ABOUT

Andhra TECK LEAGUE

Teck Team Solutions, established in 2014 in Visakhapatnam, Andhra Pradesh, is a renowned training and product development firm specializing in Industry 4.0 technologies. Over the years, we have made significant contributions to the field of technical education and development. Our commitment to innovation and growth has led us to organize various successful events in the past.

In 2016, 2017, and 2018, we organized the highly acclaimed technical event called **Mechatronics**, which provided a platform for students to showcase their skills and knowledge in the field of various technologies. Building on our previous successes, in 2023, we are thrilled to introduce the upgraded version of our event, known as **Andhra Teck League (ATL)**. The ATL event is specifically designed for students, aiming to inspire, educate, and nurture their interest in emerging technologies.

3D NIRMAN

Unleashing the Power of 3D Printing

"3D Nirman" aims to inspire participants and show them the amazing things that can be created through 3D printing. It's an event where imagination meets technology and participants get to see their designs become real objects. Join us for a hands-on experience where you can explore the world of 3D printing and unleash your creativity!

3D Nirman is an exciting event that celebrates the possibilities of 3D printing. Participants will be given a fun task to design an object using their creativity and the principles of 3D printing. They will learn about 3D modelling and explore different design software. The best designs will be brought to life using advanced 3D printers.

Who Can Apply:

JUNIOR LEVEL

8th to 12th Standard

SENIOR LEVEL

Any Engineering Students

Levels of Competition:

This contest will be conducted in 3 different levels

- Preliminary Level
- Zonal Level
- Final Level

Problem Statement

JUNIOR LEVEL

- In Preliminary Level, candidates must Create a 3D model of a **CUP** and a matching **SAUCER** that forms a cohesive set. Consider the overall shape, size, and proportions of the cup and saucer, ensuring they work well together aesthetically.
- The cup should be designed for holding and consuming a hot or cold beverage comfortably. The saucer should be designed to provide stability and serve as a resting place for the cup.
- Your design should exhibit a unique and visually appealing style. Consider incorporating elements such as handle design, surface texture, decorative patterns, or any other features that enhance the overall aesthetic appeal of the cup and saucer.
- Submit your entry as a 3D model file in a common format (e.g., .stl) that effectively showcases your design from multiple angles. And with a description of your designed 3D Model.
- In the Zonal Level and Final Level candidates will be given an on-the-spot challenge to design an object using 3D software and subsequently print it using a 3D printer.

SENIOR LEVEL

- In Preliminary Level, candidates must design a functional and aesthetically appealing **Pen** and **Cards Holder** that can be 3D printed and used to organize writing instruments and business cards on a desk or workstation. The holder should accommodate various pen sizes, including fountain pens, ballpoint pens, and pencils. It should also provide a convenient slot or pocket for business cards, making it a versatile and practical accessory for office or personal use.
- The design should be easily manufacturable using 3D printing technology and should demonstrate creative and innovative features. Participants are encouraged to consider factors like material efficiency, printability, stability, and ease of assembly while crafting their designs.
- Submit your entry as a 3D model file in a common format (e.g., .stl) that effectively showcases your design from multiple angles and with a description of your designed 3D Model.
- In the Zonal Level and Final Level candidates will be given an on-the-spot challenge to design an object using 3D software and subsequently print it using a 3D printer.

Rules of Levels

Preliminary Level :

1. Candidates must design an object based on the given problem statement only should not use AI Tools for designing.
2. Candidates are required to submit their design as an .STL file format and description in .Doc format.
3. The .STL file should be less than 10 Mb and Description document should be less than 2 pages.

Zonal Level :

1. Selected candidates will be given on-the-spot task to design an simple object
2. Participants may use any 3D design software or tools of their choice.
3. Subsequently print it using a 3D printer (will be provided by Organisers)
4. The printing process will be a maximum of 1 hour of printing time.
5. Candidates have to bring their laptops and necessary tools to design a 3D model.
6. A 3D printer and the filament will be provided to print objects.

Final Level :

1. In this round, candidates will need to design and print an object during a live event, using a 3D printer.
2. The printing time for the object in the Final Level will be 3 hours.
3. Technical support is available to assist participants with any software or hardware issues that may arise during the challenge.
4. The panel of judges will evaluate the designs created during the on-the-spot challenge.
5. Candidates have to bring their laptops and necessary tools to design a 3D model.
6. Winners will be selected based on the judging criteria and the judges' evaluations.

Judging / Selection Criteria

1. Evaluates how unique and innovative the design is.
2. Evaluates whether the design fulfils the requirements of the problem statement or not.
3. Evaluates whether the designed object can be printed or not.
4. Evaluates the visual appearance of the design.
5. Evaluates how efficiently the structure is designed with minimum requirement of supports.
6. Evaluates the usage of printing techniques or settings used in slicing software to achieve faster print times.
7. Also will check the Functionality, Creativity, Printability, Practicality, Structural Integrity, Material Efficiency, Presentation etc.

Judging Process :

1. A panel of qualified judges with expertise in 3D design will be there.
2. Judges will evaluate the entries based on the defined criteria.
   The decision of the judges will be final and cannot be disputed

Disqualification :

1. Entries that do not meet the specified requirements or guidelines will be disqualified.
2. Violation of the rules or unethical behaviour may lead to disqualification.

Reference Video Links :

Video Link - 1: https://www.youtube.com/watch?v=6v2o6Rzuoh8&t=158s
Video Link - 2:. https://www.youtube.com/watch?v=JlRaR8Js1w4&t=37s

Participation Eligibility :

1. Participation Team Should consist minimum of 02 to 04 members
2. All team members can register from one primary contact number
3. Initial registration is mandatory to participate in the event.
4. Every participant should have an official ID Card from the respective institution / school.
5. All team members should belong to the same institution / school only.
6. Team members should willing to participate zonal & Final level contests at outstation locations as per the schedules

NOTE: The competition organizers reserve the right to modify the rules and regulations if necessary. They also reserve the right to disqualify any entry that violates the rules or disrupts the competition.

TECK TEAM SOLUTIONS

A Training & Product Development Firm

Contact Us

7799911213 / 7799911214

www.andhrateckleague.com

andhrateckleague@gmail.com