

CHERAN COLLEGE OF ENGINEERING

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International Conference on Contemporary Challenges in Management, Education, Engineering & Applied Sciences

[IC³MEEAS – 2022]

30th July 2022

In Association With:



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**International Conference on Contemporary
Challenges in Management, Education,
Engineering & Applied Sciences**

[IC³MEEAS – 2022]

30th July 2022

Editors

Dr.S.Kannadhasan

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Dr.R.Baskaran

Dr.R.Nagarajan

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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 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 Contemporary Challenges in Management, Education, Engineering & Applied Sciences [IC3MEEAS – 2022]. 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 54 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.

About the College

Cheran College of Engineering has been started in the year 2012 – 13 with an intake of 300. It is approved by AICTE, New Delhi and affiliated to Anna University. The College offers five under graduate programmes (Bachelor of Engineering) – Civil Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering and Mechanical Engineering. The college is located in a sprawling campus on Karur-Coimbatore National Highway (NH- 67) at Cheran Nagar, K.Paramathi, Karur – 639111. The institution has the academic ambiance for good teaching and practical trainings effected by qualified and experienced faculty to groom our students as complete technocrat and professionals. We inculcate the students the qualities required to envision their future, estimate the requirements, and equip them to overcome the obstacles and to reach their desired goal. The infrastructures provided to the students are world class and state of the art. The laboratories are equipped with instruments and equipment of industrial class and not merely desktop. This helps our students to learn to the requirements of real time industry. The library has adequate collection of books and journals in both print and electronic media which serves the academic needs of our students. It is computerized and has on-line access catalogue for the benefits of the users. Separate hostel facilities are available for boys and girls. Students are given abundant opportunities to involve themselves in co-curricular and extracurricular activities through various clubs, cells, associations and sports activities.

Aim & Objective of the Conference

IC³MEEAS-2022: International Conference on Contemporary Challenges in Management, Education, Engineering & Applied Sciences aims to bring together leading academicians, scientists, students and research scholars from around the world to exchange and share their experiences and research findings on all aspects of Advancements in Management, Education, Technology & Applied Sciences. It also serves as a prominent multidisciplinary forum for academics, practitioners, and educators to present and debate the most current breakthroughs, trends, and concerns, as well as practical difficulties and solutions in the domains of science, engineering, and technology.

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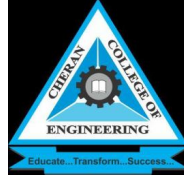
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CHAIRMAN MESSAGE



I am glad to welcome you all for the International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world which provides a multidisciplinary venue for inspiring new ideas. I am pleased to acknowledge the [IC3MEEAS 2022] International Conference on Contemporary Challenges and Intelligent Technologies. I appreciate the organizing committee's commitment to a successful Conference and their contributions of fresh ideas and research discoveries. I congratulate them on their efforts to promote information. The main objective of the conference is to bring experts and research scholars from various institutions and industries to share their views and ideas in the area of Management, Science, Engineering, and Technologies related with soft computing techniques. Approximately 200 authors and guests from six continents, including one-of-a-kind Keynote speakers, will present their most recent achievements in a variety of topics related to soft computing. All members of the organizational, scientific, technical, and financial committees have put in a lot of effort and attention to make this conference a success. The event would have been impossible to hold without them. My personal respect and thanks goes out to all of you. I congratulate all the concerned with gratitude and wish the conference a grand success.

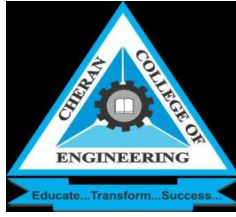
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Chairman

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Tamilnadu, India



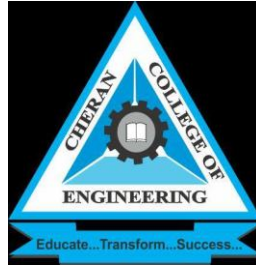
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TREASURER MESSAGE



I am delighted to note that the Cheran College of Engineering has organized the International conference on International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world. The topic suggests that this conference focuses more on practical applications rather than on theoretical inputs on current Corporate World. This conference aims at disseminating knowledge and providing a highly interactive forum so as to bring together researchers of soft computing with various disciplines. I welcome all the participants to our institution for a fruitful participations and enjoyable time. I congratulate the organizing committee for their enthusiastic participation for various activities and making each event a grand success. I am sure this conference will be a milestone in ensuring the highest standards in this profession. I wish the organizers the very best in this and all their other endeavours.

Mr.K.Muthusamy
Trustee
Cheran College of Engineering
K.Paramathi, Karur-639111
Tamilnadu, India



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DIRECTOR MESSAGE



It is a great honor for me as a Director to welcome all the guests and participants for the International conference on International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world. We are encouraged to continue the conference activities in future to bring the experts from various fields for knowledge updation. We would like to thank all of the industries and corporate entities who have supported this event, and we hope that it will engage and benefit a wide range of participants both locally and worldwide. International and regional experts, academics, service providers, and end users will be able to learn about the newest developments in the digitalization sector at IC3MEEAS 2022. This conference will provide an opportunity for us to discuss our views and ideas on how to map our path ahead to new heights. We experience new development every day and every moment. The Conference will bring together business executives, academicians, researchers, industry organizational leader, government and non-government representatives, service providers, IT experts and technology solution innovators to address the challenges unleashed in order to enhance the competitiveness of the Indian industry. I appreciate the organizers of the conference for arranging a platform with experts and research scholars to discuss and share their ideas in recent trends in advanced technologies. I would like to thanks the organizing committee, technical committee and referees who has put so much effort to make this a successful conference.

Dr.T.K.Krishnamurthy

Director
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PRINCIPAL MESSAGE



I am happy to note that the Cheran College of Engineering is conducting the International conference on International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world. We have been thinking about organizing a conference for quite some time and the first aspect which we had to discuss was that would we be able to make it meaningful and fulfill the expectations of the participants and the aspirants. This took us around a year to think over the issues to be floated, the format, the key participants, their orientation, and so on. The academia can contribute to society through their contribution towards Intelligence. The events in the conference are targeted towards researchers, practitioners, professionals, educators and students to share their experience, innovative ideas, issues, recent trends and future directions in field of soft computing techniques. This conference is a unique forum for exchange of innovative ideas, technical expertise for technological advancements etc. in this evergreen field. It includes keynote address from Academicians and paper presentation by research scholars. I am sure that this conference will identify the areas that will contribute to the overall development of our nation. The theme of the conference unifies the picture of modern techniques as an integral concept that highlights the contemporary challenges for theoretical and practical research with applications. I wish the Dignitaries, participants, especially the organizing team and Publishing Committee in making this event a grand success. The success of this Conference is solely on the dedication and efforts of innumerable people who started working on the preparations for almost a year in many ways to make this Conference become a reality. Eventually I express my special thanks and appreciation to all. I wish all success for the International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022].

Dr.R.Baskaran M.Tech., Ph.D.

Principal

Cheran College of Engineering

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HOD MESSAGE



International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world is one of the important means of sharing of knowledge that Cheran College of Engineering offers to the community of professionals and researchers concerned with technological advancements. I am confident, that as a participant, you will enrich yourself immensely from this conference IC3MEEAS 2022. I appreciate all the authors for their exemplary contributions and in particular, the members of the programme committee for their proficient review of the manuscripts. I would extend my gratitude to all the invited chairs, plenary speakers and the organizers for their collective contribution and preparation for the event. I record my sincere thanks to Scopus indexed Journals for publishing a subset of papers presented in the conference. It has been a great honor and privilege to serve as the Co-convener of IC3MEEAS 2022. Since in this conference; the technical experts from utilities and academia will opportunities to share their knowledge and experience in the recent trends in Management, Science, Engineering and Technology. The deliberations in the conference would be very fruitful to the nation. I would like to extend my best wishes for the success of the conference in achieving its objectives. I am sure the participants of this International Conference will gain in-depth knowledge of soft computing and its applications. I also appreciate the faculty members who participate in this International Conference for their generous efforts in conducting this Conference successfully.

I wish all success in this endeavor.

Prof.R.Bharathi. B.E., M.E.,[Ph.D]
Associate Professor & HOD/CSE
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ORGANIZING SECRETARY MESSAGE



The developments in the field of Management, Engineering and Applied Sciences have far reaching impacts in all aspects of life and society. This conference will play a humble role in bringing together researchers, young scientists and students in an informal environment for discussing the latest advances and this will help young researchers to gain novel ideas. International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world. This Conference will consist of tutorials, plenary lectures, oral and poster presentations. More than 80 Papers were received from over 80 Institutions all over India, and abroad, and from this 55 Papers were selected for oral presentation.

The selected papers are arranged into 05 tracks under five streams, according to the technical contents of the paper. The oral presentations are overseen by 03 session chairs who are experts in the topics of presentations. The presented papers will be published in Scopus, Web of Science, UGC Care, and Peer Reviewed Journal. There were two national and international keynote speakers, who gave comprehensive, yet in-depth talks on their areas of expertise. We would like to thank the keynote speakers for their enthusiastic participation, for sharing their knowledge, and for their guidance which was elemental for the success of this conference. We own the success of the conference to every one of the organizing committee members, and everyone who spent their valuable time, going above and beyond their call of duty, planning every aspect to perfection.

We are also extremely thankful to the management of Cheran College of Engineering and Conference World for proving all the necessary financial, organizational, and Infrastructural help necessary for organizing this conference, and for all the support and encouragement that enabled us to make this a success. We would also like to thank all the reviewers, authors, session chairs, and participants for their active participation in making this conference into a rich technical forum. I record my sincere thanks to Scopus indexed Journals for publishing a subset of papers presented in the conference.

I wish this International conference on Contemporary Challenges in Management, Education, and Engineering & Applied Sciences [IC3MEEAS 2022] in association with International Association of Research and Development Organization (IARDO) and Conference world a mastering Success.

Dr.S.Kannadhasan

B.E.,M.E.,M.B.A.,Ph.D.,PGDCA.,PGVLSI.,PGESDI.,PGDRD.DCHN,DCP.,ADSE.,PGDBI.,B.Sc.,M.Sc.,M.A

Membership of Professional Society:

SMIEEE., MIE.,MISTE.,MIETE.,CSI.,IACSIT.,IAENG.,IEAE.,ICSEC.,SPG.,SEEE.,SDIWC.,IJSR.INSC.,IARDO.,EAI

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All papers will undergo a double-blind peer review process and the criteria for acceptance will be based on quality, originality, technical content and relevance.

Proceeding of the conference has been published with **ISBN: 978-93-91535-05-6**

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Total 101 papers were received for the conference and 54 papers were shortlisted by the committee.

1. Accepted papers will be published in the peer reviewed international journals having ISSN & High Impact factor.
2. Selected Papers will be published in the UGC Care listed international journals having ISSN & High Impact factor.
3. Few very good quality Papers will be published in the Scopus indexed journal having ISSN & High Impact factor.
5. All the papers of the conference will be published in the conference proceeding with ISBN.
6. All the accepted and presented/ Non-Presented papers will be indexed in Google scholar & IDIIF.

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