



SPHOORTHY ENGINEERING COLLEGE, HYDERABAD

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**2 Day International Conference on Emerging
Trends in Engineering, Science and Management**

ICETESM-17

ON

17TH-18TH MARCH 2017



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**2 Day International Conference on Emerging
Trends in Engineering, Science and Management**

ICETESM-17

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Foreword

International Conference on Emerging Trends in Engineering, Science and Management (ICETESM-2017)

The papers have been received from various emerging areas of research in Engineering, Science and Management. This brings out academic and Industrial experts to exhibit their proof of concept on various domains. This was an ideal platform for researchers and practioners to rediscover the new frontiers. One of the goals of the Conference is to share most up-to-date knowledge and to preserve and widen the working contacts between the Research scholars, and academics. The program of conference included invited technical tracks given by keynote speakers from globe. The success of ICETESM 2017 depends completely on the effort, talent, and energy of more than 200 researchers in the field of Engineering who have written and presented papers on a variety of topics. Praise is also deserved for the program committee members and external reviewers who have invested significant time in analyzing and assessing multiple papers, who hold and maintain a high standard of quality for this conference.

The trends now for all of us is to embrace the new ideas and approaches so eloquently anticipated during the course of the conference.

We feel honored and privileged to serve the best recent emerging trends in the field of in Engineering, Science and Management to you through this exciting program.

About International Conference on Emerging Trends in Engineering, Science and Management.

(ICETESM-2017)

The Objectives of the Conference is to promote scientific and educational activities towards the advancement of common man's life by improving the theory and practice of various disciplines and sectors of Engineering and Technology. The Conference is expected to generate Outcome to discuss about emerging trends in the fields of Engineering ,Science and Management -its opportunities and challenges and coming out with possible Outcomes through Intellectual Contribution.

The ICETESM -2017 TO Provide an opportunity to research scholars, delegates and to interact and share their experience and knowledge in technology application .ICETESM -2017 will provide an excellent international forum for sharing knowledge and results in Engineering, Science and Management. The aim of the conference is to provide a platform to the researchers and practitioners from both academia as well as industry to meet and share cutting -edge development in the field.

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

Prof. A. Venugopal Reddy
Vice-Chancellor M.Tech. Ph.D.



MESSAGE

International Conference on Emerging Trends in Engineering, Sciences and Management (ICETESM-2017) addresses these issues through the International Conference, bringing together representatives of all those involved at every fields of business, industry, academic, government and civil.

The International Conference facilitates ideas, information and program possibly to solve. The conference focuses on "Emerging Trends in Engineering, Sciences and Management (ICETESM-2017)". This conference is going to address many issues. I am confident that your deliberations and the outcome of your efforts will raise public awareness about the role and value technology as a tool to promote economic, social and cultural development while addressing the complex issues on your agenda.

I hope that the delegates will have an enjoyable and fruitful stay in the SPHOORTHY campus. I wish the Conference a grand success.

Prof. A. Venugopal Reddy

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(AUTONOMOUS)

Kukatpally, Hyderabad – 500 085, Telangana State, India.

Dr. A. GOVARDHAN

B.E (CSE), M.Tech., Ph.D.

Professor of CSE &

PRINCIPAL



MESSAGE

ICETESM-2017 brings the academicians, researchers and industrialists together on a platform for exchange of scientific and technological information and initiates discussion, debate and dissemination of knowledge in the fields of emerging trends in engineering applications, sciences and management. This conference will help the researchers who work continuously towards the development of new ideas for the growth of human kind and to provide solutions to the various research problems. Another step of the conference is filling the gap between formal engineering texts and practically to promote academic interaction and faster collaboration. We hope that presentation of papers, suggestions and recommendations would help in better understanding of issues. This conference will go a long way in establishing the concept and disseminating the knowledge about the emerging trends in engineering, sciences and management.

The presence of large number of professionals, Academicians and researchers will be able to generate high level of intellectual deliberations and help to inspire younger scientists and teachers to go the greater heights. I wish the ICETESM-2107 all success.

**Prof. A. Govardhan
Principal, JNTUH CEH**



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Ref:

Date: **17th March 2017**



MESSAGE

I am extremely delighted to welcome all delegates & participants warmly to ICETESM-2017. I am confident that your deliberations and the outcome of your efforts will raise public awareness about the role and value technology as a tool to promote economic, social and cultural development while addressing the complex issues on your agenda. We are at the threshold of a new challenge and we take this opportunity with a pledge to launch out foundation as a center of excellence to impart stress free and caring environment to nurture research scholars. We seek your vital co-operation and a great support to accomplish high standards.

I am confident that the deliberation of the ICETESM – 2017 will prove a new milestone for the development of research in Engineering Sciences and Management at Sphoorthy Engineering College, Hyderabad.

Shri S. Chalama Reddy
CHAIRMAN



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We welcome all the participants to come with new innovations and emerging trends in Engineering, Sciences and Management. The advanced and innovative technologies are crucial for our lives and ecological cycle in order to achieve global sustainability. The International Conference on Emerging Trends in Engineering, Sciences and Management - (ICETESM-2017) address these issues through the conference and exhibitions, bringing together representatives of all those involved in all the field of business, industry, academic and civil.

The aim of the ICETESM - 217 has always been to provide an international forum for individuals from all over the world and to share and discuss their innovative thoughts in the emerging trends in engineering applications and basic sciences. These currently include topics in wireless sensor network, mobile computing and emerging trends in management along with excellence management.

The slot of areas to discuss and take presentation is composed in various fields such as networking, Parallel Computing, Piezoelectric, Automotive engineering, Mechatronics, and Robotics. This international conference facilitates ideas, information and programs to enhance the technology. The conference focuses on "Emerging Trends in Engineering, Sciences and Management (ICETESM-2017)"

Shri.S.Jagan Mohan Reddy

SECRETARY & CORRESPONDENT



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I am extremely happy to note that Sphoorthy Engineering College Hyderabad is organizing The International Conference on Emerging Trends in Engineering, Sciences and Management - (ICETESM-2017). International Conference is the one of the backbone for the development of scientific and technological fields, Information Technology is the thrust area providing basis for all round development of humanity and improvement of its well-being. This International Conference will provide a forum for interaction of educationalists in the area of Engineering, Sciences and Management to dwell upon the development of a host interdisciplinary subject. The presence of large number of professionals, Academicians and researchers will be able to generate high level of intellectual deliberations and help to inspire younger scientists and teachers to go the greater heights. I wish the ICETESM-2017 all success.

Prof. Dr. V. Chandra Mouli

Director- Academics



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MESSAGE



I on behalf of management would like to welcome you all to Sphoorthy Engineering College Hyderabad - ICETESM-2017 the International Conference on Emerging Trends in Engineering, Science and Management. The conference is organized as a set of tracks in Humanoid Robots, Electronic Materials, and Computer-based manufacturing technologies: CNC, CAD, CAM, FMS, CIM, Electric Drivers and Application and Inverter and Converter Technology and Management and many more. There is separate track of management and electrical stream. The objective of the International Conference is to provide a forum where representatives from industry and academia can meet, discuss and present the most recent advances in science and technology.

We hope that you will find the conference both enjoyable and valuable. I am greatly honored to welcome the delegates and the participants on the occasion of "International Conference on Emerging Trends in Engineering, Science and Management (ICETESM-2017)".

Dr.K.S.SHAJI

Principal



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MESSAGE

I am glad to note that the Sphoorthy Engineering College Hyderabad is organizing The International Conference on Emerging Trends in Engineering, Sciences and Management - (ICETESM-2017). International Conference is the gateway of all sciences and has become an indispensable tool in solving the problems of Engineering and Technology. The Conference will bring like-minded individuals on one platform to discuss emerging trends in the areas of Engineering, Sciences and Management. I am sure that the deliberations will enrich academic wisdom of the participants to enable exploration of new domains of applications in Engineering, Sciences and Management. I hope that the delegates will have an enjoyable and fruitful stay in the sphoorthy campus. I wish the International Conference a grand success.

Dr. Kiran Kumar – Professor - CSE

Convener - ICETESM-2017



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I am confident that your deliberations and the outcome of your efforts will raise public awareness about the role and value technology as a tool to promote economic, social and cultural development while addressing the complex issues on your agenda.

Prof. R Ashok Kumar – HOD – Center for Excellence

Co - Convener - ICETESM-2017

Head Center for Excellence
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MESSAGE

Modern world is the fast faced changes in technology which is advancing by leaps and bounds to make the world a global village. Special gratitude and appreciation is due to the various tracks chairs as they are primarily responsible of the content of the technical program. The aim of ICETESM-2017 has always been to provide an international forum for individuals from all over the world to network and to share and discuss new research techniques and latest technology in engineering world.

I heartily wish all the participants a successful techno career and take the privilege to welcome you all to the international conference ICETESM-2017.

PALN SK/10
Prof. P.A.L.N.S.Kalyani – HOD – MBA
Co - Convener - ICETESM-2017

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Preface

Conference World and AR Research Publication is fast growing group of academicians in Engineering, Sciences and Management. AR Research Publication is also known for fast reply and zero error work. Conference world has organized a various conferences at renowned places namely Delhi University; New Delhi, Jawaharlal Nehru University; New Delhi, PHD Chamber of Commerce and Industry New Delhi, YMCA New Delhi, India International Centre New Delhi Sri Venkateswara college of Engineering and Technology, Andhra Pradesh, Dhananjay Mahadik Group of Institutions (BIMAT), Shivaji University, Maharashtra, Vedant Engineering Kota and many more places across the country.

We are very pleased to introduce the proceedings of the “*2 Day International Conference on Emerging Trends in Engineering, Science and Management*”. As For Previous conferences, the theme was the link between the information provided by conference world and the use made of this information in assessing structural integrity. These were the issues addressed by the papers presented at the conference. The level of interest in the subject matter of the conference was maintained from previous events and over 275 suitable papers were submitted for presentation at the conference.

Papers were well represented in the conference to arouse a high level of international interest. Three countries were represented in the final program from Europe, North America and Asia. In the event, the conference was highly successful. The presented papers maintained the high promise suggested by the written abstracts and the program was chaired in a professional and efficient way by the session chairmen who were selected for their international standing in the subject. The number of delegates was also highly gratifying, showing the high level of international interest in the subject. This is also indicated by the large number of countries, 04 represented by the delegates. This Proceeding provides the permanent record of what was presented. They indicate the state of development at the time of writing of all aspects of this important topic and will be invaluable to all workers in the field for that reason. Finally, it is appropriate that we record our thanks to our fellow members of the Technical Organizing Committee for encouraging participation from those areas. We are also indebted to those who served as chairmen, without their support, the conference could not have been the success that it was. We also acknowledge the authors themselves, without whose expert input there would have been no conference. Their efforts made a great contribution to its success.

Proceeding of the conference has been published with **ISBN: 978-93-86171-32-6**

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Total 275 papers were received for the conference and 145 papers were shortlisted by the committee.

All the accepted and presented papers of the duly registered authors will be published in the following international journals

- **International Journal of Advance Research in Science and Engineering (IJARSE, ISSN-2319-8354) [www.ijarse.com]**
- **International Journal of Advance Technology in Engineering & science (IJATES, ISSN-2348-7550) [www.ijates.com]**
- **International Journal of Science Technology and Management (IJSTM, ISSN-2394-1537) [www.ijstm.com]**
- **International Journal of Innovative Research in Science and Engineering (IJIRSE, ISSN- 2454-9665) [www.ijirse.com]**
- **International Journal of Electrical & Electronic Engineering (IJEEE, ISSN-2321-2055) [www.ijeee.co.in]**

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