



Vol 3: July 2020 - June 2021

ISO 9001:2015



Change of guard



AAROHAN

e-Newsletter
Mechanical Engg. Dept.
DBIT

<https://mech.dbit.in>

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ASPIRATION

Vision

Aspire to be an eminent destination recognized globally to its stakeholders to generate professionals, entrepreneurs and offer consultancy to cater the needs of industry research organizations & society through excelling in academics, innovation and research.



Mission

- To impart state-of-the-art engineering education to produce professional mechanical engineers
- To collaborate with industry, social and R&D organizations to develop innovations and sustainable technologies and serve as a catalyst for societal development
- To provide conducive environment that instils technocommercial and soft skills to develop entrepreneurial attitude
- To develop faculty and resources to achieve excellence in teaching-learning and research that will enhance student education, consultancy and research activity of the department
- To provide a participative environment for students and faculty of diverse background that welcomes open interaction, creation of ideas and development of designs and products

Values

- **Love:** Being humane and involved through kindness and patience in helping each other grow.
- **Faith in God:** Being driven by high personal and professional standards and trusting in his divine providence at all times.
- **Integrity:** Being committed fully to one's profession and building one's capability to contribute. It is being true to self in thought, word & deed
- **Innovation:** Experimenting, exploring and creating the 'new' to produce a solution mindset.
- **Research:** Investigating, engaging in critical thinking nurtured by spirit of life-long learning.



“**FROM ASHES WE RISE, AND THE SKY WE KISS**
- MECHANICAL ENGINEERS
”

”

PERCIPIENCE

From the HOD

DR. SHASHIKANT S PAWAR

We are glad to present the departmental newsletter for the academic year 2020-21, showcasing the activities, achievements and progress of the department. Despite the extended online mode of learning, our students have shown the same level of enthusiasm in participating and winning various extra and co-curricular competitions, doing internships etc. while doing well in the academics too. The faculty members also have shown not only similar enthusiasm but also the resilience in adapting to this online mode. They have upgraded their skills and increased the boundaries of their knowledge by participating in workshops, short term training programs and doing online courses in new and upcoming areas. They have also introduced various innovative methods in their teaching to make it more effective and participative . Students and faculty members have organized and participated in almost all the regular annual events in online mode such as final year project exhibition 'Innovex', technical festival 'Colosseum' etc. in a unique way and in some cases turning the adversities into benefits such as inviting keynote speakers from different parts of the world.



From the Editor

MR. SANDEEP DASGUPTA

This 3rd edition of the department newsletter is special in two dimensions, first, the entire period covering this edition was under global pandemic situation resulting in complete online academic activities in the college and the second, this edition was christened with a new title. We wanted to give a flavour of Sanskrit that depicts the performance of the department and can encourage the people. Suggestions were asked from faculty, after much deliberation we have decided to make it "AAROHAN" meaning continuous rising or growing or climbing up. This word resembles the performance of our department in terms of self-development of faculty, students' career prospects and placement over the previous years. Particularly, during this pandemic when there is despair in every sphere of life, our department with its calm attitude and persistent drive for continual improvement kept on motivating students through one to one mentoring, conducting sessions for career development. Department always puts its emphasis on the holistic development of its students. At no point of time, we let our students to die down their high spirit. The same spirit I experienced while making this newsletter. My team of five students are highly motivated, talented and sincere in every dimensions. Two students in the team are outgoing students who have voluntarily chosen to work for the newsletter. I convey my gratitude to all my colleagues, students who contributed here to make this newsletter to publish in the present shape.



From the Parents



Anthony Dmello

FATHER OF KENNETH DMELLO (2021 GRADUATE)

I want to express my sincere gratitude for all the efforts college has taken during this academic year. From day one, my son enjoyed each and every lecture and used to look forward to go to college every day. I really appreciate the way in which college helped him learn practical and theoretical knowledge. Kenneth was good in academics from schooling. however, by making the lessons innovative and creative, you not only helped him in getting good grades in his curriculum, but also overall development. I also thank you for encouraging him to participate in different activities such as sports and quiz competition which he thoroughly enjoyed. Glad to have my son in such a nice college. Special thanks to Rev. father Mario and Dr. Prasanna Nambiar mam for guidance and support.

FATHER OF SAURABH YADAV (FINAL YEAR STUDENT)

It gives me immense pleasure to talk about the holistic development which my son has been receiving since his journey in Don Bosco Institute of Technology. DBIT has given my child a strong platform not only to excel in technical skills but also a right balance of extra-curricular activities as well. The college has good infrastructure and atmosphere which is well suited for students to grow and be inquisitive. A special thanks goes to the Principal of DBIT, the HOD and the faculty members of the Mechanical Department for motivating him and encouraging to get him out of his comfort zone. Because of their constant backing and efforts he now leads a team and is more confident than ever. During this Pandemic as well DBIT's helping hand came in the form of mentor. The mentors took timely meetings and helped him in any difficulty he faced during the lockdown.



Luis Sequeira



Suresh Yadav

FATHER OF NOEL SEQUEIRA (2021 GRADUATE)

The year 2020-21 has been a difficult year and despite of all the odds, I would like to appreciate the efforts taken by Professors of Don Bosco Institute of Technology in conducting interactive and engaging online lectures. I have been satisfied with the progress of my son Noel Sequeira during this academic year. The wide range of courses offered by Coursera has helped him and I believe all the students of DBIT to sharpen their skill set and gain new ones. The efforts taken by the Training and Placement Cell for guiding the students for campus interviews and conducting placement drives efficiently is commendable. It has helped my child to secure a dream job. I am very happy of how my child has been nurtured and grown at Mechanical department in his 4 years of Engineering.

WALL OF FAME

From the Students

**ELSA MATHEW SAMUEL
2021 GRADUATE**

My four years at Don Bosco was the most memorable time in my life. Our batch faced unique challenges with the ongoing pandemic and yet the Mechanical Department managed to offer great interactive sessions and webinars which helped us in generating a good practical insight into the industry apart from the formal theoretical knowledge offered. The department also regularly conducted mentoring sessions which enabled us to choose the right career path for our post engineering college journey. Even though there were hundreds of hurdles for everyone, the teachers and the management were extremely supportive in helping us conduct our final year projects, exams and also promoted campus placements. The college lives by the motto of "Help Each Other" and Mechanical family- the alumni, students and faculty members place this as the priority in doing any project or activity. During our final year project, the alumni of the department helped us in all possible ways along with our guides and teachers. This motto of the college is ingrained deep within every person graduating from this college and I will try my best to live by this motto and take its learnings to wherever my future takes me.



**VISHAL UMESH ACHARI
2021 GRADUATE**

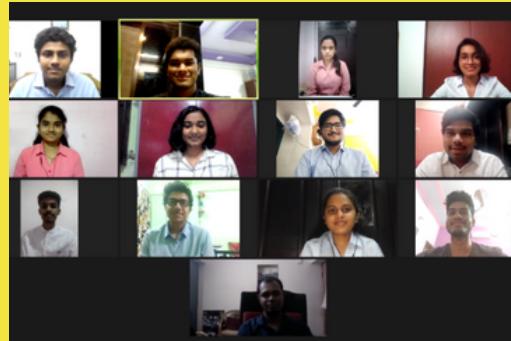
My 4 years in DBIT, it was one of those experiences you can't really pinpoint in the moment, but looking back, I can say it was a sense of belonging. I wouldn't have been able to become President of the Physics Club or land a job at Royal Enfield if it weren't for the consistent support and encouragement of my teachers and friends. Our Principal, HOD, and faculty always backed us when we had ideas. DBIT is a land of opportunities. Participating in the Cannister-Satellite US competition, Smart-India- Hackathon & Makeathon were fantastic opportunities. My team went on to score an efficiency of 94% in CanSat 2020 and were among the top 10 teams from India and among 40th-50th ranks globally. DBIT offers a wide variety of clubs for both academic and extracurricular pursuits. These clubs host event and competitions that give students real-world problems to think upon. If the Covid-19 taught me anything, it's that we take human interaction for granted. DBIT was significant in assisting us with online lectures. Professors attempted to make lectures engaging and enjoyable. The department provided trainings which greatly aided my understanding of industry standards. The mentoring sessions assisted us in dealing with a variety of issues and gave mental support. It was an honour to be a part of such a wonderful institution, and I will cherish the memories I made here for the rest of my life.



STUDENTS' CORNER

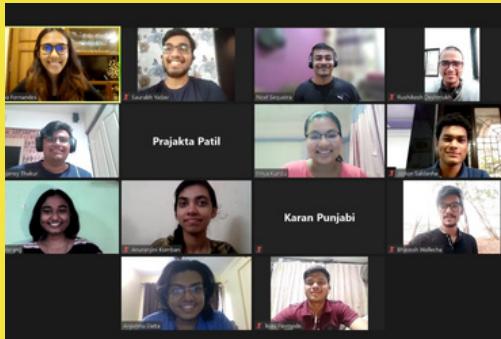


Engineer
[noun] [en-juh-neer]
**SOMEONE WHO SOLVES
THE PROBLEM YOU
DIDN'T KNOW YOU HAD,
IN A WAY YOU DON'T
UNDERSTAND.**



"SCIENTISTS DREAM
ABOUT DOING GREAT
THINGS. ENGINEER DO
THEM."

James A Michener



"ENGINEERING IS THE
CLOSEST THING TO
MAGIC THAT EXISTS IN
THE WORLD."

Elon Musk

Someone once asked us ...

*"What is the beauty of your
Mechanical Department?"*



An
answer
on
behalf
of
all
the
mechanical
engineers.

We're glad someone asked this question. Brace yourselves, sit on a comfortable chair, grab your popcorn and enjoy this wonderful journey of exploring the heart of a mechanical engineer.

- Enjoyment, thrill, adventure, excitement ... All these flow in our veins. Adrenaline adequately rushes in our body and we love exploring and doing mentally and physically challenging tasks.
- We are good entertainers too. Like some of us are great musicians, poets, guitar players, rock band members, artisan, painters etc. Are you a nerd or an introvert? Don't worry, We love watching TV shows, movies, reading books, and learning new things everyday. Discuss with us your favorite episodes, about your favorite novels or anything.
- Do you have any stress or dilemma? Share with us. We have studied stress analysis for the whole semester! (We will surely relieve your stress by bombarding you with these kinds of jokes).
- We have been toppers in various academic fields too. We love clarifying doubts of everyone. We are frugal innovators (or in less formal terms - Jugaadu) we will try till our last breath to fix things up.



Academic Performance

In the academic arena, students' performance was extremely satisfactory compared to previous years. The passing percentage and scoring percentage were better in each semester. Top three position holders in each semester and for the Batch 2020 are shown in the info-graphics. The passing percentage in Sem III and VII was 100% each whereas in Sem V it is 99.25% (132 qualified out of 133 students).



Hitesh
Wagh
(82.8%)



Mohd
Ayaz
Ansari
(86.7%)



Viraj
Jarande
(81.3%)

Batch 2020 (Nov'20)



Sagar
Singh
(73.93%)



Saurabh
Mishra
(74.34%)



Rodrigue
Eugenio
Daniel
(72.41%)



Ibrahim
Sayyad
(89.54%)



Prajakta
Patil
(90.32%)



Tejas
Paymode
(89.03%)

3rd Semester (Dec'20)

5th Semester (Dec'20)



Shubham
Jaiswar
(87.57%)



Hemant
Tiwari
(87.71%)



Mizab
Bardi
(87.71%)



Chris
Chettiar
(87%)



Siddharth
Shetty
(87%)

7th Semester (Dec'20)

Placement Hub

Despite pandemic situation there is increase in the placement compared to last year. More number of companies visited the campus for recruitment. There are total 101 students who registered themselves for placement out of which 79 were found to be eligible for placement based on criteria set by the companies. Out of 79 eligible students 40 students got placed till 30 June 2021, still companies are coming for recruitment. It is more than 50% in terms of eligible students. Few notable recruiter for the students are Amazon AWS, Royal Enfield, Anglo, Godrej & Boyce, CHEGG, L&T Heavy Engg., LTI, Capgemini, TCS, Zycus, Reliance Retails. The list is not exhaustive, but a representative.

Highest package : 6.5 LPA

Median package : 4.2 LPA

Lowest Package : 3.0 LPA



Chegg®



LARSEN & TOUBRO

amazon web services

ROYAL ENFIELD

LTI

Let's Solve

TCS TATA CONSULTANCY SERVICES

ZYCUS

TOYO ENGINEERING

Reliance RETAIL

Godrej | GODREJ & BOYCE

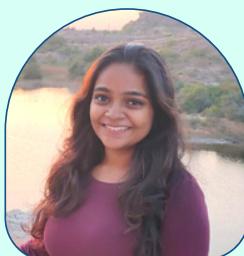


Achievers of Competitive Exams

An insight to the students sat for competitive exams:

1. Karan Sudhir Katekar (Batch 2020) CAT
2. Sarvesh Jigjinni (Batch 2020) GRE, IELTS
3. Mathew Lobo (Batch 2020) GATE, IELTS
4. Md. Awais Khan (Batch 2020) GATE, Entrepreneurship
5. Prajyot Prakash Bait (Batch 2020) GATE
6. SIDDHI AVINASH PATIL (Batch 2020) IELTS
7. Gaurav Sahu (Batch 2021) GATE
8. Gaurav Sahu (Batch 2021) GATE
9. Kenneth Dmello (Batch 2021) GATE
10. Alvis Dias (Batch 2021) IELTS
11. Yash Majithia (Batch 2021) IELTS
12. vanshad kitchloo (Batch 2021) DAT(Design Aptitude Test)
13. Swati Kamath (Batch 2021) CAT, XAT

Students Enrolled for Higher Education



Swati Kamath
(Bussiness Management, XLRI)



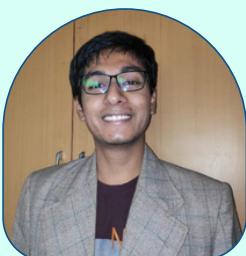
Vanshad Kitchloo
(M.Design, MIT Pune)



Karan Katekar
(MMS, WIM, Mumbai)



Siddhi Patil
(MS.Computational Mat. Sc., Freiberg)



Sarvesh Jigjinni
(MS. Mech. Engg., Belgium)

ISHRAE



This year, ISHRAE DBIT Chapter Working Committee was led by President Ms. Sheena Fernandes. In Spite of Covid 19 pandemic and the nationwide lockdown, ISHRAE conducted various webinars and online workshops in which students of DBIT actively participated. Mr Anjishnu Datta bagged the first place in the intercollege refrigeration day quiz conducted by ISHRAE Thane Chapter and Mr Saurabh Yadav were declared winner of best science experiment in Science Mela. ISHRAE DBIT had organized Fun-Damic quiz - Science/HVAC Quiz Competition and Paint Your Perspective - A digital online poster making competition for the students. The CWC also organized a K12 Activity, "Tips and tricks of Maths and Science", was held by ISHRAE DBIT Student Chapter. The activity was conducted online with the students of Shishu Vikas Mandir, Kurla(W). Aim of this event was to make the budding generation aware of the technical world with a twist of fun learning which helped the students to find their interest in the field of science and to overcome their fear of maths and science.



Virtual Factory Visits

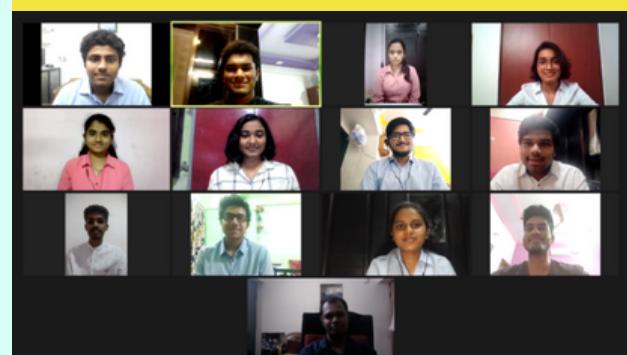
ISHRAE HQ introduced Virtual Factory Visits series for the students to continue giving them an exposure to industries despite lockdown. In these sessions, factories like Edgetech, Johnson Controls, Hitachi, Zeco, Blowtech discussed their products, its types and classification, process flow, product manufacturing, BOM, quality checkpoints, etc. ISHRAE student members utilized this amazing opportunity to get acquainted with current industry procedures.



MadGears

Mad gear sports club conducted various webinars, workshops and competitions throughout the year to give the students hands-on experience and updated knowledge in the field of automobiles. Even though this year all activities were taken up in an online mode; they did their best to help students raise their bar through constant learning and motivation. The various activities conducted included:

1. Workshop on Fundamentals of automobile by FMAE (Workshop)
2. Build it up (Competition) 2020:
3. Solid works body design (Competition) 2020:
4. Preliminary round for SaeBaja India Competition
5. Vehicle dynamics workshop 2021:
6. Build it from base (Competition) 2021
7. Static event of SAE BAJA



Internship



Hansel Lewis (BE)

1. Audi
2. Dimensions Global

Mitul Shetty (TE)

1. Hoerbiger India Precision Technology Limited

Sheena Fernandes (BE)

1. Ridvig Technologies (1 Month)

Priya Kundu (BE)

1. Mechatron Engineering Pvt. Ltd. (2 Months),
2. Sparks Foundation (1 Month),
3. Planet Spark (2 Months),
4. Sahyadri Foundation (1 Month),
5. Bharat Girl Up (3 Months)
6. A.A. Communicating Science Centre (1.5 Months)

Lubdha Nrkhede (BE)

1. Exotic fabtech Bhivandi,
2. Central Railway Bhusawal, Rashtriya Chemicals and Fertilizers Chembur

Mizab Bardi (BE)

1. Parametric Solutions Private Limited (4 weeks - Thane)
2. Vidushi Wires Private Limited (3 weeks - Ambernath)



Online Courses

Mizab Bardi

1. Writing Skills for Engineering Leaders,
2. The 3D Printing Revolution,
3. Manufacturing Process with Autodesk Fusion 360 (Autodesk),
4. 3D Printing Applications ,
5. Intro to Digital Manufacturing with Autodesk Fusion 360 (Autodesk),
6. Introduction to Mechanical Engineering Design and Manufacturing with Fusion 360 (Autodesk),
7. Autodesk Fusion 360 Integrated CAD/CAM/CAE (Autodesk),
8. 3D Model Creation with Autodesk Fusion 360 (Autodesk),
9. Engineering Design Process with Autodesk Fusion 360 (Autodesk).

Priya Kundu

1. Project Management Principles and Practices Specialization,
2. Engineering Project Management Specialization,
3. Human Resource Management: HR for People Managers Specialization,
4. Strategic Leadership and Management Specialization,
5. Autodesk CAD/CAM/CAE for Mechanical Engineering Specialization.
6. The Cycle: Management of Successful Arts and Cultural Organizations,
7. Becoming a changemaker: Introduction to Social Innovation,
8. International Leadership and Organizational Behaviour,
9. Women in Leadership: Inspiring Positive Change

Lubdha Nrkhede

1. 3D printing revolution, Digital manufacturing and design,
2. Introduction fusion 360, manufacturing fusion 360.
3. Writing skills for engineering leaders

Alwin Wilson

1. Fusion 360,
2. Python data structure,
3. Pressure-force-motion-humidity sensors,
4. Fundamentals on fluid-solid interaction.

Wasib Razvi

1. Writing skills for engineering leaders,
2. Introduction to mechanical engineering design and manufacturing with fusion 360

Sheena Fernandes

1. Writing Skills for Engineering Leaders
2. Design Thinking for the Greater Good: Innovation in the Social Sector

Kevin Frank

1. Digital Marketing,
2. Writing Skills for Engineering Leaders,
3. Introduction to Mechanical Engineering Design & Manuf. with Fusion 360,
4. Financial Markets

Yatik Mehta

1. Python for everybody(5 subcourse), python project, Arduino,
2. Autodesk fusion 360,
3. Successful negotiation

INNOVEX

This is the second consecutive year when the exhibition was held in online mode. It was inaugurated on 30th April and closing ceremony was held on 8th May 2021. The INNOVEX gives the platform for the final year students to showcase their year-long effort in their projects and help them in open-ended discussions and deliberations for improving the scope of the project. It also encourages the students to pitch their ideas & solutions in front of the judges from the Industry, Academia, Stakeholders, Parents, Industry Personnel, Alumni etc.

From the department, a total of 41 BE final year projects were displayed on the website with the poster and video presentation link of each group. Projects were mainly categorised into 4 categories as.

i. Community Welfare ii. Sustainability iii. Product development iv. Research

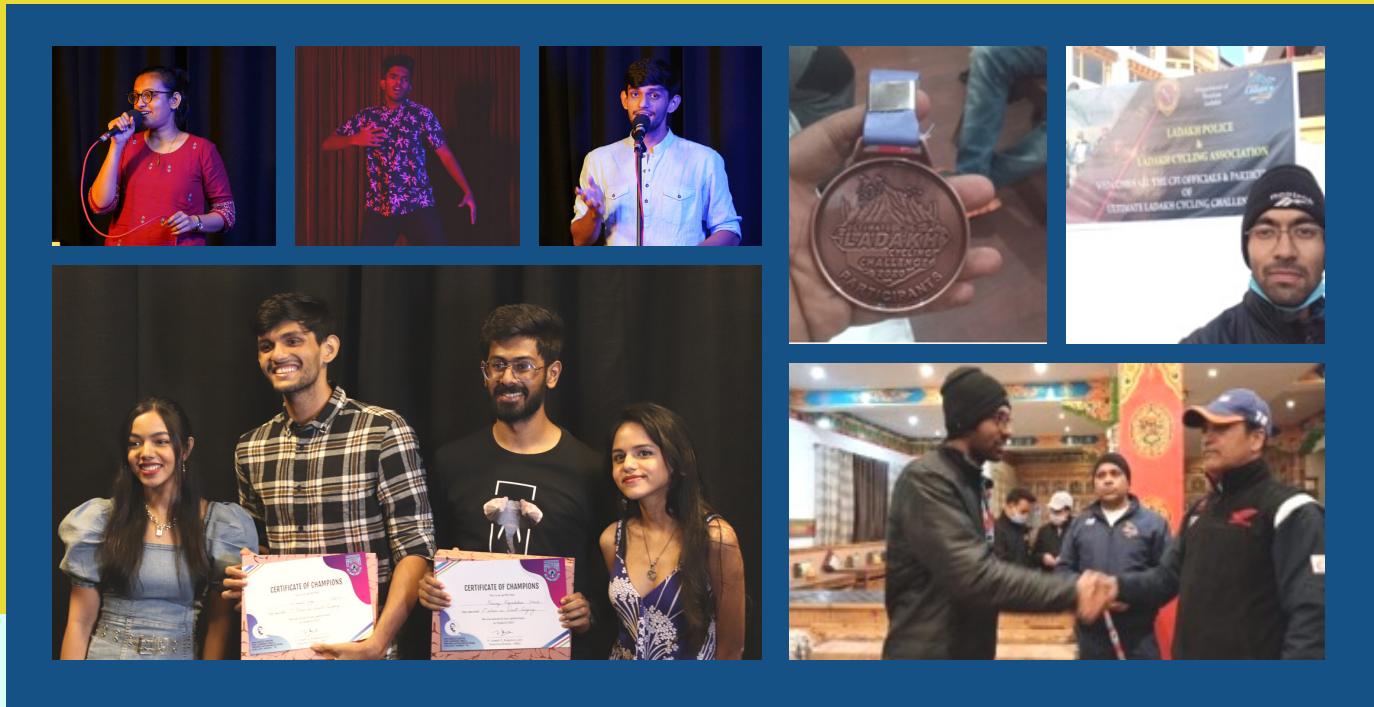
These projects were evaluated by 4 judges and a total of around 2800 unique viewers feedback was captured. The winners for INNOVEX 2020 from Mechanical Engineering Department are:

<p>e-Innovex 2021 - Mechanical.</p> <p>"Paper Box Making Machine"</p> <p>Project Guide : Mr. Johnson Nellisery</p> <p>Nihar Chavan Anjaney Thakur Aditya More</p> 	<p>e-Innovex 2021 - Mechanical.</p> <p>"A Novel Approach for Sustainable Handling Disposal of Sanitary Pads"</p> <p>Project Guide : Dr. Prasanna Nambiar</p> <p>Amol Nagpure Priti Warang Sanjana Nandavar Pratibha Sharma</p> 	<p>e-Innovex 2021 - Mechanical.</p> <p>"Bio-Mimetic Flapping Wing Mechanism"</p> <p>Project Guide : Dr. Shashikant Pawar</p> <p>Joel Nazareth Aweiz Shaikh Sagar Save Shanuk Shetty</p> 
<p>e-Innovex 2021 - Mechanical.</p> <p>"An Approach to Aid Mobility in Parkinson's Disease patients"</p> <p>Project Guide : Dr. Prasanna Nambiar</p> <p>Daniel Pallakkra Noel Sequeira Yash Majithia Siddhartha Shetty</p> 	<p>e-Innovex 2021 - Mechanical.</p> <p>"Design & Manufacturing of Dual Injection Nozzle for 3D Printer"</p> <p>Project Guide : Mr. Swapnil Gujarathi</p> <p>Ameya Carvalho Samuel Dalva Jason Dsouza Brannon Pinto</p> 	<p>e-Innovex 2021 - Mechanical.</p> <p>"Design of Smart Incinerator with Catalytic Converter Attachment"</p> <p>Project Guide : Mr. Johnson Nellisery</p> <p>Kenneth Dmello Swapnil Tuscano Seraj Tuscano Aren Almeida</p> 
<p>e-Innovex 2021 - Mechanical.</p> <p>Winners - "Viewers Choice"</p> <p>"Design of Natural Cooling System for Urban Requirements"</p> <p>Project Guide : Dr. Prasanna Nambiar</p> <p>Sheena Fernandes Akshat Choudhary Shaun Dsouza Clavin Colaco</p>		

Inter College Project Competition

Every year students from the department participate in intercollegiate research proposal competition "Avishkar" organized by University of Mumbai. In this academic year four students Mr. Shaikh Mohd Awaiz Mohd Idris, Mr. Nazareth Joel Jerald, Mr. Save Sagar Sandeep, Mr. Shetty Shanuk Uday had reached the final round in the competition. They were honoured with a participation certificate. Their project title was "Design and Fabrication of a Bio-mimetic Flapping Wing Mechanism" under the guidance of Dr Shashikant S Pawar.





Sports & Culture

This year due to everything being online, we had a very few sports and cultural events but yet we managed to conduct some engaging activities. Piyush Jogale and his team participated in Intra College Kabbadi. Anuranjini Komban participated in Intra College Debate Competition. Alisha Satish Gadhav participated in Intra College Singing and Monologue Competitions. Aaditya Sawant participated in Photography Competition. Shivaam Singh and his team earned a Letter of Appreciation for making NSS WEB APP which is a National Level Application Development Competition.

In October 2020, Parth Gupta, represented state of Maharashtra at National level mountain biking championships at Leh Ladakh. He won bronze medal.

Hysteria

The Mechanical Engineering department bagged the third place in DBCL's (Don Bosco Center of Learning) annual cultural fest, Hysteria, in this academic year. The students bagged winning positions in various events like singing, monologue, art, debates, etc.

Colosseum

Colosseum the technical fest of DBIT was conducted completely online this year. Online workshops, webinars, exhibitions and competitions witnessed an active participation from the students. For the mechanical engineering students the major competitions conducted were 'Build From Base'- Solidworks design competition and 'Know Your Factory'- A presentation competition on how a particular product is made in a given factory.

Students Council

Student Council 2020-21 was led by girls of Mechanical Department namely Sheena Fernandes (Left)- The General Secretary, Diana Fernandes (Middle)- The Marketing Secretary and Swati Kamath (Right)- The Technical secretary.



FACULTY CORNER

Self Development



Sandeep Sabnis

- Paper published in the Proceedings of the ASME 2020 (International Mechanical Engineering Congress and Exposition) with Title "Dry Reforming of Biogas to Syngas - An Eco-friendly Renewable Fuel for IC Engines"
- Completed online course in Coursera "Major Engineering Project Performance" in Coursera platform.

Sandeep Dasgupta

- Earned Six Sigma white belt certification from Council of Six Sigma Certification (CSSC) and Green belt from Coursera platform.
- Completed training in Non Destructive Test from NPTEL platform



B S Chavan

- Registered for PhD in the domain of Non-conventional Manufacturing for Non-Metals in IIT Bombay.

Dr. Y S Padiya

- A National Patent was granted jointly with Dr M V Rane on "A condenser heat recovery Based distillation process and apparatus"
- Received consultancy of Rs 1 lakh for designing 20 kl/day capacity of the zero liquid discharge system.
- Carried out energy Audits at various industries.





Hemant Hogade

- Completed Online Solidworks professional certificate from Dassault Systemes.

Johnson Nellisery

- Completed online industrial training on CREO software from National Small Scale Industries Corporation
- Participated in online Elementary FDP on "Exploring Ideas To Scalable Product Design Skills" from AICTE Training And Learning (ATAL) Academy.



Shreeprasad Manohar

- Registered for PhD in the domain of 4-Dimensional Bioprinting Technology with topic of "4D printing of tissue engineered bone scaffold" from Assam Don Bosco University
- Completed online Solidworks Professional Certification from Dassault Systemes
- Undergone online industrial training on CREO software from National Small Scale Industries Corporation.
- Undergone 2 months project titled "Preparedness Of Indian Manufacturing Industries To Use Metal 3d Printing In Near Future" under Dr R Balasubramanniam, BARC.

Two research papers published:

- Review of enhancement of polymer for Mechanical extrusion process by combining with filler material, 2nd International Conference on Recent Advances in Manufacturing (RAM-2021)
- Generation of a 3D Printed Brain Model from MRI Scan Data to Assist in Brain Surgery using Open Source Tools, Asian Journal of Convergence in Technolog

Cleta Pereira

- Completed online courses on "Introduction to Indoor Air Quality" and "Introduction to Sustainability in Coursera platform."
- Completed Mod1 (Orientation towards Technical Education & Curriculum Aspects) and Mod2 (Professional Ethics Sustainability) from National Initiative for Technical Teachers Training (NITT 2021).



Adoption of Special Project in the Dept.

Department of mechanical engineering, under mentorship of Dr S Krishnamoorthy, has conceptualised and adopted special projects. For this, a core faculty group was formed comprising following faculty, Dr S S Pawar, Dr N M Rao, Dr P Suryawanshi, Sandeep Sabnis, Sandeep Dasgupta, Swapnil Gujrathi, Shreeprasad Manohar, Cleta Pereira. They met with the mentor 4 times in the college following covid protocol and more than 6 times online to discuss, brainstorm about the same and finally come with few ideas to be adopted by themselves and for other faculty of the department.

The outcomes of this project is to

1. improve employability of the students
2. branding of the department
3. inculcate entrepreneurship skill
4. improve placement
5. enhance the visibility of the department



The ideas proposed by core group were mainly in the domain of creation of video content in some of the mechanical engineering area, creation of video content to face job interview, collaboration with industry, reaching out to junior and diploma colleges, initiation of value added course to plug the gap in the syllabus, making the students industry-ready, internship to the students etc.

After approval from Executive director and Principal, these were floated to the all faculty of the dept. for adoption and to drive in an individual capacity to bring them into completion by the end of November 2021.

Mentoring

At the beginning of the AY 2020-21 it was decided at the institute level that at least two mentoring sessions should happen in a semester out of which one session will be one to one basis between mentor and mentee. Each faculty of the department have been assigned 18 to 20 students as their mentees who will be with the concerned faculty from Semester I till end of the BE program i.e Semester VIII.

All mentors of the mechanical department had put more emphasis on understanding the difficulties (technical, financial, academic) faced by the students during this pandemic situation and tried to give directions to overcome such difficulties. During the session students' were also encouraged to reveal their expectations from the department. Mentors put all their effort to drive away the concerns of the students regarding placement, academic results etc. and infused the necessary positivity amongst students. After every mentoring session mentors of the department submitted the report to the department coordinator who in turn submits to the institute mentoring in-charge.



GENERAL AFFAIRS

Change of Guard



Dr N M Rao

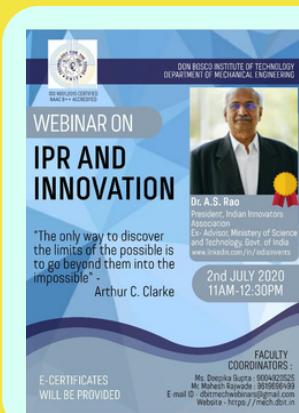
Dr. N.M Rao was relieved from the chair of HoD, Mechanical Engineering dept. and given the new responsibility of Dean, Research & Development of the Institute in the month of January 2021. Dr. Shashikant S Pawar assumed the charge of HoD, of the dept. Dr Pawar holds a PhD from IISc, Bangalore, specializing in Fluid Mechanics and Heat Transfer.



Dr S S Pawar

He completed his UG and PG degree in Mech Engg from VJTI, Mumbai and NIT, Himachal Pradesh respectively. He had a stint of about a year in the high performance computing lab of IIT, Kanpur. He has total 9 years of teaching, research and Industrial experience excluding years of research during his doctoral work. His research interests are fluid turbulence, natural convection and light propagation through turbulent media. Dr Rao was instrumental in getting the consultancy projects for the department and had displayed a significant leadership in the field of computational research. With his industrial and academic experience, he steered the department progressively in the right direction during his tenure.

Webinars



Many webinars were conducted throughout the year. These events were organised by the faculty coordinators Mr. Swapnil Gujarathi, Ms. Jenifer Abin, Mr. Mahesh Rajwade, Ms. Deepika Gupta and Mr. Bajirao Nangare Patil along with student coordinators Ms. Elsa Mathew, Ms. Sheena Fernandes, Ms. Priya Kundu, Mr. Shivam Singh, Ms. Swati Kamath, Mr. Daniel Joy, Mr. Noel Fernandes, Mr. Mitul Shetty, Mr. Jorden Joy and Mr. Rahul Kadam.



A webinar on **IPR AND INNOVATION** was conducted by the department on 2nd July 2020. Resource person for the session was DR. A. S. Rao. He covered the following points during the session:

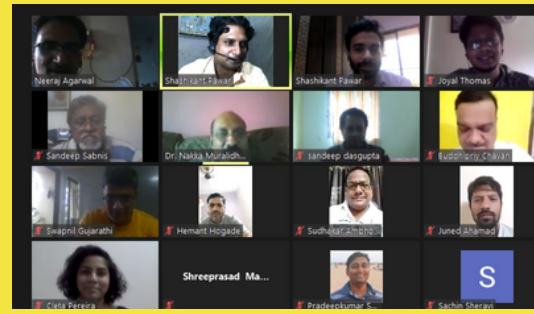
- Patents: What they are, when they are required, when they are awarded,
- The 9 Technological Readiness Levels
- Compulsory License
- Types of Patents: Business Method Patents, Utility Patents
- The concept of Juggad
- Protection of Designs
- Copyright and Trademark
- Trade Secrets
- Innovation Topology
- Freedom to Work
- WIPO Proof
- COVID-specific innovations

A webinar on **HARNESSING THE POWER OF BODY LANGUAGE** was conducted by the department on the 1st of July, 2020. Resource person for the session was Dr. Ojha, who attempted to answer four questions, namely:

- The What: What is body language a part of?
- What is body language made up of?
- The Why: Why is harnessing body language important?
- The How: How does one harness their body language?
- The Where: Where does body language come into play?

AAC MEET

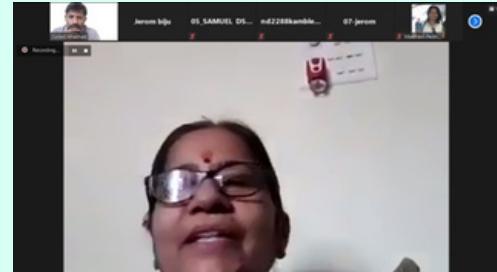
Academic Advisory Committee Meeting was held on 15th May 2021 in online mode. Due to poor internet connectivity, Dr R Balasubramaniam could not join the meeting but other two advisors Dr Neeraj Agrawal and Dr K S Murthy joined the meeting. Our alumnus Mr Joyal Thomas was invited in the meeting. Following agenda were discussed:



1. Faculty shared their experience and difficulty in conducting practical courses.
2. Updating of the recommendation of previous (6th) AAC meeting was done.
3. Dr. Pradeepkumar Suryavanshi had presented at length the activities of Entrepreneurship/Incubation Cell, sought their suggestion how to get funding from Govt. and non-govt. agencies.
4. Course outcomes, the identified gaps in any course and the proposed action plan files were presented and sought their approval.
5. Suggestions were sought to have MoU with industry and how to proceed about it.

Parents Teacher Meet

Parents Teachers Meet was conducted in online mode for each class on 27th March, 2021. The points discussed were academic schedule, IA-1 marks, Class attendance and any financial difficulties for the students. Then Q&A session with parents were conducted. At the end one to one interaction was done with the parents by respective class teachers. The suggestions and inputs given by the parents were recorded. In general parents appreciated and acknowledged that efforts taken by the dept. and faculty during this difficult situation for the growth of their children. They said it should continue the way it is,



Mother of Tarun Mulani, Sem IV



Father of Samuel D'Souza, Sem IV

Activities of Lab Assistants

Non teaching-staff of the department have been upgraded themselves through peer learning. A basic computer course was designed for them of 2 hours each day for 15 days. Indranil Mukherjee (Top Left) was the resource person. Sunil Chatur (Top Right), Sushil Joshi (Bottom Left). Sandesh Chindarkar (Bottom Middle) and Vinay Shinde (Bottom Right) were the attendees.



1. Primary knowledge of computer, Input & Output devices, File system – File naming and file storing and navigating
2. MS Word – Creating and saving, editing, align text, insert table and pictures, formatting, Text style, page sate-up
3. Excel – Creating and saving, Column, row and cell concept, filling date, Data type, simple functions, sorting, page sate-up,
4. Basic Internet usage.



E-CELL

The Entrepreneurship Cell (E-Cell) of DBIT christened as "Idiots Room" conducts various activities to motivate and expand student's knowledge in this entrepreneurship aspect apart from their daily curriculum study. The core team of E-Cell consisted of students from the mechanical department namely Tanmay Bora- E-cell Head, Rutvik Sanap- Co-innovation Head, Velchristine Rodrigues- Events Head, Ritwik Wani- PR & Marketing Head. The events and activities organised for the year 2020-21 were:

- 1.Startup Forum: Gaming Industry
- 2.Colosseum: Stock Market Simulation
- 3.Webinar: Lead the Pack – Engineers in
- 4.Colosseum: Case in Point
- Entrepreneurship
- 5.Colosseum: Business & Economic Quiz
- 7.DREAM 11 Game Strategy Competition
- 8.Colosseum: Marketing Maestro
- 9.E-Cell Newsletter: Teaching Marco
- 10. Innovation Cell Activities

COVID PROTOCOL

During the lockdown periods, Department of Mech Engg has adopted functioning through online mode, while some teaching and non-teaching staff come to the college as per administrative requirement but following COVID-19 guideline issued by the state Govt and the local authorities. Regular teaching, practical, Internal Test, Project, Mentoring etc all the activities were conducted in online mode.

From the end of year 2020 until beginning of 2021 when pandemic situation seemed to be getting better, the second wave of COVID-19 struck the nation, which resulted subsequent lock down and ruffled the professional technical education system. Despite all the odds, we completed the academic curriculum on time and conducted end semester examination as per University of Mumbai SOP.

Department of Mechanical Engg. sincerely request one and all to abide by the precautionary measures specified by the Govt. and suggest following protocol to contain the spread of COVID-19.



We appreciate feedback from readers/stakeholders. If you have any question or comment please send us on the department website feedback portal to enable our continual growth.

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