

International Conference on Climate Change and Environmental Sustainability – CCES-2024: 24-25 January-2024 at Periyar University, Salem, Tamil Nadu, India

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Received: 5 February 2024 / Revised form Accepted: 8 February 2024

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The Department of Geology, Periyar University, organized an International Conference with a focal theme of ‘*Climate Change and Environmental Sustainability – CCES-2024*’ held in Salem on 24th and 25th January 2024. This International Conference was sponsored by the Department of Science and Technology (DST), Science Engineering and Research Board (SERB), Govt. of India, New Delhi and Periyar University. We acknowledge and gratitude to the DST-SERB, Govt. of India and Periyar University for their financial and moral support.

Climate change and its impacts are most discussed contemporary issue globally. Environmental sustainability is equally important for the well-being economics of current and future generations. Climate change presents a variety of complex environmental, social, and economic challenges for countries across the globe. The International Conference on “Climate Change and Environmental Sustainability – CCES-2024” aimed to reflect on the role of geologists in understanding the Earth systems, environmental processes, natural hazards and

environmental sustainability, revealing the complexities of changes impacted by climate. It attempts to contribute to the ongoing discussions on climate impacts, by providing insights into some of these impacts on environmental geosciences from the perspective of local dynamic interactions with or driven by climate change. In line with this, ‘Climate Change and Environmental Sustainability – CCES-2024’ was chosen as the theme for international Conference with an aim to capture the prevailing challenges and opportunities for geology discipline.

The themes of the conference are *Agricultural Sustainability and Climate Change, Climate Change and Environmental Sustainability, Ocean and Climate Change, Biodiversity and Biological Conservation, Climate and landscape change, Climate hazards, Ecology and Ecosystems, Climate Change and Water Resources, Global Warming, Natural hazards and Disaster Management, Climate issues and challenges and Application of Geospatial Technology in climate change*. In the International Conference, a total of 86 abstracts of the



Inaugural Session: Release of Abstract Volume: L to R: Prof. Dr. S. Venkateswaran, Professor and Head, Convener (CCES2024), Dr. Prahlad Ram, Scientist-E, DST-SERB, Dr. Ashok Kumar Singh, Scientist-F, DST, New Delhi, Prof. R. Jagannathan, Vice-Chancellor, Periyar University, Dr. S. Balachandran, Head, Regional Meteorological Centre, Chennai, Prof. G. Parthasarathy, FNA, Adjunct Professor, INSA Senior Scientist, IIAS, IISc, Bengaluru and Dr. A. Thirunavukkarasu, Organizing Secretary (CCES-2024).

and 23 lead speakers in the technical sessions were contributed. The researchers and academicians had a good opportunity to have had many fruitful discussions and exchanges that contributed to the success of this conference.

The first day of the conference on 24.01.2024 at 10.00 am started in the Senate hall of the University with the invocation prayer of *Tamilthai Vazhthu* and lighting of *Kuthuvizhakku*. The Convener of the Conference Prof. Dr. S. Venkateswaran, welcomed the gathering. The abstract volume of the conference was released by the delegates and dignitaries on the dias. Prof. Dr. R. Jagannathan, Vice-Chancellor, Periyar University delivered the Presidential Address. Dr. S. Balachandran, Head, Regional Meteorological Centre, Chennai, has delivered the inaugural address. Prof. Dr. G. Parthasarathy, FNA, Adjunct Professor, INSA Senior Scientist, NIAS, IISc, Bengaluru, gave a special address. The keynote address was delivered Dr. Ashok Kumar Singh, Scientist-F, DST. Dr. Prahlad Ram, Scientist-E, DST-SERB gave conference felicitation and Dr. A. Thirunavukkarasu, Organizing Secretary (CCES-2024) proposed vote of thanks. The Inaugural function concluded with a short break and high tea.

In the first day, technical session Dr. S. Balachandran, delivered a special lecture on Future Weather over India. Prof. Dr. G. Parthasarathy gave a detailed lecture on Critical Minerals for the Environmental Sustainability-Focus on the Role of Lithium Minerals in the context of Viksit Bharat@2047. Dr. Ashok Kumar Singh spoke about Climate Change and Environmental Sustainability in National and Global Contexts. In the afternoon session Dr. Selvaraj Kandasamy gave a special talk on El Nino Southern Oscillation: A Pacific Ocean-driven Global Climate Change, Dr. Sijinkumar, A.V spoke about Late Quaternary Indian summer monsoon variability in the Bay of Bengal region and Dr. P. Thangavel, Director, Centre for Climate Change and Disaster Risk Management (CCCDRM), Periyar University delivered

a Global climate change issues and its influence on bio-resources followed by the scholar's paper presentations. First day evening, a cultural programme was organized and performed by our University research scholars and students held at the Periyar University auditorium. The students performed 22 events pertaining to the conference themes. The large gatherings of delegates, dignitaries, participants, scholars and students have enjoyed the cultural events.

On the second day Dr. G. Sivakumar delivered a lead speech on Climate-smart microbes for the sustainable management of crop pests in Agriculture, Prof. S.M. Hussain, talk about Ostracoda proxy – how useful are they in climate and environment indicators?, Dr. Shankaran Rajendran, Qatar University Environmental Studies Center Doha, Qatar gave a lecture on Impacts of climate change on environmental sustainability: Perspectives on Asia, Dr. Mahesh Kalasaiah, spoke on Check Dam (*Kaattas*) – A Tool for Sustainable Development, Dr. Babu Nallusamy, spoke about Global Warming and Climate Change, Dr. Sandeep, delivered on Magneto-climatic record of Late Holocene rainfall variability in Southern India and Prof. Dr. S. Chidambaram from Kuwait Institute of Technology, Kuwait give a special lecture on Impact of Micro-Climate Changes and Groundwater Resources: A-Step towards Sustainable Development.

The two-day International Conference ended successfully with a valedictory function on 25.01.2024 at 4.30 pm. Dr. R. Suresh, Organizing Secretary (CCES-2024) welcomed the gathering. Followed by Prof. Shaik Mohammad Hussain, delivered a special address. Dr. G. Sivakumar gave the presidential address. Prof. Chidambaram Sabarathinam, the keynote address. Prof. Selvaraj Kandasamy gave felicitation. Dr. A. Jothibasur Organizing Secretary (CCES-2024) proposed the vote of thanks. The participants gave a feedback on the conference followed by the certificate distribution and the session concluded with the National Anthem.



Valedictory Function: Certificate Distribution: L to R: , Prof. G. Parthasarathy, FNA, FRSC, FTAS, FIAS, Adjunct Professor, INSA Senior Scientist, NIAS, IISc, Bengaluru, Dr. G. Sivakumar, Principal Scientist (Agrl. Microbiology), ICAR, Govt. of India, Bengaluru, Ms. Ammoose K Jayan, Research Scholar, Department of Geology, Central University Kerala, Prof. Shaik Mohammad Hussain, Professor and Head, Department of Geology, University of Madras, Guindy Campus, Chennai, Dr. Ashok Kumar Singh, Scientist-F, DST, New Delhi, Dr. Prahlad Ram, Scientist-E, DST-SERB, Prof. Selvaraj Kandasamy, Professor, Department of Geology, Central University of Tamil Nadu, Thiruvavur, Prof. Chidambaram Sabarathinam, Research Scientist, Kuwait Institute for Scientific, Research, Kuwait and Prof. S. Venkateswaran, Professor and Head, Convener (CCES2024).