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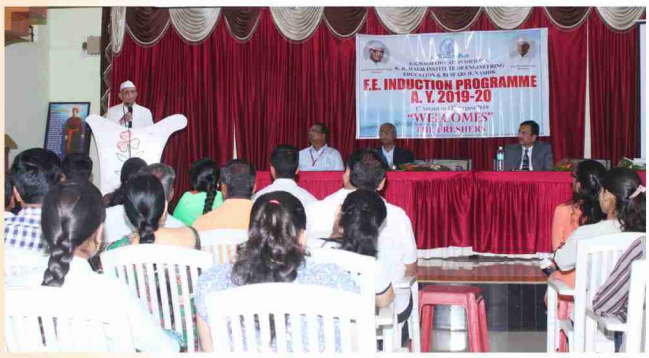
TECHNICAL NEWS LETTER

FE Welcome Function



Hon. President Shri. Balasaheb Wagh addressing in FE Welcome function

As per AICTE structure and Savitribai Phule Pune University circular the our Institute conducted induction program during 1 – 12th August 2019 for first year engineering students to make them aware about engineering culture, education, career, job and responsibility about society, country, nature & human values. Hon. Balasaheb Wagh, President of K. K. Wagh Education Society Nashik inaugarated the function. The FE toppers of A.Y. 2018-19 were felicitated and they expressed their views also. Principal Dr. K. N. Nandurkar discussed progress graph of institute, Dean academics Dr. Sunil Kute expressed importance of regular attendance and self discipline at examination. Dean administration Dr. S. S. Sane guided about administration of institute. FE incharge Dr. S. N. Kadlag expressed view of the program. Parents were also guided about new FE syllabus along with exam structure, ERP module by Dr. S. S. Naik and Prof. Mrs. S. S. Joshi. Dr. P. K. Shahabadkar guided about training and placement activities of the institute. Many well-known and experienced experts in different topics delivered lectures regarding human values, arts, yoga, importance of nature and natural resources along with importance of education in development of society etc. Counseling session for Parents and students were conducted; Trecking and awareness of traffic rules program also conducted during this session. Many of parents appreciated the program. Students attended the program with interest as it helped them to get familiar with the educational eco-system.

Ecofriendly Ganesh Idol Making Workshop

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On 25th August 2019, Ecofriendly Ganesh Idol Making workshop was organized. The students of various Schools, Junior Colleges and Senior Colleges participated in this workshop. For this program Secretary Prof. K. S. Bandi, Mr. Ajinkya Wagh, Principal Prof. Dr. K. N. Nandurkar, staff and participants were present.

MCA Induction Program

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The Department of MCA organized 'Induction Program' to welcome newly admitted first year MCA students on 1st and 2nd August 2019.

Principal Dr. K. N. Nandurkar addressed to all first year students of MCA. Dr. V. C. Bagal, Head, department of MCA greeted everyone. The presentation related to the Department activities as well as programme activities were presented by P. G. Fegade, M. E. Maniyar and M. R.Sonar.

Independence Day Celebration

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An Independence Day was celebrated with full honour on 15th August 2019. The flag was hoisted at the hands of Mrs. Shushmaben Ashok Merchant. For this program Mr. Ashok Merchant, Trustee of K. K. Wagh Education Society, Principal Dr K. N. Nandurkar, other Principals and staff members from all the Institutes of this campus and students from hostels were present.

ASTRO Club activity - expert Lecture by Ms. Apurva Jakhadi

Expert Lecture by Er. Apurva Jakhadi

The Astro Club of K K Wagh Institute of Engineering Education & Research had organized an expert lecture on "Chandrayaan 2 and India's Future Space Missions" on 30th of August 2019. NASA-Honeywell Space Educator Er.Apurva Jakhadi was the resource person for the lecture. During this lecture information about ISRO's Chandrayaan-2 Moon Mission was given. Complexities and risks involved in various Space exploration missions were also discussed. Students have understood about the opportunities and prospects in this field and learnt about significance of Space Technology & applications, its spin-offs; and its impact on our day-to-day life. More than 200 engineering students of different departments and staff members attended this event. The Innovation & Research Club (IRC) was also inaugurated at the hands of Er. Apurva Jakhadi during this event. First Year (E & TC) student Gurkirat Singh Kohli has taken initiative for the same. Prof. Dr. D. M. Chandwadkar, Co-coordinator of Astro Club, HOD (E & TC), Dean (Admissions) along with Dr. S. A. Patil and team members have taken efforts in organizing this event.

Expert lecture on Life Skill by Dr. Mrs. Shama Kulkarni

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An Expert lecture on “Life Skills”, by Dr. Mrs. Shama Kulkarni was organized by Women’s Grievance Cell on 29th & 30th August 2019. Dr. Shama Kulkarni focused on topics like Effective Communication, Coping with stress, Coping with emotions, Self- awareness, Empathy, Critical Thinking, Decision making, Problem solving, Moral development and Positive development. Dr. P. D. Bhamare (Head of IT Department and Dean, Quality), Dr. V. C. Bagal (Head of MCA Department), Prof. N. N. Jangle, Mrs. R. M. Jadhav, Mrs. S. V. Sonawane along with Five girls student and five boys students from all branches attended the seminar.

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NBA visit during 16-18th August 2019

NBA Committee visited our institute during 16-18th August 2019 for the accreditation for the Production Engineering, Computer Engineering, E & TC Engineering, Electrical Engineering and Chemical Engineering. On 16th August morning Principal Dr. K. N. Nandurkar gave presentation of the institute to NBA Committee. NBA Committee visited the department during 16 and 17th August to above mentioned departments. On 18th August Morning Exit Meeting was conducted by the NBA Committee. Hon Chairman Shri. Balasaheb Wagh, Trustee Er. Sameer Wagh, Secretary Prof. K. S. Bandi, Principal Dr. K. N. Nandurkar and Heads of Department attended an exit meeting.

Expert Lecture/Seminar/Courses/Worshop Organized:

- Computer Engineering Department has organized an Expert Talk on Functional AI and Design Thinking by Mr. Parimal Modi for the Final Year Computer Engineering students on 9th of August 2019.
- Information Technology department had conducted a seminar on "Cyber Security " by Mrs. Akshita Nikude, Security Engineer, Cornerstone, Mumbai on 16th August 2019. Same department also organized a Group Discussion on 9th August 2019 for SE, TE and BE students. 25 students from BE IT participated in this Group Discussion. Mr. Gourang Ambulkar worked as judge. Same department also organized a workshop on "Painting" by Mr. Nilesh Chitte, Art Teacher, K. K. Wagh Universal School, Nashik on 24th August 2019 for SE IT students.
- MBA department has organized Expert lecture on topic of "Health & Safety in Organization and its administration" by Mr. Sunil Wagh on 24th August 2019. Same department also organized an Expert lecture on topic of "Career Lean Manufacturing Concept" by Mr. Narayan Banate on 30th August 2019 and Expert lecture on topic of "Managerial Accounting and Cost Accounting Technique" by Mr. Ujawal Jamadar on 31st August 2019.
- On 25th August 2019 Fit India Pledge was organized by the institute. For the same all students and staff were present.

Pledge on Fit India

Seminars/Workshop/Training attended by Staff:

- Information Technology Departmental staff Prof. Poonam B. Mahale and Prof. P. R. Kadam attended one day workshop on "Linux" organized by IIT, Bombay at remote center of NDMVP COE, Nashik on 23rd August 2019.

Other Achievements:

- Principal Dr. K. N. Nandurkar, Prof. Dr. P. J. Pawar and Dr. P. K. Shahabadkar visited Magna Automotive India Pvt Ltd. on 25th August 2019 with an objective of further strengthening the relations between K K Wagh IEER and respective organizations to explore Internships, Campus Interview, Centre of Excellence and mutual areas of cooperation.
- Computer engineering staff Mr. Kushal P. Birla was invited to deliver a seminar on topic "Artificial Intelligence" by Nashik Shikshan Prasarak Mandal for teachers in Nashik on 24th August, 2019. Seminar covered following points: (1) What is artificial intelligence? (2) Why do we need A.I? (3) What are challenges and opportunities for teachers and students? (4) What are the tools available for students and teachers related to A.I.?

Abstracts of papers presented during August 2019

Building an Effective Intrusion Detection System using combined Signature and Anomaly Detection Techniques

Prakash N Kalavadekar & Shirish S. Sane

(Paper published in International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-10, August 2019)

Abstract: Intrusion Detection Systems (IDS) are providing better solution to the current issues and thus became an important element of any security infrastructure to detect various threats so as to prevent widespread harm. The basic aim

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of IDS is to detect attacks and their nature and prevent damage to the computer systems. Several different approaches for intrusion detection have been reported in the literature. These approaches are broadly categorized into three approaches: I) Signature-based approach II) Anomaly based approach and III) Hybrid approach that combines signature and anomaly detection approaches. Hybrid approach has been found to be superior to either signature based or anomaly based approaches. Several different algorithms are available for hybrid approach. This paper suggests the combined approach using signature and anomaly detection techniques. The signature based is build using genetic algorithm as filter based feature selection and J48 as classifier and data mining approach is used to build anomaly based IDS. The performance of combined IDS is evaluated on well known datasets such as KDD Cup 99, UGR 16 and Kyoto 2006+ etc. The experimental results presented here are encouraging and show superiority of combined IDS to detect network anomalies with respect to time required building the model, detection rate, accuracy and false positive rate.

Index Terms: Anomaly, Data Mining, Intrusion Detection, Anomaly, Signature. Four key elements influencing the work.

- **"Multi-response Optimization of Burnishing of Friction-Welded AA6082-T6 Using Principal Component Analysis"**

R. S. Tajane and Dr. P. J. Pawar

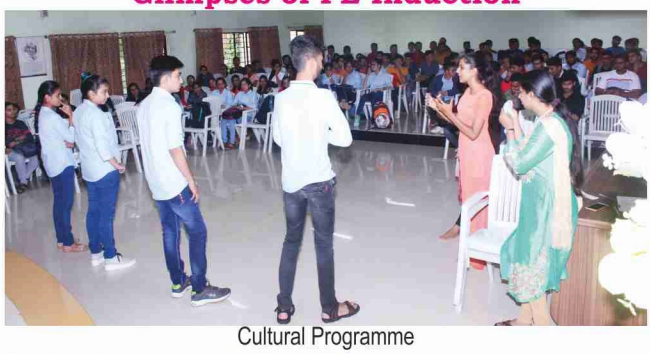
Abstract: Ball burnishing is employed as post-welding treatment for AA6082-T6 friction-welded part to enhance surface and surface properties. In this paper, the principal component analysis was employed as a tool of multi-response optimization, to investigate the effect of control parameters on multiple responses of burnishing process.Four controllable factors such as burnishing speed, burnishing feed, burnishing force, and number of passes at five levels each and three responses such as surface roughness, surface hardness, and tensile strength were studied. The optimum combination of control parameters and their levels for multiple responses based on the total principal component was determined. The analysis of variance was used to find out the most influential burnishing parameter for the multiple responses problems. The overall performance index of optimal level of parameters (0.9562) is calculated; it reveals that the principal component analysis can effectively acquire the optimal combination of burnishing parameters.

- **"Integrated Production Planning and Scheduling for Parallel Production Lines"**

K. C. Bhosale and Dr. P. J. Pawar

Abstract: Production planning department prepares demand for the coming months considering the plant capacity, available time. Depending on this demand, inventory of the raw material is kept in the production unit. While, in the scheduling problem, the time horizon is selected as a shift, day or week. Scheduling model determines the start time, processing time, finish time and transition time. However, in most of the reported literature, production planning problem and scheduling problem are solved independently. But, to achieve the global optimum solution and minimise material flow and reduce the total cost, there is a need of integrating production planning and scheduling model. A case study based on the parallel line continuous process plant is selected and optimization is obtained by real coded genetic algorithm (RCGA). Results show that RCGA outperforms the solutions obtained by previous researchers.

Glimpses of FE Induction



Cultural Programme

Lab Visit

Prof. Dr. K. N. Nandurkar
PRINCIPAL

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