**YUKTI Registration**

Team Registration: “Development of AI-ML based models for predicting prices of Agri horticultural commodities”

Email id of Team Lead / Founder: bhrahmesha.cse2023@citchennai.net

Enter Password:

State:TAMIL NADU

Institute: Chennai Institute of Technology

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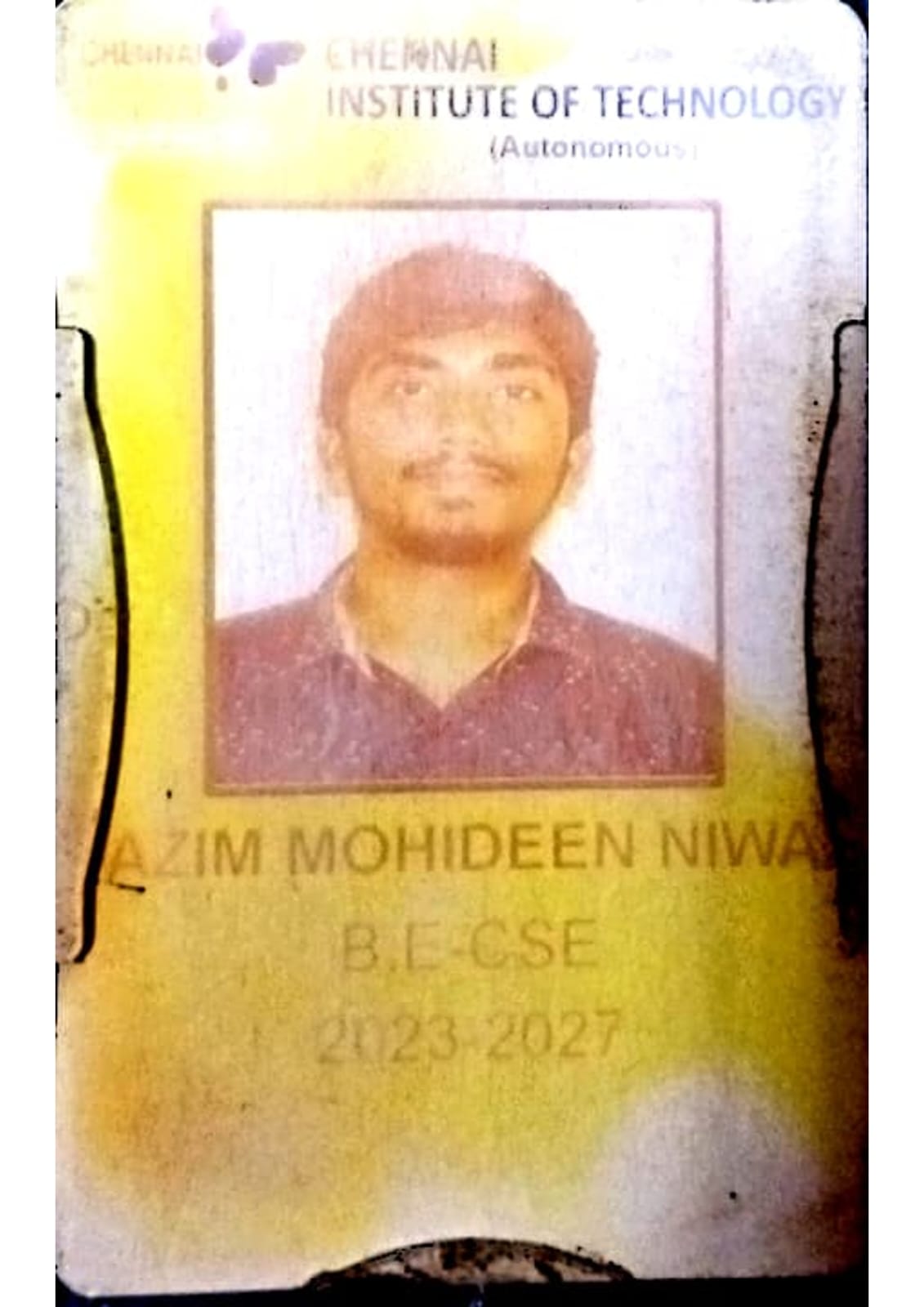
Mobile Number: 6381149847,8015123959

Gender: Male

Category: Technology Development

Current Engagement with the Institute: Student

Student/Employee ID Copy (.jpg max 2MB) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Choose file) Browse



**Details Required for Uploading:**

| **Title (20 Words Max) :** | Development of AI-ML based models for predicting prices of Agri horticultural commodities |
| --- | --- |
| **Developed as part of :** | Research |
| **Choose the Financial Year, during the Idea - PoC/Innovation Developed :** | 2023 -2024 |
| **Sector / Domain :** | Agriculture |
| **Innovation Type :** | Prototype |
| **Development stage – Technology Maturity of the Solution / Innovation in terms of Technology Readiness Level TRL (if applicable (Refer TRL Stages)** | TRL-3 |
| **Define the Problem and its relevance to today’s market/society/industry need (Max : 100 words)** | MRL -3 |
| **Describe the solution / Proposed / Developed (Max: 100 words)** | IRL-3 |
| **Explain the uniqueness and distinctive features of the (Product/Process/Service) solution (Max: 100 Words)** | The uniqueness of this crop price prediction system lies in its integration of climatic disaster data—specifically flood indicators—with crop-related economic metrics like the Wholesale Price Index (WPI). Unlike traditional models that rely solely on historical prices and yields, this system uses a machine learning approach (Random Forest) alongside a custom algorithm that calculates the average WPI rate change during flood years. By combining multi-decade datasets (1980–2021) with features such as rainfall, pH, and seasonal data, the model not only forecasts crop prices but also reveals the economic impact of climate anomalies, enabling smarter crop selection and resilient agricultural planning. |
| **How your Proposed / developed (product/Process/Service) solution is different from similar kind of product by the competitors if any (Max: 100 Words)** | Our solution stands out by combining machine learning with climate impact analysis, specifically integrating flood indicators to model their effect on crop prices using WPI trends. Unlike competitors that rely on static historical data, our system dynamically calculates WPI fluctuations during disaster years and uses real-time environmental inputs. This hybrid approach enables accurate, context-aware price forecasting and supports climate-resilient farming decisions—something most existing models lack. |
| **Is there any IP or Patentable Component associated with the solution?** | No |
| **Has the solution Received any Innovation Grant/Seed fund support?** | No |
| **Are there any Recognitions (National/International) Obtained by the Solution?** | No |
| **Is the solution Commercialized either through Technology Transfer or Enterprise Development/Startup?** | No |
| **Had the solution Received any Pre-Incubation / Incubation Support ?** | No |
| **Video URL** | <https://drive.google.com/file/d/1siRRxZy764BuHDaD_95TNNU6_sz7i559/view?usp=sharing> |
| **Upload Photograph: (JPG, PNG, PDF max 2 MB)** |  |