# ■ Industry owners Alumni Meet 2024



Principal Dr K. N. Nandurkar addressing during the 'Industry owners Alumni meet 2024'

The 'Industry owners Alumni meet 2024' was organized by K. K. Wagh Education Society on March 2024. Over 60 alumni entrepreneurs and industrialist attended this meeting. Director of public relations Shri. Ajinkya Wagh, Principal of K. K. Wagh Institute of Engineering Education and Research, Dr. K. N. Nandurkar, Principal of K. K. Wagh Polytechnic Prof. P. T. Kadave, Coordinator Dr. V. M. Sewalikar and faculty members were present for this meeting. Dr. K. N. Nandurkar delivered welcome address and provided brief information about the progress made by K. K. Wagh Education Society. Shri. Ajinkya Wagh provided the guidelines for organizing forthcoming Industry Product Exhibition to be held at K. K. Wagh campus. Alumni entrepreneurs appreciated the efforts put by the Management and the faculty for the overall development of the Institutes and also agreed to the support the Institute for skill development of the students, student/faculty internships, industrial projects, student's recruitment etc. The program ended with vote of thanks by Prof. P. T. Kadave.

ECHNICAL NEWS LETT

### Expert Session by Dr. D. B. Phatak (IITB)

Expert session by Padmashree Dr. D. B. Phatak, Emeritus Professor of IIT Bombay was organized in the institute on 1<sup>st</sup> March 2024. Principal Dr K. N. Nandurkar felicitated

Dr. D. B. Phatak. The topic of the expert talk was "Onslaught of AI/ML - Realigning our education". It was organized for teaching staff members of the institute. Dr. D. B. Phatak also visited AICTE Idea lab of our institute. He appreciated the overall development of Institute and K. K. Wagh Education Society. Dr. V. D. Barve, Ex. Principal of our institute and Mr. Mahendra Gaikwad, MD and CEO Objective Learning was also present on this occasion.



■ Visit of Shri. Jayant Sathe (Board Member, IUCEE)



Visit of Shri. Jayant Sathe

On 27<sup>th</sup> March 2024, Shri Jayant Sathe (Board Member, IUCEE) visited our institute. His interactive session was organized with Dean, HOD's, staffs and students of the institute. On this occasion Principal Dr. K. N. Nandurkar felicitated Shri. Jayant Sathe. Also an interactive session with industry representatives was organized in AICTE Idea Lab of our institute as a part of interaction with experts. Shri. Jayant Sathe is an



alumnus of IITB and did his Masters in USA. He served P&G for over 31 years and is co-ordinating the Industry-Academia panel of Indo Universal Collaboration for Engineering Education (IUCEE).

### ■ State Level Skill Competition



Principal Dr. K. N. Nandurkar felicitating the Guests

The Maharashtra State Skills Development Society (Government of Maharashtra) in association with CII, Maharashtra had organized State Level Skills Competition as a part of the India Skills 2023 - 24 on 16th March 2024 at our institute. Total 31 Participants from Nashik and Chhatrapati Sambhajinagar divisions participated in the competition in the eight skills category-Web Technologies, IT Software Solutions for Business, Renewable Energy, Water Technology, Chemical Laboratory Technology, Robot Systems Integration, Additive Manufacturing, Industry 4.0. The staff from Engineering Institute worked as subject/skill expert and arranged the labs required for competition. Teaching staff from our Polytechnic Institute worked as jury member for the competition.

## Academic Council meeting on 19th March 2024



Academic Council Meeting

Academic Council meeting under Autonomy pattern was held in institute in hybrid mode on 19<sup>th</sup> March 2024. It was attended by external members of committee Dr V. B. Gaikwad, Dr D. N. Singh (IIT Bombay), Dr G. K. Kharate (Matoshree

College of Engineering & Research Centre Nashik), Mr. Nilesh Salgaonkar (TACCT, Nashik) and Mr. V. W. Acharya (Vice President, Aplab Ltd.). Principal Dr. K. N. Nandurkar welcomed all the members on this occasion. All Dean, Heads of department and other members of Academic Council attended the meeting. Hon. Shri. Smeer Wagh joined in online manner. The new syllabus structure under NEP 2020 for all courses was discussed and approved during the Academic Council Meeting.

Signing of MoU with Nashik Engineering Cluster (NEC)



Signing of MoU with NEC

On 4<sup>th</sup> March 2024, Principal Dr. K. N. Nandurkar visited Nashik Engineering Cluster (NEC) to sign MoU for incubation activities and also attended the session by Mr Mathur, MD & CEO, Siemens (India). The MoU will help the students to participate in the activities of incubation center and get guidance for their startups.

#### Visit by Experts



Visit by Experts to Central Library

Dr. Anil Mishra (Voice Chancellor Lucknow University), Dr N. Raja Hussain (Professor Crescent University Chennai) and Dr. Sylvanus Lamare (Principal St. Edumund's College, Shillong) visited our institute on 23<sup>rd</sup> March evening as a part of visit by experts. They

continued on page 3



appreciated the activities of the Idea Lab and innovative projects by students. On this occasion Chairman Hon. Shri. Sameer Wagh, Principal Dr. K. N. Nandurkar, all Deans and Heads of department were present.

### **CDC** Meeting

On 23<sup>rd</sup> March 2023, College Development Committee (CDC) meeting was held in the institute in presence of Mr. Ashokbhai Merchant (Trustee), Mr. Shailendra Vaghulde (Ex. Manager, Siemens, Nashik) and Mr. Rushikesh Bhandari (Director, The Purchase House). Mr. Arvind Mahapatra (CEO & Founder, Netwin Solutions) joined online. Principal Dr. K. N. Nandurkar felicitated all these members on this occasion. Various issues related to NEP implementation and starting of new courses for Working Professionals were discussed during the meeting. Members also suggested measures for reducing energy consumption in the campus.

Program on occasion of "Marathi Bhasha Din"



Prize distribution of program of "Marathi Bhasha Din"

Kusumagraj Central Library of our institute celebrated "V. V. Shirwadkar (Kusumagraj) death anniversary", on 11<sup>th</sup> March 2024. On this occasion, various activities were conducted for students and staff through the library. Also, prizes were distributed to the prize winners of the Marathi signature program held on the occasion of "Marathi Bhasha Gaurav Din". This function was inaugurated at the hands of Prof. Dr. K. N. Nandurkar, Principal, KKWIEER. For the program, Dr. S. S. Sane, Dean Admin & Head of the Computer Department, Dr. S. Y. Kute, Academic Dean, and Dr. P. S. Bodke, Librarian were present. A total of 13 participants performed dynamic activities.

# Celebration of Birth Anniversary of Hon. Late Kakusheth Udeshi

On 7<sup>th</sup> March 2024, Birth anniversary of Hon. Late Kakusheth Udeshi was celebrated. On this occasion Principal Dr. K. N. Nandurkar and all Deans and Heads of department paid tribute to departed soul.



Celebration of Birth anniversary of Hon. Late Kausheth Udeshi

### Celebration of Women's Day



Cricket match for lady staff members

On occasion of International Women's Day Cricket match was arranged for lady staff members on 9<sup>th</sup> March. For the inauguration of the Cricket Match Principal Dr. K. N. Nandurkar, Prof. P. T. Kadve (Principal, K. K. Wagh Polytechnic), Prof. T. K. Kandekar (Physical Director) and lady staff members of the institute were present. The match was won by the team of Engineering College.

Celebration of World Consumer Day





Celebration of World Consumer Day on 15<sup>th</sup> March 2024 in the institute continued on page 4



On the occasion of World Consumer Day on 15th March 2024, NSS Unit of our institute in collaboration with Grahak Panchayat Maharashtra (Nashik) conducted a customer awareness session for the students of the College. On this occasion the history of the consumer movement, the significance of March 15<sup>th</sup> as World Consumer Day, and the beginnings of the well-known Bindumadhav Joshi's consumer movement was introduced in the program. Nashik District organizer of Consumer Panchayat Maharashtra, Mr. Datta Shelke guided with detailed examples on the rights and duties of the consumers, customer rights- bills, differences in Warranty and Guarantee, precautions to be taken while doing online transactions, complaints to banks in case of fraud, etc. along with their contact numbers. The collective Consumer Affirmation Pledge was presented to the students and teachers by Sinnar Taluka Organizer Mr Vishwanath Shirole.The program was attended by Mahanagar President of Grahak Panchayat Maharashtra Mr Prakash Joshi, Mr Vishwanath Shirole, staff and students of our institute.

# ■ Expert Lecture/Seminar/Courses/Workshop Organized:

- Mechanical Engineering Department organized Expert Talk of Mr. Sanket Sanap on 11/03/2024 and Expert Talk by Mr. Rajinder Luthra on 16/03/2024.
- Computer Engineering Department organized event "Campus to Corporate 2.0" on 27<sup>th</sup> March 2024.
- Dept. of Information Technology organized a session on "Introduction to Java Script" Mr. Yash Garudkar, Vinz Global, Software Engineer, Pune on 16<sup>th</sup> March 2024.
- Department of Robotics & Automation has organized a lecture on "Hydraulics & Pneumatics" and expert talk on "Advances in Robotics" on 09/03/2024 and 23/03/2024 respectively by Mr. Rajinder S. Luthra, M. D., Luthra Industries.

## **■** Expert Lecture/Seminar/Courses/Workshop Attended:

Department of Computer engineering staff Prof. J. R. Mankar and Prof. P. P. Vaidya have attended One week online FDP on "Next Generation AI" organized by VIIT, Pune during 11<sup>th</sup> to 16<sup>th</sup> March 2024. Prof. P. D. Rakibe, Prof. S. T. Patil and Prof. S. D. Jadhav have attended One week online FDP on "Cognitive Computing for Smart Applications" organized by VIIT, Pune during 18<sup>th</sup> to 22<sup>nd</sup> March 2024.

 Dept. of Information Technology staff Prof. Poonam Patil attended One week online FDP on "Cognitive Computing for Smart Applications" organized by VIIT, Pune during 18<sup>th</sup> to 22<sup>nd</sup> March 2024.

Congratulations !!



Award distribution function of Dipex-24

Ms. Shivani Dangal, Mr. Avinash Jadhav, Ms. Shruti Kadhbhane, Ms. Prajkta Patil of Final Year Students of Computer Dept for winning 2<sup>nd</sup> Prize at Dipex – 24, a state level Project Competition held at Mumbai on 10<sup>th</sup> March 2024.

Congratulations !!



Felicitation of Team Catalyst

Team Catalyst of final year Computer students won 2<sup>nd</sup> prize of Rs. 1 Lakh in the "Innovate You" a National level hackathon conducted by AISSMS Engineering College Pune. 190+ teams participated in the Hackathon. Problem Statement was "Platform for efficient management of biomass to biofuel energy conversion using Advanced AI and distance optimization techniques". Team members were Sanket Shirsath, Sayali Kulkarni, Vaidehi Patil and Pranav Shimpi. Project Guide were Prof. Chaitali Patil and Prof. Priva Rakibe. Principal Dr. K. N. Nandurkar and Dr. S. S. Sane (Head of Computer Engg.,) felicitated for their achievement. continued on page 5



### Other Activities:

- Principal Dr K. N. Nandurkar, Prof. Dr. S. Y. Kute (Dean, Academic), Prof. Dr. S. S. Sane (Dean, Admin), Prof. N. M. Shahane and Prof. Rahane attended "NEP 2020: Anand Karyashala" at KBT COE Nashik as a part of awareness about NEP implementation on 2<sup>nd</sup> March 2024
- Principal Dr. K. N. Nandurkar attended meeting with Hon VC, Pro VC & Registrar of SPPU at Nashik Subcenter as representative of Management and also as Principal for interaction with University officials on 15<sup>th</sup> March 2024. He also attended Alumni meet at K. K. Wagh B. Ed College in Saraswati Nagar Campus as Guest of Honor on 17<sup>th</sup> March as a part of interaction with other institutes of KKWES.
- Principal Dr K. N. Nandurkar, Prof. Dr. S. S. Sane and Prof. Dr. V. S Mane attended the NAAC Peer team visit at K. K. Wagh Sr. College Kakasahebnagar on 22<sup>nd</sup> and 23<sup>rd</sup> March 2024.
- Principal Dr. K. N. Nandurkar felicitated Ms. Kahandol (Assistant Professor, Maths) for publication of Research Paper in high impact journal as a part of promoting research publication on 5<sup>th</sup> March 2024.
- Thoughts of J. Krishnamurthy were displayed on 9<sup>th</sup> March 2024 in Corridor in the form of exhibits for benefit of the students as a part of creating awareness about the thoughts of a great Indian Philosopher, Speaker and Writer.
- Abstracts of papers presented during March 2024
  Ni-Cr Based Self Lubricating Composite
  Performance for High Speed Engineering
  Application

Dr. Vilas K. Matsagar & Dr. Prashant B. Kushare (Published a paper in Journal of Tribology in Industry (Scopus))

**Abstract:** Developed High speed-rotating machinery is used in agriculture for various processes. This machinery runs using the tractor PTO operated at variable speed. Operating systems of machinery were depends on the skill of the driver. Due to jerks during operation and lack of maintenance such machinery gets fails. To increase the life of rotating components, Ni-Cr based self-lubricating composite bearings were developed and used for the actual application. Self-lubricating composite was tested under the different velocities of 3.14, 3.77, 4.71, and 6.28m/s up to a maximum of 8 Hours. The

average wear rate of 7.2%MoS2 content composite is less than the other compositions of Ni-Cr-wt% of MoS2 self-lubricating composite. The result of the actual trial shows that the average wear rate of Ni-Cr- 7.2 wt%MoS2 at velocities 3.14m/s,3.77m/s,4.71m/s, and 6.28m/s is 5.74\*10-9mm3/Nm, 6.09\*10-9mm3/Nm, 6.30\*10-9mm3/Nm, and 6.44\*10-9mm3/Nm respectively.

■ A study of nonlinear transient behavior of worn out 3-lobe non recessed journal bearing Dr. Prashant B. Kushare & Dr. Vilas K. Matsagar (Published a paper in Journal of Tribology in Industry (Scopus))

**Abstract:** The purpose of this work is to discuss how the nonlinear transient behavior of a symmetric 3- lobe non-recessed hybrid journal bearing is affected by the worn bearing surface. The stability of a non-recessed worn out 3-lobe journal bearing has been investigated using the RungeKutta technique to solve nonlinear equations of motion. For various wear depth parameter values, the journal center trajectories have been plotted. According to the stability study's findings, a 3-lobe hybrid journal bearing's stability is severely influenced by the wear defect. The selection of the bearing's non-circular shape and worn-out surface parameter must be correct in order to sustain stability under dynamic operating conditions.

An Approach for Detecting Security Attacks using Machine Learning in IoT Environment

Dr. Satish S. Banait, Ashwini B. Gavali, Shrinivas T. Shirkande, AditiLule, Anup Bhange & Kanchan Wagh

(Published paper in Journal of Electrical Systems (JES) (Scopus)

Abstract: The strong security measures are becoming even more necessary to protect these networked systems as a result of the proliferation of Internet of Things (IoT) devices. The dynamic and varied nature of IoT networks frequently makes it impossible for traditional security solutions to be effective. The method suggested in this research uses machine learning to identify security attacks in IoT contexts. The suggested method makes use of the capabilities of machine learning algorithms to examine the enormous amounts of data produced by IoT devices. The system can develop the ability to recognize possible security threats and take immediate action by training models on labelled datasets that include both normal and attack patterns. In this

continued on page 6



paper multiple ML models for security threat detection in IoT environments in this study. Our evaluation uses both binary and multiclass classification models in an effort to accurately reflect the variety of assaults that can be found in IoT environments. The proposed method provides a new specialized IoT dataset that was created especially to reflect the characteristics of actual IoT environments in order to assure the validity of our assessment. By completing this extensive analysis, we hope to shed light on how well AI-based methods for security attack detection in IoT contexts work. The results of this study can help researchers and professionals decide which ML models and feature engineering techniques are best for IoT security. At the end of the day, we want to help with the creation of reliable security systems that safeguard IoT devices and shield user data from harmful attacks.

**Keywords:** Machine Learning, Network Security, Internet of Things, Security Attacks

# Multiclass Classification of Authentic and Forged Images based on Deep

Prof. Mrs. Rupali Bora (Presented a paper in International Conference on "Innovations in Cyber security and Data Science ICICDS-2024" organized by Reva University, Bengaluru during 15-16 March 2024)

#### Abstract:

Abstract:Digital manipulation of images is commonly done by the use of advanced tools and technologies. As these manipulations cannot be easily seen by naked eyes, it is very difficult to differentiate the original and forged images. Image splicing and copy-move manipulations are the most common techniques to generate such manipulated images called forged images. Image forgery can be detected and localized based on the most important features called a descriptor of an image. The manipulations can be identified by correlation among nearby pixels using various deep learningbased models. A Convolutional Neural Network is applied to identify the related discrepancies. The convolution operation produced the output feature map which is a meaningful information related to discrepancies. To detect copy-move and image splicing forgeries a deep-learning based method is proposed here. The images are classified into three classes. Forged images can be Copy-move or Spliced and third class is for Authentic images. CASIA\_v2 dataset is used for training and testing purposes. The various performance parameters like accuracy, F1-score, precision, recall are computed and compared for three types of images. The obtained accuracy is 93.54% for this multi-class

classification with maximum precision and F1-score of 95.69% and 96.30% respectively.

**Keywords:** Copy-move forgery, Image splicing, Convolutional Neural Network (CNN), Image forgery, Deep Learning

# Health Policy Implementation in Developing Nations: Challenges and Solutions

Prof. Mrs. Pragati Pandit (Published paper in South Eastern European Journal of Public Health, ISSN Number: 2197-5248)

**Abstract:** Putting health plans into action in poor countries is hard for many reasons, which makes it harder to provide good healthcare to the people who live there. Policies are often hard to put into action because of a lack of money, facilities, and skilled healthcare workers. Also, government uncertainty and corruption can make health projects less effective than they were meant to be. One major obstacle is the insufficient funding allocated to health programs, leading to inadequate facilities and a shortage of essential medical supplies. This financial constraint exacerbates the difficulty of attracting and retaining qualified healthcare professionals, perpetuating a cycle of suboptimal healthcare delivery. Infrastructure deficiencies, including poor road networks and limited access to remote areas, further compound implementation challenges. These obstacles impede the timely and equitable distribution of healthcare services, disproportionately affecting rural and marginalized communities. Political instability and corruption introduce an additional layer of complexity, compromising the integrity of health policy implementation. Unstable political environments often result in inconsistent policy frameworks, hindering long-term planning and sustainable healthcare improvements. Corruption erodes trust in the healthcare system, discouraging public participation and impeding the successful execution of health policies. To address these challenges, a multi-faceted approach is essential. Increased international collaboration and financial assistance can alleviate resource constraints, while targeted capacity-building initiatives can bolster the healthcare workforce. Improved infrastructure development, especially in rural areas, is crucial for ensuring widespread access to healthcare services. Additionally, fostering political stability and implementing anti-corruption measures are vital steps toward creating an enabling environment for successful health policy implementation in developing nations.

Prof. Dr. K. N. Nandurkar PRINCIPAL



