

Interim Report
on
Electric Vehicle Awareness
Programme



The Automotive Research Association of India

EV Awareness Programme

The Automotive Research Association of India (ARAI), through ARAI Academy, a Skill Development initiative of ARAI, embarked on a journey to create Electric Vehicle awareness at various educational institutions in Western India.

The One-day Awareness Programme initiated on 28th January 2020, at Sagar Institute of Science and Technology, Bhopal, Madhya Pradesh. Over 100 participants attended the event. This was followed by events at Symbiosis Institute of Technology, Pimpri Chinchwad College of Engineering, G.H.Raisoni institute of Engineering and Technology in Pune and Nirma University and LD College of Engineering in Ahmedabad. The details are as follows:

S.no.	Date	College/Institute/University	City	No.of Participants
1	28th-29th Feb 2020	Sagar Institute of Science and Technology	Bhopal	100
2	14 th Feb 2020	Symbiosis Institute of Technology	Pune	150
3	25 th Feb 2020	PCCOE	Pune	500
4	25-26 th Feb 2020	GH Raisoni	Pune	100
5	27 th Feb 2020	Nirma University	Ahmedabad	200
6	28 th Feb 2020	LD College of Engineering	Ahmedabad	133

Under this Awareness Programme, ARAI has trained more than 1100 students and faculties on Electric Vehicles at the aforementioned colleges.

Some photographs from the event are given below:



The reports on individual programme at the aforementioned colleges are given from next page onwards.

EVENT REPORT

Electric Vehicle Awareness Programme

Date: 28th and 29th January, 2020. **Venue:** Sagar Institute of Science & Technology, Bhopal

ARAI Academy conducted “**NIRMAAN-2020**” – Electric Vehicle Start-up Conclave on 28th and 29th January 2020 at Sagar Institute of Science & Technology, Bhopal, Madhya Pradesh. Flier attached. Students and budding entrepreneurs from different branches attended the event, indicating the growing interest for Electric Vehicles and a desire to contribute to the EV revolution. The session commenced with “Introduction to Electric Vehicles and its types” by Dr. Yogesh Bhateshvar, delineating the need for EVs and architectures of different EV platforms, which was succeeded by “Government incentives, Standards & Skill development” by Dr. K.C. Vora.

It was a splendid experience of interacting with the young entrepreneurs and comprehending their vision to make a mark in the Electric Vehicle start-up space.

Audience at the event

Dr. M.Rafiq delivering a session

Mahindra eVerito for demo

Test rides on Ather 450

Dr. K. C. Vora
Sr DD and Head, Academy ARAI, Pune

EVENT REPORT

Electric Vehicle Awareness Programme

Date: 14th February, 2020. **Venue:** Symbiosis Institute of Technology, Pune

ARAI Academy conducted a One-day Electric Vehicle Awareness Programme on 14th February 2020, at Symbiosis Institute of Technology, Lavale, Pune. Flier attached. Students from different branches attended the event, indicating the growing interest for Electric Vehicles and versatility in terms of knowledge acquisition. The session commenced with “Introduction to Electric Vehicles” delineating the requirement for Electric Vehicles, which was succeeded by “Electric Vehicle Systems” and “Design requirements for EVs”. Academy staff members- Dr. M. Rafiq Agrewale, Dr. Yogesh Bhateshvar, Mr. Nilesh Sakle and Mr. Amitabh Das successfully executed the event.

To provide practical experience and to give the feel of riding an EV, Ather Energy (vehicle: Ather 450) and Mahindra Electric (vehicle: eVerito) had joined us in this venture to provide test rides and demonstration to the students and faculty on their respective vehicle platforms. A total of 150 students attended the event. The event helped students comprehend the issues and problems in mobility and acknowledged them regarding the true essence of zero emission vehicles in 21st century.



Audience at the event



Dr. M.Rafiq delivering a session



Mahindra eVerito for demo



Test rides on Ather 450

Dr. K. C. Vora
Sr DD and Head, Academy ARAI, Pune



One-day Electric Vehicle Awareness Programme

"Driven by charge, charged by nature"

ARAI ACADEMY
Excellence in Education

Venue:



Symbiosis Institute of Technology
Symbiosis International University,
Near Lupin Research Park,
Gram: Lavale,
Tal: Mulshi, Pune 412 115

SAVE THE DATE

February

14

02

2020



ARAI Academy is conducting One-day Electric Vehicle Awareness Programmes at Institutes/Universities in India. The Awareness Programme will be preceded by essay/drawing competition on "Electric Vehicles and its Benefits for the Society".

3000 words max
Essay
Competition

A1 size Poster
Competition



Programme at a glance:

- Learn about the trending technologies in Electric Vehicles and our contribution for their faster adoption.
- Live demo and practical learning on an Electric Vehicle.
- Winners of competitions to be awarded certificates and goodies.

For further details please contact:

Mr. Amitabh Das - amitabh.dash51@gmail.com, Ph: 824926277
Dr. Y. K. Bhatshvar - bhatshvar.pga@araiindia.com, Ph: 02135 396673
Mr. M. Rafiq Agrewale - rafiq.pga@araiindia.com, Ph: 02135 396672
Dr. K. C. Vora - vora.pga@araiindia.com, Ph: 02135 396660



Tentative Schedule:

Time	Agenda
9:00 -10:00	Inauguration
10:00 – 11:00	Introduction to Electric Vehicles
11:00 - 12:00	Design of Electric Vehicle Systems
12:00 - 12:30	Charging Station Ecosystem
12:30 - 13:00	Career Prospects and Future Scope Of Electric Vehicles
13:00 - 14:00	Lunch
14:00 – 16:00	Demonstration of various systems on an Electric Vehicle platform
16:00 – 17:00	Valedictory, feedback session and prize distribution

In Association with :



EVENT REPORT

Electric Vehicle Awareness Programme

Date: 25th February, 2020. **Venue:** Pimpri Chinchwad College of Engineering, Pune

ARAI Academy conducted a One-day Electric Vehicle Awareness Programme on 25th February 2020, at Pimpri Chinchwad College of Engineering, Pune. (Flier attached). Students from different backgrounds attended the event, indicating the growing interest for Electric Vehicles and versatility in terms of knowledge acquisition. The session commenced with “Introduction to Electric Vehicles” by Dr. K. C. Vora followed by “Electric Vehicle Systems” by Mr. Nikhil Shimpi and Mr. Amitabh Das and “Electric Vehicles Design Considerations” by Mr. N.A.Sakle.

To provide practical experience and to give the feel of riding an EV, Ather Energy (Vehicle: Ather 450) and Mahindra Electric (vehicle: eVerito) had joined us in this venture to provide test rides and demonstration to the students and faculty on their respective vehicle platforms. The event helped students comprehend the issues and problems in mobility and acknowledged them regarding the true essence of zero emission vehicles in 21st century. The total number of participants were 500 comprising students from Mechanical, Computer Science, IT, Electrical and Electronics Engineering. There was poster exhibition and essay competition organized on “Electric Vehicles and its Benefits for the Society”. The winners of the competitions are as follows:

Poster Competition	
1 st Prize	Saurabh Gorakh Mahajan
2 nd Prize	Aishwarya Bajrang
3 rd Prize	Prajwal Thorat
Consolation	Neha Motagi

Essay Competition	
1 st Prize	Nupur Kulkarni
2 nd Prize	Omkar Wadekar
3 rd Prize	Prerna Patil
Consolation	Dhanashree Munot

		
Inauguration of the event	Audience	Session in progress
		
Poster Exhibition	Session on Battery Safety	Demo of Mahindra eVerito

Dr. K. C. Vora
Sr DD and Head, Academy ARAI, Pune

Venue:



Pimpri Chinchwad College Of Engineering
Sector -26, Pradhikaran, Nigdi,
Near Akurdi Railway Station,
Pune - 411 044.

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February

25

02

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3000 words max
Essay
Competition

A1 size
Poster
Competition



Programme at a glance:

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16:00 -17:00	Valedictory, feedback session and prize distribution

In Association with :



EVENT REPORT

Electric Vehicle Awareness Programme

Date: 25th & 26th February, 2020. Venue: G.H. Raisonni Institute of Technology, Wagholi, Pune

ARAI Academy conducted **Conclave on Advances in Solar System, Electric Vehicles & Awareness** on 26th February 2020, at G.H. Raisonni Institute of Technology, Wagholi, Pune. (Flier attached). Students and faculties from different branches attended the event, indicating the growing interest for Electric Vehicles and versatility in terms of knowledge acquisition. The session commenced with “Introduction to Electric Vehicles” by Dr. K. C. Vora followed by Dr. Yogesh Bhateshvar on “Electric Vehicle Design and Charging System Infrastructure”.

To provide practical experience and to give the feel of riding an EV, Ather Energy (vehicle: Ather 450), Mahindra Electric (vehicle: eVerito) and EV component supplier GoGoA1 had joined us in this venture to provide test rides and demonstration to the students and faculty on their respective vehicle platforms. The event helped students comprehend the issues and problems in mobility and acknowledged them regarding the true essence of zero emission vehicles in 21st century. The total number of participants were 100, comprising of students and Faculties from different backgrounds. There was poster exhibition and essay competition organized on “Electric Vehicles and its Benefits for the Society”. The prize winners of the poster competition are as follows:

1 st Prize	Pavesh Khatik & Shaikh Amaan
2 nd Prize	Poonam, Snehal & Anik
3 rd Prize	Venkatesh, Sameer, Joshi & Yogesh
Consolation Prize	Akash, Omkar, Rahik & Tejas



Inauguration of the event



Dr. K. C. Vora delivering a session



Poster Exhibition



Attendees



Mahindra eVerito for demo



Poster designed by a student

Dr. K. C. Vora

Sr DD and Head, Academy ARAI, Pune






Conclave On ADVANCES IN SOLAR SYSTEM, ELECTRIC VEHICLE & AWARENESS

25th & 26th February 2020

Registration

The registration should be done by paying following charges

Category	INR
PG Students & Research Scholar	200
Faculty members	200
Delegates from Industry	500

For Registration and more details, kindly visit:
Website: <http://www.ghriet.raisoni.net/conclave2020>

Address

Gat No. 1200, Domkhel Road, Wagholi, Pune-412207
Phone: +91-9604787185 / 86 Email: ghrietpune@raisoni.net
Website: www.ghriet.raisoni.net

Organized by



G H Raisoni Institute of Engineering & Technology, Pune

(An Autonomous Institute Affiliated to S.P. Pune University & NAAC Accredited A+)

Supported By

The Automotive Research Association of India (ARAI)

Conveners

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9096728601
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Poster and Essay competition on "Electric Vehicles and its benefits for the Society"

Raisoni Group of Institutions

Raisoni Group of Institutions (RGI) is established under the visionary and pragmatic leadership of Honorable Shri Sunil Raisoni, RGI is a conglomerate of institutions with a glorious history of four decades in the diversified fields: Engineering, Management, Law, Hospitality, Education, etc. RGI has treaded into the world of education with the motto of "VISION BEYOND" for Enlightening Minds & Empowering Ambition. RGI has growing campuses at Nagpur, Pune, Jalgaon, Amravati, Chhindwad and Ahmednagar encompassing more than seventy five institutions.

About Institute

G. H. Raisoni Institute of Engineering and Technology affiliated to Savitribai Phule Pune University and Imparts UG, PG & Electronic programs in Engineering. The college has established in Academic year 2007-08 and is NAAC accredited with A+ Grade and declared Autonomous since Academic year 2015-20. During the twelve years tenure the college has been doing well in academics and secured 22 ranks in the S. P. Pune University. Institute has started EUREKA Innovation and Incubation Center. It motivates and facilitates students to think and to evolve different ideas addressing the solution to industrial as well as social problems. Students are appreciated at national level and received awards in Smart India Hackathon 2017, Bharat Innovation Summit and many more competitions.

About ARAI Academy

The Automotive Research Association of India (ARAI), in addition to utilizing the state-of-the-art technology, laboratories and highly skilled personnel, recognizes the need for skill development to meet the demands of the automotive industry, not just in India but across the globe. ARAI Academy, which has completed 15 years on 10th May 2019, is a skill development initiative of ARAI. It is divided into three sections, viz. Learning Centre, Knowledge Centre and Training Centre. Specifically for training and education purpose, ARAI Academy has specialized & dedicated laboratories such as Automotive Early Automotive Engineering Systems Computer Aided Engineering & Design, Containerized Engine Testing, Engine Simulation and Research, Electronics, EMV/EMC, Noise & Vibration, etc.

Who can Attend?

Any aspirant who wants to gain knowledge in Solar System & EV. Faculty of Engineering Colleges, Research Scholars pursuing Post Graduate & Doctoral programs and Industry persons are eligible for the conclave.

Fest Speakers

Advances on Solar System

Dr. Chetan Singh Solanki, Professor and Head, Department of Energy Science and Engineering, IIT Mumbai.

Dr. G. D. Sharma, Prof. Dean (R & D), L. N. M. Institute of Technology, Jaipur.

Dr. Ajay Chandak, Chairman, PRINCE (Promoters, Researchers and Innovators in New and Clean Energy)

Mr. R. P. Deshpande, Vice President, Viraj Electronics Pvt. Ltd., Pune.

Dr. S. R. Jadhav, Professor, Department of Physics, S. P. Pune University.

Mr. Ravindran, CEO & Director, Unitron Energy Systems Pvt. Ltd., Pune.

Mr. Mehul Patel, Manager, Training and Product Development Ltd., Kivatt Solutions Pvt. Ltd., Mumbai

Electric Vehicle (EV)

Dr. K. C. Vora, Senior Deputy Director and Head-ARAI Academy, Pune

Mr. Omkar A. Shaligram, Senior Manager - Electric Vehicle and ADAS sourcing, TATA MOTORS, Pune

Mr. S. A. Sundaresan, Vice-President, Ashok Leyland Chennai

Dr. Manjusha Shelke, Senior Scientist CSIR, NCL Pune

Mr. Durwankar Raut, Chief Engineer, Mechanical and Integrated System, Devise Electronics Pune

Mr. Shrikant Shinde, Founder and Innovator, GoGo foundation, Mumbai

Dr. Yogesh Krishan Bhatshvar, Research Faculty, ARAI Academy

Chief Patrons

Mr. Sunil Raisoni
Chairman, Raisoni Group of Institutions (RGI)

Mr. Ajit Tatiya
Trustee Director, RGI, Pune Campus

Patrons

Dr. R. D. Kharadkar
Director

Dr. K. C. Vora
Senior Deputy Director and Head-ARAI Academy, Pune

Organising Committee

Dr. N. U. Korde Dean (Academics)	Dr. A. M. Thakare Head, Mechanical Engg.	Dr. V. M. Panchade Head, Electrical Engg.
Prof. A. D. Bhol Head, E & TC	Prof. S. G. Ban Head, Civil Engg.	Prof. Rachana Sable Head, Computer Engg. & IT
Dr. Darshana Inamdar & Prof. Ashok Kokane Head, First Year	Prof. Prathiba Reddy Coordinator, Eureka Innovation Centre	Prof. S. G. Ingle Coordinator, III Cell
Mr. Amitabh Das Faculty, ARAI Academy	Mr. Mohammad Rafiq B. Agrewale Manager, ARAI Academy	

Objectives of Conclave

To boost National Electric Mobility Mission Plan (NEMMP) 2020 & National Solar Mission 2022, the institute has planned Advances in Solar System and Electric Vehicle (ASSEV) Conclave to promote e-mobility & Solar System in India. The objective of this conclave is to encourage faster adoption of Solar system, Electric Vehicle and knowledge sharing platform for industry, researchers, academicians & entrepreneurs to ensure flow of information of ASSEV at all levels. It will give a pathway on Govt. plans, Industry Challenges, ASSEV infrastructure, research activity pertaining to ASSEV and new trends in ASSEV. The Conclave can bring a lot of value to scholars, young scientist, industry professionals & youngest entrepreneurs working in Solar & E-mobility.

Key Highlights of Conclave

- Keynote, Panel Discussions, Start-up showcase, Power talk by Leading Scientists
- Interaction with technology leaders & industry experts.
- Workshops: Demo of different types of solar PV panels & E-vehicles, Solar Simulation System, Power Electronics devices used in Solar System, Grid tie system- IOT, String and Hybrid System and Introduction to Tools for design, Installation practices and O & M considerations.
- Sessions: Panel Discussion with include critical talk on key areas like Recent advances on Organic Solar Cells, Development of Solar panels based on Micro and Nanotechnology, Overview of E-vehicle, Development of solid state & cost effective batteries, fast charging stations, Challenges in manufacturing energy storage systems, Super Capacitors

EVENT REPORT

Electric Vehicle Awareness Programme

Date: 27th February, 2020. **Venue:** Nirma University, Ahmedabad, Gujarat

ARAI Academy conducted a One-day Electric Vehicle Awareness Programme on 27th February 2020, at Nirma University, Ahmedabad, Gujarat. Flier attached. Students from different backgrounds attended the event, indicating the growing interest for Electric Vehicles and versatility in terms of knowledge acquisition. The session commenced with “Introduction to Electric Vehicles” by Dr. K. C. Vora followed by “Electric Vehicle Systems” by Amitabh Das, “Electric Vehicles Testing and Certifications by Dr. M. Rafiq Agrewale. and “Charging System Infrastructure by Dr. Yogesh Bhateshvar.

To provide practical experience and to give the feel of riding an EV, Electrotherm demonstrated its yoBike (two wheeler) and Mahindra Electric (vehicle: e2O) had joined us in this venture to provide test rides and demonstration to the students and faculty on their respective vehicle platforms. The event helped students comprehend the issues and problems in mobility and acknowledged them regarding the true essence of zero emission vehicles in 21st century. The total number of participants were 200 comprising students from Electrical and Electronics Engineering. There was poster exhibition and essay competition organized on “Electric Vehicles and its Benefits for the Society”.



Inauguration of the event



Dr. K. C. Vora felicitated by Nirma University



Dr. K. C. Vora delivering a session



Dr. Bhateshvar delivering a session



Audience



Faculty having a test-ride on Mahindra e2O

Dr. K. C. Vora
Sr DD and Head, Academy ARAI, Pune



One-day Electric Vehicle Awareness Programme

"Driven by charge, charged by nature"



Venue:



Nirma University
S G Highway, Ahmedabad – 382481
Gujarat, India

SAVE THE DATE

February

27

02

2020



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3000 words max
Essay
Competition

A1 size
Poster
Competition



Programme at a glance:

- Learn about the trending technologies in Electric Vehicles and our contribution for their faster adoption.
- Live demo and practical learning on an Electric Vehicle.
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Dr. K. C. Vora - vora.pga@araindia.com, Ph: 02135 396660



Tentative Schedule:

Time	Agenda
9:00 -10:00	Inauguration
10:00 –11:00	Introduction to Electric Vehicles
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13:00 - 14:00	Lunch
14:00 –16:00	Demonstration of various systems on an Electric Vehicle platform
16:00 –17:00	Valedictory, feedback session and prize distribution

In Association with :



EVENT REPORT

Electric Vehicle Awareness Programme

Date: 28th February, 2020. Venue: LD College of Engineering, Ahmedabad, Gujarat

ARAI Academy conducted a One-day Electric Vehicle Awareness Programme on 25th February 2020, at Pimpri Chinchwad College of Engineering, Pune. Flier attached. Students from different backgrounds attended the event, indicating the growing interest for Electric Vehicles and versatility in terms of knowledge acquisition. The session commenced with “Introduction to Electric Vehicles” and “Electric Vehicle Systems” by Mr. Amitabh Das and “Charging System Infrastructures” by Dr. Yogesh Bhateshvar.

To provide practical experience and to give the feel of riding an EV, Electrotherm demonstrated its yoBike (two wheeler) and Mahindra Electric (vehicle: e2O) had joined us in this venture to provide test rides and demonstration to the students and faculty on their respective vehicle platforms. The event helped students comprehend the issues and problems in mobility and acknowledged them regarding the true essence of zero emission vehicles in 21st century. The total number of participants were 133 comprising students from Mechanical and Electrical Engineering departments. There was poster exhibition and essay competition organized on “Electric Vehicles and its Benefits for the Society”.



Inauguration of the event



Session on Charging System



Session on EV Design



Audience



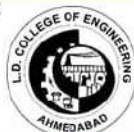
Audience Interaction



Demonstration of Mahindra e2O

Dr. K. C. Vora
Sr DD and Head, Academy ARAI, Pune

Venue:



LD College of Engineering
Near Gujarat University
Navrangpura, Ahmedabad
Gujarat-380015

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