



CONFERENCE THEME

Govt. Engineering College Trichur (GECT) has been organizing its biennial International Conference on the title theme 'Materials for the Future' (ICMF) since the year 2009, and the last conference under ICMF was held in the year 2013. The fourth International Conference in this series is being held from 9th to 11th December 2015, with the main conference theme having been revised to a broader and more comprehensive one, namely 'Emerging Trends in Engineering, Science and $Technology's o \ as \ to \ caterto \ all \ disciplines \ of Engineering, Technology \ and \ supporting \ streams \ of Science.$ Accordingly, all the International Conferences henceforth organized in GECT would be titled $International \, Conference \, on \, Emerging \, Trends \, \underline{in} \, Engineering, Science \, and \, Technology-ICETEST', and \, \underline{in} \, Engineering, Science \, \underline{in} \, Engineering, Science \, \underline{in} \, Engineering \, \underline{in} \, \underline{$ would be materialized by the constituent international conferences organized by the major Engineering and Science Departments of the institution, on sub-themes of current interest and development in the respective disciplines. It is hoped that the broadened scope/regime of the revised title would enable the conference to bring together on to one platform the current advancements in all disciplines of studies under Engineering and Science, in which the host institution, GECT has established itself as a highly successful premier institution during the last over five decades. The ICETEST - 2015 will have eight constituent conferences; one each held in the Departments of Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Chemical Engineering, Electronics & Communication Engineering, Production Engineering, Computer Science & Engineering and School of Architecture, in the thrust areas

The Department of Electrical Engineering, Govt. Engineering College Trichur on this occasion, announces its International Conference on the sub-theme 'Power, Instrumentation, Computing and Control' under the umbrella of ICETEST - 2015.

CONFERENCE OBJECTIVE

With renewable energy sources replenishing the conventional energy sources a lot of research and advancements has occurred in the power scenario. Consequently technology associated with power system, power electronics and control system has seen a lot of development. This has motivated a lot of researchers to work in the area of above mentioned fields. The advancement in the area of automation has stimulated works in instrumentation and control fields. The main objective of the International Conference PICC - 2015 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and share their achievements. This conference provides opportunities for the delegates to exchange their ideas and experiences, build research relations and also to find partners for future collaboration. The conference also shall assist in providing a clear understanding of implementation plans focusing on the above theme.

In tune with the above objective, the Conference Secretariat requests the pleasure of participation from researchers, practitioners, academia and all interested in/associated with the theme of 'Power, Instrumentation, Control and Computing' either by contributing research papers/articles for oral/poster presentation or by attending the conference. The papers may be related to one or more of the topics listed in the Section on Conference Topics.

CONFERENCE TOPICS

 $The International Conference on PICC \ organized as \ part of ICETEST-2015 \ will ensure \ deliberations \ on \ a slew \ of related topics \ which include but are not limited to the following$

- 1. Power System
- 2. Renewable Energy
- 3. Power Electronics
- 4. Drives
- 5. High Voltage Engineering
- 6. Special Machines
- 7. Control Systems
- Electrical Engineering Materials
- 9. Instrumentation
- 10. Biomedical Applications
- 11. Signal Processing
- 12. Image Processing
- 13. Smart Grid Technology

CALL FOR PAPERS, GUIDELINES FOR SUBMISSION AND REGISTRATION

The prospective authors are called up on to submit full papers incorporating the original research work pertaining to the topics indicated above. The submission will be strictly online through the Website of ICETEST - 2015. The papers must provide a clear idea on the purpose of research, methodology used, major findings and relevant references, and shall not be already submitted/published/under consideration in any other conferences or journals. The guidelines and style of formatting to be adopted are given in the conference web site. Kindly visit the Conference Web Site at www.icetest.gectcr.ac.in. for further details. It is mandatory for at least one author of an accepted paper to register for the conference. Only the papers of registered authors will appear in the journal. If an author has more than one accepted paper, each paper has to be registered.

The papers for PICC - 2015 shall be submitted to Track III - Electrical & Electronics Engineering: International Conference on Power, Instrumentation, Computing and Control-2015, out of the eight tracks provided in the web site of ICETEST-2015.

MODE OF PUBLICATION & CIRCULATION OF REGISTERED PAPERS

All the accepted papers registered with the conference will be published in the conference proceedings, and also by the Research Publishing Services or such journals having good impact factor (subject to acceptance by the journal), will be made available in the RPS Online and will be indexed in CrossRef. In addition, they will be submitted for possible indexing in all the major indexing services like EI, ISI Web of Science, DBLP, IET Inspec, Scopus, etc.

IMPORTANT DATES

Last date for submission of manuscript : July 15th, 2015

Notification of acceptance of manuscript : August 15th, 2015

Last date for submission of camera ready paper : August 31th, 2015

Registration for the conference : August 31th, 2015

Dates of conference : 09-11 December 2015

ABOUT TRICHUR, THE CULTURAL CAPITAL OF KERALA



Trichur, the anglicized form of the vernacular name Thrissur, is the fourth largest city in Kerala. Thrissur is also known as the Cultural Capital of Kerala due to its cultural, spiritual and religious heritage. The famous institutions of Govt. of Kerala, promoting arts, literature and culture such as Kerala Sangeetha Nataka Academy, Kerala Sahitya Academy, Kerala Lalithakala Academy and the deemed University of Kerala Kalamandalam are located in Thrissur District. The most colourful and spectacular temple festival of Kerala attracting tourists all over the world, namely Thrissur Pooram, is observed in Thrissur

annually. Thrissur is well known for the large number of famous temples, churches and mosques including Guruvayoor Sri Krishna Temple, Sri Vadakkumnathan Temple, Church of Our Lady of Lourdes, Church of Our Lady of Dolours and Cheraman Juma Masjid. Being located in the central region of Kerala, Thrissur is close to many of the well known tourist attractions like Athirappally Waterfalls, Munnar, Thekkadi, Kumarakom and Kovalam. Thrissur is also the birth place of the legendary world class mathematician astronomer Sangamagrama Madhavan of the fourteenth century, who made very notable contributions in astronomy, trigonometry, calculus, geometry and algebra apart from being the first mathematician in the world to introduce the power series expansion of the trigonometric functions of sine, cosine, arctangent and the presently well known Madhava-Gregory-Leibnitz series.

ABOUT KERALA STATE

The State of Kerala presents unique geographical features attracting tourists from around the globe for its scenic backwaters and lagoons, lush greenery and clourful and enchanting festivals. With the Arabian Sea on the west, the Western Ghats towering to altitudes of \$00 to 2700 metres on the east, Kerala is blessed with long scenic coast lines, rivers and hill stations. It is replete with tranquil stretches of backwaters, rare wildlife, waterfalls, sprawling plantations and verdant vegetations. Kerala is also a land to Ayurvedic Resorts, historic and cultural monuments and a variety of martial art forms, all of which offer a unique experience par excellence. With cent percent literacy and world class health care systems, Kerala has the lowest infant mortality and the highest life expectancy rates among Indian States.

ABOUT THE DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING, GOVT. ENGG. COLLEGE TRICHUR

The Department of Electical Engineering started functioning in the very same year when the College was established. It offers B. Tech. in Electrical Engineering at the undergraduate level and two M. Tech. Programmes, namely, Power System started in the year 1979 and Power Electronics started in 2010. The department is an approved research center for Ph. D. programmes under the University of Calicut, and also under the QIP Scheme of Ministry of Human Resources, Govt. of India. The department also provides consultancy and testing activities for various clients including Government, Private and Public Sector Enterprises within Kerala.

ABOUT THE HOST INSTITUTION, GOVT. ENGINEERING COLLEGE TRICHUR

Govt. Engineering College Trichur has been one of the premier institutions for quality technical education in the state of Kerala, India, since its establishment in the year 1958. The second oldest Engineering College of the region, and the first established after formation of the State of Kerala, it is presently affiliated to the University of Calicut, and offers undergraduate degree programmes of B. Tech. in seven Engineering disciplines and B. Arch. in Architecture. It offers post graduate programmes of M. Tech. in ten disciplines spread under the various engineering departments and MCA programme under a separate department. Moreover, the institution is a major research centre for four branches of Engineering under the University of Calicut, and is an approved centre for research under the Quality Improvement Programme of MHRD, Govt. of India. With the funding from the TEQIP - Phase II since 2010, the institution has been able to scale up the research facilities, strengthen the post graduate and undergraduate programmes leading to improved employability of the graduates. The large number of University ranks bagged every year by the graduates from GECT is testimony to the very high academic standards maintained in the institution. The College Campus, spread over 75 acres of prime land, is located at Ramavarmapuram, 5km from Trichur town, 6km from Trichur Railway Station and around 50km from Cochin International Airport. The College has a very renowned alumni strength, many of whom are internationally and nationally acclaimed professionals, scientists, CEOs and entrepreneurs.

REGISTRATION FEES

International Delegates

From Academic/R & D Organisations : Rs. 5,000/-Students/Research Scholars : Rs. 3,000/-

National Delegates

From Industry : Rs. 5,000/-

From Academic/R & D Organistations : Rs. 3,000/-

Students/Research Scholars : Rs. 2,000/-

ACCOMMODATION

Accommodation shall be arranged in the nearby hotels for the interested delegates, on advance payment to the Conference Secretariat. A list of quality hotels within 5 km radius from GECT is provided in the conference web site.

MODE OF PAYMENT

The registration fees may be remitted in the following modes

- 1. Demand Draft in favour of ICETEST 2015 payable at Thrissur, India.
- 2. NET Banking with the relevant information furnished hereinbelow

Account Name : ICETEST - 2015 Account Number : 67321934020

Bank Name : STATE BANK OF TRAVANCORE

Branch Name : CHEROOR

Branch Code : 7207

IFSC Code : SBTR0000207 Swift Code : SBTRINBBFED

MICR Code : 680009010



SOCIAL / CULTURAL EVENTS

A cultural programme showcasing the rich traditions and arts of Kerala will be arranged in the evening of the 2nd day of the conference, for the benefit and in honour of the delegates.

CONFERENCE SECRETARIAT

CHIEF PATRONS

Mr. P. K. Abdu Rabb

Hon'ble Minister for Education, Govt. of Kerala.

Dr. K. M. Abraham, I. A. S. Additional Chief Secretary, Higher Education

Department, Govt. of Kerala. Mr. B. Srinivas, I. A. S.

Secretary, Higher Education Department, Govt. of Kerala.

INTERNATIONAL ADVISORY COMMITTEE

■ Dr. Narayanan M. Komerath

Professor, The Daniel Guggenheim School of Aerospace Engg.,

Georgia Institute of Technology, Atlanta, USA

■ Dr. P. A. Muhammed Basheer Professor of Structural Engineering,

University of Leeds, Leeds, England, UK

■ Dr. R. Sreerama Kumar

Chair Professor, Saudi Electricity Company's Chair for Demand Side Management & Energy Efficiency, King Abdul Aziz University, Jeddah

■ Dr. Lakshminarayanan Samavedham Associate Professor, Dept. of Chemical Engg.

National University of Singapore ■ Dr. A. Senthil Kumar

Associate Professor, Dept. of Mechanical Engg., National University of Singapore

NATIONAL ADVISORY COMMITTEE

■ Dr. Kuncheria P. Isaac

Vice Chancellor, Kerala Technological University

■ Dr. J. Letha

Vice Chancellor, Cochin University of Science and Technology

■ Dr. G. Thulasi Ramadas

Vice Chancellor, JNTU Kakinada

■ Dr. P. Padmavathi

Vice Chancellor I/C, Jawaharlal Nehru Architecture and Fine Arts University, Hyderabad

■ Dr. A. K. Nagpal

Emeritus Professor of Structural Engg., IIT Delhi

Dr. P. K. Aravindan

Former Professor of Structural Engg., IIT Madras

■ Dr. Devdas Menon

Professor of Structural Engg., IIT Madras

■ Dr. Babu J. Alappatt

Professor of Environmental Engg., IIT Delhi

■ Dr. T. I. Eldho

Professor of Hydraulics, IIT Bombay

PATRONS

Dr. K. Vijayakumar

Director of Technical Education, Govt. of Kerala

Prof. T. Krishnakumar

Principal, Govt. Engineering College Trichur

■ Dr. Palani Balaya

Associate Professor, Dept. of Mechanical Engg. National University of Singapore

■ Dr. Ganesh Samudra

Associate Professor, Dept of Electrical and Computer Engg., National University of Singapore

■ Dr. Prahalad Vadakkaepet Associate Professor, Dept of Electrical and Computer

Engg., National University of Singapore

■ Dr. Rajesh Chandrasekhar Panickar Associate Professor, Dept of Electrical and Computer Engg., National University of Singapore

■ Dr. Rajkasekhar Balasubramaniam

Professor, Dept. of Environmental Engg National University of Singapore

■ Dr. Chandramouli Viswanathan Assistant Professor of Civil Engineering Purdue University Calumet

■ Dr. K. Shanti Swaroop

Professor, Dept. of Electrical Engg., IIT Madras

■ Dr. Krishna Vasudevan

Professor, Dept. of Electrical Engg., IIT Madras

■ Dr. Deepak D' Souza

Professor, Dept. of Computer Science & Automation, IISc. Bangalore

■ Dr. Narasimha Prasad

Executive Director, Centre for Water Resources Development & Management, Kozhikode

■ Dr. V. Syam Prakash

Principal, Govt. College of Engg. Kannur.

■ Dr. S. Radhakrishnan Principal, Govt. Engg. College Palakkad.

■ Dr. K. P. Indiradevi

Principal, Rajiv Gandhi Institute of Technology Kottayam.

Principal, Govt. Engg. College, Barton Hill, Trivandrum

■ Dr. K. Radhakrishnan

Chairman (Rtd.), Indian Space Research Organisation

INSTITUTE ADVISORY/TECHNICAL COMMITTEE

■ Dr. M. Chidambaram

Professor, Dept. of Chemical Engg., IIT Madras &Chairman, Board of Governors, Govt. Engg. College Trichur

Dr. T. R. Sreekrishnan

Professor of Chemical Engg., IIT Delhi & Senior Research Advisor, Govt. Engg. College Trichur

■ Dr. Satish Vasu Kailas

Professor, Dept. of Mechanical Engg., IISc., Bangalore & Member, Board of Governors, Govt. Engg. College Trichur

■ Dr. A. Sukesh Kumar

Former Principal, Govt. Engg. College, Palakkad & Mentor, TEQIP Phase II, Govt. Engg. College Trichur

Prof. K. S. Dinesh Kumar

Head, Dept. of Civil Engg., Govt. Engg. College Trichur

■ Prof. C. P. Sunilkumar Head, Dept. of Mechanical Engg., Govt. Engg. College Trichur

TECHNICAL ADVISORY COMMITTEE

■ Dr. N. Ganesan Professor of Civil Engg.,

National Institute of Technology Calicut

■ Dr. S. Chandrakaran

Professor of Civil Engg.,

National Institute of Technology Calicut ■ Dr. K. B. Maheswaran Namboothiripad Former Dean, Amrita Viswavidya Peeth, Coimbatore &

Head, Dept. of Mechancal Engg., NIT Calicut ■ Dr. Elizabeth Elias

Professor, Dept. of Electronics & Communication, NIT Calicut

■ Dr. Abraham T. Mathew

Professor, Dept. of Electrical Engg., NIT Calicut

■ Dr. Mini Thomas

Professor, Jamia Millia Islamia, New Delhi.

■ Dr. C.V. Jawahar

Professor, International Institute of Information

Technology Hyderabad, India

■ Dr. B. Jayanand

Head, Dept. of Electrical & Electronics Engg., Govt. Engg. College Trichur

Dr. P. A. Solomon

Head, Dept. of Chemical Engg.

Govt. Engg. College Trichur

■ Prof. M. Parameswaran Head, Dept. of Production Engg. Govt. Engg. College Trichur

■ Prof. C. R. Muneera

Head, Dept. of Electronics & Communication Engg.,

Govt. Engg. College Trichur Prof. K. J. Helen

Head, Dept. of Computer Science

Govt. Engg. College Trichur

Prof. Bejene S. Kothari Head, School of Architecture, Govt. Engg. College Trichur

■ Dr. Dhanya C. T.

Assistant Professor, Dept. of Civil Engg., IIT Delhi

■ Dr. A. Unnikrishnan

Former Outstanding Scientist, Naval Physical & Oceanographic Laboratory, Kochi

■ Dr. Tessy Thomas

Project Director for Agni Missile, DRDO, Govt. of India

■ Mr. M. Chandradathan

Director, VSSC, Trivandrum

Mr. Prasad K. Panikker

Executive Director, BPCL, Kochi Refinery. Dr. Anitha A. B.

Scientist F & Head, Surface Water Division, CWRDM Kozhikode ■ Mr. Rajeevan Rameth, Associate Director,

Rail Technical Authority for Structures,

Middle East Rail, ATKINS, Dubai ■ Dr. C. S. Saravanan Head, Computer Centre, NIT Durgapur

ORGANISING COMMITTEE

Co-ordinator (PICC - 2015)

Organising Chairman

: Prof. Krishnakumar T., Principal

Organising Secretaries (ICETEST - 2015): Dr. Jayanand B., Professor (Electrical & Electronics Engg.), Dr. Vijayan P., Professor (Civil Engg.)

Prof. Ajay James, Associate Professor (Computer Science)

: Dr. Meenakshy K., Associate Professor

(Electrical & Electronics Engg.)