



DEPARTMENT OF ENERGY AND ENVIRONMENT DOCTORAL PROGRAMME IN ENERGY AND ENVIRONMENT

About TERI School of Advanced Studies

The academic programmes at TERI SAS are focused on the challenges of providing the rising global population with a limited and degraded natural resource base. In moving towards sustainability, the implicit understanding is that there is no panacea or straight road, with recognized and established methodologies, tools or specializations leading to such development.

The solutions therefore do not lie in a specific subject discipline but must be appropriate and relevant to the context.

Developing such an understanding among its students is best achieved through exposure to a variety of subjects, tools, and methodologies offered in an interdisciplinary mode. This has been the guiding philosophy behind the programmes offered by the TERI SAS and is practiced by building a theoretical understanding in courses covering a variety of traditional disciplines, such as ecology, natural and social sciences, governance, policy and engineering.

Apart from doctoral research, TERI SAS offers 12 Masters programmes focused on Renewable Energy, Environment, Water, Climate Science, Biotechnology, Economics, Sustainable Development and Management.

TERI SAS is one in a selected group of 22 institutions chosen worldwide by the MacArthur Foundation, USA, to run the Sustainable Development Practice programme.

The institute provides the very best in equipment and instruments, which includes state-of-the-art computer facilities, well-equipped laboratories, video-conferencing facilities, and access to South Asia's most comprehensive library on energy and environment.

TERI SAS has established excellent partnerships and collaborative arrangements with several institutions overseas, including Yale University, USA; The Freie University of Germany; Utrecht University, The Netherlands; North Carolina State University, USA; and University of Technology, Australia.

Programme Overview

Department of Energy and Environment (DEE) at TERI School of Advanced Studies (TERI SAS) provides a competent and vibrant environment to PhD students for achieving academic excellence of highest global standards and the opportunity to nurture an independent, analytical and critical thinking.

The mode of operation and key features of the doctoral programme are governed by the provisions as laid down in the 'TERI School of Advanced Studies Ph.D. Regulations-2019'.

While the emphasis is laid down on interdisciplinary approaches, disciplinary thrust is maintained with focus on a range of themes such as energy, urban development, climate science and environment resources.



Research Themes

- Urban housing policy
- Migration, sustainable and smart cities
- Built Environment
- Emerging anthropogenic pollutants and contaminants
- Innovation in industrial water treatment and reuse
- Geogenic contaminants
- Air pollution and its linkages with climate dynamics
- Justice and climate change
- Polycentricity in climate change governance
- Energy-economy-environment interaction modelling

Programme Outcomes

After the completion, Ph.D. students should be able to:

- Develop an understanding of research, philosophy and domain knowledge for addressing current research problems and identifying emergent themes in the area of specialization.
- Critically apply concepts, methods, and learning to address underlying queries in their discipline of research as well as imbibe the spirit of inquiry and solution-oriented ideas.
- Engage in the research of impact in the fundamental discipline or an interdisciplinary research.
- Understand and apply scientific methods, tools, and techniques to carry out high quality research work.
- To have intellectual independence, creative scholarship and ingenuity in tackling and solving research problems.
- Cultivate and demonstrate skills in articulating their research outputs in scientific writing, oral presentation and publishing the results of their research in conferences and journals of repute, maintaining high ethical standards in research and academia.
- Demonstrate their skills and knowledge at conceptualizing, planning and executing research independently and/or in team that extends the existing horizons of interdisciplinary research/thematic.

Admission

Admission will be made based on written tests and interview. A weightage of 70% to the written test and 30% to the performance in interview shall be given.

Written test will have two papers of equal weightages (35% each). Paper I will be on 'Research Methodology' which will be a common paper for admission in all departments of the University. Paper II will be department/subject specific.

[Syllabus for Research Methodology](#)

Syllabus for Paper II

The core theme of the Department of Energy and Environment PhD entrance examination will be from a multi-disciplinary perspective. Prospective students appearing for the written examination can opt for only one of the following tracks as per their research interest:

- Environment and Climate Studies,
- Renewable Energy and



- Urban Development

Eligibility Criteria

Master's degree in a relevant field or equivalent with at least 55% marks in aggregate or an equivalent grade in a point scale wherever grading system is followed.

Fee

For details regarding the fee for doctoral programmes, please refer to the link given below:

<https://www.terisas.ac.in/how-to-apply.php#nav-doctoral-tab>

Ph.D. Guidelines

For Ph.D. guidelines, please refer to the link to student handbook. The Ph.D. regulations are from page no. 57 to 69

<https://www.terisas.ac.in/pdf/student-handbook.pdf>

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