MCET renn

"Believe, the best is yet to come"

International Formula Student team of

DR MAHALINGAM MCET

COLLEGE OF ENGINEERING AND TECHNOLOGY

Enlightening Technical Minds

Under the guidance of

Dr. Calvin Sophistus King

FORMULA STUDENT SPAIN

2014

MCET renn

Dr. Mahalingam College of Engineering and Technology, India

What is MCET RENN?

MCET RENN is a formula student team of Dr. Mahalingam College of Engineering and Technology dedicated to designing, testing, building, and competing an open wheeled race car. As a recognized student organization, the *MCET RENN* team, now in its third year, is comprised of various majors and currently serves as a senior project for both automobile and electrical engineers. The project provides invaluable hands-on experience in automotive design as well as project management and experience to all its participants.

Formula student is one of the prestigious competitions in the IMechE design series. Our goal is to design, manufacture, test and race a scale Formula race car, based on regulations and standards similar to those imposed on professional motor sport teams. By systematically addressing previous mistakes and constantly innovating, we streamline our process each year and build faster, more reliable cars.

This exercise immerses students of all backgrounds in an environment that of a professional race team. The multidimensional nature of the Formula student experience is an invaluable educational tool.

2014 Sponsorship Package

Where we're from?

The 2013-2014 Dr.MCET Formula student car will be the third consecutive MCET RENN vehicle. The team has produced one vehicle annually for competitions since 2011-2012 academic year in national events. This is MCET's first vehicle going to participate in international event. Apart from that our students has participated in other events such as SAE BAJA India (purely an off road vehicle), SAE Efficycle (an hybrid tricycle), ISNEE NGKC (A Go-Kart vehicle) and other national level RC car events. MCET is basically known for their innovations.

Where we're going?

Academic Goals

As an academic club, our mission is not, in fact, to win competition (although that is a very second). Our goal is to practically apply principles learned from coursework in real-world simulation. By providing ourselves with this experience, we are able to understand these principles better and enhance our own education. Formula student produces graduates who are more marketable due to this experience and their motivation to exceed coursework requirements.

Also, although Formula student is primarily an engineering competition, MCET Renn and other teams offer opportunities to other majors to apply their own knowledge to the project. Business, communications, arts, and other fields are all applicable to Formula student projects, just as they are in real-world simulations.

Technical Goals

Improvement of our established designs, manufacturing processes, and management, is compounding from season-to-season. Refinement of all aspects of the car and team is not only beneficial to competitiveness as a race team, but also allows us to learn more about engineering practice as students. Additionally, as we transfer the team to a younger generation of students, we provide them with much more knowledge.

As we battle towards the top in competition, we have implemented long term goals such as: vehicle weight reduction, parts reduction, manufacturing simplicity, improved management communication, effective team marketing and others.

SAE Testimonials

"Students that are involved in team projects are much more successful and sought after by industry than students who do not have the advantages of teamwork, professional development and the hands- on skills developed by the competition. A debt of gratitude is owed to SAE and the countless individual corporate sponsors and volunteers who contribute time and money to the competitions"

Dr. Robert Woods
Professor of Mechanical Engineering
University of Texas at Arlington

Joey Penniman
SJSU Alumnus 2009
Mechanical Engineer
Tesla Motors

"FSAE was the most rewarding project of my academic career. It allowed me to push my creativity and my knowledge as much as I wanted, and I was ultimately hired to my first job because of it. I made lifelong friends, traveled the world, built a race car, and improved my engineering skills all with the decision to participate in Formula SAE."

"The Formula SAE® project was the first opportunity I had to see my ideas develop fully into hardware. Some of the designs worked ... others didn't ... but the opportunity to go through that learning curve took engineering out of the textbooks and into the real world for me."

Renee Sears
Manager
Ford Motor Company

Dean Case
Engineer
Nissan Motor Corporation

"Without a doubt my SAE student activities helped me in so many ways. It kept me focused on my goal of an automotive career, it gave me experiences that helped me secure my best job interviews, plus it was a lot of fun."

2014 Sponsorship Package

Sponsor Benefits

In the two years since its formation "*MCET RENN"* has developed into a competitive name in Formula Student. With your donations and contributions, we will continue to refine our design and production and gain invaluable experience in applied engineering design and management. We promote our sponsors at a number of events each year, attracting engineering professionals, upcoming graduates, and motor sports enthusiasts. Some benefits of sponsorship include:

Tax deductible contributions
Visibility to an international audience via:
* Vehicle decals
*Team apparel
*Towing vehicle decals/vinyls
*Website
*Monthly newsletters

- Association with worthy causes: higher education, industrial training, etc.
- Access to students with applied experience as prospective employees.
- Reach to new buyers in scholastic, motor sports, and collegiate markets.

Annual events of MCET*:

SAE SUPRA

"***SUPRA*** SAEINDIA is a great event which gives a real platform to students to test their engineering skills and refine them by learning from their little mistakes."

SAE BAJA India

Baja SAE is an intercollegiate engineering design competition to design, build and race off-road vehicles that can withstand the harshest elements of rough terrain. The vehicles used in Baja SAE racing are often similar in appearance to dune buggies.

SAE Efficycle

The Human Powered Vehicle would cater to the day-to-day mobility needs of people, also at the same time would embark upon the idea of fuel conservation. The purpose for the initiation of such an event can be accounted to providing an opportunity for engineering students to set up a trend of using eco-friendly vehicles in India and pioneering the creation of innovative designs.

ISNEE NGKC

The competition is basically to design and fabricate a Go-Kart on an extremely low budget followed by a competition of the selected teams. The Project is to be completed by the students without direct/indirect involvement of the professionals, which will lead them towards team work and project management.

ISNEE Quad Torc

Quad is a four-wheeled bike, which was initially developed as a farm-to-town vehicle in isolated and mountainous areas. This competition is to design and fabricate a QUAD BIKE under some rules and regulations specified in the rule book.

LPU ESVC

"ELECTRIC-SOLAR VEHICLE CHAMPIONSHIP" is a Solar Vehicle Challenge hosted for the First time in India by RISC-LPU.

MCET ACHIEVEMENTS

Was selected for the final events of SAE-BAJA for two consecutive years 2013 and 2014

Was selected for the final event of SAE-SUPRA (2012) and won the Best Innovation award with a cash prize of Rs.45,000/- . Also selected for the final event of SUPRA 2014

Won the 'Best Hybrid Vehicle' award in SAE-Efficycle 2012 with a cash prize of Rs.25,000/-. Also ranked the 20th position in National level for the same event in 2013

Won the 'Best Design' and 'Best Innovation' award in National Go-Kart Championship 2013 conducted by ISNEE with a cash prize of Rs.45,000/-

Won various titles in RC Racing held at IITs and other National Institutes

2014 Sponsorship Package

(SAE SUPRA-2012)

(SAE BAJA INDIA-2013)

(SAE BAJA INDIA-2014)

(SAE EFFICYCLE-2012)

(SAE EFFICYCLE-2013)

(NGKC-2013)

2014 Sponsorship Package

Sponsor Packages

Bronze Package ($500+)

Your company name on vehicle
Your company (hyperlinked) on Formula Student team website
Team photo
Your company logo featured on team T-shirt

Silver Package ($1000)

Bronze package benefit plus:
Upgrade to 10 square inch logo on vehicle nose
Plaque with team photo

Gold Package ($2500)

Silver package benefits plus:
Upgrade to 15 square inch logo on top of vehicle
Your logo displayed at all events

MCET RENN Package ($5000)

Gold package benefits plus:
Upgrade to 20 square inch logo on top of vehicle
Company name mentioned in press releases, newsletters, and interviews
Company logo featured on tow vehicles

Media partner

Publicity for you company

International Publicity:

The Formula Student competitions attract over 100 teams and numerous corporate giants such as Mercedes Benz Siemens, Seat etc. from all over the world, thus generating tremendous media interest as well as an opportunity to connect with many businesses, which could lead to potential corporate partnerships with your company.

Types of Sponsorship

Logistics

Travel Partner

Raw Material

Office Supplies

Tools and Safety Equipment

Print and Media

Apparels

Refreshment

2014 Sponsorship Package

Adopt a part

Donations can be made towards specific parts of supplies. By doing so, you will "adopt" parts of our car to help with its completion. Please inquire about pricing of individual components. Next time when you see MCET RENN vehicle in media or on track, you can point out your contribution.

A donation of any amount is greatly appreciated!

Cheque can be made payable to SGS MCET.

Supporting the project and the team, you are supporting the youth motor sport in India.

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Sample budget

Chassis	
Tubing	15,000
Seat	15,000
Steering wheel	5,500
Dash Interface	2,500
Impact Attenuator	13,641
Fasteners	2,000
Bracket Metal	2,000
Seat Belts	13,500
Laser Cutting	2000
Welding	5,000
Subtotal	**76,141**

Powertrain	
Engine	2,72,000
Wiring	2,000
Header	1,000
Intake	1,500
Radiator core	1,500
Radiator plumbing	500
Radiator fan	1,250
Oil cooling system	400
Oil filter system	500
Replacement fluids	1,250
Spark plugs	200
Carburettor	3000
Chain	600
Sprockets	750
Engine Components	2,000
Differential unit	65,000
Half shafts (Axles)	3,000
Mufflers & Packing	6,000
Race fuel	1,500
Fuel system	1,500
Subtotal	**3,67,450**

Drivers	
Suits	44,000
Helmets	12,500
Fire extinguisher	3,250
Subtotal	**59,750**

Composites	
Carbon Fiber	28,000
Core Material	5,000
Resin	15,000
Expanding foam	3,000
Misc. Supplies	1,500
Fasteners	300
Subtotal	**52,800**

Suspension	
8 wheels	56,000
Dry Tires (8)	1,00,800
Wet Tires (4)	51,840
Wheel Bearings	1,200
Steering Rack	5,500
Dampers & Springs	1,00,000
Master cylinder	2,880
Brake calipers	88,000
Brake lines	1,500
Tie Rod ends	1,500
Brake fittings	2,000
Misc. Hardware	2,500
Subtotal	**4,13,720**

Data Acquisition	
System	8,000
Wiring harness	2,000
Sensors	4,000
Subtotal	**14,000**

Administrative	
Website	2,000
Registration	1,35,000
Freight cost	2,85,000
Vehicle packing	22,000
Air tickets for 20 members	16,00,000
Subtotal	**20,44,000**

Grand total	**Rs.30,27,861**

Team MCET Renn 2013-14

Team Leader

Team Manager

Treasurer

Technical Team

CAD & Aero

Power Train

Vehicle Dynamics

Electronics

Management Team

Finance

Marketing

Drivers

Contacts

S.H.Syedvaseem
Team Lead & Marketing Lead
vaseemair@gmail.com
+91-8675867639

D.Mathan Kumar
Treasurer
d.mathankumar18@gmail.com
+91-9597013196

Dr. Calvin Sophistus King
Team Manager
calvin@mcet.in
+91-9942908422

Thankyou for your interest in our team!

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