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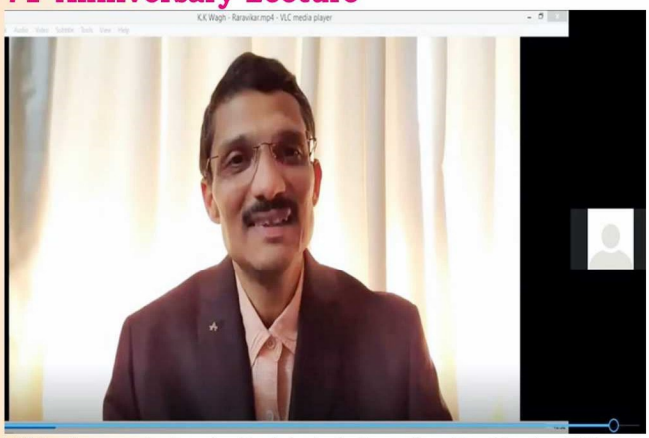
TECHNICAL NEWS LETTER

71st Anniversary Lecture



71st Anniversary lecture by Dr. Ashutosh Rarawikar, Dy. Director, RBI

71st Anniversary lecture was organized in memory of Late Karmaveer Kakasaheb Wagh on 15th January 2022 by our institute. For the expert speaker was Dr. Ashutosh Rarawikar, Dy. Director, RBI and Chief Guest was Dr. Vinayak Govilkar, Eminent Economist. On this occasion Principal Dr. K. N. Nandurkar welcomed Dr. Ashutosh Rarawikar and Dr. Vinayak Govilkar. Topic of the speech was "चिरंतन आशा अर्थशास्त्राची". For the program Chairman of K. K. Wagh Education Society Shri Balasaheb Wagh, Principal Dr. K. N. Nandurkar, all Principals and heads of department of various institutes of K. K. Wagh Education Society were present.

Expert talk on "Industry 4.0 and Changes in Education Sector"

Expert talk by Dr. Jayesh Pai

An online expert talk was organized by IQAC of our Institute on 11th January 2022 on the topic "Industry 4.0 and changes in Education Sector" by Dr. Jayesh Pai. Principal Dr K. N. Nandurkar welcomed to Dr. Jayesh Pai on this occasion. Total 150 staff of the institute attended the talk. Dr. Pai highlighted the technologies which will be enabers for Industry 4.0. Accordingly there is a need for change in curriculum as Industry 4.0 is already implemented in many industries.

7th CII – CEO Connect

CII-CEO connect by Dr. Anand Deshpande

7th CII- CEO Connect program by CII Industry-Academic connect panel was organized on 6th January 2022. The speaker was Dr. Anand Deshpande, Founder, Chairman and Managing Director, Persistent Systems. For this program Principal Dr. K. N. Nandurkar, Mr. Shrikant Karode, all heads of department, staff and students were present. 1236 students and staff members from various colleges attended the program.

Dr. Anand Deshpande informed about starting his own business after completing Ph.D. from USA. He also highlighted the new technologies in the near future and how students should prepare for the career in corporate world.

Training for Employees of Mahindra & Mahindra Pvt. Ltd., Nashik

Inauguration of Training Batch -1 at M & M, Nashik on 6th Jan. 2022

Inauguration of Training of Batch -2 at Institute on 23rd Jan. 2022

Our institute has signed MoU with Mahindra & Mahindra Ltd. for training of their workmen. Workers are selected by the company. Fourteen modules have been developed for training of over 180 hours. It includes theory sessions to be conducted in the company and practical classes to be conducted in our institute. Inauguration of Batch-I at M&M, Nashik was held on 6th January 2022 and Inauguration of batch 2 was held in the institute on 23rd January 2022. Principal Dr. K. N. Nandurkar addressed on occasion of inauguration of the Training program on 23rd January 2022 in the institute. Each batch consists of 35 workers and faculty members from various departments are teaching the module.

Mini Project Competition-2022

Inauguration of Mini Project Competition-2022

Department of Electrical Engineering organized an "Mini Project Competition-2022" for all Engineering students on 08 January 2022. For the Mini Project Competition the chief Guest was Mr. Subhash Anokar, Deputy Executive Engineer at MSEB. For the inauguration Principal Dr. K. N. Nandurkar, Incharge Head of Electrical Engineering Dr. R. K. Munje and staff of Electrical Engineering and students were present. The total registration of 30 groups and total participation of 16 groups presented the projects.

Alumni Meet on 22nd January 2022

Online Alumni meet

An online alumni meet was organized by 'Alumni Association of K. K. Wagh College of Engineering Nasik.', on 22nd Jan. 2022 in an online manner. About 300 alumni from all over the world participated in this event. President of K. K. Wagh Education Society Hon. Balasaheb Wagh presided over the function. Trustees of K. K. Wagh Education Society Hon. Changdeorao Holkar, Hon. Ashokbhai Merchant, and Hon. Sameer Wagh graced this occasion by their presence. Prof. Dr. K. N. Nandurkar (Principal, K. K. Wagh Institute of Engineering Education and Research) delivered the welcome speech and provided information about various activities carried out by the institute. Chief Guest of the function and Ex-Principal of K. K. Wagh College of Engineering Dr. V. D. Barve expressed his views and guided about the further progress of the Society. The meeting ended with vote of thanks by Dr. P. J. Pawar. The alumni then joined the meeting of their respective departments. In department meetings, alumni expressed their views and gratefully admitted that K. K. Wagh Education society has a valuable share in their upbringing. They assured to cooperate in various ways for the progress of the society.

मराठी भाषा संवर्धन पंधरवडा

During the period of 14th January to 28th January 2022, Kusumagraj Central Library of our institute celebrated "मराठी भाषा संवर्धन पंधरवडा". On 18th January 2022, Central library has organized an expert lecture of Hon. Prof. Dr. Dilip Dhondage, Ex. Principal, K. A. A. N. M. S. College, Satana, Nashik

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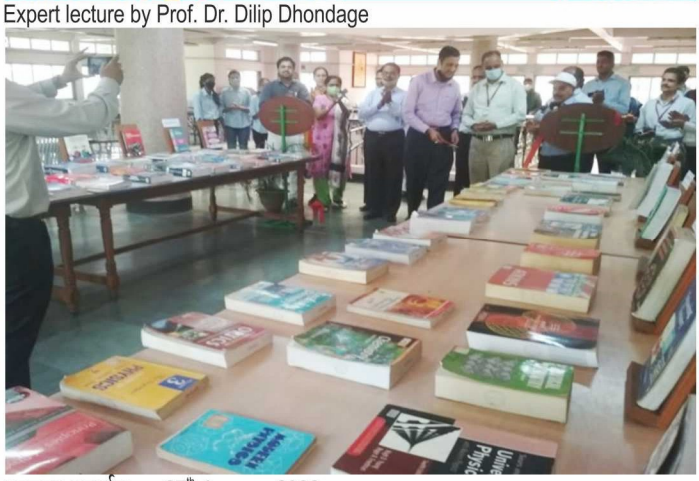
on"वाचनचळवळ"This function was inaugurated at the hands of Prof. Dr. K. N. Nandurkar, Principal, K. K. Wagh Institute of Engineering Education & Research, Nashik. Total 150 staff and students attended the program. Also on 24th January library has organized "कविता वाचन" Program. Total 91 staff and students attended this function and 09 participants presented poems. On 27th January पुस्तक प्रदर्शन was organized by Central Library. It was inaugurated by the hands of Principal Dr. K. N. Nandurkar.

Expert lecture by Prof. Dr. Dilip Dhondage


पुस्तक प्रदर्शन on 27th January 2022

Savitribai Phule Jayanti

On 3rdJanuary 2022, Savitribai Phulc Jayanti was celebrated in the institute. Principal Dr. K. N. Nandurkar, Prof. Dr. Sunil Kute (Dean, Academic), staff and students of the institute were present on this occasion. Dr. Sunil Kute explained the contribution of Late Savitribai Phule in education for women in the state of Maharashtra. Also Yuva Din was celebrated on 12th January 2022 on occasion of Swami Vivekanada Jayanti. For this program Principal Dr. K. N. Nandurkar, Dr. Vilas Patil Dr. P. S. Bodke (Librarian) and other staff were present. Dr. Vilas Patil shared some of the thoughts of Swami Vivekanand and his guidance to the youth for nation building.


Celebration of Savitribai Phule Jayanti


Celebration of Yuva Din on occasion of Swami VivekanadaJayanti

Republic Day Celebration


Flag Hosting on 26th January 2022

On 26th January 2022 Republic Day was celebrated at our campus and Flag was hoisted by Meera Ben Pankaj Rajani. The Chief guests were Hon. Ashokbhai Merchant, Sau. Sushmaben Ashok Merchant and other family member of Ashokbhai Merchant. Principal Dr. K. N. Nandurkar and other dignitaries were present for the program. Due to the restrictions on physical attendance as per the State Government guidelines, the programme was also telecast live on Facebook.

Unveiling the Statue of Late Smt. Hirabai Haridas Udeshi (MERCHANT)

On 26th January 2022, Unveiling of Statue of late Smt. Hirabai Haridas Udeshi (Merchant) was done in Engineering Campus. On this occasion, Trustee Shri. Ashokbhai Merchant, Sau. Sushmaben Ashok Merchant, Trustee Shri Sameer Wagh, Secretary Prof. K. S. Bandi,

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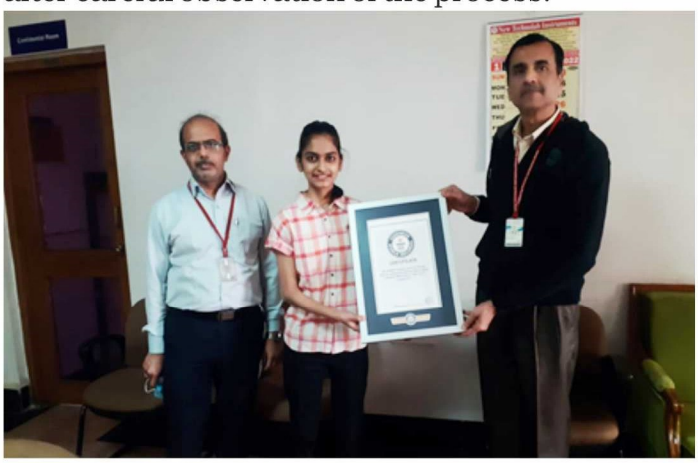
Principal Dr. K. N. Nandurkar, Prof. Dr. S. S. Sane, Prof. Dr. Preeti Bhamre and Prof. Dr. V. S. Mane were present. The family members of Ashokbhai Merchant: Smit Ashokbhai Merchant, Pankaj J Rajani, Meera Ben Pankaj J Rajani, Rashmi Ben Merchant, Jainam Sheth, Niyati Sheth, Riti Merchant and Hitesh Merchant were present for the program. Late Smt. Hirabai Haridas was mother of Late Shri. Kakuseth Udheshi (Merchant) who was instrumental in giving 20 acres land to K. K. Wagh Education Society hence the campus is named after her (Hirabai Haridas Vidyanagari). Mr. Ashok Merchant informed that she belonged to the Thackersey family and contributed a lot for Women empowerment.

Unveiling of Statue of late Smt. Hirabai Haridas Udeshi (Merchant)

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. She is interested in Art & Craft since her childhood and she has prepared many wooden articles so far. This performance was approved by the expert team of Guinness World Record after careful observation of the process.



Expert Lecture/Seminar/Courses/Workshop Conducted:

- Computer Engineering Department staff participated in "Supervisory Development Course" for the employees from Mahindra and Mahindra Ltd by Prof. Dr. R. D. Kulkarni and Prof. P. D. Rakibe on 23rd January 2022 and Training program on "AR using PTC Vuforia" by Mr. Santosh Prasad from 21st to 25th January 2022.
- Production Department had organized expert talk on "Artificial Intelligence in Robotics" by Mr. Kaifali Bhojani, SVR Enterprises, Pune on 13/01/2022.
- Department of Electrical Engineering organized an Expert lecture on "What next? Strategic Planning for GATE Electrical Engineering" by Mr. Sankent Shahane on 15th January 2022 and Expert session on "Designing of Cable Testing and Monitoring" by Shri. Rahul Dilip Pote on 22nd January 2022.
- Chemical Engineering Department organized Expert Talk on "Green Chemistry: My Perspective" by Dr. V. V. Mahajani, Superannuated Professor, Institute of Chemical Technology, Matunga, Mumbai on 12/01/2022.

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Expert Lecture/Seminar/Courses/Workshop Attended:

- Computer engineering department staff Prof. P. S. Kubal and Prof. R. K. Dhurjad have attended One day FDP on "Artificial Intelligence", organized by Bharati Vidyapeeth's College of Engineering, Lavale, Pune on 24th January 2022.
- Production Engineering staff A.S. Kamble attended ATALFDP on "Robot Operating System (ROS)" at GSSS Institute of Engineering and Technology for womenduring 10/01/2022 to 14/01/2022.
- Chemical Engineering staff Prof. Tejmal B. Mahale attended pre event and main event of Turnip Innovation Festivals 2022 on Indian Patent arrange by Turnip Innovation on 22nd January 2022.

Abstracts of papers presented during Jan. 2022

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

Dr. Mrs. R. D. Kulkarni, Dr. S.S. Sane and Prof. Ms. A.V. Taware

(Presented paper in International Conference on "Transformations in Engineering Education" which was organized during 7 – 9th January 2022 and published in Journal of Engineering Education & Technology)

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. 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, on-demand learning.

Project - Based Learning: Teaching Methodology to Impart Knowledge and Skills

Prof. Dr. Ravindra K. Munje

(Paper published in Journal of Engineering Education Transformations in January 2022)

Abstract: For an enhanced learning experience, along with conventional classroom and laboratory teaching, project-based learning (PBL) has been introduced in the curriculum to motivate students to learn by working in a group cooperatively.

However, true learning depends on the successful implementation of Project-Based Learning teaching methodology. In this paper, a case study of the implementation of the PBL over a semester is presented with outcome measurement for the Second Year Electrical Engineering students. Initially, a project-based learning implementation strategy is designed in line with the curriculum prescribed by the Savitribai Phule Pune University (formerly Pune University). It is then carried out over a semester as per the predefined schedule. Outcome measurement is done at the end of the semester by collecting course feedback from individual students. The analysis of the course feedback showed the development of knowledge and skills of the subject matter in students.

Keywords: Course Feedback; Outcome Measurement; Project-based learning; Teaching Methodology.

Evaluation and Improvement of a Transformerless High-Efficiency DC–DC Converter for Renewable Energy Applications Employing a Fuzzy Logic Controller

Prof. S. Saravanan, P. Usha Rani & Dr. Mohan P. Thakre

(Paper published in Springer n 18th January 2022, https://doi.org/10.1007/s12647-021-00530-5)

Abstract: This article discusses a transformer-free, high-efficiency DC–DC converter besides renewable energy applications. The traditional buck–boost, classic Zeta, Sepic, and Cuk converter does have the benefits of a simple design, low cost, as well as the capacity to execute voltage step-up and step-down. Conversely, because of the detrimental consequences of the parasitic constraints of the device, the voltage conversion gain of the traditional DC–DC

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converter is much more restricted, and the efficiency is also significantly smaller, whereas this proposed converter does have a higher voltage gain and efficiency because it is used in a single power switch, resulting in reduced switching losses and voltage stress. The said converter's design is very simple, which simplifies the operation control and reduces switching and conduction losses, leading to an efficiency of 97.4%. This converter seems to have the same capabilities as the Zeta converter, including continuous desired output current and desired buck–boost operation. Such an article offers the operation principle and steady evaluation, as well as a comparison with other existing high step-up configurations. The proposed converter employs a fuzzy logic controller, which improves the voltage level as well as reduces the time taken to set the voltage output of a conventional PI and ANN controller, especially in comparison to the FLC controller. For deployment, experimental result and MATLAB/Simulink have been used, and the modeling results indicate that the proposed controller performance has improved. The proposed approach delivers better performance with an output power of 248 W and an efficiency of 97.4%, which is comparatively better than the other converters.

Keywords: High voltage gain, Transformerless, Zeta converter, Voltage stress, Buck–boost, Fuzzy logic controller

Trajectory Optimization of an Industrial Robot Using Teaching Learning Based Optimization

Prof. Dr. P. J. Pawar

(Presented paper at International Conference on "Advanced Engineering Optimization through Intelligent Techniques" organized by SVNITSurat during 28-30 Jan. 2022)

Abstract: In this work, a teaching learning-based optimization (TLBO) algorithm is applied to control the industrial robot arm trajectory based on inverse kinematics solution with minimization of energy consumption. The problem considers the minimization of energy consumption during the process sequence of six degrees of freedom industrial robot. The assessment of energy criterion includes the computational simulation of the robotic arm movement. The considered approach is compared and validated on the trajectory optimization of the industrial robot ABB IRB 1410.

Keywords: Robotic arm trajectory, TLBO algorithm, Inverse kinematics problem, Energy consumption minimization.

Industry-Institute collaboration from destination focus to continuous journey focus in the light of re-discovering management education for the pandemic World.

Col (Dr.) Sankar Rajeev (Retd.)

(Presented paper at International Journal of Multidisciplinary Education Research in Jan. 2022; ISSN:2277-7881)

Abstract: Forced by the existential crisis permeated by covid 19, management educations have been compelled to change with e-learning aggrandizing its position. It is true that such a change forced by a black swan effect has created ambivalence as a result of which hurried and uncompromising make over in the education sector as a whole emerged and more so relatable in the management education. The proposed research work has the aim of analyzing industry-institute collaboration from destination focus to continuous journey focus in the light of re-discovering management education for the pandemic world with an anachronistic view. Antediluvian scan of literature indicates that analysis of a topic of this nature has not been attempted whereas there have been numerous contributions on impact of covid 19 on global education. Studies carried out on efficacy of management education world all over leads us to the important point that aspirations of neither the industry nor the students are met because of the apocryphal attitude of major players such as industry and academic institutions to collaborate in an effective way. With pandemic lockdown the disparity has been widening disproportionately. Management education without its roots in industrial setup is like a fish out of water having very less chance of surviving. Thus, it was found that such a study would be not only enriching and useful but also interesting giving approbation to industry-institute collaboration in management education. Therefore, an attempt to this effect is being made through this research work. The findings will give an arcane insight on to the relevance of practicable methods to deal with problem and support further research on the subject. The methodology used has been archetypal descriptive study.

Keywords: Pandemic, Management Education, Industry-Institute Collaboration, Change, Curriculum Design.

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