



Somaiya Vidyavihar

K J Somaiya College of Engineering

(An Autonomous Un-aided Institute - Affiliated to University of Mumbai & Approved by AICTE)



Redshift Racing Team

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Activity Report 2017-18

Car Name: Yudhaan 2.0

Summary of the competitions participated:

Technical Highlights:

- Self Made Axle
- Self Made Brake Callipers
- Custom Made Brake Lines

Competitions:

- Enduro Student India - Jan 2018
- BAJA SAE India, Indore - Feb 2018
- BAJA SAE USA, May 2018

Achievements:

1. Enduro Student India, Jan 2018 :
 - 17th in Cost Evaluation
 - 16th in Sales Presentation
 - 3rd in Design Evaluation
 - 21st in Acceleration Run
 - 23rd Overall
2. BAJA SAE INDIA, Feb 2018:
 - 1st Team to clear the Technical Inspection out of 165 teams
 - 4th in Business Plan Presentation
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3. BAJA SAE USA, May 2018
 - 3rd Place – Overall ranking in India
 - 8th Place – Cost Evaluation
 - 6th Place – Business Plan Presentation

Budget Allotted: 2.5 Lakh



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Activities from April 2017 to December 2017

1. On 25th April 2017 Sponsor's Meet was conducted to acknowledge all the efforts made by the team. The smallest contribution of the sponsopores made an idea come to reality.



2. The event was followed by showcasing the ATVs ability by driving it up the stairs of A buildings campus. The whole event was covered by media such as Dna newspaper, Gujarat Samachar etc.



3. The team was invited to DNA Autoshow held from 27th-28th May 2017 at CIDCO Exhibition Centre, Vashi where it our project was discussed with many aspiring individuals from various institution such as universities and industries
4. Later the team registered for BAJA SAE India,2017 and Enduro Student India,2017. The registrations were done in the month of June 2016
5. The team went on for the Virtual's Round of BAJA SAE India 2017, held at Chitrakat University in Chandigarh from 14th and 15th July 2017. The team successfully completed the virtuals to secure its place in the main event to be held in Pithampur,Indore
6. RedShift Racing India was invited at Story of Makers by KVO on 22nd July 2017 to showcase our yearlong efforts to school going students.



7. The crowdfunding campaign for the year 2017-18 by partnering with ketto.org and was a great milestone achieved with the support shown by the teams family, friends and those who believed in the team's vision during August 2017
8. October was a month for full fledge manufacturing of the ATV, while in the month of November and December total testing Yudhaan was done to make sure of its durability, endurance, and help us understand the difficulties to be overcome.
9. The team also got a great opportunity to meet honourable Chief Minister Shri Devendra Fadnavis during the opening of Maitreyi Hostel.



Activities from January 2018- May 2018

1. Start of January marked with the start of Enduro Student India 2017 held in Coimbatore from 4th January 2018 to 7th January 2018

We were the first team to clear the technical check, engine check and safety scrutiny. By the end of **Day 2**, we even cleared the brake test and now we were ready for the dynamic events. We successfully attempted all the dynamic events. Simultaneously our design was shortlisted among the

top 5 design finalists which was the high point for us in this competition. Eventually we claimed the **3rd prize** for our design.

In the Endurance race (**Day 4**), we started positively and in no time we made our way into the top 10 before the start of second hour. However we faced certain problems in our **CVT** which not only hampered our ranking but also degraded our performance. We finished the competition with an overall Rank of 22nd out of 100 teams.

Results:

- 17th in Cost Evaluation
- 16th in Sales Presentation
- 3rd in Design Evaluation
- 21st in Acceleration Run
- 23rd Overall

2. The BAJA SAE INDIA 2018 held in Pithampur, Indore was a great learning experience for the team.

The competition started on 25th January with Technical Inspection and Engine check events lined up on the **Day 1**. The team cleared the Tech Inspection, Engine check and safety scrutiny on the first day itself. Simultaneously the Sales event and cost evaluation events took place. The team performed fairly well in both the events bagging the fourth place in sales event with a score of **47.5 points out of 50(4th out of 125 teams)**.

Day 2 started with the design evaluation and brake test. The judges appreciated our design and gave their valuable inputs as to what could be improved further. We scored **107 points out of 150 in the design evaluation.**



This year we had designed and manufactured our own brake caliper(First team to manufacture and design its own brake calliper) . We faced some problems with the brakes and it took us a lot of time to identify and solve it. The time loss meant we couldn't attempt all the dynamic events which put us on the backfoot.

On the final day **Day 4**, we had the gruelling 4 hour endurance race. We started the race on a good note with our drivers catching up with the other teams. Just when we thought we were recovering, our Engine got choked due to mud getting inside the air filter and we had to open up the engine to clean it. This halted our progress and took a lot of time to get the engine race ready. Our CVT was also not in the best of conditions and this degraded our performance. The positive thing was that we did not face any failures in the parts designed by us.

Results:

- 1st Team to clear the Technical Inspection out of 125 teams
- 107/150 in Design Report
- 4th in Business Plan Presentation

3. Further with more efforts by the team a new ATV with more better design and new CVT was manufactured an rigorously and was all set to be shipped on 13th May 2018

The team once again brought fore as it did pretty well in Sales and Cost Evaluation. The team had an average day for the Endurance run, starting with 40th position steadily going up to 21st position the team had a collision and it took some time to get back on track.

The loss of momentum affected the ultimate results and we finished the endurance run with 42nd position

Results:

- 3rd Place – Overall ranking in India
- 8th Place – Cost Evaluation
- 6th Place – Business Plan Presentation



Team Details

Sr. No.	Name	Dept	Year	Nature of Work
1	Yash Bhatt	Mech	BE	Designing
2	Aditya Purohit	Mech	BE	Accounts & Marketing
3	Chaitanya Sheth	Mech	BE	Accounts & Marketing
4	Gopesh Chilveri	Mech	BE	Designing
5	Amit Petare	Mech	BE	Manufacturing
6	Yash Nadagire	Mech	BE	Designing
7	Ashish Maurya	Mech	BE	Designing
8	Shithija Shetty	Mech	BE	Designing
9	Mihir Patil	Mech	BE	Manufacturing
10	Rahul Sawant	Mech	BE	Designing
11	Pranav Kunte	Mech	BE	Manufacturing
12	Parth Shah	Mech	TE	Designing
13	Akash Anghan	Mech	TE	Inventory
14	Viral Chheda	Mech	TE	Designing
15	Varun Bhanarkar	Mech	TE	Inventory
16	Richie Mathew	Mech	TE	Testing
17	Rohith Augustine	Mech	TE	Inventory
18	Rushabh Vora	Mech	TE	Manufacturing
19	Erwin Vadukut	Mech	TE	Testing
20	Sumukh Dedhia	Mech	TE	Purchasing
21	Ali Arsiwala	Mech	TE	Designing
22	Ahmed Khalifa	Mech	TE	Marketing
23	Husain Fidvi	Mech	TE	Manufacturing
24	Chetan Rane	Mech	TE	Purchasing
25	Vasu Vara	Mech	TE	Manufacturing
26	Akshat Shah	Mech	TE	Testing
27	Nijanand Sarawate	Mech	TE	Designing
28	Yash dalal	Mech	TE	Manufacturing