



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

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■ Visit of Dr. V. V. Mahajani

Dr. V. V. Mahajani (Ex. Professor of ICT Mumbai, Formerly UDCT Mumbai) visited our Institute on 3rd April 2014. He delivered an expert lecture on "Project Management" for Chemical, Mechanical and Civil Engineering students. He discussed various practical issues related to Project Management which are not generally covered in the text books. He was felicitated by Principal Dr. K. N. Nandurkar. All staff of Chemical Engineering department attended the lecture. Dr. V. V. Mahajani also visited various institutes run by K. K. Wagh Education Society. He appreciated the development of K. K. Wagh Education Society Nashik.



Dr. V. V. Mahajani delivering an expert lecture on "Project Management"

■ Meeting of Principal & HOD's with Hon. Vivek Sawant at MKCL, Pune

On 14th April 2014 meeting of Principal & HOD's with Mr. Vivek Sawant at MKCL, Pune was organized to discuss the short term and long term plans for the institute. For this meeting Hon. President of K. K. Wagh Education Society, Shri. Balasaheb Wagh, Trustee Er. Sameer Wagh, Principals of Various Institutes and Head of Departments of our Institute were present. Mr. Vivek Sawant appreciated the initiatives taken by the institute and provided guidance for the short term and long term plan.

■ Governing Body Meeting



On 15th April 2014 governing body meeting of the institute was held in central office under the chairmanship of Hon. Shri K. B. Tarle, Vice president, K. K. Wagh education Society, Nashik. Dr. D. R. Nandanwar, Joint Director, DTE and Mr. S. R. Karode, Senior consultant were present for the meeting.

■ Visit of Dr. Ajit Thete

Dr. Ajit Thete, Director, Centre for development and leadership education, Aurangabad visited our institute on 8th April 2014. He had a meeting with Principals of various institutes and discussed the possibilities of introducing new Skill development courses under the banner of K. K. Wagh Education Society. Prof. K. S. Bandi, Secretary of K. K. Wagh Education Society was also present for the meeting.

■ Lecture by Mr. Jayant Shahasrabudhe

On 18th April 2014 Mr. Jayant Shahasrabudhe, National Organizing Secretary, Vijnan Bharti, visited to our institute. He delivered a lecture on "Swami Vivekananda & Science" at Shri Shankaracharya Nyas. It was attended by all staff members of the institute. This lecture was part of the series organized by K. K. Wagh Education Society on the occasion of 115 Birth anniversary of Late Padmashree Karmaveer Kakasaheb Wagh.



Mr. Jayant Shahasrabudhe delivering a lecture on "Swami Vivekananda & Science"

Local Managing Committee Meeting

Meeting of local managing committee of the institute was held in the central office on 21st April 2014. Dr. Om Prakash Kulkarni & Prof. Suraj Jhawar were present along with Shri Balasaheb Wagh, other trustees & elected members of teaching & nonteaching staff.



Meeting of Local managing committee

Two days Workshop on "Research Methodology: Recent Trends and Applications"

Department of Production Engineering organized Two Days Workshop on "Research Methodology: Recent Trends & Applications" during 11-12th April 2014. The main objective of this training program was to promote the application of various mathematical programming techniques, statistical methods, and stochastic process methods in the engineering sciences. About 45 participants including faculty members of various engineering colleges/polytechnics in Maharashtra and research scholars attended this workshop. The inauguration function was carried out by hands of Chief Guest Dr. N. S. Walimbe (Principal, PVG College of Engineering, Nashik). Dr. A. M. Chincholkar (Principal, Guru

Govind Singh College of Engineering, Nashik) was the chief guest for valedictory function. Dr. N. S. Walimbe delivered key note speech and explained the background of carrying out Scientific Research. Principal Dr. K. N. Nandurkar, Dr. P. J. Pawar, Prof. S. B. Chandgude, and Dr. S. R. Gangurde were resource persons for this workshop. This workshop was co-ordinated by Dr. P. J. Pawar and Prof. S. B. Chandgude.



Prof. Dr. Varasha H. Patil, Vice Principal of MCOERC, Nashik addressing the audience

Seminars / Workshop / Training Attended By Staff:

- Principal Dr. K. N. Nandurkar, Prof. Amol Sonawane & Prof. R. G. Burbade, Assistant Professor from College of Agricultural Engineering attended the 3rd theme meeting on 'Micro Nano Technology in service of rural India' at SVERI's College of Engineering Pandharpur during 25 to 26th April 2014. Cluster of Colleges in Nashik were formed on this occasion to submit the interdisciplinary research proposals for funding by BARC.
- Electrical Engineering department staff Prof. R. K. Munje attended training programme at NIT Rourkela (Power Electronics system & Application) during 4 to 6th April 2014.
- Production engineering department staff Prof. N. B. Gurule, Prof. Bhusnar A. B. and Prof. A. A. Sonawane attended two days workshop on "Research Methodology: Recent trends and applications" organized by department of Production Engineering during 11 to 12th April 2014.
- Information Technology department staff Prof. Prajakta S. Vispute attended two days workshop on "Research Methodology: Recent trends and applications" organized by department of Production Engineering during 11 to 12th April 2014.

Industrial Visits Organized For Students:

Date	Class	Name of Company
04/04/2014	B. E. Electrical	Crompton Greaves Ltd., Nashik

Training & Placement :

Name of the Dept.	Name of Company	No.of students selected
	Helical	02
Computer Engg.	Winjit	01
	ESDS	01
Production Engg.	Wind World (I) Ltd.	02

Other Achievements

- Prof. Dr. B. E. Kushare, Head, Electrical Engineering Department offered Electrical consultancy services to Times of India Delhi, Times of India Airoli and Times of India Chandigarh. He also delivered Expert lecture on 'Energy Conservation in Compressed Air System' at Kolkata.
- Electrical engineering department staff Prof. J. P. Shah delivered an expert lecture on "Smart grid and energy conservation" at Institute of Engineers Nashik Local centre on 3rd April 2014 and an expert lecture on "Moon colony" at Yashvantrao Chavan Planetorium on 17th April 2014. He also delivered an expert lecture on Awareness program for village people near Ozar on "Space station Journey of Sunita Williams & Space Science" on 19th April 2014.

Details of Students Qualified GATE 2014

Name of Department	Name of Student	GATE Percentage /Score
Electronics & Telecommunication	Jahagirdar Abhishek Arvind	34.33
	Bhadait Rohit Popatrao	32
	Patil Manoj Raju	30.86
	Patil Vinod Ravindra	44.75
	Kulkarni Niranjan Satish	25.99
	Pandey Nidhi Nirmal	28.24
	Khairnar Snehal Madhukar	25.61
	Vaishali Anantha Subramanian	31.33
	Yashraj Soni	34
	Sahas Patil	23
Computer Engg.	Sagarkumar P. Jain	25.14
	Vikas Vitthalrao Sonwane	29.4
	Tanvi Kharche	23.54
	Madhushree Khapli	24.16
	Akanksha Patil	19.03
	Pradnya Gangurde	23.2
	Shendge Reshma	20.88
Civil Engg.	Chitte Pritesh Pradeep	54.4
	Bhaktapuri Vinay Kishorkumar	44.86
	Karnawat Kunal Harakchand	44.71
	Dhore Sumit Kedar	42.7
	Chaudhari Sagar Kishor	38.85
	Joshi Prashant Vishnudas	38.5
	Wani Yashodip Sunil	37
	Gurnani Tarun Chandrakant	34.97
	Kakad Sayali Sanjay	34.9
	Bora Nikhelesh Pravin	33.17

Name of Department	Name of Student	GATE Percentage /Score
Civil Engg.	Amit Kumar	33
	Aher Rahul Ambadas	32.11
	Rathod Jayant Sanjay	29
	Bhadange Mahesh Raosaheb	25.38
	Bagul Sumit Rajendra	21.8
	Jaurker Dhananjay Shivdas	21.49
	Walunj Akshada Kisanrao	19
	Amber Harshita Prashant	16.04
Electrical Engg.	Sourish Sinha	27.52
	Aakash Wajpe	27.22
	Sushant Meshram	17.48
	Rutuja Salunke	17.32
Mechanical Engg.	Chavan Ravi Uttamrao	46
	Phadke Prathamesh M.	50.9
	Kharche Piyush R.	52.54
	Deshpande Prachi	34
	Jejurkar Pankaj Deoram	59.63
	Kale Yatish Surendra	46.95
	Sarode Rahul Ramnath	37
	Kurup Rakesh Radhakishan	50
	Pawar Rushikesh Sanjay	38
	Sharma Bairang V.	48.27
	Bele Tejas	62
	Panchabhai Mangesh P.(Staff)	39
Chemical Engg.	Miss. Rashi Dhanraj R. (Staff)	37
	Nathani Akash G.	49
Information Technology	Srushti Shah	723
	Rasika Devadiga	465
	Mayur Lachake	321

Abstracts of papers presented during April 2014:

Skyline Computation for Frequent Queries

Prof. R. D. Kulkarni

(Presented paper in IEEE International Conference 'Convergence of Technology (I2CT)' organized by IEEE Bombay Section and Sharadchandra Pawar College of Engineering, Otar during 6 to 8th April 2014)

Abstract: The skyline queries have been popular in the users who have multiple preferences on the various dimensions of the data. These queries produce those tuples to the user which are 'promising' on the dimensions of the user's interest. On many of the popular dataset, various users generate such multi-preference queries which often include the same dimensions. For such frequent queries, repeating computations on large datasets cannot be tolerated. Real time applications may experience unacceptable response time. Also, in the scenario where, there exists a little deviation in the dimensions enquired by the user from those of the popular dimensions, the re-use of the previous results can help in reducing the further computational

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costs. For such frequent skyline queries we propose a novel concept of 'Query Profiler' (QP). This paper presents a QPSkyline algorithm which is a simple yet efficient way of optimizing the response time of frequent skyline queries. The experiments done on real datasets, demonstrate the effectiveness of the proposed method.

■ **Optimal Capacitor Placement and Sizing for Enhancement of Distribution System Reliability and Power Quality Using PSO**

Prof. P. M. Sonawane & Prof. Dr. B. E. Kushare

(Presented paper in IEEE Conference organized by IZCT Pune during 6 - 8th May 2014)

Abstract: This paper presents optimal capacitor placement and its sizing using Particle Swarm Optimization. Reactive power management and planning is one of the crucial issues in front of researcher from last four decades in addition to voltage profile, line losses and power factor problem in transmission and distribution system. Capacitor is a device which is a solution to above problem if utilized in proper way. IEEE 30 bus system is tested in this paper for optimal configuration of capacitor with broader multi-objective function. Reliability and its indices as discussed in IEEE std 493 and 1366 are benchmark studies followed by all researchers. Placement of capacitor will enhance the distribution system reliability and smart grid applicability. Particle Swarm Optimization technique is used to evaluate objective function for capacitor placement and sizing in IEEE bus system.

Index Terms: OCP, Reliability, PSO, SAIFI, SAIDI, CAIDI

■ **Development of automatic fixture configuration using genetic algorithm**

Prof. Dr. P. J. Pawar

(Presented at Indian Institute of Production Engineers and GLA University, Mathura, during 18-20th April 2014)

Abstract: In this work an attempt is made to automate the fixture design process so as to minimize manufacturing lead time. The deterministic locator position based on the concept of screw theory is considered. The optimization model is developed with objective as to achieve the total restraining of the workpiece

and minimize the clamping force whereas constraints are to ensure that positive reaction forces on the locator and also to ensure that the clamp should not be positioned on the surface to be machined. The optimization is then carried out using genetic algorithm. General purpose computer program is developed using proposed approach to provide the optimum fixture configuration which helps the process planner as a ready reference to set the part on machine. To validate the proposed approach practical case study is also presented.

Keywords: Automatic fixture configuration; Screw theory; Genetic algorithm

■ **Optimization of laser beam machining process parameters using principal component analysis**

Prof. Dr. P. J. Pawar

(Presented at Indian Institute of Production Engineers and GLA University, Mathura, during 18-20th April 2014)

Abstract: In Laser beam machining (LBM) CO₂ and Nd:YAG lasers are widely used for cutting of sheetmetal to obtain the good quality cut. The cut quality presents in terms of kerf width, kerf taper and surface roughness. The performance of LBM process depends on selection of laser type and process variable parameters. In recent years, researchers have explored a number of ways to improve the LBM process performance through optimization techniques. This paper presents effective approach for the optimization of laser cutting process of Stainless steel AISI-321 with multiple performance characteristics based on the Principal Component Analysis. Eighteen experimental runs based on the orthogonal arrays were performed. The experiments are carried out on the CO₂ laser machine. The variable process parameters selected as assist gas pressure, cutting speed, laser power, pulse frequency and stand off distance. The quality performance measures in terms of kerf width, kerf taper and surface roughness. The raw material is used for experiments as Stainless steel AISI 321.

Keywords: Laser beam machining; Kerf quality; Principal Component Analysis

■ Prototype Based Classifier for User Profile Classification

Prof. Umesh Gaikwad and Prof. Dr. S. S. Sane
(Presented paper in National conference on Recent Trends in Information Technology (NCRTIT-2014) organized by MIT, Alandi, Pune on 4th April 2014. He received the Best Paper Prize for the same)

Abstract: Classification of computer users is very beneficial for assisting them, anticipating their future actions. In addition, it is very useful for making recommendations to a user based on the histories of other users with similar preferences, detecting changes in the behavior of a user, and so on. Several approaches for classifying users are available, however many of them do not consider the changes in user's behavior, as it is essential in some of the categories of users. For example, computer user behavior is represented as the sequence of commands issued during various sessions. In such cases, the user behavior is not necessarily fixed but rather it changes, it is necessary to consider his evolving nature. Proposed work deals with Prototype Based approach to correctly classify the created profiles. Although there are different strategies are available for generating prototype, it is necessary to investigate effectiveness of statistical distance metrics for prototype creation. The work presented in this report deals with selection of the best statistical distance metrics for prototype generation. It can be applicable to any environment where user behavior is represented as sequence of actions or events.

Keywords: Behavior Recognition, Sample density, Sequence Learning, Prototype Based Classifier, Statistical Distance Metrics

MAY 2014

■ Alumni Meet



An annual alumni meet of year 2014 was organized by 'Alumni Association of K. K. Wagh College of Engineering Nasik.', on 3rd May 2014 at K. K. Wagh Institute of Engineering Education and Research, Nashik. Alumni visited their respective departments from 10.30 am to 11.30 am and interacted with the faculty. The main function was started at 11.30 am in P. C. Ray hall of Chemical Engineering Department. 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 in the institute. About 125 alumni of the institute attended this event. Alumni gathered for this meet shared their experiences and provided valuable suggestions for institute development and effective working of Alumni association. Dr. P. J. Pawar, co-ordinator of alumni association proposed vote of thanks. The function ends at 1.30 pm.

■ Two Week ISTE Workshop on "Fluid Mechanics"



Participants of Two week ISTE Workshop on "Fluid Mechanics"

"Train 10 thousand teachers" is a major initiative under the NMEICT, in which IIT Kharagpur and IIT Bombay are working as partner institutes to improve the teaching skills of Engineering College teachers of the country in core Engineering and Science subjects. Under the programme, a two-week ISTE workshop on Fluid Mechanics was held during 20th-30th May 2014 in the Institute. Live lectures were given by IIT Kharagpur faculty. About twenty participating teachers from colleges in and around Nashik attended at KKWIEER remote center and the online, offline tutorial sessions were also conducted in the center. The lecture transmission and live interaction took place through distance mode using the AVIEW technology and the internet. Prof. Atul Patil and Prof. Dr. Milind Ray of Department of Mechanical Engineering worked as the Remote Centre coordinator and the Workshop coordinator respectively.

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Expert talk by Dr. S. S. Sane

Prof. Dr. S. S. Sane delivered talk on "Internet on Things" during celebration of World Telecommunication Day function organized jointly by IETE and IEI at The Institution of Engineers (India), Local Center, Nashik.



Prof. M. D. Kokate, Chairman IETE Nashik, Mr. Narendra Birari, Chairman IE(I) Nashik, Mr. Prajapati, GM, BSNL, Nashik, Prof. Dr. S. S. Sane, Ms. Apoorva Jakhadi, Hon. Secretary, IETE and IE(I).

- Divya Marathi Educational Exhibition started at City Centre Mall. K. K. Wagh Education Society had a stall in this exhibition. Information about all colleges / courses run by K. K. Wagh Education Society was given to the visitors on 23rd May 2014.
- 'सकाळ प्रवेशाचा गेटवे' Online programme organized in Seminar Hall of Chemical Department for the benefit of students and parents on 31st May 2014.

Seminars / Workshop / Training Attended By Staff:

- Computer departmental staff Prof. L. A. Patil attended 5 days STTP on "Computer Networks" at IIT Bombay.
- Mechanical departmental staff Prof. R. D. Rakhade, Prof. S. S. Kale, Prof. P. K. Kavale, Prof. U. V. Saindane and Prof. A. D. Bhagure attended Two week ISTE Workshop organized on "Fluid Mechanics" at KKWIEE&R held by IIT Kharagpur during 20 to 30 May 2014. Chemical Engineering departmental staff Miss Rashi Dhanraj also attended the same course.

Training & Placement :

Name of the Dept.	Name of Company	No.of students selected
Production Engg.	Mahindra and Mahindra	01
Mechanical Engg.	Mahindra and Mahindra	10
	Raymond Steels	03
Chemical Engg.	Catapharma Pvt., Ltd., Nashik	10

CONGRATULATIONS



Shivam Dnyaneshwar Pathade, Student of Electrical engineering department was awarded the best NSS student award by University of Pune, Pune on 7th May 2014.

Other Achievements

- Prof. Dr. K. N. Nandurkar was invited as Guest of Honor for inauguration of new branch of ICICI near Highway on 19th May 2014.
- Prof. Dr. S. S. Sane, Head of Computer Engineering department delivered guest Lecture on "Career Guidance" on 5th May 2014 at HPT RYK College, Nashik.
- Prof. B. E. Kushare offered Electrical consultancy to Bosch Ltd., Nashik, Technova Imaging Systems Taloja and Dr. Pansare Hospital.

Abstracts of papers presented during April 2014: An Algorithm to Detect Point on Wave Initiation of Voltage Sag by Delta Time Method

Prof. N. Jangale, Prof. A. M. Jain & Prof. Dr. B. E. Kushare

Abstract: This paper presents an algorithm for detection and characterization of voltage sag on transmission and distribution lines using Delta Time Method. Voltage sag magnitude and duration are two commonly used characteristics of voltage sag. These two characteristics can be calculated using RMS voltage method. But the other characteristics of voltage sag like point on wave and phase angle jump are not clear from RMS voltage calculation as it uses one or half wave window. In this paper RMS voltage method is used to calculate voltage sag magnitude and a Discrete Wavelet Transform is utilized to detect duration and Point on Wave initiation of voltage sag disturbance from fundamental 50 Hz frequency. Also comparison of methods used in previous literature is also done with the Delta Time Method. Alternating waveform is always is not ideal but it is disturbed. So to detect Point on wave initiation Delta Time method is implemented in algorithm. This algorithm is simulated in MATALAB simulink and the results are presented at various magnitudes and Point on Wave initiations.

Keywords: Power quality, Point on Wave initiation, Voltage sag, Discrete Wavelet Transform

Prof. Dr. K. N. Nandurkar
PRINCIPAL

