



[www.conferenceworld.in](http://www.conferenceworld.in)

**2ND INTERNATIONAL CONFERENCE ON  
EMERGING TRENDS IN ENGINEERING,  
SCIENCE AND MANAGEMENT**

**ESM-17**

***VENUE:***

**(IFUNA) INDIAN FEDERATION OF UNITED  
NATIONS ASSOCIATIONS, NEW DELHI (INDIA)**

**13TH AUGUST 2017**

ISBN: 978-93-86171-59-7

**2ND INTERNATIONAL CONFERENCE ON  
EMERGING TRENDS IN ENGINEERING,  
SCIENCE AND MANAGEMENT**

*ESM-17*

**Editors**

**DR. PROF. SANKETH S**

**DR. A.K.SHARMA**

***Publish By:***  
***A.R. Research Publication***  
***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 *2nd International Conference on Emerging Trends in Engineering, Science and Management (ESM-17)*. 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 35 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, 01 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: 978-93-86171-59-7**

*2nd International Conference on Emerging Trends in Engineering, Science and Management (ESM-17)* was organized at **(IFUNA) Indian Federation of United Nations Associations, New Delhi (India) on 13th August 2017**

Total 101 papers were received for the conference and 35 papers were shortlisted by the committee.

**All the accepted and presented papers of the duly registered authors will be published in the UGC Approved International Journals**

**Published by**

**AR Research Publication,**

3/186 Santpura Govindpuri Modinagar- 201201 . Dist: Ghaziabad

*2nd International Conference on Emerging Trends in Engineering, Science and Management  
(ESM-17) (Vol-02) Copyright © 2017, by AR Research Publication (India)*

No part of this publication may be reproduced or distributed in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise or stored in a database or retrieval system without the prior written permission of the publishers. The program listing (if any) may be entered, stored and executed in a computer system, but they may not be reproduced for publication.

This edition can be exported from India only by the publishers, AR Research Publication (India)  
ISBN: 978-93-86171-59-7

Managing Director: Gauri Sharma

Senior Researcher—Product Development: Ms. Pratima Singh

Head—Production (Higher Education and Professional): Satinder Kulkarni

Information contained in this work has been obtained by AR Research Publication (India), from sources believed to be reliable. However, neither AR Research Publication (India) nor its authors guarantee the accuracy or completeness of any information published herein, and neither AR Research Publication (India) nor its authors shall be responsible for any errors, omissions, or damages arising out of use of this information. This work is published with the understanding that AR Research Publication (India) and its authors are supplying information but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.

Cover Design: Payal Patel