A Product Development & Entrepreneurship Training Program

I. Program Overview

IIT Palakkad Technology IHub Foundation (IPTIF) with support from National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS), Department of Science and Technology (DST), Govt of India is launching **UYARE (Unified Youth Advancement For Research and Entrepreneurship)**, a certified residential training program at IIT Palakkad focused on upskilling and training young students in the area of **Product Development and Entrepreneurship** to create a pool of skilled and industry-ready pool of youth available for research and technology development in emerging technology domains. There is a high demand for skilled professionals in fields like electronics, 3D printing, and programming.This program aims to create a lasting impact by improving employability and fostering a skilled workforce.

"UYARE" in Malayalam language literally means "Up Above" or "At the Top"

The program is designed as a **residential training program for a period of 6-months** with a focus on participation from the ***deprived section of the society*** *viz.* students from **Scheduled Tribe (ST)** who have completed +2 in Science or Diploma in any technical stream. This program is designed under the **Tribal Special Area Plan (TSA)** budget from NM-ICPS to increase the **students Scheduled Tribe (ST) Community**

The program includes

- **3 months of hands-on training and immersion in selected industry-relevant technology areas in Mechanical Designs, Fabrications, Electronics and Programming to impart practical knowledge and skills.**
- This will be complemented by sessions **on communication, personality development, entrepreneurship and basics of financing.**
- **Final 3-months** will be **complete immersion with IPTIF, IIT or any Industry Technology Development projects.**

Few technology areas planned to be covered include, but not limited to Fusion 360, Arduino, Raspberry Pi, Python coding, 3D Printing, Solar/PV technologies, Fablab Operations, Image Processing, Robotics, PCB designing and basic Electronics (**Details in Annexure I**).

The proposed training program is a strategic initiative to empower **ST students** with the skills needed to thrive in the industry. With a comprehensive training curriculum, hands-on project experience, and financial support, the program is designed to produce job-ready graduates who can contribute significantly to the industry and the economy.

II. Trainers & Mentors:

Mix of IIT Palakkad Faculties, IPTIF Technicians, Industry experts from the fields and Soft-Skill trainers.

III. Participants & Eligibility:

- Preference will be given to applicants from Scheduled Tribe Category
- Applicants from other categories will be selected based on availability of slot
- Should have completed +2 with at least 55% marks or Diploma with at least 45% marks from recognized Institutions
- Upper age limit for the program is 22 years on the date of applications for men and 25 years for women and others
- Should be available in person at IIT Palakkad to take this hands-on course
- Should be available for immersion / internship for at least 3-months at IIT Palakkad or any relevant industry to utilize the skills learned through the program

IV. Benefits of the Program:

- **Skill Development:** Equip students with practical and theoretical knowledge in Emerging Technologies

- **Industry Readiness:** Hands-on training to ensure students are job-ready.
- **Social Impact:** Empowering ST students with employable skills.
- **Job Creation:** Enhancing employability and fostering entrepreneurship.

V. Benefits to the Participants:

- Participants will receive a monthly **stipend of INR 10,000 /- for 6-months**
- In addition to the stipend, IPTIF will support basic stay and food for the selected candidates at Palakkad
- Participants will be given opportunity to work on Technology Development projects at IPTIF or IIT Palakkad as per the requirements
- Job Placement opportunities at relevant industries
- Course completion certificate from IPTIF

VI. Applications Process:

Applicants can log on to the following Application portal and fill in applications

Application Format: UYARE program application format

Documents:

1. **Copy of Aadhaar Card**
2. **Passport-size Photograph**
3. **Proof of age, Proof of Address**
4. **Mark Sheets/Grade Cards & Degrees**
5. **Caste certificate, if applicable**
6. **Any other document, as required**

VI. Dates:

Call opens on: 2nd October 2024

Proposal Submission Deadline: 25th October 2024

Screening and Shortlisting of Proposals: 1st November 2024

Announcement of Results: 10th November, 2024

VII. Contacts

Interested candidates can reach out to the following number for any Queries (HR Manager manager-hr@iptif.tech or Skill Development Manager upskill@iptif.tech)

Annexure I: Table- Course Plan (3-months)

Subjects	Courses Utilized
Softs kills	
Communicative English & Personality Development	
Entrepreneurship Development	
Basic Financing	
Technical Courses (Not Limited)	
Fusion 360	Fusion 360
	Generative Design
Arduino	Microcontrollers, IDE setup, Programming basics
	Sensors, Actuators, Communication protocols
	Project development
Raspberry Pi	Basics, OS setup, Python programming
	GPIO programming, Networking
	Project implementation
Python	Fundamentals, Functions, Modules
	Object-Oriented Programming
	File handling, Data processing
	Web development, Data analysis
Embedded System	Introduction to IoT and Embedded System Design
	IoT and Embedded System Workshop

	Embedded Intelligence with Jetson Nano
3D Printing	3D CAD modeling
	3D Printing Advanced
Fablab	Fablab Training Sessions (Introduction to machines and prototyping)
Image Processing	Introduction to Computer Vision and Image Processing
	Image Segmentation, Filtering, and Region Analysis
Electronics	PCB Design and Manufacturing
	Pick and Place training and SMT Line Visit
Robotics	Introduction to ROS
	Design 3D robot models
Industry Safety	Workshop and Machine Safety