



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited "A" Grade by NAAC 12B Status by UGC Approved by AICTE

FAST-TRACK LEARNING IN CLIMATE CHANGE AND MARINE LIFE (CCML 2021)



THE GLOBAL GOALS

Date: June 12th & 19th, 2021 (2 days online course)

MODE: SATHYABAMA INSTITUTE ONLINE PLATFORM



Ministry of Earth Sciences
Government of India



ORGANIZED BY

**CENTRE FOR OCEAN RESEARCH
COL. DR. JEPPIAAR RESEARCH PARK**

IN ASSOCIATION WITH

**EARTH SCIENCE AND TECHNOLOGY CELL
MINISTRY OF EARTH SCIENCES**

&

**COMMISSION ON ECOSYSTEM MANAGEMENT
INTERNATIONAL UNION FOR CONSERVATION OF NATURE**



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CONTEXT

The science of climate change assumes great importance in college education. It is cross-disciplinary and is a subject of challenge for many teachers. Understanding climate change encompasses subject knowledge, information on the environment, and commitment to action. The novelty of the subject and absence of course content is a challenge for teaching climate change. At present, climate change is a minor aspect of other science teaching, and teachers require support to provide effective teaching. This is particularly an issue related to marine science.

The aim of the learning programme is to train the trainers of youth who are studying marine life. The programme is designed virtually on a fast-track mode for two days. Fast Track is an informal way of learning and it provides the quickest and most direct route to achievement of a goal. Fast track learning also saves time for the learners. It is a great opportunity to quickly learn about the dynamics of global warming and climate change related issues with reference to marine life.

OBJECTIVES

- 1) Disseminating climate change information related to marine life
- 2) Developing the capacities of teachers to facilitate learning of climate change impact, adaptation and mitigation
- 3) Helping the teachers to integrate climate change content into their lesson plans
- 4) Broad topics to be covered
- 5) Understanding climate change (1 day)
- 6) Addressing climate change (0.5 day)
- 7) Strengthening teaching and research on climate change (0.5 day)

APPROACH

The programme will be on virtual mode for two days and will have presentation by experts and discussion with them. The participants will be engaged by experts in the field for a total of 12 hours (excluding breaks). The participants will be provided with soft copies of teaching materials. A list of references will be suggested for further reading.

OUTCOME

- Improved understanding of the participants on the science of climate change to develop innovative and creative teaching curriculum.

TARGET AUDIENCE FOR THE COURSE

Students, Research Scholars, Faculties & Scientists - particularly in the field of Marine Sciences and Marine Biology

COURSE COMPLETION CERTIFICATE will be jointly issued by Centre for Ocean Research in association with IUCN – CEM & Ministry of Earth Sciences – ESTC to the registered candidates.



SYLLABUS AND SCHEDULE

Time	Subject	Content	Resource Person
June 12, 2012 (Day 1) UNDERSTANDING CLIMATE CHANGE			
Session 0 0930 - 1015	Welcome	Opening remarks	SIST
Session 1 1015 - 1100	Basic Climate Change Science	Weather and climate, climate change and global warming; source of greenhouse gases, consequences of GHG concentration in the atmosphere and oceans Approach: One presentation; Q&A	Dr.E Vivekanandan
Session 2 1100 - 1200	Climate change scenarios	Changes in temperature in land and sea, rainfall, ice melting, sea level rise, pH, cyclones, etc Approach: One presentation; Q&A	Dr.Grinson George
Session 3 1200 - 1300	Responses to climate change	Two key response measures to deal with climate change, i.e., mitigation and adaptation Approach: One presentation; Q&A	Dr.Grinson George
Break			
Session 4 1400 - 1445	Key terminologies	Impacts, vulnerability, adaptation, mitigation, risk, hazards, shock, variability, trend, exposure, sensitivity, adaptive capacity etc. Approach: One presentation; Q&A	Dr.A Biju Kumar
Session 5 1445 - 1600	Impacts of climate change	Impacts on marine life Approach: One presentation; Q&A	Dr.E Vivekanandan
Session 6 1600 - 1715	Vulnerability to climate change	Concept of vulnerability, vulnerability to natural, physical and social system, how vulnerability varies within societies Approach: One presentation; Q&A	Dr.A Biju Kumar
June 19, 2021 (Day 2) ADDRESSING CLIMATE CHANGE			
Session 7 1000 -1045	Science of adaptation	Types of adaptation, context specificity of adaptation, etc. Approach: One presentation; (Q&A)	Dr.P Krishnan
1045 - 1130	Methods and Tools: Impacts, Vulnerability & Adaptation	Different top-down and bottom-up methods and approaches Approach: One presentation; Q&A	Dr.P Krishnan
Session 8 1130 - 1230	Approaches to mitigation	Individual, country, global levels; challenges and opportunities Approach: One presentation; Q&A	Dr.K S Kavikumar
Session 9 1230 - 1300	Policies on sustainable development	Initiatives at country and global levels Approach: One presentation; Q&A	Dr.K S Kavikumar
Break			
STRENGTHENING TEACHING AND RESEARCH ON CLIMATE CHANGE			
Session 10 1400 - 1500	Preparation of lesson plan for teaching climate change	Contents and various delivery methods Approach: Activity by break-out groups; preparation and presentation by each group	Dr.E Vivekanandan Dr.P Krishnan
1500 - 1600	Preparation of climate change research project proposal	Approach: Activity by break-out groups; preparation and presentation of project proposal by each group	Dr.E Vivekanandan Dr.P Krishnan
1600 - 1645	Understanding climate change	Approach: Presentation by participants from their experience	Dr.E Vivekanandan Dr.P Krishnan
Conclusion 1645 - 1700	Conclusion	Feedback by participants	SIST

Resource Persons and Subject Experts



Dr. E VIVEKANANDAN
FORMER PRINCIPAL SCIENTIST
CENTRAL MARINE FISHERIES RESEARCH INSTITUTE
CHENNAI



Dr. P KRISHNAN
PROFESSOR & PRINCIPAL SCIENTIST
NATIONAL ACADEMY OF AGRICULTURAL
RESEARCH AND MANAGEMENT
HYDERABAD



DR K S KAVIKUMAR
PROFESSOR
MADRAS SCHOOL OF ECONOMICS
CHENNAI



DR A BIJU KUMAR
PROFESSOR & HEAD
DEPARTMENT OF AQUATIC BIOLOGY &
FISHERIES
UNIVERSITY OF KERALA



DR GRINSON GEORGE
SENIOR PROGRAMME SPECIALIST
SAARC AGRICULTURE CENTRE (SAC)
DHAKA, BANGLADESH

Patrons

Dr. Mariazeena Johnson, Chancellor
Dr. Marie Johnson, President
Ms. Maria Bernadette Tamilarasi Johnson,
Vice President
Dr. T. Sasipraba, Vice Chancellor

Chair Person & Organizing Secretary

Dr. B. Sheela Rani, Director (Research)

Programme Coordinator

Dr. E. Vivekanandan
National Consultant
Central Marine Fisheries Research Institute

Registration Free (Limited Seats only)

(E- Certificate will be given for the successfully
completed participants)

Last Date for Registration : 10/06/2021

Conveners

Dr. D. Inbakandan, Head & Scientist E, COR
Dr. S. Seshadri, Advisor, SU-TBI

Co-Conveners

Dr. T. Stalin Dhas, Scientist B, COR
Dr. Karthick Velu, Scientist B, COR
Mr. C. Kumar, Scientist B, COR
Dr. R. Thirugnanasambandam, Scientist B, COR

Moderators

Mrs. C. Anu, JRF - MoES, COR
Mr. Vineeth Kumar C. M, JRF - MoES, COR

For Registration

<https://forms.gle/35nwzNLM9mTfA6rJ8>