



www.conferenceworld.in

**INTERNATIONAL CONFERENCE OF
EDUCATION, RESEARCH AND
INNOVATION**

ERI-2019

VENUE

**Mahratta Chamber of Commerce, Industries and Agriculture
Tilak Road, Pune (India)**

30TH -31ST AUGUST 2019

ISBN: 978-81-941721-4-7

**INTERNATIONAL CONFERENCE OF
EDUCATION, RESEARCH AND
INNOVATION**

ERI-2019

Editors

MRS. MANASI V. GHAMANDE

DR. (MRS) SHABNAM FAROOK SAYYAD

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 *International Conference of Education, Research and Innovation ERI-2019*. 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 25 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.

About Conference

International Conference of Education, Research and Innovation ERI-2019 is a global event organized by Conference World at Mahratta Chamber of Commerce, Industries and Agriculture Tilak Road, Pune (India) This conference provides an international forum for researchers, developers, engineers and practitioners who are involved in real time projects that provide solutions to exchange their valuable ideas and showcase the ongoing works which may lead to path breaking foundation of the futuristic engineering. It accentuates indispensability of interdisciplinary and cross – linked thinking with respect of innovation and market opportunities. All the accepted paper will be published in International Journal with ISSN & Conference proceeding having ISBN .

Chief Guest

Dr. T.C.Manjunath

Ph.D. (IIT Bombay), Prof. & HOD, ECE Dept.,
Dayananda Sagar College of Engg., Bangalore, Karnataka

Guest of Honour

Mrs. Manasi V. Ghamande

Assistant Professor, Department of Engineering Sciences and humanities
Vishwakarma Institute of Technology, Pune

Dr. Shubhangi S. Salokhe

Professor, Symbiosis Institute of International Business
Hinjewadi, Pune

Dr(Mrs) Shabnam Farook Sayyad

Assistant Professor, Computer Engineering
AISSMS College of Engineering, Pune

National Advisory Board

Prof. Babasaheb Ramdas Jadhav

Assistant Professor, MIT College of Engineering, Pune, Maharashtra, India

Dr. Sunil Adhav

Associate Professor, MAEER'S MIT School of Management, Pune

N. B. Totla

PG Coordinator & W/s MIT Academy of Engineering, Pune

Dr. T.R.Mudgal

Assistant Professor, Deptt. of Physics
CDL State Inst. of Engg. & Tech.Panniwala Mota, Sirsa, Haryana

Dr. Sujit Talukdar

Department of Mathematics
GIMT-Tezpur, Dekargaon, Dist: Sonitpur, Assam, India,

Dr. Sushovan Chatterjee,

Associate Professor and Head,
Department of Mechanical Engineering,
Cooch Behar Government Engineering College,
Government of West Bengal, West Bengal.

Krishna Murthy M.S

Tax Consultant, Shivamogga, Karnataka, India,

Abilash

Sr. Electronics Lecturer, Birla T.T.I. Pilani, Rajasthan.

Dr Sudarsan Sahoo

Head, Department of Humanities and Social Science
Parala Maharaja Government Engineering College,
Sitalapalli, Brahmapur, Odisha

Mr.Kshirsagar Prashant Ramakan

Assistant Professor,

Mechanical Engineering Department,
Rajendra Mane College of Engineering and Technology,
Ambav, Ratnagiri

Prof. Rahul Vishwanath Dandage

Asst. Professor,
Mechanical Engineering Department
Rajendra Mane College of Engineering & Technology, Ambav, Ratnagiri

Sandeep Kumar Duran

Assistant Professor, Department Of Mechanical Engineering
Lovely Professional University, Phagwara

Chaudhari Sachin V

Asst. Prof , Sanjivani College of Engineering, Kopargaon (India)

Professor S.V.Satyanarayana

Head, Department of Commerce,
Osmania University, Hyderabad-7, Telangana, India

Er.Bedre Heeramani

Lecturer Computer Science Dept
Sahyadri Science College Autonomous
Shimoga , Karnataka India

Prof (Dr) Amit Kumar Dutta

Professor & Head
School of Biological and Chemical Sciences
MATS University , Raipur (CG)

Ms. Sharmin Khan

Assistant Professor, Department of Architecture, AMU, Aligarh

Dr. A. K. Mishra

Associate Professor, MMMUT Gorakhpur.

Vivek Birla

Assistant Professor
Marketing and Finance and a Program Manager
Amity School of Engineering and Technology,
Amity University Gurgaon,

Dr. Vilas M. Thakare

Professor and Head in Computer Science,
Faculty of Engineering & Technology,
SGB Amravati University, Amravati.

Dr.Kiran Kumar,

Professor in CSE and Head of R&D Dept
Sphoorthy Engineering College, Hyderabad,.

Dr. Azra Ishrat

Assistant Professor
HR in Amity University, Lucknow Campus, Uttar Pradesh

Dr. Himanshu Patel

Assistance Professor, Applied Science & Humanities Department,
Pacific School of Engineering, Surat

Dr. Krishna Kingkar Pathak

Department of Physics, Arya Vidyapeeth College
Gopinath Nagar, Guwahati

International Advisory Board

Dr Aeila Falahati

University Putra Malaysia, Serdang, Malaysia

Dr. Ajay Singh

University of Hail, Hail, Kingdom of Saudi Arabia

Dr P. Corell

REU Program Director, Jackson State University Jackson, USA

Dr. D. Jone Stanley

M.S., M. Phil., Ph.D. , Texas A&M University, USA

Samer Said Sayed Radwan

Faculty of Applied Arts, Helwan University, Egypt

Dr. Abd El-Aleem Saad Soliman Desoky

Sohag University, Egypt

Prof. Dr. Amer A. Taqa

DBS Dept. College of Dentistry, University of Mosul, Iraq

Mehdi Gheisari

Islamic Azad University, ShamsiPour College, Bahonar College

Protap Mollick , Researcher,

American International University - Bangladesh

Department of Computer Science and Engineering.

Prof. Dr. Amer A. Taqa

DB'S . Department, College of Dentistry Mosul University

Dr. Eng. Magdy Shayboub A. Mahmoud.

Assistant Professor of Computer Science Department.

Faculty of Computers and Informatics. Suez Canal University,

Ismailia, Egypt .

Dr. Elsanosy M. Elamin

Assist. Pro. and Head Department of Electrical Engineering,

University of Kordofan. Faculty of Engineering. Elobeid, Sudan

Dr. Jaiprakash Narain Dwivedi

Research Associate, Kyushu Institute of Technology, Japan

Proceeding of the conference has been published with **ISBN: 978-81-941721-4-7**

International Conference of Education, Research and Innovation (ERI-2019) was organized by **Mahratta Chamber of Commerce, Industries and Agriculture Tilak Road, Pune (India) on 30th -31st August 2019** Total 33 papers were received for the conference and 25 papers were shortlisted by the committee.

Published by

AR Research Publication,

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

International Conference of Education, Research and Innovation ERI-2019

(Vol-1) Copyright © 2019, 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: 978-81-941721-4-7

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: Abhishek Sharma