



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

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TECHNICAL NEWS LETTER

■ **Workshop on Entrepreneurship**

Two days Entrepreneurship Awareness Workshop was organized on 19<sup>th</sup> and 20<sup>th</sup> August 2017 in the institute in association with Udyogwardhini, Nashik. The speakers were Mr. Sunil Chandak, Director of Udyogwardhini, Mr. Vedant Rathi, Director, WeRSolar, Mr. Pankaj Ghadge, BeeFly, Mr. Nilesh Pawar, Pooja Industries and Mr. Vishal Wagh from Udyogwardhini. Around 80 students of various branches attended the workshop. Principal Dr. K. N. Nandurkar felicitated to all the speakers on this occasion.



Mr. Sunil Chandak, Director of Udyogwardhini speaking on Entrepreneurship

■ **Donation of Power Quality Analyzer equipment from MEGGER (India) Pvt. Ltd. to Mechanical Department**

Megger (India) Pvt., Ltd., Mumbai donated Power quality analyzer (MQ 1000, Megger Make) to Mechanical department of our institute on 1<sup>st</sup> August 2017. This equipment will be used by Energy Cell of the institute for benefit of the society. The Chief Guest and company representative was Mr. Anant Waghchaure, Asst. Manager Megger (India) Pvt. Ltd. On this occasion, Principal Dr. K. N. Nandurkar, Head of Mechanical Engineering department Prof. M. B. Murugkar and Head of E & TC Department Prof. Dr. D. M. Chandwadkar were present.



Donation of Power quality analyzer

■ **KIRLOSKAR – VASUNDHARA International Film Festival**

MBA Department. has organized International Film Screening on “Environmental Awareness” along with Kirloskar Group of company (Kirloskar Vasundhara International Film Festival) on 22/8/2017. The film screening started in presence of Mr. Virendra Chitrav, Festive Director of Kirloskar Vasundhara International Film Festival & Mr. Uday Baxi, General Manager – Materials at Kirloskar Oil Engines Ltd., Principal Dr. K. N. Nadurkar, MBA Coordinator Prof. S. S. Jhawar, Registrar Prof. Ajinkya Joshi, Faculty member of MBA & other departments were also actively involved. Students of MBA relished the event. During the session, screening of five films: Path to Resilience, Shores of silence, Blocks of green, The story of Electronics and National Anthem were shown. It emphasized on pollution free society, social awareness & environmental safety. These film screening has given a sweet message on individual citizens responsibility and it will nourish them in making a World worth living.



Principal Dr. K. N. Nandurkar addressing on occasion of Kirloskar Vasundhara International Film Festival

**‘Ecofriendly Ganesh Idol’ Making Program**

‘Ecofriendly Ganesh Idol’ making program was organized on 13<sup>th</sup> August 2017 at Main Campus. Over 1500 students from various Schools & Colleges participated in the program. Shadu Mati was made available by the College and participants were guided by staff and students of K. K. Wagh Fine Arts College, Nashik. Mr. Laxmikant Patil, Assistant Commissioner of Police, Nashik visited the institute on this occasion & encouraged the participant.



Participants of 'Ecofriendly Ganesh Idol' making program

**Ganesh Murti Sthapana**

Ganesh Murti Sthapana was done on 25<sup>th</sup> August 2017 on College Ground on occasion of Ganesh Chaturthi. Principal Dr. K. N. Nandurkar, Mr. Ajinkya Wagh, Staff and students attended the same. On 28<sup>th</sup> August 2017, the program of Dhol Tasha was organized by Vighnahr Group Nashik. Hon. Dr. Ravinderkumar Singal, Commissioner of Police Nashik visited the place and motivated to all the participants. Sau. Shakuntalatai Balasaheb Wagh felicitated to the Police Commissioner Dr. Ravinderkumar Singal on this occasion.



Ganesh Murti Sthapana was done on 25<sup>th</sup> August 2017



Organizing Committee with Ganesh Idol



Sau. Shakuntalatai Balasaheb Wagh felicitating Police Commissioner Dr. Ravinderkumar Singal



Dhol Tasha Program by Vighnar Group Nashik

### ■ Street Play and Swachhata Rally

On 19<sup>th</sup> August 2017, NSS Unit of our Institute has organized Street Play on Eco-friendly Ganesh Festival and Swachhata Rally at Vidikamgar Nagar, Nashik. In this activity volunteers distributed handbills to local residents to create awareness about cleanliness and pollution free Ganesh Festival.



Shri. Ajinkya Wagh, Prof. N. B. Gurule and NSS Volunteers in Rally

### ■ Blood Donation Camp

On 28<sup>th</sup> August 2017, NNS Unit organized Blood Donation Camp in association with Civil Hospital and Sandarbsh Seva Hospital Blood Banks. In this camp total 176 donors participated.



Inauguration of Blood Donation Camp

### ■ Rally for River

NSS has organized event Rally for River on 29/08/2017 in association with ISHA Foundation. It is a campaign to raise awareness that our rivers are depleting, so we must protect our rivers. A video by Sadhguru making an appeal to all Indians was shared with NSS volunteers. The representative from ISHA foundation shared their views and appealed to students for participating in this activity by sending a missed call on mobile no. 8000980009.



Speech by Representatives from ISHA Foundation

### ■ Independence Day Celebration

An Independence Day was celebrated with full honour on 15<sup>th</sup> August 2017. The flag was hoisted at the hands of Mr. Ashok Marchant, Trustee of K. K. Wagh Education Society. Staff members from all the Institutes of this campus and students from girls and boys hostels were present. On this occasion Principal Dr. K. N. Nandurkar addressed to all the staff and students.



Independence Day Celebration

### ■ Sports Activities

Students of our institute participated in Table Tennis tournament which was held at Mahila Mahavidyalaya Nashik Road and Nashik Gymkhana on 1<sup>st</sup> August 2017. Our students also participated in Inter-collegiate Chess (M & W) tournament organized by Satana College, Satana and Mahila Mahavidyalaya Nashik Road, Nashik. In the selection trials which were conducted there for the Nashik Zone team, our boys stood Runner up and the girls team Won. Our students participated in Yoga tournament which was held at Dindori, Nashik on 18<sup>th</sup> August 2017. The following students won and have been qualified for the next inter zonal tournament:



Name of Sport	Name of student
Table Tennis	Sarvesh Chandratre (Boys)
	Anuja Nibalkar (Girls)
	Soumya Deshpande (Girls)
	Saloni Sharma (Girls)
Chess (M & W)	Sarthak Bakshi (Boys)
	Sharvari Wagh (Girls)
Yoga	Uddesh Sonawane (Boys)
	Komal Bhandare (Girls)



Chess Women Winner Team with coach

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

- Department of Computer Engineering organized an Expert Talk on “Data structure, Algorithms and their Real life usage” by Mr. Ajit Medhekar, Sr. Software Engineer at Indusa Info Tech Services Pvt., Ltd., on 12/08/2017 and an Expert Talk on “Artificial Intelligence and Deep Learning” by Mr. Prathamesh Karmalkar, Senior data Scientist at Genpact Smart Decision Lab on 19/08/2017.
- Department of Electronics & Telecommunication organized Motivational talk on “Inright on approach to career” for SE E & TC and SE ELTX by Mr. Anant Waghchaure, Assistant Manager, Megger India Pvt., Ltd., on 05/08/2017, Guidance for preparations of Civil services examinations for SE E & TC by Mr. Harshad Bele on 11/08/2017 and Two days Workshop on “Advanced Electronic circuit design concepts” for TE E & TC by Mr. Sanjay Joglekar, Research Head, Kanaad Services and

training, Sangli from 31/08/2017 to 01/09/2017. Same department also organized an Experts talk on “Advanced Measuring Instruments used by industries” by Mr. Digamber Gosavi, Business Head, S-line India Pvt., Ltd., on 26/08/2017 and Expert Lecture on “Mind techniques on English as a Foreign language” for SE ELTX by Mr. Mayur P. Verekar, VS Solution, Mumbai on 16/08/2017.

- Electrical Engineering Department organized in association with IET Nashik Local Network the three days workshop on “PLC and SCADA” for B. E. Electrical (I-Shift) students by Mr. Pankaj Sonawane & Ms. Ashwini from Autotech, Nashik from 28/08/2017 to 30/08/2017 and One day workshop on “Cyber Security” by Mr. Shoeb Patel, Founder President, CTO-Hackers Hook e-learning on 19/08/2017.
- Mechanical Engineering Department organized an Expert lecture on “Energy Conservation by PCRA” by Er. Pramod Daspute on 18 & 19<sup>th</sup> August 2017.
- Chemical Engineering Department organized Expert Lecture by Mr. Ajit Tambe (Alumnus of Dept.) and Mr. Satish Palde, Deputy Managers- Sales, Graphite India Pvt., Ltd., Ambad, Nashik on 01/08/2017 and Expert Lecture by Mr. Sameer Patwa, Director, Sam Consultech, Ambad, Nashik on 16/08/2017. Same department also organized an Expert Lecture for GATE Preparation by Mr. Nikhil Kulkarni, Director, Gateway Academy, Nashik on 23/08/17.
- The Dept. of Information Technology organized a seminar on “Words of Wisdom” by Mr. Rushikesh Jadhav, Team Lead, ESDS Software Solution Pvt., Ltd., and seminar on “Tips on how to study” by Mr. Gourang Ambulkar, Educational Counselor. Same department also organized seminar on “Career in Cloud Computing” by Mr. Tushar Kumawat, Project Manager, Dreamwares Pvt., Ltd., Nashik on 5<sup>th</sup> August 2017, seminar on “Ethical Hacking & Cyber Security” by Mr. Nilesh Dalvi, Founder of Infinity IT Pvt., Ltd., Nashik on 17<sup>th</sup> August 2017 and a seminar on “Recent Trends in Java Programming” by Mr. Devesh Mishra, Founder of Fortune Services Pvt., Ltd., Pune on 19<sup>th</sup> August 2017.

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- MCA Department organized Expert Lecture on “Software Quality Assurance” by Ms. Anuja Shinde on 05/08/2017 and Expert Lecture on “MuleSoft Technology” by Mr. Prasad Kale on 12/08/2017. Same department also organized Expert Lecture on “Spring and Hibernate” by Mr. Shrikrishna Sable on 19/08/2017 and Workshop on “Android” by Mr. Ravindra Varpe 10/08/2017.
- Applied Science Department organized Training & Grooming Program for FE Students by Prof. Priyadarshan Garge.

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

- Computer engineering department staff Prof. J. N. Thakur attended workshop on “Student Centered Teaching Learning Practices” at Sinhgad Institute of Technology, Lonavala from 10<sup>th</sup> to 11<sup>th</sup> August 2017.
- Prof. M. P. Joshi and Prof. K. Nirmalakumari have attended Three days workshop on “Digital and Analog VLSI Design” at MET Institute of Engineering, Nashik from 10/08/2017 to 12/08/2017. Same departmental staff Mrs. Rupali M. Jadhav attended Seminar on “Me My Guard” organized by Office of Police Commissioner Nashik & Mahila Balvikas Kalyan Vibhag Nashik on 28/08/2017.

**Industrial Visits Organized For Students:**

Date	Class	Name of Company
22/8/2017	S.E.Electrical (I-Shift)	NTPS, Ekalahare, Nashik
30/08/17	B. E. Mechanical	Jijamata Cold Storage, Ozar ,Nashik

**Training & Placement :**

Name of Company	Name of the Dept.	No.of students selected
KPIT Technologies, Pune	E & TC Engg.	07
	Electronics Engg.	01
Mahindra & Mahindra (For 2016-17 batch)	Mechanical Engg.	02
	Mechanical Engg.	01
Atlas Copco (For 2016-17 batch)	Electrical Engg.	01
	Mechanical Engg.	01
Mahindra Sonar (For 2016-17 batch)	Mechanical Engg.	08
	Mechanical Engg.	02
BOSCH (For 2016-17 batch )	Chemical Engg.	01
	E & TC Engg.	01
	Production Engg.	01
	Production Engg.	01
Eternus Solutions Pvt., Ltd.	IT	02
	Computer Engg.	08
	MCA	01
Fin IQ	Electrical Engg.	01
	Mechanical	03
	Computer Engg.	08
	Chemical Engg.	01
	E & TC Engg.	01

Name of Company	Name of the Dept.	No.of students selected
	IT	05
	Electronics Engg.	01
Fin IQ (For 2016-17 batch)	Computer Engg.	02
Cybage	Computer Engg.	08
Kanaka Software	MCA	01
UMS Tech Lab	MCA	04
Swift Infocom	E & TC	01

**Other Achievements:**

- Principal Dr. K.N. Nandurkar was invited as ‘Guest of Honor’ for launching of English for Engineers (EFF) an initiative by ELTIS, Pune and GATI Jalgaon. The Program was held at Hotel Royal Heritage, Nashik on 9<sup>th</sup> August 2017. He was also invited as Chief Guest for inauguration of Singing Competition under Punyathiti Program on 11<sup>th</sup> August 2017 at Saraswati Nagar Campus of KKWES.
- Electronics & Tele Communication department staff Dr. S. A. Patil (Ugale) was invited as Resource person on 10/08/2017 for “Digital and Analog VLSI Design” workshop at MET Institute of Engineering, Nashik which was organized from 10/08/2017 to 12/08/2017.

**Abstracts of papers presented during August 2017:**

**Speech Recognition using MFCC and various Segmentation parameters for Deaf People**

Prof. S. S. Bhabad

(Presented in International Conference on “Content, Computing and Communication 2017” organized by Matoshri College of Engineering, Nashik in Association with SPPU, Pune)

**Abstract:** MFCC is mostly used in Automatic Speech recognition System. For any type of identification or recognition of speech, face or thing main features related to that are very important. So, feature extraction plays an important role in ASR, which provides the set of main features. This paper includes the results for effects of normalization, down-sampling and parameter changes like window size, linear spacing. Speech recognition means pattern recognition problem, so classification is done on data using minimum distance classifier. Training and testing data are different. For down-sampling i.e Fs/4 more accuracy is achieved than normalization.



■ **Adsorptive removal of Acid Violet 17 dye from wastewater using biosorbent obtained from NaOH and H<sub>2</sub>SO<sub>4</sub> activation of fallen leaves of Ficus racemosa**

Prof. S. N. Jain

(Paper published in International Journal of Molecular Liquids (Elsevier Publication), 243 (2017), pp. 132-143)

**Abstract:** Biosorbents obtained from NaOH and H<sub>2</sub>SO<sub>4</sub> activation of fallen leaves of Ficus racemosa were used for the adsorptive removal of Acid Violet 17 dye from wastewater. BET, SEM and FTIR techniques were used for the characterization of biosorbent. Batch studies were conducted to study the effect of various operating parameters on the extent of adsorption of dye. Maximum dye removal was obtained under optimized conditions of pH as 2 and 3 g/L of biosorbent dose for NaOH activated biosorbent whereas lower extent of removal was obtained for H<sub>2</sub>SO<sub>4</sub> activated biosorbent under similar conditions. The obtained kinetic data were best fitted to pseudo-second order model whereas the adsorption equilibrium data was observed to be in good agreement with Langmuir model. Maximum Langmuir biosorption capacities were estimated to be 45.25, 61.35 and 119.05 mg/g for raw biosorbent, H<sub>2</sub>SO<sub>4</sub> activated biosorbent and NaOH activated biosorbent respectively. The obtained thermodynamic data confirmed that adsorption was endothermic whereas the obtained activation energy as 7.07 kJ/mol confirmed physical nature of the adsorption. Column studies were also performed to establish the practical applicability of the synthesized biosorbent with understanding into effect of biosorbent bed height, initial dye concentration and flow rate. The column data for the equilibrium adsorption was observed to best fit Thomas model. Maximum biosorption capacity obtained in continuous mode under the optimized conditions was 69.08 mg/g. Batch and column desorption studies performed for five cycles established effectiveness and the reusability of synthesized biosorbent to treat industrial dye effluent.

■ **Automatic Bruise Detection in Fruits Using Thermal Images**

Prof. Dr. Manisha Satone, Ms. Samruddhi Diwakar & Ms. Vaishnavi Joshi

**Abstract:** Bruising is defined as damage of fruit

tissue as a result of external forces which cause physical changes of texture or chemical changes of color, smell and taste. With the development in imaging technology, on-line detection of bruises on fruits & vegetables is feasible. Proposed system is developed for finding surface and subsurface defects along with their sizes in percentages with respect to original apple size using thermal image and regular digital image. To achieve this objective the software designing is divided into two parts, bruise detection and apple boundary extraction. For bruise detection, after some pre-processing like contrast stretching, histogram equalization the bruise is detected using Otsu thresholding. To find the area of bruised part the size of biggest connected component is calculated. For apple boundary extraction median filtering is used in initial pre-processing and the canny edge detection along with dilation and hole filling operations are employed. For capturing thermal images FLIR-C2 thermal camera is used. The overall result of thermal bruise detection is 94% and that of for regular image processing is 63.33%. The hypothesis has confirmed that defects leads to changes in thermal properties of fruits thus which enables to differentiate between sound and bruised fruit by using passive thermography method.

**Keywords:** Bruise detection, thermal images and thermography

■ **Modelling, Designing and Analysis of Phase Locked Loop Using Pyxis Tool of Mentor Graphics**

Ms. Rasika M. Chandramore, Prof. Dr. S. A. Patil  
(Published in International Journals of Advanced Research in Computer Science and Software Engineering ISSN:2277-128X, Volume-7, Issue-6)

**Abstract:** This paper introduces a design aspects of low power phase locked loop using VLSI technology. The phase locked loop is designed using latest 45nm process technology parameters, which in turn offers high speed performance at low power. The main quality related to the 45nm technology such as the high-k gate oxide, metal-gate and very low-k interconnect dielectric described.

**Keywords:** Phase locked loop (PLL), voltage control oscillator (VCO), 45nm technology, Very large scale integration.

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PRINCIPAL

