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

Expert session by Prof Krishna Vedula, Executive Director, IUCEE

Prof Krishna Vedula, Executive Director, Indo Universal Collaboration for Engineering Education (IUCEE) and Ex. Dean Emeritus, University of Massachusetts Lowell and Vasant Marathe, Member of Global Industrial Advisory Forum, IUCEE paid a courtesy visit to K.K.Wagh Institute of Engineering Education and Research, Nasik on 10th November 2025. Prof. Vedula conducted a session on "Student Centric Learning" for faculty members. Prof. Vedula also, briefed the faculty members about different activities conducted by IUCEE such as Felder Brent Teaching and Learning Course, IUCEE International Educators Certification Program (IIECP), IUCEE IFEES GEDC Global Webinar and appealed to take the advantage of these activities. Prof. Vedula provided the information about International Conference on Transformations in Engineering Education -2026 (ICTIEE – 2026) to be held at Bangalore in January 2026. He appealed to contribute the research article in the field of education for Journal of Engineering Education Transformations (JEET).

Expert session by Prof. Krishna Vedula

Tribute to Late Dr. Daulatrao S. Aher (Baba) at Statue Unveiling Ceremony

A delegation of faculty and staff from the K. K. Wagh Education Society, Nashik, including representatives from the K. K. Wagh Institute of Engineering Education and Research, participated in the statue unveiling ceremony of the revered Late Dr. Daulatrao Sonuji Aher (Baba). Hon. Ajinkya Wagh and Hon. Shrimati Shakuntala Tai Wagh were also present at the ceremony. The solemn event was held on Saturday, November 1, 2025, at Daulat Bangla, Devla, to commemorate his birth anniversary. Dr. Aher was a distinguished former Health Minister of Maharashtra and the founder of the University of Health Sciences, Nashik. The attendees also had the privilege of meeting Hon. Dr. Rahul (Dada) Aher. The Institute's participation underscored the organization's respect for and acknowledgement of Dr. Aher's profound legacy and immense contributions to the field of health and the region

K. K. Wagh delegation with Hon. Dr. Rahul Aher (MLA)

Research Colloquium "NEXUS 2025"

The Department of Artificial Intelligence and Data successfully held its annual research event, NEXUS 2025, on 4th November 2025. Organized with the Institution's Innovation Council and Phoenix Student Club, the event showcased 30 research papers by final-year B. Tech students across AI, Machine Learning, Cyber Security, and more. Expert academicians reviewed the presentations, offering valuable feedback to prepare students for publication in Scopus-indexed journals. This initiative aims to foster a strong research culture and enhance students' academic communication and publication skills. The department plans to continue NEXUS annually to inspire innovation and research excellence.

Winners of Nexus 2025 with guests

Visit of International Mobility Consultant from Germany

K. K. Wagh Institute of Engineering Education and Research, Nashik, welcomed Mr. Jan Ebben from Germany on 13th November 2025 as part of its international collaboration initiative aimed at supporting student mobility and global career opportunities. Mr. Ebben, a government-recognized International Mobility Consultant, has been working closely with Indian students to help them secure employment and professional training opportunities in Germany. He was accompanied by two representatives from German Gurukal, an organization promoting Indo-German educational cooperation. The delegation began their visit at the Training & Placement Cell, where discussions were held on enhancing pathways for students aspiring to work in Germany. Subsequently, the team interacted with Principal to explore potential institutional collaborations. The visit marks another step toward strengthening international linkages and expanding global opportunities for KKWIEER students.

Visit by Mr Ebben & Experts from Germany

Visit of ICT Alumni

On 15th November, eight distinguished industry leaders—alumni of the Institute of Chemical Technology (ICT), Mumbai, and close associates of Hon. Chairman Shri Sameerji Wagh—visited K. K. Wagh to explore potential collaboration opportunities for the benefit of students. The visiting ICT alumni included Vipin Shinde (Technical Manager, ExxonMobil, Singapore), Dr. Nitin Patil (Head – API, Peptides & Downstream Division, Biocon Ltd., Bengaluru), Aniruddha Joshi (Founder & Director, Trans Tech Projects Pvt. Ltd., Pune), Vilas Deshpande (Co-founder & COO, Vayve Mobility Pvt. Ltd., Pune), Kuldeepak Deshpande (Agriculturist & Entrepreneur, Wonderlands Farmers Producer Co. Ltd., Chhatrapati Sambhajinagar), Abhijit Upadhye (Group Head – Technical, Richmond Group, UAE), Ketan Jatakia (Partner, Kemstar Process Solutions, Mumbai), and Dr. Atul Dhale (Director – Operations, 3A Chemie Pvt. Ltd., Nagpur). The interaction began with introductions by the Training and Placement Officer, followed by a welcome address, felicitation, and an overview of the K. K. Wagh Education Society presented by the Director of K. K. Wagh Institute of Engineering Education and Research. Key members present included the Hon. Chairman, the Director, campus coordinators, Deans and Heads of Departments. The ICT alumni team visited the Training and Placement Cell, Idea Lab, workshop, library, and the Chemical Engineering Department, and appreciated the infrastructure and facilities available at K. K. Wagh.

Members of ICT Alumni group (1992 Batch)

K K Wagh IEER Showcased Innovative Student Projects at Krishithon 2025

K. K. Wagh Institute of Engineering Education & Research participated in Krishithon 2025, held from 13th to 17th November at Nashik, showcasing innovative technology projects focused on agriculture. Students from various departments presented solutions like an RC-controlled smart farming system, AI-powered biometric weight estimation, a student-built quad bike, automation in power systems, and sustainable incense production from temple leaf waste. The event enabled students to engage with farmers and industry experts, bridging the gap between engineering innovations and agricultural needs. This participation highlights the institute's commitment to applying technology for rural and agricultural development.

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Inauguration of K. K. Wagh Stall at Krishithon 2025

IIC Meeting

The meeting of the committee members of the Institution's Innovation Council (IIC) of K. K. Wagh Institute of Engineering Education and Research for Quarters I and II was conducted on November 21, 2025, in IQAC Hall to discuss the progress of activities.

IIC Member of KKWIEER

K K Wagh Participates as Exclusive Knowledge Partner at AIMA Index 2025

K. K. Wagh Institute showcased innovative student projects at stalls F5 and C59; featuring key works from Robotics & Automation, Mechanical, and Electrical Engineering departments. Notable projects included a smart farming system, a quad bike, and the Nicola automation project, attracting strong interest from industry experts and visitors. The stalls were inaugurated on 28th November 2025 by distinguished alumni entrepreneurs Mr. Ravi Shamdasani and Mr. Avinash Ekhande, who praised the students and the platform's role in fostering innovation. Faculty and students engaged actively with visitors, highlighting the institute's commitment to bridging academia and industry in Nashik.

Inauguration of K. K. Wagh Stall at AIMA Index

Team Nemesis Shines at IKR 2025

Team Nemesis proudly represented the institute at the Indian Karting Race (IKR) 2025 held at Johnson Institute of Technology, Coimbatore, delivering an exceptional performance by securing the Best Design Award, Best Cost Report Award, and Best Acceleration Award. These achievements reflect the team's strong engineering skills, meticulous planning, and dedicated hard work, supported by the valuable mentorship and technical guidance of Prof. P. B. Surwade and Mr. T. D. Date. Team Nemesis has brought great pride to the institute, making this accomplishment one of the key highlights of the month.

Team Nemesis members with Chairman, K. K. Wagh Education Society & Guests

Expert Lecture / Seminar / Courses/ Workshop Conducted:

The Computer Engineering department organized following session during November 2025:

- An expert talk on "Business Intelligence in Industry" by Resource Person Ms. Rucha Rangnath Choudhari Data Analyst & AI Developer- Capgemini Mumbai, for Final year students on 1st November 2025.

The Civil Engineering Department organized following sessions during November 2025:

- Expert Talk on Air Pollution from Construction Sites: Sources, Impacts, and Control Strategies by Er. Rohan Ghumare Consultant on 1st November 2025.

The Electrical Engineering organized following informative events in November 2025:

- Expert session on "Transformer Testing" by Mr. S. S. Pawar, Retired Executive Engineer, MSETCL, Nashik on 14th November 2025.

The Chemical Engineering Department organized the following informative events during November 2025:

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An expert session on "The Evolving Role of Chemical Engineers in the Hydrogen Technology Sector" by Ms. Swapnali Wagh, Senior Manager – Hydrogen & Carbon, Reliance Industries Limited, Mumbai, on 3rd November 25.

- An expert session on "Overview of CO_2 Capture and Emissions from Chemical Industries" on 17th November 2025 by Dr. S. A Misal, Head, Chemical Engineering, PREC Loni.

The MBA Department organized the following informative events during November 2025:

- An expert lecture for SY students on "International Market Development" by Mr. Pravin Aherrao on 22nd November 2025.
- An expert lecture for FYMBA students on "Mutual Funds and SIP" by Mr. Dinesh Kumar Singh, affiliated with Zerodha, on 22nd November 2025.
- An online Zoom session on "Step-by-Step Case Study Writing" by Dr. Suresh Jakhar on 26th November 2025.

Expert Lecture / Seminar / Courses/ Workshop Conducted :

- Mechanical Eng. Department Faculty, Dr. V K Matsagar successfully completed online Atal Faculty Development Program on "Design Thinking and innovation" from 17th to 24th November 2025.
- Chemical Engineering Department Faculty, Dr. Yennam Rajesh successfully completed the National Level One-Week Online Faculty Development Program (FDP) on "Integrating AI & ML for Sustainable Chemical Process Industries: A Paradigm Shift Towards Industry 5.0" organized by the Department of Chemical Engineering (NBA Accredited), HIT Haldia in association with the Internal Quality Assurance Cell (IQAC), HIT Haldia and the Departmental Students Chapter, IIChE from 24th to 28th November 2025.
- Information Technology department staff Dr. Yogita H. Khairnar successfully completed five day online Faculty Development Program on ""Generative AI for Scientific Research, Data Augmentation and Interdisciplinary Applications"," organized by the School of Engineering, Management and Research D.Y. Patil International University, Akurdi, Pune from 25th November 2025 to 29th November 2025. Prof. Rupali Bora, Prof. Poonam Patil and Prof. Yogita Algat participated in Wipro Certified Faculty Training Program by on "Data Science with Python" conducted by TalentNext from 27th Oct 2025 to 14th Nov 2025. Dr. Swapnali Jagtap has attended the IIC Regional Meet, AICTE 2025 hosted by Symboisis Institute of Technology, Pune on 28th November 2025. Dr. Swapnali N. Jagtap has completed an AICTE Training And Learning (ATAL) Academy Faculty Development Program (FDP) on "Integration of Green Energy and AI in Utility and Transportation Systems for shaping Sustainable Smart City Ecosystems" at R.V.R. & J.C. College of Engineering from 24th to 29th November 2025.

Paper Publications/Presentations :

Title: Development of high performance activated carbon from soap nut shell for Indigo Dye removal

Dr. Yennam Rajesh*, Shweta Chaudhari, Uday Bharitkar, Aditya Gunjal, Gauri Vidhate (Published in the International Conference on Sustainable and Affordable Energy (ICSAE 2025 on 11-12th November 2025 organized by Energy Cluster, UPES, Dehradun, India)

Abstract: This project focuses on the synthesis of activated carbon using Soap Nut (Sapindus mukorossi) fruit shells as a precursor. Soap Nut shells contain high lignocellulosic, rich in carbon, and have low ash content, making them a suitable and cost-effective precursor for activated carbon production. Additionally, they contain saponins and natural resins, which can enhance the adsorption capacity of the final product. The project explores the potential of converting Soap Nut shell waste into value-added activated carbon adsorbents for the removal of Indigo dye from textile industrial wastewater. Activated carbon is synthesized using chemical activation with activating agents such as KOH which helps to create a highly porous structure with a large surface area. Key synthesis parameters are optimized, including impregnation ratios 1:1, activation temperature (500 °C) and activation time (90 min). The surface properties of the prepared adsorbent, including functional groups (Hydroxyl (–OH), Carbonyl (C=O), Carboxylic (–COOH), Aromatic (C=C), Ether (C–O–C), and Amino (–NH).) and Surface Area(2.217 m2/gm), Pore volume(0.0155 cc/gm), Pore radius (13.95 nm), are characterized using FT-IR spectroscopy and BET surface area analysis. Batch adsorption studies are conducted to remove the Indigo dye by varying conditions, including initial dye

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concentrations (10–50 mg/L), adsorbent dosages (10–90 mg/L), contact times (10–120 min), and solution pH (2–12). Under optimized conditions, the Soap Nut shell–derived activated carbon achieves high dye removal efficiency (over 90%), demonstrating its effectiveness as an eco-friendly adsorbent. The optimum adsorption conditions obtained from the batch studies are an initial Indigo dye concentration of 10-50 mg/L, contact time of 90 min, adsorbent dosage 90 mg and solution pH of 5, under which the highest dye removal efficiency (90.27%) was achieved. The experimental data validate with theoretical models like Langmuir, Freundlich models and kinetic models such as pseudo first order, second order and intraparticle diffusion, respectively. Based on the capacity of adsorbent can be used for CO2 Capture from petrochemical industries.

Keywords: Adsorption; Soap Nut; Chemical Activation; Indigo Dye; Textile Industry Effluents.

Title: Utilization of water hyacinth (Eichhornia crassipes) for bioethanol production: A comprehensive approach from hydrolysis to purification.

Piyush Joshi, Dr. Prashant Kumar*, Dr. Suyog N. Jain, Dr. Yennam Rajesh*, Sandip N. Derle, Z. K. Deshmukh, Dr. Gaurav Daware, Nilesh Eknath Thakare & Prasad Chandrakant Musale (Published in Indian Journal of Chemical Technology (Scopus), Vol. 32, November 2025, pp. 749-754, DOI: 10.56042/ijct.v32i6.17258)

Abstract: Water hyacinth (WH) is a widely available invasive aquatic plant, making it a promising resource for sustainable bioethanol production. In the present study, WH has been utilized for bioethanol production through a sequential process involving pretreatment, ultrasonic-assisted hydrolysis, fermentation, and final purification. Hydrolysis is carried out employing 1N NaOH, succeeded by fermentation through the yeast species Saccharomyces cerevisiae, culminating in the synthesis of bioethanol. The produced bioethanol is subsequently recovered following the purification step. The presence of ethanol in the sample is confirmed by gas chromatography analysis, which is validated by comparison with a standard ethanol reference. The ceric ammonium nitrate test has further verified the presence of alcoholic groups in the prepared bioethanol. Additionally, the dinitrosalicylic acid (DNS) test has revealed a free sugar content of 18% post-hydrolysis. The bioethanol yield is determined to be 9.36%, which aligns with values reported in existing literature for WH-based bioethanol production.

Keywords: Bioethanol, Fermentation, Lignocellulosic biomass, Water Hyacinth, Yeasts.

Training and Placements :

Sr. No.	Company Name	Department Name	Placed Students
1.	Fox Control Pvt. Ltd.	Electrical Engineering	01
2.	Payu	Computer Engineering	05
3.	Josh Software	Computer Engineering	01

Industrial Visits :

Sr. No.	Company Name	Department	Class	Date
1	Nashik Transformer Industries, MIDC, Satpur, Nashik	Electrical Engineering	SY	06/11/2025
2	ND Wines Pvt.Ltd., Dindori, Nashik	Chemical Engineering	SY	01/11/2025
3	Suzlon Wind Farm, Sinnar	Applied Science	FY	22/11/2025
4	Yashwantrao Chavan Planetarium, Nashik	Applied Science	FY	22/11/2025
5	Instrumentation Laboratory of K. K. Wagh Pharmacy	Applied Science	FY	26/11/2025 to 28/11/2025

Other Activities :

- Dr. K. N. Nandurkar and Dr. P. J. Pawar attended One day Workshop on "Outcome-based Education and Accreditation for Engineering Colleges in Maharashtra" organised jointly by National Board of Accreditation and University of Mumbai on 24th November, 2025. In this workshop, Prof. Anil D. Sahasrabudhe, Chairman, NBA, New Delhi, Dr. Anil Kumar Nassa, Member Secretary, NBA, New Delhi and other experts provided information about new NBA guidelines and its implementation.

Prof. Dr. K. N. Nandurkar
Director