About Us

SAE IIT Kanpur is a student run organization at one of the premier technical institutes of the country, Indian Institute of Technology, Kanpur. We are a team of highly motivated, enthusiastic, passionate and dedicated students who work towards the ultimate goal of building a ‘Racecar’. Our team comprises of students from a spectrum of different departments and years (i.e. First years to Post Graduates) who are passionate to pursue, explore, learn and gain experience in automotive.

We began our venture in the year 2011, by the collective efforts of a group of students with a strong urge to complement the theoretical knowledge imparted in classrooms, emphasizing on the practical aspects of engineering. Their idea to develop an automotive culture revolutionized the institute and SAE IIT Kanpur started with an initial strength of over 150 student members.

The competitions we participate in are highly prestigious and are judged by the professionals who command respect in the automotive industry in order to showcase our technical prowess, skills and hone our knowledge pertaining to real life engineering.

By becoming a part of SAE IIT Kanpur, students embark upon the path that will nurture priceless practical skills in their respective fields of both engineering and business, enriching their college experience and equipping them with the knowledge that will allow them to prosper in their chosen career.

Alumni

For the past few years, alumni have provided guidance and have imparted very crucial information thus helping us inch closer to our goal.

Many alumni have come forward exceeding our expectations and have helped us achieve the current position which we are in. Currently our alumni are working in leading companies in the industry namely General Motors, Mitsubishi, Honda, Tata and Bajaj.

Our alumni have been our backbone in the past years.

The help and contribution that we get from our alumni is of utmost importance in nurturing our project and honing the skills of our team. Contribution in terms of parts, training or exploring industrial contacts would help us immensely in strengthening our position.

Our Cars

F13

IITK motorsports started its first season of Formula SAE with emphasis being laid on designing a car which is simple yet efficient. Drivability, reliability and cost effectiveness were the specific areas focused upon. A modular design based approach was followed to minimize the pre-manufacturing period and make the car as personalized as possible while following the basic design goals. Manufacturability on large scale was a crucial factor governing the design procedure. Design strategy was also affected immensely by the proposed buyer and the car was designed to minimize the post purchase maintenance of the car. It was ensured that the car was aesthetically sound as well, to attract its customers.

Emphasis was laid on maximizing the learning curve and working things out from the very basic principles. Various tests were performed for different subsystems of the car so as to enhance the final performance. Documentation of the whole design process was also done to make sure all the data was available for any future reference. Thus, a data driven design process focused on the basic principles of designing resulted in the building of an efficacious car. The grand ancestor of all #091!

B15

The second car of the first season was also our first off-road vehicle which was agile and lightweight. Our design objective was to build light weight car that could perform in harsh conditions. Since it was our first car our, one of our objectives was to successfully complete all the dynamic events without major component failure and yet delivering the maximum performance. The vehicle dynamics associated with the car were highly tunable which gave us the freedom to juice the best out of our car. Will always be loved #21!

F16

IITK Motorsports is competing in FS India for the first time in 2016 and this is our second participation in FS events. Weight reduction, manufacturability and reliability were the key design goals. Ergonomics and compact packaging were the major areas of improvement this year. A major step to reduce weight was to include composite materials. In the development of the vehicle, a strong focus was placed on the car’s suspension geometry, powertrain and ergonomics to make the vehicle more driver friendly for a better performance.

The design goals for this car were decreasing car’s weight by 25% - 60kg (from 240Kgs), manufacturing of the vehicle is simple and cost-effective and the vehicle must complete all dynamic events at Formula SAE INDIA. Smokin’em all #90!

B16

This was our second off road vehicle which was built to compete in the competition BSI 2016. The design objectives were to build a robust, light weight and efficient vehicle that could endure the brutality of off road tracks. We designed and fabricated our gear box which was the central jewel in our masterpiece. It weighed 68% less than that used in the previous season. We also experimented with composites which enabled us to build ultra-light components such as carbon fiber reinforced camber links and glass fiber body panels. The chassis was completely redesigned after performing extensive simulations on ANSYS and thus was built a chassis of 26.5 kilograms, 6 kilograms less than the previous version. The wheel assembly was compact and used one of a kind knuckle which was extremely light weight. All in all, our car had a visibly clean and compact packaging of all the components which ultimately ensured lower center of gravity, weight reduction and thus better maneuverability and performance. The final weight of the car was 161 kilograms which was a reduction of 20% from the previous car. Viva La #92!

Our Present Goals

We are competing in Supra’16 which is a college based competition held under the banner of SAE India. We will be using F16 which is presently the lightest FSAE car in the country. Simultaneously, we are designing the FSAE car for the next season using which we will be competing in Formula Student India 2017 and Supra’17.

Sponsors ka jitta site pe hai utta sufficient hai.