

# Admission Brochure

## Ph.D. in Sustainable Engineering

### July 2024 Session

#### ABOUT THE SCHOOL

Greenko Group and IIT Hyderabad have collaborated to establish the Greenko School of Sustainability at the Indian Institute of Technology Hyderabad in 2022. The School of Sustainability is designed to shape a world that harmonizes with nature and empowers future generations toward a more sustainable tomorrow.

The objectives of the school are to conduct research and development, education programs.

The Greenko School of Sustainability is structured as a cross-disciplinary center that manages seamless participation and knowledge flow from all existing departments and centers of IIT Hyderabad.

The Greenko School of Sustainability (GSS) is currently offering three masters' programs:

- (i) Sustainable Engineering
- (ii) Energy Science & Technology
- (iii) E-waste Resource Engineering and Management

#### PHD PROGRAM

The Greenko School is inviting applications from highly motivated and enthusiastic students interested in working on the identified inter-disciplinary thrust areas of the school.

#### RESEARCH THRUST AREAS FOR THIS ROUND OF ADMISSIONS

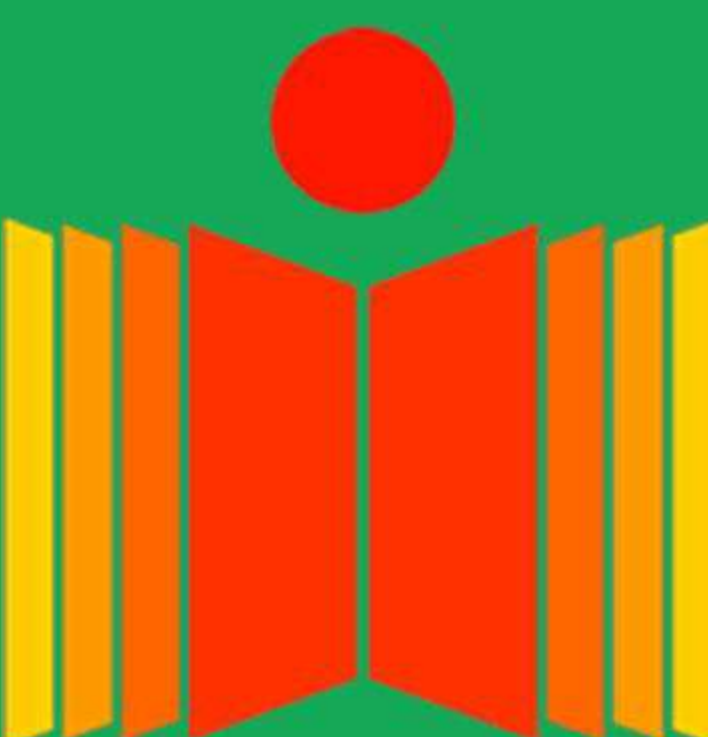
The school has the following six thrust areas:

- (i) Climate Change Mitigation
- (ii) Energy Transition & Industrial Transformation
- (iii) Circular & Regenerative Economy
- (iv) AI & Space Technology for Climate Change mitigation
- (v) Green Chemistry & Industrial Processes
- (vi) Recycling, Reuse, and Repurposing
- (vii) Sustainable manufacturing and Decarbonization

#### CONTACT US:

Greenko School of Sustainability Indian Institute of Technology Hyderabad  
Email: [dpgc@gss.iith.ac.in](mailto:dpgc@gss.iith.ac.in), [sayakb@mae.iith.ac.in](mailto:sayakb@mae.iith.ac.in)

Greenko School of Sustainability  
Indian Institute of Technology  
Hyderabad



# RESEARCH PROJECTS

Title of the Project	Eligibility
Development and Performance Evaluation of an Direct Injection Ammonia based Dual Fuel CI engine	<p>Essential:</p> <p>1.BTech/BE in Mechcal/Aerospace/Production Engineering</p> <p>2.MTech/ME in Mechanical Engineering with specialization in Thermo-fluids</p> <p>Desirable:</p> <p>Hands-on experience in IC engine experi ments</p>
Development and Realization of High Energy Lithium-based Rechargeable Batteries for Electric Vehicles	M.Sc. in Chemistry/ M.Tech in NanoTechnolo gy-Material Science, with GATE/ CSIR/UGC(JRF/NET).
Unassisted Solar Seawater Splitting PEC Cells for Sustainable Hydrogen Generation	MSc degree in Chemistry/Nano or M.Tech in Energy/Environment/Chemical/Civil Engineering
Electric Swing Adsorption for Car bon Capture And Lithium Recovery	<p>At least one (Bachelors or Masters) Degrees in Materials Science, Mechanical Engineering or Chemical Engineering.</p> <p>Desirable qualification: Knowledge in electro chemistry</p>
Development of Low-Cost Organic Porous Solids for CO2 Capture	M.Sc. degree in Chemistry
Biomass valorization: Developing novel methods for pretreatment and biopolymer (bioplastic) synthesis	<p>Criterion A: M.Tech./M.E. in any of the follow ing engineering disciplines:</p> <p>Civil (specialization in Environmental Engineering)</p> <p>Engineering, Environmental Engineering, Chemical Engineering, Material Science &amp; Material Engineering; OR, First Class in M.Sc. in Chemistry.</p> <p>Criterion B: B.Tech./B.E. in any of the follow ing engineering disciplines: Civil Engineering, Environmental Engineering, Chemical Engi neering, Material Science &amp; Material Engineer ing; OR, First Class in B.Sc. in Chemistry. (Shall meeting Criteria A&amp;B)</p>

## PHD PROGRAM

The Greenko School of Sustainability is inviting applications from highly motivated and enthusiastic students interested in working on the identified inter-disciplinary thrust areas of the school (for details, see overleaf).

## ADMISSIONS

The school is offering Fellowships in TWO categories:

1. Project Fellowships: 6 Nos.  
(INR 75,000/ month up to 4 years. For details, see next page)
2. \*MoE Fellowships: 4 Nos.  
(As per GoI Norms for 5 years)

## ELIGIBILITY

All candidates should have cleared national eligibility tests UGC NET/GATE/CEED/CSIR, etc. However, need not have a validity at the time of application.

Candidates with First Class degrees in their respective bachelor's and master's programs can apply.

For MoE fellowships, candidates shall hold M.Tech/M.Sc/M.Arch/M.Des in any discipline aligned with the research thrust areas of the school.

For project based fellowships, the specific eligibility criteria and essen tial/desir- able requirements for each project are given in the next page.

## External PhD Program:

Candidates with at least 2 years of relevant experience with an NOC from their organization are eligible for admission as External Ph.D.

\* All other institute's admission guidelines are applicable.

## SELECTION CRITERIA

The selection is through a written test and/or Interview.

Selected applicants will be communicated through emails. The applicants should ensure the accuracy of the email address provided and check their emails regularly for updates.

## HOW TO APPLY

Applications are accepted online

- Create a login on IITH webpage at: <http://www.iith.ac.in/phdadmissions/>
- For more info, visit <http://www.iith.ac.in/>