

#### NEWS LETTER A. Y. 2021-2022 SEM II

■ A mini project competition for the course "Database Management System Lab"



A mini project competition for the course "Database Management System Lab" was conducted on 11th December 2021 organized by the Department of Computer engineering, and CSI student's branch, KKWIEER Nashik. Prof. Sangale, Asst. Prof. K. K. Wagh Polytechnic, Nashik and Ms. Vishwa Kotecha, Asst. System Software Engineer, Cybage Pune worked as judge for the competition. Total 12 groups participated (47 students) in the competition and the first 3 rankers were declared. The projects are from various domains such as Online Books Exchange Platform, Crime management, Food Delivery system, Training and Placement Management connect, Grocery Store, Online Marketplace to advertise business etc. The activity was coordinated by Prof. S. K. Gondhalekar, Prof. Ashwini Taware and Prof. Megha Patil.

■ A mini project competition for the course "Object Oriented Programming & Computer Graphics"



A mini project competition for the course "Object Oriented Programming & Computer Graphics" was conducted on 18<sup>th</sup> Dec 2021 organized by the Department of Computer Engineering, CSI student's branch, KKWIEER Nashik. Prof. Dr. Deepak Bage and Prof. Priti Vaidya, worked as judge for the competition. Total 7 groups participated in the competition and the first 3 rankers were declared. The projects implemented by students were mainly focusing on Game development, animation clips etc. Judges appreciated efforts and work done by the students. The activity was coordinated by Prof. P. P. Vaidya, Prof. I. Priyadarshini, Prof. S. D. Jadhav and Prof. S. T. Patil.

#### **■ FE Induction program**



An offline mode induction program was conducted on 27th December 2021 for first year students of AI & DS and Computer. Prof. Dr. S. M. Kamalapur and Prof. S. K. Gondhalekar provided information about the department to Computer branch students. Prof. N. G. Sharma and Prof. P. P. Vaidya provided information about the department to AI & DS branch students. Toppers of the first year batch of previous academic year were felicitated. Students from the previous batch and from the newly admitted batch shared their views.



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■ Prof. R. D. Kulkarni conducting a Certificate Course on "Advanced Python for Data Science" for the SE-AI-DS students



Dr. R. D. Kulkarni, Adjunct Faculty in the department conducted a 30 Hrs. Certificate Course on "Advanced Python for Data Science" for the SE-AI-DS students. The course was conducted in the duration 7th December to 21st December 2021. The course aimed at letting the students know the concepts of Big Data, Data Science, EDA, Data Visualization, Sentiment Analysis, Speech Processing, and Web Scrapping and enable them to learn tools, programming skills related to these concepts. Keeping in mind the mini projects / Internships / Final Year Academic projects, few project ideas were discussed and elaborated to the students. The evaluation of the participants was done through an online-MCQ based exam. Out of total 69 students 63 students appeared for the evaluation. The Avg. score for evaluation comes as 12.83/15 marks.

Prof. Dr. S. M. Kamalapur conducted session on Gmail management for central office staff on 1st December 2021.



Prof. I. Priyadasrshini delivered an online expert talk on "Introductory concepts for Big Data for IOT applications" at KBT college of Engineering on 1st December 2021.

Prof. Dr. S. S. Sane invited as expert at round table conference organized by Lokmat Times on 17th December 2021.



■"Supervisory Development Course" for the employees from Mahindra and Mahindra Ltd



An Industry-Academia collaboration is always nurtured at K. K. Wagh Institute of Engineering Education & Research, Nasik. As a part of this a "Supervisory Development Course" for the selected employees from Mahindra and Mahindra Ltd., Nashik has been organized by the Institute. This course will go on for 4 months and the learning group will receive training on various aspects including Automobile Engineering, Robotics and Automation, Leadership excellence etc. On Sunday,23rd January 2022, the said training program was inaugurated at the hands of Principal Dr. K. N. Nandurkar and the



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officials from the industry. On the said day, the training on the subject "Computer Skills" commenced and the faculties from Computer Engineering department Prof. Dr. R. D. Kulkarni and Prof. P. D. Rakibe conducted the sessions on MS Office. The sessions aimed at letting the employees know and have hand on practice on various utilities from Ms Office that would make their official work more easy. This course is being coordinated by Prof. S. K. Gondhalekar under the guidance of Dr. S. S. Sane, Head, department of Computer Engineering. At the institute level, Prof. Dr. K. N. Nandurkar and Dr. P. J. Pawar are looking into smoother conduction of the training event.

AR using PTC Vuforia Training



Today AR is one of the trending technology. The department of Computer and AI-DS Engineering have organized training on 'Create augmented reality (AR) applications using AR tools' for the faculties of department of Computer & AI-DS Engineering. The training is conducted by the industry expert on 21st to 25th Jan, 2022. Mobile based AR applications using advanced AR tools were created. The training is conducted under the AR-VR club of the department of computer engineering.

Prof. I. Priyadasrshini invited as a resource person for IoT workshop organized by K. K. Wagh Secondary School on 18th January 2022. Total 93 participants have attended the online workshop

Apurav Santosh Gaware, a second-year student of Artificial Intelligence and Data Science selected for Microsoft Learn Student Ambassador and completed various courses which includes Accenture - Data Analytics Virtual Experience Program , Cisco - Machine Learning and Image Processing , University of Helsinki - Elements of AI , TCS iON Career Edge - Young Professional, Google Data Analytics Certificate - Foundations: Data, Data, Everywhere , Microsoft & CBSC - Cyber Shikshaa.

"Cyber Shikshaa Programme" an initiate of DSCI and Microsoft: Training Partner Quick Heal Technologies Date: 5th January 2022 to 25th January 2022.

Total Number of Students Registered for the Course:

155

Total Number of Students Completed the Course: 64

SE AIDS: 14 SE Computer: 05 TE Computer: 31 BE Computer: 14

One Day Faculty Orientation Program on Internet of Things



One Day Faculty Orientation Program on Internet of Things was conducted on 22nd February, 2022 by department of Computer Engineering and Artificial Intelligence and Data Science, K. K. Wagh Institute of Engineering Education and Research, Nashik In Association with Board of Studies (Computer Engineering), Savitribai Phule Pune University (SPPU), Pune. In session one, Dr. Mahesh Sanghavi, Head of the Department, Department, SNJB, briefed about revised syllabus. In Session II, Dr. Prakash N. Kalavadekar, Associate Professor, Sanjivani COE, Kopargaon discussed about Fundamental of Computer Organization and Digital Electronics Communication Interface. Then Mr. Santosh Kumar, Assistant Professor, VIIT, Punebriefed about IOT Systems, Networks and protocols. Mrs. I. Priyadarshini, Assistant Professor, KKWIEER, Nashik discussed the IOT Design System Engineering and IOT application. In total, there were



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about 68 participants benefited from the Session. The session was coordinated by Prof. A. V. Taware and Prof. D. D. Bage. Anchoring was done by Prof. S. D. Jadhay and Prof. S. P. Shete.

One Day Faculty Orientation Program on Web Technology



One Day Faculty Orientation Program on Web Technology was conducted on 25<sup>th</sup> February, 2022 by department of Computer Engineering, K. K. Wagh Institute of Engineering Education and Research, Nashik In Association with Board of Studies (Computer Engineering), Savitribai Phule Pune University (SPPU), Pune. In session I, Prof. Abhijit Jadhav, Assistant Professor, Computer Department, Dr. D. Y. Patil Institute of Technology, Pimpri, Pune, briefed about Web essentials and markup language. In Session II, Prof. K. P. Birla, Assistant Professor, KKWIEER, Nashik discussed about client side technologies. Mr. Tushar Kute Data Scientiest and Researcher in MITU Research, Pune discussed the server side scripting. In total, there were about120 participants benefited from the Session. The session was coordinated by Prof. M. J. Patil and Prof. P. D. Rakibe. Anchoring was done by Prof. S. D. Jadhav and Prof. S. P. Shete.

■ An expert talk on the topic "Cloud Security and Scalability"



An expert talk on the topic "Cloud Security and Scalability" was conducted on 3rd March 2022, 03:00 pm to 4:00 pm at Department of Computer Engineering, K. K. Wagh Institute of Engineering and Education Research, Nashik. The motive of the event was to introduce students about Cloud Security and Scalability with their Pros and Cons. The session was conducted by Mr. Shashank Wagh, Managing Director in TECSYS Solutions Pvt. Ltd., Nashik, he briefed about identify the known threats, risks, vulnerabilities and privacy issues associated with Cloud based IT services, safeguards and counter measures for Cloud based IT services, Data Information lifecycle. The session was coordinated by Prof. R. K. Dhurjad and Prof. S. M. Malao under the guidance of Head of Department Prof. Dr. S. S. Sane.

■ An expert talk on the topic "Salesforce"



An expert talk on the topic "Salesforce" was conducted on 12th March 2022, 11:00 am to 12:00 am at Department of Computer engineering, K. K. Wagh Institute of Engineering and Education Research, Nashik. The motive of the event was to introduce students about Salesforce. The session was conducted by Ms. Vidula Shetye, Chief Technology officer in Dreamwares, Nashik., briefed about Cloud Computing Overview & Architecture, CRM Overview, Introducing the SalesForce.com IDE, Components of Salesforce-App, Objects, Tabs, Fields, Creating custom App. The session was coordinated by Prof. R.K. Dhurjad and Prof. P. S. Kubal.

Prof. Dr. S. S. Sane was invited as Guest of Honor National Conference on Innovation in Science, Engineering and Management: NCISEM-2022 on 11th March 2022.



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Online Webinar on "Block chain Technology and its Application"



Online Webinar on "Block chain Technology and its Application" was conducted on 12th April 2022 between 02:00pm to 04:00 pm by department of Computer engineering and AIDS, K. K. Wagh Institute of Engineering Education and Research, Nashik. Session was conducted by Prof. Suraj Sharma, Assistant Professor, IIIT Bhubaneswar. The topics such as: P2P Network, Bitcoin Block example, Process of mining in Block chain, etc were covered by him. He also explained why block chain is important and what the future scope of Block chain technology. The webinar was coordinated by Prof. Seema Gondhalekar and Prof. Chaitali Patil along with students of the Computer Engineering department.

■ An expert talk on the topic "JavaScript and React JS"



An expert talk on the topic "JavaScript and React JS" was conducted on 27th April, 2022, 10.30AM.Department of Computer Engineering, K. K. Wagh Institute of Engineering Education and Research, Nashik had organized this session with the motive to introduce students about use of JavaScript and React JS. The session was conducted by Mr. Deepakkumar Shinde, Founder and Technical Head,

Confluence InfoTech, he had covered following points: JavaScript concepts for web development, Introduction to React Js, React Js working environment. Hargun Singh student of third year Engineering proposed a vote of thanks. The session was coordinated by Prof. K. P. Birla, Prof. P. D. Rakibe and Prof. M. J. Patil under the guidance Prof. Dr. S. S. Sane, Head department of Computer Engineering, KKWIEER, Nashik.

Total 74 computer engineering students completed AWS Academy Cloud Foundation Course.

Total 132 computer engineering students completed Cyber Shikshaa Programme an initiate of DSCI and Microsoft.

Total 105 computer engineering students completed Spoken Tutorial, IIT Bombay certification on RDBMS Postgre SQL, Python 3.4.3, Advanced CPP.

#### **Student Achievements**

Third year students Suyam Chaturvedi, Gagandeep Dhindsa, Sameer Pardeshi, Tushar Avhad had participated in National Level Competition entitled Project Deep Blue and secured position in top 7 teams all over India out of 293 teams. They have developed Automated Vehicle Toll Collection System using License Plate Recognition. With the help of the system the time span has been reduced to a huge extent in comparison to the present industrial System. Now the vehicles need not stop at the plaza for toll deduction and the barrier which was there in the traditional system is no longer required. President Hon. Shri. Sameer Wagh, Secretary Shri. K. S. Bandi, Principal Prof. Dr. K. N. Nandurkar, Vice Principal and Head Dr. S. S. Sane congratulated students and faculty mentor Prof .Priya Rakibe for the achievement.





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Expert Talk Audit Course "Water Management



Expert Talk was conducted for SE Computer Engineering students for Audit Course "Water Management on 30th April 2022. The talk was conducted Prof. Dr. Sunil Kute, Dean Academics, KKWIEER Nashik. The objective was to make student aware of climate change and its effect on water systems. He explored about the areas for research and development for efficient utilization and management of water resources. He explained about the mechanism available for conservation of water and how technology can be used in development of water resources. Different ideas were discussed and on the basis of it student were informed to prepare digitals posters.

# ■ Faculty training on AR and MR was conducted by KKWIEER-AICTE's IDEA Lab



Faculty training on AR and MR was conducted by KKWIEER-AICTE's IDEA Lab during 'FDP on Industry 4.0' on 28th April, 2022 to 2nd May, 2022 at K. K. Wagh Institute of Engineering Education and Research, Nashik. Faculty members of Polytechnic, Agriculture and Engineering attended the session on AR and MR. Participants had performed hands on activities to create AR

experiences using mobile devices. Prof. K. P. Birla (Assistant Professor, KKWIEER) delivered AR training session.

#### Objectives of the training:

- 1. To acquire fundamentals of Augmented Reality, Virtual reality and Mixed Reality
- 2. To understand real time use cases of AR.
- 3. To compare AR, VR and MR experiences
- 4. To inculcate innovative teaching learning practices

#### Outcome of the training:

- 1. Participants could acquire fundamentals of Augmented Reality, Virtual reality and Mixed Reality.
- 2. Participants could build AR applications for real world use cases.

■ Mini Project Competition for SE Computer Engineering



Mini Project Competition for SE Computer Engineering Students was conducted on Saturday, 7th May 2022, between 03:00 pm to 05:00 pm by Debuggers Club, Department of Computer Engineering, K. K. Wagh Institute of Engineering Education and Research, Nashik.

Prof. Shilpa Mene, IT Dept., KKWIEER and Mr. Akshay Chavhan, Sr. Full stack developer, Quantify, Mumbai (alumni of 2019 batch) were the judges for the completion. The event was coordinated by Prof. S K Gondhalekar and Prof. C R Patil. Around 70 students participated in the competition.



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■ A project exhibition cum competition under Institute's Innovation Council (IIC) and KKWIEER-AICTE IDEA LAB



On the occasion of National Technology Day, a project exhibition cum competition was organized in K. K. Wagh Institute of Engineering Education and Research, Nasik under Institute's Innovation Council and KKWIEER-AICTE **IDEALAB** (IIC) Wednesday 11th May, 2022. Student teams presented their working models of projects during the competition. Event was graced by the presence of Principal Prof. Dr. K. N. Nandurkar, Vice principal Prof. Dr. S. S. Sane, Idea Lab coordinator Prof. R. K. Munje, IIC Coordinator Prof. Dr. G. B. Daware, IIC members. Event was coordinated by Prof. K. P. Birla. Prof. S. Sukhatme judged the event. Winners and participants were awarded with certificates and prizes.

### Seminars/Workshop/Training attended by staff:

- Prof. S. M. Malao attended International Conference on Soft Computing and its Engineering Applications on 10th and 11th December 2021.
- Prof. S. M. Malao attended STTP on Optimization Algorithms for Machine Learning from 15th November to 26th November 2021.
- Prof. M. P. Mahajan attended AICTE ATAL FDP on Computer Vision: Past, Present and Future from 6th December to 10th December 2021.
- Prof. C.R. Patil attended AICTE ATAL FDP on "Cyber Security and Block chain Awareness, Use cases and Challenges" from 6th December to 10th December 2021.

- Dhananjay M Kanade attend NIRF India Rankings 2022, Institute for Academic Excellence (IAE) in collaboration with Collegiate Education & Technical Education Department, Government of Telangana from 5th and 6th January 2022.
- Prof. R. K. Dhurjad and Prof. P. S. Kubal attended One day FDP on "Artificial Intelligence", Bharati Vidyapeeth's College of Engineering, Lavale, Pune on 24th January 2022.
- Prof. S. S. Banait attended 10-Day Online Faculty Development Programme on "DATA SCIENCE & ITs APPIICATIONS" by E&ICT Academy, NIT Warangal and Department of CSE, NIT Raipur, Chhattisgarh from 7th March to 16th March 2022.
- Prof. M. P. Mahajan attended Master class on Python Programming, Pantech e-learning Pvt. Ltd. Chennai from 28th February to 29th March 2022.
- Prof. Dr. S. S. Sane attended Workshop on National Education Policy 2020, SPPU, Pune from 6th to 8th May 2022.

#### Papers Presented by Staff and Student

**Title of Paper:** Enhancing the Online Engineering Education during COVID-19 Period: A Blended Approach of Online Tools

**Author:** Dr. R. D. Kulkarni, Dr. S.S. Same and Prof. A.V. Taware

**Organizer:** International Conference on Transformations in Engineering Education

**Abstract:** An unplanned shift into educational sector, from physical education to virtual, online education has been caused by the COVID-19 pandemic. Within no time, the passionate educators and learners sought the support of e-Learning where teaching is being done through remote, digital platforms. In this paper, an approach pursued by us has been presented that was used for delivering the enhanced online engineering education to our students in the period of COVID-19 pandemic. Through use of technologies such as GoTo Webinar tool, Udemy online learning platform and the LearniCo student mobile application, the approach has achieved a soothed quality education delivery The approach has demonstrated a touch of personalized and on-demand learning with improved engagement of the online attendees.



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This approach has generated promising statistics about the learning inclination, understanding levels and adaption rate percentage by the online attendees including their reviews and feedbacks. The motivating statistics of the students embracing to this approach has been the proof of its impact.

Keywords—e-Learning, personalized learning, ondemand learning.

**Title of Paper:** Design of Circular Microstrip Antenna Using Python

**Author:** Shivam Gaikwad (TE Computer Student), Mandar P. Joshi, Jayant G. Joshi

**Organizer:** 2021 IEEE Bombay Section Signature Conference

Abstract: The uses of artificial intelligence and data sciences are gaining popularity. The applications of artificial intelligent in antenna design are in demand to design futuristic antennas. This paper is an attempt to design and develop circular microstrip antenna using python. In this research work, designs equation of circular microstrip antenna is modeled using python and calculated radius of circular microstrip antenna have been simulated using CAD FEKO and IE3D antenna simulator for validation. Further, a sample of circular microstrip antenna have been fabricated and tested. The results of theoretical, simulated and fabricated antennas are presented and error analyses have been carried out.

Keywords—Python, circular microstrip antenna, return loss

**Title of Paper:** Comparative Analysis of Clustering Approaches for Big Data Analysis

**Author:** Prof. Satish S. Banait , Prof. Dr. S.S.Sane

**Organizer:** 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. Kmeans 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.

**Title of Paper:** Analyzing and Studying Dimension Reduction Techniques for High Dimensional Data

**Author:** Ms.Rutuja Deshmukh , Ms. Sweta Jagdale , Prof. Satish S. Banait

**Organizer:** International Journal of Innovative Research in Technology

**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



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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.

Faculty Coordinator: M. P. Mahajan Publisher: Department of Computer Engineering, K. K. Wagh Institute of Engineering Education and Research, Nashik

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