Manjara Charleable Trust Rajiv Gandhi Institute Of Technology, Mumbai

THE BEAUTY OF ENGINEERING LIES OT JUST IN BUILDING STRUCTURES, TIN THE STRENGTH OF THE UNSEEN FOUNDATIONS THAT HOLD THEM

TOGETHER."

Issue August2022



BY

DEPARTMENT OF MECHANICAL ENGINEERING

Mechazine is a magazine that embodies the spirit of mechanical engineering through experience, curiosity, discovery, and craftsmanship. It explores the cutting-edge frontiers of technology, covering the latest trends like 3D printing and artificial intelligence, and how these innovations are shaping the future of engineering. From advancements in space exploration to the rapidly evolving field of automation, Mechazine highlights groundbreaking developments that are transforming the world. Each article is crafted with passion and dedication by a team of engineers and writers, who work to make complex ideas engaging and insightful. Whether you're a student, professional, or simply someone fascinated by the world of engineering, Mechazine offers a deep dive into the future of technology and serves as an inspiration for all who read it.

Department of

MECHANICAL ENGINERING

VISION

• To create competent technical professionals in Mechanical Engineering with ethical behaviour and environmental consciousness.

MISSION

- To provide contemporary and cutting-edge technical education in Mechanical Engineering.
- To provide an ambience which nurtures research ideas in futuristic domains of Mechanical Engineering.
- To initiate project based learning and practical exposures in the area of Mechanical Engineering.
- To direct faculties in research and consultancy / advisory roles.
- To establish strong linkages with well-known national and international technical institutes.
- To promote the culture of imbibing environmental care and ecofriendly designs.
- To become a department of aspiration & choice.

Department of

MECHANICAL ENGINEERING

PROGRAM OUTCOMES

PEO1: To prepare the stakeholder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.

PEO2: To make ready the stakeholical to pursue higher education for professional development.

PEO3: To help the stakeholder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program.

PEO4: To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.

POEO5: To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities. PEO6: To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PRINCIPAL'S MESSAGE



We at MCT's RGIT Mumbai provide a transformative educational experience and believe that "Education is the manifestation of the perfection already in a man." Since inception, the institute is committed to provide quality learning environment and experience to the students and faculty. Over the years, our work ethics and policies have evolved from the vision of our inspiration Late Shree Vilasraoji Dagdojiraoji Deshmukh and various notable educational and social philosophies. Although, I firmly believe Science and Technology as extraordinary resources of the world, yet I feel availability of good leadership is necessary in development of nation. We have outstanding record of taking specific efforts in developing academic excellence, Character and Personality of our students. The Academics, Cocurricular and Extra- Curricular activities of our institute are designed for enabling students to be versatile technocrats and leaders of enormous potential. Our major strengths are our worldwide network of Alumni, our linkages with apex educational and research institutions, our human resource and our infrastructure. The worldwide research in studying role of technocrats in socio-economic development of the nation has proved that technological innovations are the base of economic development of a nation. Moreover, the economic growth of USA in the last fifty years is attributed to science and technology. As a technological institution, this motivates us to shoulder the huge responsibility of contributing to technological world for overall development of our nation. The institute has aligned its mission for developing the young minds into the human capital as an engineering workforce of the nation. We aim to enhance linkages with apex educational and national research institution and develop systems for leading the institute towards academic autonomy and set foundation for institute to be a Centre of Excellence in next five years. I assure you that your stay as student at RGIT will be a memorable experience in the context of learning a value based education. Will enable you to be successful in career and life.

Dr. Sanjay U. Bokade

Ph.D.(Tech), M.E.(Mfg. Tech), B.E.(Production)

HOD'S MESSAGE



It is my pleasure to present this issue of the Newsletter, an initiative of the Department of Mechanical Engineering. always, this magazine truly strives hard to compile all extensive content that the today's Mechanical Engineer should be aware of. I appreciate the rigorous efforts that have gone in to making this magazine. With number of conquering new heights each year, acquiring numerous prestigious awards and seeing my pupils progress and move ahead and thrive strengthens my belief in our prosperity. With all my wishes, I look forward to the success of this newsletter.

Dr. Rajesh V. KalePhD. (Mech), M.E (Thermal)
B.E. (Mech)



CEO MEET 2022

Brief description of the Event:

CEO Meet of this International Conference on Embracing Industry
4.0 Technologies for Sustainable Growth is the backbone of
communication among a company's CEO/Directors and participants.
This is an exclusive, only event that provides a casual and intimate
environment to learn with thought provoking content from
preeminent CEO and Directors of the Industry







Summary of Discussion:

- We had good discussion on the topic which is very relevant to the Indian Industry.
- We heard them speak their experiences on Embracing Industry 4.0 in Indian Industry Challenges.
- •We appreciate all the efforts that is done by you all for the development of our society and nation.
- •Digitalization of various industries is taking place in India. However, the penetration level varies according to the sector requirements.
- •Some sectors have started experimenting with idea of a connected factory at shop floors and assembly lines.
- •The Indian automotive industry is at the forefront of adoption of key elements of Industry $4.0.\,$







Research article presentation event was conducted in eleven sessions. Preparations started with the call for abstracts; 140 abstracts were received out of which 117 were accepted. The next step was the call for papers, and out of 105 papers submitted by authors, 73 were accepted for oral presentations.

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. Blind review process was employed, where the reviewer remained anonymous to the authors throughout the process.

Selected research papers have been compiled and edited in the form of Conference Proceedings. ICEI4.0 collaborated with 'Journal of Engineering Project and Production Management' which is Scopus Indexed International Journal.

(General Aptitude and Industry 4.0 Technologies) QUIZ COMPETITION REPORT

The AICTE sponsored program on 'International Conference on Embracing Industry 4.0 Technologies for Sustainable Growth (ICEI 4.0)' organized by Rajiv Gandhi Institute Of Technology consists of a quiz competition on the topic 'General Aptitude and Industry 4.0 Technologies'. The competition comprises of two rounds, both of which will test the student's ability to solve complex problems and their technical skills as well. The quiz is intended to provide the students with the opportunity to analyse their problem solving skills and to prepare them for their corporate interviews.





FIRST PLACE SAKSHI KHAIR

COMPUTER DEPARTMENT

(CASH PRIZE RUPEES 1500+TROPHY + FOOD

VOUCHER + CERTIFICATE)

SECOND PLACE

AMAAN KAMIL COMPUTER DEPARTMENT

(CASH PRIZE RUPEES 1000+TROPHY + FOOD

VOUCHER + CERTIFICATE)

THIRD PLACE VIJETHA KAMAT IT

DEPARTMENT

(CASH PRIZE RUPEES 500+TROPHY + FOOD

VOUCHER + CERTIFICATE)

ALUMNI SPEAK SERIES

Department of Mechanical Engineering has organized online Alumni Webinars named "Alumni Speak Series" to provide the virtual platform to alumni to express their experiences, insights and share knowledge to the present students. Under this series, department invited distinguished senior alumni. This series also offered opportunity to the students to learn & get updated, motivated in this present covid -19 pandemic situation.

Students joined online by you tube as well as Zoom app students from various Engineering and Technological Institutes from India. Live streaming was done on "MCT'S RAJIV GANDHI INSTITUTE OF TECHNOLOGY MUMBAI YOU TUBE CHANNEL" as well as "ZOOM APP." Participation for all was free of cost.

MANJARA CHARITABLE TRUST
RAJIV GANDHI INSTITUTE OF TECHNOLOGY, MUMBAI
(Permanently Affiliated to University of Mumbai)
DEPARTMENT OF MECHANICAL ENGINEERING
(UG Program - NBA- Accredited; PG in Heat Power and Ph.D. Technology)

PRESENTS

ALUMNI SPEAK SERIES

TOPIC

"Global Career Opportunities in Oil and Gas Sector"



Mr. Amod Khandekar

Deputy General Manager (Mechanical),

L&T Hydrocarbon Engineering Ltd,

Mumbai



8th August 2021



11:00AM ONWARDS

Live Stream On Zoom And YouTube

Prof. N. K. Deshmukh Coordinator

Dr .R. V. Kale HOD, Mechanical Engg. Dept Dr. S. U. Bokade PRINCIPAL