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■ The 24th Advisory Committee Meeting

The 24th Advisory committee meeting was held in K. K Wagh Institute of Engineering Education and Research, Nashik on 23rd December 2013. Chairman Mr. Vivek Sawant and all other Advisory Committee members were felicitated by Hon. Shri. Balasaheb Wagh, President of K. K. Wagh Education Society. Advisory committee members Dr. B. M. Naik, Dr. U. N. Gaitonde, Dr. D. G. Hapse, Dr. D. M. More and Shri. N. A. Joshi were present for the meeting. Trustee Shri. D. S. Shinde, Er. Sameer Wagh, Secretary Prof. K. S. Bandi and Principal Dr. K. N. Nandurkar were present. All Professors, Associate Professors, all HODs of this Institute, Principals and all the HODs of Polytechnic and Women Polytechnic and Principals of Agriculture and Agriculture allied colleges attended the meeting.

View of the advisory committee meeting.

■ LMC Meeting

Local Management committee (LMC) meeting was held in the Institute on 7th December 2013. The Chairman of K. K. Wagh Education Society, Shri. Balasaheb D. Wagh, LMC Member Dr. O. G. Kulkarni, Trustee Er. Sameer Wagh, Principal Dr. K. N. Nandurkar, and other Committee members were present for the meeting.

■ Alumni Meet for the Batches 1991-94

A special focus alumni meet for the batches 1991-95 was organized on 28th December, 2013 (Saturday) at K. K. Wagh Institute of Engineering Education and Research, Nasik.

Alumni from all departments graduated during years 1991 to 1995 were invited to participate in this meet. The main function and meeting started at 11.00 am in Dr. P. C. Ray hall of Department of Chemical Engineering. Mr. D. S. Shinde (Trustee, K. K. Wagh Education Society), Dr. V. D. Barve (Ex-Principal), Prof. D. D. Barve (Ex-Principal), Mr. S. G. Krishnan (AGM, Tata Motors, Mumbai) were guest of honour. Principal Prof. Dr. K. N. Nandurkar delivered the welcome speech and provided information of various activities carried out in the institute. Alumni gathered for this meet shared their memories while studying at K. K. Wagh College of Engineering. Alumni also discussed on various aspects and gave suggestions for more effective working of Alumni association. On this occasion, senior faculty and staff members of the Institute were felicitated by alumni. The function ended at 7 pm.

Alumni Meet

■ One Day Workshop on Engineering Mathematics-III

One Day Workshop on Engineering Mathematics-III was organized in our Institute in association with University of Pune on 18th December 2013. This workshop was inaugurated by Hon. Shri. D. S. Shinde (Trustee, K. K. Wagh Education Society) and Prof. Dr. G. K. Kharate, Dean of Engineering Faculty (University of Pune). Prof. Dr. K. N. Nandurkar (Principal), Prof. S. N. Kadlag

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(HOD, Science & Math Dept.), Prof. Dr. N. S. Mujumdar Chairman of Board of Studies (University of Pune), Prof. Gokhale, Prof. Atal were present on the Dias. They gave their valuable guidance on revised syllabus and revised structure of online and offline examination for Mathematics-III. Around 200 Math faculties from various Engineering Institutes were present for this workshop. This programme was Co-ordinated by Prof. Dr. S. S. Naik.

Inauguration of One Day Workshop on Engineering Mathematics-III

Visit by Mr. Lawrence Mohanraj, DGM – Academic Initiative IBM India Pvt., Ltd.

Visit by Mr. Lawrence Mohanraj

Mr. Lawrence Mohanraj, Regional Manager - South & West, Academic Initiative, IBM-Chennai visited campus 20th –December to explore the campus drive of IBM in our institute. On this occasion Training and Placement Department organized expert talk on "Value, Relevance and Urgency of Mobility" that today's software industry is looking for their growth. On this occasion, the Principal, Dr. K. N. Nandurkar welcomed the guest and Dr. S. S. Sane introduced activities of Computer, IT and MCA Department. Around 225 students and 10 staff members' attended this expert talk. He also told to students that the IBM is conducting a

contest in mobile-application titled TGMC (The great Mind Challenge Contest) for students of all the branches. The students need to register by visiting to website www.ibmTGMC.com and self-enable themselves and then develop a mobile-application to submit the same online. IBM and its ecosystem of Software Companies, offer internships to a 100 winners of this contest. Mr. P. K. Shahabadkar, TPO proposed vote of thanks.

Condolence

Bababhai Haridas Udeshi, younger brother of Late Kakuseth Udeshi, Philanthropist of Udeshi family expired on 28th Dec. 2013 at the age of 87. He was active in various Educational and Religious trusts of Udeshi family and has contributed largely towards betterment a society. May his soul rest in peace.

Software Engineering Workshop

Two days Software Engineering workshop was held in Department of Computer Engineering on 27th and 28th December 2013. More than 60 students from third year Computer Engineering attended the sessions. Prof. Dr. S. A. Kelkar (IIT Bombay) introduced the Role of IT in Industries and Importance of Team Working for big scale projects. Session continued with Requirement analysis and software project management. Workshop concluded with discussion on software quality. Prof. D. M. Kanade, Prof. Satish Wagh, Prof. L. A. Patil, Prof. N. S. Sonawane and Prof. K. P. Birla attended session.

Prof. Dr.S.A.Kelkar guiding students on Software Engineering in the workshop

Emerging Technologies in Smart Grid

The Department of Electrical Engineering organized three day workshop on "Emerging Technologies in Smart Grid" during 17-19, December 2013. The workshop is intended for the faculty members of Electrical Engineering

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department, postgraduate, pre-final and final year Electrical Engineering students, Researchers and professionals from industries. Total fifty five participants have participated in this event. The objective of this workshop was to train participants on Smart Grid technology, Standards and Protocols, Advances metering infrastructure, wide area measurement & protection, Distributed generation & microgrid and Power quality problems related to Smart Grid.

This event is recognized by India Smart Grid Forum by listing it on their official website. Experts from the various industries were invited as speakers. Dr. R. Venkatesh from TDK (EPCOS) Nashik was one of the most outstanding faculty for the inaugural and as Key note speaker. Mr. Uttam Mane, IT consultant, MSEDCL Mumbai delivered a session on role of MSEDCL in smart grid. Prof. Dr. Manoj Rathi have delivered expert lecture on Distributed generations and renewable energies. Prof. Dr. Sanjay Dambhare, Professor and Head, COEP, Pune delivered session on WAM and PMU for the protection system and various issues related to smart grid. Mr. Balasaheb Thete, System analysis in GE Pune, delivered expert lecture on communication and standards used in smart grid. Home automation and related to smart grid issues discussed by Mr. Kaushal Bhagat from L&T. We are delighted to have amongst us Dr. Omprakash Kulkarni, who is always associated with department. His ideas about Smart Grid through other RE and Distribution generations will always help researchers. The successful conclusion of this program owes much to the guidance and support of Prof. Dr. B. E. Kushare, Head of Electrical Engineering department who provided insight about Power Quality Management and energy management in smart grid. Smart picture of Smart grid i.e. overviews of smart grid was delivered by Prof. Jaydeep Shah. Standards and Protocol was delivered by Prof. P. M. Sonawane.

Prof. Dr. B. E. Kushare guiding in workshop on "Emerging Technologies in Smart Grid"

■ C++ Workshop

Information Technology department conducted four days workshop on "Programming concepts using C++" for SE IT Students from 16th to 19th December, 2013. The workshop was organized as a prerequisite of the Data Structures & Files Laboratory. The objective of the workshop was to develop programming skills using C++. The workshop was conducted by Prof. Rupali M. Bora, Prof. Shital Deshmukh and Prof. Prajaka Vispute. Individual hands-on session was also conducted. 65 students attended the workshop.

Participants of workshop on C++ with Prof. Mrs. Dr. Preeti Bhamre (Head, IT Dept.) and staff of IT Department

■ Institute received Best Student Branch of CSI award

Institute received Best Student Branch of CSI award for the fifth Occasion and also an award to Mr.Kshitij Khakurdikar from BE (Computers) for the highest committed student of the branch. Mr.Kshitij attended the annual convention of CSI at Vishakhapattanam and received both these awards.

CSI Award Function

■ Expert Lecture/Seminar/Courses/Worshop Organized:

- Electrical Engineering department organized an expert lecture of Prof. Dr. A. K. Panchal (SVNIT, Surat) on 'Nanotechnology for Energy' on 28th December 2013.

■ Seminars / Workshop / Training Attended By Staff:

- Principal Prof. Dr. K. N. Nandurkar attended an International Interactive Workshop on "Effective Academics Leadership Strategies – A global perspective at SEGI University, Kola, Damansara, Malaysia during December 12-14, 2013.

- Prof. A. S. Kamble of Production Engineering attended STTP on "Design of Experiment-An Optimization Tool" at NIT, Rourkela during 27-29, December 2013.
- Prof. N. M. Bhujbal of Electronics & Telecommunication Engineering department attended a national workshop on "Embedded systems for automation and instrumentation" organized by the centre for Automation and instrumentation, sponsored by TEQIP phase-II at NIT, Warangal during 12 to 14th December 2013. Same departmental staff Prof. V. R. Lele, Prof. D. C. Shimpi, Prof. S. V. Shelke, Prof. S. D. Patil, Prof K. D. Shinde, Prof. S. S. Ansari, Prof. K. N. Navale and Prof. S. R. Zambre attended one week faculty orientation workshop on SE (E & TC/Eltx) revised syllabus conducted at Pune during 2 to 7th Dec.' 2013.
- Prof. M. R. Pardeshi and Prof. R. V. Bhandare of Mechanical Engineering department attended short term training programme at IIT Roorkee on "Modeling & Simulation of Dynamical Systems" under QIP during 30th December 2013 to 3rd January 2014. Prof. R. V. Bhandare also attended one week short term training program at VJTI, Mumbai on "Advance Machine Design" under QIP during 2 to 6th December 2013.
- Prof. Miss. Rashi Dhanraj of Chemical Engineering department attended STTP on 'Bioinformatics' during 29th December 2013 to 2nd January 2014.
- Information Technology Departmental staff Prof. Smita Chaudhari attended Faculty Development Program on "Processor Architecture and Interface" on 16th December 2013 at MIT Pune in association with University of Pune. Same departmental staff Prof. Sagar Badjate attended Faculty Development Program on "Computer Graphics" on 18th December 2013 at Cummins College of Engg., Pune in association with University of Pune.
- Prof. A. C. Pawar of Applied Science & Math Department attended 4th International conference on 'Advances in Energy Research' at IIT Bombay during 10 to 12th Dec. 2013.

Industrial Visits Organized by Department For Students:

Date	Class	Name of Company
30/12/2013	T.E. Chemical	Horticorp Ltd., Munnar, Kerala

Training & Placement :

Name of the Dept.	Name of Company	No.of students selected
Computer Engg.	FinIQ Consulting Pvt., Ltd., Pune	17
	Zenser Technologies	01
	L&T	03
Information Technology	FinIQ Consulting Pvt., Ltd., Pune	06
	L&T	01

Indian Army visited campus on 18-20th December for conducting the Pool campus drive. For pre-final year students as a part of University Entry Scheme. Around 250 students from various engineering colleges have participated in this drive and Indian army shortlisted total 34 students for the Services Selection Board(SSB) which will be conducted in the coming months.

Pool Campus of Indian Army

Books Purchased in Central Library : December 2013

Sr.No.	Name of Dept.	Total No.of Books purchased
01.	Computer Engg .	11(PG/Research)

Sport Activities

- Mr. Akshata Bhirud of first year Mechanical won first prize in Judo Competition organized at Chhatrapati Stadium Nashik. She was also selected in team for interzonal competition.
- Ms. Dhongade Varsha of first year E & TC department stood first in Rowing Competition organized by K. T. H. M. College and she was selected for interzonal Competition.
- As per University rule, the department of Gymkhana conducted the medical fitness test for first year and direct second year students.

CONGRATULATIONS

Prof. S. R. Gangurde, Associate Professor of Production department has successfully completed his Ph. D. on topic titled, "Product Design for Multi-dimensional Customer Preferences", under the supervision of Dr. M. M Akarte from Swami Ramanand Teerth, Marathwada University, Nanded.

Other Achievements

- Principal Dr. K. N. Nandurkar was invited as Chief Guest for concluding session of one week Lab Management Course for lab Assistants organized by K. K. Wagh Polytechnic, Nashik during December 17-21, 2013.
- Prof. M. D. Kokate of Electronics & Telecommunication department has delivered seminar on "Analog communication" at K. K. Wagh Polytechnic, Nashik on 31st Dec.' 2013.

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- Prof. Dr. B. E. Kushare, Head of Electrical Engineering Department delivered expert lecture on Power Quality, issues in Smart Grid & solutions for one day at Dr. BATU, Lonere on 18th December 2013 in 5 days National Workshop on Smart Grid. He Offered Electrical consultancy services to Bosch Ltd, Times of India Hyderabad, Radio Mirchi Hyderabad, Times of India Pune, Times of India Kandivali, Mahindra Sona Ltd., Nashik and CATA Pharma Nashik. He also organized meeting of IET Mumbai local Network in Nashik, initiated procedure to establish IET Mumbai local Network in Nashik, nominated as a Vice Chairman IET Mumbai local Network.

- Prof. J. P. Shah of Electrical Engineering department delivered an expert lecture at K. K. Wagh Polytechnic (E & TC Dept.) on "Role of E & TC Engineering for Space Exploration on 26th December 2013. He also delivered an expert lecture at Electrical Dept. of same Polytechnic on "Smart Grid" on 30th December 2013.

- Information Technology departmental student Mohini Billade of SE (IT) attended two days workshop on "Network Implementation & Security" at JIT, Nashik on 26 - 27th December 2013 organized by Association for Computer Machinery-IIT, Delhi and Network Bulls.

Abstracts of papers presented during December 2013:

A novel approach of two control strategies for induction motor

Mr. Sadashiv S. Kale, Prof. S. S. Dhamal, Prof. Dr. B. E. Kushare

(Presented at ICCEEE-2013, Dr. Babasaheb Ambedkar Technical University, Lonere, Raigad during 26 to 27th December 2013)

Abstract: Fully digital ac drives are becoming a vital component of industrial sector. Industrial drives provide scalable motor control from standard to demanding applications for a wide range of industries. This paper presents two most popular control strategies for induction motor drives: field-oriented control (FOC) and direct torque control (DTC). The comparison is based on various criteria including basic control characteristics, dynamic performance, parameter sensitivity, and implementation complexity. In this paper we also focused on Space Vector Pulse Width Modulation (SVPWM) technique for minimizing torque repulsions and switching frequencies occurred in conventional DTC.
Keywords: DTC, FOC, Induction Motor Drives, SVPWM.

Multirate Output Feedback based Controllers for Non–linear Inverted Pendulum System

Prof. R. K. Munje

(Presented in IEEE INDICON 2013 at IIT Bombay during 13 to 15th December 2013)

Abstract:- Multirate Output Feedback (MROF) techniques have attracted the interest of many researchers for the design of controller, as these methods are based on output feedback and are at the same time capable of assigning arbitrary dynamical characteristics to the closed loop system. Fast Output Sampling (FOS) is a kind of MROF, in which the states of the system can be computed from the output of the system. In this paper, different techniques of FOS based controllers are investigated for non–linear system of inverted pendulum (IP). Control laws are designed using linear model of IP system. The first control law is constructed based on past output observations. In second control law, past output observations alongwith past input is used for design purpose. However, in third case, discrete– time sliding mode control (DSMC) in combination with FOS feedback given in second control law is formulated. Simulations have been carried out using non–linear model of IP system developed in MatLab/Simulink environment. Form simulations it is observed that, the performance of FOS feedback based DSMC is comparatively better than other control techniques

Photo electrochemical Cell Based on Electrodeposited Nanofibrous ZnS Thin Film

Prof. A. C. Pawar

(Published in International Journal IEEE Transaction on Nanotechnology Volume: 12, Issue: 6)

Abstract:- Metal chalcogenide thin film prepare by electrodeposition are relatively inexpensive, simple & convenient for large area deposition. Nanofibrous ZnS thin Film were deposited from solution containing zinc sulphate, sodium thiosulphate & ethylenediaminetetra acetic acid. The deposition parameters were optimized by linear sweep voltammetry. Films were prepared for different deposition times on the stainless steel substrates. The film have been characterized by X-ray diffraction study, scanning electron microscopy, optical absorption spectroscopy & photoelecrto chemical (PCE) cell study. The PEC cell combination was n-ZnS [1 M (Na2S-NaOH-S)] graphite. From the current-voltage (I-V) characteristics, it is conducted that films show n-type conductivity. The I-V characteristics were used to calculate fill factor & to study the performance of the cell.

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Earthquake Performance of RC Buildings using Elastomeric Base Isolation Controls

Prof. Dr. Pradip D. Jadhao, Sunila Gadi , S. M. Dumane

(Published in International Journal of Engineering Research & Applications Vol. 3, Issue 6, Nov-Dec 2013.)

Abstract: The devastation from earthquakes becomes unpredicted resulting to significant damage of civil structures, leads to loss of lives and property. The base isolation of passive control system is one of the most powerful techniques for protection of civil structures against to seismic hazard. The study in this paper has proposed two seismic controls, namely LRB control and NZ control to study the seismic performance of isolated RC building in terms of reduction in responses under four realistic unidirectional earthquakes. The computer codes have been generated in MATLAB 7® to analyze the building responses in which equations of motion are solved using Newmark's method whereas Wen's model is used to model the bearing force. The responses of isolated building are compared with responses of non-isolated building in terms of time varying displacement, acceleration in addition to peak response of displacement, acceleration and bearing displacement. The results of computer codes illustrate that both the proposed controls yields effective in reducing the responses of isolated building. Further, NZ control is relatively more effectively perform than LRB control in reducing the responses.

Comparison of suitable pozzolanic material for high grade concrete

Shelorkar Ajay, Prof. Dr. Pradip D. Jadhao

(Published in International Journal of Engineering & Innovative Technology (IJEIT) Vol. 3, Issue 5, Nov-Dec 2013)

Abstract:- This paper presents the results of an experimental work carried out to evaluate the compressive strength and water permeability and rapid chloride permeability of high grade concrete which cement was partially replaced with superfine fly ash, GGBFS, Microsilica, and Metakaolin. All four pozolanic materials were replaced with three percentages (4%, 6%, and 8%) of pozzolanic material by weight. Tests were performed for properties of fresh concrete, compressive strength, water permeability, rapid chloride permeability was determined at 7,14,28,56, days. Test results indicate significant improvement in the strength properties of High grade concrete by the addition of pozzolanic material as partial replacement of ordinary Portland cement, and can be effectively used in structural concrete.

Real Time Wireless Parameters Monitoring of Induction Motor

Mr. Rahul R. Patil, Prof. Tanuja N. Date, Prof. Dr. B. E. Kushare

(Presented at ICCEEE-2013, Dr. Babasaheb Ambedkar Technical University, Lonere, Raigad during 26 to 27th December 2013)

Abstract:- In some cases wired communication is either more expensive or impossible due to physical conditions and human hazards, hence the wireless communication is used for controlling and monitoring of an induction motor which is safe and economic data communication in industrial fields. The induction motor can be started and stopped wirelessly due to the computer interface with wireless network. The aim of this paper is to monitor and acquire the remote electrical parameters like Voltage, Current, Temperature, Speed and send these real values over wireless network. It is also possible to protect the electrical circuitry by operating an Electromagnetic Relay. This relay gets activated whenever the electrical parameters exceed the predefined values. The relay can be used to operate a circuit breaker to switch off the main electrical supply. Therefore, controlling, monitoring, and protection of the system can be realized in real time.

Keywords: Three phase induction motor, AVR Atmega16, ADE7758, Relay.

Selection of Material for Forging Die using Graph Theory & Matrix" approach (GTMA)

Dr. S. R. Gangurde & Prof. Ray Sidesh

(Published in International Journal of Research in Manufacturing Technology & Management, Vol. No.1, Issue 1, PP-1-06)

Abstract:- Materials selection is a difficult task, due to the immense number of different available materials. Materials play a crucial and important role during the entire design and manufacturing process. In this paper; Graph Theory and Matrix Approach (GTMA) is applied for making decisions for forging die material selection. Material selection index (MSI) is considered to evaluate and rank the forging die material .The MSI is obtained from a forging die material selection attributes function which is obtained from forging die material selection attributes diagraph. The digraph is developed considering important attributes required for selection of forging die material. It will help a decision maker solve the forging die material selection problem.

Keywords: Forging die material selection, Graph Theory and Matrix Approach (GTMA), Material selection index (MSI)

Prof. Dr. K. N. Nandurkar
PRINCIPAL