



# Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy



National Institute of Technology Karnataka Surathkal  
NITK Campus Post Srinivasnagar Surathkal-575025

Ref. No: NITK/ACR/CSR/01/MTCR-2025-26

Date: 13/05/2025

## Advertisement for the selection of Postdoctoral Fellow

Under

### Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy (MTCR-WR-CE)

Applications are invited from eligible and motivated candidates for the position of Postdoctoral Fellow (PDF) in the CSR-funded research project titled 'Implementation of a One-Ton Biogas Plant in Paradeep, Odisha – Phase II - Biogas Purification and Bottling,' under the Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy at NITK Surathkal.

#### Objective:

The **Maire Tecnimont Fellowship** for Sustainable Development aims to identify and support motivated young researchers to carry out high-impact research in frontier areas of Waste Recycling and Circular Economy. Selected fellows will work under the mentorship of a Faculty member at NITK Surathkal. This initiative is expected to empower the fellows to evolve into independent researchers capable of contributing to sustainable development goals.

In the long term, the beneficiaries of this fellowship can support local governments, planners, and policymakers in tackling challenges related to waste management, access to clean water, and sustainable energy. Further, their contributions can generate employment opportunities, aiding social upliftment and promoting social integration and inclusion.

The duration of the fellowship is currently **five months** for the Postdoctoral Fellow (PDF) and extendable based on the availability of funding and performance of the candidate. Interested candidates should fill in their academic and personal details in the prescribed application format and send the same along with attested copies of relevant certificates **within 14 days** from the date of this advertisement to the contact person mentioned. Only shortlisted candidates will be informed through post/email/phone or via the institute website: [www.nitk.ac.in](http://www.nitk.ac.in).

Shortlisted candidates must report to the contact person for certificate verification, followed by a written test and technical interview. The interview is most likely to be held during the **fourth week of May 2025**. Any changes to the interview schedule will be intimated through email. The final selection will be based on educational qualifications, relevant experience, written test performance, and interview outcome. No TA/DA will be provided for attending the written test and interview. NITK Surathkal reserves the right to reject any or all the applications without assigning any reasons thereof. Selected candidates will be required to join immediately upon selection.

Source of Fund	Implementation of a One-Ton Biogas Plant in Paradeep, Odisha – Phase II - Maire Tecnimont Scholarship for Life Cycle Assessment and Sustainable Development
Title project	Implementation of a One-Ton Biogas Plant in Paradeep, Odisha – Phase II - Biogas Purification and Bottling
Sponsoring Company	MAIRE Group, Milan, Italy and its subsidiaries ((M/s. Tecnimont Private Limited, and M/s. KT – Kinetics Technology S.p.A India Projects Office, Tecnimont House, Mumbai - 400064)
Monthly Fellowships /Research grants available	Refer Table 01 in Page No. 04
Number of Post-Doctoral Fellowship (PDF) positions available	01 (One)
Faculty/Mentors Associated from Department/Centre	Department of Mechanical Engineering/Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy
Tenure of availability of Scholarships	Currently for five months for the Postdoctoral Fellow (PDF), extendable up to one year or more, based on the availability of funding and performance of the candidate.
Qualification and Experience	<p>(i) a <b><u>Post-Doctoral Fellow</u></b> (Ph.D.) to lead LCA study, system optimization, and environmental impact assessment.</p> <p><b>Qualification:</b> <b>Ph.D.</b> in Mechanical, Chemical, Environmental Engineering, or related fields, with <b>at least one year of relevant post Ph.D. experience</b> in Life Cycle Assessment (LCA), biogas technology, and/or sustainability analysis of waste to energy systems.</p> <p><b>Role &amp; Responsibilities:</b> Responsible for leading LCA studies, process analysis, research coordination and overall project monitoring.</p>
Desirable qualities	<p>The candidate must be able to work independently and flexibly and having the following qualities will be desirable.</p> <ol style="list-style-type: none"> <li>1. Basic knowledge about laboratory/bench scale work with a technical focus on the fundamentals to understand and optimize the process</li> <li>2. Implementation: Pilot/demonstration scale or the field application projects</li> <li>3. Sustainability aspects: Knowledge to conduct potential analysis on financial, social, environmental aspects of biogas plant. Familiarity with decision support tools and theoretical evaluation.</li> <li>4. Excellent analytical and writing skills</li> <li>5. Knowledge of analytical techniques to monitor and</li> </ol>

	<p>assess the performance of biogas plants.</p> <p>6. Effective communication skills to interact with diverse stakeholders.</p>
Additional information	<p>May be obtained by contacting the Head/ CSR Project Coordinator, Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy directly through email.</p>
Last date for receipt of application	<b>27<sup>th</sup> May 2025</b>

Interested candidates may apply in the prescribed format along with CV, photocopies of relevant certificates, grade/mark sheets, publications etc., and should reach NITK on or before **27/05/2025** by post/email (scanned documents) at the prescribed address below:

Sd/

Dr. Vasudeva Madav

CSR Project Coordinator

Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy

National Institute of Technology Karnataka Surathkal

Email 1: [mt.center-research@nitk.edu.in](mailto:mt.center-research@nitk.edu.in)

Tel: +91-824-2473670, M: +91-9008889796

Faculty Associated from various Departments/Centre's NITK

From Mechanical Engineering

<p>Dr. Vasudeva Madav Associate Professor and PI, Department of Mechanical Engineering National Institute of Technology Karnataka Surathkal P.O:Srinivasanagar, Mangalore, Karnataka- 575 025</p>	<p>E-mail: <a href="mailto:vasu@nitk.edu.in">vasu@nitk.edu.in</a></p>
---	---

### **Eligibility:**

- The applicant should be an Indian citizen
- The applicant **must have been awarded a Ph.D.** degree in Mechanical, Chemical, Environmental Engineering, or a related field from a recognized university/institution.
- A **minimum of one year of relevant post-Ph.D. research/industry experience** in the areas of Life Cycle Assessment (LCA), biogas technology, and/or sustainability analysis of waste-to-energy systems is mandatory.
- Candidates who are awaiting Ph.D. award or have only submitted their thesis **are not eligible to apply.**

### **Nature & Duration of Support:**

- The fellowship is tenable only in India and will be implemented at NITK, Surathkal. The Maire Tecnimont Centre for Research on Waste Recycling and Circular Economy, NITK, Surathkal, and the respective department will provide necessary administrative and infrastructural support.
- The fellowship is purely a temporary assignment and is tenable for six months. Extendable based on the availability of funding and performance of the candidate.
- The fellows will be entitled to receive the grants as given in table 1 below:

Table 01: Fellowship and Research Grants

Sl. No.	Budget Head	Monthly Stipend (₹)	Duration (Months)
1	Fellowship	Rs. 80,000/- + 18% HRA	Five months (extendable up to one year or more as per project requirement)
2	Research grant for consumables	Rs.50,000/- per year (Proportionate amount for five months)	

- Research grant can be used for minor equipment, consumables, contingencies, and domestic travel. There is no provision for providing manpower support under this scheme. The Fellow is expected to undertake the research objectives by himself/herself during the entire duration of the fellowship.
- The fellows are not eligible to receive any other fellowship from any Government or Non-Governmental source during the tenure of the fellowship.
- The fellows must seek the consent of Faculty Mentor/Project Coordinator/ Dean R&C if he/she intends to be away from NITK (except for fieldwork related to the project) continuously for a period of more than eight weeks.

### **Selection & Mode of Application**

The call for applications for MTE-PDF for Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy will be notified through the website [www.nitk.ac.in](http://www.nitk.ac.in)

- The application form along with a research proposal highlighting the objectives of the research work to be undertaken should be submitted online through the email
- The selection will be based on the recommendations of an Expert Committee that will be constituted by the Maire Tecnimont Centre for Research on Waste Recycling and Circular Economy, NITK, Surathkal and as per the procedure laid down by NITK, Surathkal
- Final Selection will be made as per the procedure laid down by NITK, Surathkal.
- If required, the applicants may be called for the personal interview.

### **How to apply:**

**For successful submission of the application the following points may be noted:**

- Applicants should fill the form, which includes Bio-data, Photo, Institute, Address, etc.
- Details including Project Title (max 500 characters), Project summary (max 3000 characters), Keywords (max 6), Objectives of the project (max 1500 characters), Expected output, and outcome of the proposal (max 1500 characters) should be provided at the time of submission of the application.
- Work Methodology and Research Plan must be submitted in a single PDF file, not more than 3 pages(max 10 MB).

### **Documents required (in PDF) should be in prescribed format:**

- Duly Filled Application
- Bio-data
- Age Proof Certificate
- Qualification Certificate
- Category Certificate (in case of Age Relaxation)
- Undertaking Certificate by the applicant (as per the attachment)
- Plagiarism undertaking

### **Termination of the Fellowship**

- If any fellow wishes to terminate the fellowship, he/she shall inform the Maire Tecnimont Centre for Research on Waste Recycling and Circular Economy, NITK, Surathkal, through the mentor immediately with one month notice.
- Maire Tecnimont Centre for Research on Waste Recycling and Circular Economy, NITK, Surathkal reserves the right to terminate the Fellowship at any stage if it is convinced that appropriate progress is not being made or the grant has not been utilized properly.

### **Leave**

MTE- PDFs are entitled to leave as per the rules of NITK. Participation in scientific workshops held in India or abroad will be treated as on duty. As per the Govt. of India instructions issued from time to time, maternity leave would be available to female candidates in all categories.

**Application for Maire Tecnimont fellowships for**  
**Maire Tecnimont Centre for Research in Waste Recycling and Circular Economy**

<b>For Office Use:</b>	Paste your recent Passport size photo
Serial Number: .....	
Eligible for Written exam/Interview: Yes / No	
Verified the Certificates: .....	

<b>1. Name:</b>			
<b>2. Father's Name:</b>			
<b>3(a). Date of Birth:</b>		<b>3(b). Nationality:</b>	

**4. Contact information:**

<b>(i) Address for communication:</b>	
<b>(ii) Mobile No:</b>	
<b>(iii) Email ID:</b>	

**5. Educational Qualifications\***

Class	Subject/ Stream	Board/ University	Name of Institute	Marks/ CGPA	Year of Passing
X					
XII					
UG Degree					
PG Degree					
MPhil					
PhD					
Competitive Exam		Qualified	Marks / Rank		Year
CSIR-UGC NET		Yes / No			
GATE		Yes / No			

**\*Attach self-attested copies of all certificates.**

**6. Work Experience, if any (in years) .....**

Organization	Designation	Duration	Responsibilities

**7. Number of Publications: (Attach a separate list of publications with full details)**

National	International

**8. Workshop/Training programs attended\*:**

S. No.	Details

**\*Attach separate sheet (if required)**

**9. Technical Skills**

S. No.	Details

**10. Other Achievements\*:**

S. No.	Details

**\*Attach separate sheet (if required)**

**11. Declaration:** All the above information provided by me is accurate to the best of my knowledge and I understand that, if found incorrect, I may be disallowed to appear in the interview/test or terminated at any stage.

**Date:**

**Place:**

**Signature of the Candidate**

**Note:** Attach the list of enclosures along with the application.

Undertaking by the Fellow

I,....., Son/Daughter/Wife of Shri....., resident of  
..... agree to undertake the following, If I am offered the PDF/Project  
Associate funding by Maire Tecnimont,

1. I shall abide by the rules and regulations of NITK during the entire tenure of the fellowship.
2. I shall also abide by the rules, discipline of the institution.
3. I shall devote full time to research work during the tenure of the fellowship.
4. I shall prepare the progress report on the 25<sup>th</sup> day of every month and communicate the same to Maire Tecnimont through the mentor and Project Coordinators.
5. I shall send two copies of the consolidated progress report at the end of the fellowship period.
6. I further state that I shall have no claim whatsoever for regular/permanent absorption on the expiry of the fellowship.

Date:

Signature



Plagiarism undertaking by the Fellow

To

Sir I \_\_\_\_\_  
hereby certify that the research report titled \_\_\_\_\_

\_\_\_\_\_ submitted for as a part of PDF  
/Project Associate funding by Maire Tecnimont is my original idea and has not been  
copied/taken verbatim from anyone or from any other sources. I further certify that this  
proposal has been checked for plagiarism through a plagiarism detection tool i.e.  
\_\_\_\_\_ approved by the Institute and the contents are  
original and not copied/taken from any one or many other sources.

I am aware of the UGCs Regulations on prevention of Plagiarism i.e. University Grant  
Commission (Promotion of Academic Integrity and Prevention of Plagiarism in Higher  
Educational Institutions) Regulation, 2018.

I also declare that there are no plagiarism charges established or pending against me in  
the last five years. If the funding agency notices any plagiarism or any other discrepancies  
in the above proposal of mine, I would abide by whatsoever action taken against me by  
NITK, as deemed necessary.

Name & Signature of Fellow with date