



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

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TECHNICAL NEWS LETTER

### ■ Karmayogi & Krushi Tapasvi Award Distribution Function

K. K. Wagh Education Society has started a new initiative in the form of Karmayogi and Krushi Tapasvi awards to recognize the contribution of persons working in the field of Social development and agriculture. The first Award distribution function was held on 24<sup>th</sup> Dec. 2016. Former Chief Minister Shri. Prithviraj Chavan and Scientist Padma Vibhushan Dr. Anil Kakodkar were chief Guests and Hon. Mr. Balasaheb Thorat was guest of honor. The "Karmayogi Award" for social work was given to Mr. Matin Bhosale, who has worked for the Welfare of Pardhi community kids and "Krushi Tapasvi" was awarded to Mr. Navanath Kaspate, who has initiated Custard Apple farming in Solapur district. Hon. President Shri. Balasaheb Wagh felicitated the guests on the dais. Before the program, one session of Former Chief Minister Prithviraj Chavan was organized to guide to all faculties of K. K. Wagh Education Society. Also parallel session was conducted by Scientist Padma Vibhushan Dr. Anil Kakodkar with students of Engineering and Polytechnic.



"Krushi Tapasvi" award given to Mr. Navanath Kaspate



The "Karmayogi Award" given to Mr. Matin Bhosale



Felicitation of Hon. Shri. Prithviraj Chavan & Hon. Balasaheb Thorat by Shri. Balasaheb Wagh



Address by Padma Vibhushan Dr. Anil Kakodkar

### ■ NSS special Winter Camp

NSS special winter camp of institute for academic year 2016-17 was held at Chitegaon (Tal. Niphad) from 25<sup>th</sup> to 31<sup>st</sup> Dec 2016. The inaugural function of camp held was on Monday, 26<sup>th</sup> Dec 2016 at Chitegaon. Mr. Mohan Wagh (Nashik Divisional Agriculture Assistant Director), Mrs. Saroj Jagtap (Education Officer, Niphad) and Mr. Subhash Gade (Sarpanch, Chitegaon) were the chief guests for inaugural function. Principal Dr. K. N. Nandurkar addressed the NSS volunteers and villagers of Chitegaon.



Inauguration of NSS Camp by Mr. Mohan Wagh

### ■ Training program for “Quality Enhancement of Teaching Faculty”

Our Institute has organized training program for “Quality Enhancement of Teaching Faculty” in Phase I from December 6 to 10, 2016 and Phase II from December 14 to 15, 2016. Total 35 newly joined teachers attended this program. They were guided by senior teachers of the college on various topic as shown in table below:

Date	Speaker	Topic
06/12/2016	Dr. K. N. Nandurkar	Introduction of Institute
	Dr. S. S. Sane	Role of teachers in Institutional building
	Prof. M. B. Murugkar	Teaching learning methods/approaches
07/12/2016	Dr. B. E. Kushare	Active learning
	Dr. P. D. Jadhao	Student evaluation of teaching- a learning tool
	Dr. P. J. Pawar	Assessment
08/12/2016	Dr. S. Y. Kute	We are teaching... Are they learning?
	Dr. Preeti Bhamre	Audio Visual Aids/multimedia
	Dr. V. S. Mane	Content/Knowledge Management
09/12/2016	Prof. J S Jadhav	Project based learning
	Dr. P. K. Shahabdar	Effective Group Activities: Master Student Activity
10/12/2016	Prof. T. N. Date	Video & poster activity.
	Dr. S. N. Kadlag	Application of mathematics in engineering
	Prof. G. N. Jadhav	Designing Online test using Google sheets
	Prof. Nikita Rane	Language Lab Demonstration



Participants of “Training Program for Quality Enhancement of Teaching Faculty”

### ■ A Cyber Security Awareness Program

A Cyber Security Awareness Program had arranged by Computer Engg. Department in association with Nashik City Police on 22<sup>nd</sup> December 2016. The session was inaugurated by Nashik’s Commissioner of Police Dr. Ravindra Singhal. He said that girls have to face cyber crime very often so they should avoid sharing personal information and photos on social media and should report immediately to Police in case of any trouble. He also stated that cyber security cell should be formed in every college and school for giving awareness to the youth. Student’s took an oath on the occasion, which stated that we will not misuse social media and will avoid uploading personal information on it. Deputy Commissioner of Police Mr. Laximikant Patil, Mr. Ajinkya Wagh, Principal Dr. K. N. Nandurkar and Head of Computer Engineering Prof. Dr. S. S. Sane, Staff members and students were present on this occasion.



Address by Commissioner of Police Mr. Ravindra Singhal

### Workshop on 'Soft Computing: Applications in Engineering'

Three Days workshop on 'Soft Computing: Applications in Engineering' organized by the Department of Production Engineering of our institute in association with Indian Institution of Production Engineering Nashik Local Chapter, during 8-10 December 2016. The chief guest was Dr. D. Datta (Scientist-H+, Bhaba Atomic research Center, BARC, Mumbai) for the workshop. He was felicitated by Principal Dr. K. N. Nandurkar.



Felicitating of Chief Guest Dr. D. Datta

### Workshop on 'Design & Analysis of Modern Antennae'

Electronics and Telecommunication Department organized Two days state level workshop on 'Design & Analysis of Modern Antennae' (Main speakers included Dr. Y. Ravinder, Dr. S. B. Deosarkar, Dr. Vinitkumar Dongare, Dr. Anil Deshmukh and Dr. Kirti Inamdar) from 9 to 10 Dec. 2016. Principal Dr. K. N. Nandurkar addressed to all participants during inauguration.



Address by Principal Dr. K. N. Nandurkar

### Workshop on Embedded System Design

Department of E & TC organized workshop on Embedded System Design Using TIVA SPPU with Sapience Consulting under the Texas Instruments University Program, India. It was inaugurated on 27<sup>th</sup> December 2017 at the hands of Principal Dr. K. N. Nandurkar.



Inauguration of Center of Excellence

### Five days workshop on "Development of Aptitude and Soft Skills"

The Department of Information Technology had organized a 5 days' workshop on "Development of Aptitude and Soft Skills" by Mr. Ahinshu Ghosh and Mrs. Zerusha, Universal Education, Bangalore on 23<sup>rd</sup> to 27<sup>th</sup> Dec. 2016. Total 55 students of TE IT participated in the workshop.



Participants of workshop

### Visit of Prof. Dr. V. V. Mahajani

Prof. Dr. V. V. Mahajani (Ex. Professor of ICT Mumbai and member of Advisory committee of our Institute) visited our institute on 2<sup>nd</sup> Dec. 2016. Two sessions were conducted with faculties of the Chemical Engineering department for the syllabus framing for Autonomy. He gave valuable inputs to the syllabus framing.

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■ **Expert Lecture/Seminar/Courses/Worshop Organized:**

- Webcast by Hon. Prakash Javdekar was organized on 28 December 2016 in Computer Science Hall by SPPU, Pune. Principal Dr. K. N. Nandurkar, HOD Computer Prof Dr. S. S. Sane, Prof. M. S. Shirode, other staff & Students attended the webcast. He informed about various Govt. Schemes "From Cash to Less Cash". It was telecast live to all Colleges affiliated to SPPU Pune.
- Electronics and Telecommunication Department organized expert lecture on "Intellectual Property Rights" by Dr. Vinitkumar Dongre on 10/12/2016 and an expert lecture on "Cyber Security" for TE E & TC and TE ELTX by Mr. Tanmay Dikshit on 22/12/2016. Same department also organized seminar on "Recent Development in Astronomy" for SE E & TC, SE ELTX by Dr. Nivas Patil on 27/12/2016 and an expert lecture on "Mobile App Development" for SE E & TC and SE ELTX by Mr. Vaibhav Mahajan on 30/12/2016. Same department also organized "Five days Training in aptitude, GD & PI for TE E & TC" by FACE Training Academy, Pune from 24/12/2016 to 29/12/2016 and Five days Training in aptitude, GD, PI for TE Eltx by Apart training Academy, Pune from 24/12/2016 to 29/12/2016.
- Production Engineering Department had organized an expert talk on the topic "How to Avoid Procrastination" by Mr. Sunil Dhatangan, Lean Management Consultant, Nashik on 31/12/2016
- Chemical Engineering Department organized Expert talk on the topic "Roll of Engineers in Industry" By Dr. Prabhakar Jahav (Scientist Iliya Lily, USA) on 29/12/2016 for Students.
- Information Technology Department had organized a two days workshop for SE IT students on "C++ Programming" by Prof. S. R. Deshmukh, Prof. S. K. Badjate and Prof. K. N. Somwanshi on 23<sup>th</sup> and 24<sup>th</sup> Dec. 2016 and a seminar on "Oracle Database and Java Trainings and Certifications" by Prof. G. B. Katkade & Prof. V. A. Pathan on 29<sup>th</sup> Dec. 2016.

- MCA Department has organized Expert lecture on 'Software Testing' by Mr. Rajiv Shirsalkar, Lo-Tech-Pro, Nashik on 31 December 2016.

■ **Seminars/Workshop/Training attended by Staff:**

- Principal Dr. K. N. Nandurkar attended 6<sup>th</sup> International & 27<sup>th</sup> All India Manufacturing Technology, Design & Research Conference (AIMTDR 2016) at College of Engineering Pune on 16<sup>th</sup> Dec. & 18<sup>th</sup> 2016.
- Principal Dr. K. N. Nandurkar & Prof P. K. Shahabadkar attended one day Industry Academia Conclave at Hotel Four Point shereton, Pune, organised by CII Pune on 17 December 2016.
- Computer Engineering Department staff Prof. D. M. Kanade attended Course on "Cyber Crime Investigation and Digital Forensics", NIT, Goa from 30 Nov. to 6 Dec. 2016 and Prof. L. A. Patil attended SciPy2016 Conference, IIT Mumbai on 10<sup>th</sup> and 11<sup>th</sup> Dec. 2016. Prof. K. P. Birla has attended FDP on "Integrated Enterprise Solutions - PACE - ERP and Programming Fundamentals", KPIT, Pune from 12<sup>th</sup> - 17<sup>th</sup> Dec. 2016. Prof. Ms. N. M. Pagare has attended FDP on "Microprocessor" at PCCOE, Pune on 13<sup>th</sup> Dec. 2016. Prof. Mrs. S. K. Gondhalekar and Prof. Ms. C. R. Patil have attended FDP on "Advanced Data Structures" at MIT, Pune on 15<sup>th</sup> Dec. 2016. Prof. Ms. S. K. Chumbale has attended FDP on "Principles of Programming Languages" at MMCOE, Pune on 16<sup>th</sup> Dec. 2016. Prof. M. P. Mahajan attended FDP on "Microprocessor Lab" at MMCOE, Pune on 23<sup>rd</sup> Dec. 2016. Prof. Ms. N. S. Sonawane attended "One day FDP of Fundamental of Programming Languages-II (FPL-II 2015 course)" in association with BOS (COMP and IT), SPPU, Pune on 30<sup>th</sup> Dec. 2016.
- Electronics and Telecommunication Departmental staff Dr. D. M. Chandwadkar & Dr. Mrs. Manisha R. Admane have attended One week FDP at KPIT, Pune on "Automotive Electronics" during 12- 17 Dec. 2017. Prof. Ms. M. P. Joshi has attended Two Days FDP on 'Laboratory Experimentation with Cadence Toolset for Analog VLSI Design' organized by Sardar Patel Institute of Technology, Andheri (W), Mumbai from 14/12/16 to 15/12/16. Prof. Ms. Avina Dhangare has attended AICTE sponsored (under QIP) STTP on "Image

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Processing and Computer Vision” organized by COEP, Pune during 12 – 16 Dec. 2016. Prof. Ms. S. R. Chaudhari has attended Hands-On Workshop on Embedded System Design Using TIVA SPPU with Sapience Consulting under the Texas Instruments University Programme, India at PVG COET, Pune from 15- 17 Dec. 2016. Prof. Mrs. D. C. Shimpi and Prof. Ms. K. P. Shinde have attended Faculty Orientation Workshop on “Analog Communication” at MIT College of Engineering, Pune under Pune during 15- 17 Dec. 2016. Prof. Ms. S. D. Patil, Prof. Ms. P. P. Patil and Prof. Ms. Charushila Singh have attended “Faculty Orientation Workshop” on Control System at NBN Sinhgad School of Engineering, Pune. Prof. S. S. Ansari and Prof. S. A. Zalte have attended Faculty Orientation Workshop on “Integrated Circuits” at D. Y. Patil Institute of Engineering Management and Research, Pune during 15- 17 Dec. 2016.

- Chemical Engineering staff Prof. Piyush Joshi attended FDP on topic ‘Accreditation Process in Technical Institutes’ on 15 & 16 Dec. 2016 at D. Y. Patil University, Lohgaon, Pune. He also attended FDP on topic ‘Process Design & Intensification’ on 26<sup>th</sup> Dec. 2016 to 4<sup>th</sup> Jan. 2017 at UICT, North Maharashtra University, Jalgaon.
- Information Technology Departmental staff Prof. S. K. Badjate attended one day FDP on “Foundation of Communication & Computer Network” of SEIT (2015 course) on 14<sup>th</sup> Dec. 2016 jointly organized by D. Y. Patil COE, Pune & SPPU, Pune. He also attended one day FDP on “Data structures & files and Data structures & file laboratory” of SEIT (2015 course) on 15<sup>th</sup> Dec. 2016 jointly organized by PCCOE, Pune & SPPU, Pune. Prof. K. N. Somwanshi attended two days state level workshop on “Hadoop and R Programming” on 14<sup>th</sup> & 15<sup>th</sup> Dec. 2016 organized by MESCOE, Pune & SPPU, Pune. Prof. U. K. Gaikwad attended five days FDP on “Integrated Enterprise Solution - PACE-ERP and Programming Fundamentals” on 12<sup>th</sup> to 17<sup>th</sup> Dec. 2016 organized by KPIT Technologies, Pune.

■ **Industrial Visits Organized For Students:**

Date	Class	Name of Company
14/12/2016	B.E. Computer	Sebiz Square, Chandigarh
15/12/2016	B.E. Computer	Netsmatz, Chandigarh
05/12/2016-13/12/2016	B.E.(Electronics)	Keltron, Kerala State Electronics Development Co., Ltd.

■ **Training & Placement :**

Name of Company	Name of the Dept.	No.of students selected
Rishab Instruments Pvt.,Ltd.,Nashik	E & TC	01
Wellness Forever	MBA	02
D Mart	MBA	04

■ **Other Achievements**

- Session on Career Guidance & Admission 2017 at Chandori was organized and conducted by Principal Dr. K. N. Nandurkar & Prof. Dr. D. M. Chandwadkar on 10 December 2016.

■ **Abstracts of papers presented during Dec. 2016:**

**Application of AHP for Process Parameter Selection and Consistency Verification in Secondary Steel Manufacturing**

Allurkar Baswaraj S., Dr. M. Sreenivasa Rao, Dr. P. J. Pawar

(Presented in International Conference on Advances in Materials & Manufacturing (ICAMM-2016) held at Osmania University, Hyderabad from 8 to 10 Dec 2016.)

**Abstract:** In this paper, analytical hierarchy process (AHP) is applied as a decision support tool to help secondary steel makers to understand the trade-offs between various process parameters. Relative importance of various parameters is obtained to assess the relative effect on the yield strength of manufactured steel. Five criteria have been identified for improving yield strength of secondary steel. A systematic approach to evaluate quality has been developed using the analytical hierarchy process, which enables the combination of tangible and intangible criteria and checking the consistency of judgments which helps to improve agility of secondary steel recycling industries. The main objective of this paper is to prioritize parameters for steel recycling in the context of Indian steel recycling industries. Understanding these priorities would help secondary steel industries to develop strategies to improve quality of steel produced. This approach has been implemented practically.

■ **Parametric optimisation of cold backward extrusion process using simulated annealing algorithm**



Dr. P. J. Pawar, P. S. Pawar & S. Pashankar  
(Presented paper in 5<sup>th</sup> National Conference on 'Recent Trends in Computer Science and Applications and Computational Mathematics' organized by Indira College of Commerce and Science, Pune from 22 to 23 December 2016)

**Abstract:** Cold backward extrusion process is a widely accepted metal forming process due to high production rate and capability to produce complex part with good surface quality. The present work highlights the development of mathematical relations for correlating the inter-relationships of various parameters of cold backward extrusion process such as extrusion force, stroke length, slug diameter, and back pressure on the extrusion power and dimensional stability of product. A well-known meta-heuristics known as simulated annealing is then applied to practical case study to find the optimal combination of process parameters with objectives of minimizing extrusion power as well as dimensional instability subjected to the constraints on diaphragm thickness and nozzle thickness.

■ **Effect of Ethanol Concentration and Cell Orientation on the performance of passive direct ethanol fuel cell**

Prof. Pritamkumar D. Ahire

(Presented paper in Conference at IIT Roorkee)

**Abstract:** Ethanol emerges as an alternative fuel since it has higher energy density, less toxic in nature, easy availability, and can be produced from biomass. The passive Direct Ethanol Fuel Cell (DEFCs) has good potential to fulfill the power requirements of portable applications compared to methanol. However passive DEFCs are far away from acceptable power outputs due to their slow ethanol oxidation reaction and ethanol and water crossover. In this study, a passive DEFC was design and fabricated. The 115 Nafion membrane with active area of 25cm<sup>2</sup> was used to identify the optimal working condition for ethanol feed concentration and cell orientations. It was found that 4M ethanol feed concentration gives optimal cell performance. It is observed that open circuit voltage (OCV) was independent of the cell orientation but it is affected by the ethanol feed concentration. The cell performance is also tested on cell orientation.

Horizontal orientation yielded better performance compared to vertical orientation.

■ **Influence of Journal Misalignment on the Performance of Hydrodynamic Journal Bearing System**

Prof. R. V. Bhandare

(Presented paper in Conference at IIT BHU Varanasi)

**Abstract:** Hydrodynamic journal bearings are essential members of high speed machinery. At high speed, shaft deformation is mostly seen which causes misalignment in hydrodynamic journal bearing. Even small misalignments significantly affect the performance of hydrodynamic journal bearings. In present work the design and operating parameters are selected such as eccentricity ratio, speed, aspect ratio for different misalignment angles. CFD method is used to study the performance of hydrodynamic journal bearing for misalignment conditions and results are compared with align conditions. It is observed that the static pressure increases with the change of alignment of journal in hydrodynamic bearing. It is found that influence of misalignment in the direction of load is more prominent as compared to the transverse direction.

■ **A Study of Misaligned Non-Newtonian Lubricated Two Lobe Hybrid Journal Bearing**

Prof. Dr. P. B. Kushare

(Presented paper in Conference at IIT BHU Varanasi)

**Abstract:** The present paper describes the influence of journal misalignment on the performance of a two lobe symmetric hole entry hybrid journal bearing system operating with non-Newtonian lubricant. A modified form of Reynolds' equation together with the equation of flow of orifice restrictor have been solved using FEM taking into account the relation between shear stress and shear strain rate. The numerically simulated results of the study show that the influence of journal misalignment significantly affects bearing performance. The values of bearing fluid film dynamic coefficients get decreased for bearing lubricated with non-Newtonian lubricants with misaligned journal.

Prof. Dr. K. N. Nandurkar  
PRINCIPAL

