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**INTERNATIONAL CONFERENCE ON RECENT
INTELLIGENT TECHNOLOGIES IN SCIENCE,
ENGINEERING, HUMANITIES AND MANAGEMENT
(ICRITSEHM 2021)**

ORGANIZED BY:

CHERAN COLLEGE OF ENGINEERING

*[APPROVED BY AICTE, NEW DELHI AND AFFILIATED TO ANNA UNIVERSITY, CHENNAI, RECOGNIZED BY
UGC WITH 2(F)] K.PARAMATHI, KARUR-639111*

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**INTERNATIONAL CONFERENCE ON
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SCIENCE, ENGINEERING, HUMANITIES
AND MANAGEMENT**

(ICRITSEHM 2021)

Editors

DR. R. BASKARAN

S.KANNADHASAN

DR. K. V. L. N. ACHARYULU

Publish By:

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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 Recent Intelligent Technologies in Science, Engineering, Humanities 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 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 Conference

International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities and Management (ICRITSEHM 2021) is a global event organised by CHERAN COLLEGE OF ENGINEERING [Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai, Recognized by UGC with 2(f)] K.PARAMATHI, KARUR in association with International Association of Research and Developed Organization (IARDO) & Conference World conducted through Google meet. 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. Accepted paper will be published in International Journal with ISSN Approved by UGC . Selected papers will be published in Scopus Index Journals. All Accepted papers will be published in Conference proceeding having ISBN .

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.

CHAIRMAN MESSAGE



I am glad to welcome you all for the International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) in association with International Association of Research and Development Organization (IARDO) and Conference world which provides an multidisciplinary venue for inspiring new ideas. This conference seeks to create an interactive forum for the advancement of the practice of science, system, development, and management, across the multiple disciplines and specialty areas. Our goal of conducting conference is to gain knowledge in latest technologies and its applications in innovative ways. 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 Science, Engineering, Humanities and Management. 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.

Mr. P.M. Karuppannan

Chairman

Cheran College of Engineering

K.Paramathi, Karur-639111

Tamilnadu, India

TREASURER MESSAGE



I am delighted to note that the Cheran College of Engineering has organized the International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) in association with International Association of Research and Development Organization (IARDO) and Conference world.

I convey my blessings and good wishes to one and all members of organizing committee of ICRITSEHM 2021, I welcome all the delegates and participants to our institution and I wish the conference a grand success. This conference aims at disseminating knowledge and providing a highly interactive forum so as to bring together researchers of different disciplines.

My best wishes for the success of the International Conference ICRITSEHM 2021. I welcome all the participants to our institution for a fruitful participations and enjoyable time.

Mr.K.Muthusamy

Trustee

Cheran College of Engineering

K.Paramathi, Karur-639111

Tamilnadu, India

DIRECTOR MESSAGE



It is a great honor for me as a Director to welcome all the guests and participants for the International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) 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. The conference provides you with many opportunities to network with your peers to share information and experiences.

As we all know that our country can only make progress if the scientists and technocrats can utilize their knowledge for exploring their newer fields of research and development. 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, management consultants, service providers, IT experts and technology solution innovators to address the challenges unleashed in order to enhance the competitiveness of the Indian industry. These eminent experts and research scholars will help us achieve the objectives of the world-class confluence of industry and academia.

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.

Dr.T.K.Krishnamurthy

Director

Cheran College of Engineering

K.Paramathi, Karur-639111

Tamilnadu, India

PRINCIPAL MESSAGE



I am happy to note that the Cheran College of Engineering is conducting the International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) in association with International Association of Research and Development Organization (IARDO) and Conference world. Intelligence is a human trait and each human is trying to import that intelligence into machines. Intelligent machines can understand, see and respond to the situations. The academia can contribute to society through their contribution towards Intelligence. The International Conference is a platform to share ideas on Intelligence in Science, Engineering, Humanities, and Management. I hope the deliberations and discussions in the conference will be helpful for the academia and researches.

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 trends in advanced Science, Engineering, Humanities, and Management for theoretical research with applications.

I wish the Dignitaries, participants, especially the organizing team and Publishing Committee in making this event a grand success.

I wish all success for the International Conference.

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

Principal

Cheran College of Engineering

K.Paramathi, Karur-639 111

Tamilnadu, India

HOD MESSAGE



The International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) 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 ICRITSEHM-2021. 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.

I am sure the participants of this International Conference will gain in-depth knowledge 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.

Mr.A.Kumaran
Assistant Professor & HOD/ECE
Cheran College of Engineering
K.Paramathi, Karur-639 111
Tamilnadu, India

ORGANIZING SECRETARY MESSAGE



The developments in the field of science and technology 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. The International Conference on Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) 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. This conference will focus on recent trends, emerging technologies and advances in all aspects of Science, Humanities, Systems, Signals, Mathematical Methods, Management, and its applications. More than 105 Papers were received from over 50 Institutions all over India, and abroad, and from this 80 Papers were selected for oral presentation.

The selected papers are arranged into 10 tracks under five streams, according to the technical contents of the paper. The oral presentations are overseen by 08 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 seven 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 Recent Intelligent Technologies in Science, Engineering, Humanities, and Management (ICRITSEHM 2021) in association with International Association of Research and Development Organization (IARDO) and Conference world a mastering Success.

Mr.S.Kannadhasan

Assistant Professor

Department of Electronics and Communication Engineering

Cheran College of Engineering, Karur

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Session Chair

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Mrs.R.Bharathi, Assistant Professor & HOD/CSE

Mr. V.Anandhkumar, Assistant Professor & HOD/EEE

Mr.A.Sasikumar, Assistant Professor & HOD/CIVIL

Mr.V.S.Saravanan, Assistant Professor & HOD/S&H

Invited talk on

“The Significant Role of Differential Equations in Mathematical Modeling of Ecology”

By **Dr. K. V. L. N. Acharyulu,**

Associate Professor, Dept. of Maths, Bapatla Engineering College, Bapatla.

Organizing Secretary/Editor

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Assistant Professor, Dept of Electronics and Communication Engineering

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Total 105 papers were received for the conference and 80 papers were shortlisted by the committee.

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