

Baja SAE INDIA 2019, IIT Ropar – Report

MCET MAVERICKS

“The first step is, you have to say you can.” We a team of 18 members comprising of students from Automobile, Mechanical and Electrical and Electronics



engineering along with two faculty advisors from Automobile, Mechanical and EEE Departments of Dr. Mahalingam college of Engineering and Technology, Pollachi participated in a national level All Terrain Racing event. The BAJA SAE INDIA 2019 at IIT Ropar from 6th to 10th of March 2019. The

breakthrough team after clearing the BAJA Virtual round in the month of July 2018, we proceeded to fabricate our vehicle in the month of September 2018. After six months of overcoming various technical challenges in design and fabrication, we were ready with the buggy to participate in the Main event of BAJA SAE India 2019 that was held in IIT Ropar, Punjab.



MCET Mavericks with Buggy

(Left to Right: Ragesh.N, Rohit Ramanathan.J, Danussh.E.M., Raj Kumar.K, B. Murali Manohar (Co-Driver) .B, Dinesh Kumar.M.S. Venkatesh Prabhu.R, D.Nishanth, S.B.Balararm (Captain & Driver), P.S.Sri Vignesh Raja, S.Rajanandhini, S.Munthagir Hassan, S.Nithish Vishal, M.Vasanth, K.S.Arun Kumar, R.Parath, Vijay C.V, K.Saravana Kumar(Vice Captain), S.Hari prasad.)



Technical Inspection Cleared

The event kicked off on 6th March with registration and BAJA Aptitude Test. Technical inspections started on the second day, 7th March. Technical Inspection included safety scrutiny and Engine check. Engine check was cleared after changing the governor setting by increasing the rpm. Feedbacks that were given for the safety scrutiny were, to add additional support members to the roll cage.

On 8th March, the third day of the event, we cleared the Technical inspection and geared up for the brake test. Parallely the other static events were also being conducted. The Sales Presentation was done by Rohit Ramanathan.J , Rajanandhini.S and Dhanussh. E.M. and obtained a score of 28.5 for 50.

The feedbacks received were to plan the layout of the company, competitor analysis and inventory control. Go Green Evaluation was presented by Venkatesh Prabu.R, Arunkumar.K.S, Parath.R, Munthagir Hassan and Ragesh.N The feedbacks received were to add additional test and analysis reports. Cost Report was presented by Saravana Kumar, Rajanandhini.S and Dinesh Kumar.M.S and obtained a score of 71 for 100. The feedbacks received were to include all the manufacturing processes meticulously with corresponding labour and to calculate the total labour man hours instead of the number of hours taken to complete the task.



Dr.Karthick Jayaram receiving the Dronacharya award



Design Evaluation

Our faculty advisor Dr. Karthick Jayaram, Associate Professor, Dept of Automobile Engineering. participated in the Dronacharya award evaluation. Dronacharya award is constituted for the best faculty advisor. Among the faculty advisors who came from various institutions throughout India, he bagged the well deserved Dronacharya award for his mentorship to the Team MCET Mavericks (Car No:16). He received it from Dr.S.K.Das, Director- IIT-Ropar,Punjab and Dr. Sudhir Gupte, Professor and Head of Automobile Engineering at A.D. Patel institute of Technology.

On the fourth day, 9th March, we took the second attempt for brake test. The first attempt had all the wheels locked during panic brake but with a low top speed. After attempts to reduce the weight of the buggy, and tightening the acceleration cable. We went in for the second attempt and cleared. We were now qualified for the final endurance round. The design evaluation also took place on the fourth day. The design report was presented by Balaram.S.B, Rajkumar, Vasanth.M, Murali Manohar, Rohit Ramanathan.J, Arunkumar.K.S. and Nithish Vishal.S and obtained a score of 71 points for 150. The feedbacks received were to improve the suspension design, steering, CAE analysis and some suggestions about weight reduction techniques.

10th March was the last day when the most awaited endurance race was held. Murali Manohar was first behind the wheel and completed 7 laps. At half time our captain Balaram.S.B took the wheels and completed race with another 7 laps.

Major challenges faced during the race was the failure of ball joints at the left wishbone and tie rod arms which were replaced with immediate assistance from Venkatesh Prabhu.R, D.Nishanth, P.S. Sri Vignesh Raja. Vijay .C.V worked on the electrical systems of the vehicle. Team MCET Mavericks was placed at the 20th position out of 46 teams qualified in the dynamic event of the race, and in 35th position out of 84 teams participated in the event.



MCET Mavericks

Our faculty advisors Dr.Karthick Jayaram and Mr.Santhosh.N were a constant support throughout the event extending their help and guidance whenever needed.

On the whole the BAJA 2019 event was an wholesome experience with lots of exposure and learning. It was an event filled with passion, fun and enrichment of knowledge.

Our sincere and heartfelt gratitude to our **Title sponsor “Sakthi Auto Components Limited(SACL)”**.

Our sincere gratitude to our **Silver sponsors** TÜV Rhineland and scholarian pipes and our **Bronze sponsors** Cheran Taylors, ASAP, HPMS, and Sri Sai Printers.

We extend our warm gratitude to our management for providing us with all facilities to build our vehicle successfully. We express our sincere thanks to our honourable Secretary **Dr. C. Ramaswamy, M.E., Ph.D., F.I.V.**, for providing us with required amenities.

We express our profound thanks to the principal of our college **Dr. A. Rathinavelu, B.E., M.Tech., Ph.D.**, for his constant motivation regarding our project work.

We express our gratefulness to **Dr. Sunil S.R. Gangolli, M.E., Ph.D.**, Head of Department of Automobile Engineering, **Dr. I. Rajendran, M.E., Ph.D., F.I.E** Head of Department of Mechanical Engineering, **Dr. A. Senthil Kumar, ME., Ph.D.**, Head of Department of Electrical and Electronics Engineering for providing us kind advice for the development of project.

We express our hearty thanks to our guide **Dr. Karthick Jayaram, M.E., Ph.D.**, Associate Professor, Automobile Engineering. **Dr. D. Shanmugam, M.E., Ph.D.**, Associate Professor, Automobile Engineering, **Dr. Rama Thirumurugan, M.E., Ph.D.**, Professor, Mechanical Engineering and **Mr. N. Santhosh., M.E.** Assistant Professor, Mechanical Engineering for their constant support and guidance offered to us during our project by being one among us. Thanks to all other faculty members and lab technicians who played supporting role throughout making the m-Baja 2019.

Redmist Riders-Team MCET

BFKCT 2019

Formula 3 Circuit, Kari motor Speed Way,

Coimbatore, Sep 10-Sep13, 2019

“The first step is, you have to say you can.” Redmist Riders (Kart no:43) team of 18 students comprising from Automobile, Mechanical and Electrical & Instrumentation, EEE and Production Engineering along with faculty advisors from Automobile and Mechanical of Dr.Mahalingam college of Engineering and Technology, Pollachi participated in a National level Go-Karting event held at Formula 3 Circuit, Kari motor Speed Way, Coimbatore during Sep10-Sep13, 2019.

The breakthrough team after clearing the Virtual round in the month of July 2019, started fabricating the vehicle in the Mid July 2019. After months of overcoming various technical challenges in design and fabrication and sleepless nights in making of the kart 43. In order to participate in the Main event of Bharat Formula Karting CADD Technologies(BFKCT-3) 2019, Season-3 under 160 cc successfully.

Red Mist Riders-Team MCET Won honors by successfully completing the **1st Prize in Endurance test** and **1st Prize for Innovation** and **Ms.S.Mehala** bags the **Best Female Participant**. **Mr.S.Vishwarjun Shetty(Captain), Mr.S.Bharath(VC& Co-Driver), Mr. B.Murali Manohar(Driver)** lead the team to success & Won Over all **Second Prize worth Rs 35,000** in **BFKCT-3** Competition.

The students conveyed that “On the whole the BFKCT-3 event was a wholesome experience with lots of exposure and learning. It was an event filled with passion, fun and enrichment of knowledge.

They thanked honorable Secretary **Dr. C. Ramaswamy, M.E., Ph.D., F.I.V.**, for providing the required amenities and profound thanks to the Principal **Dr. A. Rathinavelu, B.E., M.Tech., Ph.D.**, for his constant motivation for the competition and MCET -HOD's , Faculty Advisors and In charges of Centre of excellences for the technical support & logistics for the event.





Photos

1. **Red Mist Riders-Team MCET** Won honors by Successfully Completing the **1st Prize in Endurance test** and **1st Prize for Innovation** and **Ms.Mehala 3 Year Production Engg Students bags the Best Female Participant** in Bharat Go Karting Season-3 held at Formula Circuit, Karimotor Speed way-Coimbatore
2. Kart No: 43
3. **Red Mist Riders –Team MCET**, Won over all Second Prize and Won the prizes worth of Rs 35,000.

RIVALS 2019

Team Name: DECCAN DRIFTERS

Date:27.09.19

Students from Dr.Mahalingam College of Engineering and Technology

Awards for Best Team and Best Remodeled Bike at Karpagam Institute of Technology



Greetings from Dr.Mahalingam college of Engineering and Technology





Awards and Certificates



Final Test Track



Completion of 1.5 Km Track Successfully



Team Members:

1. Mohamed Harish T -Rider (16bau086)
2. Mohammed Hafeez B (16bau090)
3. Kabilan V (16bau019)
4. Sanjeev Kumar G (16bau024)
5. Gokul Nath C (16bau078)

Total Cost : 22,000 Rupees

Rivals Track

