



SANDIP
FOUNDATION

ICMMSE:IR
2021



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AICTE Sponsored

INTERNATIONAL E-CONFERENCE

ON MECHANICAL AND MATERIAL SCIENCE
ENGINEERING: INNOVATION AND RESEARCH
(ICMMSE: IR 2021)

17th -18th Sept. 2021

ORGANIZED BY

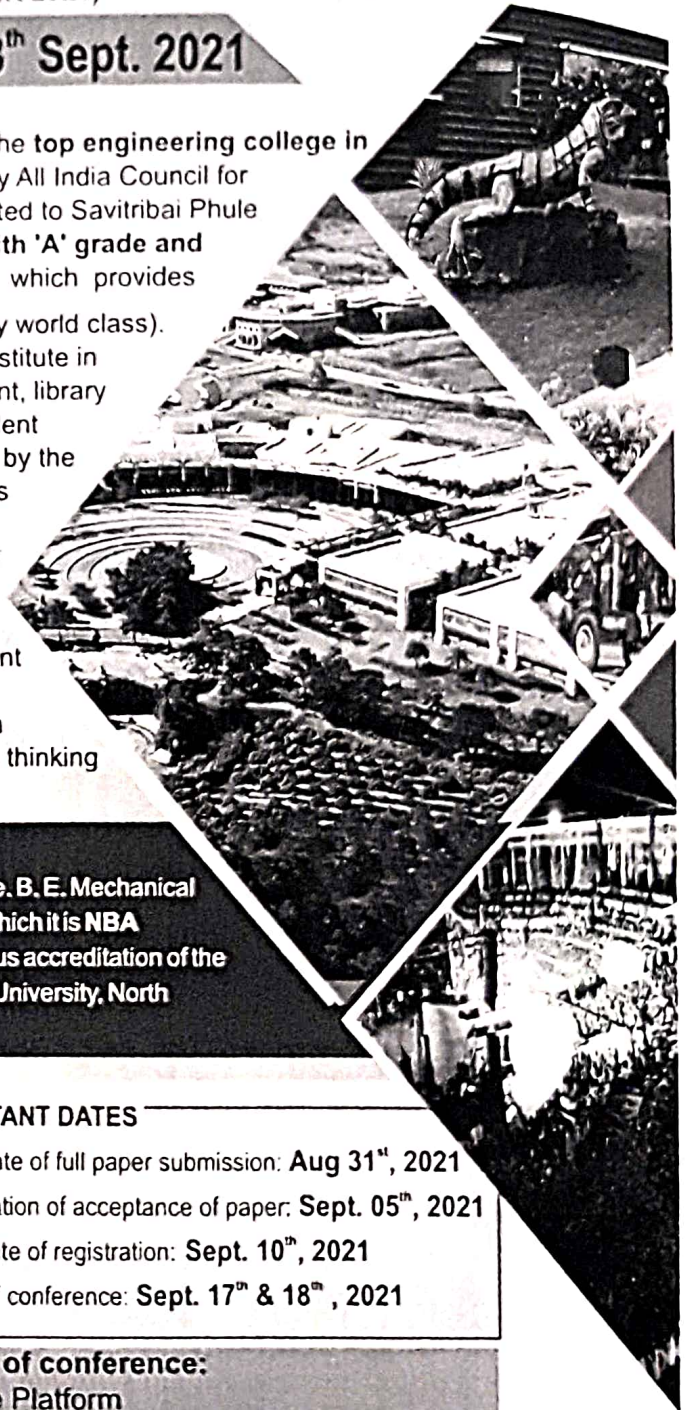
**DEPARTMENT OF MECHANICAL ENGINEERING
SANDIP INSTITUTE OF TECHNOLOGY
& RESEARCH CENTRE, NASHIK (MS)**

ABOUT SITRC

Sandip Institute of Technology and Research Center (SITRC), the top engineering college in Nashik, Maharashtra is established in 2008 and is approved by All India Council for Technical Education, New Delhi Government of India and affiliated to Savitribai Phule Pune University, Pune. The Institute is accredited by NAAC with 'A' grade and comprehensive score of 3.11, an ISO 9001:2008 certified which provides

uncompromising quality infrastructure (Faculty & facilities simply world class).

This commitment is reflected in the investments made by the Institute in providing facilities to students in terms of laboratories, equipment, library sports, transportation and everything it takes to create an excellent environment for learning. On visiting the Campus, one is struck by the aesthetic and elegant buildings, splendid lawns, spacious sports grounds and lush green environment conducive for teaching-learning process. The Campus boasts of in-house facilities like state-of-the-art labs, spacious classrooms (with Audio-Video teaching aids), mess with hygienic food, college canteen, health care centre, gym etc. to cater all necessities of the student and the staff, ultramodern hostel facilities with beautiful surroundings. 250+ acres of Campus is about 12 km away from Nashik city. SITRC has an ambiance that stimulates intellectual thinking and academic proceedings (Teaching and Learning Process).



DEPARTMENT OF MECHANICAL ENGINEERING

Department of Mechanical Engineering offers undergraduate program i.e. B. E. Mechanical Engineering course and practices OBE (outcome based education) for which it is NBA accredited from 2020 – 21 to 2022 – 23. This is the highest and prestigious accreditation of the nation acquired as on date by only few programs in the jurisdiction of the University, North Maharashtra region as well as the nation.

WHO SHOULD ATTEND?

The conference is relevant to UG/PG students, Ph. D scholars, Researchers/Engineers, Academicians & Industrialist the field of Mechanical and Materials Science.

Paper Submission process and Conference update, please visit our website
<https://www.sandipfoundation.org/icmmseir>

CONFERENCE HIGHLIGHTS

- * Publication of all peer reviewed and accepted papers in referred and Scopus/WoS Indexed Journal.
- * Presentation & Attendee certificates.

IMPORTANT DATES

- Last date of full paper submission: **Aug 31st, 2021**
- Notification of acceptance of paper: **Sept. 05th, 2021**
- Last date of registration: **Sept. 10th, 2021**
- Date of conference: **Sept. 17th & 18th, 2021**

Mode of conference:
Online Platform

Registration Fee:

- No registration charges for conference participation.
- Additional charges for publication in Scopus/WoS Indexed Journal.

PUBLICATION:

All papers submitted to the conference will be peer reviewed and evaluated for originality, technical contents and relevance to the conference. Peer reviewed papers will be published in *Savitribai Phule Pune University Journal of Engineering & Technology*.

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Electricity generation with the use of a speed breaker

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Abstract. The consumption of electricity has skyrocketed in recent years. Diverse setups for effective power generating have been created to meet the need for power by various units. In this study, electrical power is generated unconventionally by merely driving automobiles over a specifically built roller system. Simple driving mechanisms, such as rollers, interfaced electrical components, and mechanical components, are used to carry out this research. Simple energy conversion from mechanical to electrical energy using the vehicle's weight (potential energy) and speed is the primary premise (kinetic energy). The electro-kinetic power generator's mechanism governs the process of electric power generation. The electro-kinetic power generator is a way of generating electricity that uses the kinetic energy of cars driving over a track. Many specifically constructed rollers are placed on the track, which allows it to function. When cars travel over the rollers, rotational motion is created in them, which creates mechanical energy, and a generator, capable of producing DC, is controlled by a specially constructed mechanism.

Keywords. Electricity, speed breaker, electrical power, mechanisms, energy conversion, mechanical energy.

INTRODUCTION

Energy is the most basic and universal unit of measurement for all human and natural endeavors. Everything that occurs in the world is a manifestation of energy in one of its forms. Most people associate the word energy with input to their bodies or machines, conjuring up images of crude fuels and electricity. Electricity, as a type of energy, is extremely crucial in a regular man's existence. One of science's greatest marvels is electricity. It is the most important and revolutionary creation in our world, second only to man. Computers, like calculators, add up totals and perform other computations with extreme precision. Overnight, millions of newspapers and books are printed. There isn't a single aspect of human life that hasn't benefited from electricity. As a result, the contemporary era has been dubbed the "age of electricity." Nowadays, we use electricity for a variety of purposes. We heat our houses, operate factory machinery, and operate trains and buses. Electricity has radically transformed how people travel and get around. It has made it possible for us to travel by plane and fly into the freezing atmosphere of the sky. In our country, we also have electric trains. As a result, our entire way of life is now reliant on energy, and as the population grows, so does the electricity demand. However, we are aware that the resources available to generate electricity are limited, which has resulted in the current energy crisis. During this scenario, we will need to manufacture electricity from everyday items. We attempted to create electricity in this project by using speed breakers found on roads. The number of vehicles on the road is growing all the time, and as these vehicles pass past speed breakers, we will be able to create electricity. This electricity can be utilized for a variety of things, including illuminating traffic signals and streetlights.



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CERTIFICATE

---- OF PRESENTATION ----

AICTE Sponsored International E-Conference on Mechanical and
Material Science Engineering: Innovation and Research (ICMMSE:IR 2021)

17th -18th September 2021. | SITRC, Nashik

This is Certified that **Prof. GANESH WAHILE** of **Vidyavardhini's College Of Engineering And Technology Vasai Mumbai** presented his research paper titled **Electricity Generation With The Use Of A Speed Breaker** in the AICTE Sponsored International E-Conference on Mechanical and Material Science Engineering: Innovation and Research (ICMMSE : IR 2021) Organized by Department of Mechanical Engineering, Sandip Institute of Technology & Research Centre, Nashik (MS) on 17th - 18th September 2021.

Prof. (Dr.) P. R. Baviskar
Conference Coordinator
Dean Academics SITRC, Nashik

Prof. (Dr.) M. M. Patil
Conference Administrator,
HoD, Dean Administration, SITRC, Nashik

Prof. (Dr.) S. T. Gandhe
Conference Convener,
Principal, SITRC, Nashik

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