**Title: 2nd International conference on “Recent Advances in Materials, Manufacturing and Machine Learning” (RAMMML-2023)**

**Topics:**

**Materials**

Advanced Materials

Functional Materials

Ceramics, Shape Memory Alloys and Nano-materials

Materials for Aerospace Applications

Polymers and Polymer Composites

Glasses and Amorphous materials

Material characterization and testing

MEMS/NEMS

Bio and Energy Materials

Magnetic and Cryogenic Materials

**Manufacturing**

Micro/Nano Machining

Green Manufacturing

Metal Forming,

Casting & Joining Technologies

Industry 4.0

Additive Manufacturing

Subtractive Manufacturing

Non-Conventional Machining Processes

Plastic Processing Technologies

Computer integrated manufacturing

Sustainable Manufacturing Technologies

**Machine Learning**

Artificial intelligence in biomedical engineering and informatics

ANN and evolutionary algorithms in Mechanical engineering.

Genetic algorithm

Particle swarm optimization

Simulated annealing

**Modelling, Analysis and Optimization:**

Product Design and Development

Non-destructive testing

Modelling and Simulation

Optimization Techniques

Renewable Energy

Computational analysis (FEM, CFD)

Process Monitoring and Control

Vibration and Noise Analysis

Energy Analysis and HVAC

Fluid mechanics and heat transfer

Mechanical system modelling

Data acquisition

Robotic process automation

Mechanical failure detection

Process automation

**About**

**Theme of the Conference:**

The 2nd International Conference on **“**Recent Advances in Materials, Manufacturing and Machine Learning (RAMMML-2023)**”**is a federated organization dedicated to bringing together a significant number of diverse scholarly events for presentation within the conference program. Events will run over a span of time during the conference depending on the number and length of the presentations. With its high quality, it aims to bring together both industrial and academic professional including leading academic scientists, researchers and research scholars to exchange and share their experiences, most recent innovations, trends and research results on all aspects of Advances in Materials, Manufacturing and Machine Learning.

**Yeshwantrao Chavan College of Engineering, Nagpur. (YCCE)**

Yeshwantrao Chavan College of Engineering (YCCE), Nagpur, Established in 1983, is renowned for Engineering Education and Research. It has successfully nurtured young engineering professionals, becoming a sought-after destination for students aspiring to higher technical education and placement in the competitive software and core industries. A first private engineering college to acquire 'Autonomous' status in Central India approved by AICTE & is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University. The college is guided by the Academic Advisory Board consisting of eminent academicians from the prestigious technical institutes in India and USA. Accredited by National Board of Accreditation (NBA), New Delhi up to   June 2023. NAAC has accredited the college with an ‘A++’ grade. The institute has been ranked amongst top Engineering Institutions all over India including IITs, NITs, and Government & Autonomous Engineering Institution by NIRF, MHRD, and Government of India. The Institute offers 7 UG & 6 PG courses apart from Ph.D. programmes. Since its inception, the institute has maintained a tradition of academic excellence and training of students for the National Service. The Institute has taken quantum jumps and is one of the leading institute’s offering world class technical educations. The Institute has signed MoU’s with various National and International Universities, Laboratories and Industries for academic and research interaction and collaboration for mutual benefit.

**Department of Mechanical Engineering**

The Department of Mechanical Engineering is one of the largest departments in the Institute, offers the UG course in Mechanical Engineering and post graduate courses in CAD/CAM and Doctoral Program in Mechanical Engineering. The department has over 20 instructional and research laboratories, equipped with some of the state-of-the-art scientific instruments and systems. The vision of the department is to be one of the attractive destinations for pursuing mechanical engineering with emphasis on innovation, research and value based education. The department has evolved over time to keep up with the ever-increasing challenges in technology development, while maintaining a strong base in the fundamental aspects of Mechanical Engineering. The Department is having Siemens Center of Excellence in the field of Automation, AVEVA Center of Excellence in the field of Pipe Design. The Department has maintained a good rapport with Industry and R & D organizations. The Department has student’s chapters of ASME (American society of Mechanical Engineers), SAE (Society of Automotive Engineers) and ISHRAE (Indian Society of Heating, Refrigerating and Air Conditioning Engineers). The faculty members of the department drive these activities through their teaching and diverse research programs, covering numerous facets of Mechanical Engineering Applications.

**About RAMMML 2022**

The RAMMML 2022 was organised during 26-27 April 2022. The conference received an overwhelming response of 643 numbers of manuscripts from 20 different countries. The inaugural function was graced by Chief Guest Hon’ble Dr. P.M.Padole, Director VNIT, Er. Milind Pathak Chairman, IEI Nagpur Centre, Nagpur was Guest of Honor and Dr. U.P.Waghe, Principal, YCCE was the president of the function. Dr. Mrs. Manali Kshirsagar, Advisor YCCE was on the dais. All the selected manuscripts with being published by Taylor & Francis and Journal of Institutions of engineers. Overall 75 papers have been selected for the poster presentation also.

Key-note sessions were delivered by Dr. Rajiv Gupta, Associate Professor, from North Carolina State University, United States on “Lightweight and Corrosion Resistant Alloys”, Prof. Abhishek Sharma from Osaka University, Japan on “Friction Stir Alloying”, and Prof. Bjorn Schuller from Imperial College of London on “Hot-off the Fire Deep Learning and its Application in Biomedical and Materials Engineering” during the conference.