

# CMR COLLEGE OF ENGINEERING & TECHNOLOGY

## (AUTONOMOUS)

NAAC Accredited Institution with 'A' Grade Kandlakoya (V), Medchal Road, Hyderabad -501401.

### **Annual Report**

Date:03/02/2016

To IQAC, CMRCET, Kandlakoya (V), Medchal Road, Hyderabad-501401.

Respected sir,

Sub: Annual report of the SAEINDIA COLLEGEIATE CLUB CMRCET for the A.Y 2015-16.

Following is the brief information of programs conducted by the SAEINDIA COLLEGEIATE CLUB OF CMRCET for the A.Y 2015-16.

1. Organized Mercedes-Benz workshop for one day. Mercedes-Benz Workshop is a coagulation of both theoretical and technical knowledge gathering for the enrichment of the knowledge for the automotive enthusiasts.

## Workshop objectives:

The following topics were keenly discussed in the workshop:

- 1. Engine dismantle and assembly.
- 2. Mechanical modules.
  - Chassis
  - Braking system
  - Suspension system
  - Transmission system
- 3. Unique options in Mercedes-Benz (Advance technology used).
- 4. Existing and upcoming models (AMG performance).
- 5. Safety systems.
- 6. Comfort & Security systems in Mercedes-Benz.
- 2. Automobile Expo 2K15: The main objective of this event is to narrow the gap between theoretical and practical knowledge by conducting a workshop in which students can have an exposure to the current trends in automobile directly with industry experts.

#### Objectives:

- 1.To show case the history of the development of automobiles and how modern technology revolutionized the transport industry.
- 2. Four-wheeler and Two-wheeler display from fifty different manufacturers.
- 3. Safety driving program by Harley-Davidson bike manufacturers.
- 4. Demonstration of automobile engines and advanced systems.
- 5. Interaction with executives from various automobile brands.
- 3. M-BAJA: From January 22<sup>nd</sup> to January 27<sup>th</sup> 2016 SAEINDIA M-BAJA was conducted at NATRAX, Madhya Pradesh, there were over more than 150 teams participated in the event. The main motto of this event is to allow the student of different colleges to design, analyze and fabricate their vehicle in order to bear different situations a vehicle undergo in the terrain showed by the officials. A team of 25 members were formed from CMR College of Engineering & Technology. The team did well in the virtual round which is the first stage of competition where the team need to show their design, calculations, working procedure they are doing to fabricate their vehicle. The teams which board members feel that they are suitable for participation are shortlisted from the list. The team got shortlisted in the virtual and did get allowance to fabricate the vehicle. The team did fabricate the vehicle and taken to the event



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In the event there were number of events they are mainly classified into static and dynamic events. In static events the teams are made to send design report, cost report, design validation plan (DVP), DFMEA. The team which performs best is awarded in its segment and ranking is given accordingly.

Our team has secured these ranks in each of these events

**Design evaluation**: In this event the teams are need to explain the panel members regarding their deign procedure and justify their design in different aspects. And later need to answer the questions asked by the judge.

Position in design evaluation: 54th

Cost presentation: in this event teams need to produce the total cost of the vehicle fabricated including different parts which are manufactured earlier. Every team must produce the bills of each and every part which are evaluated by the judge. The team which fabricates the vehicle in lowest cost gets to win the event.

Position acquired in cost presentation: 27th

Sales presentation: In sales presentation teams are given a task of making 1000 vehicles per year. This event tests the managerial skills of the teams they need to show their factory design and place at which the factory needs to be built. And cost for this all equipment. Then just after the factory design they need to start the vehicle manufacturing and should consider cost for making each vehicle. Then the vehicle needs to be sold for a reasonable price to the customers. Taking all these aspects into consideration teams need to present a report. The team which gives the best performance in this event is awarded

## Position acquired in sales presentation:09th

Just after the static events dynamic events start in dynamic events, we have different competitions like braking test, maneuverability test, suspension and traction test, acceleration test, sledge pull test, go green test and endurance.

Out team secured these positions in each respective event as follows

Brake test: Team need to start from still point and should stop from 45kmph to 0 within 1.5m teams which pass this test are allowed to participate in other dynamic events.

Maneuverability test: In this event vehicles steering is tested where it is made through pass through sharp corners and unsteer able paths. The vehicle which completes this path in shortest time is awarded.

Maneuverability position: didn't participated

Suspension and traction test: It is the most difficult event where the vehicle is made to pass through difficult terrains and uneven terrains, logs etc. This event tests the vehicle suspension system, rigidity, strength of the vehicle.

Position in suspension and traction: didn't participated

Sledge pull: the vehicle is made to pull up to 1 ton weight.

Go green award: This event tests the emission level which come out through the exhaust of the vehicle the teams which has the lowest emissions is awarded with go green award.

Endurance: This is the final event where all the vehicles are assembled in and made to complete laps through the given time. The team which makes the highest lap is awarded.

Endurance position: didn't cleared due to breakdown of vehicle

Overall position: 84th

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