

IMPORTANT DATES

Deadline for Paper Submission	: 15.04.2019
Notification of Acceptance	: 17.04.2019
Camera ready paper and Registration	: 20.04.2019
Conference Date	: 22.04.2019

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ADDRESS FOR COMMUNICATION

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One-Day National Conference on E – VEHICLE TECHNOLOGY FOR INDIA

(EV Tech 2019)

22nd APRIL 2019



Organized by

**DEPARTMENT OF MECHANICAL ENGINEERING
&
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

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R.M.K. ENGINEERING COLLEGE

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R.S.M. NAGAR, Kavaraipettai-601 206, Tamil Nadu

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ABOUT THE INSTITUTION

R.M.K. Engineering College started in the year 1995 by the Lakshmikanthammal Educational Trust, has acquired recognition and public acknowledgement as one of the top-ranking institutions in the state of Tamil Nadu. The College was accredited by NAAC with 'A+' Grade in 2017 for 5 years. Our institution is in the top 150 Engineering Institutions across India including IITs and NITs in the NIRF 2018 Ranking published by MHRD, Govt. of India. Our institution has been awarded as the "Best Industry linked Institute for Computer & IT Engineering and Allied Courses " for the year 2018, and has been finding a place in the prestigious 'PLATINUM' category certification for the four disciplines for the past 4 years consecutively in the AICTE-CII Survey of Best Industry Linked Technical Institutes in the Country. The college has been showing Academic Excellence for the past 23 years. RMKEC has also been maintaining an excellent placement record all these years. The college has established 15 Industry Sponsored Centres of Excellence (COE) Laboratories in various disciplines to provide industry-oriented training and skill building to students in niche areas. The college was selected by MHRD as one of the 28 centres across the country for hosting Smart India Hackathon 2018 software edition finals. The College is located in a picturesque environment at Kavaraipettai at a distance of 30 kms from Chennai on NH5 Chennai - Kolkata highways near Gummidipoondi, and is easily accessible by road and rail transport.

ABOUT THE DEPARTMENTS

The Department of Mechanical Engineering is one of the foremost divisions of the college inculcating knowledge, discipline and right attitude to students. The Department is currently accredited by NBA for three years. The Department is known for its extensive and fruitful interaction with the Industries and other R&D organizations. The department has eminent subject experts and state of the art facilities in the areas of CAD/CAM/CAE/PLM, 3D Printing, Mechatronics and Automotive R&D etc. which are constantly upgraded to be in fine-tuned with current Technologies. The professional activities include invited technical talks by top industrialists and learned academia, apart from collaborative programs under Mechanical Engineering Association, Product Development & Management Association of India (PDMA), IIIE, ISHRAE and SAE etc.

The Department of Electrical and Electronics Engineering is accredited by NBA for five years for 2 continuous terms and presently accredited for three years. The Department is recognized as a research centre by Anna University, Chennai. In the survey conducted by AICTE-CII during 2017, the department is one among top 3 colleges at the national level. The department has state of the art facilities in the areas of Power Electronics, Electrical Drives, Control Systems and Power Systems and is constantly upgraded to suit with the current trend. The department has a COE in Automotive Electronics supported by KPIT and the department is under establishment of the state-of-the-art laboratory in Automotive Electronics with the support from Bosch in view of training the students on the latest technologies related to Automotive Electronics.

ABOUT THE CONFERENCE

The objective of the One-Day National Conference on "E-Vehicle Technology for India" is to explore the opportunities and developments in Electric Vehicle (EV) technology for contributing to the Research and Development of a clean, shared and connected; and affordable, accessible, inclusive and last mile connectivity transport system in India. According to reports, India can leapfrog the western mobility paradigm of private vehicle ownership and create a shared, electric and connected mobility system, saving 876 million metric tons of oil worth

\$330 billion (Rs 20 lakh crore) and 1 giga tonne of carbon dioxide emissions by 2030. Estimates suggest that India's urban population will nearly double in the next decade, to approximately 600 million in 2030, and forecasts predict that by then India's urban population will take almost 500 million trips per day. Thus, the major challenge that could ensue would be the high level of congestion on the roads as currently we have 20 cars per 1000 people and is expected to grow faster. Electric vehicles will also pose strong safety challenge as there have been cases of lithium ion batteries exploding. Increasing electronic and digital content in EVs will also raise the possibility of hacking and the vehicle being used as a weapon. The other major challenges towards EV adoption are price, selection, range, charging, and consumer awareness. The conference will open the doors to various facets and new frontiers of the discipline by providing a platform for promoting discussion and interaction in EV technology developments, thus benefiting both academic and the industrial community.

CALL FOR PAPERS

The technical papers are invited from Post Graduate students/ Research Scholars / Practicing engineers / R & D Personnel in the following areas but not limited to for presentation and deliberations.

<ul style="list-style-type: none">➤ Design and development of the Vehicle Architecture for EVs: Two-Wheelers, Three-Wheelers, Four-Wheelers and Agricultural etc.➤ Design Thinking for EV/Connected Vehicles➤ Autonomous Vehicles; Advanced Mobility Solutions➤ Ride and Handling, Life Cycle Assessment➤ Vehicle Dynamics for EVs; New Generation Light Weight Materials for EVs➤ Powertrain and Transmission Technologies for EVs➤ Renewable Energy Resources for EVs➤ NVH and Thermal Management for EV Sub-Systems; Mechatronics Hardware and Software	<ul style="list-style-type: none">➤ Regenerative and Energy Harvesting Systems for EVs➤ Battery Technologies and Management System➤ Design and Development of advanced electric vehicles drives➤ Control strategies for EVs➤ Electric Motor design for EV applications➤ Vehicle charging infrastructure➤ The Impact of Autonomous Vehicles on Chassis & Battery Design➤ Li-Ion Battery technology for EVs: Packs and Cells➤ Future Global Regulatory Perspectives and Scenarios Including Battery Regulation Development
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Original research and unpublished papers are invited on the above themes. Abstract and full paper can be sent by email to evtech2019@rmkec.ac.in. The guidelines for preparing the full-length paper should follow IEEE format, double column with single line spacing not exceeding 7 pages in MS Word format. Abstracts and full-length papers shall be reviewed by the experts and acceptance will be intimated as per schedule only through mail.

REGISTRATION FEE

PG and UG Students	:	Rs.500
Academics / Research Scholars	:	Rs.750
Participants from industries	:	Rs.1000

Registration fee includes conference kit, copy of proceedings, lunch & refreshment. Fee should be sent by Demand Draft in favour of "The Principal, R.M.K Engineering College" payable at Chennai. For details visit [www.rmkec.ac.in / evtech2019](http://www.rmkec.ac.in/evtech2019)