

المعهد الهندي للتكنولوجيا دلهي
أبوظبي

INDIAN INSTITUTE OF TECHNOLOGY DELHI
ABU DHABI



2025

IIT DELHI - ABU DHABI

Ph.D. Admissions

in the area of Energy and Sustainability





INVITATION FOR PURSUING Ph.D. AT IIT DELHI - ABU DHABI

IIT Delhi – Abu Dhabi, the international branch campus of the Indian Institute of Technology Delhi in Abu Dhabi, UAE, is inviting applications for its inaugural Ph.D. program in the area of Energy and Sustainability, for a cohort starting in January 2025.

WORLD RANKING
QS 2024
Top 50
in Engineering & Technology

Indian Institute of Technology Delhi (IIT Delhi), is one of India’s highest ranked academic institutions. Since its inception, over 60000 students have graduated from IIT Delhi in various disciplines including Engineering, Physical Sciences, Management, Humanities and Social Sciences. Of these, more than 7500 graduates have received Ph.D. degrees. Out of 2656 students who graduated in 2024, 481 got a Ph.D. degree.

IIT Delhi - Abu Dhabi is inviting applications for the Ph.D. program in the area of Energy and Sustainability. The program offers a unique opportunity to work on cutting-edge research and technologies to enable the energy transition.

The program is Full-Time, thereby meaning that candidates would be expected to be fully engaged with the Ph.D. program and not expected to be gainfully employed in any other organization during the tenure of the Ph.D. program.

Application Fee

~~AED 300~~ Waived for January 2025 applicants.

IMPORTANT DATES

2

1

DECEMBER 14, 2024

Launch of online applications submission portal

2

DECEMBER 31, 2024

(05:00 PM GST | 06:30 PM IST)

Last date for submission of online application

3

**JANUARY 03 -
JANUARY 06, 2025**

Range of dates for the Interview (Online)

Interview slots for the shortlisted candidates will be intimated at least 2 days in advance

4

JANUARY 10, 2025

Declaration of the result and communication of offers

5

JANUARY 17, 2025

Deadline for acceptance of offer by the candidate

6

JANUARY 27, 2025

Registration and Orientation for new Ph.D. students

ELIGIBILITY CRITERIA

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A

QUALIFYING DEGREE[#]

Applicants must have completed a **Master's degree** (2 year M.Tech., M.S., M.S.(R), M.E., 5 year Integrated M.Tech., or equivalent) with a minimum Cumulative Grade Point Average (CGPA) of **3.0** on a **4.0** point scale, or equivalent (**7.50** on a **10.00** point scale, or **75%** aggregate marks in case marks are offered on graduation), in a discipline relevant for the doctoral degree (as listed in the project briefs).

OR

Academic distinction in a relevant discipline at the **Bachelor's degree** (4 year B.Tech., B.S., B.E., 5 year Integrated M.Sc. or equivalent) with a CGPA of at least **3.5** on a **4.0** point scale (or **8.75** on a **10.00** point scale, or **87.5%** aggregate marks in case marks are offered on graduation) will also be considered, in a discipline relevant for the doctoral degree (as listed in the project briefs).

[#] Students in the final semester can also apply.

B

QUALIFYING^{*} EXAMINATION (For non-sponsored candidates)

Candidates applying as fresh graduates with (B.Tech./B.E./B.S./ M.Sc. or equivalent) should have qualified either:

- GATE with a minimum valid score of 350, or
 - GRE (Quantitative Reasoning) with a minimum valid score of 150
- ^{*} For candidates who have completed their B. Tech. from an IIT, and have a CGPA of 8.00 or above, the requirement of GATE/GRE as a qualifying examination is waived off. However, the qualification criteria listed in (A) would apply.

C

WORK EXPERIENCE (For sponsored candidates)

Candidates applying in Full-time Sponsored category (sponsored by other companies/organizations) should have a minimum of two years of work experience and a sponsorship from the organization. For such candidates requirement of Qualifying Examination (B) is waived.



Statement of Purpose (SoP)

The candidates must submit a Statement of Purpose (SoP), with the following sections:

- a) Why do you wish to pursue a PhD program at IIT Delhi - Abu Dhabi? What are your expectations from the campus and the academic program, if selected? (maximum 200 words)
- b) In the order of priority for each Ph.D. project (select up to three of the listed projects), write a short summary of a maximum of 400 words addressing the following questions:
 - What is your understanding of the Ph.D. problem selected, and what approach would you adopt to research the problem?
 - How do your background and interests make you a suitable candidate for working on this Ph.D. project?

SCHOLARSHIP DETAILS

5

Generous scholarships will be offered to the full time Ph.D. students (non-sponsored category)



For Students who are Citizens of the UAE

- Full waiver of tuition fee
- Scholarship of AED 30,000 per month (including cost of accommodation)

For Students who are Citizens of other countries (International Students, including Citizens of India)

- Full waiver of tuition fee
- Scholarship of AED 15,000 per month (including cost of accommodation)

SELECTION PROCEDURE

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Selection of a Ph.D. candidate would be done in the following two steps

STEP 1

Shortlisting based on the merit of the application, in terms of CGPA of the qualifying degree, qualifying examination score, relevance of background, previous work experience, etc.

STEP 2

Interview of shortlisted candidates by a competent committee, which may seek recommendation letters from the referees in arriving at its final decision. The final decision of the selection will be binding on the candidate.



Ph.D. PROJECT TITLES

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More details about the projects and the supervisor(s) can be found on https://abudhabi.iitd.ac.in/phd_projects

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| 1 AI-Driven Metamaterial Photonic Sensors for Environmental Monitoring Applications | 2 High-Throughput Screening of Materials for Carbon Capture and Utilization Using Molecular Simulations and Machine Learning |
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| 3 Conceptualizing a Floating Refinery and its Process Units using Hexapod Mechanics and Multiphysics Modeling | 4 Data-Driven Approaches for Real-Time Optimal Power Dispatch in Distribution Systems |
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| 5 Conceptualizing a Mini-Haber Process: A Microplant powered by Green Hydrogen | 6 Optimal Designs of Structured Catalytic Surfaces for Syngas to Liquids Production for aiding the Energy Transition |
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| 7 Modeling of Electrified Structured Reactors for NetZero | 8 Development of Energy Management Platform for Combined Power Dispatch of Electricity and Hydrogen Production in a Microgrid with Capabilities to provide Ancillary Services |
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| 9 Decarbonizing the Fossil Fuel Sector Through Life Cycle Assessment and Materials Development for High-Temperature Fuel Cells | 10 Conceptualizing Development of Liquid Hydrogen Storage and Vehicular Transportation |
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| 11 Integrating Battery Energy Storage Systems for Grid Stability in the UAE: Addressing the Water-Energy Nexus and Desalination Demand with Renewable Energy | 12 Optimizing Battery Electric Vehicles (BEVs) Efficiency Through AI-Driven Predictive Thermal Management Using Route Data |
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| 13 Optimizing Building Energy Consumption with Integrative Approaches in Middle Eastern Climate for Sustainable Urban Development | 14 Identifying Novel and Optimal Routes for Decarbonisation Using Large Language Models (LLMs) |
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| 15 Climate-Justified Process Optimization Using Deep Learning | 16 Techno Economic Analysis of the Energy Transition Pathways including the System Integration Costs and the Ancillary Benefits |
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Contact Us

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