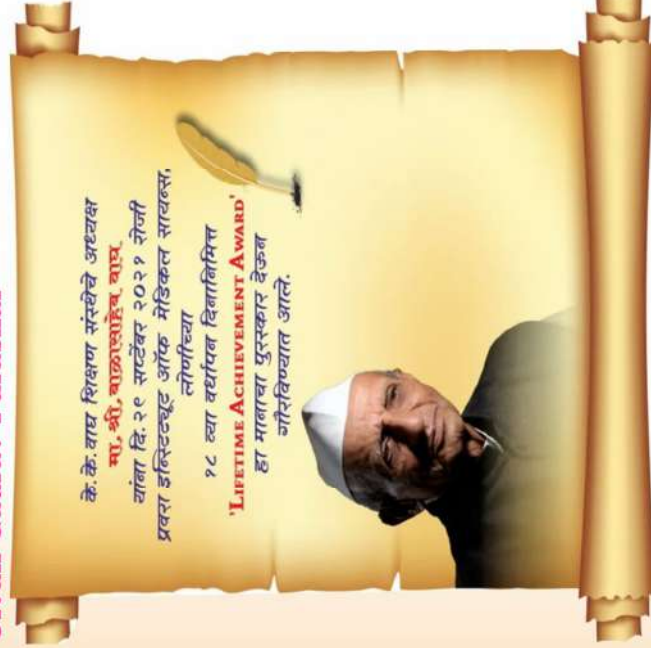


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**K.K. Wagh Education Society's  
K.K. Wagh Institute of Engineering  
Education and Research, Nashik.**

September 2021

■ **'Jivan Gaurav Puraskar'**

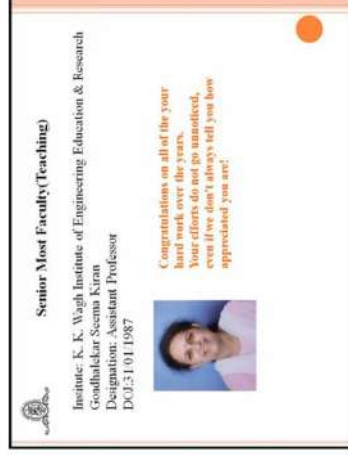


Pravara Institute of Medical Science (Deemed to be University), Loni has awarded "Life Time Achievements Award" to Hon. Shri. Balasaheb Wagh (Bhau), President of K. K. Wagh Education Society in their 18<sup>th</sup> anniversary ceremony organized on 29<sup>th</sup> September 2021. Devotion of Hon. Shri. Balasaheb Wagh in the field of Education, Agriculture and Cooperative sector has been recognized for the said award. On behalf of Hon. Shri. Balasaheb Wagh, Mr. Ajinkya Wagh has accepted the award at the hands of Dr. Bhalchandra Mungekar (Ex - VC, Mumbai University and Senior Economist). On this occasion Hon. Dr. Rajendra Vikhe Patil, Hon. Kalyanrao Aher and Principals/HODs of various Institutes were present.

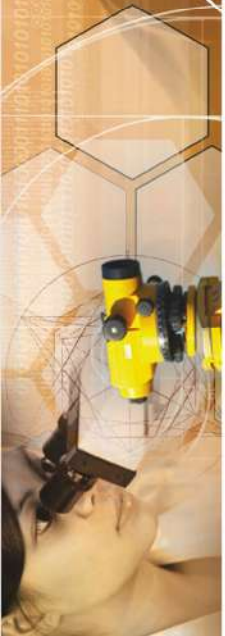
■ **Teachers Day Function**

Teacher's Day was celebrated on 6<sup>th</sup> September 2021 by K.K. Wagh Engineering Education and Research Institute. The event was held in online mode on the background of Corona. Dr. Pandit Vidyasagar, former Vice Chancellor, Swami Ramanand Tirtha University, Nanded

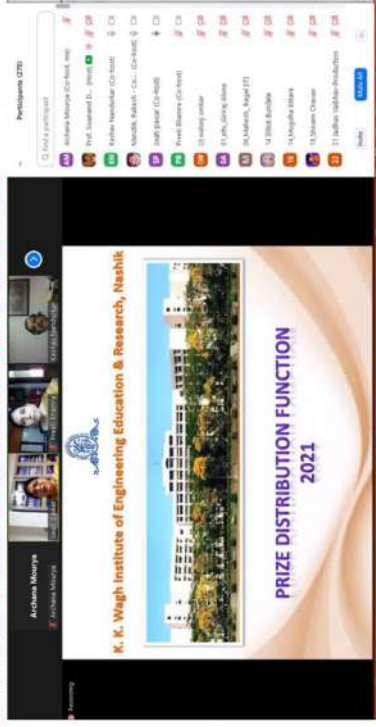
was the keynote speaker for the event. Principal Dr. Keshav Nandurkar in his welcome address stated the importance of the program. Dr. Sunil Kute introduced the chief guest. The event was attended by principals of various institute of K. K. Wagh Education Society, all department heads, teachers and non-teaching staff. Dr. Vidyasagar gave a detailed overview of the "National Education Policy" and its implications. He said that it is very important for the students as well as the teachers to be motivated to do research. Students should constantly think about new concepts. Also, efforts should be made to implement it. He also mentioned that project based learning is a very good option. In this program, as per the custom of the organization, the most senior employees of the organization and the staff who have served in this organization for 10/20/30 years in a row were felicitated. Staff members who have earned Ph.D. in the previous academic year were also felicitated. Among the senior staff of this year's recipient are 1) Mrs. Seema Gondhalekar (Assistant Professor, Computer Department), 2) Mr. Namdev Eknath Jadhav (Electrician, Electrical Engineering Department), 3) Mr. Shinde Vishwanath Devram (Peon, Library), 4) Labade Ramkrishna Ratan (Watchman, Security Department) were felicitated with a gift and certificate of Appreciation. Total 230 participants were present.



Teachers Day program

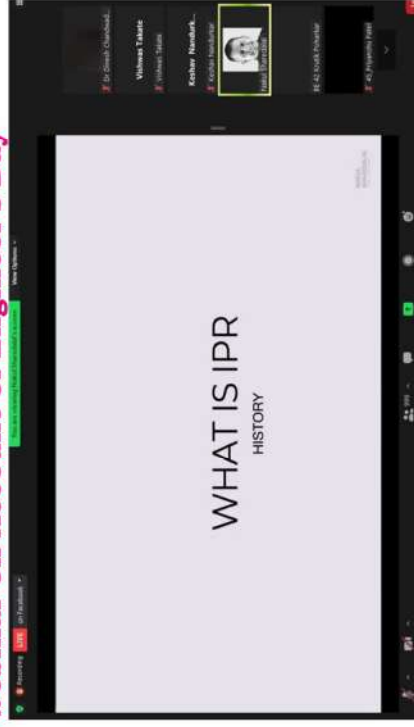


**Annual Prize Distribution Function**



Prize distribution function 2021 on 2<sup>nd</sup> September 2021 Annual Prize distribution function 2021 in online mode. The organized 2<sup>nd</sup> September 2021 in online mode. The Chief guest was Mr. Rakesh Mandlik, Program manager, Cognizant Technology Solutions, White Plains, New York, United States. On this occasion the toppers of various branches were felicitated for their achievement. Alumnus Mr. Rakesh Mandlik addressed all students and staff present for this program. Total 439 students and staff were present in this program.

**Webinar on Account of Engineer's Day**



Webinar by Dr. Nakul Sharedalal, IP Advocate, Ahmadabad IPR Cell of our institute organized webinar on account of Engineers Day on 15<sup>th</sup> September 2021 on innovation and creativity. The Chief Guest was Dr. Nakul Sharedalal, IP Advocate, Ahmadabad. More than 1000 students and staff members attended the program.

**Webinar on "Female Entrepreneurs: Opportunities and Challenges"**



Webinar by Mrs. Sujata Prashant Bachhav

Webinar on "Female Entrepreneurs: Opportunities and Challenges" was organized by our institute on 17<sup>th</sup> September 2021. The Chief Guest for same was Mrs. Sujata Prashant Bachhav, CEO, Aarya Innovatech Pvt. Ltd., Nashik. Total numbers of participants were 132.

**Ganesh Utsav Celebration**



Celebration of Ganesh Festival- 2021

Ganesh Utsav was celebrated during 10-19<sup>th</sup> September 2021 in the Campus of Engineering College. This was the consecutively 6<sup>th</sup> year the Ganesh Utsav celebration at K. K. Wagh Education Society level. On 11<sup>th</sup> September 2021 Ganesh Poojan was done at the hands of Principal Dr. K. N. Nandurkar. Blood donation camp was organized in association with Spinach Centre of Excellence Nashik and Vasantrao Pawar Medical College Blood Bank Nashik on this occasion on 17<sup>th</sup> September 2021. Principal Dr. K. N. Nandurkar, Mr. Ajinkya Wagh, Principal P. T. Kadve and other staff were present.

**International Conference on Manufacturing Excellence (ICMAX-2021)**



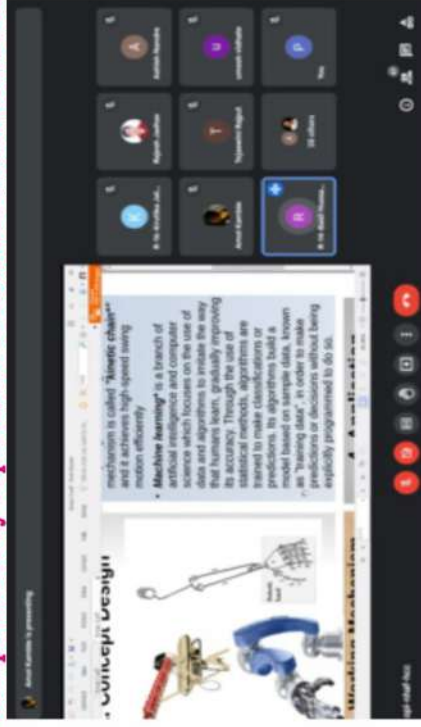
International Conference on Manufacturing Excellence (ICMAX-2021) Department of Robotics and Automation and Department of Production Engineering jointly organized an International Conference on Manufacturing Excellence (ICMAX-2021) in an online manner during 17<sup>th</sup> - 18<sup>th</sup> September 2021. The conference was inaugurated by Dr. V. D. Barve, former Principal, K. K. Wagh I.E.E.R. Nashik. Dr. D.B. Thakur, Head of Mechanical Engineering, DIAT, Pune delivered key note speech on topic "Approach to Industry 4.0: Cloud

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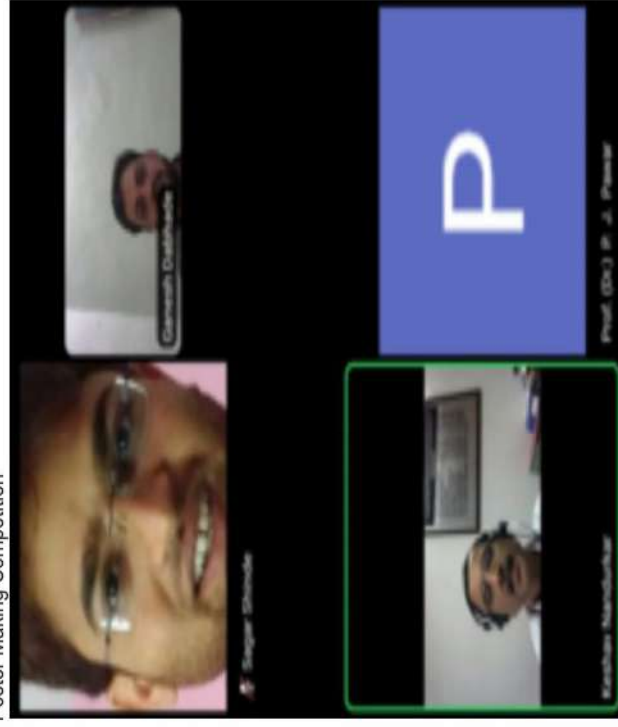


based Product Design and Manufacture”. Total fifteen research papers were presented during the conference. Faculty, research scholars and students of various organizations from all over the India participated in this conference. Dr. K. N. Nandurkar Principal, K. K. Wagh IEER and Dr. S. S. Sane, HOD Computer Engineering, K. K. Wagh IEER addressed the audience on this occasion. The papers were presented in three session based on three different themes namely, Intelligent manufacturing systems, Robot analysis and Design and Materials and Manufacturing Processes. These three sessions were chaired by Dr. Prashant Kushare, Dr. Mahesh Shelar and Dr. Vijay Patil. This conference was co-ordinated by Dr. P. J. Pawar and Prof. M. Y. Khalkar.

**Competitions by department of Robotics and Automation**



Poster Making Competition

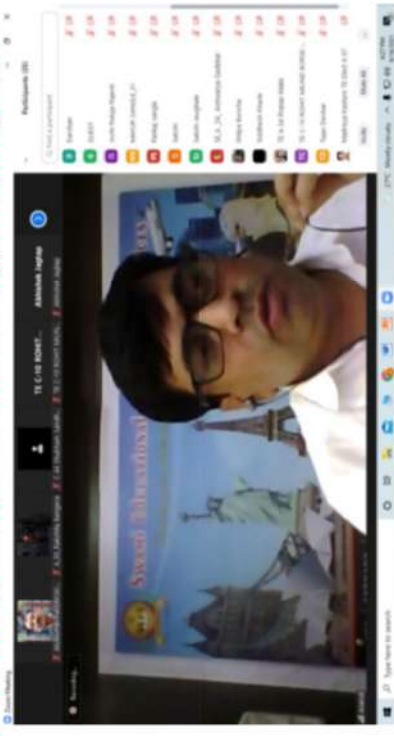


Quiz competition

Poster making competition was organized by department of Robotics and Automation on 4<sup>th</sup> September 2021. The theme was Dream Machines. Total participants were 19. Also same department organized quiz competition on 18<sup>th</sup> September 2021. Total 76 participants were

present for this competition. Principal Dr. K. N. Nandurkar, Dr. P. J. Pawar (Head of Robotics and Automation department), staff of Robotics and Automation department and Staff of Applied Science and Math department were present on this occasion.

**Online guidance sessions organized by IFC**



Expert talk by Mr. Abhay Morankar organized by IFC

International Facilitation centre of our institute organized an expert talk for students on Topic “Higher Study abroad - Education loan process requirement” on 16<sup>th</sup> September 2021. The Speaker was Mr. Abhay Morankar, Director, Swami Educational and Financial Services, Nashik. Mr. Abhay Morankar guided the students about the following points in an elaborate manner,

1. Reasons for availing the facility of educational financial loan for higher study abroad
2. Explanation for various loan related terms like loan amount, interest rate, disbursement, loan repayment, mortgage, moratorium, equated monthly installments etc.
3. He has also explained the Contents of loan, tenure of loan, types of loan like Secured/ Unsecured loan, moratorium period for the disbursed loan amount which is more than six month of education course.
4. He has also shared that students can repay the loan within 5 to 15 years, Total loan can be repaid after six month of its disbursement and the interest rate varies from 8% to 10%. The interest rates are different for male and female students,
5. He has also shared nationalized bank and Private bank loan sanctioning process.

**Blood Donation Camp**

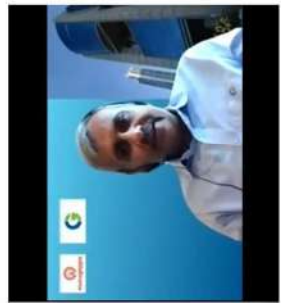
NSS Unit of our institute organized the blood donation camp on 17<sup>th</sup> September in association with Spinach Centre of Excellence Nashik and Dr. Vasantrao Pawar Medical College Blood Bank Nashik. Dr. N.B. Gurule coordinated the event. On this occasion Mr. Ajinkya Wagh was present.

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Blood donation camp on 17<sup>th</sup> September 2021

**CEO Connect Meet**



**GREEN TRANSFORMER : DT**

Power : 1.20 MW to 10 MW  
Voltage : 11 KV to 33 KV

**Area of Work :**

- Design of electrical busbars
- At high voltages (above 33KV) meeting High density populated areas

**Key Features :**

- Reduced cooling design due to recycling chiller.
- High efficiency transformer
- Upgraded electrical design due to permeability process.
- Modular procedure for transportation and all filling
- Low maintenance and reliable technology
- Up gradation of manufacturing technology

Confidential

4<sup>th</sup> CEO Connect by Mr. Mukul Shrivastav 4<sup>th</sup> CEO Connect was held on 24<sup>th</sup> September-2021 by Mr. Mukul Shrivastav, Vice President Crompton Greaves. The programme was attended by around 200+ Students and staff. Mr. Mukul Shrivastav, delivered the expert talk on “Skill Sets for Manufacturing Industries: Post Pandemic”. Programme started with a welcome speech by Dr. K. N. Nandurkar and Prof. Pramod Shahabadkar introduced the chief guest.

**Expert Lecture/Seminar/Courses/Workshop Conducted:**

Computer Engineering Department had organized Session on “Google Data Studio” under Tools of Today (ToT) workshop by Dr. R. D. Kulkarni on 2<sup>nd</sup> September 2021, Session on “Teaching using APPLE Resources” by Mr. Sudhir Kapadnis on 3<sup>rd</sup> September 2021, talk on the topic “Introduction to Neural Networks” by Mr. Shreyas Kalavankar on 11<sup>th</sup> September 2021 and an online expert talks on the topic “Cyber Security” by Mr. Nilesh Dalavi on 17<sup>th</sup> September 2021. Same department also organized session on “Special Presentation on IBM ICE Programming Languages” by Mrs. VanithaRaghavan on 18<sup>th</sup> September 2021, Webinar on “Artificial Intelligence Job opportunities” by Mr. Rajnikant and Mr. Ninad Shastrri on 22<sup>nd</sup> September 2021, Webinar on “Digital Media Design job opportunities” by Mr. Ninad Shastrri on 23<sup>rd</sup> September 2021 and an expert talk on “Apache Kafka, Solace” by Ms. Rati Nair on 30<sup>th</sup> September 2021.

Electronics and Telecommunication Engineering Department organized Webinar on “How to write Resume” by Padmini Bhasin, Soft Skills, Employability Skill Coach, Associate NLP Practitioner on 04/09/2021, Guidance

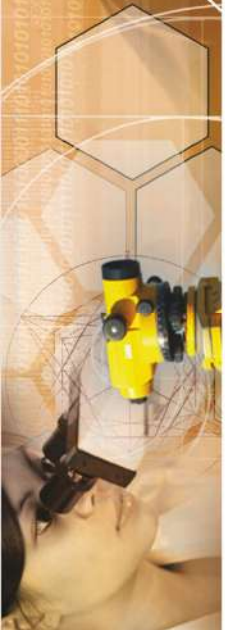
Session on “How to get placed in IT Company with ease” by Mr. Neeraj Ade, Sr. Manager Profound Edutech Pvt. Ltd, Pune on 09/09/2021, Workshop on “Troubleshooting and maintenance of Electronic Instruments” by Asim Kumar Saha, Service Manager, Customer Support (Technical), APLAB, Mr. Prashant Sawant, Senior Manager, APLAB, Aishwarya R. Mhaske, Service Engineer on 09/09/2021 and Webinar on “Future in Electronics as an Entrepreneur” by Mr. Sanjay Chaudhari, Director, Electronics Study Centre, Nashik on 16/09/2021. Same department also organized Webinar on “Aptitude Preparations” by Sagar Nikam & Madhura Shelar Directors, Excellence Learning Centre Pvt. Ltd., Nashik on 18/09/2021, Webinar on “From Sell out to sail within” by Manali Malpani, Application Developer with IBM in Dublin, Ireland on 21/09/2021, Webinar on “Skill Set Needed for Professional Career” by Mrs. Meenakshi Kulkarni, Founder-Adept Vision on 25/09/2021 and Webinar on “Career Prospects after B.E. & GATE Orientation” by Mr. K. N. S. Hemant on 29/09/2021.

Electrical Engineering organized Expert Session on “What next? Career Trajectories for Electrical Engineers in tomorrow's disruptive world” by Mr. Adithya Vangari, Demand and inventory planner, Volvo Group, Supply Chain optimization, Göteborg on 03/09/2021, Expert Session on “Overview of Substation & its Components” by Mr. Akshay D Mogarkar, Deputy Manager, Power Grid Corporation of India Ltd on 20/09/2021 and Expert Session on “Earthing system” by Mr. Gajanan Sarode, Deputy Executive Engineer, Maharashtra State Electricity Transmission Company Ltd., on 25/09/2021.

Civil Engineering Department organized Expert Lecture on “Earthquake Engineering” by Er. Ajinkya Magar, JW Consultants LLP, Design Engineer on 02/09/2021, Expert Lecture on “Planning & Design of Steel structures” by Er. Sandeep Deshmukh, Director, Deskteq Engineers Thane on 17/09/2021, Expert Lecture on “BIM Technology how we are upgraded for it” by Er. Bhushan Brahmecha, Senior Highway Design Engineer, Ramboll India Pvt Ltd., on 16/09/2021 and Expert Lecture on “How to prepare various competitive examinations in Civil Engineering by Er. Rina Patil MAHATRANSO on 27/09/2021.

Production Engineering Department organised expert lecture on “How to Become Entrepreneur” by Mr. Avinash Khairnar Sarthak Engineers/ Enterprises, Nashik on

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03/09/2021, Expert lecture on “Electric vehicle- Introduction to market Trends” by Mr. Yuvraj Vadaje, UV Knowledge Pvt. Ltd., Nashik on 14/09/2021 and expert lecture on “Application of Industrial Robot & Smart Factories” by Mr. Pankaj Dhoble, MGM Innovation, Incubation & Research Centre, Aurangabad on 24/09/2021.

- Chemical Engineering Department organized Expert lecture on “Overview of Thermodynamics” by Dr. Ravi Kumar Peetala, VNIT Nagpur on 03/09/2021, Expert lecture on “Introduction to Process Simulation and Opportunities for Chemical Engineers in abroad” by Mr. Arjun Gujar, Alumnus of 2007 batch and Director, Hydron Engineering Solutions Pvt. Ltd., Nashik on 17/09/2021, Expert lecture on “Process Intensification through multifunctional reactors” by Dr. Sanjay.M. Mahajani, Professor, Chemical Engineering Department, IIT Bombay on 24/09/2021 and Expert lecture on “Resume Writing Workshop” by Ms. Rutuja Dharkar, Alumnus 2007 batch on 27/09/2021.

- Dept. of Information Technology had organized an online seminar on “Robotics Process Automation” by Ms. Shruti Argarwal (IIT Alumnus 2014), Advanced App Engineering Senior Analysts, Accenture UK on 4<sup>th</sup> September 2021 and an online seminar on “Higher Education in Abroad-Scope and Procedure” by Ms. Mrunmayee Kulkarni (IIT Alumnus 2018), pursuing MS in Computer Science Engineering at Binghamton University, New York on 25<sup>th</sup> September 2021.

■ **Expert Lecture/Seminar/Courses/Workshop Attended:**

- Computer Engineering Department staff Prof. Dr. S. M. Kamalapur, Prof. P. P. Vaidya, Prof. S. M. Malao, Prof. K. P. Birla have attended Webinar on “Creativity and Innovation” on 15<sup>th</sup> September 2021. Prof. S. M. Malao, Prof. M. N. Shinde, Prof. S. A. Gade have attended Workshop on “How to Conduct the Student Induction (SIP) Program” on 20/09/2021
- Electronics and Telecommunication Engineering staff Mrs. M. P. Joshi attended Two Days Online Webinar on “Patent filing process in India, case studies, litigations Trademark filing process in India” from 27/09/2021 to 28/09/2021.
- Electrical Engineering staff Prof. Jaydeep P. Shah attended workshop on “Introduction to IPR, Patentability, Patent filing process in India”. Dr. RavindraMunje has attended ATAL FDP on AICTE IDEA Lab.
- Production Engineering Head, Dr. P. J. Pawar attended ATALFDP on AICTE IDEA Lab from

22/09/2021 to 27/09/2021. Dr. N. B. Gurule attended workshop on “Embedded System with Robotics Using ARDUINO on Tinker Cad” during 20 September - 01 October 2021. Prof. V. S. Gaikwad, Mr. R. V. Jadhav attended workshop on ‘Recent Trends in Mechatronics and Automation’ during 24 - 25, September 2021. Prof. A. D. Mandlik attended AICTE Training and Learning (ATAL) Academy online elementary FDP on “Industrial Robots for Future Factories from 13-17 September 2021.

■ **Training & Placement :**

Name of Company	Name of the Dept.	No. of students selected
Lentra AI Pvt Ltd., Pune	IT	04
Birla Soft Ltd., Pune	IT	03
	Electrical Engg.	02
KPIIT, Pune	IT	01
	Electrical Engg.	01
Infosys	Electrical Engg.	02
Climate Connect	Electrical Engg.	03
Motwane	Electrical Engg.	01
Graphite India Satpur	Electrical Engg.	01

■ **Abstracts of papers presented during July 2021**

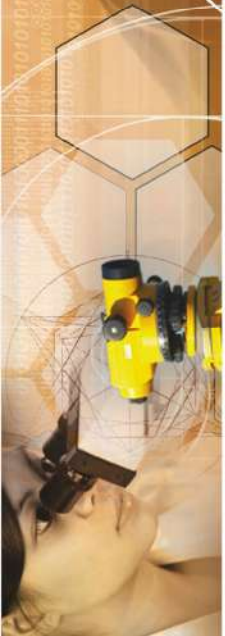
**Selection of Penstock Material Using Grey Relational Analysis (GRA)**

Dr. S. R. Gangurde

(Presented paper in International Conference on Sustainable Water Resources Development and Management organized by Civil Engineering, Government College of Engineering which was held during 8-9 July 2021)

**Abstract:** Small hydropower is proven and clean renewable source of energy. In hydropower, electricity is generated, when water pressure is converted into mechanical energy by using hydro turbine and that energy is used to derive the electric generator. The major electro-mechanical components of power plant are the inlet valve, turbine, draft tube, gates, generator, control and protection equipment and substation for transformation of power to the transmission line. In terms of cost the major items are the penstock, turbine and generator. There are different types of penstock materials such as Polyvinyl chloride (PVC), High-density polyethylene (HDPE), Glass reinforced plastic (GRP), Mild steel (MS) etc. are available. Selection of an appropriate material for the penstock can be considered as a complex multi-criteria decision problem. To demonstrate decision-making approach, an example of small hydropower project is considered. Four different materials (alternatives) Polyvinyl chloride (PVC), High-density polyethylene (HDPE), Glass reinforced plastic (GRP), Mild steel (MS) are

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evaluated on the basis of five criteria: Yield strength (YS), Life (L), Thickness (T), Cost (C) and Maintenance cost (MC). Grey Relational Analysis (GRA) is used to evaluate and select the best alternative of material for penstock.

**Keywords:** Small Hydro Power Plant, Penstock, Multi Criteria Decision Making, Grey Relational Analysis

### ■ **Application of Meta Heuristic Algorithms for Optimization of Inverse Kinematics of a 5D Robotic Manipulator**

V. B. Shinde & Prof. Dr. P. J. Pawar

(Published paper in Techno-Societal 2020, pp. 537-546, Springer on 20 June 2021)

**Abstract:** Traditional methods of optimization are more complex and quite expensive for solving inverse kinematics problems when the degree of freedom of a robot increases. In the present work, forward and inverse kinematic model of five degree of freedom (5D) industrial manipulator for various applications, is developed using the homogeneous transformation matrices and the Denavit-Hartenberg (DH) parameters. The objective of such non-standard 5D robot is to reduce the positional error among the specified target points and robot end-effector positions, with reference to the joint angular displacements which are employed for translating the robot end-effector to the target points in the Cartesian space. Different traditional and meta-heuristic algorithms (MH) are employed to solve the problem and the obtained results are compared for the positional error of end-effector. From the results, it is found that simulated annealing performs better for the positional error of end-effector than sequential quadratic programming and genetic algorithm.

**Keywords:** Multi-objective optimization Sequential quadratic, programming Genetic algorithm Simulated annealing Positional error

### ■ **Aspect-based Opinion Mining on students' satisfaction survey for Academic and Administrative parameters of Engineering Institute**

Akshita Shindore, Yash Shetty, Kapil Asodekar, Vedika Chaudhari, Unnati Dadhich & Dr. Preeti D. Bhamre

(Presented in IEEE-International Conference on Computing, Communication and Green Engg. (CCGE21 organized by JSPM'S Rajarshi Shahu College of Engineering (RSCOE), Pune)

**Abstract:** Educational institutes provide various services like admission counseling, library services, training and placement services etc. Feedback from the stakeholders ensures the maintenance of quality of these services. Stakeholders for an educational institute are the students, hence not only collecting but also analysing students' feedback is necessary. It is seen that the quantitative feedback is handled efficiently, but handling of huge amount of non-numerical suggestions is time consuming and as a result get signoredorm is interpreted. Qualitative feedback is aspace for textual comments for students to express their experiences and suggestions about any aspects not covered by quantitative metric. Handling these open ended suggestions of students efficiently is a tedious and challenging task. This task of automating the analyses of students' feedback comes under the emergent area of opinion mining. A system based on Supervised Aspect Based Sentiment Analysis (ABSA) and a two-layered Long Short Term Memory (LSTM) model has been proposed in this study. The LSTM model performs ABSA on students' textual feedback to evaluate the academic and administrative parameters of an Engineering institute. The two layers perform aspect extraction and aspect sentiment classification. The first layer classifies a feedback comment in one of the aspects predefined by the system. The second layer predicts the sentiment orientation. The system was tested on data sets obtained from the last two years students' satisfaction survey from the affiliated institute. The system attains accuracy of aspect extraction upto 80% and for sentiment orientation upto 70%.

**IndexTerms:** Opinion mining, aspect based sentiment analysis, long short term memory, aspect extraction, sentiment orientation.

Prof. Dr. K. N. Nandurkar  
PRINCIPAL

