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➤ Aircraft Engine Health Monitoring Workshop

18th Jan 2024

The Department of Mechanical Engineering held an expert lecture on "Aircraft Engine Health Monitoring" for BE – II Year students on 18th January 2024, led by Mr. Pradeep Belagutti, an expert with over 21 years of experience in aviation.

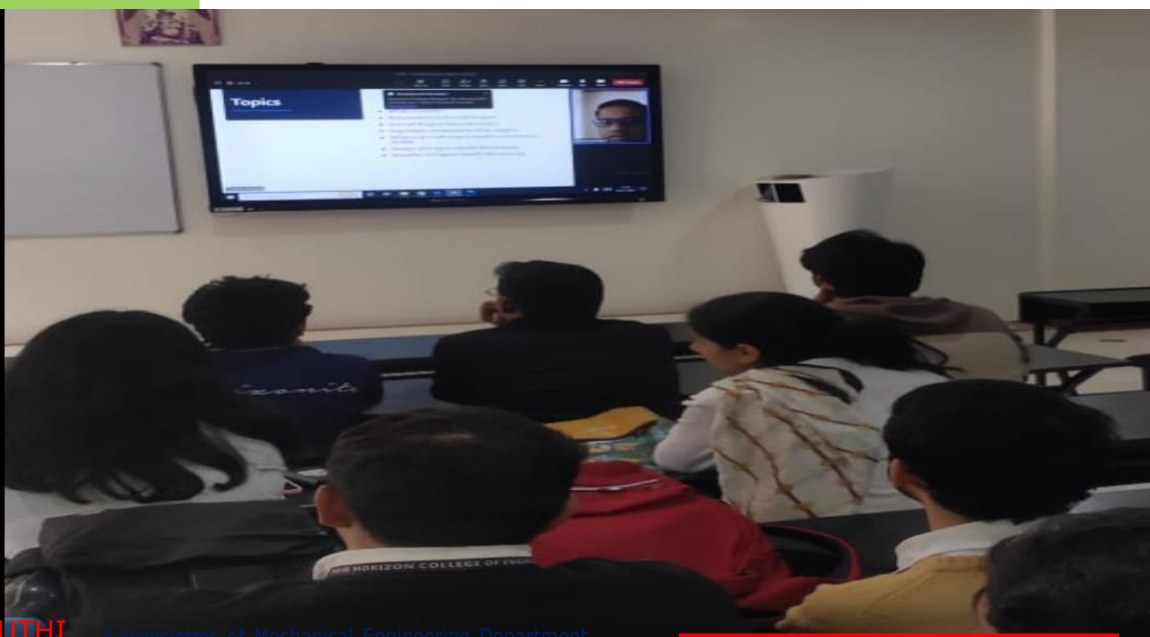
Mr. Belagutti discussed the need for aircraft engine health monitoring, highlighting key parameters like temperature, pressure, and vibration, and the role of various sensors. He covered data recording, analysis, and maintenance actions, stressing the importance of early issue detection and reducing maintenance costs.

The session ended with a Q&A, and Dr. Nagabhushana N concluded by thanking the speaker and gathering student feedback.



Topics

- What is health?
- Automobile Vs Aircraft Engine
- Aircraft Engine Manufacturers
- Important components of an engine
- What is aircraft engine health monitoring (EHM)
- Stages of Engine Health Monitoring
- Benefits of Engine Health Monitoring



➤ Guest Lecture on CATIA Surface Technique for Product Design

15th Feb 2024

On 15th February 2024, Prof. Rakesh C, Head of the Mechanical Engineering Department, welcomed guest speaker Mr. Vishwa Kadadakatti for an expert lecture organized in association with EDS Technologies Pvt Ltd. Mr. Kadadakatti, an Application Engineer at EDS Technologies with extensive experience in CATIA V5 and 3DEXPERIENCE, conducted the session titled "CATIA Surface Technique for Product Design," focusing on surface and sheet metal forming.

He demonstrated various commands in CATIA, including Wall, Extrusion, Automatic bends, and more, highlighting their importance in the sheet metal industry. He also discussed the applications of sheet metal in aerospace, automotive, and spacecraft, the future of sheet metal, and job opportunities in the industry.

The session concluded with a Q&A led by Dr. Nagabhushana N, where Mr. Kadadakatti answered student queries. The event ended with Mr. Shivaprakash S presenting a sapling to the guest as a token of appreciation, and feedback was collected from the participants.



➤ Soap Box Racing

9th May 2024

Department of ME students have won a cash prize for their exceptional achievement in the "Best Design Innovation and Creativity" category at the recent Soap Box Racing event. This award is a testament to their ingenuity, hard work, and collaborative spirit. The event, held on 9-5-2024 at Acharya Institute of Technology, Bangalore brought together teams from various colleges, all competing to showcase their creativity and engineering prowess. Our team, stood out with their innovative design and meticulous craftsmanship, earning them the top honor and a cash prize. The winning design was not only aesthetically impressive but also demonstrated advanced engineering principles and sustainable practices. The team spent countless hours brainstorming, designing, and building their soapbox racer, which combined speed, stability, and an eye-catching look.



Captured by Sandesh m13

➤ Prior Activities

**Be the change
that you wish to
see in the world.**

— MAHATMA GANDHI

“
ALL PROGRESS TAKE
PLACE **OUTSIDE** THE
COMFORT ZONE.”

“We must let go of
the life we have
planned, so as to
accept the one
that is waiting for
us.”

We are stardust brought to life, then
empowered by the universe to figure
itself out – and we have only just begun.

Neil deGrasse Tyson

➤ 3D Printing Workshop conducted by Almuni

19th December 2023

NEW HORIZON
COLLEGE OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Alumni Association
organises
Workshop on,
"3D PRINTING"

ASWAJIT B.
Jr. Service Engineer
at Torishima Pumps India Pvt. LTD.
Co-Founder of StealthEdge Avionics

ANJAN KUMAR M.S.
Jr. EPZ Engineer
at Steer Engineering Pvt. LTD.
Co-Founder of StealthEdge Avionics

ORGANISING COMMITTEE:

Dr. SUDARSHAN T.A.
FACULTY COORDINATOR
Sr. Asst. Professor,
Dept. of Mechanical Engineering,
NHCE

Prof. HANAMANT YARAGUDRI
ALUMNI COORDINATOR
Sr. Asst. Professor,
Dept. of Mechanical Engineering,
NHCE

Prof. RAKESH C.
HEAD OF DEPARTMENT
Dept. of Mechanical Engineering,
NHCE

19TH DECEMBER 2023
(TUESDAY), 10:30AM

INDUSTRY 4.0 LAB,
SVBP BLOCK, NHCE

The Alumni Association of the Mechanical Engineering Department held a workshop on "3D PRINTING" led by Mr. Aswajit B, who covered the basics, evolution, and types of additive manufacturing, as well as materials used.

Mr. Anjan Kumar M. S. explained the components and operation of a 3D printer. Students had a hands-on experience designing a 3D model on CATIA V5 and learned how to convert it into a printer-compatible format.

➤ ROBOFIESTA event conducted by ROBOHORIZON CLUB

28th December 2023

ROBOHORIZON CLUB proudly conducted ROBOFIESTA, an event designed to test participants' knowledge of robots and robotics. The event featured three quiz rounds covering topics from movies and modern robotic technology. All attendees received attendance recognition, and winners were awarded certificates, with e-certificates distributed to all participants.

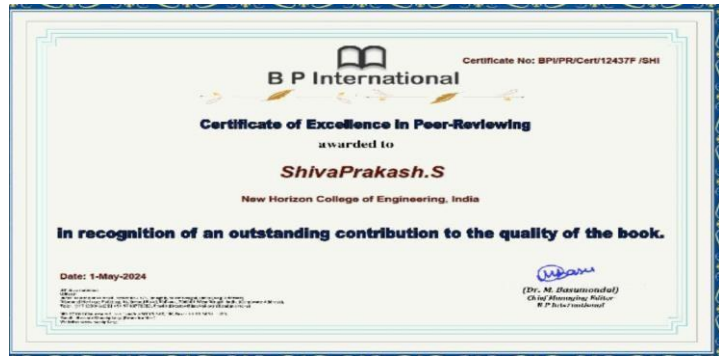


➤ Continuation...



➤ Staff Achievements

Prof. Shivaprakash S, Senior Assistant Professor in the Department of Mechanical Engineering at New Horizon College of Engineering, has been honored with the "Excellence in Peer-Reviewing" award by BP International. This recognition celebrates his dedication to academic excellence and impactful contributions to Mechanical Engineering. His work on the book "Production Technology" by REST Publishers has been praised for its comprehensive approach, clarity, and significant value to both scholarly literature and practical applications.



Dr. Sudarshan T A, Senior assistant professor, Department of Mechanical Engineering, New Horizon College of Engineering and Team (Aswajith B, Anjan Kumar M S, Amulya Choudary K) has been granted a design patent for their groundbreaking work on a multi-axis solar tracking system. This achievement marks a significant milestone in the field of renewable energy. The Design patent grant, awarded by the The Patent Office, Government of India on 16-05-2024, recognizes the innovative design and functionality of the multi-axis solar tracking system. This system enhances the efficiency of solar panels by accurately tracking the movement of the sun across multiple axes, maximizing energy capture throughout the day. The multi-axis solar tracking system designed by Dr. Sudarshan T A and Team stands out for its efficiency and adaptability. By optimizing the angle of solar panels throughout the day, the system ensures maximum exposure to sunlight, thereby increasing energy production. This innovation has the potential to make solar energy more viable and cost-effective on a larger scale.

Prof. Rakesh C from the Department of Mechanical Engineering, New Horizon College of Engineering, has successfully completed the Executive Post Graduate Programme in Machine Learning and Artificial Intelligence from IIIT-Bombay. This prestigious program, known for its rigorous curriculum, enhances his expertise in these rapidly evolving fields. The program covers advanced topics like algorithms, neural networks, natural language processing, and data science, reflecting a high level of proficiency and commitment to technological innovation.



Editorial board: Prof. Rakesh C, Dr. Sudarshan T A, Dr. Srinath M K, Prof. Hanamant Yaragudri, Dr. Hemanth Raju,
Prof. Rajesh A, Prof. Gowtham Raj
Advisory Committee: Dr. C P S Prakash (Principal, Dayananda Sagar College of Engineering)
Mr. Deepak Kamath (Technical Head of Continental India Ltd. Bangalore)
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Bellandur Post - 560 103, Bangalore, Karnataka, India



In This Issue

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- Expert Talk on Supply Chain Management in Mechanical Engineering
- SAP Academic Community Conference
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- Educational Outreach to Bellandur Government School by NSS Unit Cell
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- Staff Achievements

➤ Collaborative club event held by RoboHorizon Club

9th July 2024

The The CONNECT-24 Ideathon was held on 9th July 2024 at Chhatrapati Shivaji Block (C-203), organized by Techforge Club and RoboHorizon Club. The event brought together students from multiple disciplines to brainstorm and develop innovative solutions for global challenges.

Participants worked in teams of four, applying design thinking and problem-solving techniques to tackle issues related to sustainability, healthcare, technology, and social impact. Mentors provided guidance, and teams refined their ideas based on feedback.

The event concluded with final presentations before a panel of faculty judges, who evaluated the solutions based on creativity, feasibility, scalability, and impact. The Ideathon successfully fostered collaboration and innovation, encouraging students to apply their skills to real-world challenges.



➤ Expert Talk on Supply Chain Management in Mechanical Engineering

18th Feb 2024

The Mechanical Engineering Department organized an expert talk on 18th July 2024 at Sardar Vallabhbhai Patel Block (B103) for 6th semester students. The session was led by Mr. Girisha B S, Vice President – Operations at Onlineteksupport IT Solutions Pvt Ltd, who has 34+ years of experience in supply chain management, procurement, and operations.

Mr. Girisha explained the importance of SCM in mechanical engineering, focusing on logistics, cost efficiency, and quality control. He discussed technological advancements like automation, IoT, and AI, and how they are transforming SCM. He also addressed challenges in supply chains and shared strategies to overcome them.

The session concluded with a Q&A, where students engaged in discussions about SCM careers and industry trends. Dr. Nagabhushana N delivered the vote of thanks, appreciating Mr. Girisha's insights and guidance.

Management in Mechanical Engineering

18 July, 2024 11:00 AM to 1:00 PM

B103, Sardar Vallabhbhai Patel Block 6th Semester Students

Mr. Girisha B S

Vice President - Operations
M/s Onlineteksupport IT Solutions
Pvt Ltd, Bangalore.



Faculty Coordinators

Dr. Nagabhushana N
Sr. Asst. Professor - ME

Hanamant Yaragudri
Sr. Asst. Professor - ME

Convenors

Prof. Rakesh C
HOD - ME

Dr. Manjunatha
Principal



➤ SAP Academic Community Conference

22nd July 2024

SAP Labs India hosted the SAP Academic Community Conference (ACC) India 2024 at its Bangalore campus from July 22-25, co-hosted by SAP University Alliances, the SAP Academic Board APJC, and ACC Melbourne, Victoria University. The event provided an opportunity for networking with industry experts and academics while featuring insightful keynote sessions.

The main highlight of the conference was a hands-on workshop for faculty members, focused on new cloud solutions. The 'train the trainer' sessions covered SAP S/4 HANA, SAP Analytics Cloud, Business Technology Platform, SAP Signavio, and SAP Artificial Intelligence. Additionally, SAP ERP SIM and Success Factors were key topics of discussion. Expert trainers provided in-depth insights into these technologies.

As part of the SAP University Alliance program, faculty members from New Horizon College of Engineering attended the sessions, selecting their preferred training. The event had participants from India, Sri Lanka, and Korea, making it a diverse and interactive learning experience.



➤ Alumni Talk

29th October

➤ Quality Control and Reverse Engineering

An alumni talk on "Quality Control and Reverse Engineering" was conducted on 29th October 2024 for 5th semester mechanical engineering students. The session was led by Mr. Anan Kumar M S, Design Engineer at Steer Engineering Pvt Ltd, Bangalore.

The speaker emphasized the importance of quality control in ensuring product reliability and customer satisfaction, discussing techniques like Six Sigma and statistical process control (SPC). He also explained the role of reverse engineering in analyzing and improving existing products, highlighting its applications in manufacturing and software development.

The session included career advice on skill-building, problem-solving, and hands-on experience. Students actively participated in discussions, asking insightful questions about real-world applications. The event concluded with positive feedback, with students expressing interest in more hands-on workshops to deepen their understanding of these essential engineering fields.



➤ Turning Skills into Opportunities

An alumni talk on "Unlocking Potential: Turning Skills into Opportunities" was held after the above event from 11:00 AM to 12:00 PM for 3rd semester mechanical engineering students. The session was delivered by Mr. Aswajit B, Junior Engineer at Steer Engineering Pvt Ltd, Bangalore.

Mr. Aswajit emphasized the importance of recognizing personal strengths and refining them to create career opportunities. He discussed essential corporate skills such as communication, problem-solving, adaptability, and teamwork, sharing real-life examples of their impact in professional growth. The talk also covered networking strategies, personal branding, and the significance of gaining industry experience through internships, projects, and hackathons.

The session was highly interactive, with students asking insightful questions about skill development and career planning. The hands-on activities helped them connect theoretical knowledge with practical applications.

Feedback from students was overwhelmingly positive, with many expressing interest in further workshops on industry-oriented skill-building. The session concluded with an inspiring message on proactive career development, urging students to embrace lifelong learning, seek mentorship, and take concrete steps toward their professional goals.



➤ Industrial Visits

➤ Pact Closure Systems India Pvt. Limited

An industrial visit to Pact Closure Systems India Pvt Ltd was organized for the Mechanical Engineering students of New Horizon College of Engineering on 14th November 2024. The visit, held from 11:00 AM to 12:30 PM, was guided by Prof. Hanamant Yaragudri and Dr. Nagabhushana N.

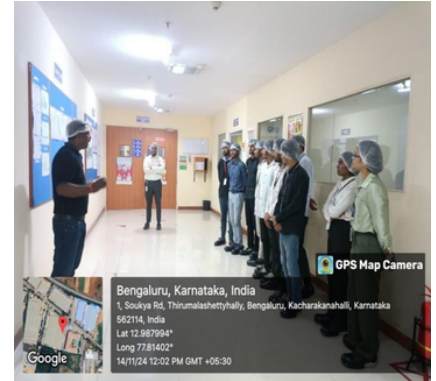
The objective of the visit was to provide students with practical exposure to manufacturing and packaging technologies, focusing on quality control, sustainability, and innovation in the production of closures and caps.

Students were introduced to Pact Closure Systems, a division of Pact Group, Australia, known for its sustainable packaging solutions. The tour covered key areas such as raw material handling, injection molding, automated assembly, and quality control. Special emphasis was placed on sustainability practices, including the use of recyclable materials, waste reduction, and energy-efficient technologies.

A visit to the R&D department showcased innovations in tamper-evident and child-resistant closures, along with compatibility testing for different product types. Students also gained insights into how engineering principles like material science and fluid mechanics apply to real-world manufacturing.

The visit was well-received, with students appreciating the industry exposure and hands-on learning experience. They expressed interest in further exploring sustainable engineering practices and product innovation.

The visit successfully bridged the gap between academic knowledge and industrial applications, preparing students for future careers in engineering and manufacturing.



➤ Industrial Visit to Trinity NDT Weld Solutions Pvt. Limited

The Mechanical Engineering students of New Horizon College of Engineering visited Trinity NDT Weld Solutions Pvt Ltd on 27th November 2024, accompanied by Dr. Nagabhushana N. The visit aimed to provide insights into Non-Destructive Testing (NDT) and welding solutions used in industries like aerospace, automotive, and manufacturing.

Students observed various NDT techniques, including ultrasonic, radiographic, magnetic particle, dye penetrant, and eddy current testing, which help detect material defects without causing damage. The company also emphasized sustainability by using eco-friendly testing processes and reducing waste.

The visit included live demonstrations in research labs, showcasing real-world applications of NDT and quality assurance methods. Students gained valuable knowledge about industry standards, compliance, and career opportunities in NDT and welding.

The visit proved to be a valuable learning experience, equipping students with practical knowledge and exposing them to emerging trends in material testing and quality assurance.



➤ Educational Outreach to Bellandur Government School by NSS Unit Cell

November 16th 2024

The NSS Unit conducted an educational and creative engagement session at Bellandur Government School, aiming to inspire students in their academic journey. A quiz competition tested their knowledge in general subjects like science and history, encouraging critical thinking and active participation. Students showed enthusiasm, with top performers receiving special recognition. A drawing activity further allowed them to express their imagination through themes such as Nature, My Dream, and My School, resulting in vibrant and thoughtful artworks.

To support their learning, essential materials were distributed to 190 students, including books, pens, and geometry boxes, along with chocolates as a small treat. The students actively participated and expressed gratitude for the resources, highlighting how these would be useful in their studies. Teachers appreciated the initiative, acknowledging its role in motivating students and creating an engaging learning environment.

The visit left a positive impact, fostering creativity, curiosity, and confidence among the students. Their enthusiasm and eagerness to learn were evident, making the experience deeply rewarding for the NSS volunteers. The initiative reaffirmed the importance of such outreach programs, encouraging the continuation of similar efforts to support and inspire young learners in the future.



➤ Guest Lecture on Career in Aircraft and Aero Engine Industries

December 6th 2024

A guest lecture on career opportunities in the aircraft and aero engine industries was conducted by Mr. Binu Bright for Mechanical Engineering students of New Horizon College of Engineering on 6th December 2024. The session, held from 10:00 AM to 12:00 PM, provided insights into industry trends, skill development, and career pathways in aerospace engineering.

The objective of the session was to familiarize students with the aerospace sector, covering roles in design, analysis, manufacturing, maintenance, and quality assurance of aircraft and aero engines. The discussion emphasized key industry requirements such as aerodynamics, advanced materials, CAD tools, and simulation software. Practical guidance on certifications, internships, and networking strategies was also provided, along with insights into sustainable aviation and innovation trends.

The session was well-received, with students appreciating the exposure to real-world industry expectations and career possibilities. The discussion helped bridge the gap between academic learning and professional requirements, encouraging students to explore diverse opportunities in aerospace engineering.



Department of Mechanical Engineering | Alumni Association

Alumni Talk

Career Opportunities and Insights in Aircraft and Aero Engine Industries for Mechanical Engineers

06 December, 2024
10:00 AM to 12:00 PM
Industry 4.0,
Sardar Vallabhbhai Patel Block
7th Semester



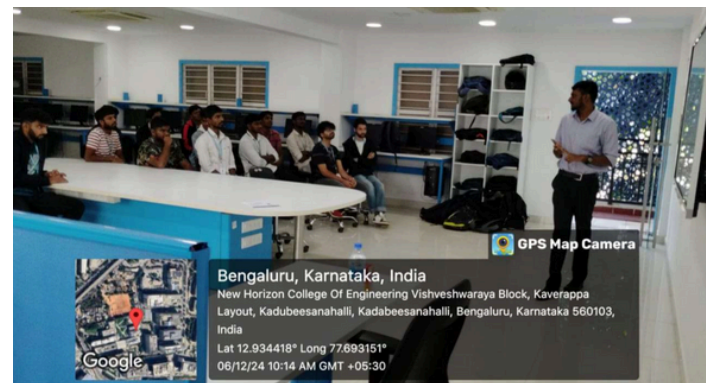
Mr. Binu Bright
Systems Engineer
Infosys, Bangalore

Faculty Coordinator
Prof. Ravikumar
Senior Assistant Professor - ME

Alumni Coordinator
Dr. Nagabhushana N

Convenor
Prof. Rakesh C
HoD - ME

Dr. Manjunatha
Principal

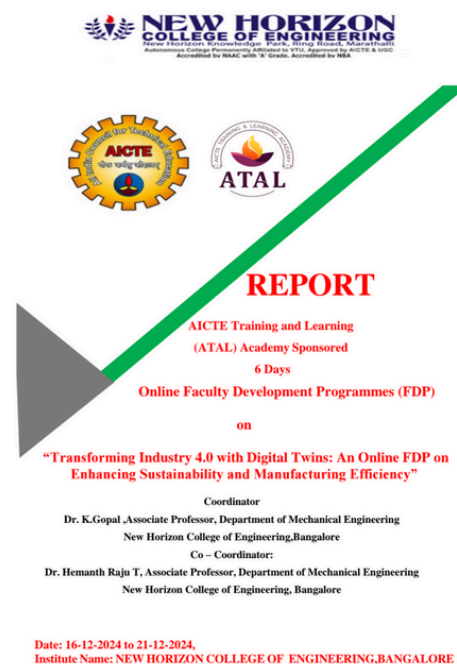


➤ Staff Achievements

The Faculty Development Program (FDP), conducted from December 16 to December 21, 2024, under the support of AICTE ATAL, aimed to enhance the academic and research capabilities of faculty members. The program focused on integrating emerging technologies, innovative teaching methodologies, and interdisciplinary research to improve the quality of education. Through expert-led sessions, participants explored practical applications of modern advancements in engineering and their relevance to academic curricula.

Key topics included industry-driven solutions, advancements in manufacturing and automation, and the role of digital transformation in education. The sessions encouraged hands-on learning, active discussions, and collaborative research opportunities. Faculty members gained valuable insights into applying new techniques in their teaching and research, strengthening their professional growth.

The event was successfully coordinated by Dr. K. Gopal and Dr. Hemanth Raju T, ensuring seamless execution and a productive learning experience. Participants highly appreciated the program, recognizing its impact on their academic careers. The FDP reinforced the importance of continuous skill development and innovation in academia, fostering a culture of excellence in education and research.



Participants-

3D Printing in Modern Industry



Dr. Nagendra Jayaram,
Associate Professor,
Department of AIML,
Acharya Institute of Technology, Bengaluru

Additive Manufacturing



Dr. Srinath M.K,
Associate Professor,
Department of Mechanical Engineering,
New Horizon College of Engineering,
Bengaluru

Integrating IoT in Production Processes



Dr. Piyush Kumar Soni
Professor and Associate Head-IIE,
New Horizon College of Engineering, Bangalore

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