



BHARAT
Institute of Engineering and Technology
NAAC Accredited; NBA Accredited for UG Programmes: CSE, ECE, EEE & ME
Approved by AICTE, New Delhi; Affiliated to JNTUH

MECH-A-ZINE

2020-21



DEPARTMENT OF MECHANICAL ENGG.

Contents



OUR GOAL



To achieve the deemed university status and spread universal education by inculcating discipline, character and knowledge into the young minds and research enthusiasts.

OUR MOTTO



"Work hard, Work harder,
Work with efficiency,
Work in cooperative spirit,
Work with a team spirit to make your
country great."



OUR VISION



The Mechanical Engineering Department strives to create centers of excellence in the field of Mechanical Engineering and promoting Entrepreneurship with Value-based teaching – learning process.

OUR MISSION



To impart quality education and enhance skills of students making them high quality Mechanical Engineers

To provide state of art research facilities for the students to enhance their technical knowledge for the development of industry. To link with world class educational institutions and R&D organizations to excel in research and serve the community.

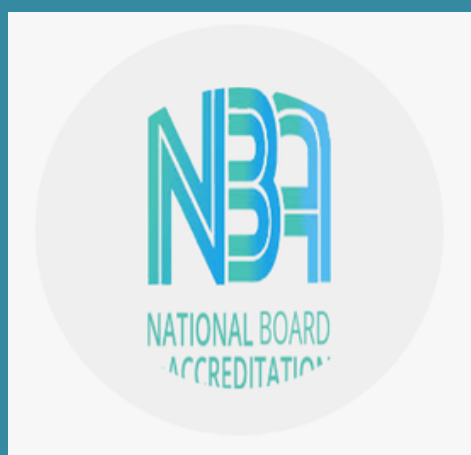


Accreditations



**ALL INDIA COUNCIL OF TECHNICAL
EDUCATION**

UNIVERSITY GRANTS COMMISSION



NATIONAL BOARD OF ACCREDITATION

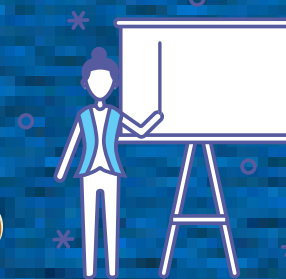
**NATIONAL ASSESSMENT &
ACCREDITATION COUNCIL**



**JAWAHARLAL NEHRU
TECHNOLOGICAL UNIVERSITY
HYDERABAD**



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Mr. Nikhil Reddy

M.Tech (Visvesvaraya University Bangalore)

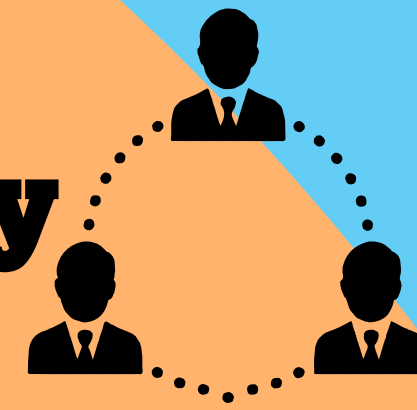
Assistant Professor

8904073265

nikhil@biet.ac.in



Roles of Department Faculty



S. No	Faculty members	Roles and Responsibilities
1.	Dr. J. P Singh	College Principal
2.	Dr. Mithlesh Sharma	Admin & Academic Incharge
3.	Dr. A. Naveen Krishna	Department Incharge : <ul style="list-style-type: none"> NBA Students Project Cell IIC, CII Student Grievance Cell Technology For Rural Areas
4.	Dr. Ruchin Kacker	Department Incharge : <ul style="list-style-type: none"> R & D ISO certification Deputy Incharge : <ul style="list-style-type: none"> NBA committee IQAC committee
5.	Dr. D. S. Bhaskara Rao	IQAC (Department level) Renewable Energy committee (Deputy Incharge) Metrology Lab Incharge
6.	Mr. T. Ramachandru	NSS and Automation Incharge
7.	Mr. Hemasundar Banka	Department Incharge : <ul style="list-style-type: none"> Admissions Repair & Maintenance NIRF Incharge SAE India Hyderabad (Division MC Member)
8.	Mr. T. Dinesh Kumar	Training and Placements (Department Incharge)
9.	Mr. Pradeep Chavan	Exam Cell & Stocks (Department Incharge)
10.	Mr. Dheeraj Joshi	GATE & Higher Studies (Department Incharge) Discipline & Anti-ragging committee (Deputy Incharge)
11.	Mr. Umesh Kishore Sharma	Department Website Incharge
12.	Mrs. T. Gayathri	Admin Audit member
13.	Mr. Ajit Kumar	ICT Cell (Department Incharge) Bridge and Remedial committee (Deputy Incharge)
14.	Mr. Nikhil Reddy	Exam Cell (Deputy Incharge) Library Committee (Deputy Incharge)



PLACEMENTS



- Total Number of placement in the year 2019-20: 37
- Number of students enrolled in the Higher education: 18
- Graduated Students: 72 out of 74 (97%)
- Core Placements: 8 (2019-20) / 4 (2020-21)

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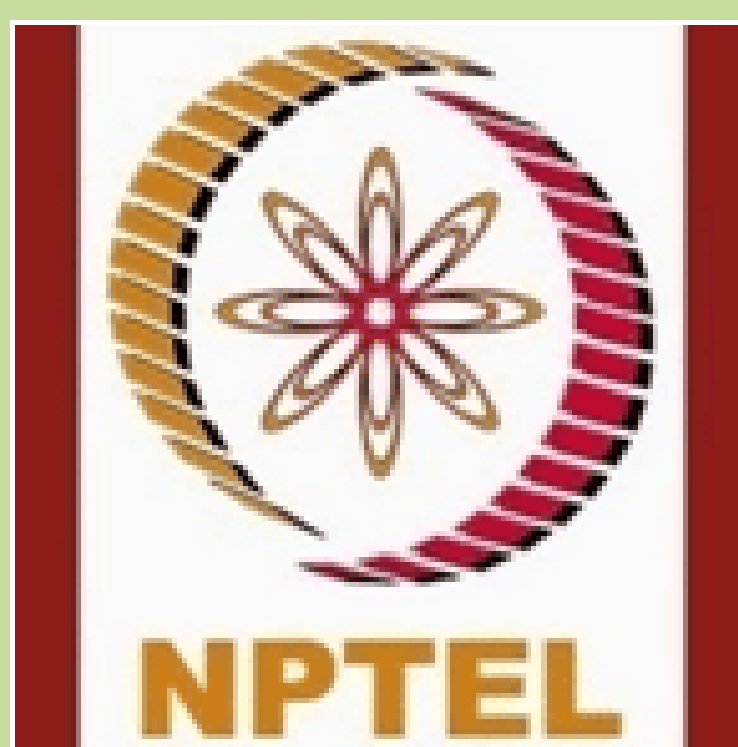
Warmest Wishes...

OUR PLACED STUDENTS (2020-2021)

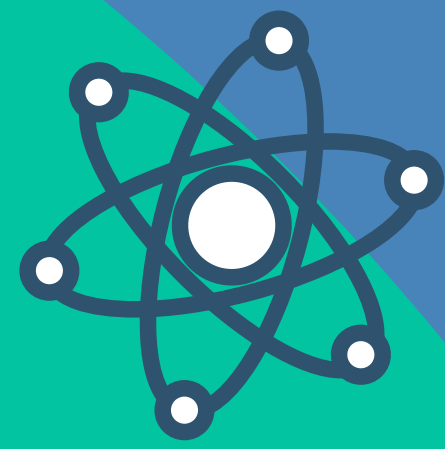
  T. Karthik Kumar 17E11A0320	  G. Shyam Prasad Reddy 17E11A0360	  Vikas V 17E11A0329
  R. Aman 17E11A0304	  CH. Manikanta 17E11A0325	   G. Varshith 17E11A0306



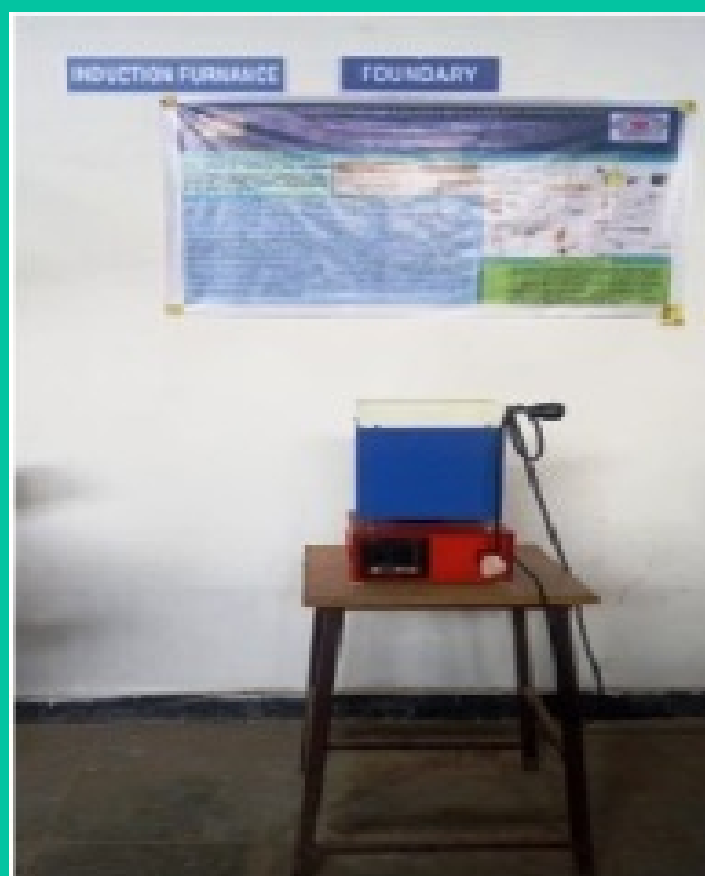
Professional soceity memberships



DEPARTMENT LABS



1. Engineering Workshop



2. Metallurgy and Material Science Lab



3. Fuels and Lubricants Lab



4. Kinematics and Dynamics Lab



5. Fluid Mechanics and Hydraulic Machines Lab



6. Manufacturing Process Lab



7. Thermal Engineering Lab



8. Machine Tools Lab



9. Engineering Metrology Lab



10. CAD and MAT LAB



11. Heat Transfer Lab



12. Computer Aided Manufacturing (CAM) Lab



13. Instrumentation and Control System Lab



Engineering education is incomplete without laboratory practice. The overall goal of engineering education is to prepare students to practice engineering and in particular to deal with the nature of problems faced by society. The laboratory practice has been an important part of professional and engineering undergraduate education; a laboratory is an ideal place for active learning. Students learn in a real-world environment, function as team members. Department laboratories equipped with the state of the art advanced facilities apart from JNTUH prescribed laboratories. Some of the advanced lab equipments are listed below

- Advanced CNC Machine
- Advanced CNC milling Machine
- 3D printing Machine
- CNC Foam Cutting Machine



Research Activities



The department has 13 well established laboratories. Each lab is equipped with facilities which cater to both teaching and research needs. Mechanical engineering department faculties are involved with Industry as well as government sponsored projects in various fields of their expertise. The group has extensive experience in a wide range of research projects and has worked with several academic and industrial partners to deliver successful results.

Some of the core areas of research of the department include:

CAD/CAM, Rapid Prototyping and Manufacturing

Advance Welding Processes, Non-Destructive Testing Techniques.

Computational Structural Dynamics.

Computational Fluid Dynamics and Computational Heat Transfer.

Product Design and Special Manufacturing process.

Renewable Energy Sources, Solar energy.

Industrial Robotics, Fuzzy Logic & Artificial Intelligence.

S. No	Name of the faculty	Patent No.	Date of Publication	Title
1	Mr. Pradeep Chavan	202141011034A	19/03/2021	Comparison on Thermal Analysis of Aluminium Alloy 1199 Fins with Aluminium Alloy 204 by Variation Temperature Distribution
2	Mr. K. Raju	202041021833	2020	Covid-19 Killer : Sanitizer Making process using Machine Learning to kill SARS CORONAVIRUS (COVID-19)
3	Mr. Dheeraj Joshi	202041028746A	06/07/2020	Disinfects clothes, eating food, Vegetable & Fruit juice Grocery kitchen item using Ultraviolet Light

S. No	Assessment year	National Journals	International Journals	National Conferences	International Conferences	Total
1	2019-2020	1	--	2	--	3
2	2018-2019	--	9	--	--	9
3	2017-2018	--	7	--	3	10
4	2016-2017	4	4	1	1	10
5	2015-2016	1	9	--	1	11
6	2014-2015	6	13	5	4	28



Research Publications (2019-21)

S. No	List of Authors	Title of paper	Name of the Journal/Conference	Year of Publication	DOI/ISBN/Online ISSN
1	Dr. Manish Sharma	Exegetic performance analysis of KW scale Organic Rankine Cycle	Procedia Environmental Science, Engineering and Management	2019	ISSN 2392-9537, Vol 6, Issue No. 4
2	Dr. A. Naveen Krishna Dr. Jagan Mohan Reddy	Optimisation of primary Healthcare Facilities Location in Urban Areas : A case study of Mumbai	61 st National Convention of Indian Institution of Industrial Engineering & 5 th International Conference on Industrial Engineering (ICE-2019)	2019	ISSN 978-93-86238-81-8, Colorado 61, Issue No. 5
3	Dr. Naveen Krishna	Location Optimization of Urban primary Health co-workers	ICCTE	2020	--

Research Projects (2020-21)

S. No	Name	Project Title	Agency applied	Applied/Granted (2020-2021)	Amount (₹) (in Lakhs)
1	Dr. Mithlesh Sharma	Investigation of Carbon fibre based composite material for possible usage in Hydro turbine	DST/SERB	Applied (Under consideration)	69.5
2	Dr. A. Naveen Krishna	Experimental Investigation of alternative power cycle for solar power	AICTE-RPS	Applied	18
3	Dr. A. Naveen Krishna	Portable Solar powered Street vendor vehicle	AICTE- CHATRA VISHWAKARMA	Applied	NA



Research Extensions



Innovative and Applied Research Projects.

Forest Waste Management:

S. No	Title	Year	Funding Agency
1	Design & development of drone for emergency purpose	2020-2021	Self-financed
2	Design of Foam cutting CNC machine	2020-2021	Self-financed
3	Portable Solar powered Street vendor vehicle	2020-2021	Self-financed
4	Design & Fabrication of Dry erosion test rig	2020-2021	Self-financed

Solar Powered Equipments for Farmers and Society:

S. No	Title	Year	Funding Agency
1	Solar powered Trolley for Handicapped person	2016-2017	Self-financed
2	Solar Powered Tiller	2014-2015	Self-financed

Technological advanced Products

S. No	Title	Year	Funding Agency
1	Design & development of palletisation plant for production of pellets from forest waste	2019-2020	Self-financed
2	Production of bio fuel from forest waste	2019-2020	Self-financed
3	Production of Hardwood/Ply from forest waste	2017-2018	Self-financed



Awards/Recognitions

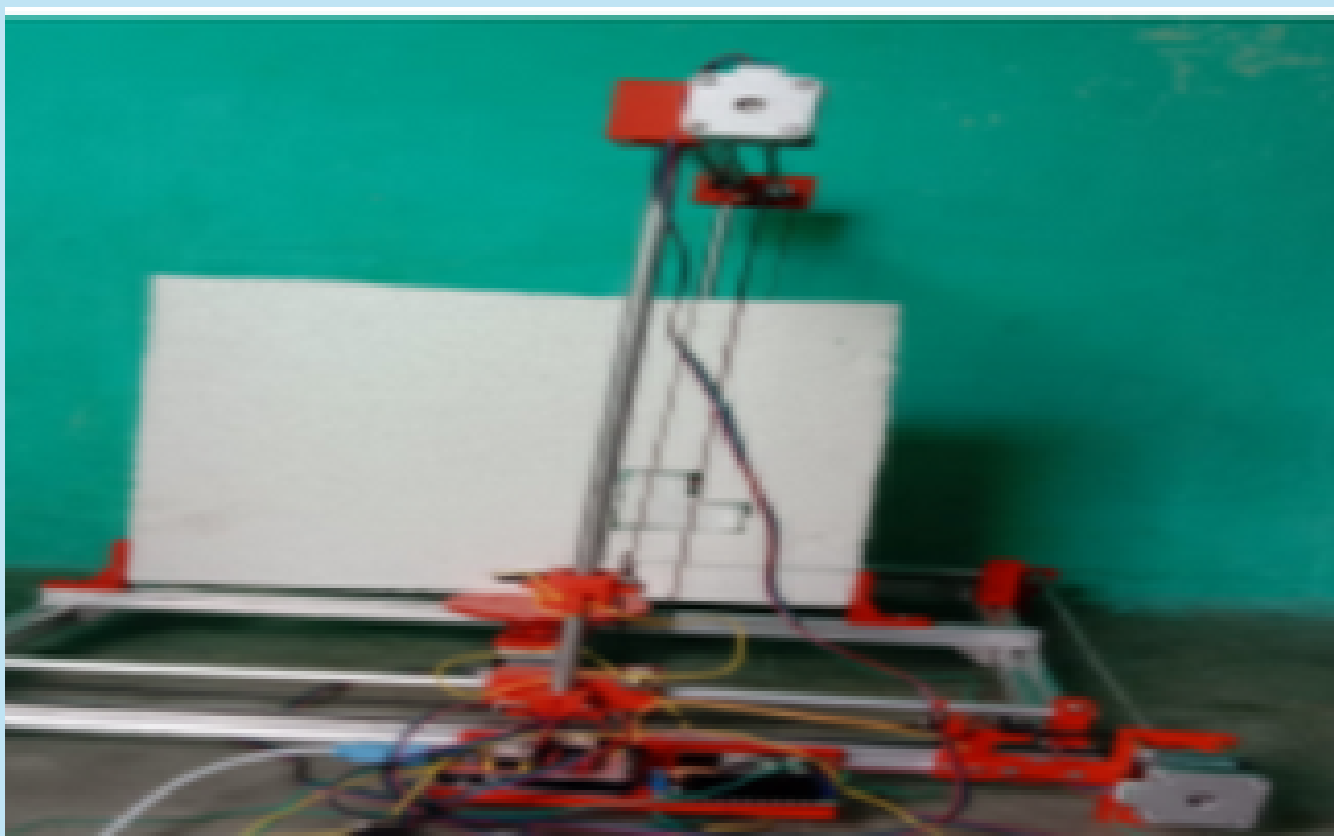


- Last three years consecutively selected for AICTE VISHWAKARMA Award.
- Got third prize in regional level competition held by AICTE Chatra Vishwakarma Award.
- Got first position in Business competition in 2018



Utkrisht Sansthan Vishwakarma Awards 2019

Palletization plant
presentation at AICTE,
Bangalore



Innovative Project of Arduino based CNC Foam cutting machine under the guidance of Dr. Naveen Krishna, Asst. Professor

Students involved:

D. Mayur Nath (18D95A0302)

Yuvraj Tej (17E11A0341)

John Saida (16E11A0306)

E. Dasru (17E15A0308)



Upcoming Specialisations



Aerospace Engineering



Textile Engineering



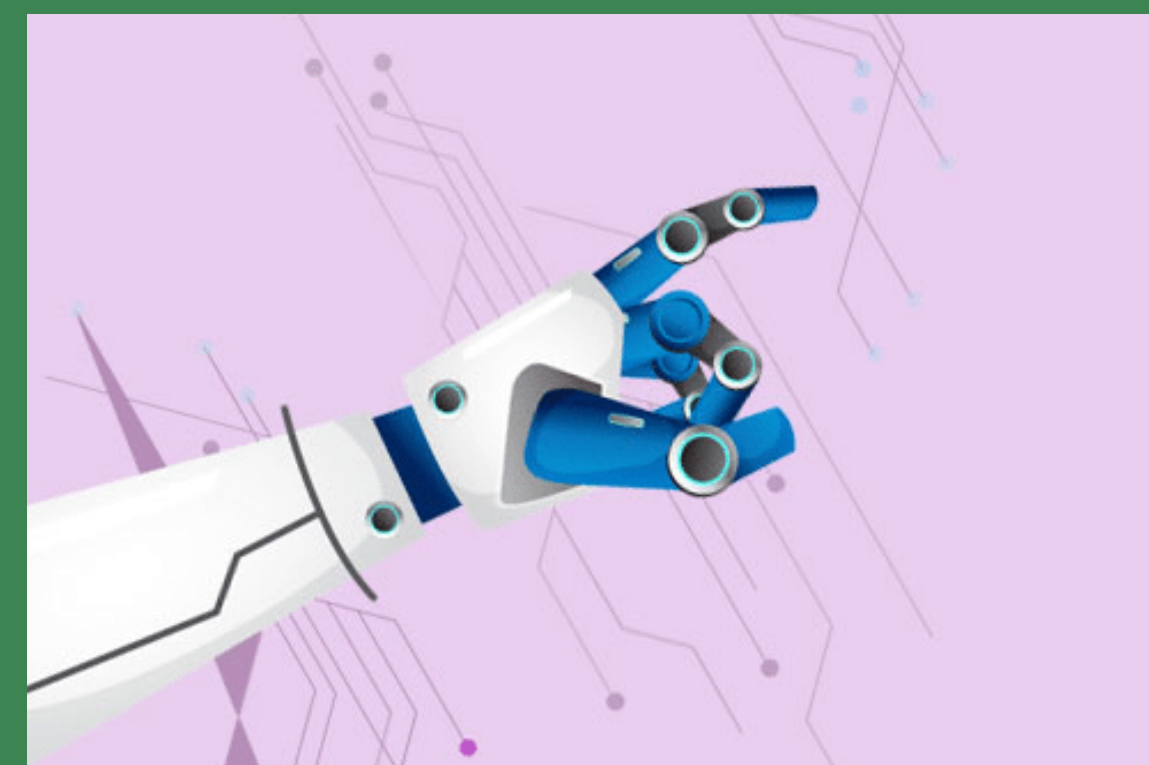
Mechatronics Engineering



Metallurgical Engineering



Applied Mechanics



Biomechanics Engineering



Collaborations (2019-21)



MoU with Central Institute
of Plastic Engineering and
Technology



MoU with eVital Heavy
Engineering Pvt Ltd



MoU with Peepal Renewables
India Private Limited, Hyderabad



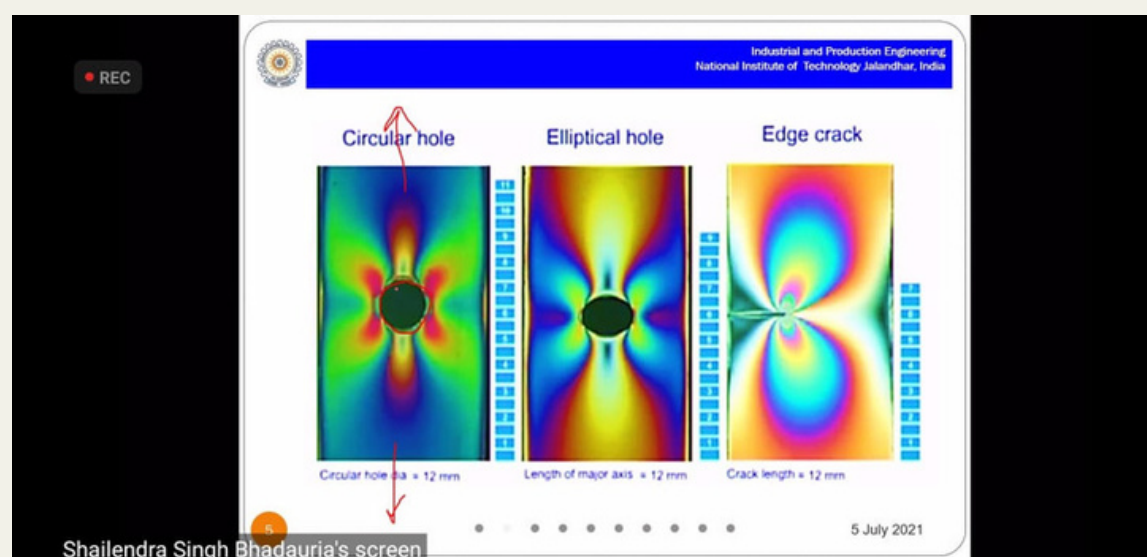
MOU with Central
Institute of Tool Design,
Hyderabad



SAP (ABAP/MM/FI/SD/HR) 30 days Train the Trainer program



Department Activities (2020-21)



Expert Talk on “Introduction to Fracture and Fatigue in Solid Mechanics”, Speaker: Dr. Shailendra Bhaduria, NIT Jalandhar, Punjab



National Workshop on Entrepreneurship as a career opportunity for Engineers. Speaker: Mr. Amit Sharma CEO & Founder, Ayantaram PVT. LTD.



Webinar on “National Education Policy- NEP 2020”



In Collaboration with RADOS ENGINEERING, IMPORTANCE OF PIPING IN INDUSTRY, Speaker: Er. K.S. Bhogal, Project / Piping Engineer



National workshop on “Role of Modern Technology in Engineering”



HIGHLIGHTS OF DEPARTMENT



Graduated students : 70.77%

Placements : 74.5%

Higher Studies : 22%

Average pay package : 2.5 LPA

Highest pay package : 7.0 LPA

NPTEL certified : 30

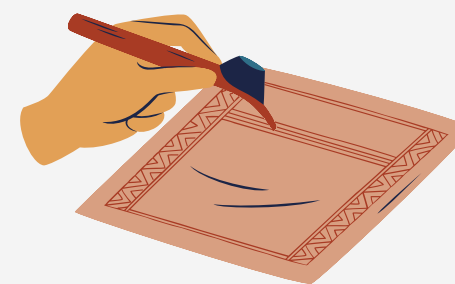
COURSE PLANNING AND IMPLEMENTATION



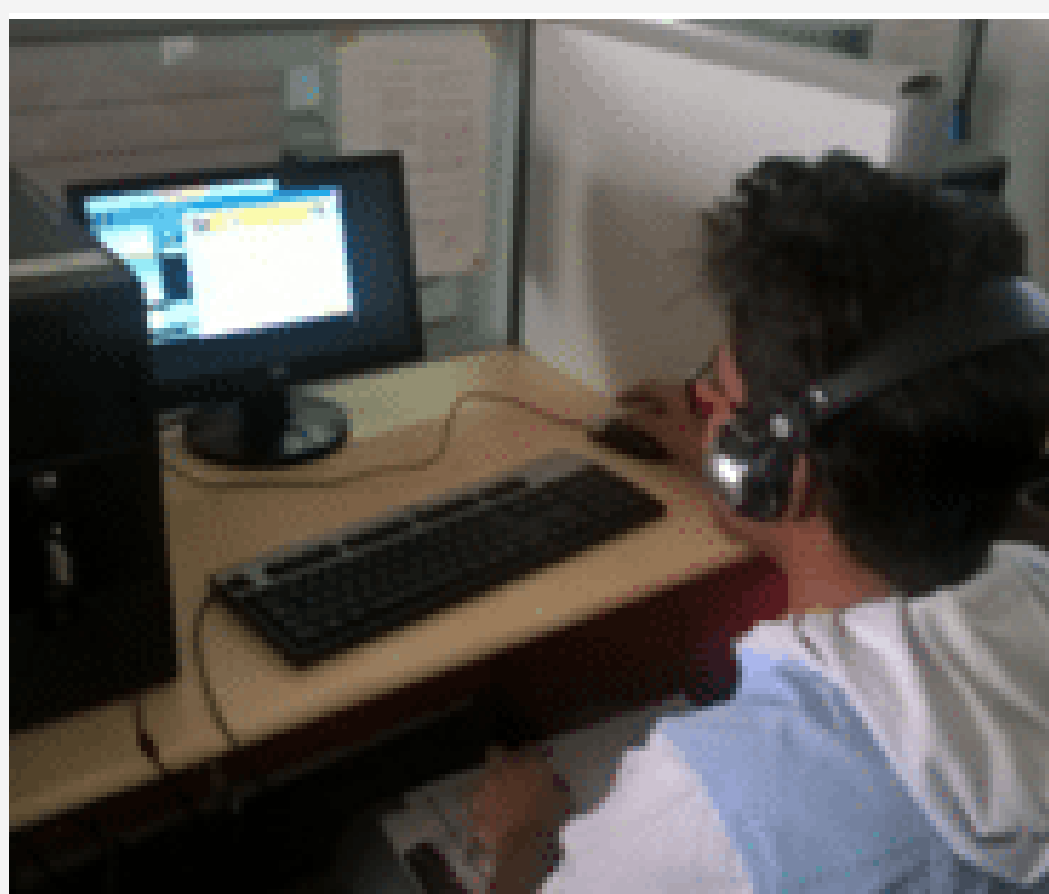
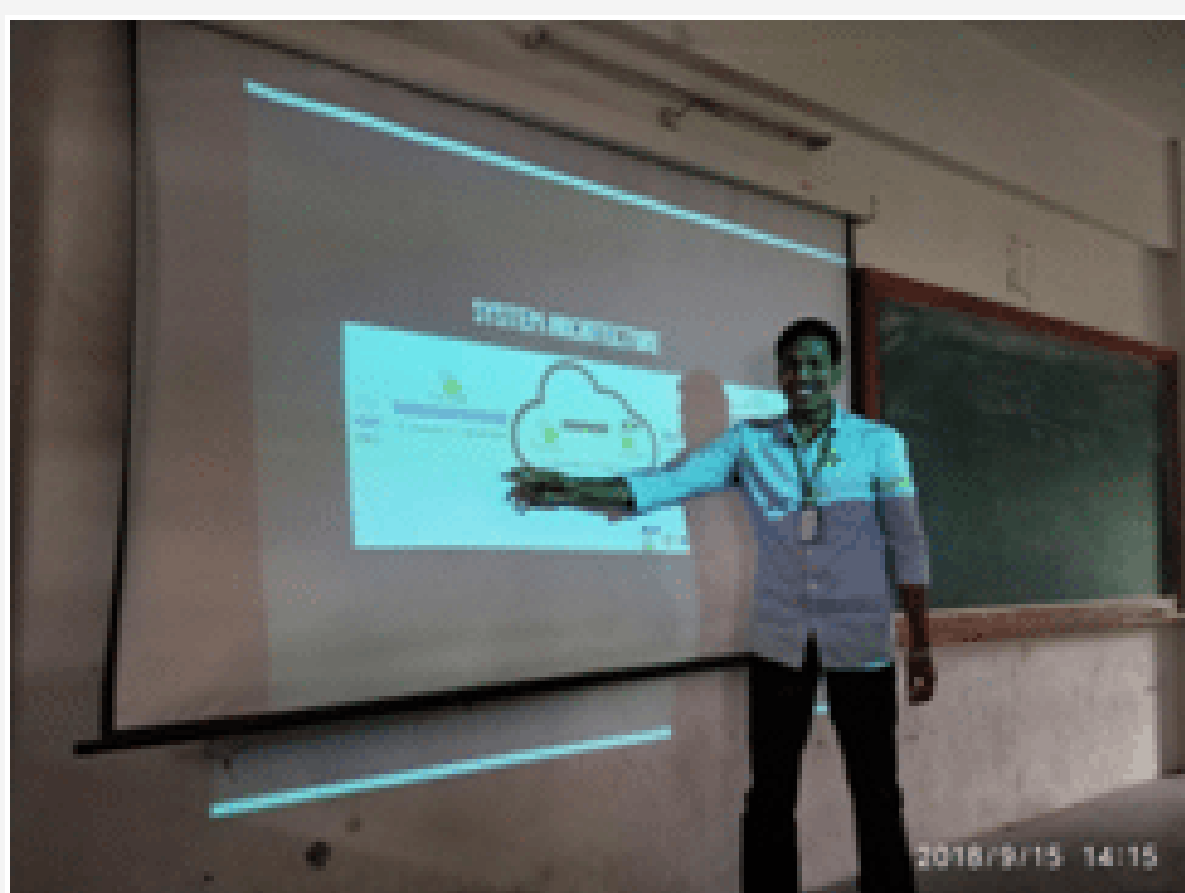
- Adherence to Academic calendar
- Course Delivery
- Quality of Classroom Teaching
- Conduct of Experiments
- Continuous Assessment in Laboratory



USE OF VARIOUS INSTRUCTIONAL METHODS AND PEDAGOGICAL INITIATIVES



- Lecture method and Interactive learning
- Project-based learning
- Computer-assisted learning
- SMART class Room
- Independent learning
- E-Learning/ICT



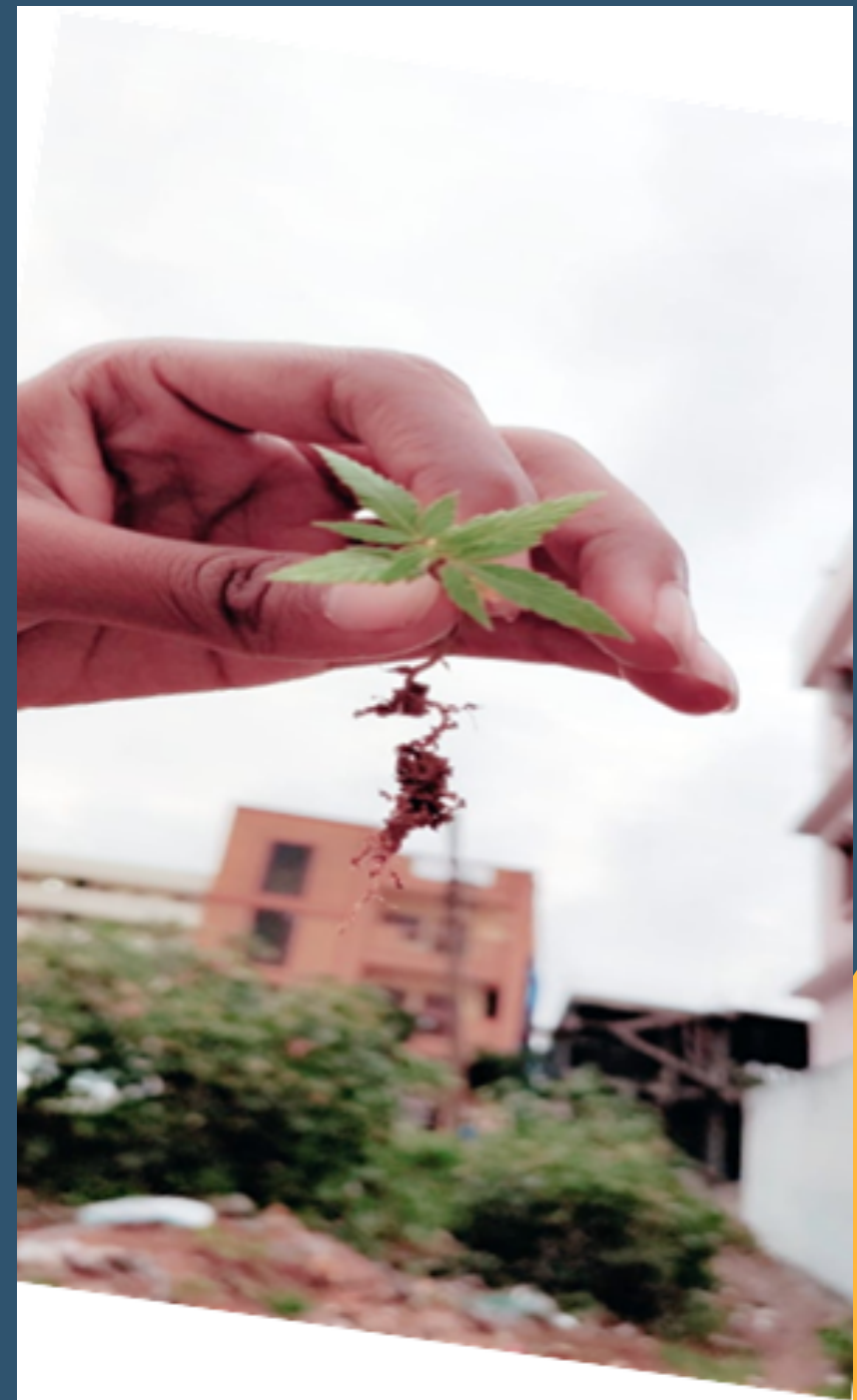
CLUB Activities



Painting Club



Photography Club





Rangoli, Cultural Clubs and more



STUDENTS CORNER



My Nation – A Bird of Gold

My nation is a bird of gold
The story of its existence is ages old.
A bird too wonderful to find any flaws Shining with topaz wings and
silver claws.

The bird of gold was once captured by hunters looking for desire
They found the bird as rear treasure that one can aspire.
The golden bird shook its wings, beat the iron bars of the cage
But could not get out at that stage.

At last came the wind of fortune which shook the rope of the cage
Then came the stage
When the wounded soul make her best attempt and made a
successful escape.

A bird whose tale of brave attempt is known so well
More than anyone can imagine or tell.
The bird symbolised the confident spirit of India and the hunters
were the invaders.
The claws stood for valour and beauty feathers of gold.

The cage stood for the sufferings of the Indian soul
The success is the victory over the evil of the world.
The wounds were the sacrifices of the warriors and the joy of
freedom stood for the ornament of freedom as a result if the
democratic struggle.

A bird of gold as looked at by the hunters never surrendered nor
made a depressed wonder
A bird which earned freedom with the deepest of dedication
Inspired every patriotic soul to make such aspiration.
Proudly I say this tale that is ages old
Shines in it my nation a bird of gold.

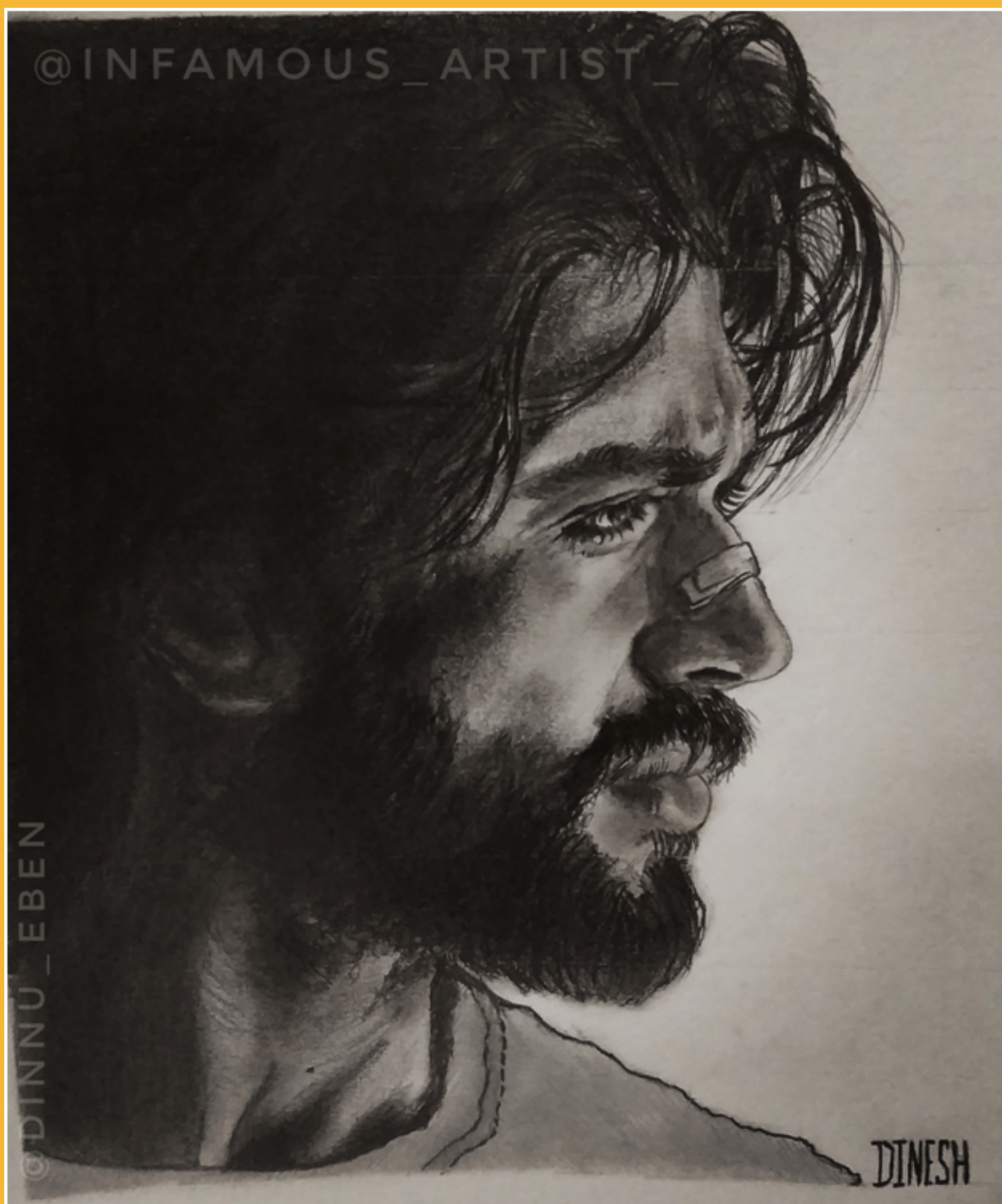
Adinath Tyagi
(Inspired by:
The universe)



Befriending a Bird

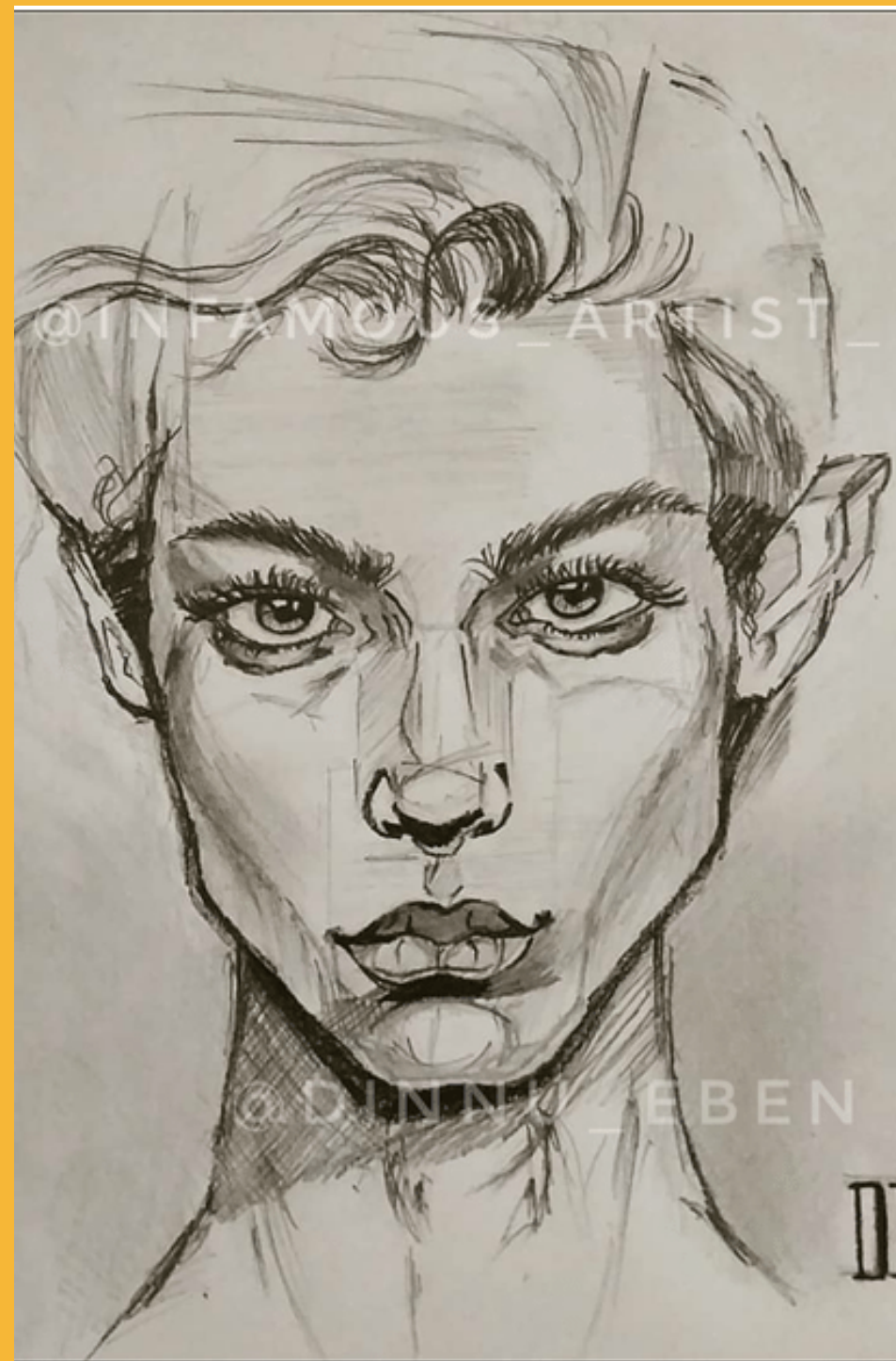
If you ever befriend a bird,
Neither owned nor captured by thee
Understand that your bond stays on
Till it is happy and free
A birds wing knows no boundary or captivity
It stays on until it is happy and free
In an open cage with thee
That could make it shine with glee.
If you ever befriend a bird of confidence
Neither owned nor captured the prejudices of thee
In the open cage of your acceptance and belief which makes it glow
with peaceful glee
Understand that your bond stays on
Till the bird is happy and free.
Till the bird is happy and free.
Till the bird is happy and free.

-Adinath Tyagi



-Valluri Dinesh





-Valluri Dinesh



INSTITUTIONAL TWO BEST PRACTICES



BEST PRACTICE-1

Title of the Practice:
"PROJECT EXPO" – TECHNOLOGY SHOWCASE OF
DEPARTMENT

YEAR	NO. OF PROJECT PRESENTATIONS
2019- 2020	43
2018 - 2019	35
2017 - 2018	32
2016-2017	27



BEST PRACTICE-2

Title of the Practice: IN-HOUSE INDUSTRIAL TRAINING

- **SOFT SKILLS**
- **FACE TRAINING**
- **SAP TRAINING**
- **TASK TRAINING**
- **NPTEL CERTIFICATIONS**
- **SUMMER TRAINING**
- **COCUBES ASSESSMENT**



SUMMER TRAINING



SAP TRAINING



PERSONALITY DEVPT



COCUBES ASSESSMENT



TASK TRAINING



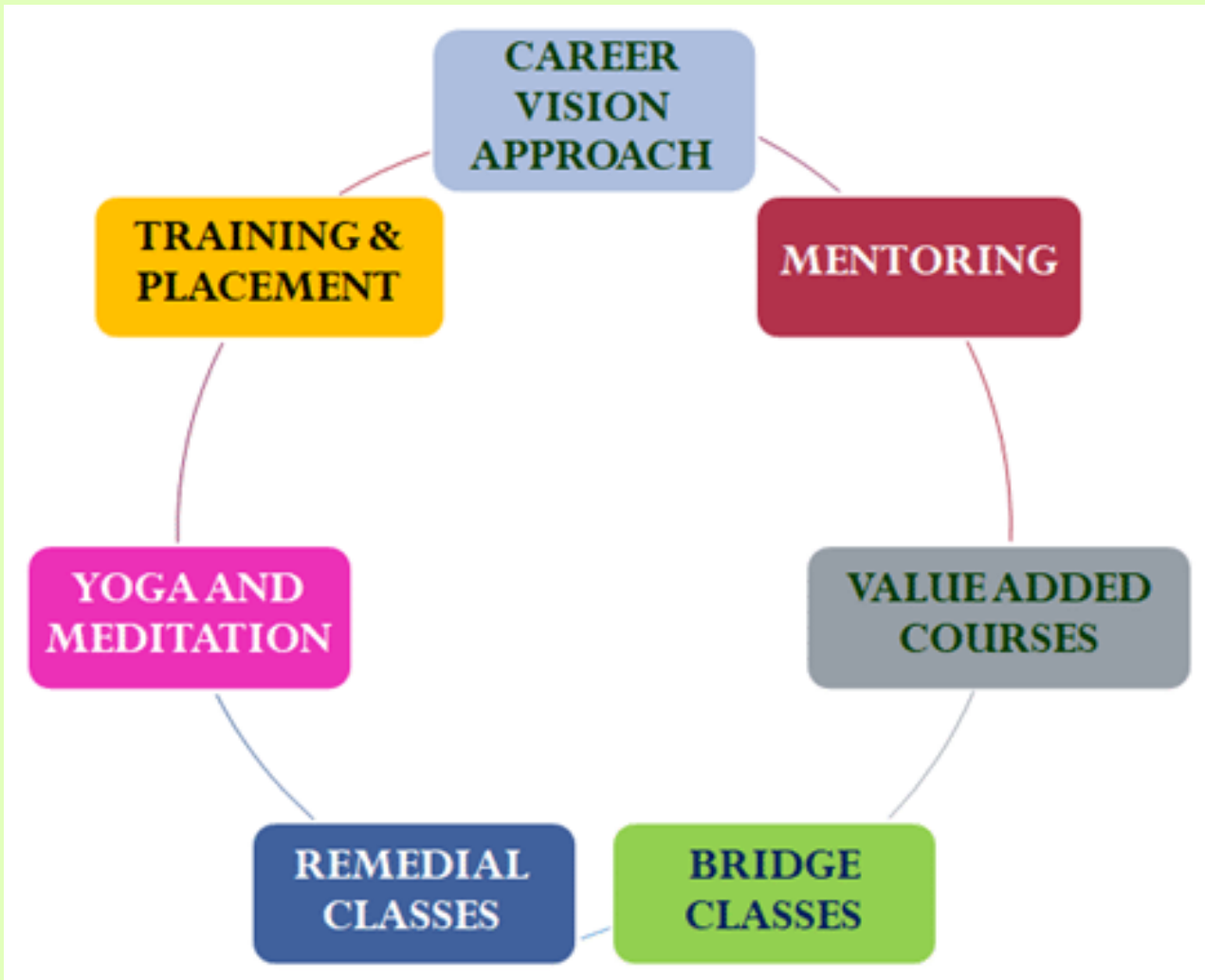
NSS ACTIVITIES



STUDENT SUPPORT AND PROGRESSION



Capability Enhancement & Development Programmes



TEACHING-LEARNING AND EVALUATION



- COURSE DELIVERY METHODS
- ICT SUPPORTED LEARNING
- EXPERT LECTURES
- SKILL DEVELOPMENT PROGRAMS
- EXPERIMENTAL LEARNING
- CHALK AND TALK
- SEMINARS, WORKSHOPS & GUEST LECTURES
- EXPERIENTIAL LEARNING
- GROUP DISCUSSIONS
- TECHNICAL QUIZ
- TECHNICAL SEMINARS
- PROJECT-BASED LEARNING



Workshop



ICT Learning



Student projects demonstrations



Experiential Learning: Industrial Visit



Students Technical Seminars



STUDENTS INTERNSHIPS



ALUMNI ACTIVITIES

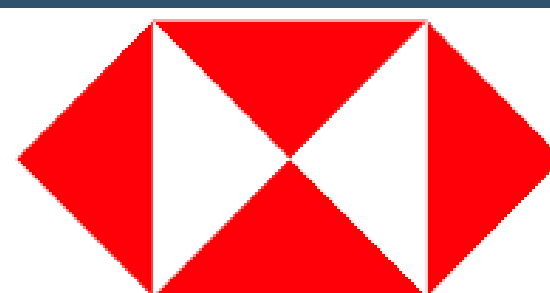


DISTINGUISHED ALUMNI NETWORK



Altair

Panasonic



HSBC



amazon



Cognizant



PHOTO GALLERY





BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING PRESENTS

LUMINESCENCE 2K21
June 25th & 26th

Participate virtually & Stay tuned to explore...

Register via <https://forms.gle/qpLshHTNa7ZDM28TA>

All Events are for Free

Technical Events:
1. Business Plan Competition
2. Technical Paper Presentation
3. Diagrammatic Reasoning
4. Auto Quiz
5. Material Identification

Non-technical Events:
1. Group Discussion
2. Mock Interviews
3. Theme-Photography
4. Word Pass
5. It's Showtime

Principal: Dr. J. P. Singh

Chief Patron & Chairman: Shri Ch. Venugopal Reddy	Patron: Dr. Kumar Swamy Rao	College Level Fest Coordinator: Mrs. Aarti Kumar	Admin Incharge: Dr. Sanjay Kumar Suman	Academic Incharge (ME): Dr. Mithlesh Sharma	Class Incharge (ME): Mr. Pradeep Chavan	Admin Incharge (ME) & Faculty Coordinator: Mr. Hemasundar Banka
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Student Coordinators: Aditya K. Manoj, Swathi, Sowshheel Reddy, Venkat Das, Goutham, G. Khanna, Manasa









*Thank
you!*

DEPT. OF MECHANICAL ENGINEERING
BHARAT INSTITUTE OF ENGINEERING
AND TECHNOLOGY, MANGALPALLY