



# A Report on

#### 'BAJA SAEINDIA 2019'

from 6<sup>th</sup> to 11<sup>th</sup> Mar 2019 at IIT Ropar, Punjab organized by Mahindra in association with SAE INDIA.

Our team Redline Racing is consistently participating in the event BAJA SAEINDIA organized by Mahindra in association with SAEINDIA. This is our 5<sup>th</sup> year participation for the event. We have successfully cleared the virtual rounds of the event which was the entry criteria for the event. Once completing the virtual round, we started fabricating the vehicle and tested it thoroughly.

## **UNVEILING THE VEHICLE:**

The fabricated and finished buggy was unveiled on 28<sup>th</sup> February 2019 at around 10:00 a.m. near the mechanical department at K S INSTITUTE OF TECHNOLOGY, which was done with permission of respected management members, Dr. T.V. Govindaraju, Principal/Director, KSIT, Dr. Rama Narasimha, Professor and Head, and all other department heads and our beloved teachers were also present in the event.

### **IN BAJA SAEINDIA 2019**

**DAY -1:** 06-03-2019, The registrations for the event was open and few of the team members and the faculty advisor Mr.K.Nagaprasad registered the Team and the vehicle in the event site around 10:30 .a.m. at IIT Ropar, Punjab. We finished the registrations and went to have a look around the event site and returned back to the hotel around 2.p.m.

**DAY 0:** 07-03-2019, BAJA HR Aptitude Test[BAT]: Number of selected students from the different teams had to write an aptitude test for the placements in the event, which was followed by a press conference and also a judge meet. Finally, at the end of the day the results of the BAT were announced by the judge, in which one of our team mate was selected for the next round of the interview.

**DAY 1:** 08-03-2019, Registration for the event was started at 8.30a.m. which was followed by the Inauguration function, for the inaugural function, Dr. Pawan Goenka, Managing Director of Mahindra, Dr. K.C. Vohra, chairman of SAEINDIA, judges of all the event and the students were present.

After the inaugural function, the static events started which included sales presentation, cost presentation and also the Go Green event. Team completed all the static events successfully and also got an appreciation from the judges for design of the vehicle.

**DAY 2**: 09-03-2019, second day of the event consisted of Technical Evaluation, Design Evaluation, Dynamic Events and an entertainment night.

Team cleared the technical inspection and also cleared the BRAKE TEST in the first attempt and got the entry for the Dynamic Events. After completing the technical event, we went to design evaluation which had a slot timing of half an hour, in which we need to explain each and every part of the vehicle and also, we should explain the procedure used in the design with reasons. Completed this event in the given timings and also got an appreciation for the design. At the end of the day, there was an entertainment night which consisted of D.J music.

**DAY 3:** 10-03-2019: Dynamic events continued which consisted of Acceleration test, Sled pull, Maneuverability and Suspension & Traction track. In acceleration track, vehicle has to complete a given distance in the lowest time. In sled pull, vehicle has to pull a weight of a tractor in a given track. In maneuverability, vehicle has to complete a track with sharp turns as fast as possible. Finally, in the suspension event, vehicle should complete a track filled with obstrucles, gradient roads etc. in a short interval of time. Our vehicle participated in all the events and completed them.

#### DAY 4: 11-03-2019: ENDURANCE RUN & VALEDICTORY FUNCTION

This was the last day of the event BAJA 2019, which had the final dynamic event Endurance race for which the teams would be early waiting to attend.

In the Endurance Run, vehicles would be lined up one behind another in the order of their results based on dynamic events. This race goes for four hours continuously with track filled with all possible obstrucles, muddy roads, rocks, loose sand etc. Teams which have completed the technical evaluation and brake test can only participate in this final event. Here driver has to ride the vehicle for 4 hours continuously to complete maximum no. of laps. In this event both driver and vehicle will undergo fatigue, so only with rigorous practice and testing only one should attain this event. Team which the maximum no. of laps in the given time is declared as the winner of the event. Our time successfully completed 20 laps in the given time.

At the end of the day was the valedictory function for which again all the judges and the dignitaries were present. Awards and rewards were given for all the dynamic and static events.

The results were announced to us on 12<sup>th</sup> March 2019.

Our buggy came out with very good results and has secured very good rankings, such as.

Acceleration: 6<sup>th</sup> All India Ranking

Pole Position: 8<sup>th</sup> All India Ranking

Design Evaluation: 1st in Karnataka

Endurance: 15<sup>th</sup> All India Ranking

Overall: 15<sup>th</sup> All India Ranking



Photograph 1: Unveiling of vehicle Dr.T.V.Govind Raju Principal KSIT, Prof.M.Umashankar HOD Mechanical Department, and faculty of Mechanical department



Photograph 2: Clearing the brake test



Photograph 3: Vehicle going back to track after re-fuelling



Photograph 4 : Vehicle pulling a tractor in sled pull



Photograph 5 : Vehicle in the race



Photograph 6 : Vehicle after endurance race with the team members and Faculty advisor Mr.K.Nagaprasad

Submitted by:

Team Redline Racing, KSIT, Bangalore

Date: 08-04-2019