



Education to Eternity

Jaidev Education Society's
JD COLLEGE OF ENGINEERING & MANAGEMENT, NAGPUR
Post: Valni, At: Khandala, Katol Road, Nagpur – 441501



Organizes

International Conference On Advances In Materials: Engineering & Technology

In Association with

Department Of Physics, Rashtrasant Tukadoji Maharaj, Nagpur
University, Nagpur

In Collaboration with

LUMINESCENCE SOCIETY OF INDIA



CONFERENCE SUMMARY REPORT

The **International Conference on ADVANCES IN MATERIALS: ENGINEERING TECHNOLOGY** was organized by J D College of Engineering & Management **In Association with** Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University which is celebrating 100 years of its existence **In Collaboration with** Luminescence Society of India.

The conference was initiated in August 2022 and an 05 member executive committee was formed from the J D College of Engineering & Management **In Association with** Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University **In Collaboration with** Luminescence Society of India. The executive committee identified subject expertise globally, took approval of their willingness to support the conference, and formed an advisory board comprising of 10 committee with 58 members.

The main aim of this conference was to bring together leading researchers & practitioners from Academia & industry to explore & share the recent progress in Material science, Engineering & Technology. It was also meant to provide a premier interdisciplinary platform to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the field of Engineering.

The committee finalized Twenty Four themes that included Nano materials, Material Synthesis & Processing, Ceramics, Luminance Materials, Ultrasonic Materials, Smart Biomaterials, Metals & Alloys, Materials for Energy Harvesting & Storage, Polymers, Sensors, Green Materials, Eco- Friendly & Sustainable Materials, Advances in construction materials, ICT Computing, Cluster Cloud & Grid Computing, Big Data Analytics, Materials for Electronics & Photonics, 2D & 3D Materials, Advanced Power Electronics, Advances in Renewable Energy, Innovative Battery Materials, Advanced Materials: Fuel cell technology, engines & turbines & Phase change materials. The conference preparations started with the call for abstracts; 128 abstracts were received out of which 117 were accepted. The next step was the call for papers, and out of 81 papers submitted by authors, 76 were accepted for oral presentations and 68 made its way to the Conference Proceedings.

Selected research papers have been compiled and edited in the form of Conference Proceedings and published by Scopus, UGC Care Indexed Journals Subject to peer review.

The conference maintained a high-quality peer-review process for all the manuscripts submitted, starting with a primary evaluation that included a plagiarism check for the original contents. Rejections



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at this stage had either serious scientific flaws, very poor grammar or were outside the aim and scope of this Conference. Those that met the minimum criteria were passed on to experts in the domain for review. Single-blind review process was employed, where the reviewer remained anonymous to the authors throughout the process. Reviewers were requested to decide on accepting/rejecting the submitted paper, along with suggestions to improve the quality of the paper. After getting the review report, authors were informed of acceptance/rejection.



International Conference on “ADVANCES IN MATERIALS: ENGINEERING TECHNOLOGY”

The Conference Format

This summary captures the two-day program of presentations and keynote addresses, which took place from the 19th to 20th December 2022. The event brought together some **160** plus research scholars, members of faculty, students, and key officials nationally and internationally to discuss the



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ADVANCES IN MATERIALS: ENGINEERING TECHNOLOGY with focus on solving multi-disciplinary problems in different sectors of the economy. So, the smart and well developed nations are quickly creating niche areas for themselves by developing materials of strategic value to their competitive advantage. It concluded with a set of presentations of real-world cases describing new and noteworthy initiatives relevant to the conference theme.

The first day of the conference started with an inaugural session with a welcome note and conference overview by **Dr. S. V. Sonekar** Sir, Principal JDCOEM & Convenor- ICAMET and Dr. Sanjay J. Dhoble, Professor, Department of Physics, R.T.M. Nagpur University, Nagpur & Convenor- ICAMET. Felicitations were given by **Shri Sanjayji Goyal Sir**, Chairman, Jaidev Education Society to Chief Guest, **Dr. S. R. Chaudhari**, Honourable Vice Chancellor –RTMNU, Nagpur. **Shri Ajayji Goyal Sir**, Secretary, JES felicitate Guest of Honour **Prof. M.S.K. Khokhar**, Honourable Former Vice Chancellor- Guru Ghasidas Vishwavidyalaya, Bilaspur. **Prof. S.M. Bang**, Director, JES felicitate **Dr. K.V.R. Murthy**, President, Luminescence Society of India, Professor, Dept. Of Applied Physics, M.S.University of Baroda, Gujarat, **Shri Avinash Dorsatwar**, Executive Director, JES felicitate Expert Speaker **Dr. Nabil El- Faramawy**, Professor- Dept. of Physics, Faculty of Science, Ain Shams University, Cairo, Egypt , **Dr. S. V. Sonekar**, Principal, JDCOEM felicitate Expert Speaker **Dr. B. Vengadaesvaran**, Professor-Higher Institution Centre of Excellence, Advanced Centre Wisma R & D, University of Malaya, Quala Lumpur, Malays



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A welcome note and conference overview by Dr. Sanjay J. Dhoble, Professor, Department of Physics, R.T.M. Nagpur University, Nagpur & Convenor- ICAMET.



Felicitations were given by Shri Sanjayji Goyal Sir, Chairman, Jaidev Education Society to Chief Guest, Dr. S. R. Chaudhari, Honourable Vice Chancellor –RTMNU, Nagpur.



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Felicitations were given by Shri Ajayji Goyal Sir, Secretary, JES to Guest of Honour Prof. M.S.K. Khokhar, Honourable Former Vice Chancellor- Guru Ghasidas Vishwavidyalaya, Bilaspur.



Felicitations were given by Prof. S.M. Bang, Director, JES to Dr. K.V.R. Murthy, President, Luminescence Society of India, Professor, Dept. Of Applied Physics, M.S.University of Baroda, Gujarat.



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The technical sessions followed the inaugural session and the main keynote lecture **Dr. K.V.R. Murthy** President, Luminescence Society of India, Professor in Applied Physics Department, Faculty of Technology and Engineering, M.S University of Baroda, Gujarat. **Guest Of Honour I Prof. M. S. K. Khokhar**, Hon'ble Former Vice Chancellor- Guru Ghasidas Vishwavidyalaya, Bilaspur.

SOUVENIR RELEASE:

All the dignitaries present on the Dias to release the Souvenir for the ICAMET. Experts from different parts of India and Abroad have contributed to this. In total we have received more than 300 papers for the conference.





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The sessions then continued by the CHIEF GUEST Speech , Honorable Vice Chancellor –RTMNU, Nagpur **Dr. S. R. Chaudhari**. And **PRESIDENTIAL SPEECH** Speech, Shri Sanjayji Goyal, Chairman, JES.



Session concluded with a vote of thanks proposed by **Dr. Namrata Pradnyakar**, Dean (Student & Capacity Building, JDCOEM)- Co Convenor of the Conference.

SESSION II

The two-day conference comprised of Six technical sessions, some of them scheduled concurrently. The theme **ADVANCES IN MATERIALS: ENGINEERING TECHNOLOGY**, was divided into Six sessions in order to accommodate the large number of presentations. Each session had a Chair and Co-chair, who were experts in the domain. Each author was given 10 minutes for the paper presentation, which was followed by question and answer session for 5 minutes. The conference was structured to foster discussion between participants.



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Each theme started with a keynote lecture by an eminent personality in the domain. Keynote Speaker **Dr. K.V.R. Murthy**, Professor, Applied Physics Department, Faculty of Technology and Engineering, M.S University of Baroda, Gujarat. Next Session Chair for the Invited Talks, **Dr. O. P. Chimankar**, Head-Dept. Of Physics, RTMNU, Nagpur And Session Chair for the Invited Talks, **Dr. R. S. Kher, Professor**, Department of Physics, Government E. Raghvendra Rao PG Science College, Bilaspur.

INVITED TALKS

We had us eminent personalities from Egypt & Malaysia to acquaint us with latest advances in material science & engineering in their part of the world. **Our first speaker** was **Dr. Nabil El-Faramawy**, Professor, Department of Physics, Faculty of Science, Ain Shams University, Cairo, Egypt. our next Speaker was **Dr. Vengadaesvaran Balakrishnan**, Professor, Higher Institution Center of Excellence, Advanced Centre Wisma R & D, University of Malaya, Kuala Lumpur, Malaysia.

With this we come to the end of this session. A few delegates gave a feedback on the Conference and the session concluded with a vote of thanks proposed by **Dr. Parvin Sheikh**, On behalf of J D College of Engineering & Management, by expressing the gratitude to the Key Note Speaker, Session Chairs, and Invited Guests & Speakers for the valuable time & guidance.

Glimpses of International Conference:





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Ms. Sarvashree Junghare, First Year CSE student, glimpse of one of the classical dance forms of India.



Glimpses of Inaugural session



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Glimpses of Technical Session



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Glimpses of Technical Session



Introduction

- An increase in population has led to the increase in consumption of food, clothes and recreation of water has also increased contemporary needs.
- From many times there have been noticed variations in the climate has also increased causing huge losses to the growers and hindering the growth of the crops. Hence a need arises not only to use the clothes efficiently but also manage up for the unborn food security of the country.
- Hydroponics Farming has chased up helping in effective use of clothes and leading to an increased crop product. An attempt has been made to exercise domestic crop maker for Hydroponics husbandry.
- After studying the hydroponic husbandry system, we came to know that setup is one time cost but the regular recurring cost for this system is Nutrient water, which is generally expensive.

Organizing Committee

Chief Guest	Dr. Subhash K. Chaudhari Honorary Professor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
In-charge	Dr. Ajay Patil
Guests of Honor	Dr. M. S. Khatkar Honorary Professor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
	Dr. P. B. Maheshwary Honorary Professor, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur



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Best Paper Award



Principal
J.D. College of Engineering & Management,
Khandala, Katol Road,
Nagpur-441501

Place: Nagpur
Date: 06/03/2022

Signature, Name and Designation of the
Head of the Institution with seal