



**Department of Atmospheric Sciences (DAS) &  
Advanced Centre for Atmospheric Radar Research (ACARR)  
Cochin University of Science and Technology (CUSAT) in  
association with the Indian Meteorological Society  
(IMS, Cochin Chapter)**



**International Conference on  
Climate Adaptation and Resilience (CARE-25)  
Bridging Science, Innovation and Communities  
March 24-25, 2025 at Seminar Complex, CUSAT**

Supported by



**KILA**  
Kerala Institute of  
Local Administration



The Kerala State Climate Change Adaptation Mission (KCCAM)



**Cochin University of Science and Technology**

**കൊച്ചി ശാസ്ത്ര സാങ്കേതിക സർവ്വകലാശാല**



Cochin University of Science and Technology

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“Climate change is real. It is happening right now, it is the most urgent threat facing our entire species and we need to work collectively together and stop procrastinating.”

- Leonardo Di Caprio, Actor & Environmentalist

## Conference Theme

Our rapidly changing global landscape demands a transformative approach that transcends traditional disciplinary boundaries, uniting scientific understanding, technological innovation, and community resilience. Climate change is not a distant threat but an immediate reality, evident in increasingly frequent and severe extreme weather events, ecosystem disruptions, and socio-economic vulnerabilities. Addressing these complex challenges requires a holistic strategy that integrates multiple perspectives and expertise. Scientific research provides the foundational knowledge necessary to understand climate dynamics, identify systemic vulnerabilities, and develop predictive models. Technological innovation offers cutting-edge solutions, from advanced early warning systems to sustainable infrastructure, that help to mitigate and adapt to environmental shifts. However, the most crucial element of our collective response lies at the community level, where scientific insights and innovative tools are applied to protect lives, livelihoods, and local ecosystems.

As climate risks intensify, adaptation requires a unified approach that bridges science, innovation, and community engagement. Science helps us understand climate dynamics and forecast impacts, while innovation drives the development of practical solutions. However, meaningful change happens when these solutions are implemented at the community level, empowering people with knowledge and resources while ensuring policies align with local needs. By integrating scientific insights, innovative tools, and grassroots action, we can build a future that is better equipped to face climate risks. Organizing a conference on "Climate Adaptation and Resilience (CARE): Bridging Science, Innovation, and Communities" is essential for addressing the growing challenges of climate change. With extreme weather events becoming more frequent and severe, the need for collaborative solutions is more urgent than ever. This conference will provide a platform for scientists, policymakers, innovators, and community leaders to exchange knowledge, share best practices, and co-develop strategies for resilience.





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“One thing leads to the other. Deforestation leads to climate change, which leads to ecosystem losses, which negatively impacts our livelihoods – it’s a vicious cycle”

- *Gisele Bundchen, Supermodel & UN Goodwill Ambassador*

## Cochin University of Science and Technology (CUSAT)



Cochin University of Science and Technology (CUSAT) was initially constituted as the University of Cochin through an Act of Kerala Government on 10th July 1971. The University of Cochin was re-constituted as Cochin University of Science and Technology (CUSAT) in February 1986, redefining its objectives as "promoting Graduate and Post Graduate studies and Advanced Research in Applied Sciences, Technology, Industry, Commerce, Management and Social Sciences." CUSAT is now a world-ranking university with the specific purpose of developing higher education, emphasizing post-graduate studies and research in applied science, technology, industry, humanities, and commerce.

CUSAT has consecutively been figured in the Times Higher Education World Ranking since 2017. The Times ranks around 1500 best universities worldwide annually with around 60 universities from India out of 967. CUSAT has also found a place in the QS World University Ranking and the National Institutional Ranking Framework (NIRF) of the India Government. Cast in the mold of a federal University, CUSAT is now a premier Science and Technology University in the country, re-accredited with NAAC 'A+' Grade in 3<sup>rd</sup> cycle. During the intervening four and half decades, CUSAT has made quantum leaps in its academic pursuits and has spread its wings far and wide, encompassing the novel and emerging realms of the horizon of knowledge. The University has entered into several collaborative ventures with reputed Universities and Institutions worldwide. Scores of National and International academic discourses, seminars, workshops, etc., are held in the University every year, providing opportunities to the student community to update themselves in their respective fields of study.

## School of Marine Sciences, Lakeside Campus, CUSAT



School of Marine Science, a unique institution of its kind in the country was established in 1938 as Department of Marine Biology and Fisheries under the erstwhile Travancore University to cater Marine Science education and research at national levels. The school is presently part of CUSAT. The School consists of five departments in each discipline of marine science such as Atmospheric Sciences, Chemical Oceanography, Physical Oceanography, Marine Geology & Geophysics and Marine Biology.

Over the years, School of Marine Sciences at CUSAT has played vital role in developing Marine Sciences in the country and has spawned many eminent personalities in that process, who are now adorning key positions in Marine Science Institutions in the country and abroad. School of Marine Sciences also play active role in implementing Marine Science related projects in the country with the help of funding from various central and state institutions. Recognizing the contributions of the School of Marine Sciences, CUSAT, Ministry of Earth Sciences (MoES, Govt. of India) has instituted an Ocean Sciences and Technology Cell (OSTC) at CUSAT which was later renamed as Earth Science and Technology Cell (ESTC). The School of Marine Sciences has now completed 84 years of glorious existence.



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“We are at a crossroads. One path leads to a world of devastating climate impacts. The other takes us to a healthier, more sustainable future. The choice is ours.”  
- Christiana Figueres, Former UN Climate Chief

## Department of Atmospheric Sciences (DAS) & Advanced Centre for Atmospheric Radar Research (ACARR)

Department of Atmospheric Science was formed in 1996 by bifurcating the erstwhile Physical Oceanography and Meteorology Division of the School of Marine Sciences. The Department started offering a 4-semester M. Sc programme in Meteorology since 1975 and a 4-semester M. Tech in Atmospheric Science since 1989. The department has eight efficient and dynamic faculty members available. Prestigious awards, such as BOYSCAST and Commission of the European Communities (CEC) Fellowships, have been awarded to the faculty. International and National awards for the academic excellence and achievements were also received. The Department has produced 42 Ph.D.s and published about 190 research papers in reputed International and National scientific journals. In addition, more than 200 research papers were presented in various National/International scientific conferences in India and abroad. Eminent Scientists and Professors are often invited to the Department for giving lectures in advanced areas, weather observations, etc.

Advanced Centre for Atmospheric Radar Research (ACARR) is a multidisciplinary research centre established under Department of Atmospheric sciences by the Cochin University of Science and Technology (CUSAT). A state-of-the-art indigenously developed Stratosphere-Troposphere (ST) wind profiling radar operating at 205 MHz frequency is successfully installed and functioning at CUSAT from 2017 onwards. ACARR facilitates advanced techniques to monitor the Earth's atmosphere, including highly sophisticated instrument facilities which allow investigators, mainly atmospheric scientists, to get the detailed information and necessary data for their research programs in Weather and Climate Science and incorporate numerical weather prediction techniques. By establishing sophisticated observational network using advanced technology and by incorporating the most up-to-date information to the numerical models, ACARR attempts to bridge the gap between observational studies and model development.





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“The climate crisis is not just the issue of the generation; it’s the defining issue of our time. Act as if your house is on fire—because it is.”

-Greta Thunberg, Climate Activist

## Objectives

- To foster interdisciplinary dialogue on climate adaptation.
- To showcase innovative technologies and strategies for climate resilience.
- To promote community-led initiatives and share best practices.
- To align scientific research with policymaking and local needs.

## Target Audience

- Scientists and Researchers
- Students and Academicians
- Policymakers and Government Officials
- Community Leaders and Grassroots organizations
- Environmental Advocates and NGOs

## Call for Abstracts

Participants may submit abstracts on the following conference themes

1. Climate Variability and Extreme Weather Events
2. Climate Modeling and Forecasting
3. Sustainable Infrastructure and Urban Resilience
4. Advancement in Observational Techniques
5. Community-Led Adaptation Strategies
6. Disaster Risk Reduction and Early Warning Systems
7. Policy Frameworks for Climate Adaptation
8. AI-ML Techniques in Climate Sciences

For abstract submission guidelines and more details of the conference



**Abstract Submission Deadline Extended to: March 10, 2025**

**Notification of Acceptance: March 15, 2025**





“We’re the first generation to feel the impact of climate change and the last generation that can do something about it.”

-Barack Obama, Former U.S. President

**Abstract Submission guidelines:**

The authors are required to submit an abstract of not more than **350 words** as per the format provided in the website. The abstract should be direct and precise, containing the introduction of the topic, intended research, and expected conclusion

**Registration Fee details:**

- For Foreign Experts : 200 USD
- For Indian Experts : 3000 INR
- For Foreign Students : 100 USD
- For Research Scholars from India: 2000 INR
- For PG students from India: 1000 INR

**Registration Details**

- Start date of Registration : 15 March 2025
- End date of Registration : 22 March 2025

**More details of registration and payment**



**Awards**

Best poster awards for Research scholars / young researchers/Early career researchers.

**Exhibition**

An exhibition showcasing atmospheric and oceanic instruments, technology, infrastructure products, services, and information will be hosted. Special sessions will provide a platform for industry professionals and entrepreneurs to present their innovations. Selected participants will be allotted a presentation slot of 15-20 minutes. For more details, please visit the conference website

**Important Dates**

|                                       |                  |
|---------------------------------------|------------------|
| Announcement of the Conference        | 20 January 2025  |
| Start of Abstract Submission          | 01 February 2025 |
| Last date of Abstract Submission      | 10 March 2025    |
| Notification of Acceptance            | 15 March 2025    |
| Start date of conference registration | 15 March 2025    |
| End Date of Registration              | 22 March 2025    |
| Date of conference                    | 24-25 March 2025 |
| Alumni Meet                           | 26 March 2025    |





"The greatest threat to our planet is the belief that someone else will save it."  
- Robert Swan

## Cochin: A Hub of Tourism, Transportation, and Accommodation

Cochin, officially known as Kochi, is a vibrant port city in the southern Indian state of Kerala. Known for its rich history, cultural diversity, and scenic backwaters, Cochin has been a major trade center for centuries, influenced by Portuguese, Dutch, and British colonial powers. It is famous for its stunning coastline, ancient churches, traditional Kathakali performances, and delicious seafood. Cochin is a top tourist destination in Kerala, offering a mix of historical landmarks, natural beauty, and modern attractions. Popular places include: Fort Kochi – Known for colonial architecture, Chinese fishing nets, and art cafés, Mattancherry – Home to the famous Dutch Palace and the Jewish Synagogue. Marine Drive – A scenic promenade with stunning sunset views, Cherai Beach – A beautiful beach ideal for relaxation and water sports. Bolgatty Island & Willingdon Island – Offering luxury resorts and serene backwaters. With its blend of tradition and modernity, Cochin provides an unforgettable experience for travelers looking for culture, history, and natural beauty.

### Transportation

**Nearest Railway Station:** Kalamassery Railway Station (Approx. 2.5 km from CUSAT) – A small station with limited train stops. Aluva Railway Station (Approx. 7 km from CUSAT) – A major station with better connectivity to other cities. Ernakulam Town (North) Railway Station (Approx. 10 km) – A busy station with frequent trains. Ernakulam Junction (South) Railway Station (Approx. 13 km) – A major hub for long-distance trains.

**Nearest Airport:** Cochin International Airport (COK) (Approx. 18 km from CUSAT) – Kerala's busiest airport, with domestic and international flights.

**Road Connectivity:** CUSAT is located along NH-544 (Old NH-47) and is easily accessible by KSRTC & Private Buses – Regular buses connect to Ernakulam, Aluva, and other parts of Kerala. Taxis & Auto-Rickshaws – Readily available for local transport. Self-Drive & Ride-Sharing Services – Ola, Uber, and other rental services operate here.

**Nearest Metro Station:** Cochin University Metro Station (Approx. 1 km from CUSAT) – part of the Kochi Metro, offering quick access to major city areas like MG Road, Edappally, and Aluva.

### Accommodation at CUSAT

CUSAT situated in the heart of the city, is well-connected and surrounded by a variety of accommodation options. There are numerous hotels ranging from budget-friendly stays to premium luxury hotels, catering to students, faculty, and visitors. Nearby areas such as Kalamassery, Edappally, Kakkanad and Aluva offer a wide selection of hotels, service apartments, and PG accommodations, ensuring convenience and comfort. Popular hotels like Kochi Marriott, Holiday Inn, Renai Cochin and Ginger Kochi provide excellent amenities, including spacious rooms, dining options, and easy access to transportation. Whether for short-term or long-term stays, visitors to CUSAT can find accommodations that suit their budget and preferences.



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