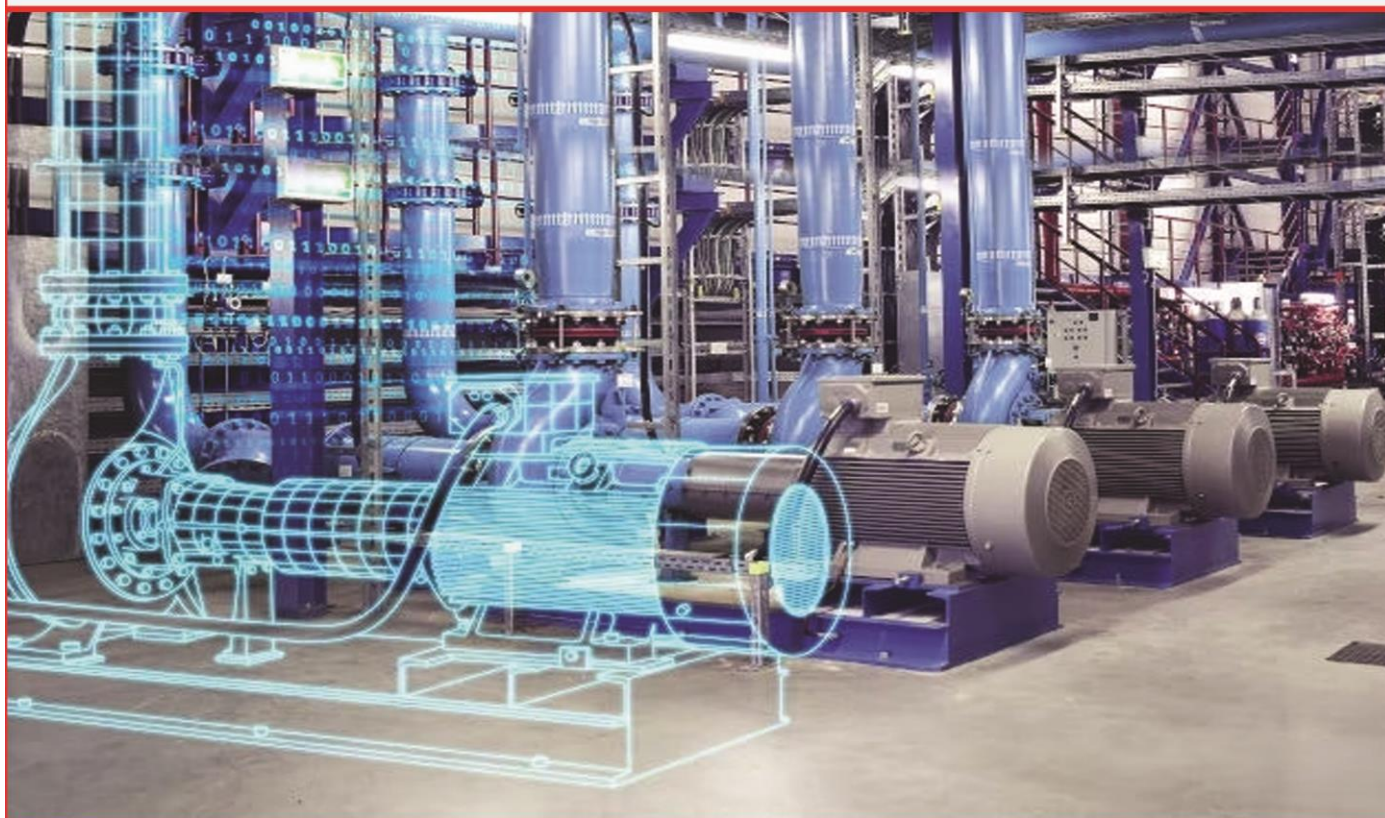




**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)



# **TECHNICAL MAGAZINE MECH MANTRA**



**JULY TO DECEMBER - 2022**  
**VOLUME : 14**

*Department of*  
**MECHANICAL ENGINEERING**



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## Technical Magazine –Mech Mantra



July to December 2022

Department of Mechanical Engineering

 **NARASARAOPETA**  
**ENGINEERING COLLEGE**  
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Narasaraopet-522601, Andhra Pradesh, India

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## ***MESSAGES***



### **Chairman's message**

It gives me great happiness to note that the department of Mechanical Engineering, NEC is bringing out the volume-14 of the department technical magazine, "Mech Mantra". From the first edition, I understand that this magazine is intended to bring out the hidden literary talents in the students and also to inculcate leadership skills among them. The newsletter has served as a platform for the students to share their knowledge and ideas. I expect the contributions to this magazine to be of high standard and quality. I wish all the success for this venture.



### **Vice Chairman's message**

I feel extremely delighted to observe that the department of Mechanical Engineering is coming out with a magazine this year also with the dedicated and committed efforts of the faculty and the students of the Editorial Board. The activity depicts the commitment and involvement of students and their thirst for knowledge.

I congratulate the efforts of the members of the Editorial Board in bringing out the volume-14 of the magazine. It is because of their selfless and untiring efforts that we see the magazine enriched with variety of articles.



### **Principal's message**

The magazine of the department is the reflection of the creativity of the students, involved in multifarious activities. It speaks about their imaginative creativity through the medium of a language given in literary and artistic shape.

I feel gratified to see that the department is doing its best in carrying out the mission of grooming the students as such professionals who are not only competent enough to combat the challenges in their life but also become good human beings with moral excellence and social sensitivity.



### **HOD's message**

I feel privileged in presenting the volume-14 of our department association magazine. I would like to place my sincere and heartfelt thanks to all those who have contributed to make this effort a success. My special thanks to the Management, for their guidance which enabled us to bring out this volume.

The magazine has a variety of articles endowed with different subjects contributed by the students of our department and their participation in various activities round the year.

I extend my gratitude to the entire team of the Editorial Board for their constant exertion, revision and support in bringing out the magazine in the present form.

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## **AUTOMATIC IRRIGATION BY USING BY USING ARDUYNO EQUIPMENT ON SOIL MOISTURE CONTENT**

In this project, an automation of farm irrigation and soil moisture control done by using Arduino soil moisture sensor. This automatic irrigation system senses the moisture content of the soil and automatically switches the water pump when the power is on. A proper usage of irrigation system is necessary due to shortage and irregular rain falls, results large amounts of water goes waste. Agriculture is a source of employment of majority Indians and has great impact on the economy of the country. In dry areas or in case of lacking rainfall, irrigation becomes difficult. So, it needs to be automated for proper watering a plant and handled remotely by farmer. When soil goes dry, this pump will start watering. The aim of this project work is to reduce water usage and also implement automatic irrigation to save time and power.



**C.Ashok**

**IV Year ME**



## **FABRICATION OF ELECTRIC BICYCLE BY USING 3D PRINTER**

An electric bicycle is a tool that is produced from a combination of a bicycle as a means of transport, which is added with an electric component as its driving force. It is known that bicycles can still be used even without electrical components. However, with the presence of an electrical component, the human power that is expended can be minimized. This study is expected to provide knowledge about the impact on the environment from using an electric bicycle.



**SK.Mohammad bilal,  
IV Year ME**

## BOX TRANSFER MECHANISM THROUGH KINEMATIC INVERSION

There has been a serious demand for intermittent movement of packages in the industries right from the start. Though the continuous movement is more or less important in the same field of the sporadic motion has become essential. The objective of this study is to design a mechanism that delivers this stop and move motion using the mechanical linkages.

The aim of the project work is to design and fabricate a box moving mechanism that makes much easier to move with the so called quad staying machines by means of which a box blank is folded or set-up into box like form. These set-up boxes are transferred by means of a conveyor to an operator, who picks up the boxes and places and centers' them on wrappers with which the boxes are to be covered. The boxes and wrappers are then conveyed to a box wrapping machine where the wrapper is folded around and glued to the box.



**U.Shanmukha rao,  
IV Year ME**

## **EXTRACTION OF CRUDE OIL FROM PLASTIC WASTE USING PYROLYSIS TREATMENT**

Plastics have woven their way into our daily lives and now pose a tremendous threat to the environment. Over 100 million tons of plastics are produced annually worldwide, and the used products have become a common feature at overflowing bins and landfills. Though work has been done to make futuristic biodegradable plastics, there have not been many conclusive steps towards cleaning up the existing problem. Here, the process of converting waste plastic into value added fuels is explained as a viable solution for recycling of plastics.



**V.Ayyappa  
III Year ME**

**FACULTY PUBLICATIONS:**

- Dr.B.Venkatasiva, HOD ME, Dr.M.Venkanna babu, Professor, A,Pavan kumar Assistant Professor and Ch.Sekhar, Associate professor published a Journal paper entitled “Design Optimization and Fracture Analysis of Cam shaft using Composite Materials”, Indexed by Scopus INTERNATIONAL Journal Of Neuro Quantology, ISSN: 130-5150, Vol.7 5 NOV 2022.
- Dr.M.Sreenivasa Kumar Principal NEC and Dr D.Jagadish, Professor ME published a Journal paper entitled “ESTABLISHMENT OF SCR TEST FACILITY AND EVALUATION OF 8MM PITCH HONEYCOMB TYPE CATALYST IN A 20 LITTER CAPACITY SCR TEST FACILITY”, AES SCOPUS INDEX JOURNAL, ISSN: 2096-3246 Volume 54, Issue 02 December, 2022.
- Dr.M.Sreenivasa Kumar, Principal NEC published a Journal paper entitled “DESIGN AND STRUCTURAL ANALYSIS OF FLYWHEEL USING DIFFERENT MATERIALS& WEGHT REDUCTION”, AES SCOPUS INDEX JOURNAL, ISSN: 2096-3246 Volume 54, Issue 02, December, 2022.

Shaik Abdul Rehman / Design Optimization and Fracture Analysis of Camshaft Using Composite Materials



## Design Optimization and Fracture Analysis of Camshaft Using Composite Materials

<sup>1</sup>Shaik Abdul Rehman, <sup>2</sup>Dr. Venkannababu Mendi, <sup>3</sup>Dr. B. Venkata Siva, <sup>4</sup>Mr. A. Pavan Kumar, <sup>5</sup>Mr. Sekhar. CH  
<sup>1</sup>(M.Tech Student), Dept of Mechanical Engineering, NEC ( Autonomous), Guntur (Dt) AP, INDIA.

<sup>2</sup>Associate Professor, Dept of Mechanical Engineering, NEC ( Autonomous), Guntur (Dt) AP, INDIA

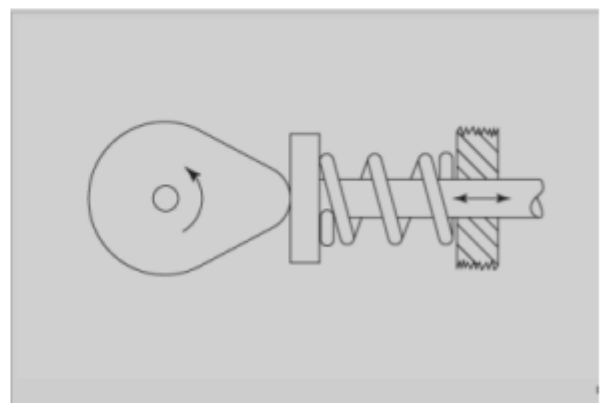
<sup>3</sup>Professor & HOD, Dept of Mechanical Engineering, NEC ( Autonomous), Guntur (Dt) AP, INDIA

<sup>4,5</sup>Assistant Professor, Dept of Mechanical Engineering, NEC ( Autonomous), Guntur (Dt) AP, INDIA

[skabdulrehman5152@gmail.com](mailto:skabdulrehman5152@gmail.com)

### Abstract:

*A cam is a mechanical device used to transmit motion to a follower by direct contact. Present project is the modification of cam shaft used in pulp generating machine, a composite prepared by mixing certain ratios by stir casting process. The billets prepared tested for microstructures and hardness to finalize the best material for forging. A Camshaft manufacturing process wherein a Camshaft is cast from a heat-treatable EN8 with Sic (6%,8%,10%) added in to the casting process. Mechanical properties evaluating as a part of strength constraint the billet forged to the shape of cam shaft. This can cool to room temperature to check the stability of structure. The integrated shape machine for Exact cam profile in CNC milling. The project modelling of camshaft done in NX8.0 design software, program and static analysis is executed in Ansys16.0 work bench via using distinctive material on*



**Figure: 1.1 Displacement valve**





ISSN: 2096-3246  
Volume 54, Issue 02, December, 2022

## **ESTABLISHMENT OF SCR TEST FACILITY AND EVALUATION OF 8MM PITCH HONEYCOMB TYPE CATALYST IN A 20 LITTER CAPACITY SCR TEST FACILITY**

**T.Anitha<sup>1</sup>, Donepudi Jagadish<sup>2</sup>, Mada Sreenivasa Kumar<sup>3</sup>**

<sup>1</sup> PG Student, <sup>2</sup>Professor <sup>3</sup>Professor & Principal

Department of Mechanical Engineering, Narasaraopeta Engineering College, Narasaraopet, A.P.

### **ABSTRACT**

Selective Catalytic Reduction (SCR) is an advanced active emissions control technologies that offers an economic and effective means of reducing Oxides of Nitrogen (NOx) emissions from flue gas by injecting a reductant agent through a special catalyst into the exhaust stream of flue gas. SCR is typically capable of removing 80 to 90 percent of NOx emissions from fossil fuel power plants, and is widely considered the most effective technology demonstrated up to date for this purpose. SCR technology is designed to permit nitrogen oxide (NOx) reduction reactions to take place in an oxidizing atmosphere. It is called "selective" because it reduces levels of NOx using ammonia as a reducing agent with in a catalyst system. The chemical reaction is known as "reduction" where the flue gas is the reducing agent that reacts with NOx to convert the pollutants into nitrogen, water and tiny amounts of CO<sub>2</sub>. SCR technology is one of the most cost-effective technologies available to reduce NOx emissions from power plants. All Power plants installed after 1st January, 2017 must meet the latest Environmental Protection Agency (EPA) emission standards. Out of all emissions, the oxide of nitrogen (NOx) has to reduce less than 100 mg/Nm<sup>3</sup> level from 200 mg/Nm<sup>3</sup>. In order to achieve emission norms set by Ministry

### **CONCLUSION**

Experiments were carried out to generate the performance curves with in-house developed 8mm Pitch Honeycomb type catalyst in a 20 litre volume capacity SCR test facility. The flue gas was generated from Ø200mm Pilot Plant Test Facility by operating in combustion mode. The NOx removal efficiency and ammonia slip was investigated with dust concentration of 38-50 grams/Nm<sup>3</sup> in flue gas by varying the space velocities (2500-1500 per hr.) and flue gas temperatures (300–3500C) using anhydrous ammonia as reducing agent. • In-house developed 8mm pitch honeycomb type SCR catalysts were tested in a 20-liter capacity SCR test facility with dust concentration in the range of 38-50 grams/nm<sup>3</sup> by varying the space velocities (2500-1500 per hr.) and flue gas temperatures in the range of 300–3500C using anhydrous ammonia as reducing agent. • NOx reduction efficiency achieved with honeycomb was 81.89 – 86.75% at 2500-1500 per hr. space velocities and the ratio of ammonia (NH<sub>3</sub>) to oxides of nitrogen (NOx) was maintained at 0.9. • NOx reduction efficiency achieved with honeycomb was 82.72– 88.23% at 2500-1500 per hr. space velocities and the ratio of ammonia (NH<sub>3</sub>) to oxides of nitrogen (NOx) was maintained at 1.0. • Ammonia slip measured was in the range of 1.4 to 3.8 ppm for honeycomb catalyst at 0.9 & 1.0 for ammonia to oxides of nitrogen. • The total Differential Pressure (DP) across Honeycomb SCR catalyst was 25-38 mmWc over a 2250mm length. Finally, it can be concluded that, the 8mm pitch honeycomb type SCR catalysts are very much suitable for reduction of Oxides of Nitrogen (NOx) in the range of 80-90% in flue gas with dust concentration of 30-52 grams/Nm<sup>3</sup> which are meeting the NTPC requirements. Hence, based on the performance achieved in 20 litre SCR test facility, the honeycomb type SCR catalysts were selected and finalized for establishment of 1500 Nm<sup>3</sup>/hr slip stream De-NOx system in Left Hand (LHS) side and Right Hand (RHS) Side at Unit-2 of NTPC

**FACULTY ACHIEVEMENTS:****WORKSHOPS/CONFERENCES/ WEBINARS/FDPS/QUIZ/ATTENDED:**

- Dr. Venkannababu Mendi, Associate professor awarded with Ph.D in Mechanical Engineering entitled “**Structural Analysis of Cam to Lever Mechanism with Partical Swarm Optimization for Heavy Load Application**”, from Shri JYT University, Rajasthan, (2017-2022).



- Dr.B.Venkata siva, Professor HOD-ME gave guest lecture for faculty on “**Outcome Based Education**”, on 10/07/2022 at BVC Institute of Technology & Science · Amalapuram – 533 221, East Godavari District, Andhra Pradesh, India.
- Dr.P.Suresh babu, Professor ,Participated in one Week online FDP on “**Advancements in Thermal and Renewable Energy Technologies (ATRET-2022)**” organized by the Department of Mechanical Engineering, Lakireddy Bali Reddy College of Engineering, Mylavaram, Krishna (Dt.), Andhra Pradesh, India organized from 04/07/2022 to 09/07/2022.
- Dr.M.Sreenivasakumar, Principal has participated in the regional meet held on 12 August 2022 at Sreenidhi Institute of science and Technology,Hyderabad.
- Dr.D.Jagadish, Professor has participated in the regional meet held on 12 August 2022 at Sreenidhi Institute of science and Technology, Hyderabad.
- Dr.B.Venkata Siva Professor HOD-ME delivered an invited talk on “**Outcome based education (OBE)**”, organized by IQAC ,Ideal Institute of Technology, Kakinada on 23/08/2022.
- Dr.B.Venkata Siva Professor HOD-ME acted as a Manuscript Reviewer paper title “**Novel Design of the micro-EDM System for Preparing Nano-W Colloidan.**”
- Mr Ch Sekhar(ME) Associate Professor attended three day faculty development program (FDP) OF IES - ARC Faculty on “**Pneumatic Automation with Industry 4.0 technology**”, at FESTO, Bangalore from 24/08/2022 to 26/08/2022.



- Dr.M.Sreenivasakumar, Principal attended for Andhra Pradesh State Council Of Higher Education “**Rasavada the Appreciation 2022**” received Appreciation from APSCHE For achieving NAAC A+ Grade.



- Dr.M.Sreenivasa kumar, Principal NEC received “Bishma Acharya Award”, from Bharath Education Excellence Award 2021-2022 All India Level Biggest Award Ceremony of Education and Research at YVS Murthy Auditorium, Andhra University, Visakhapatnam.



- Mr.M.Venkai Assistant professor received “**Academic Excellence Award**”, on the eve of Teachers day for Engineering Drawing subject.

- Mr.Ch.Sekhar Assistant professor received “**Academic Excellence Award**”, on the eve of Teachers day for Robotics Subject.
- Mrs.P.Sravani Assistant professor received “**Academic Excellence Award**”, on the eve of Teachers day for Power plant engineering subject.
- Dr.P.Suresh babu professor received “**Academic Excellence Award**”, on the eve of Teachers day for Entrepreneurship and Innovation subject.
- Dr.B.Venkata siva HOD-ME presented guest lecture on “**Outcome based education (OBE)**”, organized by IQAC ,NEC- NIPS Narasaraopet on 14/09/2022.
- Dr.B.Venkata Siva Professor HOD-ME attended one week faculty development program on “**Amazon web services**”, organized by dept of CSE NEC in collaboration with brain vision solutions India pvt limited during 22/08/2022 to 27/08/2022.
- Dr.B.Venkata Siva Professor HOD-ME attended “**A National Level 7 Day Hands On Training Program On Integrative Research In Various Fields Of Engineering**”, on 24/09/2022 at SRKR Engineering college(autonomous) Bhimavaram West Godavari.
- Dr.B.Venkata Siva Professor HOD-ME delivered an invited talk on “**Outcome based Education (OBE)**”, organized by IQAC, JNTUH University College of Engineering Manthani, Peddapalli district Telangana on 29/09/2022.
- Dr.B.Venkata Siva Professor HOD-ME delivered an invited talk on “**Outcome based Education (OBE)**”, organized by IQAC, JNTUH University College of Engineering Manthani, Peddapalli district Telangana on 29/09/2022.
- Dr.M.Sreenivasa Kumar Principal NEC and Dr.B.Venkata siva, HOD ME attended one day State level workshop for Autonomous and NAAC accredited Engineering and Pharmacy colleges on “**Indian ranking -2023 National Institutional ranking frame work (NIRF)**”, on 15/11/2022 organized by quality assurance cell A.P state council of higher education at Andhra Loyola Institute Of Technology ,Vijayawada.





- Dr.B.Venkatasiva, HOD ME, Dr D.Jagadish Professor, Dr.M.Venkanna babu, Professor, P.Sravani Assistant Professor, and K.Raghavendra Assistant Professor, Assistant Professor attended a five day FDP on **“UGC-AICTE Incorporating Universal Human Values”**, from 14/11/2022 to 18/11/2022 through online mode.
- Dr.M.Sreenivasa Kumar, Principal NEC attended a five day AICTE training faculty development program on **‘Additive and Smart Manufacturing for Biomedical Applications’**, at Indian Institute Of Technology Tirupathi, organized by Mechanical Engineering Department Tirupathi from 21/11/2022 to 25/11/2022.



- Dr.D.Suneel, Vice Principal NEC attended (Hybrid mode) a two week ATAL faculty development program on **‘IOT Applications In Mechanical engineering’**, at PVP Siddhartha Institute Of Technology Vijayawada, organized by Mechanical Engineering Department from 14/11/2022 to 26/11/2022.



- Dr.B.Venkata siva, HOD ME acted as a Peer Reviewer title **“Design, simulation and experimental evaluation of hot-stamped 22MnB5 steel auto body part”**, Journal Manuscript ID: symmetry-2060592 MDPI postfach Switzerland.

- Dr.M.Sreenivasa Kumar, Principal NEC presented guest lecture on “**Entrepreneurship and Innovation as career opportunity**”, organized by Institution’s Innovation Council 5.0 Narasaraopeta Engineering college on 30/11/2022.
- Dr.D.Jagadesh, Professor -ME gave guest lecture for students of Bapatla Engineering college on “**Advances in gas turbine and Jet propulsion**”, through online mode on 06/12/2022.
- Dr.B.Venkatasiva, HOD ME acted as a Manuscript Peer Reviewer title “**ELECTRONIC INTERFACE FORM BASED ON MICROFLUIDICS SYSTEM AND TRIBOELECTRIC NANOGENERATOR**”, Journal Electronics (ISSN 2079-9292) Manuscript ID electronics-2106335.
- Dr.B.Venkatasiva, HOD ME participated and presented paper “**Pick And Place Operation By Collaborating Electromagnetic And Pneumatic Gripper Robots**”, in International Conference On Materials Innovation And Sustainable Manufacturing (ICMISM-2022) in Association with ELSEVIER Conference Organised by Department of Mechanical engineering VISHU INSTITUTE OF TECHNOLOGY (AUTONOMOUS during 16/12/2022 to 17/12/2022.
- Dr.D.Jagadish, Professor ME participated and presented paper “**Engine Combustion And Emission Analysis Using Optical Methods**”, in International Conference On Materials Innovation And Sustainable Manufacturing (ICMISM-2022) in Association with ELSEVIER Conference Organised by Department of Mechanical engineering VISHU INSTITUTE OF TECHNOLOGY (AUTONOMOUS during 16/12/2022 to 17/12/2022.
- Dr D.Jagadish, Professor ME attended four day FDP on “**21<sup>st</sup> Century Skills & Teaching Methodologies**”, this faculty development programme conducted by Andhra Pradesh State Council Of Higher Education (APSCHE), Mangalagiri, A.P in association with Common Wealth Education Media Center for Asia (CEMCA) and Andhra Loyola College(A),Vijayawada from 19/12/2022 to 22/12/2022.
- Dr.M.Sreenivasa kumar, Principal NEC, Dr D.Suneel, Vice Principal NEC and Dr. Venkannababu Mendi, professor ME attended through online mode one week FDP on “**Innovations in Mechanical Engineering**”, this faculty development programme conducted by Vasireddy Venkatadri Institute of Technology Engineering college , Namburu, Pedakakani, Guntur, Andhra Pradesh from 26/12/2022 to 30/12/2022

**FACULTY CERTIFICATIONS:**

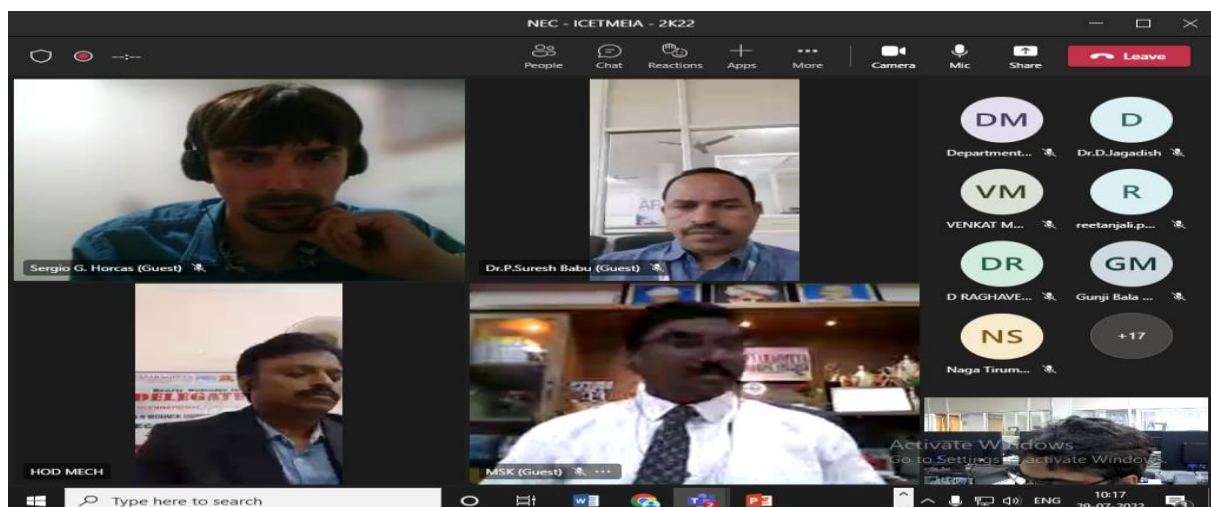
- Mr. M.Venkaiah, Assistant Professor completed certification course on “**25 Days Machine Learning Master Class**”, from Pantech e learning online certification program.
- Mrs. P.Sravani , Assistant Professor completed certification course on “**30 Days Machine Learning Master Class**”, from Pantech e learning online certification program.
- Dr.B.Venkata siva, HOD ME, completed a certification course on “**Fundamentals of Artificial Intelligence**”, from NPTEL online Certification program.
- Dr.D.Jagadish, Professor completed a certification course on “**Fundamentals of Artificial Intelligence**”, from NPTEL online Certification program.
- Dr.M.Venkanna babu, Professor completed a certification course on “**Fundamentals of Artificial Intelligence**”, from NPTEL online Certification program.
- K.John babu, Assistant Professor completed a certification course on “**Fundamentals of Artificial Intelligence**”, from NPTEL online Certification program.
- SK .Nagul meera vali, Assistant Professor completed a certification course on “**The joy of computing using python**”, from NPTEL online Certification program

## DEPARTMENT ACTIVITIES

- Department has organized a Mini project review for third year students on 22/07/2022, Mr L.Prakash rao Asistant Professor Chalapathi Institute of Engineering and Technology acted as external examiner, , Dr.D.Jagadish, Professor , Ch.Sekhar, Associate Professor are acted as Coordinators.

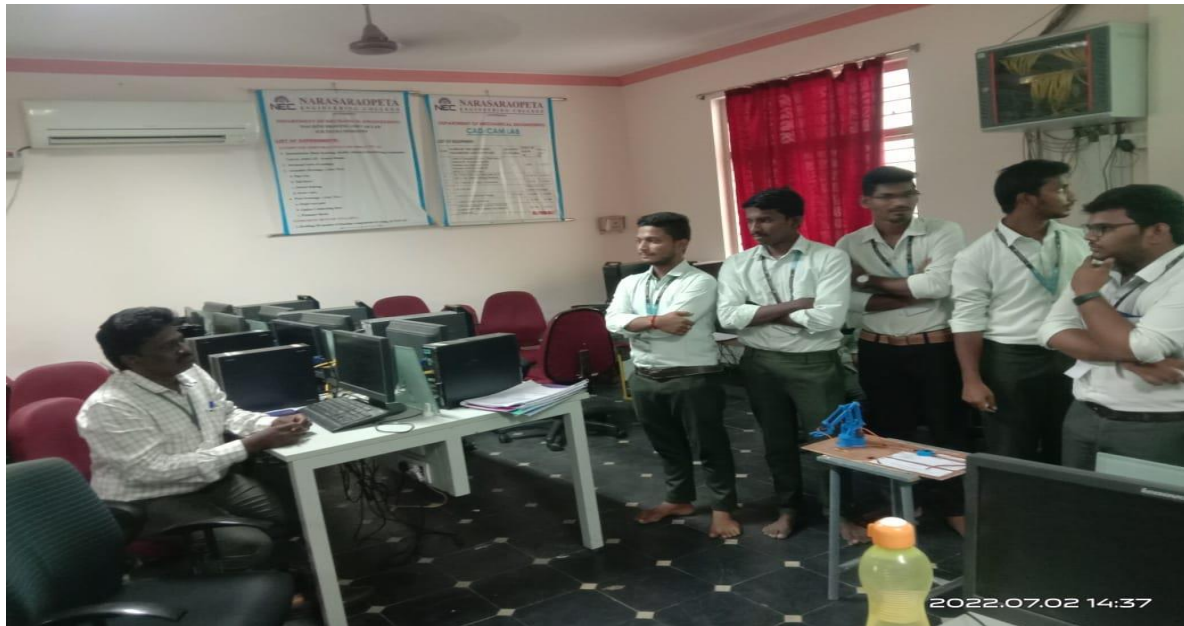


- Department has organized a Virtual Second International Conference on “**Emerging Trends In Mechanical Engineering And Industrial Automation**” in association with The Institution Of Engineers (INDIA) from 29/07/2022 & 30/07/2022.

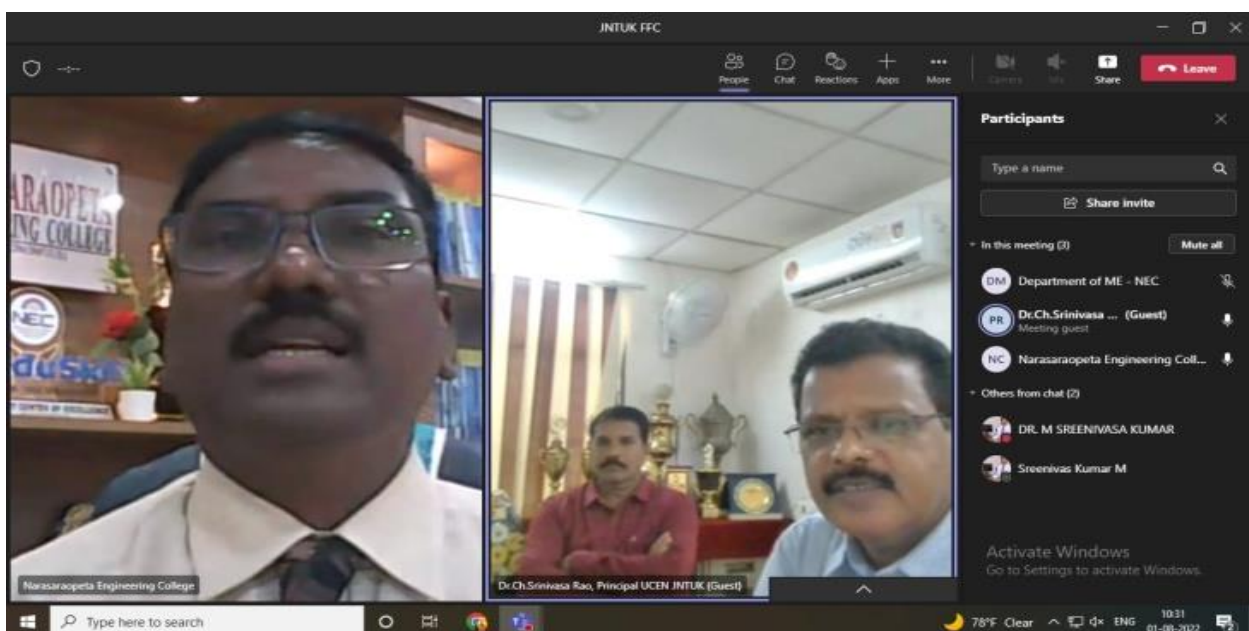




- Department has organized a final project review for third year students on 30/06/2022, Dr D.Venkatarao(9849223327) ,Professor HOD-ME KHIT, Guntur,acted as external examiner, Dr.B.VenkataSiva, Professor HOD-ME, Dr.D.Jagadish, Professor , Ch.Sekhar, Associate Professor are acted as Coordinators.



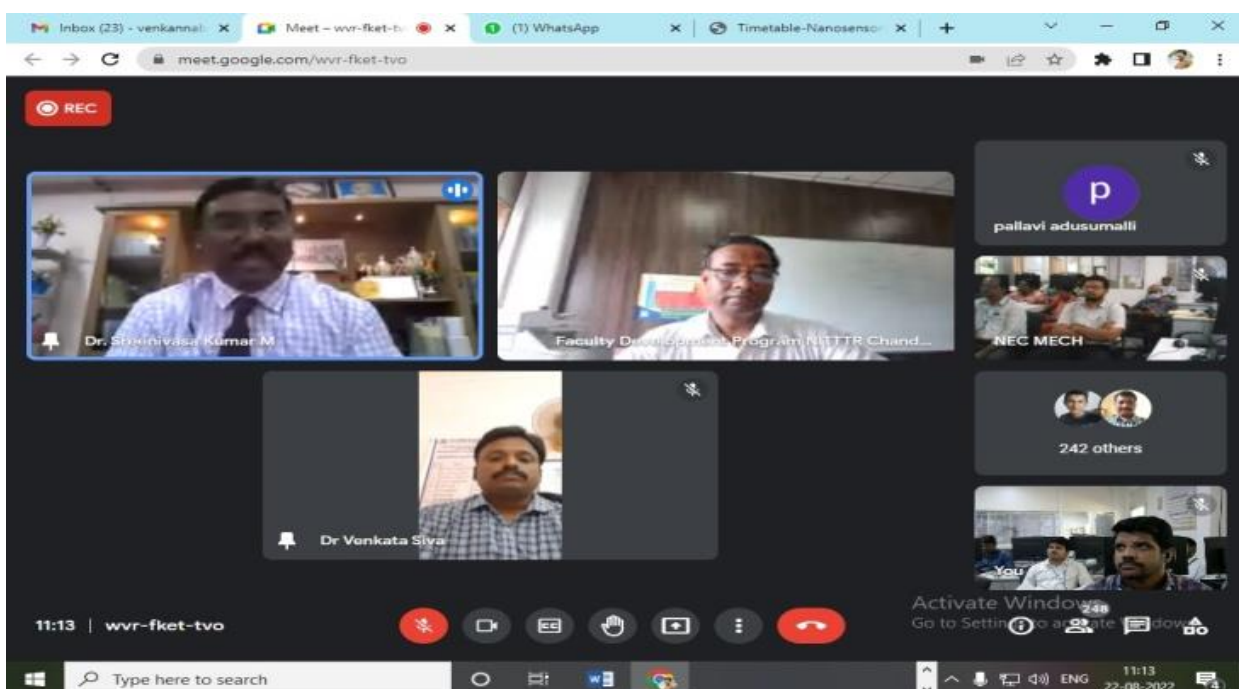
- Mechanical Engineering department has attended Facts Finding Commity (FFC) inspection through online mode on 01/08/2022.



- Department has organized One day Workshop on “**Pneumatic Technology in Industrial Automation**”, in Association With FESTO Association with APSSDC-ARC on 11/08/2022 third and final year students participated in this workshop.



- Department has organized a One Week faculty development program on “**Nanosensors and Devices**”, in Association with NITTTR-Chandigarh from 22/08/2022 to 26/08/2022.

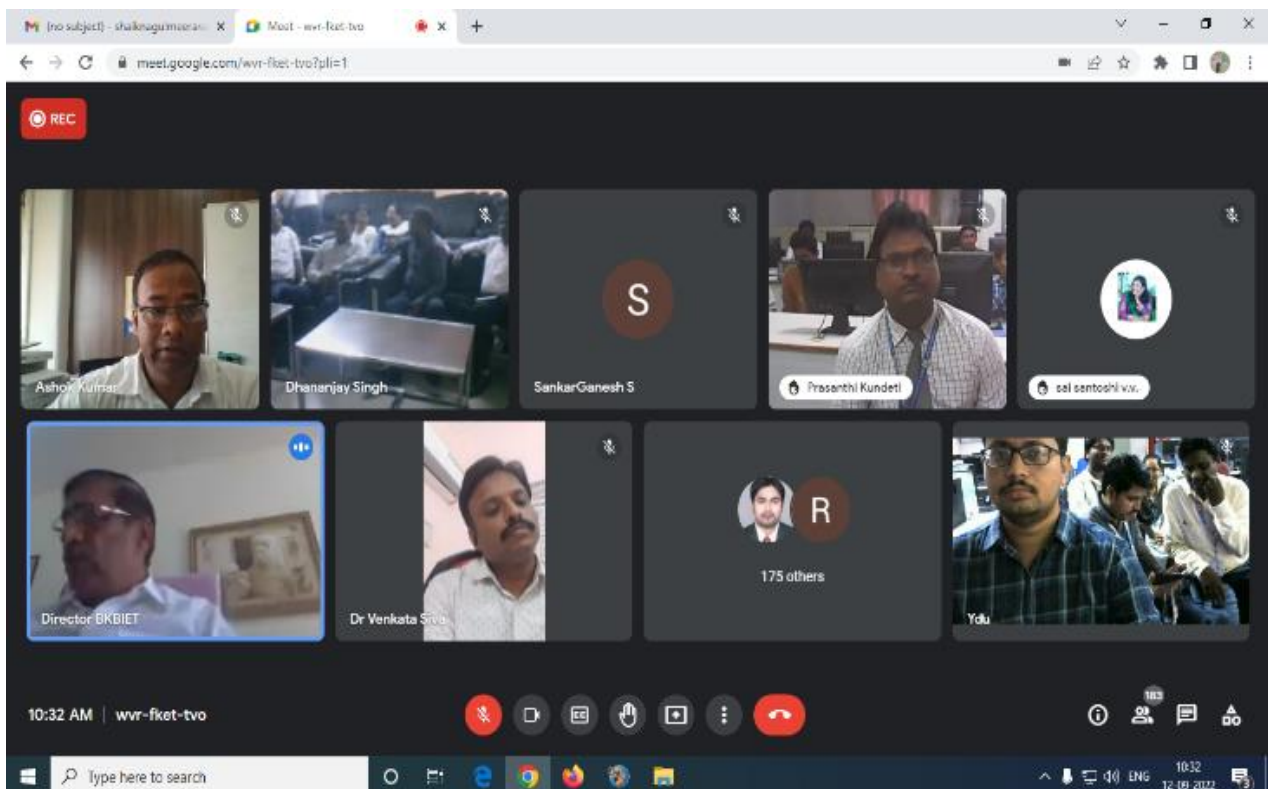




- Mechanical Engineering Department has Organized “**Teachers Day Celebrations**”, by Honorable Chairman Sri Mittapalli Koteswararo Garu and Principal Dr.M.Sreenivasa Kumar garu on 05/09/2022.



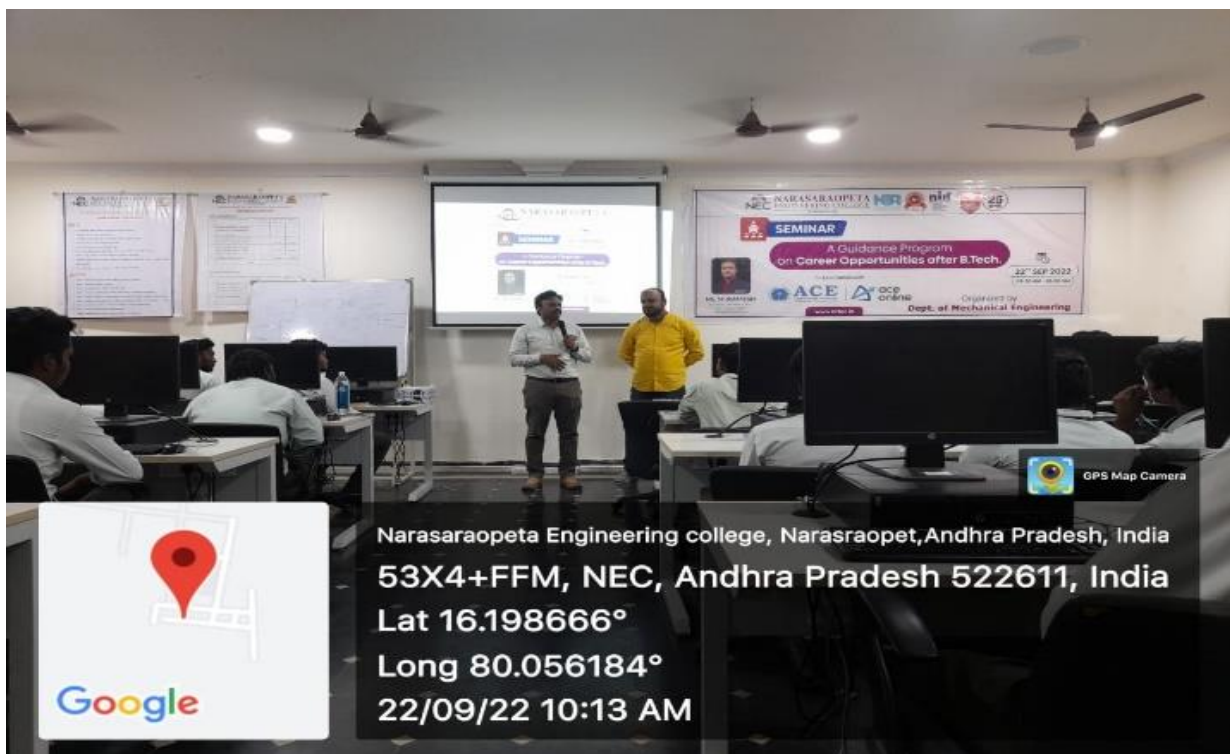
- Department has organized a One Week faculty development program on “Energy Harvesting And Storage Material And Devices”, in Association with NITTTR-Chandigarh from 12/09/2022 to 19/09/2022.



- Mechanical Engineering department Organized One day Workshop “Autodesk Fusion 360”, by ICT Academy on 12/09/2022



- Department has organized a One day seminar on “A Guidance program on career opportunities after B.Tech”, for final year students in Association with ACE Engineering Academy on 22/09/2022, Mr.M.Ramesh Senior faculty member at ACE acted as a Resource person.

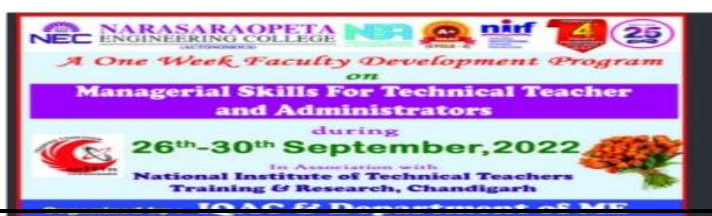
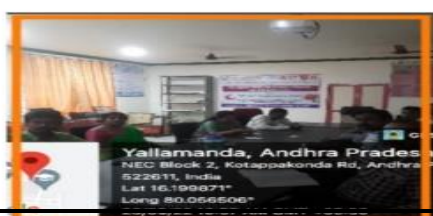
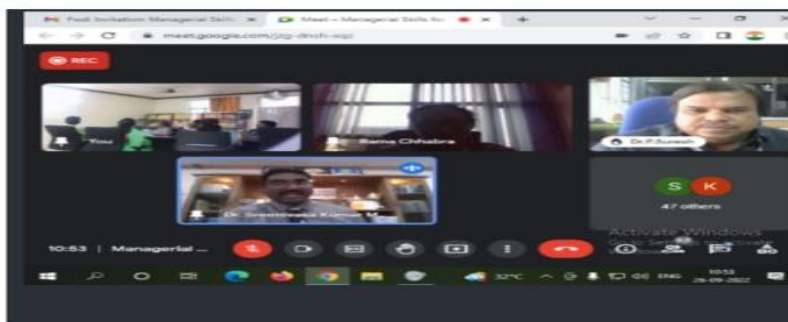




- Department has organized one week faculty development program on “Nanotechnology – Development and challenges”, in Association with NITTTR-Chandigarh Dr.B.Venkata Siva Professor HOD-ME acted as a local coordinator during 26/09/2022 to 30/09/2022.



- Department has organized one week faculty development program on “Managerial Skills for Technical Teachers & Administrators”, in Association with NITTTR-Chandigarh Dr.M.Sreenivasa kumar Principal NEC acted as a local coordinator during 26/09/2022 to 30/09/2022.



- Department has organized one week workshop for third year students on “Designing of solar PV systems”, in Association with Green Energy Technologies during 26/09/2022 to 30/09/2022 ..



- Department has organized one week Workshop on “Design and Development of GOKART Vehicle”, in association with society of Mechanical and Automotive engineers (SAME), Hyderabad. Mr.Y.Mytreya, Public Relations officer and Mr.S.Venkatesh, Public Relations officer are acted as resource persons for this program from 10/10/2022 to 15/10/2022.





- Department has organized CRT Training Program (Reasoning) for third year students during 10/10/2022 to 14/10/2022, in Association with BYTEXL training Hyderabad For this Training Program Mr. Madhu Trainer acted as a Resource person.



- Department has organized three day awareness program on “**Robotics and 3D printing**”, for NIT CSE third year and ECE final year A and B section students. Ch Sekhar, Assistant Professor ME and SK Zubeer basha, Assistant Professor ECE acted as a guest lectures during 03/11/2022 to 05/11/2022.



- Department has organized one day program on “Industrial Robotic Workshop”, for third year and final year ME A and B section students. M.Nagarjun, Application Engineer AGIT Technologies and S.Jothihariharan, Application Engineer AGIT Technologies are acted as resource persons and Ch Sekhar, Assistant Professor ME and SK Zubeer basha, Assistant Professor ECE acted as coordinators on 09/11/2022.



- Department completed ARC Inspection successfully by APSSDC team on 01/12/2022.





- Department have organized A One Week Workshop for final year mechanical students on “**Mechatronics & Industrial Automation**”, from 19/12/22 to 23/12/22 in Association with Integrated Power Solutions, Trichy, Honorable Principal Dr. \*M.Sreenivasa Kumar, Vice-Principal Dr. D. Suneel and Hod-ME Dr. B. Venkata Siva were present and gave the Inaugural message, Mr.M Madhan Kumar, Technical Trainer, PIS Trichy and Mr. V.Ramniwas. Technical Trainer PIS, Trichy acted as Resource Persons



**STUDENT CERTIFICATIONS /PARTICIPATIONS IN WORKSHOPS /CONFERENCES/NSS PROGRAMS:**

- Balle Ramanjaneyulu Second year mechanical student attended online workshop on “**Auto CAD 2D**”, from Learn Delta online certification program.
- SK.Subani Second year mechanical student attended online workshop on “**Auto CAD 2D**”, from Learn Delta online certification program.
- B.PrasannaBabu final year mechanical student completed NPTEL certification on “**Manufcaturing Process Technology I & II with 55%.**
- S.Williams final year mechanical student completed NPTEL certification on “**Manufcaturing Process Technology I & II with 52%.**
- SK.Jilani final year mechanical student completed NPTEL certification on “**Manufcaturing Process Technology I & II with 55%.**
- P.Naveen final year mechanical student completed NPTEL certification on “**Manufcaturing Process Technology I & II with 58%.**
- P.K.Chaitanya, third year student completed a certification course on “**The joy of computing using python**”, from NPTEL online Certification program
- G.Hari Krishna Reddy final year mechanical student completed NPTEL certification on “**Manufcaturing Process Technology I & II with 58%.**
- SK. Dasthagiri final year mechanical student completed a certification course on “**Engineering Metrology**”, from NPTEL online Certification program.
- Final year students K.Nikhil kumar and M.Balachandar selected for the funded Industrial Training Dismantling of Gasoline Engine by “**ARC Super 2.0**”, industrial training at Toyota manufacturing plant , Bangalore (TKM) by ARC and Indo Euro Synchronization.
- Five students from mechanical engineering attended workshop on “**Full stack Web Development Hackthon program**”, organized by Narasaraopeta Engineering college in Association with Brainovision solutions India Pvt Ltd from 24/08/2022 to 27/08/2022.
- Final year student K.Prudhvi yeswanth reddy selected for “**AWS Deep Racer Student League 2022**”, AP State Skill Development Corporation.



- Mechanical Engineering students participated in “**Poster Presentation Competition**”, on the occasion of celebration of INNOVATION day on 15/10/2022.

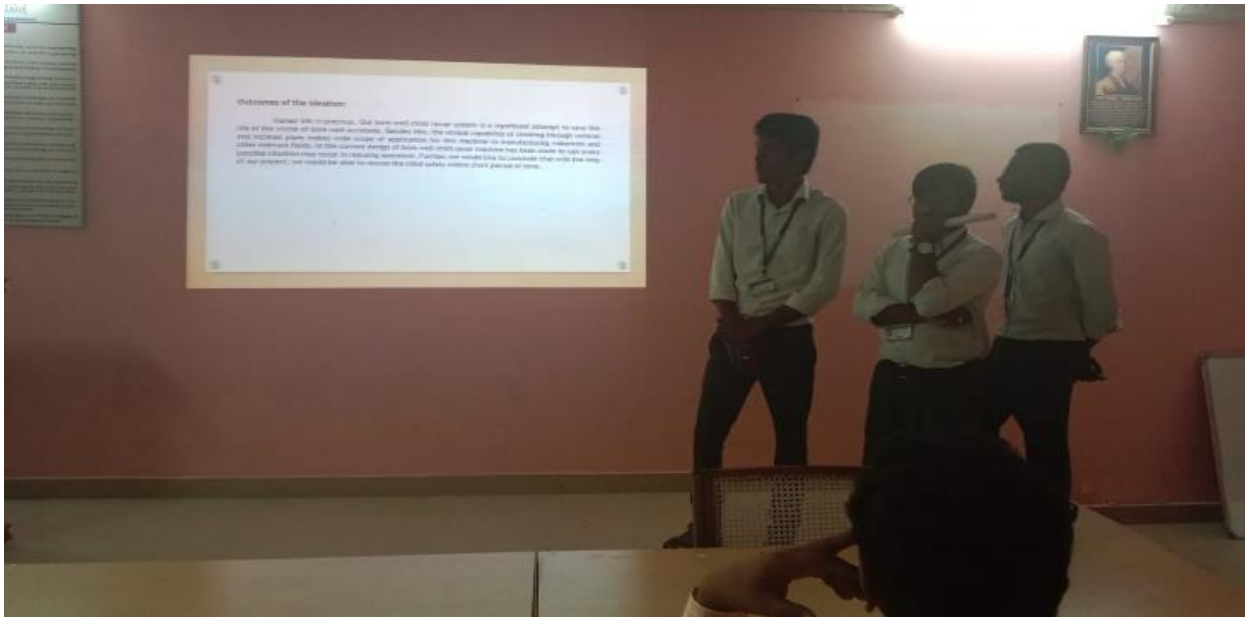


- Mechanical Engineering Students participated in **Poster Presentation Competition** on the occasion of National Energy Conservation Day on 14/12/2022.





- Mechanical Engineering Students participated in National level **IDEATHON -2022** organized by NEC Institution Innovation Council on 16/12/2022.



- Mechanical Engineering students participated in “**Career guidance & Overseas education opportunities for Engineering Students**”, organized by IQAC & Department of TPC on 30/12/2022.



NEC Block 2, Kotappakonda Rd, Andhra Pradesh 522611, India

Guntur  
Andhra Pradesh  
India

2022-12-30(Fri) 10:42(am)



28°C

82°F



**CO CIRCULAR ACTIVITIES (SPORTS):**

- Mechanical Engineering department students won cricket match held on the occasion of National Sports Day (29/08/2022).



**NSS ACTIVITIES**

- Mechanical Engineering Department students has participated in “**75<sup>th</sup> AzadiKa AmritMahotsav HarGhar Tiranga PalanduZillaJatiyaPatakaShobaYatra**”, as a part of NSS activity on 10/08/2022 at S.S & N College Narasaraopet.



- Mechanical Engineering department students have participated in “**Painting and Essay Writing Competition on the eve of AzadiKaAmritMahotsav**”, as a part of NSS activity on 11/08/2022.





- Mechanical Engineering students got free dental check-up as a part of NSS activity on 09/09/2022



- Faculty from Mechanical Engineering department participated in “National United Day”, on the birth Anniversary of Sardar Vallabhai Patel organized by Narasaraopeta Engineering College Narasaraopet on 31/10/2022.



## ALUMNI TALK

➤ Department has organized a one day Alumni talk to first year students on “**Career opportunities in Software**”, on 23/07/2022, For this program Mr. N.Sai kumar (9963677348) APPSIKA Soft tech Hyd - Testing Engineer acted as a Resource person.



➤ Department has organized a one day Alumni talk to final year students on “**Career opportunities in Software**”, on 10/10/2022, For this program, Mr. G.Siva Krishna reddy (13471A03E5),(2013-2017 Batch) , NTT DATA (Mexico), Gandhinagar, Abinitio Developer (DSIST Specialist) acted as a Resource person.





- Department has organized a one day Alumni talk to final year students on “Career Guidance”, on 18/11/2022, For this program Mr. P.Manoj kumar (9600170921), software engineer, Cognizant, Hyderabad acted as a Resource person.



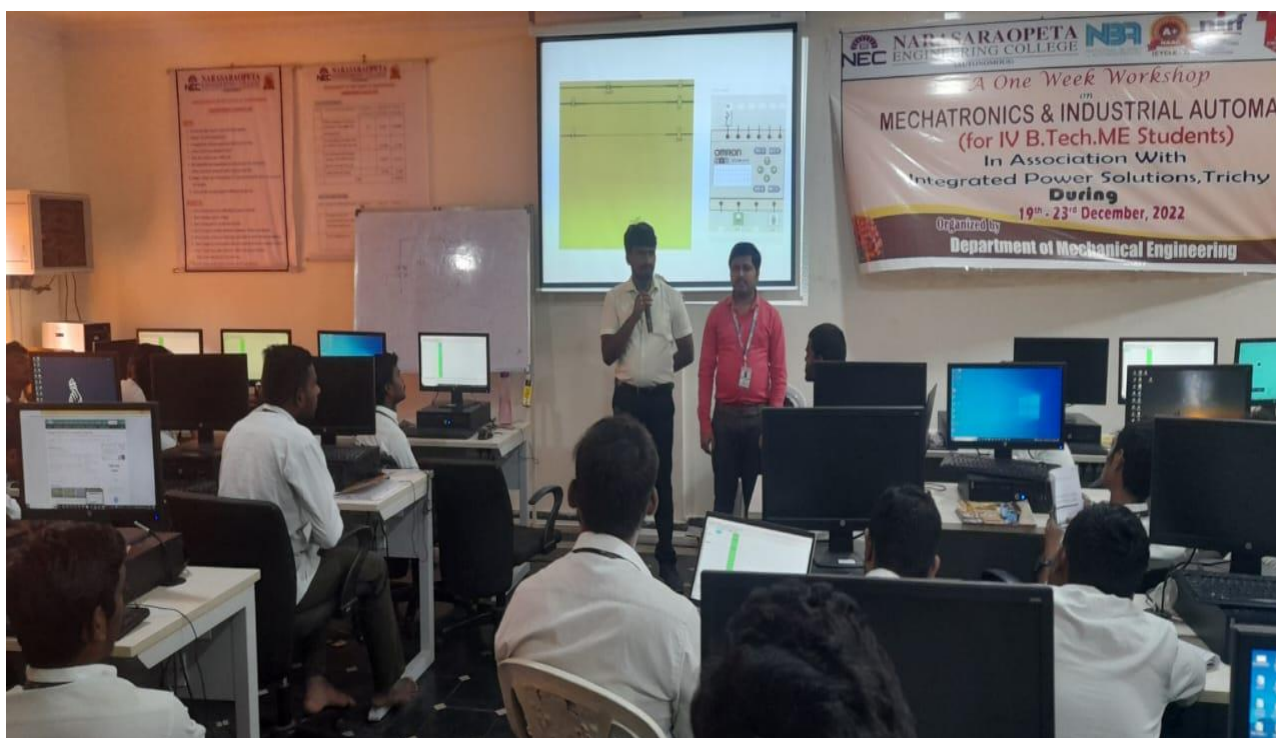
- Department has organized a one day Alumni talk to final year students on “Career Guidance”, on 24/11/2022, For this program Mr. D.Rajesh , Associate Tech Lead Eclart prime start up, Hyderabad acted as a Resource person.



- Department has organized a one day Alumni talk to final year students on “Career Guidance”, on 02/12/2022, For this program Mr T.Avinash Kumar Reddy, Associate Software Engineer Solera, Bengaluru acted as a Resource person.



- Department has organized a one day Alumni talk to final year students on “Career Guidance”, on 23/12/2022, For this program Mr. Chirumamilla Gopibabu (2014-2018) Batch , Developer, Zilogic systems, Bangalore acted as a Resource person.





**INDUSTRIAL VISITS**

- Students from first year Visited “**Mittapalli Spinners Limited**”, Yellamandaas a part of industrial visit on 15/07/2022, faculty coordinators namely SK.Bajan, SK. Meeravali, B.Rajiv Kumar & M.Venkaiah.attended to this visit.



- Students from Third year A section Visited “**JOCIL LIMITED**”, Dokiparru Guntur as a part of an industrial visit on 21/10/2022 .A.Pavan kumar Assistant professor and K.John babu Assistant professor coordinated this program.





- Students from second year A section Visited “Mittapalli spinners limited”, yellamanda narasaraopet as a part of an industrial visit on 02/11/2022. T.Ashok kumar Assistant professor and SK.Nagur Meeravali Assistant professor coordinated this program.



- Students from final year A section Visited “JOCIL LIMITED”, Dokiparru Guntur as a part of an industrial visit on 09/11/2022. P.Srinivasa rao, Assistant professor and A.Pavan kumar, Assistant Professor coordinated this program.

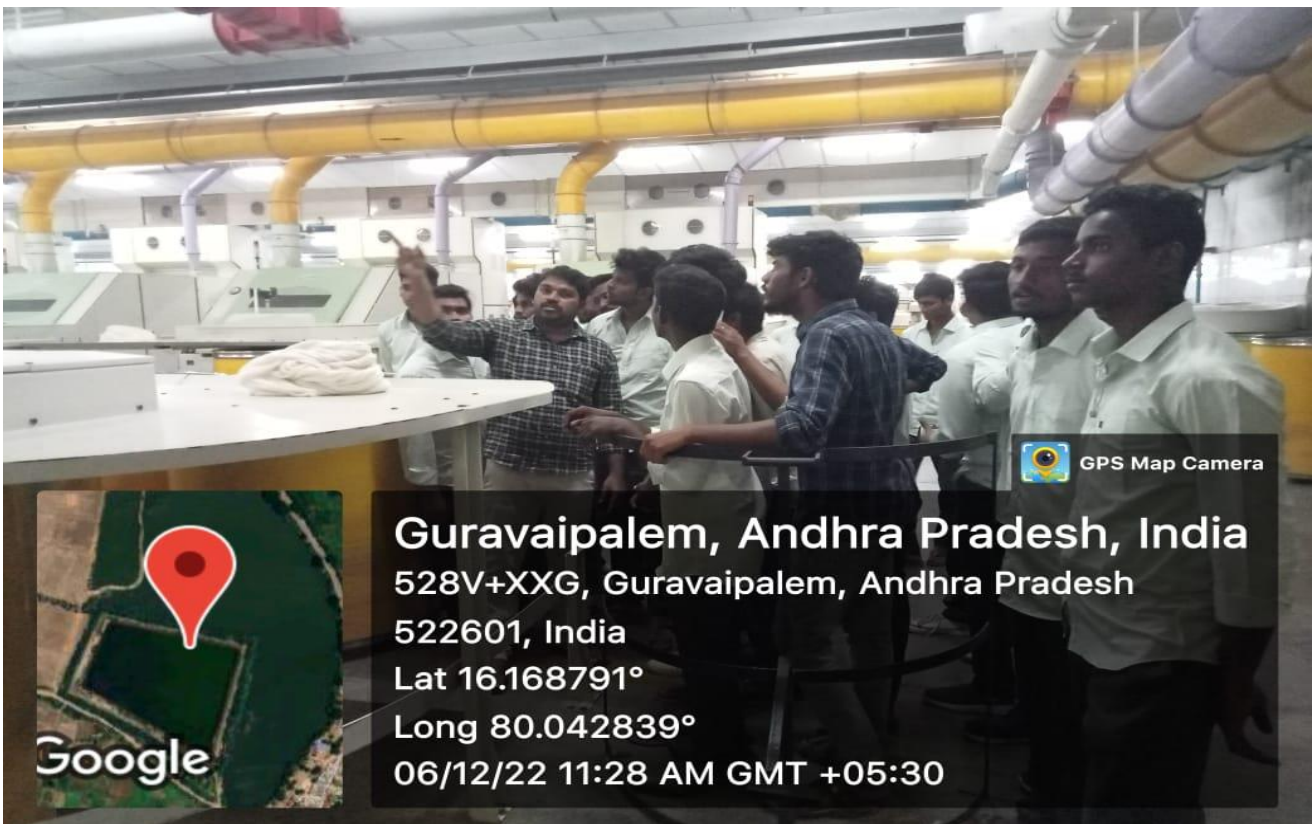




- Students from final year B section Visited “JOCIL LIMITED”, Dokiparru Guntur as a part of an industrial visit on 10/11/2022. A.K.Kiran chand Assistant professor and N.Viaya sekhar ,Assistant professor coordinated this program.



- Students from first year Visited “Mittapalli Spinners Limited”, Yellamanda as a part of industrial visit on 06/12/2022, faculty coordinator Ch.Sekhar, Assistant professor to this visit.



**CAMPUS PLACEMENTS**

Six Students of Mechanical got selected in various companies listed below.





<b>Roll No</b>	<b>Name of the students</b>	<b>Name of the Company</b>	<b>Date of drive</b>	<b>Salary</b>
19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	Savantis	06-09-2022	222000
19471A0326	MELAM STEPHEN WILLIAMS	Savantis	06-09-2022	222000
20475A0320	BALACHANDAR M	Savantis	06-09-2022	222000
19471A328	NOORBASHA ANWAR BASHA	TCS	10-09-2022	360000
19471A0320	KIKKURU PRUDHVI YASHWANTH REDDY	Savantis	06-09-2022	222000
19471A0326	MELAM STEPHEN WILLIAMS	Savantis	06-09-2022	222000



## STUDENT TOPPERS

**NEC** **NARASARAOPETA**  
ENGINEERING COLLEGE  
(AUTONOMOUS)

**DEPARTMENT OF MAECHANICAL ENGINEERING**  
I B.TECH II Semester, ME Toppers List (2021 Batch)

 <b>Y. Hemalatha Meghana</b> 21471A0312 9.23	 <b>S. Sai Santosh</b> 21471A0309 8.69	 <b>A. Veeranjanyulu</b> 21471A0301 7.92	 <b>B. Yuva Raju</b> 21471A0302 7.23
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Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in I B.TECH. II Sem

**NEC** **NARASARAOPETA**  
ENGINEERING COLLEGE  
(AUTONOMOUS)

**DEPARTMENT OF MAECHANICAL ENGINEERING**  
II B.TECH II Semester, ME Toppers List (2020 Batch)

 <b>SK. MANISHA</b> 20471A0348 8.88	 <b>P. SAIKRAN YADAV</b> 21475A0301 8.44	 <b>SD. SARDAR VALI</b> 21475A0302 8.37	 <b>N. NAVEEN</b> 21475A0318 8.37	 <b>M. SASHANK</b> 20471A0327 8.33
 <b>G. S. S. SUGAN</b> 21475A0327 8.33	 <b>D. V. PRADEEP</b> 21475A0316 8.3	 <b>B. S. YOGENDRA SAI</b> 21475A0330 8.28	 <b>N. YASWANTH</b> 21475A0320 8.26	 <b>J. PRASAD</b> 21475A0306 8.23

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in II B.TECH. II Sem




# NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

## DEPARTMENT OF MAECHANICAL ENGINEERING

III B.TECH II Semester, ME Toppers List (2019 Batch)

 <p><b>D.VENKATA GOPAL</b> 20475A0318 8.77</p>	 <p><b>K.P.YASHWANTH REDDY</b> 19471A0320 8.64</p>	 <p><b>J.NAGENDRA BABU</b> 19471A0316 8.5</p>	 <p><b>CH.ASHOK</b> 19471A0305 8.36</p>	 <p><b>R.SIVANJANEYULU</b> 20475A0327 8.36</p>
 <p><b>P. NAVEEN</b> 20475A0330 8.36</p>	 <p><b>SK.DASTAGIRI</b> 20475A0316 8.09</p>	 <p><b>K.NIKHIL KUMAR</b> 20475A0321 8.09</p>	 <p><b>A.NAGENDRA BABU</b> 20475A0328 8.02</p>	 <p><b>G.ANIL</b> 19471A0312 7.95</p>

Management, Principal, HOD & Faculty Express their Hearty Congratulations to Toppers in III B.TECH. II



## MOUs

- Department has made MOU with “INDO – EURO SYNCHRONIZATION Pvt.Ltd-IES”, for this program principal Dr.M.Sreenivasa kumar garu and Honarable Secretary M.Rameshgaru attended at Acharya Nagarjuna Univeristy on 02/08/2022.



- Department has made MOU with “**JOCIL LIMITED**”, for this program principal Dr.M.Sreenivasa kumar garu, Vice principal Dr.D.Suneel and Dr.B.Venkata siva, HOD ME attended at Jocil company on 27/10/2022.





**MEMORANDUM OF AGREEMENT BETWEEN****NARASARAOPETA ENGINEERING COLLEGE  
(Autonomous)**

Kotappakonda Road, Yellamanda (Post),  
Narasaraopet – 522601, Palnadu District, A.P

**(First Party)****AND****INDO-EURO SYNCHRONIZATION Pvt. Ltd. - IES  
(Second Party)****For**



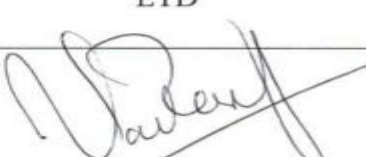
**International Skill and internship initiatives in the  
various  
Academic institutions of Andhra Pradesh**

AMENDMENT: Amendment within the scope of the instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed, and dated by all parties.

INFORMATION OWNERSHIP: All information provided by First Party shall only be utilized for conducting training and placement assistance and First Party holds no ownership over the content prepared by Second party.

ESTABLISHMENT OF RESPONSIBILITY: This MoA is not intended to, and not create any right benefit or trust responsibility, substantive or procedural, enforceable at law, by a party against First Party or Second Party.

The parties hereto have executed this agreement as of the last written date below.

For and on behalf of	For and on behalf of
NARASARAOPETA ENGINEERING COLLEGE (Autonomous)	INDO-EURO SYNCHRONISATION PVT LTD
  Name: Dr. M. Sreenivasa Kumar Designation: Principal	 Name: Mr. Vangapandu Venkata Nagaraju Designation: President & MD

NARASARAOPETA ENGINEERING COLLEGE  
(AUTONOMOUS)  
NARASARAOPET - 522 601  
Guntur (Dist.), A.P.

**MEMORANDUM OF UNDERSTANDING**  
**BETWEEN**



**JOCIL LIMITED**

Dokiparru Village, Medikondur Mandal, Guntur, Andhra Pradesh 522438

**AND**

**AND**



**DEPARTMENT OF MECHANICAL ENGINEERING**  
**NARASARAOPETA ENGINEERING COLLEGE (Autonomous)**  
Kotappakonda Road, Yellamanda (Post), Narasaraopet – 522601, Guntur District, AP

**OCTOBER 2022**

## **COURSES**



### **UG-B.TECH**

Computer Science and Engineering  
CSE - AI (Artificial Intelligence)  
Information Technology  
CSE (AI & ML)  
CSE - DS (Data Science)  
CSE - CS (Cyber Security)  
Electronics & Communication Engineering  
Electrical & Electronics Engineering  
Mechanical Engineering  
Civil Engineering



### **PG-M.TECH**

Computer Science and Engineering  
Digital Systems and Computer Electronics  
Digital Electronics and Communication Systems  
Power and Industrial Drives  
Thermal Engineering  
Machine Design  
Structural Engineering



### **PG: MBA, MCA**

Master of Business Administration (Dual Specialization)  
Master of Computer Applications (Two Years Programme)



**NARASARAOPETA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

Kotappakonda Road, NARASARAOPET - 522601,  
Guntur Dt., Andhra Pradesh.

Ph: **08647-239905/239907** Fax: **+8647-239902**

E-mail: **Info@nrtec.in** **www.nrtec.in**

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**EAPCET CODE: NSPE**