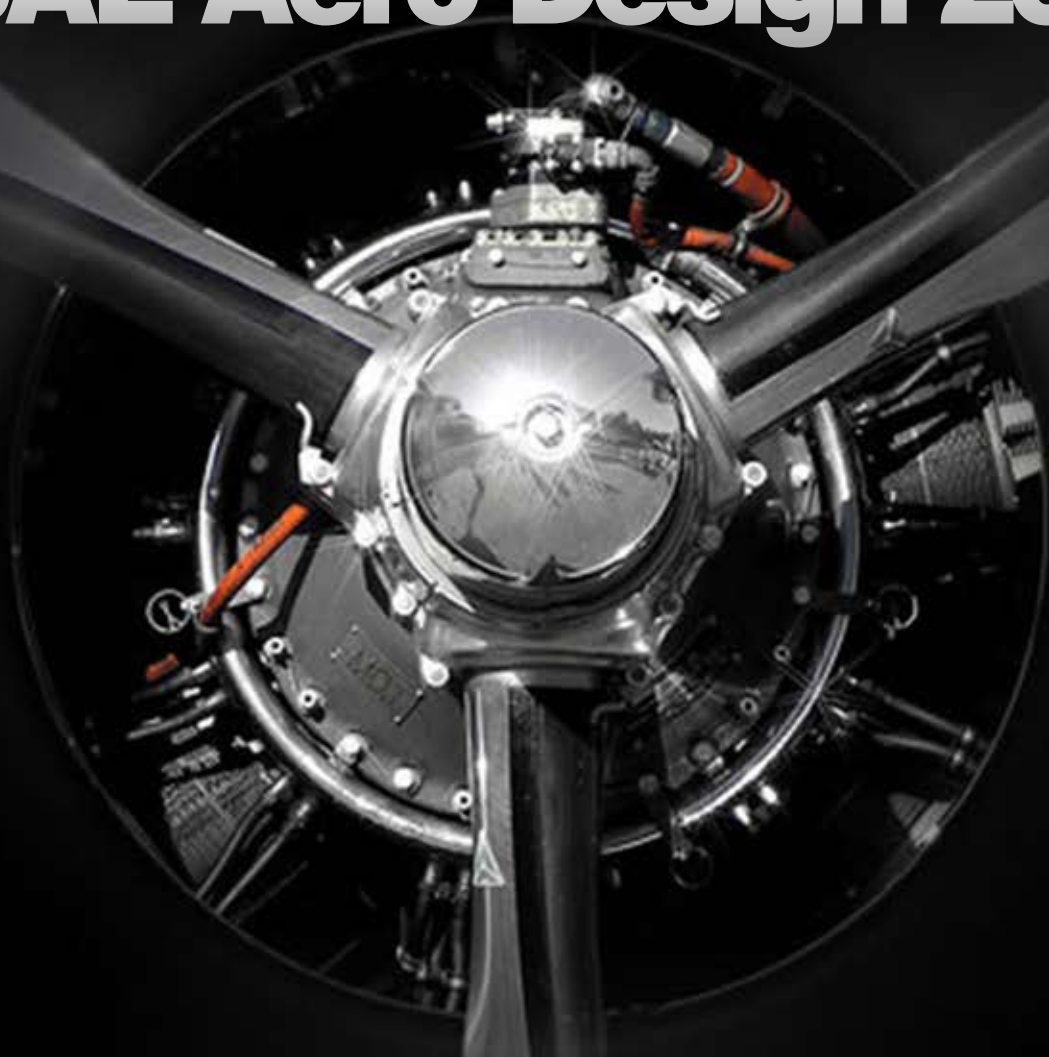teamunwired

teamunwired
SAE Aero Design 2013

Marketing Brochure
2012 -2013

NIT Calicut is pleased to announce the participation of Team Unwired in Formula Student UK, 2013. The event is organized by the Institute of Mechanical Engineers (IMechE) and is held annually at the Silverstone race track, the "Home of British Motor Racing"

Team Unwired is a student club at National Institute of Technology Calicut dedicated to undertaking student engineering projects and competitions. It is a joint venture between Club Unwired- the engineering and technology club of NIT Calicut and SAE India Collegiate Club NIT Calicut- the NIT Calicut chapter of SAE (Society of Automotive Engineers).

Club Unwired has been at the forefront of technical projects at NIT Calicut, with an aim of providing students hands on learning which supplements classroom learning, strengthens fundamentals and cultivates skills that will help the students further their career objectives.

Our current project SAE Aero Design 2013 is the most challenging one undertaken and we need all the support and guidance the industry can offer.

Thanking you,

Team Unwired
NIT Calicut

Dear Future Partner,

Each year Team Unwired tries to push itself to the limits, broadening their understanding of the engineering subject and bringing NIT Calicut to the forefront by participating in such competitions. In the years 2010 and 2012, they participated in Baja SAE, creating a comfortable niche for them in the nationwide competition. Baja SAE India is a national level event where students build an all-terrain vehicle from scratch.

With the confidence they gained, they intend to compete again in a much more challenging competition series and by choosing to work with them, you will be joining one of the best teams from the Indian sub-continent. Your support will be repaid throughout the year at high profile events such as our appearance at SAE Aero Design, and our plane unveiling event. You will also gain direct access to our most elite students in the county, giving you the best possible opportunity to seek potential employees.

Associating your brand with NIT Calicut's Team Unwired will be useful to both parties and so I request you to consider becoming our partner in both our national and international success.

Best wishes,
Mr. Shijo Thomas,
Faculty Advisor,
Team Unwired, NIT- Calicut

"**Aerodynamically, the bumble bee shouldn't be able to fly, but the bumble bee doesn't know it so it goes on flying anyway.**"

- Mary Kay Ash
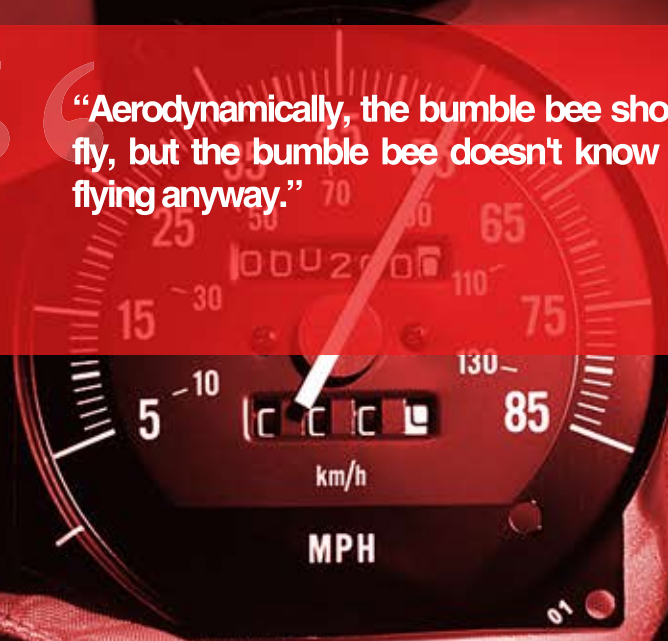
SAE Aero Design East

The SAE Aero Design East is an international competition intended to provide undergraduate and graduate engineering students with a real-life engineering challenge. The competition has been designed to provide exposure to the kinds of situations that engineers face in their real-life work environment. The students have to come up with a Remote controlled aircraft design solution that will optimally meet the mission requirements while still conforming to the configuration limitations and fabricate the same.

The competition aims to inspire and develop enterprising and innovative young engineers from around the world. It gives students an opportunity to learn new skills and showcase their talent. In addition to technical skills the team acquires management, marketing and people skills, valid across all sectors of employment.
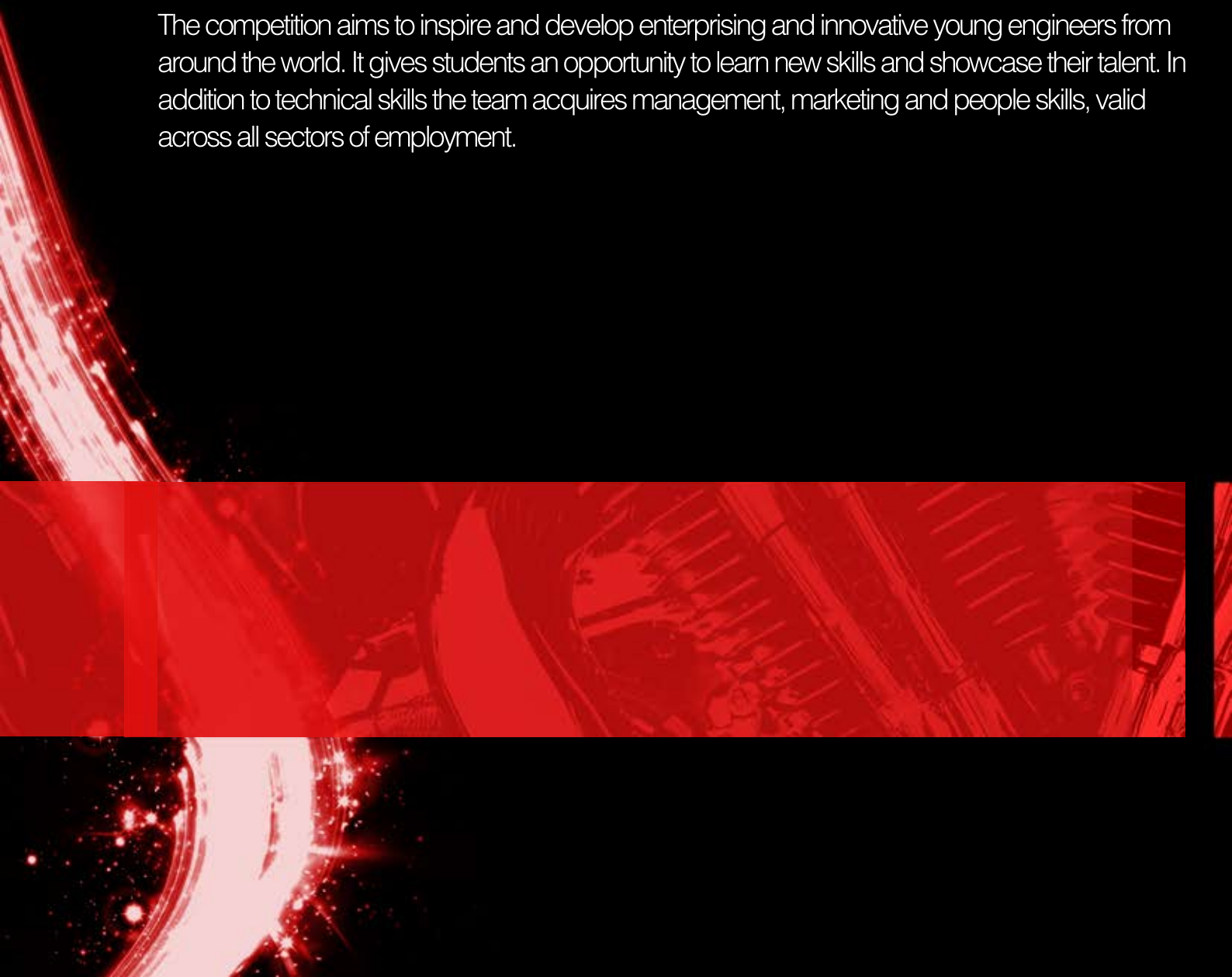
Team Unwired History at BAJA SAE INDIA

(http://www.bajasaeindia.org)

Baja SAE Asia 2010
Unwind 1.0

- First team to use:
  - Custom made gearbox with inbuilt LSD (Limited Slip Differential)
  - Chromoly as chassis material
  - Third lightest vehicles in BAJA history
- 7th best in design

Baja SAE India 2012
Unwired 2.0

- 16th overall out of 250 teams
- 3rd in hill climb
- 8th in speed test
- Dronacharya award (Best Faculty in charge)

Techinical Specification

- Maximum combined length width and height of 225 inches.

- Maximum weight of 55 pounds with payload and fuel.

- Engine- OS61fx with 4010 muffler.

- Fuel- 10% nitro methane fuel

- RC 2.4 GHz radio (Turnigy 9X).

- Plane structure using Balsa wood.

Design Objective

The objective of Regular Class is to design an aircraft that can lift as much weight as possible while observing the available power and aircraft's length, width, and height requirements. Accurately predicting the lifting capacity of the aircraft is an important part of the exercise, as prediction bonus points often determine the difference in placement between competing teams.

The Regular Class will be divided into 3 phases as follows:

Phase 1: Technical report

Teams will electronically submit their proposals for competition detailing how their design has met or exceeded the design requirements.
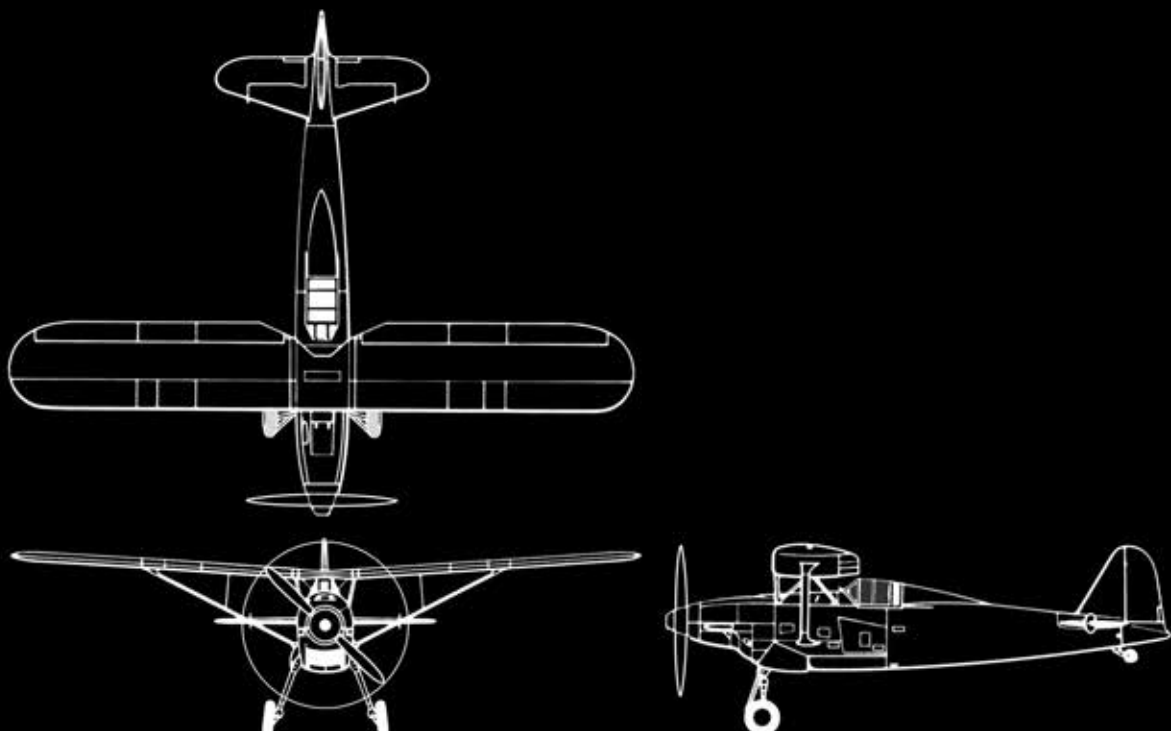
Phase 2: Technical Presentation and Inspection

Phase 2A – Payload Loading Demonstration (timed event during Oral Presentation).

Phase 2B – Payload Unloading Demonstration (timed event during Oral Presentation)

Phase C – Oral Presentation

Phase 3: Flight Competition

FSUK Project Budget

- REGISTRATION INR 36,000.00

- ENGINE INR 16,000.00

- BALSA WOOD INR 25,000.00

- ELECTRONICS HARDWARE INR 30,000.00
Date acquisition: Data logger, Wireless System, Sensors, Circuitry, servo motor

- OTHER PARTS INR 10,000.00

- MACHINING COST INR 10,000.00

- SHIPMENT OF PLANE INR 200,000.00

- TRAVEL EXPENSES INR 3,50,000.00

GRAND TOTAL INR 6,52,000.00

Project Budget Brakedown

■	Registration
■	Engine
■	Balsa
■	Electronics Hardware
■	Other Parts
■	Machining Cost
■	Shipment of Plane
■	Travel Expences

5% 2% 4% 4% 2% 1%

52%

30%
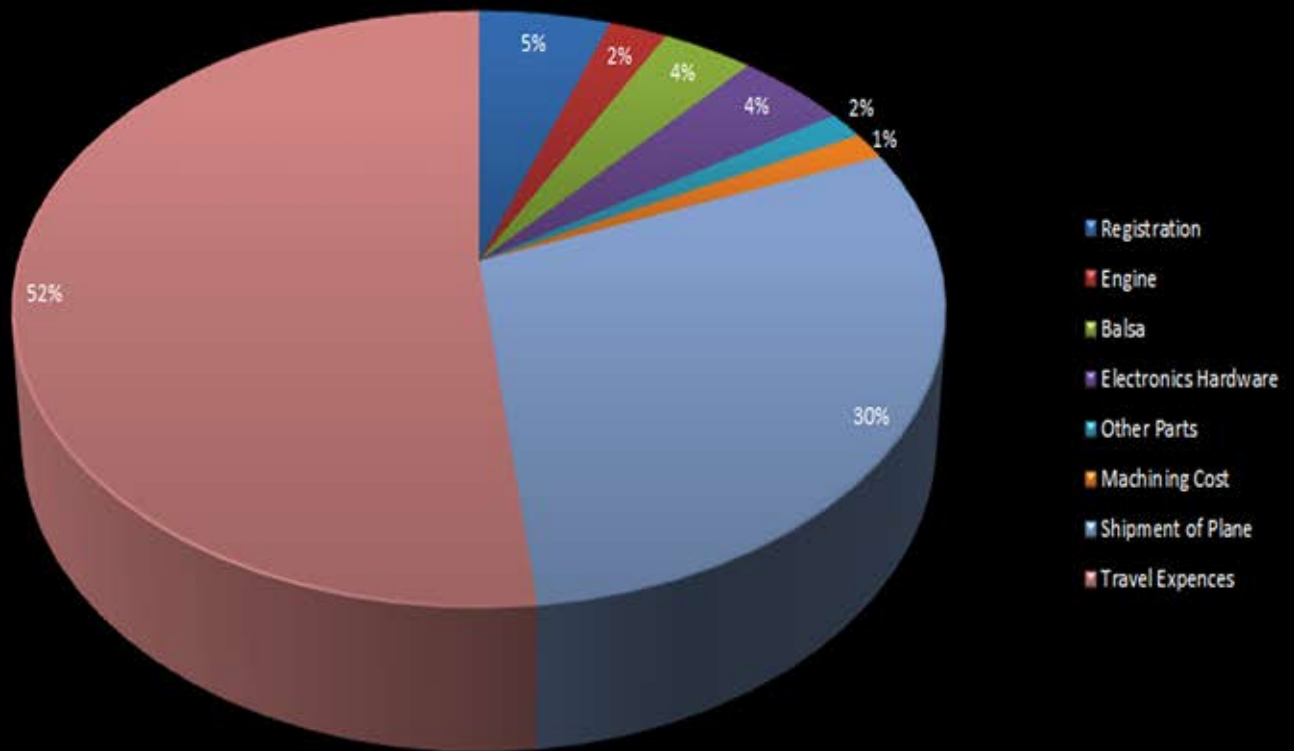
Team Structure

Team Leader

Surya Pratap Singh	Nabeel M Abdullaht	Arun Prabhakar	Vineed Biju	Paul Alex
Fuselage	Empennage	Marketing	Wing Design	Drafting Design
Empennage	Landing Gear	Airfoil Design	Take-off Analysis	Take-off Analysis
Airfoil design	Fuselage	Fuselage	Motor and Propeller	Wing design
Marketing		Landing gear		

Schedule

	2012						2013		
	July	August	September	October	November	December	January	February	March
Team Organization	███								
Knowledge Acquisition		███	███	███					
Design and Analysis			███	███	███	███			
Plane Fabrication						███	███	███	
Testing and Troubleshooting								███	███
Flying Practice								███	███
Publicity and Maeketing		███	███	███	███	███	███	███	███
SAE Aero Design 2013									███

Why Take Part in The Competition?

For Team Unwired:

Team Unwired always attempts to challenge itself and forge ahead in its endeavors and thus, having participated in national level competitions and having created a comfortable niche for itself, the team intends to participate in what is considered the most challenging undergraduate engineering project. Participation in SAE Aero Design East is not just a matter of prestige; participants inevitably acquire greater skills in design, fabrication, and management. Thus participation in SAE Aero Design East 2013 caters to our every goal.

Through this project, each team member will gain office, industrial and training experience before completing his/her degree, making them industry-ready. A higher order of discipline, management and people skills will be gained over the course of this project in addition to confidence and efficiency.

For You:

A global event consisting of over 75 teams from different universities will draw an exceptional amount of media coverage and allows for great advertising. Team unwired is the only team participating in the event from Kerala and is one of the very few teams from India. SAE Aero Design is considered the world's largest student aeromodeling event and provides extensive media coverage through which your advertisement opportunities are numerous.

The company will be supporting a positive educational cause through which the ideas of a group of likeminded diligent students will become a reality. There will be a group of trained and motivated students in an array of areas of expertise ready for recruitment purposes in the near future for the company. A strong link between academia and the industry will thus be created.

Sponsorship Categories

Title Sponsor   4,00,000.00 INR*

- The company that provides the maximum sponsorship for Team Unwired is entitled to the Title sponsorship category and we gratefully propose the following benefits:
- The plane will be named after your company. It will be in the format :<Company Name><Name of the Plane>
- Logo (Large) on any other two choices of location on Plane
- Logo (Medium) on any other two choices of location on Plane
- Logo (500,000 mm^2)
    - Team Unwired Workspace entrance
    - Team pit entrance banner
- Logo (10,000 mm^2)
    - Team Unwired apparel ie t-shirts, jackets
- Logo on posters, website, Paathsaala (A Content sharing repository inside NITC), Twitter, Facebook, YouTube videos.
- Direct hyperlink to your firm's website from our Aero website.
- Logo on stalls in our technological festival Tathva and our cultural festival Ragam
- Logo on footer of mail sent out to alumni and newsletters
- Monthly newsletter of Team Unwired progress
- Team and Plane available for corporate events display after the completion of event
- Records of requested team members for recruitment purposes

Sponsorship Categories

Gold Sponsor   2,00,000.00 INR*

- Large Logo (Medium) on side panels of car
- Logo (8,000 mm^2) on
  - Team Unwired apparel ie t-shirts and jackets
- Logo (250,000 mm^2)
  - Team Unwired workspace entrance
  - Team pit entrance banner
- Logo on posters, website, Paathsaala (A Content sharing repository inside NITC), Twitter, Facebook, YouTube videos.
- Direct hyperlink to your firm's website from our Aero website.
- Logo on stalls in our technological festival Tathva and our cultural festival Ragam
- Monthly newsletter of Team Unwired progress
- Access to unveiling of the car event
- Team and Plane available for corporate events display after the completion of event t
- Records of requested team members for recruitment purposes

Silver Sponsor   1,00,000.00 INR*

- Medium sized Logo (20,000 mm²) on side panels of car
- Logo (6,000 mm²) on Team Unwired apparel ie t-shirts and jackets Team Unwired racing suit
- Logo (100,000 mm²)
  - Team Unwired workspace entrance
  - Team race pit entrance banner
- Logo on posters, website, Paathsaala (A Content sharing repository inside NITC), Twitter, Facebook, You-Tube videos.
- Direct hyperlink to your firm's website from our Aero website.
- Monthly newsletter of Team Unwired progress

Thank You

Thank you for taking the time to learn more about Team Unwired. Our success during the 2012 season at Baja SAE India would not have been possible without the support of our gratified and enthusiastic partners, and with your support we are sure to make the 2013 season at SAE Aero Design East, our very first international event a greater success.

Contact Us

If you are interested in supporting Team Unwired, NIT Calicut please feel free to contact any of the following.

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KIND ATTN: Mr. Shijo Thomas /
Dr. V Sajith

Email: aero@teamunwired.org

VISIT THE TEAM WEBSITE AT

www.teamunwired.org

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