Team Jaabaz: The story of 8 passionate undergraduate engineering students from VIT University who represented India in May 2009 in an extremely demanding and challenging student project- ‘SAE Baja West’, USA.

This souvenir is about their dream, their never yielding faith and the extent to which they defied to prove their mettle
To Our Sponsors

We Team Jaabaz would firstly like to thank all of those who never had faith in us. The insatiable desire to prove you wrong constantly motivated us. It is your lack of faith that united us in the pursuit of a common goal. Thank You All!! For without you this student project would not have been possible.

It is always the 1st step that is the most difficult. It was the 1st time that Team Jaabaz formed in 2008 was participating in a student project of this scale and the task at hand was extremely difficult. But it was even more difficult for our 1st batch of sponsors to put their faith in us. We stand here today only because of the kind hand extended to us by these angel sponsors. Our critics inspired us but our sponsors provided for us. We cannot express our gratitude to them. It is only because of responsible corporate’s like them that ambitious projects like ours are possible.

Our 1st batch sponsors are:

1. Gujarat State petroleum Corporation Limited (GSPC)             2. Welspun Gujarat Stahl Rohren Limited
3. Zoom Communications                                             4. Transpek Silox Limited
5. Expo Freight                                                   6. VIT University
7. Briggs and Stratton                                             8. Sibridge Tech limited

Apart from our angel sponsors there are also a couple of individuals without whose support this project would not have been a reality. These people had nothing to with the project yet their big heart could not but help extend their support towards a bunch of ambitious students. Their unwavering faith in us and timely help has been god sent. Like our angel sponsors we are ever grateful to them for everything

1. Mr Arvind Agarwal
2. Sekar Vishwanathan, Pro chancellor VIT University
3. Bindi
4. Mr Martin Alphonso and family
5. Mr Rick
6. Mr Leonard
7. Seema Mehta
8. The Max, Portland
9. Police officer and Customs office head, Portland customs
10. Mr Christopher Etzel
11. Samantha Higgs and the whole SAE organising committee

Once again we are grateful to all our sponsors and the individuals mentioned above. Your support has given the members of Team Jaabaz the most memorable experience of their life.
ABOUT BAJA

Baja SAE is an intercollegiate design competition for undergraduate and graduate engineering students organised by the Society of Automotive Engineers (SAE). Student teams design, simulate, build and race an off-road vehicle that can withstand the harshest elements of rough terrain. The vehicles used in Baja SAE racing are often similar to dune buggies.

The Baja SAE Competition originated at the University of South Carolina in 1976, under the supervision of Dr. J. F. Stevens. Since that time, the competition has grown to become a premier engineering design series for university teams.

The objective of the competition is to simulate real world engineering design projects and provide students with a challenging project that involves the planning and manufacturing tasks found when introducing a new product to the consumer industrial market.

Teams compete against one another to have their design accepted for manufacture by a fictitious firm. Students must function as a team to not only design, build, test, promote, and race a vehicle within the limits of the rules, but also to generate financial support for their project and manage their educational priorities.

Student teams are judged on Static events, such as written reports, presentations and design evaluations, ergonomics, functionality, and producability of their cars; and dynamic events like acceleration, braking, hill climbs, chain pulls, maneuverability, rock crawls and a gruesome 4 hour endurance race.

As of now SAE Baja competitions are organised in USA (3), Canada, Mexico, Brazil, South Africa, India and South Korea with participations from over 140 teams from all 5 continents every year.
Participation of Indian teams in SAE Baja series outside India: History

1. Delhi College of Engineering (DCoE) participated in Mini Baja South Africa in 2004
2. DCoE participated in Mini Baja US Midwest in 2005
4. Vellore Institute of Technology( Team Kshatriya) participated in Mini Baja South Africa in October 06.
5. R. V. College of Engineering participated in Mini Baja South Africa in October 06.
6. Vellore institute of Technology (Team Agasthya) in Mini Baja USA, June 2007

In May 2009 Team Jaabaz of VIT University represented India in SAE Baja west, USA after winning 1st Virtual Baja’, India organised by SAE India.

The ATV built by ‘Team Jaabaz’
Team Jaabaz 2008-09: The original

Team members: The 1st eight
1. Abhishek Jha: Team captain (4th Year)
2. Ashraf Emraan: Team vice-captain (4th Year)
3. Kunal Sharma (4th Year)
4. Ashwin Dayal George (4th Year)
5. Naman Sanghvi (2nd Year)
6. Siddharth Handa (2nd Year)
7. Siddharth Balachander (2nd Year)
8. Prakharvel Kulushestra (2nd year)

More than just team members:
INDIVIDUAL TEAM ACHIEVEMENTS

- The Team Captain [Abhishek Jha] has participated in Mini Baja events held in India (Indore), 2007 and USA (Rochester, New York), 2006.

- Team Vice-Captain [Ashraf Emran] has participated in ‘SAE Super Mileage’ in USA (Battle creek, Michigan).

- Since, the task of designing was of paramount importance in this whole competition, the DESIGN TEAM LEADER (Ashwin Dayal George) was chosen from a team which had fabricated a complex machine like 'Formula One' car to participate ‘SAE’s Formula one’ event held in Australia 2006.

- Naman Sanghvi was awarded Awarded ‘Young Innovator of the year 2008’ by L-RAMP (Lemelson recognition and Mentoring program), IIT Chennai on 21st December 2008, felicitated by INFOSYS, CEO Kris. Gopalkrishnan for his idea ‘Drip irrigation using waste materials’
TEAM JAABAZ: Winners of 1st Virtual Baja 2008-09 organised by SAE India

- Team Jaabaz stood 1st in a national level competition ‘Virtual Mini-Baja 2008-2009’ conducted by SAE India in January 2009. The competition saw the participation of 36 teams from all over India.
THE HINDU

VIT students gear up for challenge of SAE Mini Baja

They are looking for sponsors to manufacture physical model

Special Correspondent

YELLORE: A 7-member team of students from VIT University, styled as Team Jaabaz, is all set to participate in the SAE (Society of Automotive Engineers) Mini Baja, an event organised by the U.S.-based SAE in Oregon, U.S. on May 6.

The SAE Mini Baja is an international level inter-collegiate event aimed at stimulating engineering students to stimulate real-world engineering projects. The SAE is a one stop resource for standard development, events, technical information and expertise in the design, manufacture and operation of self-propelled vehicles for use on land, sea, air or space.

The team comprising Abhishek Jha, Ashraf Emran, Ashwin Dayal George, Kinal Sharma (all final year 1st Year R.Tech. Mechanical Engineering students), Naman Sanghvi, R. Siddharth Balachander and Siddharth Handa (second year R.Tech. Mechanical Engineering students) is currently involved in designing a model of an all-terrain vehicle which can negotiate extreme road conditions.

ON WINNING WAYS: Members of Team Jaabaz from VIT University, who are participating in the SAE Mini Baja to be held at Oregon, USA, in May.

PHOTO: D. GOPALAKRISHNAN

“We will fabricate a model, taking into account a business plan for supplying 4000 units per annum to a fictitious company,” said Abhishek Jha. Siddharth Handa and Ashraf Emran said that they would build the model using the Briggs Stratton engine produced by the Briggs Stratton Company as per the rule book of SAE.

The computer-aided design (CAD) phase and software simulation phase of manufacturing the model has been completed, and the team has also designed two variants of the vehicle, namely the Multimode Agri-Transport Vehicle and the Two-Seat Military Reconnaissance Vehicle.

The Multimode Agri-Transport Vehicle is a mini-tractor of the tractor, which would cost Rs.15 lakh, and would be a boon to the small farmers if commercialised, the team members claimed. The team has already won the first place in the Virtual Mini Baja conducted by SAE-India in Hindustan Engineering College in Chennai on January 24, in which 36 teams from all over the country participated. It got the prize money of Rs.3 lakhs. “Our participation and success in the Chennai event gave us the confidence to prepare for the bigger international event in U.S.,” the team members said. The team, which has already completed the CAD and software simulation phases, is now looking for sponsors for undertaking the project for manufacturing the physical model and participating in the SAE Mini Baja in Oregon, which is expected to cost Rs.15 lakh.

The team members said that while they have got some sponsors, they have approached the government of Tamil Nadu, Gujarat and Jamtara & Saharanpore besides several companies for sponsorship in view of the higher project cost. “We are approaching airlines and car manufacturing companies for sponsoring our air tickets to Oregon”, they added.
Manufacturing of vehicle: cyclic from left to right

1: Design
2: virtual simulation
3: design components
4: making of pvc pipe model
5: welding of frame
6: installation of engine and transmission
7: installation of components
8: testing
9: Final vehicle
On May 7th evening, the logistics company handling the vehicle shipment for Team Jaabaz made a call to the team which had already reached USA with devastating news.

The car had been stuck in customs and would not be cleared on time for the event on 8th May.

All hope seemed lost, but true to its name Team Jaabaz refused to accept defeat without a fight.

4 team members proceeded to the event for the presentation round while 4 members went to the US customs office in Portland to try to convince the extremely hostile authorities to release the vehicle.

Call it a miracle or God's will or the sheer determination of the team.

Team Jaabaz convinced the authorities to release the vehicle.

A job that a professional logistics company could not do in 2 weeks time, was done by Team Jaabaz in a matter of 5 hours.

Performing this task was the biggest achievement of this team. The team truly simulated real time challenges and problems that students face in the real world.

The car arrived at 9.30pm. Jet lagged, not having even a second to sleep for 2 days in a row and having the colossal task of assembling and gearing up the vehicle by 7am, Team Jaabaz spent the whole night working in an open garage under frigid conditions of nearly 5 degrees.

The car was in running condition by next morning. Like always we fought against the never ending odds only to emerge victorious.
May 9th: The Big day

A total of 99 teams and over 25,000 students participated. There were teams from USA, Canada, Brazil, Mexico, Venezuela, South Africa, UAE, Turkey, South Korea. Team Jaabaz was the only team from India.

In overall presentation category where teams presented their design, simulation and marketing & manufacturing strategies to a jury, Team Jaabaz stood 16th out of 99 teams.

A few more problems here and there, nothing enough to stop the team though.
With the final last minute tunings, Team Jaabaz was all Set to race: A moment desperately being awaited for since the past 1.3 years
May 10th: The Endurance Race

A 4 hour, 44 lap race which is the most gruelling, most demanding, and most difficult event of all. Only 32 teams out of 99 could complete the race. Team jaabaz was not one of them.

Overall Team Jaabaz stood 63rd out of 99 teams.
Rock Crawl: A track comprising of huge boulders to be crossed

Hill climb: vehicles had to negotiate a terrain of roughly 60 degrees inclination

Maneuvarability: An extremely deceiving and challenging event. Vehicles negotiate 7 feet deep holes, sharp turns, logs and numerous ups and downs which challenge the driver’s capability

There were 51 roll-overs of different vehicles with no casualties. SAE Baja is a real race performed on a professional track under the supervision of professional organizers.
Team Jaabaz: The slum dogs: This picture sums up our whole experience beautifully. All other teams had caravans, tents, tools, food and music. It was more like a party for them. All we had was a wooden crate and a dream.

We were the slum dogs. We have lost count of the number of people who discouraged us, yet we fought and struggled. Our arrogance and foolishness was our greatest gift. Today we stand as the best team in India in terms of technical knowledge. We are pushed down and suppressed but we never gave up. We hit the bottom but then we bounced back even higher. The fact that we were the only Indian team at the event and being the 1st Indian team to make it to SAE Baja West, Oregon which is the toughest of all the 7 international Baja events stands testimony of the mettle Team Jaabaz is forged off. We stood 63rd overall and 16th in presentation out of 99 teams.

The learning involved both technical and non-technical is immense. We truly got a glimpse of the real corporate world. We finally made it!!!! We go back to our country proud and satisfied. We go back all the more foolish and hungry. We go back completely dazzled by the experience. But more importantly we go back as individuals with a bigger dream to do something even bigger. We Team Jaabaz are proof that dreams do come true if you learn to not give up.