AADHRITA 2020 MVGR COLLEGE OF ENGINEERING (A)

Hydraulic Crane 🍱



EVENT DESCRIPTION:

A Hydraulic crane is a type of heavy-duty equipment used for lifting and hoisting. Unlike smaller cranes, which rely on electric or diesel-powered motors, hydraulic cranes include an internal hydraulic system that allows the crane to lift heavier loads. This fluid filled hydraulic system enables the crane to transport objects such as heavy shipping containers and tractor trailers, which are well beyond the size and scope of any other lifting devices. In this event we will be testing your building skills and basic knowledge of engineering. The Team should prepare an electrically operated hydraulic crane as per the requirements mentioned in rule chapter.

Team size: 3-4

NUMBER OF ROUNDS: 2

Round 1: Design evaluation and inspection – 21-02-2020

Round 2: final evaluation – 22-02-2020

RULES FOR THE EVENT:

- The crane should be capable of lifting an object of 1N from the ground.
- The movement of crane should be completely controlled electrically from a control panel.
- The usage of motor power is confined to the motion of hydraulic links. Any direct usage of motor for lifting the object is prohibited.
- The arm should have both vertical and horizontal motion.
- All the joints must be reliable.
- The team should submit a hardcopy of design report including the design calculations and methodology during round 1.
- All the electric connections must be properly insulated.
- The size of the model should not exceed 30x30x30 in cm.

REGISTRATION FEE: 350/- PER TEAM

PRIZE:

Win exciting prizes and E-certificates will be given for all the participants.

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CONTACT DETAILS:

NAME: Jana Pavani

MAIL ID: pavanijana1998@gmail.com

PHONE NUMBER: 7997922148, 7013697044