Edit Innovation Details

***Title**	Title / Name (20 Words Max) * MOBILENETV2 INTEGRATION FOR HIGH-PERFOR Total Number of words: 0 / 20
***Developed as part of**	Academic Requirement/Study Project
***Choose the Financial Year, during the Idea-PoC/Innovation Developed**	2023-24
***Sector / Domain**	Theme * ICT, cyber-physical systems, Blockchain, Cognitive computing, Cloud computin...
***Innovation Type**	Process
***Development Stage - Technology Maturity of the Solution/Innovation in terms of Technology Readiness Level TRL (if applicable (Refer TRL Stages)**	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" protot...
Development Stage - Manufacturing Maturity of the Solution/Innovation in terms of Manufacturing Readiness Level (MRL) Refer MRL Stages	MRL 1: Basic manufacturing implications identified
Development Stage: Investment Readiness Level of the Solution/Innovation (IRL). Refer IRL Stages	IRL 1: Basic Research (Need Identification & Peer Review Publications) & Com...
***Define the problem and its relevance to today's market / society / industry need (Max: 100 Words)**	Define the problem and its relevance to today's market / society / industry need * With the exponential growth of visual data generated daily, there is a pressing need for efficient image classification systems. Traditional models often require substantial computational resources, making them impractical for deployment on mobile devices or in real-time applications. MobileNetV2 addresses this challenge by providing a lightweight architecture that Total Number of words: 0 / 100
***Describe the Solution / Proposed / Developed (Max: 100 Words)**	Describe the Solution / Proposed / Developed * The proposed solution involves integrating MobileNetV2, a lightweight convolutional neural network, into a high-performance image classification web application. MobileNetV2 enhances real-time classification capabilities while operating efficiently on devices with limited computing power. It employs an inverted residual structure and lightweight convolutions to Total Number of words: 0 / 100

***Explain the uniqueness and distinctive features of the (product / process / service) solution (Max: 100 Words)**	Explain the uniqueness and distinctive features of the (product / process / service) solution * MobileNetV2 integration for high-performance image classification web applications offers unique advantages through its lightweight architecture and efficient processing capabilities. Key features include: Inverted Residual Structure: This design enhances performance while minimizing computational load, making it suitable for mobile and edge **Total Number of words: 0 / 100**
***How your proposed / developed (product / process / service) solution is different from similar kind of product by the competitors if any (Max: 100 Words)**	How your proposed / developed (product / process / service) solution is different from similar kind of prod... architecture, which leverages lightweight convolutions and an inverted residual structure. This design enhances processing speed and accuracy while minimizing computational costs, making it ideal for real-time applications on mobile devices. Additionally, the implementation focuses on transfer learning from ImageNet, allowing for rapid adaptation to specific datasets, which is **Total Number of words: 0 / 100**
***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**	Video URL * https://drive.google.com/file/d/1AE-SXbkcgY5Rs3QxsE5MQFnI8WDkYRmf/view?u
***Upload Photograph: (JPG, PNG, PDF max 2 MB)**	Choose file Browse
	View File
***Utility: Highlight the utility/value proposition (key benefits) aspects of the solution/innovation* (Max: 100 Words)**	Utility: Highlight the utility/value proposition (key benefits) aspects of the solution/innovation* * Lightweight and efficient architecture suitable for deployment on mobile and embedded devices State-of-the-art performance on multiple image classification tasks and benchmarks compared to other mobile models Leverages transfer learning from ImageNet to enable fast training on custom **Total Number of words: 0 / 100**
***Scalability: Highlight the market potential aspects of the Solution/Innovation (Potential Market Size, segmentation and Target users/customers etc.) (Max: 100 Words)**	Scalability: Highlight the market potential aspects of the Solution/Innovation (Potential Market Size, segme... Market Potential of MobileNetV2 for Image Classification Web Apps MobileNetV2 offers significant market potential for high-performance image classification web apps due to several key factors: Lightweight architecture: MobileNetV2's efficient design allows for real-time classification on resource-constrained devices like smartphones and web **Total Number of words: 0 / 100**

***Economic Sustainability: Highlight commercialisation/business application aspects of the solution (how it is going to economic profitable and viable) (Max: 100 Words)**	Economic Sustainability: Highlight commercialisation/business application aspects of the solution (how it is... Integrating MobileNetV2 into a high-performance image classification web application offers significant commercial viability due to its efficiency and accuracy. Its lightweight architecture allows deployment on various devices, reducing operational costs while maintaining high classification speeds. This model's ability to leverage transfer learning enhances its adaptability to **Total Number of words: 0 / 100**
***Environmental Sustainability: Highlight environmental friendliness aspects and related benefit of the solution/innovation (Max: 100 Words)**	Environmental Sustainability: Highlight environmental friendliness aspects and related benefit of the soluti... MobileNetV2 integration for high-performance image classification enhances environmental sustainability through its lightweight architecture, which minimizes computational resource usage. This efficiency allows deployment on mobile and edge devices, reducing the need for energy-intensive cloud processing. **Total Number of words: 0 / 100**

Update

CONTACT

MoE's Innovation Cell

All India Council for Technical Education (AICTE), Nelson Mandela Marg, VasantKunj, New Delhi-110070.