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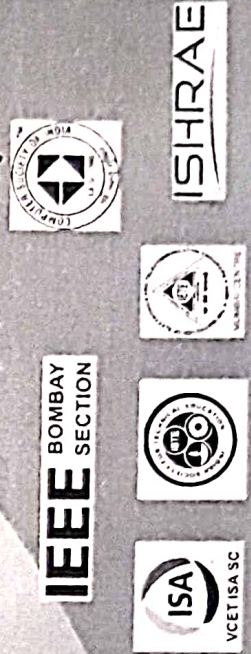
**VIDYAVARDHINI'S
NATIONAL CONFERENCE ON
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4TH APRIL, 2020**



Organized by:
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About us:

Vidyavardhini means a Body committed to enhancement of Knowledge. Vidyavardhini was established as a registered society in 1970 by late Padmashri H. G. alias Bhausaheb Vartak for the noble cause of education in rural areas.

Vidyavardhini's College of Engineering and Technology, Vasai is located on the sprawling campus of Vidyavardhini, spread over an area of 12.27 acres. It is a short, two minutes walk from Vasai Road (W) Railway Station. The college is also accessible by road from Mumbai.

Vidyavardhini Society received approval from AICTE to start the new college of Engineering & Technology with effect from July, 1994. The college is affiliated to the University of Mumbai for the four year degree program leading to the degree of Bachelor of Engineering in six branches.

Objective of VNC 2020 TASU

Technology has always been potential tool for simplifying the way we do things. Present time demands directing the technological advancements towards addressing societal challenges such as improving health care, education environment, sanitation, agriculture, smart city, etc., VNC 2020 TASU aims to provide an opportunity to researchers, academicians, Industrialist and students to interact and share their ideologies and contributions made for social upliftment with the aid of technological advancements.

Call for paper

We welcome submission in following area

1. Sustainable Computing
 2. High Performance Computing
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 4. Software Engineering and Emerging Technologies
 5. Mathematical, Experimental, Computational and AI, IoT Techniques in Mechanical Engg.
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 9. Advances in Structural engineering
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 11. Present practices in construction management
 12. Recent developments in Instrumentation, control and automation
 13. Embedded Systems, IoT and VLSI Design
 14. Optical and Wireless Communication for NGN
 15. Antenna and Microwave Devices
- Any other relevant topics

Publication Information

Proceedings of VNC - 2020 TASU will be published with ISBN number

1. Selected Papers will be published in International Journal of Information Technology, Published by Springer Nature, ISSN: 2511-2104 (Print Version), ISSN: 2511-2112 (Electronic Version)

2. All papers will be published in IJERT, ISSN: 2278-0181

Important Dates:

- Submission of full length paper
15TH Feb 2020
- Paper Acceptance Notification
22ND Feb 2020
- Submission of Final Version of Paper
29TH Feb 2020
- Registration Deadline
5TH March 2020
- PPT Submission
20TH March 2020
- Conference
4TH April 2020

Registration Fee Details:

Category of Delegates / Authors	Indian Authors & Delegates (in INR)
Full Time Students (UG)	1,500.00
Teachers/ Research Scholars/ PG students	2,500.00
Industry	3,500.00

Paper Submission:

Paper submission should be made strictly via Easy Chair the submission link for VNC 2020 "TASU":

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***Best paper award
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Design and Development of Underground Digging Explosive Robot for Military Application.

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Abstract—The military forces always tried to use new gadgets and weapons for reducing the risk of their casualties and to defeat their enemies. Today's modern military forces are using different kinds of robots for different applications. This model analyzes requirements and presents a robot design capable of tracking autonomously underground. The robot is a robust powered by electric DC motors and able to withstand the harsh environment. We design and fabricate underground explorer robot that use peristaltic crawling of an earthworm for a propulsion part and an earth auger for an excavation. In the process of excavation, the earth auger bit excavates soil, and its spiral carries excavated soil to the rear.

Keywords: Auger, casing, Explosive, Controlling, Tracking

1.Introduction

Border security and soldier safety is important concern of defense ministry. Modern technologies has been used in defense to improve the work skills and method of doing work. Also the drone is an example of technology which can be use for multipurpose applications.

The work performed in this paper explain the concept of underground digging explosive robot which can drill in smooth sand through underground. the robot is capable for travelling up to required distance by digging action. the movement of the robot

achieve with dc planetary geared motor of 240N.mm torque. Rf wireless controller circuit is used to control the motor rotation. the application of the robot is to drill with decided path and reach to enemy location to destroy their camp. The variables that affect digging are examined, as well as the design decisions made in order to get forward motion for digging.

2. Methodology

2.1 Problem definition

On the border area due to ceasefire violation from neighbor country our soldier are died continuously, and on mountains the duty of soldier is very hard. To provide security in contact with the ground and onboard human presence.

2.2 Key points

1. To improve soldier safety
2. Reduced human intervention to plant explosive

AP

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VNC - 2020 TASU
27th June, 2020

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This certificate is presented to
Mukund Padmakar Kavekar
of **Vidyavardhini's College of Engineering and Technology, Vasai**
for presenting paper titled
Design and Development of Underground Digging Explosive Robot for Military Application. (Paper ID: NTASU1029)

in the Vidyavardhini's National conference 2020 "Technical Advancements for Social upliftments" organised by Vidyavardhini's College of Engineering and Technology, Vasai held on 27th June, 2020


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