

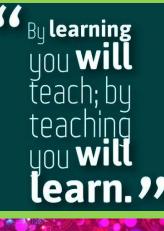
E-newsletter of Mechanical Engineering Department

VOL-8 ISSUE-4 NOV 2020 NHCE

# In this issue

- Webinar
- Expert Lecture
- Robotricks Quiz
- Hands-On Training
- Guest Lecture
- Workshop

Don't lower your standards for anyone or anything. SELF-RESPECT is everything.





# Webinar on "FUTURE OF SUSTAINABLE DESIGN"

Department of Mechanical Engineering organized a Webinar on "Future of Sustainable Design" with Mrs. Gayatri Raghu, Autodesk Academic Channel Partner and her colleague Mr. Manish Chatterjee as the resource persons for the session on 24<sup>th</sup> November 2020.

Mrs. Gayatri Raghu delivered the Introduction to Sustainability, meeting the present needs without compromising future needs, THREE pillars of Sustainability such as Economy, Environment & Social, Sustainable Manufacturing considering the parameters of economy, environment and social aspects, Product Design and Manufacturing considering 3R's, green manufacturing & lean manufacturing, how to design the product and manufacture it sustainably? Few examples of sustainable manufacturing, Generative design adopted by Volkswagen, Honda manufacturing lighter crankshaft etc.

Mr. Manish Chatterjee highlighted the Introduction about Industry 4.0, 3R's of Sustainable manufacturing such as Recover, Redesign & Re-manufacturing and 3R's of Green manufacturing such Reduce, Reuse, and Recycle etc.







# Expert Lecture on "Career Development and Trends in Aerospace Manufacturing"

Department of Mechanical Engineering organized a Webinar on "Career Development and Trends in Aerospace Manufacturing" with Mr. Ayyappakrishnadas M., an Advanced Manufacturing Engineer at Rolls-Royce India Pvt. Ltd on 30<sup>th</sup> November 2020.

Mr. Ayyappakrishnadas M. explained the basic terms of interest used in aerospace industry (like drag, lift, thrust, etc.). He also explained about the importance of safety, standards and different systems in aerospace. After explaining about interesting topics in aerospace engineering, he explained the trends in manufacturing and different manufacturing processes.

Furthermore, he listed the various certifications an engineering graduate needs to be industry ready. The certifications like Six Sigma and ASC Quality Engineer certifications are very handy for any mechanical graduate wishing to pursue a career in manufacturing. The webinar concluded after an interesting Q&A session where the students had the opportunity to ask their doubts regarding aerospace and manufacturing to the guest lecturer. The expert lecture on 'Career Developments &Trends in Aerospace Manufacturing was very informative and the students learnt new and interesting concepts.







# Its is not that we USE technology. we LIVE technology

### Webinar on "SetBack to ComeBack"

Department of Mechanical Engineering organized program on "SetBack to ComeBack" in association with 'ISKCON -Bangalore' on 10<sup>th</sup> September 2020. Program got well response from students community with 140 participants of third semester. Speaker for the was\_Sri Rama Sevak Dasa.

Topics covered by the speaker as follows;

- Importance of personality development
- Spiritually enriching personality
- Relationship management
- Self management
- Work-Life balance, Attitudes, Yoga and Habits

### Webinar on "Artificial Intelligence and Machine Learning"

Department of Mechanical Engineering organized program on "Artificial Intelligence and Machine Learning – will they replace us or provide new opportunities in collaboration with ICFAI Business School" on 11<sup>th</sup> September 2020. Prof. Raghavendra addresses the students. The session was initially directed in enlightening the students about the Artificial Intelligence field history and background. He then introduced the participants with different Machine Learning algorithms which are currently in use in the industry and the AI techniques which are in research stages and finding its relevance to solve different problems in the industry. He then shifted his talk on the opportunities and the path to secure a job in this filed. There were some very delightful video references given by the speaker which were very testimonial of the changes and advances AI is bringing into mankind. One such Video reference is https://www.youtube.com/watch?v=y5bktGGkd9w



# International Workshop on "CROSSING BARRIERS IN RESEARCH"

The Department of Information Science and Engineering and Mechanical Engineering Department has conducted 5 Days International Workshop on " Crossing Barriers in Research" from 14<sup>th</sup> -18<sup>th</sup> September 2020 under the supervision of ISE Head of the Department, Dr. Anandhi R J and Dean & Head of the Mechanical Department, Dr. M.S Ganesha Prasad. The expert speakers were from abroad and India delivered a Talk on the Research Domain. Speakers were multi skilled professional with 15+ years of experience spread across the Research. The need for crossing the barriers in the Research by implementing Systematic approaches was considered as the key area.

## Program on "Procedures and Setup for Core Engineering Lab"

Training program was conducted on 23<sup>rd</sup> October 2020 for the lab instructors, using the equipment's of Heat transfer and Fluid Mechanics lab. They were briefed about the basics on the laws of heat transfer and fluid flow. Demonstration of the experiments was done. All the participants worked on the experiments themselves and doubts were cleared. Instructors did calculations and found out the required parameters. They were also briefed on the COVID safety measures and precautions to be taken when the lab classes

and precautions to be taken when the lab classes would commence off-line.



#### Webinar on ""NHCE against Blood Cancer"

The Webinar was hosted by Leo Club NHCE in collaboration with DKMS BMST with the core agenda of spreading awareness about blood cancer to all students.

DKMS BMST is a joint venture of two reputed non-profit organizations. BMST (Bangalore Medical Services Trust) and DKMS, one of the largest international blood stem cell donor centers in the world.

The Honorable members of DKMS BMST were Dr. Nitin Agarwal, Ms. Rajalakshmi, Ms. Nisha Felicita. 96 students attended this webinar and it was started by welcoming the honorable members of DKMS BMST in the presence of Dr. M S Ganesha Prasad and Prof. Megha Shukla.



of Mechanical Engineering

ETBACK 10

OMEBACK

# Workshop on "Computer Aided Machine Drawing Class for Instructors"

Class on machine drawing was conducted using the CATIA V5 software for 11 instructors on 29<sup>th</sup> October 2020. One of the advanced software CATIA was used for demonstration. They were briefed on the definition, importance, conventions, standards and applications of machine drawing.

Plummer block body part was taken for the demonstration using CATIA SOFTWARE. Step by step procedure and hands on experience was given. All the participants practiced themselves and doubts were cleared. Participants were happy for using CATIA to create Plummer block body part, also given the demonstration to create different views, different line types, Constraint condition, Sketch creation and analysis, part modelling using the software.



#### Guest Lecture on "Emerging Automotive Technologies"

Mechanical department of NHCE had organized a guest lecture on the topic "EMERGING AUTOMOTIVE TECHNOLOGIES" through a zoom session on 9<sup>th</sup> November 2020. Distinguished speaker, P. Rajendran from Nandi Vishwavidyalaya Nandi Toyota delivered a guest lecture to help the students to gain more knowledge on the emerging automotive technologies.

The session started with Shiva Prakash who delivered the welcome speech and P. Rajendran sir briefed about himself, the company 'Nandi Toyota' and their achievements & trainings that they organised for students to gain more practical knowledge. After that, speaker addresses about the basics and trending concepts like different engines, valve timing diagrams, turbochargers and superchargers, etc. He also spoke about the industry expectations for upcoming engineers. The session was definitely a beneficial for the students to understand the trending and emerging automotive technologies.





#### Webinar on "Novel Trends in Composite Materials"

Department of Mechanical Engineering of New Horizon College of Engineering hosted a webinar on the topic "*NOVEL TRENDS ON COMPOSITE MATERIALS*" through a zoom session on 23<sup>rd</sup> of November 2020. Distinguished guest speaker was Mr. Rahul P John, who is a researcher and an Assistant Professor. Mr. John started his presentation by briefing us about what Composite Materials are and the importance of it in our lives. The different classifications of Composite Materials and their various applications in the world, for example, Dental Implants, fabrication of the body of a Formula1 car, sports equipment, etc. The constituents of Composites and their various Design Variations. Manufacturing process of Composites, the limitations and the Novel trends of these Composites. Also briefed about various opportunities in Industry and Research fields concerning Composite Materials.

#### Webinar on "How to build a SUCCESSFUL CAREER IN DESIGN ENGINEERING"

The Department of mechanical Engineering, New Horizon College of Engineering, organized a unique webinar on 'How to build a successful career in Design Engineering'. The webinar was held on 8<sup>th</sup> November 2020. The keynote speaker was Mr. Ashok Sanmani, who has 20+ years of extensive experience in Aerospace Engineering domain. He has worked on a mission to minimize the gap between academia and industry. The webinar was held for the students of mechanical engineering, to give them the scope and opportunities which a design engineer possesses. The webinar was successfully completed with the students having a renewed approach towards design engineering.





#### Article on "Planning of Stable & Professional Career for Women Engineers of 21<sup>st</sup> Century"



Planning of Stable & Professional Career for Women Engineers of 21st Century

Dr. MS Ganesha Prasad, Dean, Professor & Head – Dept. of Mechanical



A highly seasoned academician, Dr. Prasad loves teaching and is always eager to explain the latest technological advances in most of the engineering disciplines.

Women leaders in STEM (Science, Technology, Engineering & Mathematics field) are supposed to be competitive, with technical competency along with personnel qualities like better persevenance (like Zia

Webinar on

With present day engineering service skills like 'Product Life Cycle Management' (PLM) they can definitely do well in their professional career.

Civil Engineering: Here, jobs are in project planning and execution, also in design and development. Project execution involves site visits, long commute to project sites, and interaction with workmen, which many women are not comfortable with. So, women civil engineers usually take up jobs that do not involve site visits, that is, in areas of design and development and project planning, lot of opportunities are available in this line.

Electronics and Electrical: In this domain, core jobs are in design and development and in production. In India, only a few public sector companies have undertaken design and development which is why job opportunities are also very good in this domain. Most of the jobs in production are in assembly, where women find the work environment friendly. Mody), in-built nurturing spirit (like Alice G. Vaidyan) and high confidence level she can become very good leader. In addition to these qualities for climbing the ladder in social circle, they should have better recognition. This can be achieved by the women through social contributions like service back to society (like Sudha Murthy). As we know that woman is backbone of our society, with her these qualities she can definitely make our society and nation proud. But she also take care of her professional career with maximum interest. She can do so, provided if she is opting right engineering branch for personnel interest. These personnel interest will take her to great heights in their professional career.

There are plenty of opportunities available for women engineers, to contribute in engineering sectors. But major observations noticed by good number of entrepreneurs, CEOs, philanthropist, leaders and managers are, very few women leaders progress in their professional career. This may be because to balance their work and family life. To keep moving continuously in their professional career, they should not choose any branch of engineering which may be demanding at given point of time. That is women employees should look for job profile which welcome back them after career break also they should select engineering branches which permits them to work and move vertically in their professional career.

They should not be biased by branch which comes with more prospects of landing a job soon after the completion of engineering programme, before jumping in to such jobs they should check the opportunities after the break in their career and progress in their engineering services. IT Sector: At present most of the woman workforce is available in this segment. A large proportion of women tend to exit from the industry after the first five years of employment. Major issue with professional careers for women in this line is during the time of career break. Majority of women working in the industry are aged 30 years or below and are usually single. Decisions about continuity in their career will come into picture when they are balancing family and work.

While working women in India find highest levels of job satisfaction in PSUs measured at scale is seven, females engaged in BPO/KPO/IT enabled services sector are least satisfied from their current jobs that averaged to four on scale of ten "

Opportunities for women in Public Sector Undertaking (PSUs) companies like National Thermal Power Corporation (NTPC), Oil and Natural Gas Corporation (ONGC), Steel Authority of India Limited (SAIL), Bharat Heavy Electricals Limited (BHEL), Indian Oil Corporation Limited (IOCL), Hindustan Petroleum Corporation Limited (HPCL). Coal India Limited (CIL) and others are plenty. With engineering degree, their quality of professional career is also very groud. The procedure for getting into such PSUs is also very simple.

Vantrikruth

Nov 2020

https://www.ceoinsightsindia.com/women-leaders/planning-of-stable-professional-careerfor-women-engineers-of-21st-century-nwid-3752.html

#### **"CONTROL SYSTEM ENGINEERING** Using MATLAB **Industrial Visit Robotricks Quiz 2020** NEW HORIZON NEW HORIZON NEW HORIZON Department of Department of MECHANICAL ENGINEERING MECHANICAL ENGINEERING DEPT. OF MECHANICAL ENGINEERING Projent Invites one and all to ROBOHORIZON CLUB PRESENTS (im) INDUSTRIAL VISIT HANDS - ON A MathWor Core C : 03:30pm - 05:00pm ime ROBOTRICKS On **"CONTROL SYSTEM** QUIZ ENGINEERING - **D**: Using MATLAB" 2020 id Live Demo on latest technologies CNC Machine – Industry 4.0 & Automation CNC Turning Centre – Jyoti CNC Vertical Machining Centre – Photo Introduction to symbolic Math with MATLAB Solving Nonlinear Equations with MATLAB tre - Bharat Fritz Werner Ltd Mass Spring Damper System Welding Robot Pick and Place Robot with 2D Vision Se DC Motor Modeling using Simulink Ack and non-otler shi CNC 700 Series shi CNC 700 Series shi CNC 700 Series shi CNC 700 Series of MD mate g Machine - Divide By Zero - Hortran Multipoo - Hurtor- Multipoo 3<sup>rd</sup> OCT 2020 DC Motor Modeling using Sinscape DC Motor Control using PID Controlle For Queries, Contact: actime - Schulic Power Pac stater & Profile Projector-teasuring Machine & Por ichine - SLTL type Tool Pre setter - Zol (From NHCE) Kamalashish Deb (+91) 7760559670 Rakshith (+91) 6366450551 Shashi (+91) 6366425419 Bopanna K D (+91) 9964644072 0 ۲ to all the participants **Forthcoming Events** LEARNING EXPERIENCE KNOWLEDGE CIATION ABILITY SKILLS COMPETENCE GROWTH TRAINING Editorial board: Dr. M. S. Ganesha Prasad, Dr. Srinath M K, Prof. Shiva Prakash S, Prof. Puneeth H V, Prof. Manjesh B C, Prof. Santhosh A N, Mr. Harish (5<sup>th</sup> Sem), & Mr. Sonic Somanna (7<sup>th</sup> Sem) Advisory Committee: Dr. C P S Prakash (Principal, Dayananda Sagar College of Engineering) Mr. Deepak Kamath (Technical Head of Continental India Ltd. Bangalore)

New Horizon College of Engineering Ring Road, Near Marathalli, Bellandur Post - 560 103, Bangalore,

Karnataka,