

---

## EDITORIAL BOARD

---

**Dr. Zuzana Palkova, Ing., PhD**

Associate Professor  
Department of Electrical Engineering, Automation and Informatics  
Technical Faculty of Slovak University of Agriculture in Nitra, Slovak Republic  
E-mail: [zuzana.palkova@uniag.sk](mailto:zuzana.palkova@uniag.sk)

**Prof. Sunil Nain**

Department of Mechanical Engineering  
University Institute of Engineering and Technology,  
Kurukshetra University, Kurukshetra, INDIA  
E-mail: [nain\\_sunil@rediffmail.com](mailto:nain_sunil@rediffmail.com)

---

**Prof. Bhupinder Singh**

HOD, Computer Science, Indo-Global College of Engineering, Mohali, Punjab, INDIA  
E-mail: [bsbhupinder37@gmail.com](mailto:bsbhupinder37@gmail.com)

**Dr. Vijay Ghial**

Assistant Engineer  
Haryana Power Generation Corporation Limited,  
Karnal, Haryana, INDIA

---

**M. D. Gupta**

Associate Professor  
Department of Mechanical Engineering  
Institute of Engineering and Technology, Lucknow  
U.P. INDIA  
E-mail: [romi\\_dayal@rediffmail.com](mailto:romi_dayal@rediffmail.com)

**Prof. Vishal Ahlawat**

Department of Mechanical Engineering  
University Institute of Engineering and Technology  
Kurukshetra University, Kurukshetra, INDIA  
E-mail: [mail2vishal1986@yahoo.co.in](mailto:mail2vishal1986@yahoo.co.in)

---

**Abdullah Karimi**

CFD Analyst, Southland Industries, USA  
E-mails: [akarimi@purdue.edu](mailto:akarimi@purdue.edu); [karimi@southlandind.com](mailto:karimi@southlandind.com)

**Dr. Pallavi Rana**

Department of Physics  
National Institute of Technology, Kurukshetra, INDIA

---

**Dr. Vikrant Dalal**

Associate Professor and Head of Electronics and Communication Engineering  
Delhi Technical Campus, Bahadurgarh, INDIA  
E-mail: [dalal.vikrant@gmail.com](mailto:dalal.vikrant@gmail.com)

**Rajesh Dudi**

Assistant Professor and Head of Mechanical Engineering Department  
OM Institute of Technology and Management  
Om Group of Institutions, Hisar, INDIA

---

## EDITOR-IN-CHIEF

**Dr. Rakesh Kumar Phanden**

Associate Professor, Department of Mechanical Engineering  
M. M. University, Mullana (Ambala) - 133 207, Haryana, INDIA  
E-mail: [editor@ijaera.org](mailto:editor@ijaera.org), [phanden@mmumullana.org](mailto:phanden@mmumullana.org)

---

International Journal of Advanced Engineering Research and Applications (IJAERA) is issued monthly and is published on-line at [www.ijaera.org](http://www.ijaera.org) by Mr. Sachin Kundu, BOLD RAPID NETWORK PVT. LTD, Spaze I-Tech Park – Sector 49, Gurgaon – 122018, INDIA, E-mail id: [sachinkundu33@gmail.com](mailto:sachinkundu33@gmail.com), Contact No. +918607857555.

IJAERA assumes no responsibility for the statements and opinions advanced by contributors. The editorial staff in its work of examining papers received for publication is helped, in an honorary capacity, by many distinguished engineers and scientists.

Communications for publication in the journal should be addressed to the Editor-in-chief, IJAERA.

## EDITORIAL

---

I am pleased to introduce the first issue of the first volume of the International Journal of Advanced Engineering Research and Applications (IJAERA). IJAERA is an international journal aimed at disseminating the latest developments in all areas of engineering, science and technology, including Computer Science and Engineering, Information Technology, Electronics and Communication Engineering, Electrical Engineering, Mechanical and Mechatronics Engineering, Industrial and Production Technology, Manufacturing Technology, Civil and Construction Engineering, Instrumentation and Control Engineering, Applied Science & Engineering etc.

The main goal IJAERA is to present high quality research developments in all areas of engineering, science and technology as well as their applications in industry and services, to a broad audience of academics and practitioners. IJAERA provides a platform for the dissemination of information, knowledge and new developments among professionals, academics, researchers, practitioners and policymakers working in the broad field of engineering science and technology. In order to bridge the gap between theory and practice, applications and case studies are particularly welcome. For theoretical papers, their originality and research contributions are the main factors in the evaluation process.

The fast pace of modern research requires a relatively short period from the conception of a valuable idea to its appearance in a scholarly journal, which in some cases takes up to several years and months. We believe that such long periods introduce an enormous delay in the dissemination of the results, rendering research efforts obsolete and ultimately rendering academic journals useless as an up-to-date source of information. Considering that this is a very serious issue, we are committed to a quick review process of less than 1 month (from submission to the final decision) so that the latest developments and advances are available without delay to professionals, academics, researchers and practitioners and so that the authors will be able to know the evaluation of their work in a short time. The satisfaction of authors is one of IJAERA's concerns. We try to do our best to satisfy the authors so that any authors having an experience with IJAERA once will not have doubt in submitting additional papers. In fact, we have already received positive responses from authors in a relatively short period and as a result, some authors have already submitted their second papers. By no means, the speed in the reviewing process implies relaxing the quality requirements we set for IJAERA. The editorial decision is based on the judgment of independent reviewers in a double blind refereeing process.

This inaugural issue of IJAERA includes six papers, addressing different areas of engineering science and technology. We should mention that there is no specific reason in choosing these six papers for the inaugural issue of IJAERA except that they are the first accepted papers. We have decided to publish the papers in the order of their acceptance dates.

The average rate of paper submission to IJAERA so far is one paper per three days. This rate of submission for a new journal is considered to be very high. It should be noted that summer semester was during this time period which is usually not productive for researchers since most of them take their holidays during this time period.

IJAERA has initially been devised as a bi-monthly journal. However, the current high submission rate results in the journal to a monthly journal. I sincerely believe in the IJAERA's firm contribution to the research and development of engineering science and technology both in academia as well as in industry.

We are committed to make the IJAERA as a journal with a high impact in the coming years. We are also committed to the highest ethics standards. As a result, we will not publish our own papers in IJAERA during our duty as editors. Moreover, any submission from the same institution or by colleagues of any of the editors will be handled by the other editors to ensure the independence and fairness in the review process. This will help in maintaining the high quality of the journal.

I would like to express my appreciation to Mr. Sachin Kundu, (Bold Rapid Network Pvt. Ltd. Gurgaon INDIA) for his excellent support throughout the launch of the IJAERA. Moreover, I would like to thank the editorial board members and other referees for their objective evaluation of papers and for their timely and detailed reports which have improved the quality of the accepted papers significantly. Finally, I sincerely thank the contributing authors for their valuable work.

**EDITOR-IN-CHIEF**

(Dr. Rakesh Kumar Phanden)

---

## TABLE OF CONTENTS

Sr. No.	Title of Paper & Name of Author(s)	Page No.
1.	Optimization of Thrust Force and Material Removal Rate in Turning EN-16 Steel Alloy using Taguchi Approach <i>Author: Vijay Kumar</i>	1-9
2.	Effect of Process Parameters on MRR for HCHCr in WEDM using RSM methodology <i>Authors: Pawan Bishnoi &amp; Kartik Kaushal</i>	10-20
3.	Natural Fibers Polymeric Composites with Particulate Fillers – A review report <i>Authors: Rajendra Kumar, Tejeet Singh &amp; Harwinder Singh</i>	21-27
4.	SOMANI'S Approximation Method (SAM): An Innovative Method for finding optimal Transportation Cost <i>Author: Chirag Somani</i>	28-33
5.	A Review on the Machining of Titanium Alloys using WEDM <i>Authors: Paras Prajesh &amp; Paras Chawla</i>	34-40
6.	Production Scheduling in a Job Shop Environment with consideration of Transportation Time and Shortest Processing Time Dispatching Criterion <i>Authors: Pardeep Kumar &amp; Mukesh Kumar</i>	41-49