





# Central Institute of Petrochemicals Engineering & Technology (CIPET), SARP-Advanced Research School for Technology & Product Simulation, Chennai, Tamil Nadu-600032

Inviting Applications for "VRITIKA" Training and Skill Internship Program -2023-24

**Duration:** 15.07.2023 to 14.09.2023 Place: CIPET:SARP-ARSTPS, Chennai

Title: Design and Development of Automobile Components via Multi Jet Fusion (MJF) and Selective Laser Melting (SLM) 3D Printer

## Scope of the Program "VRITIKA":

'VRITIKA' is the call to provide Training and Skill Internship to post-graduate (PG) and doctoral students from colleges, universities and institutions in handling advanced manufacturing instruments. This internship aims to create a strong research interest in science and engineering and to provide technical insight in the field of advanced additive manufacturing technologies and its analyzing strategies.

**CIPET:SARP-ARSTPS**: ARSTPS is an exclusive R&D wing of CIPET, established at Chennai, Tamil Nadu, to promote advanced technological innovations. The laboratories have state-of-the-art infrastructure and instrumentation facilities to undertake various developmental activities including CAD design, Conceptual Modelling, Product Development, Simulation, Analysis and R&D of Polymers for Commercial, Healthcare and Defence Sectors of the country. In particular, our group focuses on advanced manufacturing technologies for energy, environment and biomedical applications.

## **Programme Objective:**

This internship program aims to develop a skill in additive manufacturing technologies for PG/PhD students from universities/colleges/institutes. The internship period will primarily expose the participants to the 3D-designing software (CAD/CAM), Reverse engineering process of components, Multi Jet Fusion (MJF) and Selective Laser Melting (SLM) -3D Printing methods, analysis/simulation software (ANSYS) and Validation of prototypes. Also, hands-on training on various software and fabrication methodologies will be provided.

## Who can Apply?

Interested Final Year PG students having first class in Physics/ Materials Science/Polymer Science/Mechanical/ Manufacturing Engineering and/or Ph.D. students (First year) are eligible to apply.

## How to Apply?

**Step 1:** The candidate shall apply for the Internship program by filling the attached form in the prescribed format through their head of the department/institute.

**Step 2:** Take a print out of the filled form and sign at the bottom of all pages. <a href="https://www.cipet.gov.in/">https://www.cipet.gov.in/</a>

**Step 3:** The application shall be accompanied by self-attested copies of the relevant documents and a No Objection Certificate (NOC) obtained from the Head of the department/institute of the parent institution.

**Step 4:** E-mail the scanned copy of the signed registration form to arstpscipet@gmail.com with supportive documents on or before 20.06.2023.

## **Selection Process:**

Selection of participants will be done by the concerned department of the organizing institute based on:

- 1. Academic performance in university examinations (CGPA / Percentage of marks).
- 2. Academic/co-curricular contests participated and other awards/distinctions obtained.

**Note:** A list of selected candidates will be intimated through email.

## **Event Organizer:**

## Dr. R. Ananthakumar, Jr. Scientist

CIPET:SARP-Advanced Research School for Technology & Product Simulation (ARSTPS),

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https://ananthkaist.wixsite.com/ar-group

## **Details of Internship:**

- \* Duration: 15.07.2023 to 14.09.2023
- \* Venue: CIPET: SARP-ARSTPS, Chennai, Tamil Nadu
- \* Number of Positions: 5
- \* Submission Deadline: 30/06/2023
- Only shortlisted students shall be communicated through email.
- \* No stipend will be provided for the internship.
- \* Certificate will be provided to the participants after the successful completion of the internship tenure (Submission of work report).

## Nature of support

- \* The internship will give the daily necessary expenses such as stationery, consumables, accommodation, food, etc.
- The period of the Training and Skill Internship shall be for 2 months.
- \* The participating students will also be eligible for TA reimbursement for their journey between the host institute and their hometown/home institute, both ways, as per GoI norms.

## Terms and condition:

- \* The participants would be assigned tasks /assignment as per the Internship schedule by the event organizer.
- \* The participants should work accordingly and prepare a work report to be submitted after completion of the Internship.
- \* Participants not completing the work within the requisite period will not be issued any certificate.
- \* The IPR of the research work will be reserved by the institute which cannot be used by the participant without permission of the concerned authority.
- The participants should abide by the rules and regulations of the institution and follow laboratory protocols.