TECHNICAL NEWS LETTER

HR Meet at Pune

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With an objective of bridging the gap between Institute and Industries of Pune, K. K. Wagh in association with HR Infotech, Pune organized an HR Meet on 8th December-2017 in Four Point by Sheraton, Pune. HR Meet started with the registration followed by Welcome Speech by Mr Baliram, President, HR InfoTech, Pune. Dr. K. N. Nandurkar, Principal of K K Wagh IEER, presented the details about K. K. Wagh Education Society and its institutes, facilities available, academic performance and achievements of students, research and consultancy work carried out by institute and the placement statistics. This HR Meet was attended by around 70 HR Heads of various companies like: TCS, Persistent, BICS InfoTech, Tech Mahindra,Vodafone India Services Pvt., Ltd., Saama Technologies, Zensar Technologies Ltd., Cognizant Technology, Capgemini, IBM, SQS India Info system, Syntel Ltd., etc. This Meet was also attended by our Trustee Er. Sameer Wagh, Principal Dr K. N. Nandurkar and HODs of KKWIEER. On this occasion, three Senior Alumni of our institute Mr. Divyesh Desai, Business Leader, KPIT Technologies, Mr Rahul Nene, Senior Sales Manager, Asia, TIETO and Mr Ashutosh Ambekar, Delivery Partner of Persistent

Systems Pvt., Ltd., Pune shared their Journey and success story from K K Wagh to Corporate World. Vote of thanks was proposed by Mr Abijeet of Sama Technologies and anchoring was done by Dr Pramod Shahabadkar, TPO, K. K. Wagh and Mr. Ashwin Jaisinghani of Capegemini, Pune. HR Managers have appreciated the effort of K. K. Wagh in organizing the HR Meet at Pune.

Visit by Dr. Prataprao Pawar

Speech by Dr. Prataprao Pawar

Dr. Prataprao Pawar, Chairman of Sakal group visited our Institute on 19th December 2017. He was felicitated by President of K. K. Wagh Education Society Shri. Balasaheb Wagh. On this occasion Dr. Prataprao Pawar addressed to students of the institute on "Opportunities for Engineering students and business skills". All were inspired by his speech. For this programme Trustee Shri. Changdevdada Holkar and Shri. Sameer Wagh, Secretary Prof. K. S. Bandi, Principal Dr. K. N. Nandurkar, Principals and Heads of departments of various institutes of K. K. Wagh Education Society, and students were present.

Lecture by Prof. Dr. S. S. Inamdar of Project based Learning on 23rd December 2017

An interactive session by Dr. S. S. Inamdar, Managing Trustee/Secretary,

Vishwaniketan, Kumbhivali, Tal. Khalapur was organized on the topic- "Project Based Learning and summer training in abroad Universities" for students. He emphasized on project based learning and its importance for the overall development of students. He put forth various objectives and benefits of the UG Fellowship programs offered by various universities outside of India. Some of the main objectives offered were to create more development in the areas of Indian research and start-ups. This would further extent to the second objective of building up better design professionals who can then apply for patents and well developed project designs. He also mentioned about the UG Fellowship Program Benefits which included: Full time work experiences, guidance under a faculty member. It is also beneficial because there are industrial visits and seminars held regularly for international students to get hands on experiences. This helps them in applying for Post-Graduation and in writing better and enhanced research papers.

■ Inauguration of Football Matches by Dr. Aniruddha Dharmadhikari

On 18th December 2017, an inauguration of Padmashri Kakasaheb Wagh Smruti Chashak Football Tournament was organized. It was inaugurated by the hands of Dr. Aniruddha Dharmadhikari. The tournament was organized for students of rural area under age group 13 years, 15 years, 17 years and 19 years. Principal Dr. K. N. Nandurkar felicitated to Dr. Aniruddha Dharmadhikari on this occasion of Inauguration function.

■ Faculty Development Program on "Fuzzy Logic and its Applications"

One week faculty Development Program on "Fuzzy Logic and its Applications" was jointly organized by Department of Civil Engineering and Department of Production Engineering, during 11-15 December 2017.The main objective of this workshop was to provide the exposure of Fuzzy Logic and its application for solving the problems involving the uncertainty in measurement, control and operation. The training program provided detailed knowledge of Fuzzy Logic to the participants for solving real life complex problems. Renowned resource persons; Dr. Ashok Deshpande (Ex. Deputy Director, NEERI, Nagpur, Professor Emeritus, University of California, Berkeley. He had worked with the father of fuzzy logic: Dr. Lofti Zadeh), Dr. D. G. Regulwar, Professor, Government College of Engineering, Aurangabad and Dr. D. Datta, Scientist H+, BARC, Mumbai conducted various sessions in the program. About 14 faculties from various engineering colleges around Nashik and 36 faculties from different departments of the host institute participated in the program. The faculty development program was found to be very useful to the participants for their further research and development. Dr. A. L. Varne, Coordinator of the FDP and Prof. Dr. P.J. Pawar (HOD, Production Engineering Department) worked hard for success of the program.

■ NSS special Winter Camp

NSS special winter camp of institute for academic year 2017-18 was held at Chitegaon (Tal. Niphad) from 24th to 30th Dec. 2017. The inaugural

function of camp was held on 24th Dec 2017 at Chitegaon. Senior scientist Dr. Omprakash Kulkarni and RJ Bhushan Matkari and Mr. Subhash Gade (Sarpanch, Chitegaon) were the chief guests for inaugural function. Principal Dr. K. N. Nandurkar addressed the NSS volunteers and villagers of Chitegaon. On 30/12/2017, Concluding Session of NSS Camp was arranged in which Prof. Dnyandev Nathe (Regional Director, DTE) and Tahsildar Mr. Chandrashekhar Deshmukh guided to all NSS volunteers. Prof. Dr. N. B. Gurule, NSS Program officer of our institute presented the Camp report and volunteers shared their experiences as well as feedback about camp activities. The session was concluded with group photo activity.

Inauguration of NSS Winter Camp

Lecture by Dr. K. S. Jain on 'How to write Research Paper'

An expert lecture by Dr. K. S. Jain (Principal, K. K. Wagh College of Pharmacy) was organized on 29th December 2017 on topic "'How to write Research Paper". He was felicitated by Dr. K. N. Nandurkar (KKWIEER). For the program Principal P. T. Kadave (K. K. Wagh Polytechnic), Principal M. B. Jhade (K. K. Wagh Women's Polytechnic), Prof. Mrs. Vidya Khapali (K. K. Wagh Polytechnic, Chandori) and faculties of Engineering and Polytechnic were present.

Expert Lecture/Seminar/Courses/Worshop Organized:

- Department of Computer Engineering organized Training program on "Language Lab" by M. J. Patil on 26th December 2017 and three days' workshop on "Problem solving using C and C++" by S. K. Gondhalekar, C. R. Patil, S. M. Malao, P. P. Vaidya, L. A. Patil, I. Priyadarshini & Y. B. Navale from 26th to 28th December 2017.

- Department of Electronics & Telecommunication Engineering organized Expert lecture on "Soft skills and communication basics" by Dr. Medha Saykhedkar on 27/12/2017 and a presentation by Siemens experts on "Improving Employability of our Students in association with Siemens, Nashik " by Mr. Sachin Bhanushali and Mr. Madhukar Dubey on 18/12/2017.

- The Department of Information Technology had organized a two days workshop on "C++ Programming" for SE IT students by Prof. S. K. Badjate and Prof. U. P. Pisolkar on 29th and 30th December 2017 and an introductory session on "Soft Skill" by Globerena Technologies, Banglore for BE IT students on 26th December 2017.

Seminars/Workshop/Training attended by Staff:

- Computer engineering staff Prof. V. N. Suryawanshi attended Five days FDP on "Pattern Recognition and Image analysis" organized by IIT Roorkee from 15/12/17 to 19/12/17. Same departmental staff Prof. M. J. Patil attended six Days STTP on "System Programming and Advances in Compiler Construction" from 11/12/2017 to 16/12/2017. Prof. S. K. Chumble and Prof. L. A. Patil attended Internet of Things: Architecture, Challenges, Applications and Tools for Smart Cities from 12/12/2017 to 13/12/2017. Prof. S. K. Gondhalekar attended FDP on "Fuzzy logic and its applications" from 11/12/17 to 15/12/17 organized in our institute by Production Engineering department in association with Civil Engineering department. Staffs M. J. Patil, N. M. Pagare, S. D. Jadhav, G. R. Gupta, M. N. Shinde, S. P. Solunke, M. V. Rajput, P. M. Bhadane & S. A. Gade have attended FDP on "Foundation Program in ICT for Education" from 03/08/17 to 07/09/17. Prof. A. V. Taware has attended FDP on Big Data Science in NDMVP's KBTCOE, Nashik from 11/12/17 to 15/12/17.

- Electronics & Telecommunication Engineering departmental staff Prof. Kiran Navale has attended workshop on "Arduino using MATLAB, Raspbery pi using MATLAB" from 02/12/2017 to 06/12/2017. Prof. S. A. Karpe and Prof. S. D. Patil have attended Faculty

orientation workshop on Power Electronics Syllabus 2015 Pattern at AISSMS IOIT, Shivaji Nagar, Pune under the aegis of BOS Electronics SPPU Pune from 14th to 16th December 2017. Prof. Ketaki Kulkarni and Prof. S. R. Chaudhari have attended One Week Workshop on "Fuzzy Logic and its Application organized by KKWIEER, Nashik from 11th to 15th Dec. 2017. Prof. S. A. Zalte and Prof. Ketaki Kulkarni have attended Two days Teachers Training on "English Language" organized at KKWIEER, by Word's Maya Training Institute, Pune from 14th to 15th Dec. 2017.

- Electrical Engineering Departmental staff Prof. M. R. Rade attended one week STTP on, "Power Quality and Distributed Power Generation" at SVNIT, Surat from December 20-24, 2017. Same departmental staff Prof. R.A. Ahire has done industrial training at C.G. L., Nashik from 04/12/2017 to 15/12/2017.

- All Faculty Members of Production Engineering department have attended One week FDP on "Fuzzy logic and Its Applications" organized by Production Department, in association with Civil Engineering Department, KKWIEER, Nashik from 11-15 Dec. 2017.

- Chemical Engineering staffs Prof. D. H. Mahale and Prof. A. S. Kshirsagar have attended Two days "Teachers Training: English Language" organized at KKWIEER, by Word's Maya Training Institute, Pune from 14th to 15th Dec. 2017.

- Information Technology Departmental staff Prof. R. M. Bora attended one day FDP on "TE IT: 2015 Course Sem-II: Syllabus Orientation for subject Data science & big data analysis" organized by Zeal COER, Pune & BOS, SPPU, Pune on 6th December 2017. Prof. Pisolkar & Prof. P. R. Kadam attended one day state level QIP seminar on "Applications of Mobile Technology in Modern Life" organized by G. E's Society B. Y. K. College of Commerce, Nashik & SPPU, Pune on 8th Dec. 2017. Prof. S. P. Mene attended five day FDP on "Data Sciences and Big Data Analytics" organized by NDMVP's KBTCOE,Nashik & ICT Academy from 11th to 15th Dec. 2017.

- MCA department staff Prof. N. D. Baravkar, Prof. P. V. Dorle and Prof. D. C. Yeole, attended one week faculty development programme from 11th to 15th Dec. 2017 on "Fuzzy logic and its applications" organized by KKWIEER, Nashik. Prof. R. A. Gangurde attended faculty development programme from 21st to 23rd December 2017 on "Machine Learning and Algorithms" organized by Dept of IT, MET, Nashik. Prof. V. P. Borse attended one month National Induction Training Programme from 28th Nov. to 20th Dec. 2017 organized by IIT Bombay. Prof. P. G. Fegade attended faculty development programme from 11th to 15th Dec. 2017 on "Data Science and Big Data Analytics" organized by NDMVP COE, Nashik

- Applied Science Departmental staffs Prof. A. L. Mourya, Prof. R. S. Unhale, Prof. P. S. Shahir and Prof. A. S. Achari have attended Workshop on "Mathematical software for teaching learning & Research" organized by K. R. T. Commerce & Science College from 29th to 30th December 2017.

Industrial Visits Organized For Students:

Date	Class	Name of Company
16/12/2017	B.E. Electrical (I-Shift)	Crompton Greaves Ltd., Bhopal
16/12/2017	B.E. Mechanical	HPGPCL, Ltd.,Manali (Himachal Pradesh)
18/12/2017	SE & TE E & TC	Balaji Powertronics (MICROTEK) at Parwanoo (Himachal Pradesh)
19/12/2017	B.E. Computer	SEO Discovery, Chandigarh
19/12/2017	B.E. Computer	Sebiz square, Chandigarh
27/12/2017	S.E. Computer	Hyper Drive, Banglore
27/12/2017	S.E. Computer	TCS, Banglore

Training & Placement :

Name of Company	Name of the Dept.	No.of students selected
Aress Software	MCA	04

Other Achievements:-

- Prof. Dr. K. N. Nandurkar was invited on 22nd December 2017 to deliver an expert lecture on 'Simulation for Competitive Manufacturing' at Amrutvahini College of Engineering, Sangamner during the two weeks Faculty Development Programme sponsored by AICTE. He was also Chief Guest for the valedictory session of this program and distributed certificates to the particulars.

- Prof. Dr. S. S. Sane, Head of Computer Engineering department conducted guidance session on Google Handouts for the syllabus implementation of FDP on "Software Modelling and Design" on 27th December 2017 at D. Y. Patil College of Engineering, Pune.

- Prof. Dr. S. M. Kamalapur invited as expert for conducting session on "Approximate Algorithms" at FDP on "Design and Analysis of Algorithms" at MIT College of Engineering, Pune from 18th to 23rd December 2017.

- A pitch was presented for 'Sandbox Samvidha by Deshpande Foundation Initiative' at DISQ, Indiranagar by Prof. Kushal Birla of Computer Engineering department on 02/12/2017. During the session more than 15 pitches were presented from different participants across India seeking funding opportunity for their respective ideas.

- HOD E&TC Prof. Dr. D. M. Chandwadkar was invited as Resource Person for Faculty orientation workshop on "Power Electronics Syllabus 2015 Pattern at AISSMS IOIT, Shivaji Nagar, Pune under the aegis of BOS Electronics SPPU Pune from 14th to 16th December 2017.

- Prof. Dr. B. E. Kushare, Head of Electrical Engineering department visited Mitsubishi Electric Company at Wakayaona during 11-13 December 2017, Koyoto, Japan. He also visited Mishtibishi Innovation Centre at Bangkok on December 14, 2017. He also offered electrical consultancy services to M&M and HPCL, Secundarabad and Vaisak. Same department staff Prof. S. S. Dhamal delivered expert talk at Nashik Thermal Power Station, Eklahare-Nashik on the topic, "Energy Conservation" on Dec. 19, 2017.

■ Abstracts of papers presented during Dec. 2017:

Autonomic and Energy-aware Resource Allocation for Efficient Management of Cloud Data Centre

Prof. Madhukar Shelar, Prof. Dr. Shirish Sane, Prof. Vilas Kharat & Prof. Rushikesh Jadhav

(Presented a paper at International Conference on Innovations in Power and Advanced Computing Technologies (i-PACT2017))

Abstract: Server Virtualization is the key technology used in cloud data centers. In this technique, number of Virtual Machines (VM) can simultaneously run on the top of a single Physical Machine (PM) or host server. Each VM hosts guest operating system, middleware software and applications. There are various dimensions of resources available in PM such as CPU cores, memory, network bandwidth and storage space. As per the requirement of applications deployed, VM allocates resources from pool of resources available in a PM or host server. The placement of VMs into appropriate PM and as the need arises migrate them among other PMs by achieving application performance and saving energy are the key issues of this research paper. The performance of applications is improved by reducing frequency of live VM migrations among PMs and energy is saved by minimizing number of active servers in a data centre. The proposed approach presents algorithm for resource allocation in cloud data centre by considering various factors such as major resource requirement during initial setup of virtual machines, dynamic resource allocation at peak load on applications, performance of applications and power saving in a data centre. A data centre is simulated with heterogeneous servers by assigning load of randomly virtual machines containing CPU as well as memory intensive applications. The power consumption and VM placement failure rate are considered as parameters for analyzing the proposed algorithm. The experimental results of proposed algorithm for initial placement of VMs are compared with various algorithms such as first fit, best fit and random selection of PMs. In addition to the initial placement of VM in appropriate PM, the research issue of dynamic resource management in a data centre is also addressed.

■ "KKWETC" Indian Face Database

Dr. Mrs. Manisha Satone

(Published paper in International Journal of Engineering Trends and Technology (IJETT), Volume 54, December 2017)

Abstract: To test face recognition algorithm developed by researchers, it is needed to have proper database. This paper describes an Indian face database 'KKWETC' of visual and thermal static images of human faces. Images were taken in uncontrolled indoor environment. Database contains 816 static visible images of 68 subjects and 150 thermal images of 50 subjects. A baseline Principal Component Analysis (PCA) face recognition algorithm was tested on both databases. Researchers can use these databases to test algorithm and compare results.

Keywords: Face recognition, database, thermal images.

■ Application of Fuzzy Rating Scale in Industrial Robot Selection

Prof. Dr. P. J. Pawar

(Presented paper at National Conference on 'Recent trends in Computer Science and applications', Indira College of Commerce and Science, Pune during 22-23 Dec. 2017)

Abstract: The selection of robots to suit a particular application and production environment from among the large number available in the market has become a difficult

task. Various aspects such as product design, production system, and economics, need to be considered before a suitable robot can be selected. Some of the attributes in robot selection such as man machine interface, programming flexibility etc. are expressed qualitatively. This qualitative data is usually converted into values using Likert scale. However, Likert scale has an important limitation of loss of significant amount of information. Hence in this paper an attempt is made to apply fuzzy rating scale for quantification of qualitative attributes of robot selection.

Keywords: Industrial Robots, Likert scale, Fuzzy rating scale.

Dynamics and Vibration Measurements in Engines

Prof. N. S. Ahirrao

(Presented paper at M. I. T. Aurangabad at International Conference, iCMMD-2017)

Abstract: Vibrations lead to fatigue failure or damage which is harmful to engine supporting structures. The impact introduces large forces and thus large stresses, which can cause both vibrations and early failure of the mechanisms.Our objective in this work was to show the effectiveness of engine support and effect of looseness on the structural vibrations.To minimize the possible problems associated with engine vibration, a robust and accurate design of support is needed which includes bolted joints. To reduce the engine vibrations proper mounting must be provided. Sometimes dampers at the interface of the engine and foundation are required.The internal combustion engine is the concentrated mass and if not properly supported, it will cause vibrations and will be transferring to the supporting structures. Damping is difficult to model out, so our focus was on to the stiffness as a parameter for this research by direct measurement of vibration values near the resonance conditions.Results of this paper will enable the designer an easy way to adjust the stiffness parameter by tightening of bolts to the supports, which helps in reducing the overall vibration and noise level

Performance of Non-Newtonian Lubricated Worn 2-LobeSlot Entry Restrictor Bearing System

Prof. Dr. P. B. Kushare

(Presented paper at International Conference, ICIT-2017 at Kolkata during December 6-9, 2017)

Abstract: In the present paper, the influence of variable viscosity fluid on the performance of worn 2-lobe slot entry restrictor bearing has been investigated theoretically. Due to continuous start and stop operation of the bearing system, wear of the bearing surface occurs, which ultimately changes the bearing performance by changing the fluid film distribution. Further, most of the industrial applications require operating the machineries at a very high speed. High speed applications results in the whirl and whipping action in the circular journal bearing system. As a result of this, many bearing designers have focused their attention towards lobed journal bearings owing to its excellent dynamic performance and better anti-whirl characteristics over circular journal bearings. To reduce the adverse effects of circular journal bearing, the novel feature of two lobe journal bearing gets added to the circular journal bearing characteristics. Further, it has been revealed that the influence of non-Newtonian rheology of lubricant significantly changes the performance characteristics of worn/unworn circular hybrid journal bearing. Hence it becomes imperative to consider the combined influence of wear and non-Newtonian behavior of the lubricant on the performance of 2-lobe slot entry journal bearings. Dufrane's wear model has been employed to consider the change in bush geometry due to wear. The equation of flow field for variable viscosity fluid has been solved by using Galerkin's technique of FEM. The simulated results of the study indicate that the wear defect and non-linear behavior of lubricant substantially changes the performance of 2-lobe slot entry journal bearing systems. A 2- lobe bearing system results in a significant rise in the value of stability threshold speed margin vis a vis circular journal bearing. A proper selection of bearing geometry and bearing configuration may compensate the loss occurred due to wear. It is expected that the results presented in this paper will be quite beneficial to the bearing designer and the academia.

Prof. Dr. K. N. Nandurkar
PRINCIPAL