MADRAS INSTITUTE OF TECHNOLOGY

DEPARTMENT OF RUBBER AND PLASTICS TECHNOLOGY

SOCIETY OF PLASTICS AND RUBBER TECHNOLOGISTS

Elastoplaz'24

HACKATHON

ROUNDS

TITLE SPONSER

KOBELCO

📅 16th March

📍 GJ Park

WIN PRIZES WORTH
10K

1 ABSTRACT SUBMISSION

2 PRESENTATION ON THE CONCEPT GENERATED

3 DEMONSTRATION OF THE PRODUCT/SOLUTION DEVELOPED

Registration Fee: Rs 500

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PROBLEMS

1 Explore ways to optimize the production and properties of sustainable plastics derived from natural sources. How can these materials be integrated into mainstream industries effectively?

2 How can rubber be used in innovative ways in the healthcare industry, from medical devices to personalised health solutions

3 Do tyres need to be circular only? Why not other shapes? If so, design a tyre.

4 Address the issue of microplastic pollution. How can we minimize the release of microplastics into the environment during the use and disposal of plastic products?

5 Explore applications of rubber in wearable technology or other electronic devices. Can rubber be utilised for its unique properties in enhancing device functionality or user experience?

6 Develop a ML model to check the underinflation or overinflation of a tire and ways to correct it.

7 How can we promote sustainability and transparency throughout the plastic supply chain, from raw material sourcing to production, distribution, and end-of-life management?

8 How can we develop more sustainable alternatives to traditional rubber materials, considering biodegradability, reduced environmental impact and promoting a circular economy?

9 Develop an algorithm or system that predicts tire wear based on driving patterns, road conditions, and other relevant factors. How can this information be used for proactive maintenance?

10 With the help of AI, find the reliable solution to detect and alert users when plastic products are reaching the end of their lifespan or require maintenance?

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RULES :

1. Team size maximum of 3 is allowed.
2. Select one of the problems listed, work on it and present the solution/product.
3. Abstract to be submitted on or before March 2, 2024. Late submission may not be accepted.
4. Round 2 will be conducted in Online mode on March 9, 2024.
5. Final round will be conducted offline on 15th of March 2024, where you can use charts, pluck cards, working models for demonstration.
6. Bring your own laptop for the final round of demonstration.
7. Your project should be original and created during the hackathon timeframe. Avoid using pre-existing ideas.

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