Master Students' Program – 2022

Inauguration of Master students' Program

Speakers of 'Master Student' Program

An Indian Society for Technical Education (ISTE) Students' Chapter of K. K. Wagh Institute of Engineering Education and Research organized the Master Students' Program 2022 on 2nd May 2022. The event was graced by Prof. Dr. K. N. Nandurkar (Principal, K.K.W.I.E.E.R.) and Dr. Pramod Shahabadkar (Training and Placement Officer). The Guest of Honor for the Master Students' Program was Mr. Sandeep Karkhanis, Executive Director, AMT Enhancement Institute. The ceremony was put into motion by the anchors of the ISTE Core Committee 2021-2022, Pushkaraj Thorat and Anamta Fatima. Followed by a heartening speech by Principal Dr. K. N. Nandurkar and Dr. Pramod Shahabadkar. The course of the event was then handed over to the anchors of the Master Students' Program- Mr. Kuntesh Mahajan and Ms. Sakshi Pawar. A splendid overview of ISTE was delivered by Ms. Sayali Kulkarni, followed by a brief introduction of the topics to be delivered by the Top 14 Speakers. One by one, each Top speakers gave an attention withholding presentation on 14 life-changing topics. All the speakers came on the stage to give the quote related to them and their topic and also revealed the theme of Master Students' Program 2022 that was "ENGINEERS IDEATION". After all the amazing presentations from our Master Students, the audience and speakers got an opportunity to have interaction with our Chief Guest Mr. Sandeep Karkhanis. He gave his words of appreciation to all the 14 Speakers and also gave them his suggestions on their areas of improvement. Then the speakers received their trophies and certificate from our Chief Guest Mr. Sandeep Karkhanis, Principal Dr. K. N. Nandurkar and TPO Dr. P. K. Shahabadkar and rightly earned the title of "Master Students".

Annual Prize Distribution Ceremony

Annual Prize distribution ceremony

Annual Prize distribution ceremony was organized on 13th May 2022 in our institute. Shri. Shirish Vaidya, CEO Vaxom Packaging Pvt. Ltd., Mumbai (Alumnus of Production Department) was the Chief Guest of the program. During the program various academic prizes were given at the hands of Chief Guest Shri. Shirish Vaidya and Mrs

Vaidya to students including the toppers in the University examinations and University rankers. On this occasion, Chief Guest Shri Shirish Vaidya addressed to all staff and students. He gave inspirational speech and provided guidance on how to become successful Engineer and develop career as an Entrepreneur. Principal Dr. K. N. Nandurkar felicitated the Chief guest.

Project Competition cum Contest for Final Year Students

Project competition cum contest

Prize distribution of Project competition cum contest

Project competition cum contest for final year students was organized by IQAC of our institute on 31/05/2022. The two best projects from each department (two projects based on 60 Intake) were given opportunity to participate in the competition. It was inaugurated in presence of Hon Chairman of K. K. Wagh Education Society

Shri. Sameer Wagh. The prizes were distributed on 01/06/2022 at the hands of Principal Dr K. N. Nandurkar. Prof. Dr. Preeti Bhamre (Dean Quality and Head of IT department) and team of IQAC along with department project coordinator took efforts for successful organization of the competition.

Five Days Workshop On "Industry 4.0"

Participants of Five days workshop on Industry 4.0

Five days workshop on Industry 4.0 was organized during 27th April to 2nd May 2022 under AICTE- IDEA lab. 20 staff members from Agriculture and Polytechnic Institutes run by K. K. Wagh Education Society participated in the said workshop. K. K. Wagh Institute of Engineering Education and Research, Nashik is the only institute under Savitribai Phule Pune University to get the AICTE Idea Lab project worth Rs. 1.1 Cr. various activities are carried out under this project for staff and students of the institute.

Felicitation of Teachers for contribution to Quality Objectives by IQAC of Institute

Felicitation of Teachers by IQAC

Around 25 teachers of the institute felicitated for their contribution to Quality objective by IQAC of our institute. All 25 teachers felicitated at the hands of Principal Dr. K. N. Nandurkar. On this occasion Dean Quality and Head of IT department Prof. Dr. Preeti Bhamre and Prof. Mrs. T. N. Date (IQAC Coordinator) were present.

One Day Workshop on "Robotics"

Inauguration of Robotics workshop

Participants of workshop on "Robotics"

One day workshop on "Robotics" was arranged by Robotic & Automation Department of our institute on 13th May 2022. The workshop was inaugurated at the hands of Principal Dr. K. N. Nandurkar. Dr. K. N. Nandurkar and HOD of Robotics & Automation department Prof. Dr. P. J. Pawar guided the students on this occasion. This program was specifically designed in order to provide a special insight regarding Robotics. The students gave good response for this workshop.

Sports Prize Distribution Ceremony

Sports Prize distribution ceremony

Annual Sports Prize distribution ceremony was organized on 31st May 2022 in our institute. On this occasion Ms. Monika Athare, World Athletics Champion 2017 was the Chief Guest. Various sports prizes were distributed to students for their achievements by the hands of Chief Guest

and Dr. S. S. Sane (Dean Admin and Head of Computer Engineering department). Prof. Dr. S. Y. Kute (Dean Academic), Prof. Dr P. J. Pawar, Prof. T. K. Kandekar (Physical Director), Prof. S. S. Dongare, all staff and students were present.

Bike Rally – Azadi Ka Amrut Mahotsav

Bike & Bicycle Rally program

Students and Staff participated in the Bike & Bicycle Rally for Bharat Pradakshina on the occasion of Azadi Ka Amrut Mahotsav organized by Krida Bharati Maharashtra on 22nd May 2022. On this occasion Mr Ajinkya Wagh, Dr. K. N. Nandurkar, Prof. Dr. N. B. Gurule, officials of Krida Bharati Maharshtra, students and staff participants were present. This rally got overwhelming response. Around 50 bikes went from Nashik to Trimbakeshwar whereas the vehicles from Pimpalgaon were received at K. K. Wagh Campus. They covered around 75 Km distance as a part of rally.

Blood Checkup Camp

Blood Checkup Camp

Free Blood checkup camp was organized in the institute on 2nd May 2022 for the staff of the institute in association with Datar Genetics PVt. Ltd., Nashik. Total 107 staff members of the institute took the benefit of this blood checkup camp.

■ Expert Lecture/Seminar/Courses/Workshop Conducted:

- Computer Engineering Department organized Mini Project Competition for SE Computer Engineering on 7th May 2022 and a project exhibition cum competition under Institute Innovation Council (IIC) and KKWIEER-AICTE IDEA Lab on 11th May 2022.

- Civil Engineering Department organized an expert lecture by Er. Suraj Singh Ex. BPCL Employee, All India Rank - 04 on 02/05/2022, Expert lecture of Mr. Aditya Sathe, Director Geoinfomatics and lecturer at CDSA, Pune on 02/05/2022 and an Expert Lecture of Er. G. S. Khelukar, GSK Consultant, Nashik on 23/05/2022. Same department also organized an Expert lecture of Er. Ganesh Mali, Assistant Engineer, Grade -II, Water Resources Department, Govt. of Maharashtra on 12/05/2022 and Expert lecture of Amol B. Thakare, Sectional Engineer, Minor Irrigation Construction, Sub - Division Satana on 17/05/ 2022.

- Electrical Engineering Department has organized Expert lecture on "Bus Bar arrangement and Earthing" by Er. Mangesh Dalvi, Add. Executive, MSETCL Babhuleshwar on 11/05/2022.

- Production Engineering Department has organized expert lecture on "Management of Life Quality via Science, Technology and Spirituality" by Swami Srikanth anand, Shri. Ramkrishna Arogya Santhan, Anjneri, Trimbakeshwar, Nashik on 05/05/2022.

■ Expert Lecture/Seminar/Courses/Workshop Attended:

- Computer Engineering HeadProf. Dr. S. S. Sane attended Workshop on "National Education Policy 2020", organized by SPPUPune from 6th to 8th May 2022.

- Electrical Engineering department staff Prof. Ganesh Jadhav attended NPTEL online Certification-Power System Dynamics, Control and Monitoring of 12 week which is organized by IIT Kharagpur. Prof. Dr. Ravidra K Munje and Ms. Jyoti N. Vadje have attended online certification – Orell Talk Language Lab organized by Orell Techno Systems (India) Pvt. Ltd.
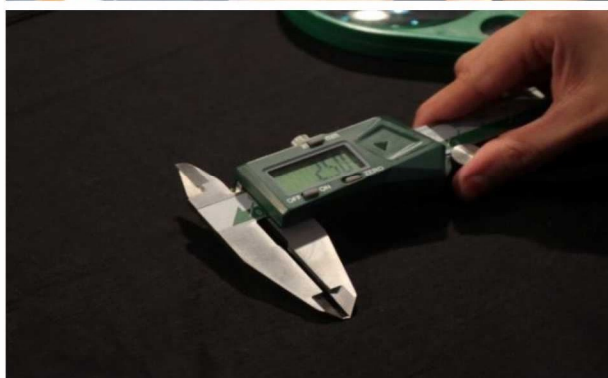
■ Congratulations!!

Principal Dr. K. N. Nandurkar has been felicitated for his valuable & Exemplary contribution in the Higher education sector by Andor Comm Media Group. He received the certificates of appreciation at the hands of Dr. Parin Somani, International Speaker and academic scholar. The program was organized at Hotel Four Point Shereton, Pune.

■ Congratulations!!

Congratulations to Prof. Vilas Karbhari Matsagar (Patil), Assistant Professor of Mechanical Engineering who completed Ph.D. from S.P. Pune University under the guidance of Dr. U. M. Shirsat. Topic of his Ph.D was "Performance Analysis of Self-Lubricating Composite Material for High Speed Application"

■ Congratulations!!

Ms. Shreeya Bhave of SE (Mechanical) has created a Guinness World Record for smallest wooden spoon (2.5 mm). Principal Dr. K. N. Nandurkar felicitated her for this achievement.

■ Congratulations!!

Selected for Maharashtra Senior Women's T-20 team under BCCI

PRIYANKA GHODKE
(FYMBA Student)

■ Abstracts of papers presented during May 2022
Comparative Analysis of Clustering Approaches for Big Data Analysis

Prof. Satish S. Banait & Prof. Dr. Shrish S. Sane

(Paper published in International Journal of Computer Trends and Technology)

Abstract: This paper performs a comparative study of the most popular big data clustering techniques. Clustering is an unsupervised classification of patterns (observations, data items or feature vectors) into teams (clusters). The drawbacks of clustering have been noticed in several contexts by researchers in many disciplines and react to its broad charm and quality in concert with the steps in exploratory data analysis. K-means clustering algorithm falls underneath the category of centroid-based clustering. Hierarchical clustering is a cluster analysis technique that seeks to construct a hierarchy of clusters. Agglomerative clustering is a form of hierarchical clustering that uses the backside-up technique. Density-based Spatial Clustering of Algorithms with Noise (DBSCAN) is a clustering algorithm that organisations collectively point near every other primarily based on a distance dimension (Euclidean distance) and a minimal quantity of factors. Map-reduce is a programming paradigm for huge datasets which may be processed speedily by processing them on distributed clusters in parallel. This paper compares k-means, hierarchical agglomerative clustering, DBSCAN and k-means with map-reduce strategies for clustering big data.

■ Result Analysis for Instance and Feature Selection in Big Data Environment

Prof. Satish S. Banait & Prof. Dr. S. S. Sane

(Paper published in International Stochastic Modelling & Applications)

Abstract: Instance and feature selection has become an effective approach due to enormous data which is continuously being produced in the field of research. It is difficult to process such large datasets by many systems. Though the traditional techniques are useful for large datasets, the numbers when in hundreds, thousands or millions face scaling problems. The proposed work focuses on, scalable instance and feature selection in big data environment. Locality-sensitive hashing instance selection (LSH-IS) is a two pass method used to find similar instances along with Pearson correlation coefficient for feature selection. Hash function family is used which is a general method of reducing the size of a set; this is achieved by re indexing the elements into buckets. This process find similar instance in same bucket, hence instance can be reduced. The work aims at improving the performance of locality sensitive hashing by storing additional information of the instances and features assigned of each class in the bucket and also to improve accuracy of instance and feature selection algorithm.

K.K. Wagh Education Society's
K.K. Wagh Institute of Engineering Education and Research, Nashik.

TECHNICAL NEWS LETTER : May - 2022

Analyzing and studying Dimensionality Reduction Techniques for High-Dimensional Data

Ms. Rutuja Deshmukh, Ms. Sweta Jagdale & Prof. Satish S. Banait

Abstract: In the fast-moving world, data is accumulating at an unprecedented speed from vivid sectors across the sphere such as micro-array gene expression data, medical data, ECG and MEG data research, satellite images, IoT devices, etc. is considered as high dimensional data. This data has a lot of features and thus directly affects the output of machine learning algorithms at an exponential rate. Thus, dimensionality reduction (DR) helps to solve the problem of the curse of dimensionality by extracting the relevant features without forfeiting the useful data. The purpose of this research is to compare and analyze different dimensionality reduction techniques namely Principal Component Analysis (PCA), Independent Component Analysis (ICA), Singular Value Decomposition (SVD), Truncated-SVD and Non-negative Matrix Factorization (NMF) on Imagenet dataset (unsupervised dataset) for five different values of components - 40, 45, 50, 55 and 60 each. These algorithms are examined on the basis of execution time, accuracy of dimensionality reduction techniques and load analysis, that is, Mean Squared Error (MSE). The algorithm with the least execution time and number of components giving the most information is concluded as a suitable algorithm for dimensionally reducing high-dimensional data.In the fast-moving world, data is accumulating at an unprecedented speed from vivid sectors across the sphere such as micro-array gene expression data, medical data, ECG and MEG data research, satellite images, IoT devices, etc. is considered as high dimensional data. This data has a lot of features and thus directly affects the output of machine learning algorithms at an exponential rate. Thus, dimensionality reduction (DR) helps to solve the problem of the curse of dimensionality by extracting the relevant features without forfeiting the useful data. The purpose of this research is to compare and analyze different dimensionality reduction techniques namely Principal Component Analysis (PCA), Independent Component Analysis (ICA), Singular Value Decomposition (SVD), Truncated-SVD and Non-negative Matrix Factorization (NMF) on Imagenet dataset (unsupervised dataset) for five different values of components - 40, 45, 50, 55 and 60 each. These algorithms are examined on the basis of execution time, accuracy of dimensionality reduction techniques and load analysis, that is, Mean Squared Error (MSE). The algorithm with the least execution time and number of components giving the most information is concluded as a suitable algorithm for dimensionally reducing high-dimensional data. (LSH-IS) is a two pass method used to find similar instances along with Pearson correlation coefficient for feature selection. Hash function family is used which is a general method of reducing the size of a set; this is achieved by re indexing the elements into buckets. This process find similar instance in same bucket, hence instance can be reduced. The work aims at improving the performance of locality sensitive hashing by storing additional information of the instances and features assigned of each class in the bucket and also to improve accuracy of instance and feature selection algorithm.

Product Authentication Using Blockchain

Payal Thakur, Chandrakant Shinde, Kalyani Sonawane, RiteshBorse BE (IT)& Prof. Smita Chaudhari

Abstract: In today's world, the problem of counterfeit products trading is ever-increasing, which not only infringe on trademarks and copyrights, but also generate profits for organized crimes at the expense of the affected companies by negatively impacting on their sales and profit. Current anti-counterfeiting supply chains depend on a centralized authority to combat counterfeit products. In order to ensure the identification and traceability of genuine products throughout the supply chain, we plan to implement a fully functional blockchain application system to prevent product counterfeiting. Consumers do not need to fully rely on the merchants to determine if products are authentic as the decentralized blockchain technology approach is used to terminate the trade of counterfeit products and to track the ownership of the product. Fake products are detected using a QR code scanner, where a QR code of the product is linked to a blockchain. This system stores product details and generates unique code of that product as blocks in the database. It collects the unique code from the user and compares the code against entries in the blockchain database. If the code matches, it will notify the customer of the entire product specifications, otherwise it will display a counterfeit warning. We describe a blockchain web application system with products anti-counterfeiting with an additional smart contract feature that enhances trust between the customer and manufacturer. *Keyboards*: Blockchain, Anti-counterfeiting, Smart Contract, QR code.

Prof. Dr. K. N. Nandurkar
PRINCIPAL