



**VIT**  
**University**

Vellore-632 014, Tamil Nadu, India  
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**National Conference on**  
**Recent trends in Batteries and Battery**  
**Management Systems**  
**18<sup>th</sup> – 19<sup>th</sup> July 2014**

**Organized by**

**TIFAC - CORE in AUTOMOTIVE INFOTRONICS**  
(Sponsored by Department of Science and Technology, Govt. of India)

**Coordinator**

**Dr. K. Ganesan, Director, TIFAC CORE in Automotive Infotronics  
& Senior Professor, School of Information Technology and Engineering,  
VIT University**

**Dr. C.K Subramaniam, Professor, School of Advanced Sciences, VIT University  
Dr. P. Sridhar, Scientist, CECRI Madras Unit, CSIR Taramani Chennai**



## **TIFAC-CORE IN AUTOMOTIVE INFOTRONICS @VIT**

- State of the art advanced engineering centre for research, consultancy and manpower training in Automotive Infotronics is established at VIT University promoted by TIFAC (Technology Information Forecast and Assessment Council), under the Mission REACH program.
- Offers a full time PG program in Automotive Electronics in association with School of Electronics Engineering to provide industry ready engineers.

### **Background**

- With an increasing range of systems, the next generation of electronic innovations will bring advanced vehicle safety systems, electronic engine and chassis control, drive-by-wire, active suspension, and a host of wireless technologies.
- Automotive engineers must increasingly depend on new, more sophisticated software and test solutions to deliver innovative, mixed-technology design concepts to market faster and at lesser cost.

### **Programme**

- The conference aims to provide a forum, where scientists, engineers and research scholars can meet to share ideas, findings and recent trends in the research domain of battery and battery management systems

### **List of Technical Sessions:**

#### **DAY 1**

→ 9:30 AM - 12.45PM - Battery/storage chemistries

- Types of batteries
- Battery Chemistry
- Battery modeling and design

→ 2:00PM - 5:30PM - Battery electronics

- Battery management systems for portable devices
- State of charge and State of health estimation techniques
- Sensors for Battery management system

#### **DAY 2**

9:30 AM - 12.45PM – Automotive battery systems

- Battery management system in HEV system
- Battery management system in EV system
- Thermal Management in batteries

→ 2:00PM - 5:30PM - Energy storage systems

- Alternate Energy storage devices (Fuel cells, Super capacitors etc.)
- Energy Management systems
- DC-DC Converters

## List of Speakers:

- **Prof A.K. Shukla**  
Professor and Chairman, Solid State and Structural Chemistry Unit, IISC Bangalore
  - **Dr. M. Raja**  
AGM, TATA Motor Research Centre, Society for Innovation and Development,  
Indian Institute of Science, Bangalore
  - **Dr. S. Ambalavanan**  
Senior Principal Scientist, CSIR, CERI, Karaikudi
  - **Dr. P. Sridhar**  
Scientist, CECRI Madras Unit, CSIR Complex, Taramani Chennai
  - **Dr. Kamakshi Jagannathan**  
COMSOL Multiphysics Pvt. Ltd., Bangalore
  - **Dr. Rahul Hardikar**  
Research Scientist, Materials Research Center, IISC, Bangalore, India
  - **Dr. K.S. Dhathathreyan**  
Associate Director,  
CFCT ARCI Taramani Chennai
  - **Dr. G. Velayutham**  
Director Technical, Sainergy Fuel Cell India Pvt. Ltd, Chennai
  - **Mr. Venkatakrishnan**  
XNGene, VIT Technology Business Incubator, VIT University, Vellore
  - **Dr. U V Varadaraju**  
Professor, Department of Chemistry, IIT Madras.
  - **Dr. M Venkateswarlu**  
Manager R&D, Amara Raja Batteries
  - **Dr. Balaji G**  
Head Product Engineering. AMARA RAJA batteries limited, Tirupati
  - **Dr Sashi Kumar,**  
Dean R&D, Agni College of Tech, Chennai.
- VIT Faculty**
- **Dr. C.K. Subramaniam**, School of Advanced Sciences
  - **Dr. K. Ganesan** TIFAC CORE
  - **Dr. Girish Joshi**, School of Advanced Sciences
  - **Mr. Boopalan**, School of Electronics Engineering
  - **Dr. Natrajan**, Director, Energy Center, VIT University Vellore
  - **Dr. Vijayaraghavan**, Director, School of Advanced Sciences, VIT University Vellore

## Technical Committee:

- Dr. P. Sridhar , Scientist, CECRI Madras Unit, CSIR Complex, Taramani Chennai
- Dr. A.K. Shukla , Professor, Solid State and Structural Chemistry Unit, IISC Bangalore
- Dr. U. V. Varadaraju , Professor, Department of Chemistry, IIT Madras, Chennai
- Dr. C.S.Shankar Ram, Associate Professor, Department of Engineering Design, IIT Madras
- Mr. Nandakumar C S, Bosch Technologies
- Mr. M. Jagadish, Head-Technology, Amararaja batteries limited, Tirupati
- Dr. K.C. Vora, Deputy director, ARAI Pune
- Mr. Shevade, Power Train Division, Delphi Technical Center of India
- Dr. Natrajan, Director, Energy Center, VIT University Vellore
- Dr. Vijayaraghavan, Director, School of Advanced Sciences, VIT University Vellore
- Dr. C.K. Subramaniam, Professor, School of Advanced Sciences, VIT University Vellore
- Dr. K. Ganesan, Director, TIFAC-CORE, VIT University Vellore

## Paper:

- Papers should reach before **11<sup>th</sup> July 2014**
- **Papers should not exceed 4 pages.** The abstracts and fully papers will be peer reviewed, by the experts from Industry and Academia.
- The acceptance will be intimated to the authors once they submit the manuscript as per the guidelines given in the following site:
- [www.ieee.org/documents/MSW\\_A4\\_format.doc](http://www.ieee.org/documents/MSW_A4_format.doc). The papers should be sent to:  
[kganesan@vit.ac.in](mailto:kganesan@vit.ac.in) / [tifac@vit.ac.in](mailto:tifac@vit.ac.in)

## Participant is open to:

- Industry
- Faculty/Res. Scholars
- Students

## Registration Fees:

Industry : Rs.3000/-  
Faculty/Res. Scholars : Rs.2000/-  
Students : Rs.1000/-

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✧ Accommodation can be arranged in our Guest House / Hostels on request, based on **availability** as per the **tariff** given below.

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3	Hostel (Dormitory)	300.00

## Mail the Paper / DD for Registration to:

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Secretary

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**Format for Registration confirmation**  
**National Conference on**  
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For further details, visit our web site [www.vit.ac.in/tifaccore/](http://www.vit.ac.in/tifaccore/)

Signature of the Applicant