DESMOD
Mechanica'24
MEA, IIT Madras
30th March || 10-12 PM

INTRODUCTION ☘ :

Step into the world of innovation and creativity with DESMOD! Participants are given intriguing design challenges in advance, which they bring to life using their favourite design software. From there, it's all about crafting compelling PowerPoint presentations that outline their ingenious solutions. DESMOD is where technical prowess meets imaginative problem-solving, offering a platform to showcase your skills and make your mark. Don't miss out on this exhilarating journey of design excellence!

##THE REGISTRATIONS ARE BOTH ONLINE ON THE MECHANICA WEBSITE AND ON SPOT

Here's what you need to do :

- Design and Modeling:
  - Utilise software like Fusion 360 or Solidworks to create functional CAD models of mechanisms
  - Complete with animations and simulations of joints. Your submission should be in any widely accepted CAD format such as f3d, sldprt, sldasm, along with sending the step file.
  - For bonus points, consider incorporating advanced features like simulations, degree of freedom analysis, factor of safety, and stress analysis.
- Presentation:
  - Send your presentation and CAD files to `MeaEvents2023-24`
  - Your presentation should not exceed 8 minutes in duration.

  During your presentation, be sure to explain the functionality of your model, your approach, and any other relevant details.

Here are the rules for DESMOD :

I. Teams must comprise 3 participants each.
II. Presentations should not exceed 6 minutes in duration.
III. Submissions must be original work; plagiarism will result in disqualification.
IV. Event details are subject to change based on circumstances.
V. All files (excluding the abstract) must be sent to meaevents2324@gmail.com, ensuring that all team details are included in the email.

PROBLEM STATEMENT 🐬:

Title : Portable Water Purification Device

Description : Design a compact and durable portable water purification device for emergency and outdoor use.

Task :
Participants are required to design a portable water purification device that utilises mechanical filtration and purification techniques to provide clean drinking water in emergency situations or outdoor adventures. The device should focus on compactness, durability, and user-friendly operation.

Presentation :
After designing the model, participants must prepare a PowerPoint presentation (max 15 slides, 8 minutes) explaining how the device works and any improvements made.

Brownie Points :
Participants can earn extra points for incorporating additional features such as LED indicators, renewable energy compatibility, and innovative purification methods.

WINNING METRICS :

- Efficiency of the design(space, power, performance)
- Feasibility of actually implementing the design
- Scalability of the design

Prize 🏆:

★ 1st prize - 4000/-
★ 2nd prize - 2500/-
★ 3rd prize - 1500/-

VENUE 🗺️ :

MSB 243
Department of Mechanical Engineering

TIMING🕐 :

10 AM - 12 PM, 30th March 2024

REGISTRATION FEE 🖊️ :

MEA members need not pay anything for this event.
For people from outside IIT Madras, they need to purchase the Mechanica Passport just for Rs 350/-. Using the passport, participants can attend lectures and participate in various exciting events, lectures and competitions, including paper presentations, case studies, idea challenges, and quizzes, with a more than 1 Lakh prize pool.

FAQs 🙄 :

- ❖ How to register for the event?
  - ➢ Registration link is on the unstop page and on spot registration is also available.
- ❖ Do I need to bring a copy?
  - ➢ We insist you bring a copy of your work in easily accessible format(eg - pen drive etc).