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TECHNICAL NEWS LETTER

Felicitation of Hon. Shri. Chandrashekhar Bawankule

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Hon. Shri. Chandrashekhar Bawankule, Revenue Minister of Maharashtra and State President of the BJP, was felicitated at K. K. Wagh Education Society on Saturday, May 24, 2025. In his address, he remarked that the institution has now grown into a flourishing banyan tree. The strength of the institution is that there has been no allegations against it since its inception. The institution is a leading institution providing quality education and is renowned throughout Maharashtra. Alumni of the institute are professionals working all over the world. This is the valuable contribution of K. K. Wagh Education Society said Revenue Minister Hon. Shri. Chandrashekhar Bawankule. The program was presided over by Chandwad Deola Constituency MLA Dr. Rahul Aher. MLA Shri. Dilip Bankar, MLA Mrs. Seema Hire, MLA Shri. Nitin Pawar, MLA Shri. Kishore Darade and dignitaries from the educational, cooperative, political and social sectors were present on the occasion.

Exploring the International Collaborations in K. K. Wagh!!!

Mr. Akash Patil (USA) CEO and Cofounder of Nugen Intelligence visited our institute on 7th May, Mr. Madhav Dabke, Co-Founder of Tech talks and Board Member of Garje Marathi Global, visited on 17th May, Mr. Ananad Shiralkar (Japan) CEO DG Future Tech and Mr.Sunil Kulkarni (Japan) CEO Fidel Softech Ltd., visited on 20th May and Mr. Pramod Attarde from USA and (CEO, Apex Defi Labs, USA) on 27th May, 2025 visited to Institute. Objective of the visits was to explore international collaborations for jobs, internships and live projects for students and also to promote Entrepreneurs and Start up Culture in K K Wagh. All visits started with a welcoming of chief guests in IQAC hall followed by interactions with staff and later visits to: Library, T&P Cell, Workshop, Ideal Lab. Dr. Akash Patil and Mr. Madhav Dabke appreciated the infrastructures and facilities available in K. K. Wagh. Mr. Sunil Kulkarni and Mr. Anand Shiralkar appreciated the contribution of staff members and opportunities provided to the students for Hackathon, Project Competitions and Job Opportunities provided.

Visit of Mr. Aakash Patil

Visit of Mr. Madhav Dabke

Visit of Mr. Sunil Kulkami & Mr. Anandsagar Shiralkar

Visit of Mr. Pramod Attarde

Alumni Meet at Dallas, USA

Alumni Meet at Dallas, USA

Alumni meet of KKWIEER students was held at Dallas USA on 18th May 2025 at Hotel India 101. Total 18 alumni members residing in Dallas, Huston, Astin & nearby places attended the meeting with their spouses & relatives. Dr. K. N. Nandurkar attended the meeting on behalf of the Institute & presented the development of the institute in last four decades. All alumni member expressed their desire to help the institute in whatever way possible.

National Technology Day Celebration

To commemorate National Technology Day, the Department of Information Technology organized an online expert session titled *"Advanced Insights into Object-Oriented Programming"* on 10th May 2025. The 2-hour session aimed to equip students with practical and theoretical knowledge of core Object-Oriented Programming concepts such as encapsulation, inheritance, polymorphism, abstraction, classes, and objects. A total of 55 students and 8 staff members participated in the session. The primary objective was to bridge the gap between academic understanding and real-world software development practices. Through insightful demonstrations and interactive discussions, students learned how to write modular, reusable, and efficient code using programming languages like Python and Java. The session strengthened problem-solving and logical thinking skills, and introduced participants to class-based application design. Students also gained foundational knowledge for exploring advanced software development topics such as frameworks, APIs, and design patterns. Special thanks to Mr. Umesh Gaikwad for delivering a highly engaging and informative session, and to the faculty for making the event a success as part of the National Technology Day celebration.

Visit of Shri. Shekhar Nikam

Felicitation of Shri. Shekhar Nikam

On 30th May 2025, Hon. Shri Shekhar Nikam, MLA of the Chiplun Constituency, visited K. K. Wagh Education Society. He was felicitated by Mr. Ajinkya Wagh. Shri. Nikam revived the memories of Late Bhau. Shri Nikam appreciated the development of the Society and extended his best wishes for its continued growth in the future.

Felicitation of Retired Staff

Following members who retired from the services were felicitated. The felicitation program was held on 31stMay 2025. Prof. Dr. K. N. Nandurkar appreciated the contributions of each staff member during their service over three decades and extended best wishes for their retired life. Many colleagues were present during the felicitation program and extended their best wishes.

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1. Mr. Jaywant N. Gaikwad (Student Section)
2. Mr. Kailas P. Pagar (Workshop)
3. Mr. Balu L. Shelar (Office Staff)

Felicitation of Retired Staff

Expert Lecture/Seminar/Courses/Workshop Organized

- Department of Information Technology had organized an expert talk on "Advanced Insights into Object-Oriented Programming" by Mr. Umesh Gaikwad, Technical Lead at Sauce Consulting at Pune on 10th May 2025

Expert Lecture/Seminar/Courses/Workshop Attended:-

- Chemical Engineering Department Faculty, Prof. Piyush Joshi completed One Week Faculty Development Program on "Universal Human Values" from 26th May 2025 to 30th May 2025, organised by K K Wagh Polytechnic, Nashik.

Paper Publications/Presentations:

Title: Min3GISG: A Synergistic Feature Selection Framework for Industrial Control System Security with the Integrating Genetic Algorithm and Filter Methods

Saiprasad Potharaju, Swapnali N. Tambe, G. Madhukar Rao, M. V. V. Prasad Kantipudi, Kalyan Devappa Bamane, Mininath Bendre

(Published in International Journal of computational Intelligence System on 5thMay, Volume 18, Article No 104, ISSN NO: https://doi.org/10.1007/s44196-025-00827-2)

Abstract : Industrial control systems (ICS) are crucial for automating and optimizing industrial operations but are increasingly vulnerable to cyber attacks due to their interconnected nature. High-dimensional ICS datasets pose challenges for effective anomaly detection and classification. This study aims to enhance ICS security by improving attack detection through an optimized feature selection framework that balances dimensionality reduction and classification accuracy. The study utilizes the HAI dataset, comprising 54,000 time series records with 225 features representing normal and anomalous ICS behaviors. A hybrid feature selection approach integrating wrapper and filter methods was employed. Initially, a Genetic Algorithm (GA) identified 118 relevant features. Further refinement was conducted using filter-based methods—Symmetrical Uncertainty (SU), Information Gain (IG), and Gain Ratio (GR)—leading to a final subset of 104 optimal features. These features were used to train classification models (Naive Bayes (NB), Random Forest (RF), and Support Vector Machine (SVM)) with a 70:30 train-test split and tenfold cross-validation. The proposed feature selection method significantly improved classification accuracy, achieving 98.86% (NB), 99.91% (RF), and 97.97% (SVM). Compared to the full dataset (225 features), which yielded 97.51%, 99.93%, and 96.17%, respectively, our optimized feature subset maintained or enhanced classification performance while reducing computational complexity. This research demonstrates the effectiveness of a hybrid feature selection approach in improving ICS anomaly detection. By reducing feature dimensionality without compromising accuracy, the proposed method enhances ICS security, offering a scalable and efficient solution for real-time attack detection.

Title: Development of Composite Activated Carbon for removal of microplastic

Dr. Yennam Rajesh, Shravya Bangera, Saloni Panchal

(Published in National Conference on CHEMBLAZE 2.0 organized by Agni College of Technology, Chennai on 5th April 2025)

Abstract : With the widespread use of plastics, microplastic contamination in water bodies and drinking water has emerged as a critical threat to human health, ecosystems, and the environment. This study addresses this pressing issue by developing and evaluating a dual-bed column system incorporating Amino-Functionalized Zeolite (AFZ) and potassium hydroxide (KOH)-activated biochar for efficient microplastic removal using sorption technology. The first bed consists of KOH-activated biochar derived from tea waste (TAC), combined with natural Zeolite Clinoptilolite, offering high

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adsorption capacity. The second bed employs Zeolite Beta, recognized for its superior ion-exchange properties and large surface area. To simulate real-world conditions, water samples collected from a nearby polymer industry were treated using this dual-column setup. The study assessed the removal efficiency of microplastics, with particular attention to changes in surface morphology post-treatment. The combined action of chemisorption and physisorption played a pivotal role in achieving high removal rates. Results demonstrated that the integration of TAC and clinoptilolite zeolite in the dual-bed column significantly reduced microplastic concentrations, underscoring the potential of this system as a sustainable and effective solution for mitigating microplastic pollution in water treatment processes.

Title: Emerging AI Applications in Neonatal Surgery: A Review

Dr. Ms. Pragati V. Pandit, Ms. Amruta V. Pandit, Ms. Prajakta Pagar

(Published in Journal of Neonatal Surgery, ISSN NO: 2226-0439, Vol. 14, Issue 17s)

Abstract : Neonatal surgery has undergone significant advancements in recent years, with the integration of artificial intelligence (AI) and computer engineering technologies playing a pivotal role in enhancing diagnostic accuracy, surgical planning, real-time monitoring, and post-operative care. This literature review synthesizes current research on the application of AI, machine learning, computer vision, biosensors, and intelligent surgical tools in neonatal surgical interventions. The review highlights the integration of biomedical data, image analysis, and predictive modelling, illustrating how interdisciplinary innovations are driving improvements in neonatal outcomes. Additionally, ongoing challenges are discussed, and future research directions are proposed to further advance clinical practice and technology integration in neonatal surgery.

Training and Placements

Sr. No	Company Name	Department Name	Placed Students
1.	Toyo Engineering India Pvt. Ltd., Mumbai		01
2.	Val Organics Pvt. Ltd., Sarigam, Dist. Valsad	Chemical	02
3.	Fabex Engineering Pvt. Ltd., Nashik	Engg.	03
4.	Duroshox Private Limited	Robotics & Automation	03

Industrial Visits

Sr. No.	Company Name	Department	Class	Date
1	Metaforge India Pvt.Ltd.		FY Div. J	02/05/2025
2.	Kedar Enterprise Pvt. Ltd.	Mechanical Engineering	FY Div.I	22/05/2025
			FY Div.K	23/05/2025

Other Activities:

- Dr K. N. Nandurkar, Prof. P. J. Pawar & Dr A. A Jain attended the syllabus setting workshop for SE Robotics & Automation at AISSMS College of Engineering Pune on 29th May 2025 organised on behalf of Savitribai Phule Pune University.
- Dr. Vilas K. Patil, Member, Board of Studies in Civil Engineering, SPPU Pune, attended the SE Civil syllabus setting workshop held at Anantrao Pawar College of Engineering, Parvati, Pune, on 27th May 2025.
- Prof. Dr. V. G. Pangarkar (Ex-Professor, ICT Mumbai) visited the Chemical Engineering Department on 16th May 2025. During his visit, he provided guidance on the Third Year and B.Tech autonomy syllabus for Chemical Engineering, and also engaged in a discussion regarding new laboratory equipment for Chemical Department.

Prof. Dr. K. N. Nandurkar
PRINCIPAL