remedial measures, etc. The publication is continuing with the enthusiastic participation and contribution of the Earth System Science Community.

Journal Information

Title:	GeoChronicle Panorama
Frequency:	Annual (One issue per year)
ISSN:	Yet to be assigned
Publisher:	CEHESH TRUST OF INDIA, Keonjhar, Odisha
Editor-in-Chief:	Prof. (Dr.) A.P. Pradeepkumar
Copyright:	CEHESH TRUST OF INDIA
Starting Year:	2021
Subject:	Earth System Science (Earth, Climate and Environmental Sciences)
Language:	English
Publication format:	Online
E-mail:	geointerface@cehesh.in geointerface21@gmail.com bmishrageol@gmail.com
Contact info:	+91-70084 63040, +91-91782 32893
Website:	http://www.cehesh.in
Address:	CEHESH TRUST OF INDIA C/O Dr. Banabehari Mishra Amrut Bihar, Near Indian Public School, Jail Road, Keonjhar-758 001, Odisha, India

Publisher Information

CEHESH TRUST OF INDIA

Address: CEHESH TRUST OF INDIA, C/O: Dr. Banabehari Mishra, Near Indian Public School, Jail Road, Keonjhar-758001, Odisha, India, E-mail: ceheshtrustofindia@cehesh.in geointerface@cehesh.in

E-mail : bmishrageol@gmail.com geointerface21@gmail.com

Contact info: +91-7008463040, +91-9178232893, Website: <http://www.cehesh.in>

Editor-in Chief

Prof. (Dr.) A.P. Pradeepkumar

Professor of Geology, Dept. of Geology, University of Kerala Thiruvananthapuram-695 034, Kerala, India

E-mail: geo.pradeep@keralauniversity.ac.in / geo.pradeep@gmail.com

Cover page: Pillow lavas at Nomira, Kendujhar District



Protect Climate, Earth and Environment

CEHESH TRUST OF INDIA
Govt. Regn. No. 41002200808/2022

(CEHESH – Climate, Earth, Health, Environmental Sciences and HUMANITY)

CEHESH TRUST OF INDIA, a Non-Government Organization was established on 17th December 2021 and was registered on **29th April 2022** in Keonjhar, Odisha. **CEHESH stands for Climate, Earth, Health, Environmental Sciences and Humanity**. This Trust was formed by a small group of dedicated geo- scientists, Climate and Environment friendly community with the following aims and objectives.

- a. Dissemination of Earth System Science (Climate, Earth and Environmental Science) knowledge through offline and online teaching to +3 Degree and postgraduate students on **free of cost**.
- b. Publication of a biannual journal with the title “**JOURNAL OF GEOINTERFACE**” and an annual Student-teacher relevant publication “**GeoChronicle Panorama**” comprising Earth, Climate, planetary and Environmental Sciences.
- c. Conduct of National and International Seminar/symposium/workshop in the field of the Earth System Science (Earth, climate and Environmental Sciences).
- d. Introduction of **CEHESH TRUST OF INDIA Awards for Earth, Climate, Health, Environmental Sciences and Environment Protection** from our country and abroad to those distinguished teaching/industrial/intellectual communities who have substantial contributions in the field of the Earth System Science on behalf of this TRUST.
- e. Establishment of a library related to these sciences.
- f. To organize and assist in the Field Training Programmes of students of Geology depts. of different colleges and universities.
- g. To organize special programmes in different schools and colleges to aware students on climate change, earth and environmental sciences, water and energy conservation along with action plans. In addition, awareness shall be developed through seminars and essay competitions on moral and ethical science, cultural and spiritual heritage of India and burning social problems of our country.
- h. To assist students for their placement in different earth science related organizations.
- i. Conduct of systematic plantation programmes with proper nourishment in different areas. In addition to it, a special drive to throw fruit bearing seeds of Mango, Jamun, Jack fruit etc. on barren lands and mounds (at 2-3inch depth if it is possible) has been taken up in western Odisha in the fruit season.
- j. To take up welfare activities in rural areas related to the provisions of **safe drinking water, health and sanitation**. **We were successful in establishing one safe drinking water project in an area dominated by tribal and underprivileged people of Keonjhar district where drinking water was highly unsafe, mostly muddy with dominance of iron content**. The people were suffering from various types of stomach diseases prior to our drinking water project. The location of the second project has also been detected and surveyed. It will be materialized subject to the availability of fund.
- k. Conduct of Health Checkup camps and “Yogic Exercises for Health Care” programmes in different schools and colleges.

The Earth, Climate and Environment friendly community of our country and abroad are cordially invited to join this noble mission and to shoulder the responsibility of the execution of certain objectives and action plans of this registered Trust.

LET US SAVE OUR MOTHER EARTH'S ENVIRONMENT TO GET OURSELVES SAVED.

Focus to Excel. Dedicated to Selfless Service. Harness and Conserve Water and minerals for a Better Future.

Nurture Nature for Future. Shaping our Future Together.

Dr. B. Mishra
Managing Trustee
CEHESH TRUST OF INDIA

Editorial Board, Geochronicle Panorama
*An Open access and Student-teacher relevant Annual e-Publication
of the CEHESH TRUST OF INDIA*

Prof. (Dr.) A.P. Pradeepkumar, Editor-in-Chief

Professor of Geology, Dept. of Geology, University of Kerala Thiruvananthapuram-695 034, Kerala, India
E- Mail: geo.pradeep@keralauniversity.ac.in / geo.pradeep@gmail.com
<https://www.keralauniversity.ac.in/dept/~appkumar>

Prof. (Dr.) Raghavendramurthy Nagendra, Executive Editor

Former Professor and Head, (Retired), Anna University, Chennai-600 025
Res: B-322, II Floor, Zephyr Apartments, Vakil Marina Layout, Kodichikkanahali, Bangalore-560 076, India
E-Mail: geonag@gmail.com / geonag@cehesh.in

Prof. T.K. Biswal, Associate Editor

Former Professor and Head, Dept. of Earth Sciences, IIT Bombay, Mumbai-400 076, India
E-Mail: tkbiswal@iitb.ac.in / <https://www.geos.iitb.ac.in/index.php/tkb/>

Dr. Nivedita Chakraborty, Section Editor

Assistant Professor, Dept. of Geology, KJRGG Degree College Mejia Bankura-722 143, West Bengal, India
E-Mail: nivedita.jugeo@gmail.com / <http://www.ggdcmjia.in/FacultyDetails.aspx?fid=24>

Dr. Rudra Mohan Pradhan, Managing Editor

Dept. of Geology and Geophysics, Indian Institute of Technology Kharagpur, West Bengal-721 302, India
E-Mail: rudra.pradhan@iitkgp.ac.in / <https://sites.google.com/view/rudrapradhan/home>

Dr. B. Mishra, Patron

C/O CEHESH TRUST OF INDIA
Amrut Bihar, Near Indian Public School, Jail Road, Keonjhar-758001, Odisha, India
Email: bmishrageol@cehesh.in / bmishra.geol@gmail.com

Members of the Editorial Board

With effect from February 2022 to January 2023

Prof. (Dr.) Ramasamy Nagarajan

Dean, R&D, Curtin Malaysia Research Institute
Curtin University, CDT 250, Lutong, 98009 Miri,
Malaysia
E-Mail: nagarajan@curtin.edu.my

Dr. Priyabrata Das

Assistant Professor of Geology
Parul Institute of Applied Sciences
Parul University, Vadodara 391760, India Email:
priyabratapresi@gmail.com

Prof. (Dr.) Bhushan S. Deota

Professor of Geology
Dept. of Geology, M.S. University
Vadodara-390 002, Gujarat, India
E-Mail: deota.bhusan-geology@msbaroda.ac.in

Dr. Netrananda Sahu

Associate Professor of Geography
Dept. of Geography, University of Delhi
New Delhi-110 007, India
E-Mail: nsahu@geography.du.ac.in

Dr. Prabhakar Sangurmth

Former Executive Director, Hutti Gold Mines Co. Ltd.
#51, 2nd Cross, Lakeshore Garden,
Thindlu, Vidyanarayapura, Bangalore-560097
E-mail: prabhakar_sangurmth@rediffmail.com

Prof. (Dr.) David T. King. Jr

Professor of Geology
Dept. of Geosciences, Auburn University
Auburn, AL 36849 USA
E-Mail: kingdat@auburn.edu

Prof. (Dr.) M. Suresh Gandhi

Professor, Department of Geology & Professor and Head i/c,
Centre for Environmental Science
University of Madras, Guindy Campus, Chennai - 600
025 Email: msureshgandhi@gmail.com

Prof. (Dr.) Thirunavukkarau Ramkumar

Professor of Geology
Dept. of Earth Sciences, Annamalai University
Annamalai Nagar-608002, Tamil Nadu, India
E-Mail: tratrj@gmail.com

Dr. Surya Snata Rout

Assistant Professor of Earth and Planetary Sciences
National Institute of Science Education and Research (NISER),
Bhubaneswar, Jatni-752 050, Odisha, India
E-Mail: surya.rout@niser.in

Dr. Ashit Kumar Swain

Director, Geological Survey of India, SU
Odisha, Bhubaneswar 751012
E-mail : ashit.swain@gsi.gov.in