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■ MAFFICK-2014

Annual social gathering "Maffick 2014" of our Institute was held during 14-17th March 2014. Various events such as Cultural, Fishpond, Fashion Show, Personality Contest etc. were meant to highlight the hidden skills possessed by our students. During this Maffick, events like Rangoli and Mehendi competition, Cartoon and Poster drawing, Antakshari, Nakshatrache Dene and Essay competition were conducted with good participation from the students. The cultural events like singing, dance, personality contest and fashion show were also conducted during these days in pendol. Hon. Nikhil Chitnis, Senior Technology Architect, Infosys Limited, Pune (Alumnus of our Isntitute) was present as a Chief Guest for the annual prize distribution function on 17th March 2014. The felicitation of various students in the field of academic, sports and cultural were done by the hands of Shri. Nikhil Chitnis, Hon. Chairman of K. K. Wagh Education Society Shri. Balasaheb Wagh, Hon. Vice Chairman Shri. Kashinath dada Tarle, Hon. Trustee Shri. D. S. Shinde, Principal Dr. K. N. Nandurkar, Prof. Dr. S. S. Sane and Mr. Dixit (Manager, Atlas Copco Ltd., Nashik). Prof. A. S. Patil worked as coordinator of this Maffick-2014.

Speech by Chief Guest Mr. Nikhil Chitnis

■ IET- KARMAVEER EXPO 2014

Department of Electrical Engineering had organized National level working model contest, "IET- Karmaveer Expo 2014" for the students of Engineering & Technology on March 19-20, 2014 in association with IET (U.K.) Mumbai Local Network. Department of Electrical Engineering has been organizing this event since 2003. From the application point of view, the models are classified in two groups. In group–I, the projects like Electrical, Electronics, Electronics and telecommunications, Computer, etc and group-II projects like Civil, Mechanical, Production, Chemical, Textile Engineering wer exhibited. This year projects from Agriculture were also added to IET-Karmaveer Expo 2014. During the Expo, Poster & Slogan competition and Photography competition were also organized for the students. The total prize amount was Rs. 261700/-. The chief guest for the inaugural was Mr. Gaurav Gupta, Executive Director of KOSO India Ltd., Nashik, Hon. Shri. Balasaheb Wagh, Shri. Kashinathdada Tarle, trustees of K. K. Wagh Education Society, Prof. Dr. G. K. Kharate, Dean (Engineering), University of Pune, Principal Dr. K. N. Nandurkar, Prof. Dr. B. E. Kushare, Head of Department of Electrical Engineering and panel of judges were present.

The Participation of "IET- Karmaveer Expo 2014" is as under:

Total Models presented in group-I: 59, Total Models presented in group-II: 40, Total Models presented in Expo 2014: 99, Total Participants: 365.

A National conference on 'Advanced Power System' was also conducted in Electrical Engineering Department on 19-20 March 2014. This conference was for Faculty, P.G. students (Academic Institutes) & Industries & Government Organizations.

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50 papers from various Institutes & Industries of different states were presented to topics like

1. Power Generation Transmission & Distribution
2. Renewable Energy Technologies
3. Power Quality Issues & Power Electronics

Panel of Judges were Dr. O. G. Kulkarni, Mr. John Yesuraj, Mr. Methikar, Mr. Norbert D'Souza, Mr. Avinash Shirode, Mr. Wadikar and Dr. Nagarkar.

Publication of Souvenir of National conference on 'Advanced Power System' on 19th March 2014

■ K. K. Wagh Talent Search Examination 2014

Applied Science & Maths Dept. organized K. K. Wagh Talent Search Examination 2014 for Students from 12th Std. (Arts / Science / Commerce) on 22nd March 2014. Objective of the exam was to give practice of JEE exam for Science Stream & exploring the talent of Art/Commerce Students. Total 38 students appeared for this examination. Toppers of this exam will be offered fee concession if admitted to any institute under K .K. Wagh Education Society, Nashik.

■ EQUINOX -14

Inauguration of Equinox-14 on 18th March 2014

Equinox -14, National Level Technical Event was organized by the Student Branch of CSI (Computer Society of India) and Debugger Club of Computer Engg. Department on 18th - 19th March

2014. The event was presided by Chief Guest Mr. Anurag Kange, CEO of Cyberweb Solutions and Chief Guest Mr. GSR Prasad, DGM of HAL. The non-technical events were Strategem (Marketing Event), Flashathon (Photography Event), Robo Liga (Robo Soccer Event) and Quiz. The technical events were Present It(Paper Presentation Event), TechStorm(Project Competion), Spider Web(Web Page Designing), Code Cogs(C/C++ Programming) and Apti-GD .The judges were Prof. N. M. Bhale, Prof. S. M. Rokade, Prof. Vaishali Tidke, Prof. Talekar, Prof. Kinjal Kotecha, Prof. Swati Kulkarni and Mrs. Nandita Ray for different events. The Valedictory event was presided by Chief Guest Principal Dr. K. N. Nandurkar and Prof. Dr. S. S. Sane, HOD of Computer Engg. Dept. The participants of various events expressed their views about the event which was followed by the Prize Distribution Ceremony. The winners were given cash money along with memento and certificate. Equinox-14 saw around 1200 participants from various colleges across the state.

■ ECLAT Invasion'14

Inauguration of ECLAT Invasion'14 on 18th March 2014

Eclat Invasion'14 is a National Level Technical event organized by Department of Production Engineering on March 18-19, 2014 at K. K. Wagh Institute of Engineering Education and Research, Nashik. The event was inaugurated in presence of chief guests Mr. Harshvardhan Gune (CEO-NEC), Mr. K. S. Patil (VP-NEC) and Head of department Prof. S. B. Chandgude with all staff members of the department. The technical competitions organized were Robo-Race, Present it and Brain Squeezer. Design competitions included model making using software's like Auto–Cad and Pro-E to test the skill of student's.

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The eye catching event in Invasion is Eggstronaut which has maximum participation every year. Other entertaining events were Somas Cube & Tyrolean traverse. Approximately 200 students participated in this event. Prizes were given to winners of each competition.

e- PGCon' 14

Electronic Post Graduate Conference for M.E. (E & TC) students, (e-PGCon'14) was jointly organized by BOS (Electronics), University of Pune, and Department of Electronics and Telecommunications, K. K. Wagh Institute of Engineering Education and Research, Nashik. The conference was held on 22nd and 23rd March, which reported an attendance of over 800 students from various institutes under University of Pune.

The Inauguration ceremony took place in presence of Dr. G. K. Kharate, Dean (Engineering), University of Pune, Dr. D. S. Bormane, Chairman, BOS (Electronics), Hon. Shri Balasaheb Wagh, Principal Dr. K. N. Nandurkar, Prof. D. M. Chandwadkar, HOD (E &TC), and Prof. S.S. Morade, Convener. Around 500 students studying in second year of M.E. (E & TC) presented their project work during the course of two days. The sessions were simultaneously conducted in 10 different conference halls, and the students received valuable guidance from the expert session chairs. It was a good learning curve for the first year M. E. students as they got a brief idea so as to how to prepare and present their projects in second year.

'TELEKINESIS 2014'

Inauguration of Telekinesis 2014 on 18th April 2014 in presence of Chief Guest Hon. Daljeet Singh, General Manager HAL, Nashik

'Electronics and Telecommunication department' was organized National Level Megafest-'Telekinesis2014' during 18th-19th March 2014. 18th March 2014, the very 1st day of our event. It started with the inauguration ceremony at around 10.30am by Hon. Daljeet Singh, General Manager HAL, Nashik. The chief guests enlightened the audience with their experiences and motivated students to organize many such events. Prof. D. M. Chandwadkar, Head of Electronics & Telecommunication department encourage the students for organizing and participating in various events along with his best wishes. Even before the end of inauguration participants had filled the entire department eagerly waiting for the competitions to start. The Telekinesis 2014 consists of various Technical & Non-Technical events as follows Project Competition, Paper presentation , Circuit Building, Poster Competition, Aptitude & Group Discussion, Gaming, Engineers Perception, Beg Borrow Steal, Quiz competition, Coding. Near about 1200 participants from various colleges actively participated in various events. 'TELEKINESIS 2014' finally ended with the distribution of prizes to winners and certificates to each and every participant.

FORCE 2014

Department of Civil Engineering of our Institute has organized National level symposium "F.O.R.C.E. 14" during 19 - 20th March 2014.

Street Play at Shalimar, Nashik

Department of Civil Engineering of KKWIEER has organized a National level symposium "F.O.R.C.E. 14" on 19th & 20th March 2014. F.O.R.C.E is nothing but the Festival of Revolutionary Civil Engineers which is organized

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by Civil Engineering Students Association. It comprises of technical and non technical events which provides the platform to Civil Engineering students to improve their technical & managerial skills along with to improve their role in social activities. This year F.O.R.C.E played important role in making the society aware about pollution free environment through its theme "Saad Pradushan Muktichi, Vasundhara Phula vinyachi" which included street play at college as well as at city's prime area Shalimar Chowk in presence of Municipal commissioner Hon. Mr. Sanjay Khandare, Prof. Fartale, Hon. Shri. Balasaheb Wagh, Prof. Dr. K. N. Nandurkar, Dr. V. M. Sewlikar, Dr. S. S. Sane & Dr. P. D. Jadhao. In this symposium various technical events such as Surveying-E-Everest, Cad-Enza, Mr. Engineer, Bridge-O-Mania, Quiz & non technical events like Poster competition, Documentary, Snap Hunt, street play were organised. The various events had a huge response of around 1500 participants from the various colleges throughout the country.

CHEMFEST 2k14

The Department of Chemical Engineering has organized "CHEMFEST-2k14" a National Level Symposium during 18-19th March 2014. This event includes different Competitions like Paper presentation, innomodel, poster painting, quiz and advertisement. All the events got overwhelming response from students. Dr. Vishwas Pangarkar, Ex-Professor and Head, ICT Mumbai (Formerly UDCT Mumbai) was chief guest for inaugural function. He was felicitated at the hands of Trustee Shri. D. S. Shinde. Mr. Ajit Tambe, Graphite India Ltd., Nashik, Mr. Rushikesh Bhandari, Director of the Purchase House Nashik, Mr. Nilesh Rao, Mico Bosch, Nashik, Mr. Yogesh Lawand of Graphite India Ltd., Nashik were the Judges. Mr. Sudhir Mutalik, Director of Positive Metering Pumps (I) Ltd., Nashik was Chief Guest for valedictory function. He guided the student on 'Role of Engineers' on this occasion. The overall symposium was grand success.

Dr. V. G. Pangarkar delivering inaugural speech

ITiazza'14

The Dept. of Information Technology hosted a two day National Level Technical Symposium, ITiazza'14, on 19-20 March 2014. The Symposium comprised of Project Contest, C-Programming, Aptitude Test, Group Discussion Contest, Quiz Contest, Poster Competition, Workshop on Hibernate Technology, Logo Design Competition, SuperMind-Memory Contest and Photograph Competition. The event promoted the theme of "Entrepreneurship". The Symposium was inaugurated at the hands of Prof. Manoj Jhade, Principal, K. K. Wagh Polytechnic, Chandori. Prof. M. T. Jagtap, PVGCOE Nashik, Prof. Tejaswini Patil, NDMVP's Architecture College and Prof. Snehal Wagh were among the panel of judges for various contents. Prizes were distributed at the hands of the Chief Guest of the Valedictory function Mr. Sushil Rathi, Director, Rathi Developers. In his address, he touched upon various qualities required for entrepreneurship. The total registrations for various events in ITiazza-14 were 375.

Prize winners of ITiazza'14 along with the Chief Guest

Visit of Dr. Vinay Sahasrabudhe

Dr. Vinay Sahasrabudhe, Director General, Rambhau Mhalagi Probodhini Mumbai visited our Institute on 14th March 2014. His lecture on "National Unity" was organized at Shankaracharya Nyas Sankul on occasion of 115th Birth Anniversary year of Late Karmaveer Kakasaheb Wagh to staff of K. K. Wagh Education Society was present on this occasion.

KAKUSHETH UDHESHI JAYANTI

The birth Anniversary of Kakusheth Udheshi was celebrated on 7th March 2014 in the Institute.

Celebration of Kakusheth Udeshi Jayanti on 7th March 2014

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■ Expert Lecture/Seminar/Courses/Worshop Organized:

- IBM TGMC Mobile Application Development Workshop "IBM MOBILITY" on 4th March 2014 was organized by Computer Engineering where students received knowledge of advance technology such as Mobile Application development tool "worklight". Mr Sachin Kumar from IBM was expert for the same.

- Electronics & Telecommunication Engineering department organized an Expert talk of Ms. Sadhana Wagh, Assistant Professor, MBA Department on "GD and Interpersonal Relationship" on 1 March 2014. Same department organized an Expert talk of Ms. Nandita Ray (Ray Academy) on "Effective Speaking and Listening skill" on 5th March 2014. Same department also organized an expert talk of Mr. Suchit Tiwari, CEO, Cognifront Software Pvt., Ltd., on "Android" on 5th March 2014 and an expert talk of Mr. Rushikesh Gaikwad, TPO, PVG's COE, Nashik on "Engineering trends in computer field" on 26th March 2014. Department also organized "Telekinesis2014" National level technical event on 18 - 19th March 2014. Same department also organized an expert Lecture of Shri. Nishad Joshi and Pathak Santosh from Rekha Institute of Media Art, Nashik on "Designing" on 28th March 2014.

- IT Department had organized a training session on "C and C++ Programming" for BE students eligible for Infosys Drive on 12th to 14th March 2014. 67 students from Mechanical, Electrical, Electronics, Civil and Chemical Department attended the training. Same department also organized a workshop on 'Review of Oracle forms and reports, Dynamic SQL, Packages' by Mr. Mahendra Sonawane, KPIT, Pune on 28th March 2014.

- MBA department organized an expert talk of Mr. Harshad Purnapatre on "Effective HR Management on 8th March 2014 and expert talk of Mrs. Anuradha Nandurkar on "Investment Plan" for young investor on 1st March 2014. Same department also organized an expert talk of Mr. Narendra Zadge on 'Career prospectus in Finance' on 29th March 2014.

- MCA department organized a seminar on "Aptitude test for Placement" conducted by Mrs. Ray on 4th March 2014. Same department also organized a seminar on "Career Guidance & Development" conducted by Ms. Amrin Kazi from M & G Services, Nashik on 8th March 2014 and a seminar on "Linux" delivered By Mr. Mehul Patel from M & G Services, Nashik on 20th March 2014.

■ Seminars / Workshop / Training Attended By Staff:

- Prof. D. M. Chandwadkar, Head of E & TC Department attended Syllabus detailing workshop for T. E. at Pune on 3rd March 2014 sponsored by University of Pune, Pune.

- Prof. T. N. Date of Electrical engineering department attended Symposium on "Sensitivity & Failure mode analysis of ASD due to RMS voltage Variations" conducted by IIT Bombay during 7th to 8th March 2014.

- Information Technology department staff Prof. Rupali Bora and Prof. Umesh Gaikwad attended workshop on revision of TE (IT) 2012 Course Syllabus at SITSCOE, Narhe, Pune organized in association with University of Pune on 7th March 2014. Prof. Rupali Bora also attended workshop on 'Review of Oracle forms and reports, Dynamic SQL, Packages in SQL' on 28th March 2014.

■ Student Achievements:

In month of March 2014, 119 Students of our Institute participated in various paper presentations, Poster Presentation, Project Exhibition/working model contests, Programming Contest, Quiz Contest, Robotics and other competitions. Out of which

- Computer engineering department student Bhagyashri Patil secured second prize in RGI-TRPCS and INNOVATIONS organized during 21st to 22nd March 2014. Same department student Chirag Sarna, Sahil Sakhala & Rahul Sangale secured first prize in COGNIZIA'14 SVIT, Nashik during 5th to 6th March 2014.

- Chemical engineering department student Komal Gami, Priyanka Chavan, Chetan Malode secured second prize in KARMVEER EXPO - Model Making organized by Electrical department, KKWIEE&R, Nashik during 19 to 20 March 2014. Same department student Saurabh Patle received Third prize at National paper presentation competition at Loknete Vyankatrao Hiray Arts, Science & Commerce College, Panchavati Nashik during 15-17 March 2014. Shishupal Singh Raj purohit secured second prize MIT, Auragabad during 4 to 5 March 2014. Govind Dhande & Saurabh Patle secured first prize in Quiz Competition, Force 2014, organized by Civil department KKWIEE&R, Nashik. Same department student Vitthal Sawant & Dayaneshwar Rashinkar secured first rank at national level event at "Eclat Invasion 14" organized by Production Department, KKWIEER during 18 to 19 March 2014.

- Information Technology department student Mr. Ashish Bagdane, Mr. Vijay Avhad, Mr. Ramesh Barahate, Ms Kavita Shingare secured 2nd prize in Project competition held at The Institution of Engineers(India), Nashik Local centre on 10th March, 2014. Ashish Bagdane won 1st prize in 'C contest' held in event 'Telekinesis-14' at E&TC dept. of KKWIEER, Nashik on 18 -19 March 2014. Ashish Bagdane also won 1st prize on "Blind Coding" in National Level Technical Festival "AAYAAM 2014" at Sandip Foundation's, SITRC, Nashik on 22nd March 2014.

■ **Industrial Visits Organized For Students:**

Date	Class	Name of Company
01/03/14	B.E. Electronics	BSNL, Satpur, Nashik
03/03/14	B.E. Electrical	Cromton Greaves Ltd., Bhopal
18/03/2014	S.E. Mech.(Div.C)	MSRTC Workshop, Nashik
19-23/03/14	B.E. IT	PSPL, Goa
23-29/03/14	B.E. Civil	Delhi Metro & Chandigarh
27/03/2014	T.E. Civil	Visit to Padali FCS Station
28/03/2014	MBA I Year	Mahindra & Mahindra, Satpur, Nashik

■ **Training & Placement :**

Name of the Dept.	Name of Company	No.of students selected
Computer Engg.	Eternus Solutions Pvt., Ltd., Pune	06
	Infosys	02
Production Engg.	Wind World India Ltd., Daman	02
E & TC	Eternus Solutions Pvt., Ltd., Pune	02
	Wind World India Ltd., Daman	02
Electronics Engg.	Infosys	01
Mechanical Engg.	Infosys	04
	Wind World India Ltd., Daman	03
Electrical Engg.	Infosys	05
	Wind World India Ltd., Daman	03
Chemical Engg.	Wind World India Ltd., Daman	03

■ **Books Purchased in Central Library : March 2014**

Sr.No.	Name of Dept.	Total No.of Books purchased
01	MBA	05

■ **Other Achievements**

- Principal Dr. K. N. Nandurkar was invited as Chief Guest for inauguration of Project Competition for final year Engineering & Polytechnic students by the Institution of Engineers (I) Nashik Local Centre on 10th March 2014.

- Prof. Dr. S. S. Sane, Head of Computer Engineering and Prof. S. S. Banait worked as reviewer for International Conference (ICJRT 2014) at SNJBCOE, Chandwad. Prof. Dr. S. S. Sane, Prof. S. M. Kamalapur & Prof. R. D. Kulkarni worked as reviewer for cPGCON 2014 at Matoshri COE, Nashik. Prof. Dr. S. S. Sane, Prof. N. M. Shahane, Prof. S. M. Kamalapur & Prof. R. D. Kulkarni, Prof. J. R. Mankar worked as session chair for cPGCON 2014 at Matoshri COE, Nashik

- Prof. B. E. Kushare offered Electrical consultancy to Dainik Bhasker corporate office Bhopal, Times of India Nagpur, Water supply scheme at Rajuri village, Mahindra Sona, Times of India Airoli and CATA Pharma Ltd., Sinner

- Prof. M. R. Admane (Satone) of E & TC department delivered guest lecture on "Image Processing" for M.Sc. (Computer) of K. K .Wagh Arts, Commerce, Science and Computer Science College at Saraswatinagar, Nashik during 3 to 12 March 2014.

- Prof. Dr. Preeti D. Bhamre, Head of IT department delivered expert lecture on "Synthesis of Photonic Crystal Waveguide based bandpass filters" at Research Scholars and Alumni Symposium-2014 held at IIT, Bombay on 7th and 8th March 2014. She also worked as a session chair for cPGCon-14 at Matoshri COE, Nashik on 28th March, 2014. Same departmental staff Prof. S. R. Deshmukh worked as a judge for project competition on 3rd March 2014 at K. K. Wagh Women's Polytechnic, Nashik and Prof. Sagar K. Badjate delivered expert lecture on "Introduction to Artificial Neural Network, Fuzzy logic, and genetic algorithm" for BE (Civil), KKWIEER on 13th March 2014. Prof. Kiran N. Somwanshi of same department worked as "Conference Co-chairs" for 2nd International Conference on 'Recent Trends in Engineering Sciences' 2014, ICRTES'14 was held in Hotel Seven Heaven, Nashik on 15-16th March 2014.

- A branch of Kallappa Anna Awade, Ichalkaranji Janata Sahakari Bank Ltd., in the College campus was inaugurated by Hon. Balasaheb Wagh, President of K. K. Wagh Education Society on 25th March 2014.

■ **Abstracts of papers presented during March 2014:**

Parametric study of a RC building by using Elastomeric Base Isolation controls

Prof. Sunila Gadi, Prof. Dr. Pradip D. Jadhao & Dr. S. M. Dhumane

(Presented in International Conference on Recent Trends in Engineering & Technology (ICRTET'14) organized by SNJB COE, Chandwad on 28-30th March 2014)

Abstract: The destruction from earthquakes becomes unpredicted resulting to significant damage of civil structures, leads to loss of lives

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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 influence of various isolation parameters, that is, isolation damping, isolation period and isolation strength 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. Comparison of peak responses of Building for different isolation parameters under all considered ground motions in terms of time varying displacement, acceleration in addition to peak response of displacement, acceleration and base shear. The results of computer codes illustrate that both the proposed controls yields effective in reducing the responses of isolated building.

■ **Study of Minimum Moment Method & its modifications used for Resource Leveling**

Prof. Shrikant R. Baviskar

(Presented in International Conference on Recent Trends in Engineering & Technology (ICRTET'14) organized by SNJB COE, Chandwad on 28-30th March 2014)

Abstract:- The destruction 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 influence of various isolation parameters, that is, isolation damping, isolation period and isolation strength 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. Comparison of peak responses of Building for different isolation parameters under all considered ground motions in terms of time varying displacement, acceleration in addition to peak response of

displacement, acceleration and base shear. The results of computer codes illustrate that both the proposed controls yields effective in reducing the responses of isolated building.

■ **A Study of PACK method and re-modified minimum moment method of Resource Leveling**

Prof. Shrikant R. Baviskar

(Presented in International Conference on Recent Trends in Engineering & Technology (ICRTET'14) organized by SNJB COE, Chandwad on 28-30th March 2014).

Abstract:- The purpose of this work is to study the two resource leveling heuristics, the PACK method and the re-modified minimum moment method. The resource leveling problem arises when there are sufficient resources available and it is necessary to reduce the fluctuations in the pattern of resource usage. Resource leveling is concerned with minimising peak resource requirements and period-to-period fluctuation in resource assignment while maintaining the desired project duration. The PACK method is based on the critical path method and the minimum moment if resource histogram is used to measure the level of resources. In this method the processing Queue decides which is activity is to be selected first for shifting on the basis of Resource Rate, Total Float and Sequence step. The re-modified minimum moment method is also based on critical path method and it is the modification of traditional minimum moment method and modified minimum moment method. In this method the activity to be selected first for shifting is based on the largest value of resource rate. The results of both the methods are compared on the basis of Minimum moment and Resource Coefficient Ratio.

■ **A Study of minimum moment method & its Modifications**

Prof. Suhas U. Pandit

(Presented in International Conference on Recent Trends in Engineering & Technology (ICRTET'14) organized by SNJB COE, Chandwad on 28-30th March 2014)

Abstract:- The destruction from earthquakes becomes unpredicted resulting to significant damage of civil structures, leads to loss of lives and property. The base isolation of passive

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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 influence of various isolation parameters, that is, isolation damping, isolation period and isolation strength 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. Comparison of peak responses of Building for different isolation parameters under all considered ground motions in terms of time varying displacement, acceleration in addition to peak response of displacement, acceleration and base shear. The results of computer codes illustrate that both the proposed controls yields effective in reducing the responses of isolated building.

Voltage & Rotor Stability in Wind Farm under Power System Fault

Prof. D. P. Kadam & Prof. Dr. B. E. Kushare

(Presented in International Conference on 'Recent Trends in Engineering Sciences', organized by Spvryan International Institute of Engineering & Technology, Alwar, Rajsthan at Hotel Seven Heven, Nashik)

Abstract:- Increasing size of wind farm connected to grid will lead to various challenges such as power quality and stability problem during normal operation and fault ride through capability during fault conditions. Taking into considerations the challenges to be faced related to interfacing of wind farms using squirrel cage induction generators, it is necessary to study the various power quality and stability issues of wind farm connected to grid and provide cost effective solution for management of power quality and stability.

Power quality problems such as voltage sag, swell, under voltage, over voltage along with rotor stability issues are some major concern. In this paper all issues are analyzed. Wind turbine connected to squirrel cage induction generator is modeled using PSCAD simulation software to analyze the said issues where STATCOM is introduced as voltage and reactive power supporter to increase the power system stability. STATCOM unit is developed to inject reactive power for mitigation of power quality problems and to get stable grid operation.

Index Terms: Squirrel Cage Induction Generator (SCIG); PSCAD; Wind Turbine Generator (WTG); Static Synchronous Compensator (STATCOM); Power Quality issues, Reactive.

Disturbance Detection using Wavelet Transform for Power Quality Application

Prof. P. P. Shinde, Prof. K. Munje & Dr. B. E. Kushare

(Presented in International Conference on 'Recent Trends in Engineering Sciences', organized by Spvryan International Institute of Engineering & Technology, Alwar, Rajsthan at Hotel Seven Heven, Nashik)

Abstract:- Although capacitors provide voltage support and correct displacement power factor on power distribution lines, capacitor switching transients are the second most common power quality events, after voltage sags. Capacitor switching transients can disrupt loads that are sensitive to overvoltage subcycle transients, including adjustable speed drives, data communication systems and process controls. The voltage transients can also travel long distances, in some cases becoming magnified on low voltage busses. This paper introduces voltage disturbance detection technique using Wavelet Transform (WT) during transient operations. Feasibility of the proposed disturbance detection approach is evaluated by digital time domain simulation using PSCAD/EMTDC and MatLab software packages.

Index Terms: Power quality, voltage disturbance, capacitor switching, wavelet transform.

Detecting Voltage Disturbance using Wavelet Transform for Power Quality Application

P. P. Shinde, R. K. Munje, P. M. Sonawne & D. R. Narkhede

(Presented in International Conference on 'Recent Trends in Engineering Sciences', organized by Spvryan International Institute of Engineering & Technology, Alwar, Rajsthan at Hotel Seven Heven, Nashik)

Abstract:- Although capacitors provide voltage

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support and correct displacement power factor on power distribution lines, capacitor switching transients are the second most common power quality events, after voltage sags. Capacitor switching transients can disrupt loads that are sensitive to overvoltage subcycle transients, including adjustable speed drives, data communication systems and process controls. The voltage transients can also travel long distances, in some cases becoming magnified on low voltage busses. This paper introduces voltage disturbance detection technique using Wavelet Transform (WT) during transient operations. Feasibility of the proposed disturbance detection approach is evaluated by digital time domain simulation using PSCAD/EMTDC and MatLab software packages.

Index Terms: Power quality, voltage disturbance, capacitor switching, wavelet transform.

An Improved DTC Method for Induction Motor Drive using Appropriate Switching Sector

Sadashiv S. Kale, Prof. Sharad S. Dhamal & Prof. Dr. B. E. Kushare

Abstract:- An Induction motor has gained their importance in many industrial applications and their control techniques have received a lot of interest recently. Direct Torque Control (DTC) of Induction Motor provides a fast dynamic torque and flux response which makes the system robust and easier to implement. In this paper, we have analysed and simulated the DTC model for both steady state and transient input conditions using MATLAB/Simulink package on Induction Motor rated 6 KW. DTC strategy is quite different from that of the Field Orientation Control (FOC) or vector control, which does not need complicated coordination transformations and decoupling calculation. Both torque and stator flux needs to be estimated so that they can be directly controlled in a way that keeps them within a hysteresis band close to the desired values. This is achieved by choosing the appropriate sector in space vector modulation. It can notice that the torque is dependent on the stator flux (ψ_s), rotor flux (ψ_r) and the angle between their vectors (θ_{rs}). In this paper, we have shown that they can be independently controlled.

Keywords: Direct Torque Control (DTC), Induction Motor (IM), Flux Controller, Voltage Source Inverter, Torque Controller.

Analysis of torque & flux ripple factor DTC & SVM-DTC of IM

Sadashiv S. Kale, Prof. Sharad S. Dhamal & Prof. Dr. B. E. Kushare

Abstract:- Induction machine drive based on Direct Torque Control (DTC) allows high dynamic Performance with very simple hysteresis control scheme. Conventional Direct Torque Control (CDTC) suffers from some drawbacks such as high torque ripple and variable switching frequency, difficulties in torque as well as flux control at very low speed. This Dissertation work is aimed to analyze DTC principles, the strategies and the problems related to its implementation and the possible improvements using Space Vector Pulse Width Modulation (SVPWM). Space Vector Pulse Width Modulation (SVPWM) has become the successful techniques to construct three phase sine wave Voltage Source Inverter (VSI) parallel to control three-phase motor using vector control. In SVPWM for each sampling period the switching instants of different space vectors are determined to reduce torque ripple.

The reference value can be calculated using the flux and torque estimated and also the motor parameters. This Dissertation aims to analyze the steady and transient response of DTC. The performance of this control method has been demonstrated by simulations using versatile simulation package, MATLAB/Simulink. The simulation results shows the feasibility of the proposed modulation techniques to drive Three-Phase Induction Motor.

Keywords: Direct torque control (DTC), Space-vector modulation (SVPWM), Voltage source inverter (VSI), Induction motor drive.

Zigbee based parameter monitoring system of induction motor

Prof. J. P. Shah

(Presented in NCAPS-2014, Organized by Electrical Engg. Dept., KKWIEE&R during 19 to 20th March 2014)

Abstract:- In this paper, a wireless monitoring system for three phase induction motor is realized using ZigBee protocol, where wired communication is either more expensive or impossible due to physical conditions and human hazardous for safe and economic data communication in industrial fields. A low cost system for measuring the parameters of induction motor such as phase voltages, phase currents, active power, reactive power, motor temperature with ZigBee protocol connectivity is described in this paper. Moreover, a database is built to execute online monitoring and to save the motor parameters received by radio frequency (RF) data acquisition system. The aim of this paper is to monitor and acquire the remote electrical parameters like Voltages, Currents, Powers, Temperature, and send these real values over wireless network. To implement this, A ZigBee model is connected to a programmed digital signal controller which would transmit the data to ZigBee coordinator which is connected to a PC through RS232 serial communication. Experimental results show that the proposed system is costs less, provides higher accuracy as well as safe and visual environment.

SF6 Circuit breaker & its impact on global Warming

Prof. R. R. Patil

(Presented in MANIT, Bhopal during 1 to 2 March 2014)

Abstract:- Climate change is a highly complex problem which has the potential to impact every sphere of life. Scientists claim that the rising emission of greenhouse gases (GHGs), a byproduct of burning fossil fuel, is the main cause of such phenomena. According to the Intergovernmental Panel on Climate Change (IPCC), SF6 is the most potent of the six main groups of greenhouse gases. Its global warming potential (GWP) varies between 22,800 and 32,600 dependent on the timescale. In general, a 100 years horizon is considered with a corresponding value of 23,900. SF6 is also a very persistent greenhouse gas having an atmospheric lifetime of 3,200 years showing irreversible impacts. For this reason SF6 has been put on the Kyoto list of substances of which the use and emission should be minimized. In this paper we focused on different methods of reduction of SF6 leakage from switchgear.

Feature Selection Using Genetic Algorithm for Face Recognition Based on PCA, Wavelet and SVM

Prof. M. R. Admane (Satone)

(Published paper in International Journal on Electrical Engineering and Informatics - Volume 6, No. 1, March 2014)

Abstract:- Many events, such as terrorist attacks, exposed serious weaknesses in most sophisticated security systems. So it is necessary to improve security data systems based on the body or behavioral characteristics, called biometrics. With the growing interest in the development of human and computer interface and biometric identification, human face recognition has become an active research area. Face recognition offers several advantages over other biometric methods. Nowadays Principal Component Analysis (PCA) has been widely adopted for the face recognition algorithm. Yet still, PCA has limitations such as poor discriminatory power and large computational load. This paper proposed a novel algorithm for face recognition in which a low frequency component of the wavelet is used for PCA representation. Best features of PCA are selected using the genetic algorithm (GA). Support vector machine (SVM) and nearest neighbor classifier (ND) are used for classification. Classification accuracy is examined by changing number of training images, number of features and kernel functions. Results are evaluated on ORL, FERET, Yale and YaleB databases. Experiments showed that proposed method gives a better recognition rate than other popular methods.

Large Graph Analysis with Dynamic Updation

Prof. S. R. Deshmukh & Prof. S. M. Kamalapur

(Presented paper in PG Conference (cPGCON-14) organized by Matoshri College of Engineering & Research Centre, Nashik in association with University of Pune during 28-29th March 14)

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

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Abstract:- Large graph is one complex data structure and common in real life. It is used to store and represent information. One must understand its structure and able to decompose it properly without any loss of data. Partitioning or clustering methods are used to decompose a large graph. The proposed graph partitioning method decomposes a large graph into sub graphs. It finds most connected components of every sub graph which are used to form one hierarchical structure. This hierarchical structure represents whole large graph in abstract form. The work also focuses on an approach that handles dynamic updation in a large graph.

Develop Hybrid Technique of Cost Estimation Model for Software Applications

Prof. S. K. Badjate

(Presented paper in PG Conference (cPGCON-14) organized by Matoshri College of Engineering & Research Centre, Nashik in association with University of Pune during 28-29th March 14)

Abstract:- Software cost estimation predicts effort and development time required to build the system. Instead of just putting values into giving equation to calculate the cost and effort, we require more work on a scale and cost drivers to increase the accuracy of software cost estimation. The Software cost estimation process depends on the attributes such as peoples working in teams, programming language used and software tools used, salaries and overhead costs associated with the development team, database size used, training cost to the employees, modification work, a rules used in an organization, cost of shared facilities such as a library, restaurant, resources used such as light, network etc, the above factors helps us to calulate cost of software. There are so many models available categorized into algorithmic and non algorithmic model each of their strengths and weakness. We propose a combination of algorithmic and non algorithmic model which consists of Functional Link Artificial Neural Network (FLANN) and COCOMO-II with training algorithm. FLANN reduces the computational complexity in multilayer neural network. It has fast learning ability.

Keywords: Functional link artificial neural network (FLANN), software cost estimation, COCOMO-II.

Load Flow Analysis of 220 kV MSETCL substation by using ETAP

Prof. Sudhir K. Shinde

(Presented in International Conference on 'Recent Trends in Engineering Sciences', organized by Spvryan International Institute of Engineering & Technology, Alwar, Rajsthan at Hotel Seven Heven, Nashik)

Abstract:- Load flow studies are used to determine the magnitude of voltage, voltage angle, active and reactive power flows at all buses in a power system. Load flow studies are an excellent tool for system planning. A number of operating procedures can be analyzed, including contingency conditions, such as the loss of a generator, a transmission line, a transformer or a load. These power systems have grown in recent decades with capacities far exceeding that of a small electric utility system. The complexity of modern industrial power systems makes studies difficult, tedious and time consuming to carry out analysis manually. The use of digital computers makes it possible to study the performance of proposed and actual systems under many operating conditions. Electrical Transient Analyzer Program (ETAP) is the foremost-integrated database for electrical systems allowing to have multiple representations of a power system for different analysis and design purpose. The paper aims to provide the basic understanding of the load flow studies and use of Electrical Transient Analyzer Program (ETAP) application software as a successful and accurate tool to conduct load flow study of complex electrical power systems within minimum time period.

Index Terms: Load Flow Analysis (LFA), ETAP, Gauss-Siedal (GS) Method.

Knowledge Extraction using Data Mining Techniques

Prof. R. A. Gangurde & Prof. M. R. Sonar

(Presented in International Conference on 'Recent Trends in Engineering Sciences', organized by Spvryan International Institute of Engineering & Technology, Alwar, Rajsthan at Hotel Seven Heven, Nashik)

Abstract:- Data mining is a logical process which finds useful patterns from large amount of data.

It is the process of extracting previously unknown, comprehensible and actionable information from large databases and using it to make crucial business decisions. Data mining is the computer-assisted process that digs and analyzes enormous sets of data and then extracts the knowledge out of it. The various techniques of data mining are used to extract the useful piece of knowledge from a database / data warehouse which is growing continuously. This extraction of knowledge is useful in research as well as in organization. In this paper authors have reviewed the literature of data mining techniques such as Classification, Clustering, Association Rules and Prediction.

■ Study of Heat Losses from Cavity Receiver of Solar Concentrator

Prof. Sanjay D. Barahate & Vinod C. Shewale

(Published in International Journal, Applied Mechanics and Materials, Vol. 541,, pp 996)

Abstract: In this paper heat losses from cavity receiver of solar concentrators are presented. Convective and radioactive losses for specified cavity receiver are estimated by MATLAB programming and effect of the various parameters is studied. Radiation losses are analyzed for operating temperature in range of 127°C to 527 °C and aspect ratio of 0.5 to 2.5. Convective losses are investigated for operating temperature in range of 127°C to 527 °C, inclination angle from 0 to 90°C, aspect ratio of 0.5 to 2.5 and wind effect for 0 to 10 m/s. Radiation losses and convective losses increases as operating temperature of cavity receiver increases. The convective losses are more for sidewise facing cavity (0° inclination) and less for downward facing cavity (90° inclination). As aspect ratio and wind velocity increases, convective loss increases.

■ Thermoeconomic Optimization of a Shell and Tube Condenser Using Teaching-Learning-Based Optimization Algorithm

Prof. R. V. Rao & Prof. G. G. Waghmare

(Published paper in Proceedings of 3rd International Conference on Recent Trends in Engineering & Technology (ICRTET' 2014) ISBN NO: 978-93-5107-222-5, Date: 28-30 March 2014, organized by SNJB College of Engineering, Chandwad)

Abstract: This paper presents design optimization of a shell-and-tube condenser using Teaching-Learning-Based Optimization (TLBO) algorithm. TLBO is a recently proposed population based algorithm which simulates the teaching-learning process of the class room. This algorithm requires only the common control parameters and does not require any algorithm-specific control parameters. The total cost including investment and operation cost of the condenser is considered as an objective function for thermoeconomic optimization of shell-and-tube condenser. Tube number, number of tube passes, inlet and outlet tube diameters, tube pitch ratio and tube arrangements are considered as design parameters for shell-and-tube condenser. Experimental results show that the TLBO algorithm is better or competitive to other optimization algorithms considered by the previous researchers.

Keywords: Thermoeconomic; Optimization; Shell-and-tube condenser; Teaching-learning-based optimization algorithm.

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