



3000

A CHAIN EVENT OF
INTERNATIONAL SOLARCAR FEDERATION

REGISTRATION BROCHURE

AN INDIAN SOLAR CHALLENGE

ORGANIZED BY:



CO-ORGANIZED BY:



RECOMMENDED BY



INVITATION

On the behalf of Imperial Society of Innovative Engineers -ISIEINDIA [A National Youth Award 2015-16 Winner, Accredited with FMSCI (Ministry of Sports) and Automotive Research Association of India (ARAI) Supported by Ministry of New and Renewable Energy, MNRE, Govt. of India, we are glad to invite your institute's student team to contribute to Nation's E-Mobility Mission through participation in Asia's Biggest Electric-Solar Vehicle Design and Rally Event: "ESVC-ELECTRIC SOLAR VEHICLE CHAMPIONSHIP - 3000". Hence we invite your institute to register for the same.

ESVC 3000 was emphasised by Ministry of Heavy Industries and Public Enterprises and various Automotive OEM's at Launching Ceremony of ESVC -3000 in presence of Chief Guest Shri. Arjun Ram Meghwal (Minister of State, Heavy Industries and Public Enterprises), Guests of Honour Dr. Reji Mathai (Director, ARAI), Dr. Arun Jaura (Managing Director, Michelin), Mr. Sohinder Gill (Director General, SMEV), Mr. Chris Selwood A.M. (Event Director, BWSC) and Special Guests for the ceremony Mr. Ashutosh Jha (Head, OEM Business for India and SAARC Countries), Mr. Venugopal Rao Nellutla (President, ETO Motors), Mr. Vineet Kumar Singh (General Manager, MG Motors India), Mr. Raghav Mittal (Editor, ReThink India), Mr. Sumantra Barooah (Executive Editor, Auto Car Professional).

ESVC has successfully showcased futuristic research projects which were appreciated by PMO India, DG of ONGC and Delegates from 22+ Countries during GES & GMX New Delhi.

Event Schedule:

Event Registration:	Open (www.esvc.in)
Online Mentorship:	June 2022
Final Round:	Oct, 2022

We hope that your student team along with faculty will be able to join us for this unique opportunity to strengthen the role of E-mobility in India.

Thank you!

Best Regards,
Mr. Vinod K. Gupta,
President -Imperial Society of Innovative Engineers (ISIE).
Ph. 020-4538457/58 | E-mail: electricsolarvehicle@gmail.com
Website: www.imperialsociety.in | www.esvc.in

ABOUT ORGANIZERS

ORGANIZERS



ISIEINDIA is the most popular and favorite E-mobility Motor sports, Education and Research Publication organization in India among engineering institutes and green energy research organization. ISIEINDIA has become one of the epicenter of green energy concept development in India. We are motivating people (Engineers + Future Engineers) to work on New and Renewable Sources of Energy. We provide the platform to new start-ups, Innovative ideas and passionate people, who really want to contribute to society.

We are giving our innovative services to more than 50,000 + peoples. Our services and product have been appreciated and noted by delegates from 22 countries. We are an associate member of FMSCI and SFI International. We have been awarded by National Youth Award by Ministry of Youth Affairs, and recommended by Ministry of New and Renewable Energy. ISIEINDIA is the 1st society in India which is motivating engineering students to work on commercial green Mobility.

CO-ORGANIZERS



Automotive Research Association of India (ARAI), established in 1966, is the leading automotive R&D organization of the country set up by the Automotive Industry with the Government of India. ARAI is an autonomous body affiliated to the Ministry of Heavy Industries and Public Enterprises, Government of India. The Department of Scientific and Industrial Research, Ministry of Science and Technology, Government of India, has recognized ARAI as a Scientific and Industrial Research Organisation (SIRO). Further, ARAI is one of the prime Testing and Certification Agency notified by Government of India under Rule 126 of Central Motor Vehicle Rules, 1989.

ARAI has been playing crucial roles assuring safe, less polluting, more efficient and reliable vehicles. Working in harmony and confidence with its Members, Customers and Government it provides services and expertise in the areas of Engineering Services, Certification & Standardisation, Research & Development, Technology Development and Knowledge Initiatives. And also offers Automotive Technologies and India Specific Data Bases for automotive product development for Indian market.

ASSOCIATED WITH



ENDORSED BY



RECOMMENDED BY



INDUSTRY PARTNERS

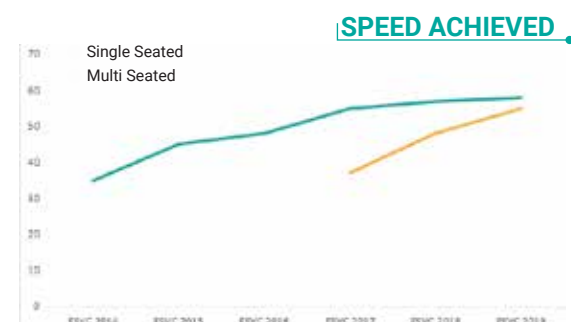
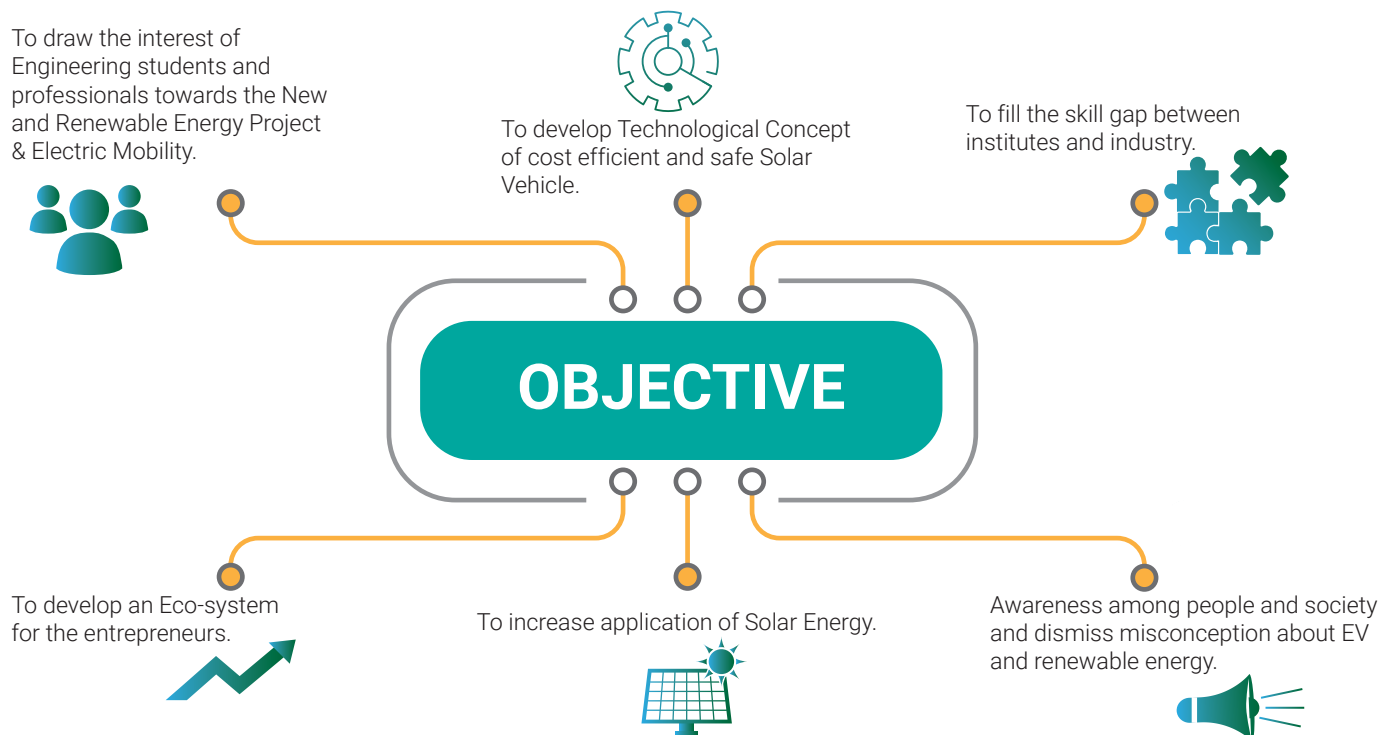


ABOUT ESVC

Electric Solar Vehicle Championship (ESVC) is Asia's largest solar challenge initiated by Imperial Society of Innovative Engineers (ISIEINDIA) in 2013. Being the oldest E-Mobility Design and Development challenge in India, it has provided platform to passionate and innovative minds across the nation.

The rules and regulations of this event is revised each year in order to push the limits and boundaries of electric mobility, and solar energy to efficiently run the vehicle.

We aim to build the society's interest in renewable energy, electric mobility and generate skilled engineer and entrepreneurs of New India. We have categorized and laid rules and regulations for participants from different walks of life – school students, graduation/ post-graduation students and professionals.



08 YEARS
22 STATES | 540 TEAMS

- Creating Awareness
- Entrepreneurship
- Promote Make in India
- Women Empowerment
- Technology and Innovation

ABOUT ESVC

ADVISORY COMMITTEE



SHRI ARJUN RAM MEGHAWAL
Hon'ble Minister of State
Ministry of Parliamentary Affairs



SHRI ANIL SHRIVATSAVA
Pr. Advisor and DG, DMEO
NITI AAYOG



PROF. ANIL D SAHASRABUDHE
Chairman,
AICTE



SHRI SOHINDER GILL
Director General
SMEV



DR. REJI MATHAI
Director
ARAI



SHRI ARINDAM LAHIRI
Chief Executive Officer
ASDC



MR. CHRIS SELWOOD
Event Director
BWSC, Australia



MR. VINOD GUPTA
President
ISIEINDIA



DR. K.C. VORA
Sr. Dy. Director and Head
ARAI Academy



DR. ARUN JAURA
Managing Director
Michelin



MR. ASHUTOSH JHA
Head OEM,
Michelin India



MR. VINEET SINGH
General Manager - Production,
MG Motor



MR. V.G. RAO NELLUTLA
President,
ETO Motors



MR. R.S. BAWA
Vice Chancellor,
Chandigarh University



PROF. AMBARISH S. VIDYARTHI
Vice Chancellor,
Bikaner Technical University



MR. SUMANTRA BAROOAH
Associate Editor,
Autocar Professional



DR. M.V. UCHHGAONKAR
Sr. Dep. Director & Head,
HRMA, ARAI



MR. CHARUDATTA MUKHEDKAR
General Manager
ID, ARAI



DR. ASHWINI SHARMA
Dean,
ADAMAS University



DR. MOHD. RAFIQ BABU AGREALE
Manager,
ARAI Academy, ARAI



DR. YOGESH K BHATESHVAR
Asst. Faculty,
ARAI Academy



MR. AJAY ROPALEKAR
Manager,
HRMA, ARAI



MR. PRASHANT WARADE
Deputy Manager,
ID, ARAI

ORGANIZING COMMITTEE



Arjun Ram Meghwal

Hon'ble Minister of State - Ministry of Parliamentary Affairs

LAUNCHING CEREMONY

The launching ceremony of the Electric Solar Vehicle Championship had been held virtually on April 19, 2021. Shri. Arjun Ram Meghwal (Minister of State, Ministry of Parliamentary Affairs) launched the event in presence of the guests from ARAI and Various Automotive OEMs, Academia, and Media.

The Chief Guest presented his speech which emphasized the importance of the event and the need of the hour of such initiatives. The support and help for the success of the event will be provided by the Ministry of Heavy Industries will help the nation to meet the requirements of Innovation and Technology of E - Mobility, He added. The Guest of Honours and other delegates also delivered their speech focused on the importance of the use of Renewable Energy resources and the need for such events to promote E - Mobility.

Chief Guest for the ceremony was Shri. Arjun Ram Meghwal (Minister of State, Heavy Industries and Public Enterprises), Guests of Honour were Dr Reji Mathai (Director, ARAI), Dr Arun Jaura (Managing Director, Michelin), Mr Sohinder Gill (Director General, SMEV), Mr Chris Selwood AM (Event Director, BWSC) and Special Guests for the ceremony were Mr Ashutosh Jha (Head, OEM Business for India and SAARC Countries), Mr Ashwani Malik (CTO, Escorts Limited), Mr Venugopal Rao Nellutla (President, ETO Motors), Mr Vineet Kumar Singh (General Manager, MG Motors India), Mr Raghav Mittal (Editor, ReThink India), Mr Sumantra Barooah (Executive Editor, Auto Car Professional).



ESVC JUNIOR



ESVC ENGINEERING



ESVC 3000



Greater Noida

Agra

Lucknow

Gorakpur

01 WEEKS

ABOUT EVENT

Imperial Society of Innovative Engineers (ISIEINDIA) is introducing a solar rally, never seen before in India. The participants along with their support teams will make a journey of about 1000 km, from Greater Noida, Gorakpur. This journey is to be completed in 1 week, with an approximate travel of 250 km per day.

The vehicle to be run under this event are to be fabricated by the teams themselves, under the compliance of rulebook published by us.

The event is all about energy management. The vehicles have the option of charging their battery pack using solar panel or via., Regenerative braking. This is to make these vehicles as sustainable as possible.

ORGANIZED BY:



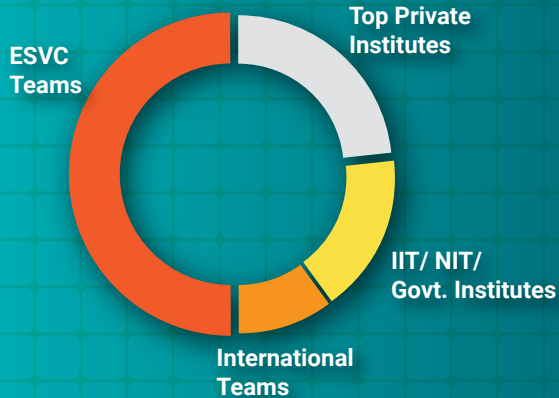
CO-ORGANIZED BY:



PARTICIPATION

We have an estimation of 60 teams in total taking part in our program. Where 10% international teams are expected.

Out of all teams registered we are expecting at least 30 teams to be able to clarify the mandatory vehicle fitness test for the rally.



PATROLCAR

There will be 2 Patrol Cars at each checkpoint. These patrol cars will make round to and fro between check points in order to ensure the safety of teams and act as rapid response team in case of accident or emergency. This vehicle will consist personnels from organizing committee with first aid.



OVERNIGHT STAY

05:00 P.M.



CHECKPOINTS

START
08:00 A.M.



FINISH

50 Km

50 Km

50 Km

50 Km

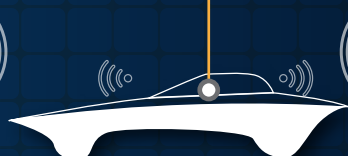
50 Km

AMBERFLASHING LIGHTS

These lights are to be fitted on top and at the back of the vehicle in order to warn the public coming from behind about the danger.

ESCORTVEHICLE

SOLARCAR



ESCORTCAR

This vehicle will consist of safety equipments and kits. It will act as a emergency rescue vehicle in case of an accident. This vehicle will also act as navigator for the team. Also one person from organizing team will be present in the vehicle as - Observer

RADIO COMMUNICATION

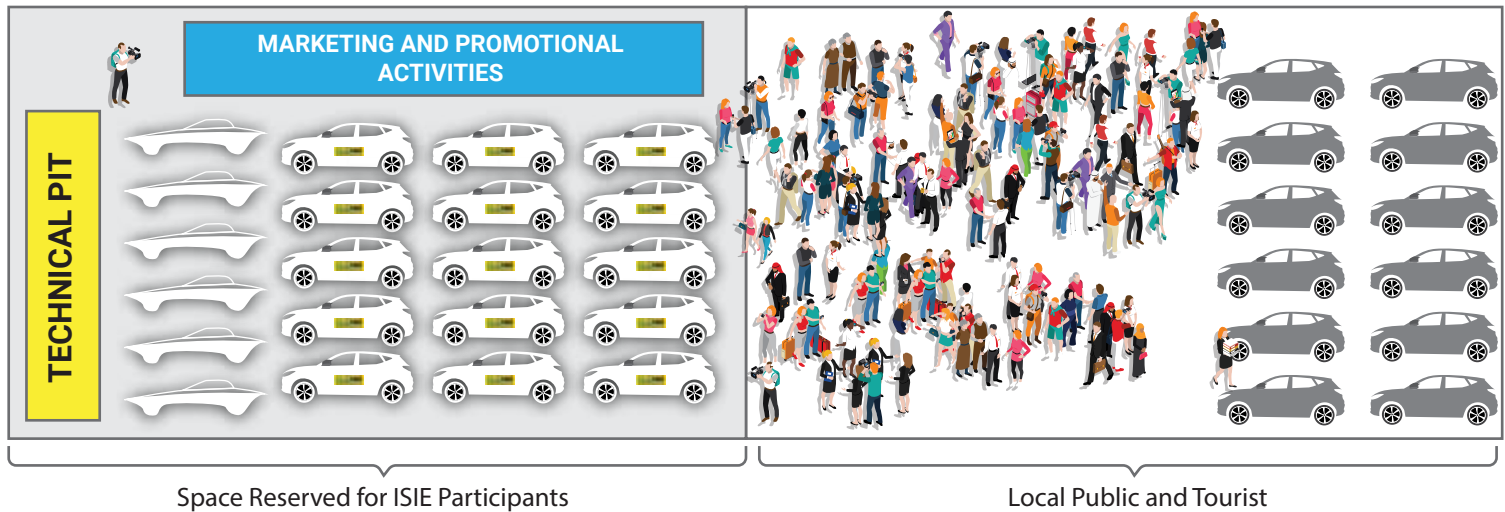
The radio communication is necessary to maintain proper synchronization between the escort vehicle and for the driver to be able to update the teams on the situation. It is compulsory for teams to have radio communication between the solar car, Escort Vehicle and Team Car.

TEAMCAR

This vehicle will consist of team members trailing the car and basic equipments which can be used to repair the car in case of emergency or breakdown.

CHECKPOINT

Restaurant / Institutes



Checkpoint will be established at every 50 km of the course for the day. These check points will be there for the teams to take a maximum of 30 minutes break, and get their vehicle inspected. These check points will be positioned at places with high inflow of the public to get maximum reach. Sponsors can place their experience zones in this area where activities can be organized to gain more leads and spread awareness.

EXPERIENCEZONE

Experience Zone will be a make shift canopy or activity zone in the area allotted. In this one can organize several activities like - short driving experience or test ride, showcase the capability of their vehicle in order to gain more leads and create brand awareness.

GATEARCH



SIGNBOARD

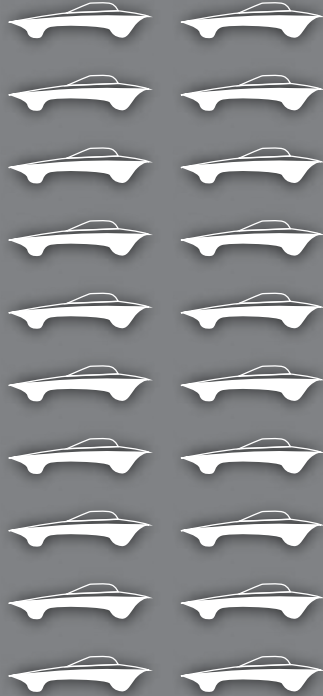
Sign Board will be placed near every checkpoint in order to inform the teams. These can also be used for advertising about experience zone or product advertisement.



OVERNIGHT STAY

UNIVERSITY/ INSTITUTE/ RESORT

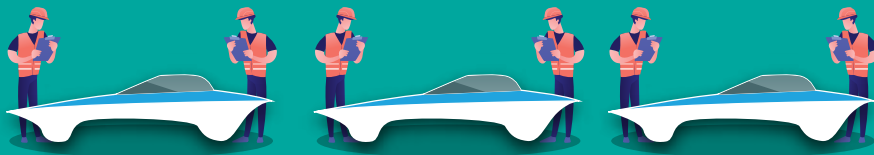
HOT PIT



Solar Cars
Parking



Vehicle Parking



TECHNICAL INSPECTION AREA



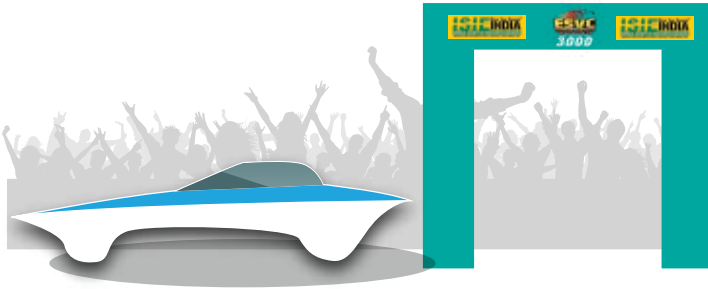
LINEUP AND FLAG OFF

PRESS CONFERENCE



CULTURAL EVENT PROGRAM

AWARENESS PROGRAM



FLAG OFF CEREMONY

Everyday in the morning 08 a.m.* the flag off ceremony of the vehicle will be conducted. In this the cars will be lined up together and one by one in predefined time difference they will be released so as to complete the trip for the day.

This flag off ceremony will have invitees from the local governing bodies and industrial delegates to flag off the vehicles. The media will cover it, as well as many people will be invited to the event in order to spread awareness as much as possible.



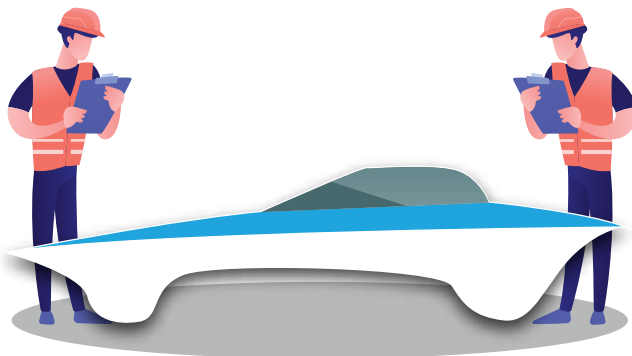
HOT PIT

Hot pit is the common area which will be marked in the Solar Car Parking, or along with it. This is the common space provided to all the teams to perform any kind of repair work or maintenance on their car. This area would be accessible whole night in compliance to the guidelines provided. Unlike checkpoint stops the teams will be allowed to perform critical repairs and perform functions like welding, cutting, grinding, etc.



CHARGING OF BATTERIES

For charging the vehicle teams have option available. They can either change their vehicle on the spot using their portable chargers for the battery pack. In order to do so, they will be provided with port near parking area. They also have the option to take their batteries out and carry them to their allotted rooms to get it charged. In both the cases teams would have to comply with functional safety standards provided.



TECHNICAL INSPECTION

Technical Inspection is an important part of the event. Everyday in the morning 6 AM, the technical inspection will start in order to ensure that the vehicles are in compliance, and any changes in the vehicle done are as per the given regulations. This will also be to check upon the vehicle fitness for the day's ride.

If vehicle will have any changes to be made, that vehicle would have to report at least 45 min before the start time for final inspection and get OK from the inspector.



MEDIA INTERACTION

On every Overnight Stay Point the media will be informed and invited in advanced in order to welcome and interview the teams arriving. The same will be applicable for the next morning during flag off, where again media coverage will be there for the flag off ceremony.

The media will also be taking interviews of the delegates and VIPs present on the spot. These people will be from the local governing bodies, delegates from industries and those from the institutes.



EXPERIENCE ZONE

Experience Zone will be a make shift canopy or activity zone in the area allotted. In this MG can organize several activities like - short MG driving experience or test ride, showcase the capability of their vehicle in order to gain more leads and create brand awareness.

Unlike checkpoint, the Overnight Stay point will be in the cities marked on the map. As most of these cities are having good population, hence some bigger activities can be planned over here in order to gain more reach.

EVENT IMPACT



The rally will pass through about 15 cities, 60 towns and 500 villages, and thus creating its impact on a population of 7 Crores on average.

As the rally will progress the local leaders - ministers, sarpanch, collector, magistrate, etc. will be invited in order to attend the rally and encourage their subjects and constituencies to opt for electric vehicle and renewable energy.

Various summit/ international panel discussion will be held at each overnight stay point, where the guests and delegates from industries and academicians will be required to address their views and ideas to the public.



Promote E-Mobility

One of the major roadblock in sales of EV is the range. This rally would be a way to spread awareness among the people that EVs are no longer the vehicles of short travel. These vehicles can make long distances in single charge, and the initial cost is high but the overall operating cost is much less than the conventional gasoline vehicle.

Promote Renewable Energy

As these vehicles are mounted with solar panels, this rally will also be promoting and talking about the renewable energy. Although yes the solar panels have been mounted in many villages for the street lamp, but this doesn't solve the power issues and demands of a household. We can make them understand the different ways in which it can be used.

Realtime Innovations

These vehicles are in two categories - adventure class and tourer class. The tourer class on one hand is single seated vehicle, whereas the adventure class is multi seated vehicle. These vehicle would have to cross 2000 km of run and thus they have to be reliable and safe in order to do so. Thus, these teams will be coming up with innovations.

Improving Solar Technology

This vehicle will leave in the morning completely charged. They cannot charge or charge their battery packs by any means other than solar or regenerative braking. Thus it gets essential for them to be able to harness this solar energy as much as possible.

Minimising Skill Gaps

The participants of this rally will be working on real time problems and their solution, and build their vehicles in order to be able to face the challenge. This will give them the practical exposure and knowledge required in order to be able to work on the product for consumer and create a unique perspective on finding solutions as a part of skill india vision.

Promote Entrepreneurship/ Startups

We have seen that while working on projects like these, many students come up with new innovations and business ideas which could be feasible if provided the right platform. We provide them a platform to present themselves in front of investors and industrialists to prove themselves and gain that extra boost towards Atma Nirbhar Vision.

BRANDING





Professional Class

Adventure Class

AWARD CATEGORIES

Champion	INR 2,00,000/-
1st Runner Up	INR 1,25,000/-
2nd Runner Up	INR 80,000/-
Best Vehicle Electrical System Presentation Award	INR 20,000/-
Best Business Plan and Cost Award	INR 30,000/-
Runner Up Business Plan and Cost Awards	INR 20,000/-
Best Innovations	INR 30,000/-
Runner Up Innovations	INR 20,000/-
Best Faculty Award	INR 10,000/-
Future Award	worth INR 5,00,000/-
Best Design Award	INR 20,000/-
Best Vehicle Interior & Exterior (Aesthetics and Ergonomics Presentation)	INR 20,000/-
Best CAE Award	INR 20,000/-
Runner Up CAE Award	INR 10,000/-
Best Simulation Award	INR 20,000/-
Runner Up Simulations Award	INR 10,000/-
Best Team Work	INR 15,000/-
People's Choice Award	INR 10,000/-
Light Weight	INR 10,000/-

Total Prize Worth

INR 11,70,000/-

REGISTRATION FEES

NATIONAL TEAM

INTERNATIONAL TEAM

INR 75,000/-

USD 1000 \$

Note: Fees for ESVC Engineering will be exempted for the teams participating in ESVC 3000.

WHAT'S INCLUDED?



AT CHECKPOINTS

- Air Pumps
- Regular Vehicle Checkup
- Rest Rooms
- Refreshments



AT OVERNIGHT STAY POINTS

- Free Charging Facility for the Vehicle
- PITS to park the vehicle at various overnight points
- Free Lunch to the driver and the team members following the vehicle.
- Hotpit

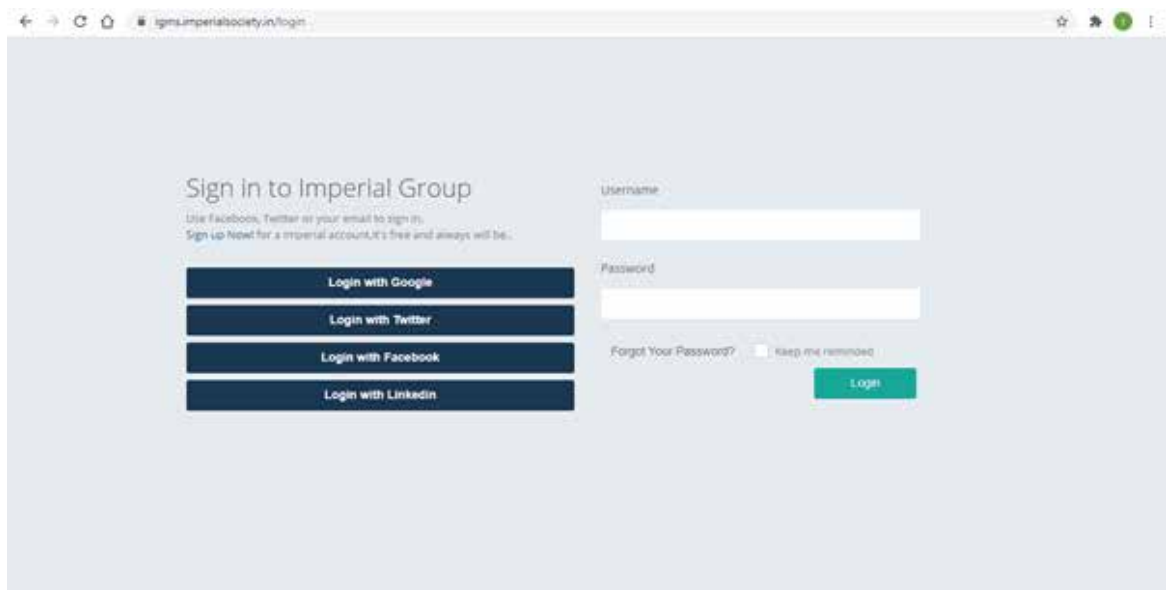


ONLINE MENTORSHIP

- 40 Hrs of Online Training Session.
- 1 Year Subscription.
- Live Query Session.
- Certification.

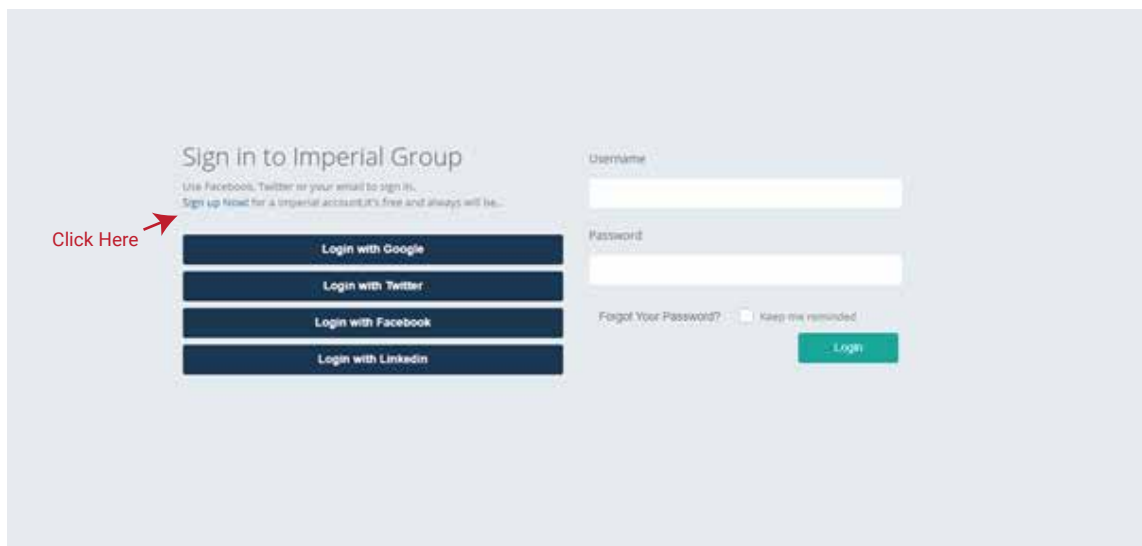
REGISTRATION PROCESS - SIGNUP

Step 01: Visit – <https://igms.imperialsociety.in/>



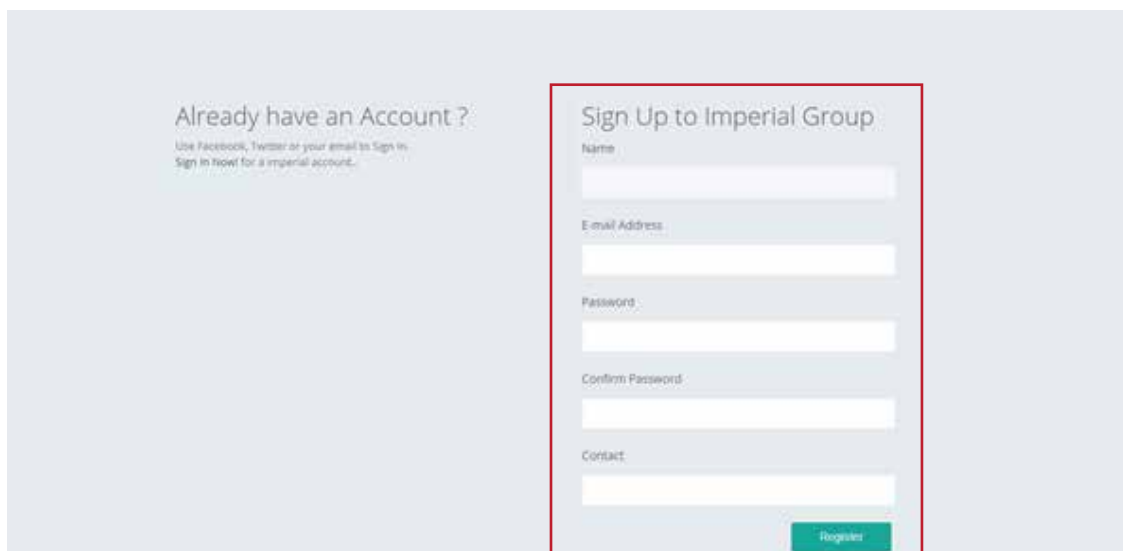
The screenshot shows the login page of the Imperial Group. The page has a light blue background. On the left, there is a section titled "Sign in to Imperial Group" with a subtext: "Use Facebook, Twitter or your email to sign in. Sign up Now! for a imperial account, it's free and always will be..". Below this text are four dark blue buttons with white text: "Login with Google", "Login with Twitter", "Login with Facebook", and "Login with LinkedIn". On the right side, there is a login form with two input fields: "Username" and "Password". Below the "Password" field, there is a link "Forgot Your Password?" and a checkbox labeled "Keep me reminded". A green "Login" button is at the bottom right of the form.

Step 02: Click on Sign up NOW!



This screenshot is identical to the previous one, but with a red arrow pointing to the "Sign up Now!" link in the subtext. The text "Click Here" is written in red next to the arrow.

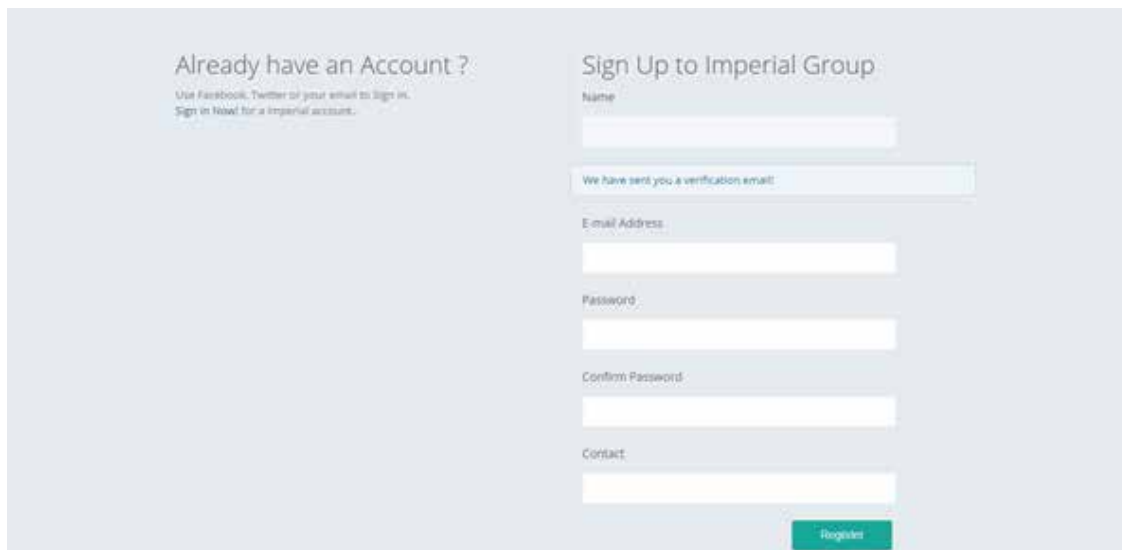
Step 03: Enter Details and Click on Register button



The screenshot shows the registration page of the Imperial Group. The page has a light blue background. On the left, there is a section titled "Already have an Account ?" with a subtext: "Use Facebook, Twitter or your email to Sign in. Sign in Now! for a imperial account..". On the right side, there is a registration form titled "Sign Up to Imperial Group". The form has five input fields: "Name", "Email Address", "Password", "Confirm Password", and "Contact". A green "Register" button is at the bottom right of the form.

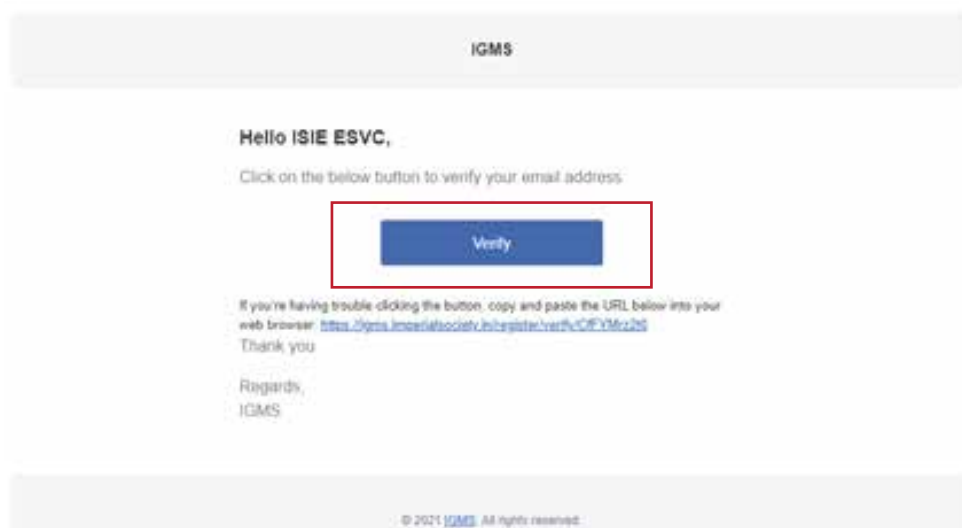
REGISTRATION PROCESS - PAYMENT

Step 04: Now you will receive a verification mail on register mail ID

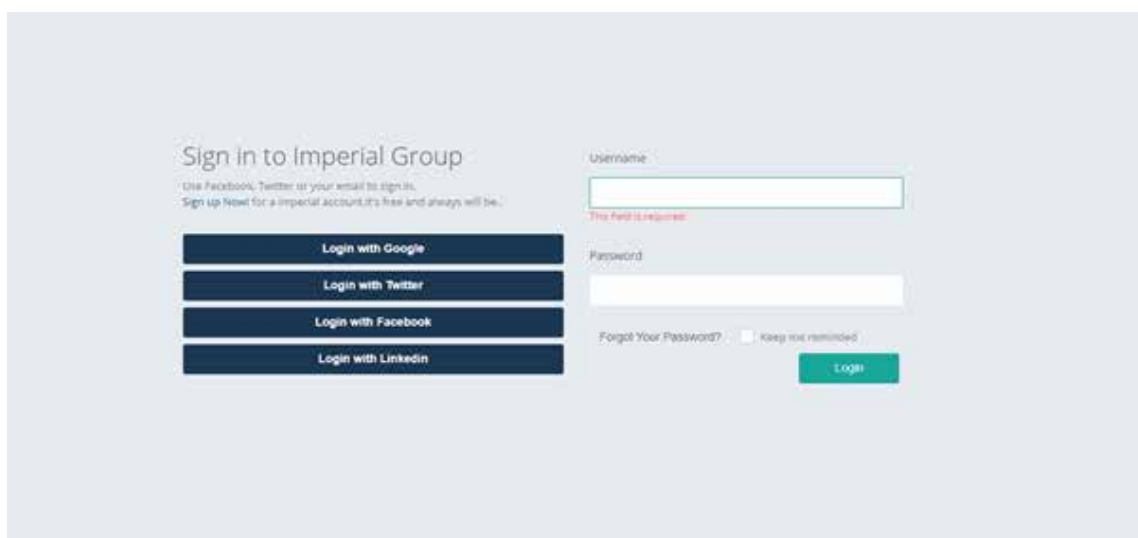


The registration form is titled "Sign Up to Imperial Group". It includes a link for users who already have an account. The form fields are: Name, a verification email status indicator, Email Address, Password, Confirm Password, and Contact. A "Register" button is at the bottom right.

Step 05: Click on verify and it will redirect you to login page



Step 06: Enter your Login ID and Password and click on Login



The login form is titled "Sign in to Imperial Group". It includes a link for users who want to sign up. The form fields are: Username, Password, and a "Forgot Your Password?" link. There are also social login buttons for Google, Twitter, Facebook, and LinkedIn. A "Login" button is at the bottom right.

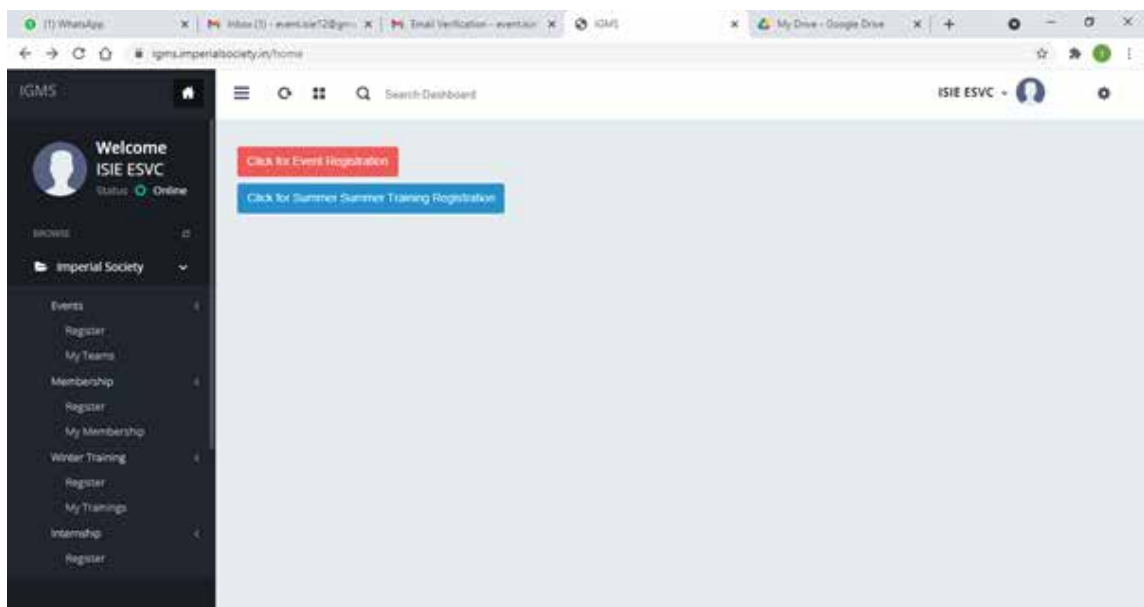
REGISTRATION PROCESS

TEAM REGISTRATION

Step 01: Fill the required details viz. Basic Information, Communication Details and Qualification Details and Click on Save Profile

The screenshot shows the 'User Profile' registration form in the IGMS dashboard. The form is divided into three sections: Basic Information, Communication Details, and Qualification Details. The Basic Information section is currently active and contains the following fields: Name (filled with 'ISIE'), Alternate Email, Alternate Contact, and Date of Birth. The Communication Details section contains the fields: Name (filled with 'event.isie14@gmail.com') and Contact Number (filled with '7428723984'). The Qualification Details section is empty. At the bottom of the form, there are 'Previous' and 'Next' buttons. The dashboard header shows the IGMS logo, a search bar, and the user's name 'ISIE ESVC'.

Step 02: Click on Button – Click for Event Registration



Step 03: Select the event ESVC 3000- 2022

The screenshot shows the IGMS EventRegistration form. The 'Select Event...' dropdown menu is open, displaying a list of events. The event 'ESVC 3000 / 2022' is highlighted in blue. The form also includes sections for 'Team Details' and 'College Postal Information'.

Team Details

Select Event...

- Formula Imperial 2021 - Electric Category
- Indian Karting Race 6.0 - Electric Category
- Indian Karting Race 6.0 - Engine Category
- Hero E-bike Challenge Season 2.0
- Champion of Champions Season 3.0
- Champion of Champions Season 3.0 - Electric
- ESVC 3000 / 2022**

Faculty Advisor Name

Faculty Advisor Email

Faculty Advisor Contact No

College Postal Information

Address

City State

Country Postal Code

+91 Phone Number

You heard about this event from Select Source...

NOTE : College Address will be the default correspondence address.

Activate Windows
Go to Settings to activate Windows.

Step 04: Fill the other required details and click on Save

The screenshot shows the IGMS EventRegistration form with all fields filled out. The 'Select Event...' dropdown menu is closed. The form includes sections for 'Team Details' and 'College Postal Information'.

Team Details

Select Event...

Team Name

Team Captain Name

Team Captain Email

Team Captain Contact

Faculty Advisor Name

Faculty Advisor Email

Faculty Advisor Contact No

College Name

College Postal Information

Address

City State

Country Postal Code

+91 Phone Number

You heard about this event from Select Source...

NOTE : College Address will be the default correspondence address.

Save Cancel

Step 05: You are done with the Registration

The screenshot shows the IGMS EventRegistration form with a success message displayed at the top: 'Your team Team ESVC Registered Successfully'. The form includes sections for 'Team Details' and 'College Postal Information'.

Team Details

Select Event...

Team Name

Team Captain Name

Team Captain Email

Team Captain Contact

Faculty Advisor Name

Faculty Advisor Email

Faculty Advisor Contact No

College Postal Information

Address

City State

Country Postal Code

+91 Phone Number

You heard about this event from Select Source...

NOTE : College Address will be the default correspondence address.



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 electricsolarvehicle@gmail.com

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