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MAFFICK 2015

Annual social gathering "Maffick 2015" of our Institute was held during 8th - 10th of January 2015. Various events such as Cultural, Fashion Show, Personality Contest etc. were meant to highlight the hidden skills possessed by our students. Maffick was Inaugurated by Hon. Trustees Shri. Changdevdada Holkar and Vilas Tarle. Prize distribution ceremony was organized on 10th January 2015. Mr. Rahul Nene, Senior Enterprise Architect, Tieto Software Tech Pvt., Ltd., Pune was Chief Guest for the function. Mrs. Pallavi Nene was guest of honor. Both the guests are alumni of our Institute. Sport, cultural and academic related prizes were distributed by the Guests. On this occasion Trustees Shri. Vilasbhau Tarle, Shri. D. S. Shinde, Principal Dr. K. N. Nandurkar, Prof. Dr. S. S. Sane and representatives of industries which sponsored prizes, staff and students were present.

Inauguration of cultural programme of MAFFICK 2015

Chief Guest Mr. Rahul Nene, addressing the Prize distribution function of Maffick 2015.

Visit by Dr. Vinay Shahashrabudhe

Dr. Vinay Shahashrabudhe, National Vice President, Bhartiya Janata Party and Director General, Rambhau Mhalgi Prabodhini, Mumbai visited our Campus on 21/01/2015. Hon President of K. K. Wagh Education society felicitated him. He also visited Agricultural Campus of our Society. On this occasion, newly elected MLAs and MPs of Nashik and Nagar district were felicitated at the hands of Dr. Vinay Shahashrabudhe. Mr. Harishchandra Chavan (MP – Dindori), Mrs. Seema Hire (MLA – Nashik), Mrs. Kolhe (MLA – Kopargaon), Mr. Rajabhau Waje (MLA- Sinner), Mr. Anil Kadam (MLA- Niphad), Mr. Balasaheb Sanap (MLA – Nashik), Dr. Rahul Aher (MLA – Deola) attended the function. Shri. Pratapdada Sonawane, Mrs. Nilimatai Pawar, Mr. T. S. Dighole, Mr. Suresh Patil, Mr. Laxman Sawji were also present on this occasion.

Felicitation of Dr. Vinay Shahashrabudhe

Republic Day Celebration

The Republic Day was celebrated with full honor on 26th January 2015. The National Flag was hoisted by Principal, Dr. K. N. Nandurkar. Staff and Students were present in large numbers for this function. On this occasion Principal Dr. K. N. Nandurkar appealed to all present to work sincerely towards achieving the goals of India 2020.

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The National Flag was hoisted by Principal, Dr. K. N. Nandurkar

A Panel Discussion on "Importance on Financial Planning Investment Options"

A panel discussion on "Importance on Financial Planning Investment Options" was organized for the Non-teaching staff of the Institute on 31/01/2015. Representatives from Bank of India, Indian Posts, ICICI and New India Assurance Company guided the staff members for proper Investment/ Insurance considering the expenses after retirement.

A panel discussion on "Importance on Financial Planning Investment Options"

Blood Donation Camp By NSS Unit On 17ᵗʰ Jan.'2015

On 17/01/2015 NSS had organised "Blood Donation Camp" in association with Saibaba Heart Institute, Nashik. In this camp 176 donars donated blood to Civil Hospital and MVP Hospital Blood Banks.

Blood Donation Camp

Free Dental Check-Up Camp by NSS Unit on 29ᵗʰ Jan. 2015

On 29/1/2015 NSS had organized "Free Dental Check-up Camp" in association with KBH Dental College and Hospital, Panchavati, Nashik in which 195 students get benefited.

CONGRATULATION

Mrs. Manisha Satone (Admane), Associate Professor of E&TC Department received Ph.D. award from Savitribai Phule Pune University. Her topic was "Automatic Face Recognition Technique using Wavelet and Genetic Algorithm to Improve Recognition" under the guidance of Prof. Dr. G. K. Kharate.

CONGRATULATION

Our Institute received the "Best Participating Institute Award" for APTI-BODH 2015 competition organized by IGC (Institute GATE Coaching) Nashik. Our student Mr. Akshay Mate (Mechanical Engineering) was topper among all the students who participated from various Engineering Colleges in Nashik.

Expert Lecture/Seminar/Courses/Worshop Organized:

- Production engineering department organized an expert lecture on "Burnishing Processes" by Prof. R. S. Tajane, AVCOE, Sangamner on 4 January 2015 and an expert lecture on "Effective Microsoft Excel for Engineers & Managers" by P. B. Barge of SIOM, Nasik on 17 January 2015. Same department also organized a training session on "Quantitative Aptitude" by TIME Institute, Nashik on 16 January 2015 and an Expert talk of Mr. Harshal Ahirrao on "Opportunities in Armed Forces after Engg. Graduation" on 24 January 2015.

- Computer Engineering department organized an expert talk on "Real Time System" of Ms. Lavanya Adepalli, Member of research team in INRIA-Paris for TE Students on 23 January 2015. She highlighted on Real Time System, Wireless Communication, Human Mobility. Same department organized one day workshop on "Aim and Motivation" by Mr. Subodh Deshmukh for SE Students on 02 January 2015. It was a personality development workshop which aimed at improving inter personality skills of students.

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Same department organized a Seminar on "CDAC for Advanced Diploma course" of Mr. Colonel Rajesh & Mrs. Vandhana Shirwalkar on 16 January 2015 and a webinar on Modern C++ Style of Mr. Bjarne Stroustrup on 15 Jan. 2015.

- Mechanical Engineering department organized an expert lecture on "Requirement of Value added Education & its importance" by Mr. Nilesh Kokate, Nashik Engineering Cluster & Mr.Nilesh Salgaonkar, Tata Technology on 17 January 2015.

- Electronics & Telecommunication department organized an expert lecture on "Scope for Biomedical Instruments" of Mr. Satish Jadhav, Director of Biokit, Mumbai on 3 January 2015. Same department organized one day workshop on "Embedded Processors" of Mr. Nitin Paranjape, Edutech Systems on 20 Jan. 2015.

- Civil Engineering department organized an expert lecture of Dr. N. Sukumar, Professor in Civil Engineering, University of California, USA on 14/01/2015, an expert lecture of Mr. Nitin Pathak, Project Management Consultant, Nashik on 16/01/2015 and an expert lecture of Dr. C. Bhagwan Raju on 17/01/2015. Same department also organized an expert lecture of Mr. Sanjay Ghuge, Executive Engineer on 24/01/2015 and an expert lecture of Mr. Girish Dharap, Manager Trainee, INFINI Institute of Programme Management, Pune on 28/01/2015.

- Electrical Engineering department organized an expert talk on "Revisiting the Fundamentals" of Dr. V. N. Bapat, Shinhagad Institute of Technology, Lonavla on 05/01/2015. Same deprtment also organized an expert talk on Basics of Circuit Breaker by Mr. Ghanashyam Patil, Crompton Greaves on 29/01/2015.

- Chemical Engineering department organized an expert talk on "Study Abroad" of Smita Bhamre on 02/01/2015 and an expert talk on "Recent trends in renewable energy" by Mr. Jaydeep Shah on 13/01/2015. Same department also organized one day seminar on "Ethanol: A Prospective Green Chemical Indusrty for renewable sustainable auto fuel" by Mr. B. H. Shrikanth, Sciencia Project Consultant Pune on 19/01/2015.

- Information Technology Department organized a seminar on "Introduction to Android Programming" by Mr. Sandeep Devre and Mr. Rohit Desai, Sumago Infotech, Nashik on 17 Jan. 2015.

- Training and Placement Cell organized an interactive session between TE/BE students and Dr Shreya Batra from 'University of Bristol' on 12 January 2015 in our campus. Students were made aware about the higher Education in UK in general and specifically in Bristol University, Eligibility criteria for admission, what subjects' students should focus on or how hard they need to work to get into University of Bristol, UK. Mr. Sunil Chandak, Director Udyogwardhini visited our campus for having an interaction with the final year students of Computer / IT / E&TC / Electronics. He shared information about Cloud Computing & Web Hosting-Training module which leads to sure placements in ESDS/Arees and Winjit. Training and Placement Cell has conducted an Expert Talk on "How to prepare for the Campus selection process" on 19 January 2015 by Ms. V. Nandini Nair Ghosh –Director of Universal Education-Bangalore. Training and Placement Cell has also conducted an expert talk on "Higher Education" by Mr. Lakshman Iyer.

- Poster presentation competition was organized in the Institute on 7th January 2015 and it inaugurated by Principal Dr. K. N. Nandurkar. Also the Rangoli competition was organized in the Institute and it was inaugurated by the hands of Principal Dr. K. N. Nandurkar.

■ Industrial Visits Organized For Students:

Date	Class	Name of Company
20/01/2015	TE Chemical	Godavari Biorefinary, Kopergaon
24/01/2015	TE Electrical (Second Shift)	Electric Loco Workshop, POH Central Railway, Bhusawal, Dist. Jalgaon

■ Industrial Training/Workshop/STTP Attended By Staff:

- Computer Engineering department staff Prof. L. A. Patil & Prof. J. N. Thakur attended FDP on 'Programming Laboratory IV' organized by MIT Pune on 13/01/2015.

- Electrical Engineering department staff Prof. Mrs. T. N. Date attended "Teachers Training" at Electrical Dept., SVNIT Surat during 29/12/14 to 02/01/15.

- Following staff members of Electronics & Telecommunication Engineering department attended the workshop as detailed below:-

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Name of Staff	Workshop Attended	Duration	Location
Mr. S.S. Dharrao Mr. A. A. Hadpe Mrs. Rupali M.Jadhav Mrs. Ashwini M.Patil Mr. Sandip Khaire Mrs. Malati Pawar	Testing and Calibration of Measurement Equipments	09-10 Jan., 2015	Sandip Foundation's Engineering College, Nashik
Mr. Kailas S.Holkar	Analytical techniques for Applied Research	09-10 Jan., 2015	SGGS Engineering College, Nanded
Ms.Shradha V.Shelke Ms. Kirti P. Shinde	Faculty Development Programme	16-17 Jan., 2015	Vishwakarma Institute of Info.Tech., Pune

Name of Staff	Workshop Attended	Duration	Location
Ms. Mauri P. Joshi Ms. Amrutpal Kaur Mrs. Rupali M.Jadhav Mrs. Ashwini M.Patil Mr. Sandip Khaire Mr. Keshav R.Dhikale Mr. D. S. Handge Mrs. Malati Pawat	Workshop on "Embedded Processors"	20th Jan. 2015	K. K. Wagh Institute of Engineering Education & Research, Nashik.
Ms. Sharayu S. Khanke	Workshop on "SOC for DSP application"	27-31 Jan., 2015	Sinhgad Institute of Technology, Pune

- Following staff members of Information Technology department attended the workshop as detailed below:-

Name of Staff	Workshop Attended	Duration	Location
Mrs.Prajakta S.Vispute Mrs.Mrunal S. Patil	FDP on "Operating System Laboratory"	12/01/2015	PVG's Engineering College, Pune
Mr.Umesh K.Gaikwad	FDP on "Multimedia Systems and IT Project Management"	14/01/2015	AISSMS's Institute of Info. Tech., Pune.
Mrs. Rupali M. Bora	FDP on "Software Laboratory-II"	16/01/2015	MMM's College of Engineering, Pune
Ms. Nikita P. Rane	Workshop on "Big Data, Hadoop and Mongo DB"	23/01/2015	Cell Beans Healthcare Informatics P.Ltd.,Pune

Training & Placement :

Name of Company	Name of the Dept.	No.of students selected
e-Zest Technologies	Computer Engg.	03 [02+01 ME Computer]
	IT	01
IBM Technologies	Computer Engg.	04
	Electronics Engg.	01
	Mechanical Engg.	01
Netwin IT Solutions	Computer Engg.	01
	E & TC Engg.	01
JSW	Mechanical Engg.	13
	Electrical Engg.	10
Arya Technosolution	MBA	03
Winjit Technologies	Computer Engg.	01
Kotak Mahindra Bank	MBA	01
Fluor Daniel	Mechanical Engg.	02

Paper Presented by Students

In the month of January 2015, 22 students have participated in various paper presentation,model making, etc competitions and won various prizes.

- Ms. Kalyani Shinde and Ms. Namrata Wagh Students of SE Computer won third prize for their innovative project work in Kumbhathon, an innovation Center collaboration with MIT researchers, corporate partners, government officials and Nashik-based organizations which aims to provide solutions to probable challenges during the Kumbhmela. Prof. Mayuresh Pardeshi worked as a project committee head in Kumhbhathon.

- Electronics & Telecommunication engineering department student Miss. Surbhi Jalori and Miss Diksha Sakharpekar secured 1st prize for paper presentation at Amrutvahini College of Engg. Sangamner on 19/01/2015.

Books Purchased in Central Library : Jan. 2015

Sr.No.	Name of Dept.	Total No.of Books purchased
1	Computer Engg.	90

Other Achievements

- Principal Prof. Dr. K. N. Nandurkar was invited by Dr. Moonje Institute of Management and Computer Studies, Nashik to deliver a lecture on "Changing Scenario in Higher Education and Role of Stakeholders" on 09th Jan. 2015. He also visited Pimplas (Ramache) for inauguration of New School Building along with Junior and Senior College started by K. K. Wagh Education Society on 25/01/2015. Principal Dr. K. N. Nandurkar was invited as Chief Guest for the inauguration of two days Conference on "Wireless Communication & Android Application" organized by K. V. N. Naik Institute of Engineering Education & Research, Nashik on 30/01/2015. He was also invited as Chief Guest for the inauguration of 'SAP Training Programme' organized by K. K. Wagh Polytechnic, Nashik under the MSBTE Scheme for Diploma students.

- Production Engineering department staff Dr. P. J. Pawar delivered an expert lectures at ISTE Sponsored STTP on "Research Methodology and Technology Management" organized by K. C. College of Engineering and Mgmt. studies, Thane, Mumbai during 5-9 Jan. 2015. & delivered an expert lecture on "Design of Jigs and Fixtures" at K. K. Wagh Polytechnic, Chandori on 19/01/2015. Same department staff Prof. N. B. Gurule delivered an expert lecture on "Nanotechnology" to Third year E & TC diploma students of K. K. Wagh Women Polytechnic, Nashik on 13/01/2015.

- Computer Engineering department Head Prof. Dr. S. S. Sane delivered the Keynote address on Internet of Things (IOT) during the National Conference on "Wireless networks and Andriod Apps" at V. N. Naik College of Engineering, Nashik on 30 January 2015. He also conducted session on WEKA at COE Zeal, Pune on 6 January 2015 during the STTP on 'Advanced Databases'. The Department received 20 Galileo Boards from Intel. Prof. L. A. Patil is the Institute level coordinator for the same.

- Electronics & telecommunication department head Dr. D. M. Chandwadkar honored as a chief guest for Zest2k15 at Amrutvahini

College of Engg., Sangmner on 19 January 2015. Dr. D. M. Chandwadkar and Dr. S. A. Patil (Ugale) were elected as Advisory committee members for WiCAA-15, V. N. Naik College of Engineering, Nashik on 30 and 31 January 2015. Dr. M. D. Kokate was present as Chief Guest for the inaugural function of workshop on 8th January 2015 at at SVIT, Chincholi, Nashik. Dr. M. D. Kokate also delivered seminar on "career guidance" at Manmad Polytechnic on 7 January 2015.

- Electrical Engineering department Head Prof. Dr. B. E. Kushare offered Energy Audit services to HPCL, Times of India at Kalkatta, Kosso India Pvt., Ltd., TOI Chandigarh, Electrical Consultancy work at Bahadarpur, Electrical Consultancy at Bosch Ltd., Nashik. Same department staff Prof. R. K. Munje delivered an expert lecture at Matoshri College of Engineering, Nashik on "LaTeX for Beginners" on January 27, 2015 for PG Students. He also attended meeting of CCSA IET on January 31, 2015 at Delhi and visited Delhi Metro Rail Corporation, Delhi on January 31, 2015.

- IT department staff Prof. Ruplai M. Bora delivered an expert lecture on "System Programming: a practical approach" for T.E.(I.T.) students at MET COE, Nashik on 9 January 2015.

- Production engineering department staff Dr. P. J. Pawar delivered expert lecture (4 Hrs duration) at Three days International Workshop on "Advances in Engineering Optimization" organized by Dnyanganga College of Engineering and Research, Narhe, Pune during 29-31 Jan. 2015. Also Dr. P. J. Pawar received grants worth Rs. 56500/- from SPPU, Pune for research project "Development of redundant manipulator system with optimum movement control for obstacle avoidance".

■ Abstracts of papers presented during Jan. 2015:
Survey of Scalable String Similarity Joins
Mr. Khalid Alfatmi
Abstract: Similarity Join is an important operation in data integration and cleansing, record linkage, data de duplication and pattern matching. It finds similar sting pairs from two collections of strings. Number of approaches have been proposed as well as compared for string similarity joins. The rising era of big data demands for scalable algorithms to support large scale string similarity joins. In this paper we study the string similarity joins, their use. Further we look at three different techniques for scalable string similarity join using Map Reduce, which are- Parallel set-similarity join, MG Join and Mass Join. Finally, we try to compare them based on some common characteristics.

■ Anchorage behaviours and development length of headed bars in exterior beam – column joints
Pravinchandra D. Dhake, Hemant S. Patil & Yogesh D. Patil
Abstract: Six exterior beam–column joint specimens with and without transverse shear reinforcement were constructed and tested under cyclic loading to assess the anchorage strength of headed bars with short development length. The test results demonstrated that the beam–column specimen without transverse shear reinforcement can exhibit satisfactory seismic behaviour with headed bars up to a drift ratio of 3%; above this the role of transverse shear reinforcement is vital. The test results also indicated that hysteretic behaviour of exterior beam–column joints with headed bars was superior to joints constructed and tested with 908 bent bars with sufficient anchorage length.

■ Influence of journal misalignment on the performance of hydrodynamic journal bearing
Prof. Ramesh Bhandare
Abstract: Hydrodynamic journal bearing is essential member of high speed machinery. At high speed, shaft deformation is mostly causes misalignments in hydrodynamic journal bearing. Journal misalignments are significantly affects the performance of hydrodynamic journal bearing. In the present research work the influence of different operating parameters such as eccentricity ratio, speed and misalignment angles along with various lubricants (Newtonian and Non-Newtonian) are investigated for the performance analysis of the bearing. Computational Fluid Dynamic (CFD) software package is used for this study for aligned and misalignment conditions. It has been observed that influence of misalignment in the direction of load is more prominent and significant as compared to the misalignment in the transverse direction of hydrodynamic journal bearing. The results are expected to be quite useful for the bearing designer.

Keywords: Hydrodynamic Journal bearing; Misalignment; CFD, Newtonian / Non-Newtonian Lubricants.

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Application of Hill Climbing Algorithm for Optimization of Plate Fin Heat Exchanger

Prof. Rahul.D. Rakhade, Prof. Mangesh P. Panchbhai & Prof. Ankit S. Gujrathi

(Published in STM Journals, Journal of Refrigeration, Air Conditioning, Heating and Ventilation ISSN: 2394-1952(online) Vol. 2, Issue 1)

Abstract: This paper demonstrates the application of Hill Climbing algorithm for the design optimization of Plate-Fin Heat Exchanger (PFHE). Maximization of the effectiveness and minimization of the total annual cost are considered as two objective functions. Thermal modelling is done by ε-NTU method to estimate the heat exchanger effectiveness and pressure drop. Fin pitch, fin height, fin offset length, cold stream flow length, no-flow length and hot stream flow length are considered as six design parameters. One application example is presented to demonstrate the effectiveness and accuracy of the Hill Climbing algorithm. The results of optimization using Hill Climbing are validated by comparing with those obtained by using Non-Dominated Sorting Genetic Algorithm (NSGA-II).

Keywords: Hill Climbing Algorithm, Plate-Fin Heat Exchanger, Thermal Modelling

Conversion of biomass derived platform molecule towards transportation fuels

Prof. Derle S. N.

(Presented in National Conference organized by CSMCRI (CSIR), Bhavnagar (Gujarat))

Abstract: Hydrogenation of biomass derived platform molecules, namely Levulinic acid (LA) and γ-valerolactone (GVL) to give valeric acid were performed using bifunctional catalysts such as Pt, Au and Ni supported on parent and desilicated ZSM-5, zeolite Beta etc. The Catalytic activities were monitored at various temperature, pressure and varying solvent (water) proportion. Among these Pt supported on parent and desilicated beta showed better catalytic activity for GVL hydrogenation. Pt and Au supported zeolite catalysts were also observed for LA hydrogenation using pure H2 and Formic acid (FA) as hydrogenating agent.

Develop Hybrid Cost Estimation Model for Software Application

Prof. S. K. Badjate & Prof. U. K. Gaikwad

(Presented paper in Nationael Conference on "Inter Disciplinary Research on Recent Trends in Information Technology and Computer Engineering" (NCRTIT-2015) on 23rd Jan., 2015 organized by D. Y. Patil COE, Pune and Published in International Journal of Advance Foundation and Research in Computer Vol.2, Special Issue. e-ISSN 2348-4853)

Abstract: Software industry has seen an incredible development and growth since its beginning; it is continuously facing difficulties in its progress. The important challenge for software industry is to produce eminence software, which is timely aligned with its planning and with proper cost estimates. Hence, the software cost estimations techniques are the center of attention for many software firms. This paper mainly focused with building software cost and effort estimation model based on the composition of algorithmic and non-algorithmic model known as a hybrid model. The hybrid model designed in such way that it accommodates the algorithmic Constructive Cost Model-II (COCOMO-II) and Non-algorithmic Functional Link Artificial Neural Network (FLANN) model so that it will amplify the performance and effectiveness of COCOMO-II model. The model is tested with the COCOMO-II NASA-93 dataset. The result from trained data compared with COCOMO-II. From the experimental setup, it is concluded that by integrating algorithmic and nonalgorithmic model improves the cost estimation accuracy.

Keywords: Software Cost; Effort Estimation, Constructive Cost Model-II (COCOMO-II), Hybrid Model, Functional Link Artificial Neural Network (FLANN).

Emulating cryptographic Operations for Secure Routing in Ad-hoc Network

Prof. Mrunal S. Patil

(Presented in International Conference on "Pervasive Computing (ICPC-2015)" sponsored by IEEE Pune on 9th Jan., 2015 organized by Sinhgad College of Engineering , Vadgaon, Pune)

Abstract: MANET is used by many researchers to provide security and to implement protocols for secure routing. Privacy and security are important in applications like Military and Law-Enforcement MANETs. Communication in MANET is more susceptible due to broadcasting nature of radio transmission. It is necessary to provide security against inside and outside adversaries. There are many existing schemes which provide privacy preserving routing. These schemes do not offer complete unlink ability and unobservability. We propose unobservable secure routing protocol where data packets and control packets are completely protected. It achieves content unobservability by applying group signature and ID-based encryption. This protocol works in two stages anonymous key establishment and unobservable route discovery. We implement unobservable secure routing protocol with security algorithms RSA, AES, DES with AODV in NS-2 and compare it with AODV. Our protocol is more efficient than existing schemes.

Keywords: MANET, security, privacy, routing, anonymity, group signature, un-observability.

Prof. Dr. K. N. Nandurkar
PRINCIPAL