

### **JULY 2024 NEWS LETTER**

### Department Activities:

Department of robotics and automation has conducted One week STTP on"Introduction and Hands on software training of Roboanalyzer & Mechanalyzer"



Name of Faculty Coordinator:

Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

### **Department Activities:**

Department of robotics and automation has conducted Parent Teacher meeting for Second year, Third Year and Final Year.



D.Y.Patil College of Engineering, Akurdi Department of Robotics and Automation Engineering

PARENT TEACHER MEETING



WELCOME TO PARENT TEACHER MEETING OF ACADAMIC YEAR 2024-25



Name of Faculty Coordinator:

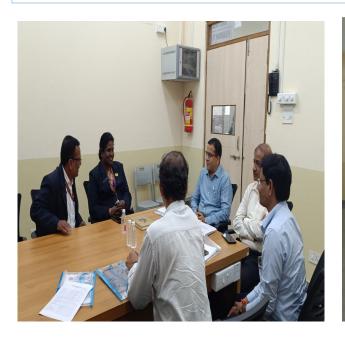
Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

### **Department Activities:**

Department of robotics and automation has BOS meeting for Syllabus structure of B-Tech and M-Tech.









Name of Faculty Coordinator:

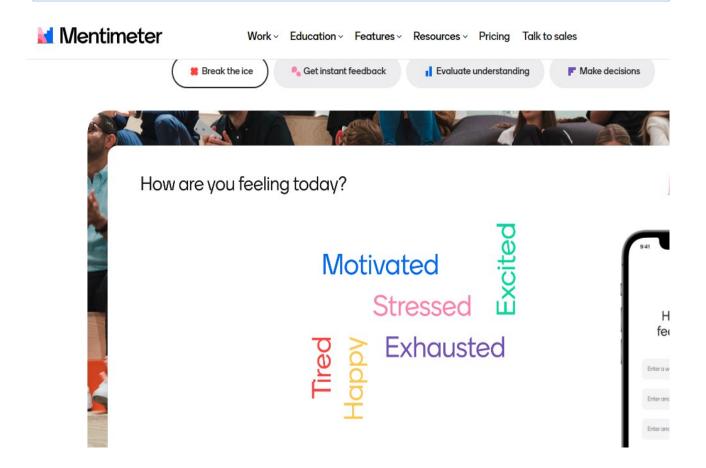
Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

### Department Activities:

Department of robotics and automation actively participated in the Mentimeter Webinar held on Saturday, July 13, 2024, from 11:30 AM to 12:30 PM.



Name of Faculty Coordinator:

Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

#### Faculty Achievements and Participation:

Dr. Nitin Kamble, H.O.D. of robotics and automation has published a paper on "Analysis & development of smart production and distribution line system in smart grid based on optimisation techniques involving digital twin "in science direct

Measurement: Sensors 34 (2024) 101272



Contents lists available at ScienceDire

Measurement: Sensors





#### Analysis and development of smart production and distribution line system. in smart grid based on optimization techniques involving digital twin

Thangaraja Arumugam 4.°, Nitin Kundlik Kamble 5, Venkataramana Guntreddi 6, N. Vishnu Sakravarthyd, S. Shanthid, Sivakumar Ponnusamy

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ARTICLE INFO

Representa Digital forte Artificial intelligence Production line asses minetion technique ABSTRACT

The term Digital Twin (DT) is defined as the virtual demonstration of an object that is represented through realtime datasets. DT is done through artificial intelligence to enhance decision-making tech igues. DT includes the process of simulation, amalgamation, observation, analysis, and conservation. The DT is simply the exact seproduction of the physical structures. DT is used in the identification and evaluation of problems through real-time analysis. It is important to have prior analysis and evaluation of the object before existing in the real world. These digital twins help in the manufacturing and implementation of the production line system. DT includes the production line with the station division and the hours needed for the operating conditions for the assembly process. The systems are integrated to reduce the overall cost parameter. The physical simulation model is employed to obtain higher performance with reduced cost. An artificial neural network with a genetic algorithm is used for the optimization process to achieve a production line system using digital twins.

#### 1 Instruction

The mobile phone usage and the consumer market have a rapid growth in the past decades. This is due to the advanced sophistication given by mobile phones in day-to-day life [1]. This leads to an increase in the demands of the consumers. Mobile phones are also referred to as a 3C electronic product which represents computer and communication and consumer [2].

This is an intensive manufacturing process that includes several constraints and consequences. Mobile phones are updated eagerly to enhance their usage and to meet the demand of consumers [1]. The production includes specific characteristics such as high-frequency production change parameters, higher flexibility, and faster communication parameters. This leads to the optimization of workshop produc-tion lines. The research and implementation of the mobile phone production line involves nearly about 5 months and the lifecycle of the mobile phone product is less than a year [4]. The implementation and optimization are done within a short period in the high-frequency

roduction line. The design and implementation scheme is done efficiently in the workshop production line. The important functioning of the 3C assembly line involves multiline mixing with cross-charing of data and machine duplexing. There are numerous testing processes involved in the mobile phones and its networking system [5].

They are done through the aid of artificial intelligence that helps to obtain exact optimum solutions. This is proceeded with the use of digital twins that help to enhance the physical to virtual representations lead-ing to a decrease in the computational time [6]. It provides various supporting tools for the design and development of the product implementation and its structures. This makes the system more reliable without the disturbances of external parameters. This is used to obtain higher accuracy and increased production.

This includes the Internet of Things for storing and eachas in the system enabling two-way communication systems [7] unication systems [7]. designing and production lines of mobile phones were implemented through digital twins. The working and the degrees of functioning are optimized through the optimization algorithm. This also includes the

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Name of Faculty Coordinator:

Mrs. Tejas A. Jadhav

<sup>\*</sup> Corresponding author.



### **JULY 2024 NEWS LETTER**

### Faculty Achievements and Participation:

 Mr. Vipul Rathod has completed the one week FDP on One week FDP on National education policy 2020"



D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE - 411044

(An Autonomous Institute) Affiliated To Savitribai Phule Pune University

Accredited by NAAC with 'A' Grade

DEPARTMENT OF MECHANICAL ENGINEERING

### CERTIFICATE OF PARTICIPATION

This is to certify that Vipul Prabhakar Rathod

from

DYPCOE, Akurdi

Successfully completed One Week Online FDP on "National Education Policy 2020" during 24th June -28th June 2024 organized by Department of Mechanical Engineering, D Y Patil College of Engineering, Akurdi, Pune-44

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Dr.T.Dey

FDP Co-Ordinator

Distorer\_

Dr.P.T.Nitnaware

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Dr.S.S.Samobat

DESCRIPTIONAL

Dean Administration

Dr.Mrs.P.Malathi

Principal

Name of Faculty Coordinator:

Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

#### Faculty Achievements and Participation:

• Dr. R. P. Jadhav and Mrs. Sujata U. Khirao have completed the one week FDP of NITTTR on "Question paper design for outcome based curriculum"





Name of Faculty Coordinator:

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### **JULY 2024 NEWS LETTER**

### Student Achievements and Participation:

Following students of Robotics and automation department attainted One week STTP on "Introduction and Hands on software training of Roboanalyzer & Mechanalyzer"

- Nandini Pujari
- Pranav Jadhav
- Devesh Wale
- Geetanjali Nimse
- Tushar Kalantre
- Vrushali kulkarni
- Yugandhara Shinde
- Akash Devkar
- Gauri Bhutada
- Ishaan
- Om Thakare
- Prathamesh Mavle

Name of Faculty Coordinator:

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### **JULY 2024 NEWS LETTER**

### Student Achievements and Participation:

Mrs.Girija Kedari, student of third year has completed certification Course on "Introduction to Analytics"



Name of Faculty Coordinator:

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### **JULY 2024 NEWS LETTER**

#### Student Achievements and Participation:

- Mrs Sonam Dongare, student of final year has participated in 2024-Prayas 2 days Externship in ETCON, Kharadi
- Mrs Sonam Dongare, student of final year has ocompleted cirtification course on "Google data Analytics"



# 2024 - Prayas Certificate of Participation

### Ms. Sonam Dongare

is presented for participating in Prayas corporate exposure program which trains and provide corporate exposure





Name of Facul-

Mrs. Tejas A. Jadhav



### **JULY 2024 NEWS LETTER**

### Student Achievements and Participation:

- Mrs Yugandhara Shinde, student of third year has completed certification course on "What is Generative AI"
- Mrs Yugandhara Shinde, student of third year has completed certification course on "Introduction to Azure static web App"



#### Microsoft Learn Student Ambassador

This certificate is presented to:

### Yugandhara Shinde

In recognition of your attendance and completion of the Microsoft

Introduction to Azure static web app

Event Hosted By

Aadish bansal

Microsoft Learn Student Ambassa



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