Indian Institute of Technology Jodhpur

Executive Certificate Programs in Climate Change and Sustainability

Apply Now

Continuing Education Program Office
Indian Institute of Technology Jodhpur
announces

Trimester Certificate Programs

Live online sessions by
IIT Jodhpur faculties and industry experts

Table of Content

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Context of the program

- Demands soaring high for sustainability and climate change professionals
- Join in to save the future of the earth

Keeping up with the population growth, demand and supply of resources, as well as rapid urbanization, it is imperative to ensure sustainability at different levels for tackling climate change related risks, hazards and vulnerabilities. Sustainable development can pave the path for economic growth, alleviate inequality and promote good quality of life for the demography without compromising the environment, natural resources and biodiversity.

India proposed in 2009 the National Action Plan on Climate Change with eight goals on solar energy, enhanced energy efficiency, sustainable habitat, water, sustaining Himalayan ecosystems, Green India, sustainable agriculture, and strategic knowledge for climate change

India suggested the Nationally Determined Contributions (NDCs) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015 with eight targets for the period 2021-2030.

World wide initiatives are taken for individuals and communities to protect and preserve the environment through sustainable consumption and resource utilization while significantly reducing GHG emissions and pollution footprints.

To equip the working professionals with necessary skill sets for sustainability, IIT Jodhpur proposes two certificate programs on **Climate Change and Sustainability.** This program will be offered as Certificate 1 and Certificate 2 in two trimesters. Candidates successful in completing Certificate 1 will be considered for Certificate 2.

Soaring demand of green jobs

1

An OECD (Organization for Economic Cooperation and Development) report in March found that "a green skills shortage across the OECD is holding back growth in sustainable development jobs and could jeopardize the race to reach net zero by 2050". *

2

According to job search portal foundit (previously Monster), there has been a 20% year-on-year increase in green job opportunities in May 2023, with the role of ESG analyst seeing the biggest share of vacancies at 19%.

3

468% Increase in the percentage demand for ESG job between 2019-2022 as per a report in the Business Standard despite pandemic. **

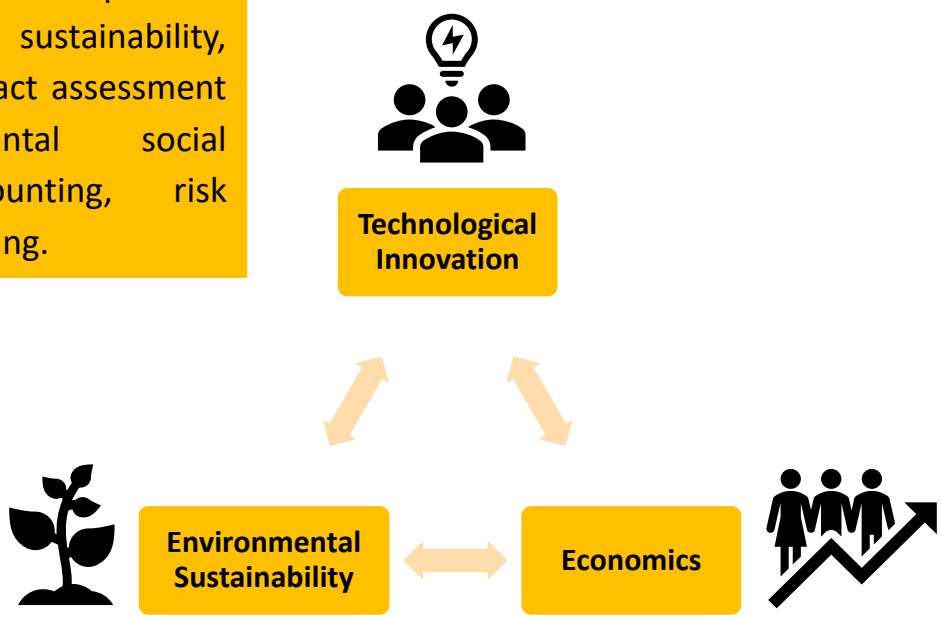
* https://economictimes.indiatimes.com/jobs/mid-career/blues-of-green-roles-india-inc-struggles-with-esg-talent-gap/articleshow/101439135.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

**https://www.business-standard.com/article/current-affairs/demand-for-esg-jobs-in-india-grows-468-in-last-3-years-says-report-122060201056_1.html

Highlights and objectives

Equip professionals with the perspectives and skills required to tackle climate change, and carbon emission. Additionally, they will develop analytical ability for resource-based, region-specific sustainability planning and implementation, complying with environmental, social and governance perspectives.

Impart understanding of industrial ecology, its dynamics and growth, its relationship with respect to development and sustainability, environmental impact assessment and environmental social governance accounting, risk auditing and reporting.



Prepare industry professionals for environmental and climate change driven sustainability aspects with increasing awareness of climate change discourses pertaining to a variety of roles (engineers and technocrats, sustainability managers, policy makers, etc.) with an aim to bridge the gap between technology, finance and sustainable development within public, private, and non-profit/ community-based organizations.

Target Professionals

Eligibility:
The new program is meant for professionals with a minimum four-year degree in engineering, technology, planning, and architecture or a master's degree in the natural sciences or social sciences and who have a total cumulative field-based work experience of 3 years. A certificate of experience and No Objection Certificate (NOC) from the employer are needed.

Why should someone do this?

Curriculum driven by demand of next-generation future career

Application oriented programs focusing on implementations

State of the art project-centric curriculum built by industry experts

Possibility of transferring credits in future

Holistic understanding of sustainability after completing certificates

Hybrid mode of learning- easiness of availing

Learning outcomes

1. Basics of SDGs, climate change adaptation, mitigation, natural resource management and as well circular economy.
2. Various types of data and research methods (data analytics and environmental economics driven tools) for sustainability assessment, understand the nexus of growth, development, and environment.
3. Intricate interplay of growth, development, and environmental protection for crafting policies that foster sustainable prosperity without compromising the health of our planet.
4. Emerging technologies for environmental sustainability pertaining to biodiversity and natural resources, greenhouse gas accounting, circularity, recycling and life cycle analysis, environmental impact assessment, sustainable water and waste management.
5. ESG accounting and reporting in detail as well as for specific industries.

Graduate Attributes

- Develop sustainability management skills on cutting-edge, emerging areas like Circular Economy, Sustainable Development, Ecology & Environment, Water, Energy, Sustainable materials, Climate, Natural and Anthropogenic risk assessment, Renewable energy, Waste management and Urban development.
- Identify factors and drivers of environmental decline resulting in social and economic damage, and the need for the education in sustainability management and environmental social governance.
- Recognize information relevant for sustainability from a wide range of fields and contexts.
- Get familiar with different metrics, evaluation methods, assessment criteria and measures of sustainability within a particular system.
- Map out interaction between various attributes of sustainability to identify driver, mechanism, barrier and unintended consequences of any practice.
- Calculate the level of various climate change footprints such as greenhouse gas footprint/ carbon emission reduction for any case etc.

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Curriculum

Certificate 1	Certificate 2
Credit structure: 8	11
Program commencement: Jul 26, 2024	Dec 2024
Course fee: 150,000 INR +GST	180,000 INR +GST
Prerequisite: None	Certificate 1
Trimester 1	Trimester 2

Certificate 1 courses:

- Climate change risk, adaptation and mitigation (3)
- Introduction to ESG regulation, reporting, and accounting (3)
- ESG data audit, control and analytics (2)

Certificate 2 courses:

- GHG emission and accounting (3)
- Biodiversity and natural resources (2)
- Industrial waste management and circular economy (3)
- Water sustainability (3)

Learning Mode:
Live online sessions by IIT Jodhpur faculties and industry professionals

Program Schedule:
The class schedule will be determined by IIT Jodhpur faculties. The classes generally take place on Fridays (late evenings), Saturdays, and Sundays, subject to the availability of the faculty.

Student Journey

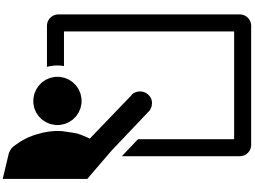
1.  Filling the Application

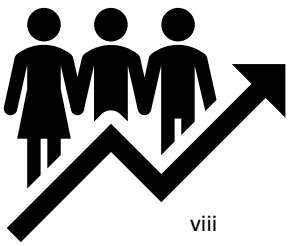
2.  Appear for the Pre-Screen Test

3.  Application Processing Fee

4.  Enrolment after fee payment

5.  Receive Offer Letter





Program Director

Dr. Shreya Banerjee
Assistant Professor,
Center for Emerging Technologies for Sustainable Development
IIT Jodhpur

Dr. Shreya Banerjee is an Assistant Professor of Sustainable Urban Planning in the Center for Emerging Technologies for Sustainable Development in IIT Jodhpur. Dr. Banerjee works in the intersection of SDGs 3 (good health and well being), 7 (affordable and clean energy), 11 (sustainable cities and communities), and 13 (climate action). Her area of interests include climate change adaptation and mitigation, international climate change negotiations, nature based solutions, sustainable urban future, and sustainability assessment methods. She has wide experiences of working in different sustainability and climate change mitigation and adaptation projects across India, Singapore and United States. Dr. Banerjee was a post doctoral fellow in Singapore Management University. She did her PhD from Indian Institute of Technology Kharagpur. During her PhD, Shreya was awarded with BHAVAN fellowship from Indo-US Science and Technology Forum (IUSSTF) jointly funded by DST and US Department of State and was a visiting scholar in Arizona State University. Dr. Banerjee has received several grants for her research projects and her publications have appeared in various reputed international journals.

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About CETSD

Prof. Meenu Chhabra
Head, Center for Emerging Technologies for Sustainable Development
IIT Jodhpur

Center for Emerging Technologies for Sustainable Development (CETSD) is the center at IIT Jodhpur which puts on the ground viable solutions through schemes combining the technology, funding, management, social, data and environmental touchstones. Communities, industries, government, students, academic institutes, individuals, and non-governmental organizations are a part of this trans-disciplinary center. Center for Emerging Technologies for Sustainable Development is the scientific social responsibility arm of IIT Jodhpur.

The vision of CETSD is “To be a partner in tapping the potential of emerging technologies for creating a sustainable and prosperous future India”.

CETSD is the Center for Rural Development and Technology (CRDT) at IIT Jodhpur in line with the decree of the Ministry of Human Resource and Development (now Ministry of Education) to be set at all IITs. It therefore partners with RuTAG Center IIT Delhi (from the Office of PSA) and UBA program, CRDT, IIT Delhi.

It is also a Science and Technology Innovation hub (STI Hub from March 2023) after the grant support from DST-SEED Division.

CETSD Core Faculties:

Dr. Chandana N
Assistant Professor,
Core Faculty, CETSD

Dr. Kirti Sankhala
Assistant Professor,
Core Faculty, CETSD

Dr. Rajyalakshmi Garaga
Assistant Professor,
Core Faculty, CETSD

Dr. Shreya Banerjee
Assistant Professor,
Core Faculty, CETSD

External mentors:

Mr. Sudipta Das
FutureStation Advisors LLP

Mr. Sudipta Das is presently involved as a partner in FutureStation Advisors, an ESG firm providing solutions for sustainable and resilient growth. He previously held the position of a Partner and National Leader of Climate Change and Sustainability practice of Ernst & Young (EY) in India. Prior to this, he lead the Low Carbon Transformation team of EY India. He was also the former National Vice President of the Indo American Chamber of Commerce. He is an Adjunct Professor of Practice, Center for Emerging Technologies for Sustainable Development, IIT Jodhpur. Mr. Das holds a Bachelor's degree in Mechanical Engineering and a business management master's degree, both from Jadavpur University, Kolkata, India.

Ms. Tania Banerjee
Climate Change and Sustainability Professional

Tania is a climate change and sustainability professional carrying a decade of experience across areas of mitigation, adaptation and resilience. She has worked on a diverse range of climate and sustainability topics such as adaptation and mitigation strategies, energy transformation, climate finance, capacity development closely looking at gender, SDGs and co-benefits. Tania has previously held the role of a senior manager at a professional services organisation and presently anchoring climate change efforts for a top tier management consulting firm. She has played a key role in the G20 Environment and Climate Sustainability Working Group for the Ministry of Environment, Forest & Climate Change, India. Across her roles she has led large and diverse teams, with the primary objective of delivering impact for the client and society. She has worked with governments, the private sector, multilateral and bilateral funding agencies, and philanthropies. Sustainable urban development and resilience in cities are key subjects she is passionate about, and she has closely worked with governments and donors in India, Bangladesh, Bhutan, Senegal and Turkey at the national and subnational levels.

About IIT Jodhpur

The Indian Institute of Technology Jodhpur was founded in 2008 with a focus on technology education and research to promote the economic development of India. Its permanent campus is spread over 852 acres and has state-of-the art facilities for research and academic activities. The institute is committed to a multidisciplinary approach to technology development and has organized its degree programs through departments and research activities through centers for technologies.

In addition to its focus on traditional education, IIT Jodhpur has been actively pursuing executive education programs for working professionals in India. The institute has been leveraging its academic expertise, industry collaborations, and infrastructure to create a range of high-quality programs that cater to the needs of today's professionals. Its faculty members, with extensive industry experience and academic expertise, bring a unique blend of theoretical knowledge and practical experience to the classroom.

To establish itself as a leader in executive education, IT Jodhpur has been developing programs that are relevant and contemporary to the evolving needs of the industry. It has also established strong industry linkages to develop customized programs that cater to the specific needs of their employees. The institute has invested in state-of-the-art infrastructure, modem classrooms, well-equipped labs, a vast collection of books and research papers in the library, and online learning platforms and tools to provide an immersive learning experience to the participants.

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Enquire Now

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