



3rd National Conference on
Recent Advances in Mechanical Engineering

RAME-17
Feb 17th - 18th 2017



Organised by



Department of Mechanical Engineering
Dr. Vithalrao Vikhe Patil College of Engineering
Ahmednagar, Maharashtra (India)

Sponsored by



Savitribai Phule
Pune University,
Pune



Dr. Vithalrao Vikhe Patil
PRINCIPAL
Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar

INSPIRATION

Dr. Vithalrao Eknathrao Vikhe Patil - Our Visionary philanthropist pioneered the cooperative movement in India by establishing the first cooperative sugar factory in Asia at Pravara nagar, a remote village in Ahmednagar district of Maharashtra. He made untiring efforts for the upliftment of rural masses and initiated various other social and educational movements. The deeds and accomplishments of Dr. Vithalrao Vikhe Patil made him immortal and he is living and will live forever till the civilization exists in the hearts of the generations to come.

ABOUT DVVP FOUNDATION

To realize the visionary thoughts of Dr. Vithalrao Vikhe Patil, his worthy son, Late Dr. Balasaheb Vikhe Patil (Padmabhushan Awardee), established Dr. Vithalrao Vikhe Patil Foundation in the year 1982 with soul aim to provide education to rural masses. Now under the dynamic leadership of Hon'ble Radhakrishna Vikhe Patil & Hon'ble Dr. Sujay Vikhe Patil, the foundation is dedicated to provide quality education in the field of medical, Engineering, Management, Pharmacy, Nursing, Physiotherapy, Agriculture, ITI, basic & higher Schooling.

ABOUT COLLEGE

The Institute was established in the year 1983 in the proximity of Ahmednagar Industrial area offering undergraduate & postgraduate courses. The institute is affiliated to Savitribai Phule Pune University, Pune and recognized by the government of Maharashtra & approved by AICTE, New Delhi. Over the years it has grown into a premier institution with excellent teaching-learning environment to achieve excellence in imparting quality technical education thereby generating technocrats compatible with needs of current industries & society. Institute offers undergraduate courses in Civil, Electrical, Electronics & Telecommunication, Information Technology, Instrumentation & Mechanical Engineering. Institute also provides the education in post graduate courses in Mechanical Engineering (Design Engg.) & Civil Engineering (Structural Engg.). The institution is located on beautiful picturesque & pollution free land at a distance of 12 km. from Ahmednagar city on Ahmednagar-Manmad state highway (SH-10).

ABOUT THE DEPARTMENT

The Mechanical Engineering Department is one of the oldest departments of college. Established in the year 1986, DVVP's Mechanical Engineering Department has been providing excellent learning and research opportunities for undergraduate and post graduate students, in addition to providing consultancy services to the multiple industries.

Since its inception, the department has gained a reputation in the Savitribai Phule Pune University, Pune, (Formerly University of Pune) as renowned department due to high academic standards established by qualified, experienced and devoted faculty. Today, the Department of Mechanical Engineering attracts and features a rich diversity and quantity of talented individuals, with nearly 700 undergraduates, 50 postgraduates students and around 44 faculty members. All the laboratories in the department are well equipped and are at par with latest technology. The department had been accredited by NBA, New Delhi & NAAC, Bangalore.

CONFERENCE SCOPE

The Advances in Mechanical Engineering are the order of the day with the rapid industrialization and urbanization seen in developed and developing nations. Rapid population growth and the global pursuit of sustainability are creating new demands for engineers who can design products, services and infrastructure to improve the quality of life for the billions, innovative design and new practices are challenging tasks to the researchers and working engineers to meet the ever growing demands of the society.

The conference is the premiere forum for the presentation of new advances and research results in the fields of Mechanical Engineering. The Conference will provide a leading forum for sharing the original research contributions and practical development experiences among students, researchers, academicians, industry professionals and application developers in Mechanical Engineering. This conference will also provide opportunities for the delegates to exchange new ideas and application through face-to-face discussions, to establish business or research relations and to find global partners for future collaborations. We hope that the outcome of RAME-2017 will yield significant contribution to the knowledge in the emerging areas of Mechanical Engineering. All the selected paper will be published in International Engineering Research Journal (IERJ).

AREA OF INTEREST

- Design Engineering
- Thermal Engineering
- Manufacturing System and Automation
- Tribology
- Interdisciplinary

* for details please Visit conference website : www.enggnagar.com/rame-2017



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MESSAGE

Research is an integral, indispensable part of the development. Development is its own war & is comprehensive and with the growing competition within this dynamic globalized world; the challenges for development have also become complex and vibrant.

In its commitment and mission to serve the society, it gives me immense pleasure that Department of Mechanical Engineering of Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar is organizing this National Conference on "Recent Advances in Mechanical Engineering (RAME - 2017)".

I hope that this endeavor serves as a benchmark in the history of Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar. I congratulate all the delegates and wish this event great success.



Hon'ble Shri. Radhakrishna Vikhe
Patil



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MESSAGE

Our attempt to nurture and promote through research and teaching shall reach to next level innovation and will help to enrich the system. We continue to perform as catalyst for realization of potential and aspirations which ensure the stream of fresh talent and enlightened ideation to serve the country and humanity.

I am happy that Department of Mechanical Engineering of Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar is contributing to the field of research by organizing this National Conference "Recent Advances in Mechanical Engineering (RAME - 2017)". I hope this conference will be used as a platform by the Teachers, Researchers, Scientists and Industrial professionals to share their findings and discuss them in detail.

I wish a grand success for the conference on "Recent Advances in Mechanical Engineering (RAME - 2017)" and take this opportunity to thank all the keynote speakers, delegates attending the conference.



Hon'ble Dr. Sujay Vikhe Patil

Chief Executive Officer
D.V.V.P. Foundation,
Ahmednagar

Dr. Sujay Vikhe Patil



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Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar



NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL - 506 004, TELANGANA STATE, INDIA

MESSAGE

I am extremely delighted and happy to know that Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar is organizing a National Conference on Recent Advances in Mechanical Engineering during 17-18 February, 2017. The topic is very relevant to the current time and the college is also an ideal location to organize and host this conference. In its more than 30 years of existence, this institution has grown from strength to strength and has made a mark for itself in the region. The conference will deliberate on various areas of Mechanical Engineering and will provide a platform for researchers, academicians and field personnel to share their experiences. Mechanical Engineering, being one of the oldest and core branches of engineering, is most sought after by bright students. The latest developments in information technology has been adopted to develop the technology to keep in pace with the current trends. I am sure, this conference, will set the ball rolling for many new developments in Mechanical Engineering. I wish the conference all success



Dr. K. V. Jayakumar
Ph. D. (IIT Kanpur)
Dean, Planning & Development
NIT Warangal



PRINCIPAL
Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar



MESSAGE

I am delighted to know that Department of Mechanical Engineering of Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar is organizing a two days National Conference on "Recent Advances in Mechanical Engineering (RAME-2017)" on 17th and 18th Feb.2017.

The quality of Research and presentation is improving day by day. It is quite appropriate that Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar, one of the leading college under University of Pune has taken the initiative in organizing a national level conference. This conference will bring the teachers, researchers, scientists and industrial professionals together to present their research work and sharing their ideas.

I appreciate the efforts made by the Management, Principal Dr. Jayakumar Jayaraman, Conference Director Dr. K. B. Kale and their staff for organizing the conference on "Recent Advances in Mechanical Engineering (RAME-2017)" and convey my best wishes and grand success.

Dr. W. N. Gade
Vice-Chancellor,
Savitribai Phule University of Pune




PRINCIPAL
Dr. Vithalrao Vikhe Patil
College of Engineering
Ahmednagar



MESSAGE

We are all aware that research is an extremely important aspect of education, as it generates new knowledge in various disciplines. A recent survey suggests that the status of research in India is not as satisfactory as compared with the developed countries. Hence, today's need is to go for research through various programs and conferences.

I am sure that the conferences like "Recent Advances in Mechanical Engineering (RAME-2017)" will certainly help in strengthening the research activities in colleges and various research and industrial organizations. It's great that Department of Mechanical Engineering of Padmashri Dr. Vitthalrao Vikhe Patil College of Engineering, Ahmednagar has come forward to organize a National Conference on "Recent Advances in Mechanical Engineering (RAME-2017)".

I appreciate the efforts made by the Management, Principal Dr. Jayakumar Jayaraman, Conference Director Dr. K. B. Kale and their staff for organizing the conference on "Recent Advances in Mechanical Engineering (RAME-2017)" and convey my best wishes and grand success.

Dr. V. B. Gaikwad
Director, BCUD
Savitribai Phule University of Pune



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MESSAGE

It gives me immense pleasure to express the great satisfaction that Department of Mechanical Engineering of Dr. Vithalrao Vikhe Patil College of Engineering has organized a National conference on "Recent Advances in Mechanical Engineering (RAME - 2017)" to be held on 17th and 18th Feb. 2017.

Research carried out by various researchers in Engineering colleges and industries need to be shared amongst researchers, academicians, professionals and students which must then, infiltrate into the society for the benefit of mankind and hence I feel that this conference will help the objective of creating common platform for delegates attending this conference.

I wish a grand success for the conference on "Recent Advances in Mechanical Engineering (RAME - 2017)" and take this opportunity to thank all the speakers and delegates attending the conference.

I appreciate the efforts made by the Principal, Dr. Jayakumar Jayaraman, Conference Director Dr. K. B. Kale and their staff for organizing "Recent Advances in Mechanical Engineering (RAME - 2017)" and convey my best wishes.

I wish a grand success to the conference.



Lt. Gen. (Retd.) Dr. B. Sadananda

Secretary General
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Foundation, Ahmednagar.



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I wish a grand success for the conference on "Recent Advances in Mechanical Engineering (RAME - 2017)" and take this opportunity to thank all the keynote speakers, delegates attending the conference.



Dr. P.M. Gaikwad

Director (Technical)
Dr. Vithalrao Vikhe Patil
Foundation, Ahmednagar.




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College of Engineering
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॥ नमो ज्ञानेन सद्गुरुं परिकल्पितं विद्महे ॥
DR. VITHALRAO VIKHE PATIL FOUNDATION'S

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The National Board of Accreditation (NBA), New Delhi has been accredited U.G. Courses in Civil, Mechanical, Electronics & Telecommunication and Instrumentation & Control Engineering

MESSAGE

In the today's competitive world, updated knowledge and its application is very important. About 54 percent of Indians are younger than 30. Census projection say that by 2020, the average age in India is expected to be 31, compared with 37 in China and 48 in Japan. Census reports say that India is entering the advantageous demographic dividend phase just as China leaves it. But the Finance Ministry of India said, "If that growing workforce does not develop skills soon, the country could face a demographic nightmare of surplus of educated people and a shortage of qualified workers. This is the biggest wake- up call for India that our educational institutes should provide the skills that India's new economic drive demands."

This is the right time to develop professionals who are highly skilled and ready to face the challenges of increased competition. More than ever we need professionals who are responsive to economic, social, cultural, technical and environmental change and can work flexibly and intelligently across business contexts. The industry requires new graduates who understand the part they play in building their organizations, and have the practical skills to work effectively in their roles. With this objective Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar organizes Two days National Level Conference on "Recent Advances in Mechanical Engineering RAME-2017".

This conference will bring together researchers, academicians, business professionals and students from all over India. The conference will also have key note addresses by experts in the different fields.



Dr. Jayakumar Jayaraman
PRINCIPAL
D.V.V.P. College of Engineering
Ahmednagar



[Signature]
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॥ श्री गणेशाय नमः ॥

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MESSAGE

I am delighted to announce that the National Conference on Recent Advances in Mechanical Engineering (RAME-2017) will be held at Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar on the 17th and 18th Feb, 2017. This historical city and district not only represents a global focus point for tourism, it is perhaps symbolic, from historical and classical times where science, education and sharing of knowledge were encouraged. It is sponsored by the Savitribai Phule Pune University, Pune, which adds gravitas to the proceedings.

There will be several keynote lectures delivered by internationally recognized academics and industrial experts, sharing their knowledge and experience to all. All papers have undergone a rigorous review process with experts from your chosen field. I personally guarantee that all papers are reviewed to ensure consistency in quality and academic depth.

Let me, on behalf of the conference committee, I am thankful for receiving your paper in either research or development of acquired knowledge in order to disseminate to the wider audience.

I personally look forward to welcoming you to Historic city of Ahmednagar on the 17th and 18th Feb, 2017.


Prof. Kishor B. Kale

Vice Principal &

Conference Director

Recent Advances in Mechanical and Engineering (RAME) -2017




PRINCIPAL

Dr. Vithalrao Vikhe Patil
College of Engineering
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