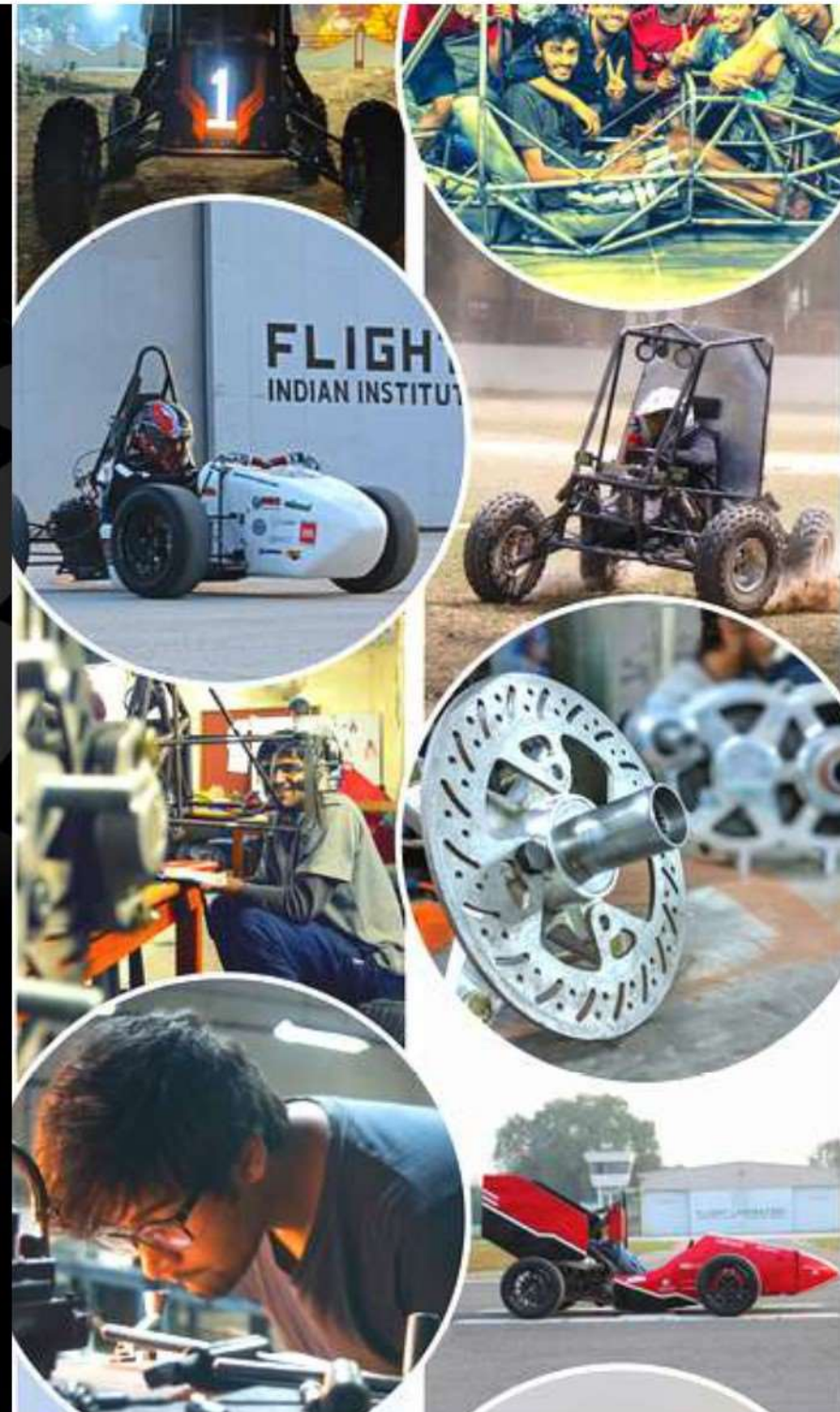


IITK MOTORSPORTS

DESIGN | BUILD | RACE

INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
KANPUR - 208016
UTTAR PRADESH
INDIA

BROCHURE 2023-24





Our vehicles F16 and B16 during testing

INTRODUCTION

IITK MOTORSPORTS IS THE AUTOMOTIVE CHAPTER OF INDIAN INSTITUTE OF TECHNOLOGY KANPUR

We aim at bringing out concepts learned in the classroom and use them to create engineering marvels in the form of race cars. We are a team, with students from various engineering disciplines, who work together to achieve a common goal. Some of the best minds of the institute work throughout the year on the designing and manufacturing of

our cars, gaining knowledge coupled with hands-on practical experience, qualities are an indispensable part of engineering. Team IITK Motorsports participates in events like Formula Bharat, BAJA SAE India among others. These competitions challenge us to apply our skills outside the classroom as part of a project that closely imitates industry practices.

TEAM IITK MOTORSPORTS IS COMPOSED OF STUDENTS FROM VARIOUS DEPARTMENTS

Being a student motorsports team, we are in constant need of industry partners and sponsors to support us in our operations. We look forward towards building a strong association with our partners who help us through funds, tools and services. In return, we provide our partners with increased brand recognition and networking opportunities with our talented student members.

WHAT CAN WE DO FOR YOU

We build open-wheeled race cars to compete for the Formula SAE competitions. We also compete in the BAJA SAE for which we build off-road vehicles. This year, we are also planning to participate in Formula Bharat, Formula Green, Formula Imperial and FSS India.

WORKING AS A TEAM

Our team consists of 5 subsystems - Powertrain, BMS, Electronics, Chassis and Vehicle Dynamics. Each subsystem conducts research to innovate and increase the performance of every individual part leading to an overall better design. This is followed by rigorous analysis through specialized software and real life testing to ensure that our car meets the expectations of our sponsors and our institution.



FORMULA SAE

OUR FORMULA SAE TEAM WAS RECOGNIZED AS THE 2ND BEST INDIAN TEAM IN FSAE ITALY 2013, AND F16 WAS RECOGNIZED AS 'INDIA'S LIGHTEST FORMULA RACE CAR' IN FB16

Formula SAE is an international student design competition sponsored by the association. The program simulates real-world engineering design projects and related challenges with the goal of developing and building a Formula-style race car.

RESULTS

F13 – Formula SAE Italy 2013

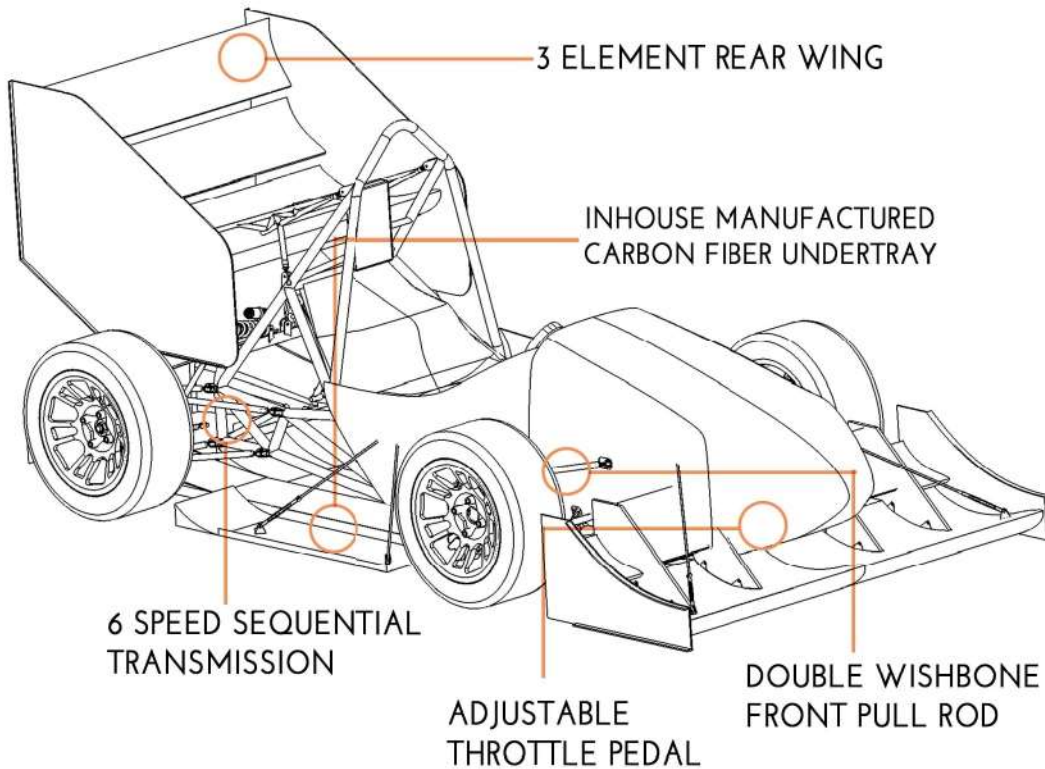
2nd best Indian Team
9th in Business Logic
13th in Cost Presentation Events

F16 – Formula Bharat 2016

India's Lightest Formula Race Car
8th Position Overall
4th in Business Logic
6th in Design Event

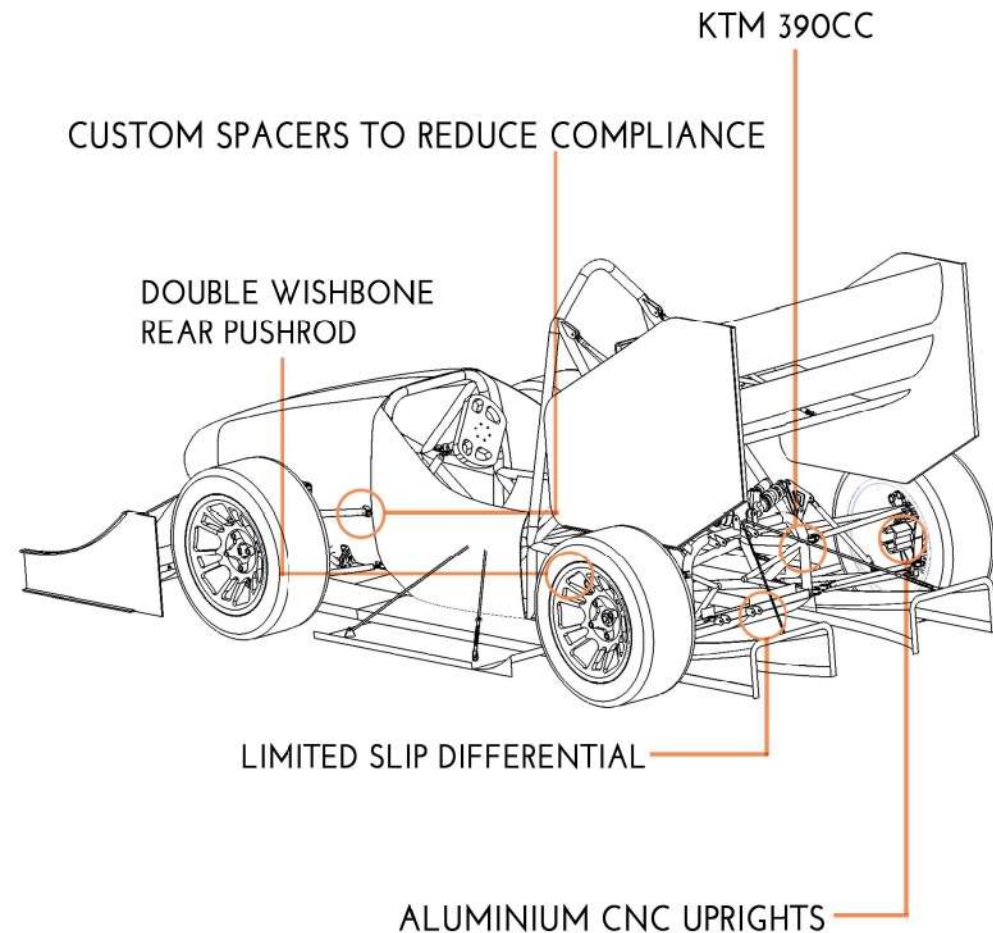
F18 – Formula Bharat 2018

15th Position Overall
6th in Business Logic Presentation
9th in Design Event



F18 is powered by a 390cc KTM engine enabled with a double wishbone suspension package with carbon fibre steering wheel and seat. It presents major advancements in aerodynamic design with the use of rear and front wings to negotiate track corners with high speeds.

The vehicle goes from 0-100kmph in just 4.76s and reaches a top speed of 130 kmph. The car decelerates from 90-0kmph with a stopping distance of just 21.25m with a deceleration of 1.5g's.





BAJA SAE

OUR BAJA SAE TEAM HAS BEEN AWARDED 'BEST INCOMING TEAM AWARD' AND 'BEST TECH-READY TEAM'

BAJA SAE is a design competition held under the banner of SAE International. It encourages teams of students from universities all over the world to design and build small off-road vehicles adhering to a set of rules.

RESULTS

B15 – BAJA Student India 2015

The team was awarded 'Best Incoming Team Award'
4th in Design
6th in Acceleration

B16 – BAJA Student India 2016

Awarded 'Best Tech-Ready Team'
13th Overall Position
4th in Acceleration
4th in Maneuverability
6th in Design Event

B19 – Mega ATV Championship 2019

13th Overall Position
12th in Endurance

CARBON FIBER DRIVESHAFTS

INHOUSE
MANUFACTURED
CUSTOM GEARBOX

MULTI LINK REAR SUSPENSION

10HP BRIGGS & STRATTON OHV INTEK MODEL19 ENGINE

CARBON FIBRE
SUSPENSION LINKS

AISI 1018 STEEL FRAME

ALUMINIUM CNC UPRIGHTS

10 INCH RIMS

11 INCH WHEEL TRAVEL

BAJA 19 features a highly adjustable five-link rear suspension and Double A-Arm front suspension, a custom-made self-manufactured Gearbox with a Continuously Variable Transmission(CVT), Fox Float 3 Evol RC2 suspension, a 10HP Briggs and Stratton Model 19 engine. The driveshafts, suspension links and base of the body in BAJA-19 is made of carbon fibre.



FORMULA ELECTRIC

AFTER 2 YEARS OF VIRTUAL PARTICIPATION, THE TEAM IS GEARING UP TO MANUFACTURE IIT KANPUR'S FIRST ELECTRIC VEHICLE FE23

With advancements in the EV sector, our team is ready for the transition from the combustion to the electric sector. Formula SAE(Electric) is the latest competition introduced by SAE to encourage students round the world to build a formula-style electric racing vehicle. The future of automobile industry is electric, and we are constantly innovating to make a reliable Electric Vehicle.

RESULTS

FORMULA BHARAT VIRTUALS '21

3rd Position in Business Plan Presentation
10th Position in Engineering Design Presentation
8th Position Overall

FORMULA BHARAT 2023

1st Position Overall
1st Position in Business Plan Presentation
4th Position in Concept Management

FORMULA BHARAT 2023

The team returned great results in the EV Category - Class I of the recently concluded Formula Bharat 2023 Competition. The team stood **1st in the Overall Competition.**

The BPP event is aimed to evaluate the team's ability to develop and deliver a comprehensive business model which demonstrates their product – a prototype race car – could become a rewarding business opportunity. Our team was excellent and **secured the 1st Position** in this event.

The CGM event is to evaluate the team's understanding of the manufacturing processes and costs associated with the construction of a prototype race car. This includes trade off decisions between content and cost, make or buy decisions and understanding the differences between prototype and mass production. The team **bagged the 4th Position** in this event





NIKHIL KURELE

We got a chance to meet Mr. Nikhil Kurele, the Forbes 30 Under 30, Asia, Y12 Alumni, IITK. We had a nice discussion where he shared his memorable times as a member of IITK Motorsports and the impact the team had on his successful life.

SADHGURU

We got an opportunity to interact with Sadhguru, the mystic speaker and author on international forums, who also happens to be an automobile enthusiast. We showcased our latest ATV "BAJA'20" and had a talk on engines. He provided us with a lot of valuable insights, merging social ideas with our engineering mettle. He inspired our 'inner engineer' and motivated us to continue on our attempts to make our first electric vehicle.



MIRA ERDA

We got a chance to meet Miss Mira Erda, the youngest Formula 4 female driver and an upcoming name in the field of motorsports. We also got the chance to showcase our last Formula Vehicle, F18 during the event. Miss Erda also took the vehicle for a drive and provided us with her valuable feedback.





फॉर्मूला भारत 2023 की विजेता आईआईटी कानपुर की टीम।

फॉर्मूलाभारत-2023 का विजेता बना आईआईटी

कानपुर, वरिष्ठ संवाददाता। फॉर्मूला भारत 2023 का विजेता आईआईटी कानपुर बना है। संस्थान की मोटरस्पोर्ट्स टीम ने न सिर्फ प्रतियोगिता क्लास-वन कैटेगरी में प्रथम पुरस्कार जीता, बल्कि बिजनेस प्लान प्रेजेंटेशन में भी टीम को विजेता घोषित किया गया। छात्रों ने भविष्य को देखते हुए इलेक्ट्रिक व्हीकल तैयार किया था, जिसे सभी विशेषज्ञ व मेंटर ने काफी सराहा। संस्थान के निदेशक प्रो. अभय करंदीकर समेत सभी वरिष्ठ वैज्ञानिकों ने टीम को बधाई दी।

फॉर्मूला भारत 2023 प्रतियोगिता में देशभर के तकनीकी संस्थानों के छात्र-छात्राओं ने फॉर्मूला वन रेस की भांति ही गाड़ी बनाकर प्रतिभाग किया। इलेक्ट्रिक गाड़ी की कैटेगरी क्लास-वन में आईआईटी कानपुर समेत दस तकनीकी संस्थानों की टीमों ने फाइनल राउंड में हिस्सा लिया। जिसमें 97 स्कोर के साथ आईआईटी विजेता बना। वहीं, के साथ आईआईटी विजेता बना। वहीं, लाभदायक साबित होगा।



■ इलेक्ट्रिक व्हीकल व बिजनेस प्लान कैटेगरी में जीता पहला अवार्ड
■ देश के सभी तकनीकी संस्थान व स्टार्टअप्स ने किया था प्रतिभाग

बिजनेस प्लान कैटेगरी में आईआईटी 72 प्वाइंट के साथ प्रथम स्थान पर रहा। विजेता छात्रों ने बताया कि प्रतियोगिता में आए विशेषज्ञों ने मोटरस्पोर्ट्स के मॉडल को काफी सराहा है। उन्होंने बताया कि इस तकनीक का उपयोग भविष्य में लाभदायक साबित होगा।

BRANDING AVENUES

MEDIA COVERAGE

Print Media – Times of India, Dainik Jagran, Hindustan Times etc.

Event Sponsors – Mahindra, Shell, Redbull, TATA Steel etc.

Television Coverage – ZEE News, NDTV, CNBC TV India, ET NOW, E-TV etc.

SPONSOR LOGO

The company's logo will be present on –

- Vehicle
- T-shirts
- Letterheads
- Official Brochure
- Banners

NEWSLETTERS

Your company will receive special focus in our **Official Newsletter** and all **Team Publications**, highlighting your products/brands which will reach all the stakeholders and students in our campus comprising **10,000 residents** and also sent extensively to the **alumni network of IIT Kanpur**.

ONLINE BRANDING

Your company will be prominently featured on social media platforms of IITK Motorsports, having a **combined 18,000+ followers**. We also have a **website** that highlights sponsor contributions. A **hyperlink to your company's website** will be displayed on the team's website.

COLLEGE EVENTS

Special Mention of the Sponsors when the car is showcased during the following events

- Lectures & workshops organized by IITK Motorsports
- Launch Event of the Car
- Alumni-Meets
- Media Conferences on Automobiles
- Antaragni, the second largest cultural festival (50,000+ footfall)
- Techkriti, one of the largest technical festivals in Asia (50,000+ footfall)
- Udghosh, one of the largest sports festivals in the country
- National Technology Day

EXCLUSIVE TEAM PARTNER BENEFITS

TITLE SPONSOR [> ₹ 10,00,000]

- All other level Sponsorship Benefits +
 - Logo on the car on the place of choice, preferably Nose Cone (as it is the first visible part of the car)
 - The biggest logo size in the posters to differentiate from other sponsors.
 - A separate banner printed for the company specifying the Title Partner level and to gain special attraction of the audience.
 - Frequent social media posts and posts as per demand of the company specifying the company's contribution to the team, updates on the car and company's advertisement.
 - A specific page dedicated for company in the annual newsletter of the team and special mention in season's summarising post.
 - A dedicated slot for company's interaction with the Campus Junta on the launch event of the car.

PARTNERING WITH TEAM IITK MOTORSPORTS



IT students build F1 cars

- All other level Sponsorship Benefits(Except Title Sponsor) +
 - Logo on the side body of the car which will be bigger than other partners (except Title Partner).
 - The biggest logo size in the posters to differentiate from other sponsors (except Title Partner).
 - Banner with biggest logo along with other sponsors logo printed, specifying the Team Partner level.
 - Company can offer students technical projects to work on (as per the ability and state of the team) for free and use the results and designs as per the need.
 - Invitation as a guest of honour in the launch event of the car.

ht SPECIAL

Mou Chakraborty
 @ Mou.Chakraborty@hindustantimes.com

A black and white photograph showing a group of about 15 people, mostly young men, standing behind a white sports car. The car has 'K&P' and 'K&P' written on its side. The people are dressed in casual attire, including t-shirts and jeans. The background is a plain, light-colored wall.

much space is desired," Team Kert, coordinator Shimanta Ghosh, said.

While the students visited the department of mechanical engineering as faculty advisers, the department of mechanical engineering at KJ Somaiya Institute of Technology (KJSOM) in Asia's biggest (pending) merger of two institutions was the most interesting to him.

While the project has become the focal point of discussion for the visiting students, the KJSOM faculty had to spend a good deal of time getting money for the project, building the infrastructure of the institute, but the total cost of building the new was Rs 15 lakh.

The design of the new centre is ready and they would soon concentrate on conducting a number of seminars to educate the members of the team, said.

While the team which went to KJSOM was called Kert, the students also visited the department of K2. The students also have a number of projects going on at the institute, can-

The old Hanger in front of the High Definition Camp building on the institute campus, overgrown by the trees, was the main area of activity for these rural sports enthusiasts. Copies are, however, not for sale. It is a work of love and passion. It can zoom from 1 to 500 km per hour, and is a very fast and only speed, but correcting ability of these cars that was missing in the past. The students are making that our institute can pass," he said.

At a formal Student UK among the top six teams for "The Air Bus" Teams of the first time the students took their car to the event, they managed to secure the third place.

They were also among the top three teams at the event, where we promote the use of the car, said.

The students also visited the universities among the world's top universities in the UK, said.

Gautam said.



HOT WHEELS

Technical Specifications

- General overall length: 2400mm
- Kerb weight: 333 Kg†
- Wheel Rim Dia: 17"
- J190 Specifications: 16377 R13
- Chassis
 - Material: Tubular Seamless carbon Steel
 - Frame Weight: 45 Kg†
 - Front Rack: 125 cm
 - Rear Rack: 125 cm
- Engine Displacement: 599 cc
- Engine choice: Honda CBR

- 600 RR
 - Maximum torque: 65Nm @ 9600rpm
 - Transmission: Honda Civic
 - Gear Shift: 6 speed
 - Fuel: RON 95
- Steering & Suspension
 - Suspension type: SLA double wishbone
 - Wheelbase: 852 mm
 - Fork: 41mm
 - Brakes
 - Front: Rack and piston type
 - Rear: Disk
- Brake type: Disk brakes
- Brake disengagement: Multi-piston with brake bleeding
- Caliper: Front Caliper type

SPONSORSHIP BENEFITS

PARTNERING WITH TEAM IITK MOTORSPORTS



TAX EXEMPTION BENEFITS

IITK Motorsports is a college team, so you will get an Income Tax Deduction of upto 100% according to Section 80G.



CORPORATE SOCIAL RESPONSIBILITY

The event provides you a platform to showcase support for research at college level and emerge as a promoter of research which adds to the CSR of your company.



ACCESS THE MIND OF FUTURE ENGINEERS FROM IIT'S

Your company will be invited by our institute for recruitments, where you can take the best students of the country as your future employees.



BE AN EMPLOYER OF CHOICE

By sponsoring us, you are training the future employees by helping the students gain practical skills used in the industry.

PLATINUM LEVEL [> ₹ 2,00,000]

- All Gold Level Benefits +
 - Invitation as a guest of honour for the launch event.
 - Separate hoardings in campus during campus festivals.
 - Listed as a main sponsor at race events
 - Special mention of sponsors in official season recap video

GOLD LEVEL [> ₹ 1,00,000]

- All Silver Level Benefits +
 - Preferential access during recruitment drives at IITK
 - Special Recognition in Team Newsletters.
 - Personalized Team Merchandize with Team Photo

SILVER LEVEL [> ₹ 50,000]

- All Bronze Level Benefits +
 - Logo Featured on Team T-shirts
 - Hoarding on Pits during Competitions
 - Publicity in the College Festivals

BRONZE LEVEL [< ₹ 50,000]

- Name featured on team's official website
- Logo featured on Car
- Partnership Certificate
- Promotion on Social Media



WAYS TO SUPPORT US



Monetary Support allows the team to cover its expenses and sustain its group



Providing us **products** for free or at a discounted price will take us closer to completing our dream to make a world-class car.



Logistic Support helps us in transportation of goods and our vehicle Intra or Internationally



Manufacturing Support helps us make our designs a reality



Technical Insights from industry experts allows our team to develop valuable insights to help us build a racecar and prepares our team members as they enter the industry

Our Previous Sponsors



Already Onboard

FOR IITK MOTORSPORTS' FIRST EV



A TOKEN OF THANKS

We hope the above details provided a better insight into our team, its functioning and your role as a partner to help us achieve the best. We are eagerly looking forward to build a strong relationship between you and team IITK Motorsports.

If you have any queries or suggestions, we would be more than happy to discuss them with you.

Yours sincerely,
Team IITK Motorsports

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