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**INTERNATIONAL CONFERENCE ON
LATEST INNOVATION IN
ENGINEERING SCIENCE AND
MANAGEMENT
(ESM-19)**

ORGANIZED BY:



BUDDHA INSTITUTE OF TECHNOLOGY
(Approved by A.I.C.T.E. and affiliation to A.K.T.U)

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**INTERNATIONAL CONFERENCE ON
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ENGINEERING SCIENCE AND
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(ESM-19)

Editors

MR. ARUN KUMAR MISHRA

MR. RAJEEV RANJAN KUMAR TRIPATHI

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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 International Conference on Latest Innovation in Engineering Science and Management (ESM-19). 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 118 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, 11 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 on Latest Innovation in Engineering Science and Management (ESM-19) is a global event organized by Buddha Institute of Technology, Gorakhpur (UP) & Conference World. 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 without any additional fee.

About College

Buddha Institute of Technology is approved by A.I.C.T.E. and affiliation to A.K.T.U The programs of the institute are recognized all over India and abroad. It boasts of a strong Academic- Industrial interaction with high quality of research and consultancy and has close collaborative links with industries in the field of Automobile, Aerospace, Defence, Textile, Machine Tools, Software Development, Civil industry, Manufacturing Sector etc. The academic building is a highly modern huge building with 5 floors hosting various labs, workshop, lecture theatres, tutorial rooms, offices etc... The main focus of the society is "knowledge based society needs youth for its innovations and also give a lead to the world." Therefore, it was felt that an academic, technical and professional institute of global standards needs to be established at Gorakhpur.

Conference Highlights:

1. All the accepted and presented/Non Presented papers of the duly registered authors will be published in the special conference issues of the international journals approved by UGC having ISSN & Impact factor.
2. Every author will get two certificates, one for paper publication in Journal other for paper presentation in conference.
3. Registration kit for each papers those will attend the conference at venue.
4. All the papers of the conference will be published in the conference proceeding with ISBN.
5. All the accepted and presented/Non Presented papers will be indexed in Google scholar & IDIIF.

MESSAGE OF CHAIRMAN



It is a matter of great pride that Buddha Institute of Technology in collaboration with Conference World is going to hold its International Conference on Latest Innovation in Engineering Science and Management (ESM-19). Recently research works have gained momentum in the myriad domains of Engineering and Technology in tune with India's call for 'Make in India'. The recent innovations have definitely provided the much needed acceleration to the economic growth of the country. I hope this conference will hold a series of intellectually interactive sessions and intensive deliberations by scholars and technical experts participating in it and illuminate the audience by their erudite discourses. I am sure that this conference would greatly benefit researchers, students and faculty. Young scientists and researchers will find the contents of the proceedings helpful to set roadmaps for their future endeavors.

I extend my best wishes to the organizers of the conference for a grand success and greetings to all the participants.

(Dr. R. A. Agrawal)
Chairman



MESSAGE

The knowledge acquired is futile, if it is not implemented properly and shared with others for the larger good of the society. It gives me immense pleasure to know that Buddha Institute of Technology brings this philosophy to practice by organizing National Conferences in the field of Science & Technology every year. The grand success of the previous year's National Conference has encouraged the institute to come up with the International Conference on Latest Innovation in Engineering Science and Management (ESM-19). This event is targeted towards researchers, professionals, educators and students to share innovative ideas, issues, recent trends and future directions in the fields of Science and Engineering. I am sure researchers, academicians and technology experts participating in this seminar would address the various issues pertaining to the topics and highlight the advantages of the recent innovations at length. This conference will be an enriching experience for the faculty members as well as students and encourage them to pursue further exploration of the recent innovations.

My best wishes to this noble endeavor of Buddha Institute of Technology and Conference World. I wish the conference a grand success.

(Dr. Rajat Agrawal)

Secretary



MESSAGE

I am happy to learn that our institute is organizing an International Conference on “**Latest Innovation in Engineering Science and Management**” (ESM-19) and that a souvenir is being published on this occasion.

ESM-19 is being organized in association with “**Conference World**”, New Delhi. The accepted papers in ICRISE, 2018 will be published in the proceeding of the International Journals with ISBN and in associated International journals with ISSN.

The conference will feature Plenary/Keynote talks, workshops, parallel technical sessions.

I congratulate the organizing team of BIT for organizing such a great event and providing a platform for interaction of experts and researchers through the conference. I have no doubt that the suggestions made by experts/speakers during the presentation will enhance the skill of researchers. I wish the conference a great success.

(Prof. V.K.Singh)
Director
BIT, Gorakhpur



MESSAGE

National or International conferences are very significant in the development and growth of an institution. We had organized two national conferences in the year 2016 and 2017 and we gained a lot of experience and benefit from them. This year, therefore, we collaborated with Conference World and organized an international conference on Recent Innovation in Science and Engineering (ESM-19).

This International Conference will prove to be a congregation of eminent personalities, scholars, professionals and scientists from all branches of engineering and technologies, where all of us will get a chance to ventilate their knowledge and experience about the various paradigms of various fields of engineering.

ESM-19 has a wide range of diverse themes and topics and many scholars's papers, which have been submitted for presentation and discussion. I hope that the conference panels will stimulate a fruitful discussion and conclusion. At the outset, we all will benefit from the healthy exchange of views, ideas and experiences. I am also hopeful that these discussions will reinforce our strong commitment for a better tomorrow.

On behalf of the organizing committee of this International Conference ESM-19, at BIT, I thank all the contributors, learned authors, well wishers, sponsors and advertisers for their unstinted support towards the successful completion of this International Conference ESM-19.

I am thankful to our honourable Chairman Dr. R. A. Agrawal and Secretary Dr. Rajat Agrawal for inspiring us to organize this International Conference.

Prof. Alak Roy
Convener of ESM-19



MESSAGE

I feel delighted and privileged, as an Organizing Secretary, to host ESM-19, our International Conference on Latest Innovation in Engineering Science and Management and take pleasure to welcome all the academicians, technical experts and participants from various universities and institutes to this conference.

This event will provide a platform to the professionals, academicians, research scholars & students of various disciplines to put forward their thoughts and vision to provide awareness about recent developments and innovations in the field of science and engineering.

I am thankful to our honorable Chairman Dr. R. A. Agrawal and respected Secretary Dr. Rajat Agrawal for encouraging and guiding us to organize this international conference. I would also like to express my sincere thanks and gratitude to the Conference World team and members of organizing committee of ICRISE-18, who have worked tirelessly to organize this conference and ensure its grand success.

(Mr. Arun Kumar Mishra)
Organizing Secretary
ESM-19



MESSAGE

Conferences provide a platform where the young talents explore their ideas. It was the first International Conference in any Engineering College of Purvanchal (Gorakhpur Region). As an Organizing Secretary, I had to constitute advisory board of ESM-19. Dr. Sudhakar Tripathi (Associate Professor (IT), REC Ambedkar Nagar), my elder and Dr. Ganga Ram Mishra (Associate Professor (ECE), Amity Lucknow Campus), my mentor helped me a lot in formation of advisory board. I am grateful to the all members of advisory board.

Thousands of emails were sent to the individuals, thousands of phone calls were made from my side to the individuals and the day came when ESM-19 was finally executed in the BIT Campus. Mrs. Reshu Gupta, on behalf of Conference World was always there with me and I got her full support at each and every stage of ESM-19. I am thankful to Mr. Alok Pandey (PRO, BIT, GIDA Gorakhpur) and Mr. Santosh Kumar Tripathi (Head Skill Development, BIT, GIDA, Gorakhpur) for their valuable supports and co-ordination.

I am very much thankful to my wife Mrs. Renu Tripathi (along with Master Sharv and baby Vashu) to spare me free from the responsibilities of my family during this conference.

Finally, I am thankful to Dr. R.A. Agrawal Sir (Chief Patron, ESM-19), Dr. Rajat Agrawal Sir (Patron, ESM-19), Prof. J.P. Gupta (Dean Student Welfare, BIT, GIDA, Gorakhpur) and Mr. Deepak Agrawal (Administrative Officer, BIT, GIDA, Gorakhpur) for their support and motivation.

Rajeev Ranjan Kumar Tripathi

Secretary, ESM-19

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

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