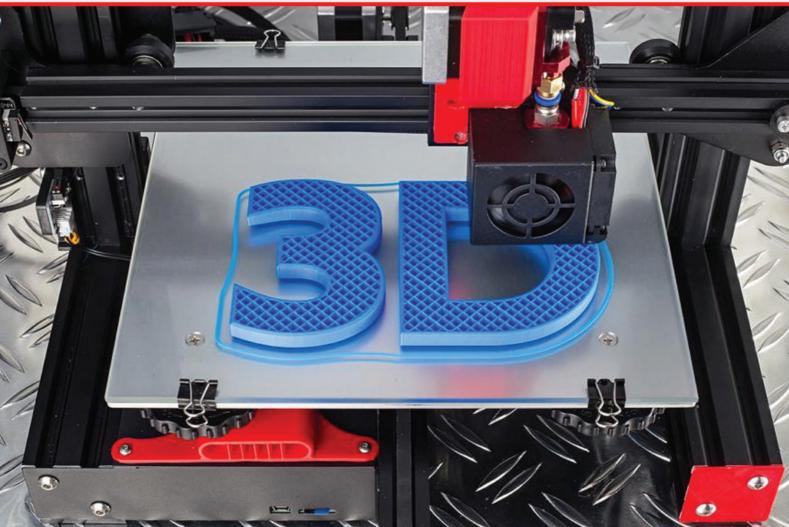






NAA

TECHNICAL MAGAZINE MECH MANTRA



JULY TO DECEMBER 2021 Volume : 12

Department of MECHANICAL ENGINEERING



CHIEF EDITORS

Dr. M. SREENIVASA KUMAR

M.Tech, Ph.D (UK), MISTE, FIE(I) Principal

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Dr. B.VENKATA SIVA

M.Tech, Ph.D., FIE(I), MISTE, ISNT HOD - ME

MEMBERS

Faculty

Dr. D. Jagadish Professor, ME

Mr. Ch.Sekhar Associate Professor, ME

Mr.T.Ashok Kumar Assistant Professor, ME

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> Mr. Y.Shiva reddy IV year, ME

Mr. K.Prudhvi yeswanth reddy III year, ME

> Ms. SK.Manisha II year, ME

MESSAGES



Chairman's message

It gives me great happiness to note that the department of Mechanical Engineering, NEC is bringing out the volume-12 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-12 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-12 of our department association magazine. Iwould like to place my sincere and heartfelt thanks to all those who have contributed tomake this effort a success. My special thanks to the Management, for their guidance which enabled us to bring out this volume-12.

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 MOTORIZED BENCH VICE

Two jaw-elements thereof of which it is comprised to be movable toward and away from each, whereby the second jaw-member may be used separately to hold a workpiece, and may be used in conjunction with the first jaw-member for assisting the first jaw-member in firmly and safely clamping a workpiece in order to provide a more stable holding of the vice has a pair of parallel, work-piece clamping jaw-members, which jaw-members are spaced laterally apart. The first jaw-member is a semi-rigid one, while the second jaw-member is completely sidle as an integral unit, and also allows for the workpiece during the working thereof. The second, floating jaw-member may be adjusted for holding the smaller-diameter portion of a long workpiece, while the fixed jaw member holds and clamps the larger diameter portion of the same workpiece. The second workpiece may be used alone for holding and clamping workpieces that are more difficult to grip, or the like, and also may be used for holding a tool, or similar article, while the first, semi-rigid jaw-member clamps a workpiece associated with the tool being clamped by the floating jaw-member. This Project relates to vices, and more particularly has reference to an improved bench vice of the motorized type.



P.Purna Chandra rao II Year ME

DESIGN AND FABRICATION OF AUTOMATIC VEGETABLE CUTTING MACHINE

Automation brought about by technology has saved human effort and time to a larger extent. Slicing vegetables are a risky and time-consuming task in our busy life. The associated difficulties like time constraint, contamination, etc. make it pretty difficult for any person handling the job. Manual cutting of vegetables is still prevalent, in hostels, and even in restaurants, which cater to a whole set of varying customer tastes and preferences. This system is mainly designed to reduce the human effort and time. This project is aimed at solving above stated problems by introducing a special product named automated vegetable cutting system.



P.Krishna chaitanya, II Year ME

FABRICATION OF MANUAL CORN PEELING MACHINE

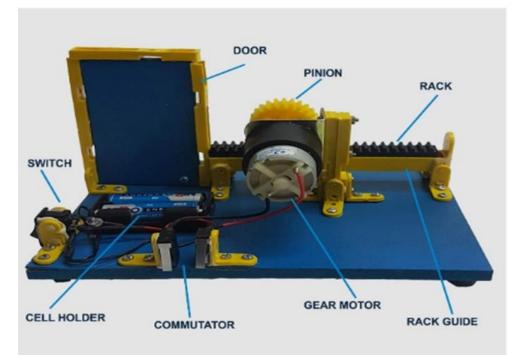
Traditionally, peeling of Maize is done by hands and this is done manually which gives burden to the farmers as it requires manpower and thus increase workers' wages.Other than peeling manually there are highly sophisticated machines which are difficult to operate, not easily maintained and very expensive. Rural farmers, small scale commercial farmers find it difficult to afford these machines which some master farmers can afford to make affordable and convenient machine to peel maize.To solve these difficulties, our new design comes into picture with simple design made at low cost.In our design a several elements are used, to form a simple mechanism and it is operated easily with the help of hand without having specialized skill.Also this mechanism does not need any motor to operate only manual work is needed and it is one of the cheap and economical designs for corn peeling.



M.STEPHEN WILLIAMS III Year ME

AUTOMATIC MECHANICAL GARAGE DOOR OPENER

Here we propose a fully automatic garage door opener project system. To achieve the design and fabrication of an automated garage door opener system we use a large screw with fabricated door belt, pulley, connecting rods, fixtures, mounts, motor and supporting frame. Proposed system will use a fabricate mini door mounted on the threaded screw to efficiently transfer motor power for achieving radial motion of the door. We use a pulley and belt arrangement in order to drive the screw by transferring motor power to the screw. The screw rotation moves the door in desired direction using threading. We use a switch to run the motor in desired direction for both way motion.



D. RAVI TEJA , IV Year ME

DESIGN AND FABRICATION OF TREADMILL BICYCLE

This project deals with the design and fabrication of the treadmill cycle. The treadmills are not used to harness power, but as exercise machines for running or walking in one place, we are utilizing same principle for travelling a shorter distances. The motion of the machine is achieved by transferring the human's energy to the machine through the concept of treadmill. This machine can be helpful for travelling to short distances as well as used for exercise to the peoples. Using this machine, allotting a separate time for their exercise is not needed. The same action performed on the treadmill is used in this machine for the movement of the machine. As we (the operator), walks forward, the machine moves forward.



G.BALAJI GUPTHA , IV Year ME

Faculty Publications

- Dr.M.Sreenivasa Kumar, professor Principal(NEC) published a Journal paper entitled"A Novel Hybrid Transform approach with integration of Fast Fourier, Discrete Wavelet and Discrete Shearlet Transforms for prediction of surface roughness on machined surface", ELSEVIER : Measurement Volume : 164 (2020), pp 1-14.
- Pilli Sravani, Assistant professor published a Journal paper entitled "The Systematic Comparision on Analysis of Parallel Flow and Counter Flow Heat Exchanger by using CFD and Practicle Methods", International Journal for Modern Trends in Science and Technology 2021, 7, 23 November 2021, pp. 153-161.
- Dr.D.Suneel professor, Vice Principal published a Journal paper entitled "Machining Characteristics and Microbiological Growth of Stir Casted A356 – SiC MMCs and Pure Metals", PP., ISBN.
- Dr.P.Suresh babu Associate professor published a Journal paper entitled "Machining Characteristics and Microbiological Growth of Stir Casted A356 – SiC MMCs and Pure Metals" PP., ISBN.
- Dr.P.Suresh babu professor published a Journal paper entitled "Investigations on Hardness, Machinability and Electrical Conductivity of Stir Casted A356 Nanocomposites Reinforced with SiC Nanoparticles with Ultrasonic Assisted Cavitation", in Applied Mechanics and Materials, Trans Tech Publications Ltd, Switzerland, ISSN: 1662-7482, Vol. 903, PP. 107-115, April 2021, Indexed in Index Copernicus Journals Master List, Google Scholar, EBSCOhost Research Databases etc.

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A Novel Hybrid Transform approach with integration of Fast Fourier, Discrete Wavelet and Discrete Shearlet Transforms for prediction of surface roughness on machined surfaces

Prabhakar, D. V. N.; Sreenivasa Kumar, M.; Gopala Krishna, A.

Milled surfaces contain features of geometrically similar appearances under various magnifications in different orientations. Fourier transform is useful in obtaining accurate information from periodic data than wavelets, wavelets are effective in handling multi-resolution data than fourier transform, shearlets show much higher directional sensitivity than both fourier transform and wavelets but are computationally complex. Hence a novel hybrid transform approach with integration of Fast Fourier Transform (FFT), Discrete Wavelet Transform (DWT) and Discrete Shearlet Transform (DST) to characterize surface roughness on machined surfaces is presented. For the experimentation, Taguchi's L₉ orthogonal array was used on Computer Numerical Control (CNC) mill with High Speed Steel (HSS) end mill to machine aluminum 3025 alloy work samples. The Artificial Neural Network is trained with cutting parameters, vision parameters as input and the experimental surface roughness (Ra, Rq, Rz) as output. The validation results of proposed models show better performance with reasonable accuracy.

Dr.M.Sreenivasa Kumar, Principal NEC (Autonomous)

The Systematic Comparision on Analysis of Parallel Flow and Counter Flow Heat Exchanger by using CFD and Practicle Methods

Shaik Chand Mabhu Subhani¹ | Pilli Sravani²

¹ Department of Mechanical Engineering, Eswar college of Engineering, ²Department of Mechanical Engineering, Narasaraopeta engineering college(Autonomous)

To Cite this Article

Shaik Chand Mabhu Subhani and Pilli Sravani. The Systematic Comparision on Analysis of Parallel Flow and Counter Flow Heat Exchanger by using CFD and Practicle Methods. International Journal for Modern Trends in Science and Technology 2021, 7, pp. 153-161. https://doi.org/10.46501/IJMTST0711026.

Article Info

Received: 11 October 2021; Accepted: 19 November 2021; Published: 23 November 2021

ABSTRACT

A Heat Exchanger is a device which is used to transfer heat from one fluid to another, whether the fluids are separated by a solid wall so that they never mix, or the fluids are directly in contact. Every year Heat exchanger technology is growing to develop efficient, compact and economical heat exchangers, all over the world. Updating the community for this development needs an interaction. These days concentric tube heat exchangers are used with forced convection for lowering the working fluid's temperature by raising the cooling medium's temperature. The purpose of this project is to use ANSYS FLUENT software and practical calculations to analyse the temperature drops as a function of both inlet velocity and inlet temperature and how each varies with the other. Each heat exchanger model was designed and simulated for both parallel flow and counter flow heat exchanger models. The results were compared between parallel and counter flow heat exchangers. CFD analysis was utilized to find the outlet temperatures of parallel and counter flow heat exchangers for the inlet velocity and inlet temperature of the fluid medium used. "Computational Fluid Dynamics (CFD) is a science of predicting fluid flow, heat transfer, mass transfer, and related phenomena by solving the mathematical equations which govern these processes using numerical processes". These outlet temperature values obtained were used to determine the overall heat transfer coefficient. Theoretical calculations are done by the values obtained through the experiment conducted on the heat exchanger setup for both parallel and counter flow

P.Sravani, Assistant Professor, ME

Faculty Achievements:

- Dr.M.Sreenivasa Kumar, professor Principal(NEC) published paper entitled "3d printing of prototype through image processing using autodesk recap photo software", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21) organized by Department of Mechanical engineering, NEC, From 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Dr Suneel Donthamsetty, Vice Principal published paper entitled "Machining Characteristics and Microbiological Growth of Stir Casted A356-SiC MMCs and Pure Metals", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21) organized by Department of Mechanical engineering, NEC, From 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Dr.Penugonda Suresh Babu , professor published paper entitled "Machining Characteristics and Microbiological Growth of Stir Casted A356-SiC MMCs and Pure Metals", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, From 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Dr B. Venkata Siva professor HOD ME published paper entitled "CFD Analysis Of Super Utility Vehicle To Determine Aerodynamic Behaviour", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Dr B. Venkata Siva professor HOD ME published paper entitled "A Study And Synthesis Of 8 Bar One Degree Of Freedom Walking Mechanism", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30-07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
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- DrD.Jagadish professor published paper entitled "Establishment of SCR Test facility and Evaluation of 8mm pitch Honeycomb Type Catalyst in a 20 Liter capacity SCR Test facility", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.

- DrD.Jagadish professor published paper entitled "Comparative Performance Analysis of Engine Fuelled with Diesel Biodiesel Iron Oxide Nano Particles", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4
- Ch.Sekhar Associate professor published a paper entitled "Comparative Performance Analysis of Engine Fuelled with Diesel Biodiesel Iron Oxide Nano Particles", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Ch.Sekhar Associate professor published paper entitled A "Comprehensive Review on recent research on Semi Solid Processed Aluminium 7 Series Alloys", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Ch.Sekhar Associate professor published paper entitled "A study on microstructure and mechanical Properties A7075 Reinforced with Flyash/Sic hybrid metal matrix composite", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- Ch.Sekhar Associate professor published paper entitled "Experimental Investigation In Single Cylinder Vcr Multifuel Engine Using Bio-Diesel As Linseed Oil", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- M.Venkaiah Associate professor published paper entitled "Devlopment of Code for Automated HVAC System using Digital Controller", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- M.Venkaiah Associate professor published paper entitled "Experimental Investigation In Single Cylinder Vcr Multifuel Engine Using Bio-Diesel As Linseed Oil", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.

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Faculty Achievements

- M.Venkaiah Associate professor published paper entitled "Study of Rheological characteristics of nano suspensions", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation(ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- M.Venkaiah Associate professor published paper entitled "Optimisation in WEDM of HCHCR Steel using Taughi Method", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02-4.
- N.Vijaya Sekhar Assistant professor published paper entitled "Analysis of static and fatigue strength of aluminium alloy wheel", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- B.Rajivkumar Assistant professor published paper entitled "Investigation on Mechanical Properties of Glass fiber and Carbon Nano tubes sandwich composite material", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- T.Ashok Kumar Assistant professor published paper entitled "Design and analyaics of differential gear box", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- T.Ashok Kumar Assistant professor published paper entitled "Application of a thermoplastic polyurethane/polylactic acid composite filament for 3d-printed personalized orthosis", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- T.Ashok Kumar Assistant professor published paper entitled "Design and Analysis of a Connecting Rod", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by the Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.

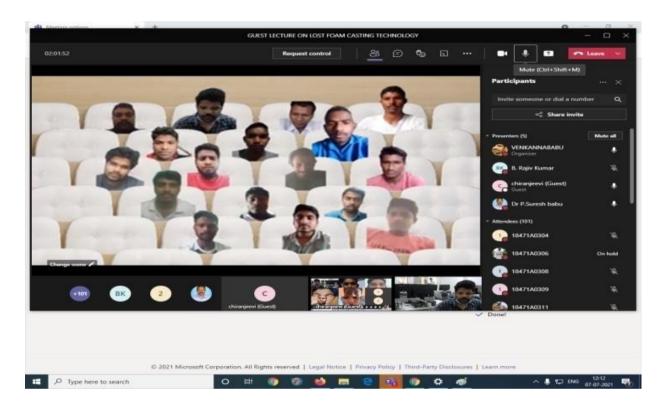
- A.Pavan Kumar, Assistant professor published paper entitled "A Review on Parameters of Composite Materials", A Virtual International Conference On Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- Sk.Meeravali Assistant professor published paper entitled "Performance analysis of a CI Engine fuelled with olive oil and soybean oil mixture as a biofuels", A Virtual International Conference On"Emerging Trends In Mechanical Engineering And Industrial Automation (ICETMEIA-2K21)" organized by Department of Mechanical engineering, NEC, during 30 -07-2021 to 31-7-2021, ISBN : 978-93-91420-02.
- Principal Dr.M.Srineevasakumar, published a text book "Elements of Mechanical and Electrical Engineering", by Amaravati Publications.
- Dr.D.Jagadish ,Professor published a text book "Elements of Mechanical and Electrical Engineering", by Amaravati Publications.
- Principal Dr.M.Srineevasakumar, Professor published a text book"EngineeringWorkshop",byS International Publishers.
- Principal Dr.M.Srineevasakumar, Professor published a text book"Engineering Mechanics", by Sri Krishna Techno Books.
- Dr.B.VenkataSiva Profesor HOD-ME published a text book "Material Science and Metallurgy", bySpectrum Publishing House.
- Vice Principal Dr.D.Suneel Professor published a text book "Material Science and Metallurgy", by Spectrum Publishing House.
- Dr.P.Suresh babu Associate professor published a text book "Material Science and Metallurgy", by Spectrum Publishing House.
- P.Srinivasarao Assistant Professor published a text book "Engineering Drawing", by Spectrum Publishing House.
- M.VenkannaBabu Associate Professor published a text book "Engineering Drawing", by Spectrum Publishing House.
- M.Venkaiah Associate Professor published a text book "Engineering Drawing", by Spectrum Publishing House.
- Dr.P.Suresh babu Associate professor published a text book "Material Science and Metallurgy", by Spectrum Publishing House.
- Ch.Sekhar Associate Professor published a text book "Engineering Mechanics", by Sri Krishna Techno Books.
- D.Mojeswara Rao Assistant Professor published a text book"Engineering Workshop", byS International Publishers.

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Department Activities

DEPARTMENTACTIVITIES

Department has organized a Virtual Webinar on "LOST FOAM CASTNG TECHNOLOGY", for second and third year students on 07/07/2021 .For this webinar K.Chiranjeevi, Managing Partner, Indian Metal Work Ltd acted as a Resource person.

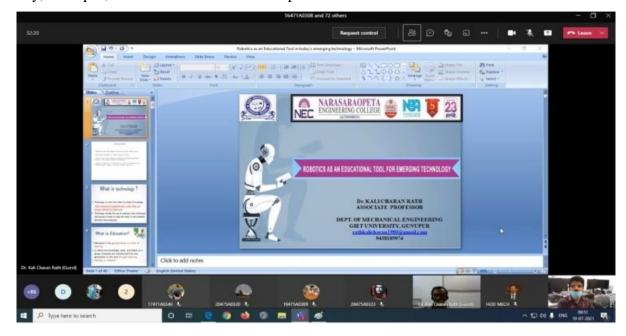


Department has organized a Virtual seminar on "AN INFORMATIVE TALK ON NDT, QA/QC & JOB OPPORTUNITIES IN OIL & GAS FIELD" for second and third-year students on 17/07/2021 .For this seminar M.BALA KRISHNA, Quality Inspector, BITS NDT, VIZAG acted as a Resource person.

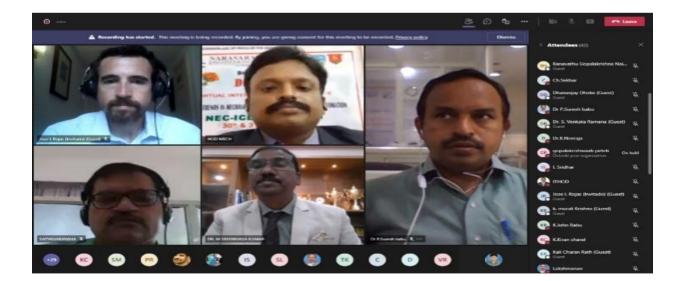


Department Activities

Department has organized a Virtual seminar on "ROBOTICS AS AN EDUCATIONAL TOOL FOR EMERGING TECHNOLOGY" for second and third year students on 19/07/2021.For this seminar Dr. Kali CharanRath, Associcate Professor, Dept of Mechanical Engineering, GIET University, Gunupur, Odisha actedas a Resource person.



 Department has organized Virtual International Conference on "Emerging Trends In Mechanical Engineering And Industrial Automation", in association with The Institution Of Engineers (India).



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Department Activities

Department has organized a Virtual seminar on "Role Of 3d Printing In Future Manufacturing And Its Research Scope", for third year students on 19/08/2021.For this seminar Dr G Bala Murali, from VIT, Vellore acted as a Resource person.



Department has organized a Virtual seminar on "All About MBA Options In India & Opportunities for mechanical Students" for I, II, III, & IV year students on 20/08/2021.For this seminar Durga Sankar Bussetti, Chief Mentor, AP & Telangana and Vasanth Kumar, Lead Mentor, B.Tech (Mech), MBA acted as a Resource person.

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Department Activities

Department has organized a one-week workshop on "PRODUCT DESIGN & DRAFTING BY CATIA" for final year students in association with APSSDC from 20-09-2021 to 25-09-2021. For this workshop Mr. N Mahesh Babu, Mr. A Tejoamareswar, Mr. N Srikanth, Ms. K Prasanna Lakshmi acted as resource persons.



Department has organized a virtual seminar on"IPR & It's Role In Research And Innovation" in association with IQAC & IIC .for I,II, III, & IV year students on 24/09/2021.For this seminar Mr. Anna Eswara Kunar, Patent Analyst, IIT – Hyderabad acted as a resource person.



Department Activities

Mech Mantra

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Department has organized a workshop on "Design Now" for third year and final year students in association with ICT Academy and Autodesk Fusion 360APSSDC on 30/09/2021.



Department has organized a one-week workshop on "Product Design & Drafting By Solid Edge", forthird year students from 04/10/2021 to 09/10/2021 in association with APSSDC. For this seminar Mr. N Mahesh Babu, Mr. N Srikanth, Mr. K.Jaya Durga Phani, Mr.V.Vijay Kumar acted as a Resource person.



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Department has organized a "TECH YANTRA 1.0 Event in Association with The Institute of Engineers India Students' AP State Chapter from 12/11/2021 to 13/11/2021. The Event is inaugurated by Dr.C.V.Sriram (Hon. Secretary, IEI) and Principal Sir. Total 260 students enrolled for different activities.

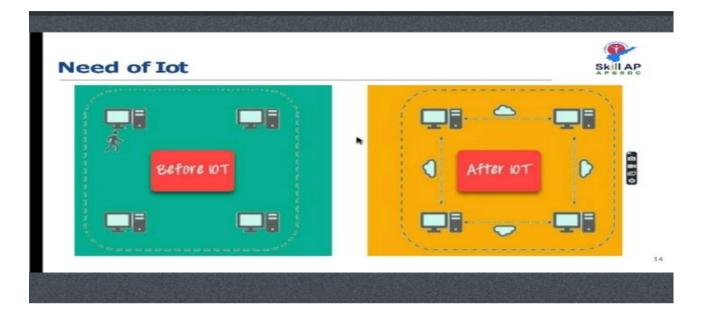


Department has organized a two-week workshop on "Programmable Logic Controller (PLC)", for third year students in association with APSSDC from 15/11/2021 to 27/11/2021. For this workshop Mrs.M.Gokul Sukanya, APSSDC trainer acted as resource person.



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Department has organized a two-week workshop on "Internet Of Things" for second year students in association with APSSDC from 15/11/2021 to 27/11/2021. For this workshop Mr M. Venkaiah, Assistant Professor, Department of Mechanical Engineering.acted as a coordinator.



Department has organized an "ICT-Autodesk Design Now Workshop on FUSION 360 Session-2 in association with ICT Academy and Autodesk" on 16/11/2021. The Event is inaugurated by Mr. S. RamKumar(Relationship Manager- ICT Academy), Mr. P Kranthi Kumar (Sr. Technical Trainer -ICT Academy) and Principal Sir. Around 81 students participated in this program.



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Department Activities

Department has organized a five day short training program on "Reverse Engineering" for third year students in association with NITTTR-Chandigarh from 25/11/2021 to 29/11/2021. For this workshop Mr M. Venkanna Babu, Assistant Professor, Department of Mechanical Engineering. acted as a coordinator.

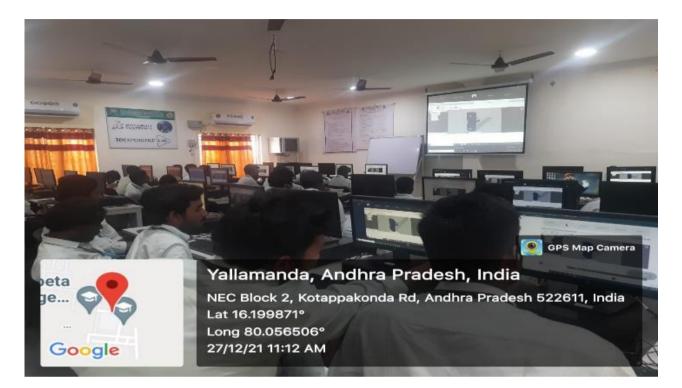


Department has organized a two-week workshop on "Recent Trends In Automotive Technology" for third year and final year students association with Janatha Garage from 03/12/2021 to 04/12/2021. For this workshop Narasimha Reddy (Sr. Engineer, Automobile Industry) from JanathaGarage acted as resource person.



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Department has organized an "ICT-Autodesk Design Now Workshop on FUSION 360 Session-3 in association with ICT Academy and Autodesk" for third and final year students on 27/12/2021.in association with ICT Academy and Autodesk.



Department has organized "Alumni Talk In Career Oppurtunities In Software Industry" for final yearstudents.on29/09/2021.For this talk, Mr.B.Raghu Vamsi Mechanical Alumni(Batch 2014-18) working as Engineer Traineein Cognizant, Bangalore acted as resource person.



Department Activities

Mech Mantra

Department has organized "Alumni Talk in Career Oppurtunities In Software Industry" for third year and final yearstudents.on 09/10/2021.For this talk, Mr Abdul Kadhar. Mechanical Alumni (Batch 2013-17) working as Senior User Experience Designer in Touchnote, acted as resource person.



Department has organized an alumni talk on "Mechancal Engineering In Software Field" for third year and final year students.on 03/12/2021.For this talk, Mr.Madhukar Reddy. Mechanical Alumni (Batch 2012-16) working in IBM, Bangalore, acted as resource person.



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INDUSTRIAL VISITS

Students from third year Visited "Mahanandi PVC Pipes", Nakarikallu as a part of industrial visit on 28/09/2021.



Students from final year Visited "Mahanandi PVC Pipes", Narasaraopet as a part of industrial visit on 01/11/2021.



Students from second year Visited "Mahanandi PVC Pipes", Narasaraopet as a part of industrial visit on 02/11/2021.



Students from third year Visited "Sagar Cements Power Plant", Narasaraopet as a part of industrial visit on 03/11/2021.



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Students from Second year Visited "Mittapalli Spiners Pvt limited", Narasaraopet as a part of Industrial visit on 07/12/2021.



Students from third year Visited "Mahanandi Pipes Pvt Limited", Santhi nagar Narasaraopet as a part of Industrial visit on 13/12/2021.



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Students from Second year Visited "Mahanandi Pipes Pvt Limited", Santhi nagar, Narasaraopet as a part of Industrial visit on 13/12/2021.



Students from Final year Visited "Janatha Garage", Thadikonda, Guntur as a part of Industrial visit on 14/12/2021.



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Students from third year Visited "Vallabha Feeds Pvt Ltd", Narasaraopet as a part of Industrial visit on 20/12/2021.



Students from final year Visited "Vallabha Feeds Pvt Ltd", Narasaraopet as a part of Industrial visit on 22/12/2021.



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Students from second year Visited "Vallabha Feeds Pvt Ltd", Narasaraopet as a part of Industrial visit on 23/12/2021.



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STUDENT CERTIFICATIONS

- K.Prudhviyeswanth reddy third year mechanical student completed certification course on "Problem Solving through Programming in C", from NPTEL-Online Certification
- P.Naveen third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- U.Shanmukharao third year mechanical student participated and get certification course on "Overview of Game Development with AR-VR", from SKYY RIDER INSTITUTIONS.
- V.Koteswararao third year mechanical student completed certification course on "Fundamentals of Java", Programming Hub Google Developers online certification program.
- V.Koteswararao third year mechanical student participated workshop on "30 Days Renewable Energy Master Class", Skill AP –APSSDC- Pantech e learning online certification.
- M.Stephen Williams third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- Shaik Mohammad Bilal third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- P.Gopinadh third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- O.Veeranjaneyulu third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program
- K.L.Vara prasad third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- O.Veeranjaneyulu third year mechanical student completed certification course on "Airbags important safety innovation of recent decades", SKILL- LINK online certification program.
- K.Prudhvi yeswanth reddy third year mechanical student participated workshop on "AI4 Students", Microsoft online certification.
- G.Chandra Shekhar third year mechanical student completed certification course on "Cyber security Awareness Training", from Amazon online certification program.
- SK.Dastagiri third year mechanical student completed certification course on "Whats app Security", from Information security Education awareness program.
- SK.Dastagiri third year mechanical student completed certification course on "Password Security", from Information security Education awareness program.
- SK.Dastagiri third year mechanical student completed certification course on "Cyber Hygeinie Practices", from Information security Education awareness program.

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- SK.Dastagiri third year mechanical student completed certification course on "Cyber Ethics", from Information security Education awareness program.
- U.Shanmukha Rao third year Mechanical student completed certification course on "Hybrid Electric Vehicle", SKY RIDER INSTITUTIONS online certification program
- M.Sashank Second year Mechanical student participated workshop on "E-Motor NVH Active Sound Design for Electric Vehicles", SKY RIDER INSTITUTIONS online certification program.
- Veerla.Koteswara Rao third year Mechanical student completed certification course on "IOT Using Raspberry PI", from Pantech e Learning online certification program.
- P.Krishnachaithanya Second year Mechanical student completed certification course on "Build a Face Recognition Application using Python", from Guvi Tech.
- M.Sashank Second year Mechanical student completed certification course on "Build a Face Recognition Application using Python", from Guvi Tech.
- Podila. Gopinadh third year Mechanical student completed certification course on "HTML5 and CSS3", from Simpli Learn.
- P.Sai Srinivas Second year Mechanical student completed certification course on "Build a Face Recognition Application using Python", from Guvi Tech.
- Shaik mahammadbilal third year mechanical student completed certification course on "Introduction to Cyber Security", from Great learning online certification program.
- K PrudhviYashwanthReddy third year mechanical student completed certification course on "Crash Course on Python", from Coursera online certification program.
- Shaik Sadhik Second year mechanical student completed certification course on "National Engineering Olympiad 5.0", from NEO online certification program.
- Sadhe Narendra Babu third year mechanical student completed certification course on "30 Days Machine Learning Master Class", from Pantech e learning online certification program.
- ShaikMahaboobSubani third year mechanical student completed certification course on "30 Days Machine Learning Master Class", from Pantech e learning online certification program.
- Shaik sadhik second year mechanical student completed certification course on "Introduction to Electro Magnetism", fromSkill link online certification program.
- D.Veeranji Reddy second year mechanical student completed certification course on "5 Days EV Design Master Class", from SKILL-AP APSSDC online certification program.
- D.Veeranji Reddy second year mechanical student completed certification course on "Introduction to Thermal Fluid Sciences", from SKILL-AP APSSDC online certification program.

Page No. -31 Student Certifications

- K.Sasi Kumar second year mechanical student completed certification course on "Introduction to Thermal Fluid Sciences", from Skill link online certification program.
- K.Sasi Kumar second year mechanical student completed certification course on "Introduction to Fluid Mechanics", from Skill link online certification program.
- D Pardhu Ganesh second year mechanical student completed certification course on "Introduction to Fluid Mechanics", from Skill link online certification program.
- D Pardhu Ganesh second year mechanical student completed certification course on "Applied Strength Of Materials Using Ansys Work Bench", from Skill link online certification program.
- S.Ranendravamshi second year mechanical student completed certification course on "Introduction to Fluid Mechanics", from Skill link online certification program.
- S.Ranendravamshi second year mechanical student completed certification course on "Applied Strength Of Materials Using Ansys Work Bench", from Skill link online certification program.
- P.Purna Chandra Rao second year mechanical student completed certification course on "Introduction to Fluid Mechanics", from Skill link online certification program.
- J.Nagendra babu third year mechanical student completed certification course on "Introduction to Fluid Mecahnics", fromSkill link online certification program.
- Gangavarapusrichandrasekharthird year mechanical student completed certification course on "Communication Skills", from TCS ION online certification program.
- Gangavarapusri Chandra sekharthird year mechanical student completed certification course on "Culture and E-mail Writing", from TCS ION online certification program.
- Gangavarapusrichandrasekharthird year mechanical student completed certification course on "Group Discussion", from TCS ION online certification program.
- P.Gopinadhthird year mechanical student completed certification course on "Communication Skills", from TCS ION online certification program.

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Campus placements

CAMPUS PLACEMENTS

	LAWII USI LACEWIEN IS	
STUDENT NAME	COMPANY NAME	SALARY PACKAGE
P.VAMSI KRISHNA KALLURI	SAVANTIS	2.25 LPA
M.GADA AVINASH	SAVANTIS	2.25 LPA
B.GOPI	WIPRO	3.5 LPA
CH.VENKATA LAKSHMI JANARDHAN	WIPRO	3.5 LPA
M.VENKATA SAI RAJESH	WIPRO	3.5 LPA
B.NARENDRA KISHORE REDDY	WIPRO	3.5 LPA
ANAND PAUL NAIK	WIPRO	3.5 LPA
SYED NURUDIN	INFOSYS	3.6LPA
SAIPRAVEEN PAARI	TCS NINJA (NQT)	3.6LPA
MALLIKARJUNA RAO PALLAPU	TCS NINJA (NQT)	3.6LPA
SHAIK BAJI	TCS NINJA (NQT)	3.6LPA
BOINA RAVI	TCS NINJA (NQT)	3.6LPA
SHAIK SHAHUL	TCS NINJA (NQT)	3.6LPA
ASHOKKUMAR DANDU	TCS NINJA (NQT)	3.6LPA
JAVVAJII BHANU PRASAD	TCS NINJA (NQT)	3.6LPA
KOITREDDY SYAMALAA	TCS NINJA (NQT)	3.6LPA
V.RAMA LINGESWARARAO	TCS NINJA (NQT)	3.6LPA
SHAIK JOHN SAIDA	TCS NINJA (NQT)	3.6LPA
CHANDU CHITTIPROLU	TCS NINJA (NQT)	3.6LPA
AKBAR JANI SHAIK	TCS NINJA (NQT)	3.6LPA
VENKATA BHASKAR DARLA	TCS NINJA (NQT)	3.6LPA
PRAVEEN KUMAR NETTEM	TCS NINJA (NQT)	3.6LPA
VENKATESH KANAGANI	TCS NINJA (NQT)	3.6LPA
BUSI VIJAY SAI KUMAR	CAPGEMINI	3.6LPA

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Student Achievements

STUDENT TOPPERS





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Student Achievements

STUDENT TOPPERS



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MOUs

MOUs

MEMORANDUM OF UNDERSTANDING

BETWEEN



DEPARTMENT OF MECHANICAL ENGINEERING

NARASARAOPETA ENGINEERING COLLEGE(Autonomous)

Kotappakonda Road, Yellamanda (Post), Narasaraopet - 522601, Guntur District, AP

AND



JANATHA GARAGE PVT. LTD. AUTOMOBILE TRAINING INSTITUTE & RESEARCH

CENTER

#1-48, BharathPetroleum Opp., Tadikonda, X Roads, Guntur, Andhra Pradesh – 522236, Phone:+919652157264, 9052313114,Email:info@janathagarageautomobile.com, Web:www.janathagarageautomobile.com

November 2021

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JANATHA GARAGE



MEMORANDUM OF UNDERSTANDING (MOU)

This MOU is between the Department of Mechanical Engineering ofNARASARAOPETA ENGINEERING COLLEGE(AUTONOMOUS),andJANATHA GARAGE PVT. LTD., AUTOMOBILE TRAINING INSTITUTE & RESEARCH CENTER,Gunturfor the purpose of enriching technical education and for continuous interaction between industry and institution.

NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS),Kotappakonda Road, Yellamanda (Post), Narasaraopet – 522601,Guntur District, APis approved by AICTE, New Delhi.

JANATHA GARAGE PVT. LTD., AUTOMOBILE TRAINING INSTITUTE & RESEARCH CENTER, Guntur, Andhra Pradesh, offers highly specialized and practical oriented training in the field of Automobile Engineering & Technology. The courses are particularly designed to ensure exposure of the candidate to practical problems involved in the relevant areas of study.

Terms & Conditions

1. Nature of Relationship :

 The MOU is for collaboration between both parties, for mutual benefit, for many purposes set out in Annexure – I,to enhance the quality of educational experience ofMechanical Engineeringstudents.

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For JANATHA GARAGE



n 1-40, Bhann Patroham Opp . Tathaceta X Roods Guntur - 522 238, Aedina Pradauti Moti: 96521 52264, 90523 13114 E-mail: Modelanathagaragna.comobile.com actuals: www.janethagaragna.gooutomobile.com



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MOUs

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

Narasaraopeta Engineering College (Autonomous) Janatha Garage Pvt. Ltd., Automobile Training Institute & Research Center

MGG.

Dr. M. SREENIVASA KUMAR Principal Department of Mechanical Engineering Narasaraopeta Engineering College(Autonomous), Kotappakonda Road, Yellamanda (Post), Narasaraopet – 522601, Guntur District,

Andhra Pradesh, Phone: 08647-239905. PRINCIPAL NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS) NARASARAOPET - 522 601 Guntur (Dist.), A.P.

itness

Dr. D. SUNEEL Vice-Principal Department of Mechanical Engineering Narasaraopeta Engineering College(Autonomous), Kotappakonda Road, Yellamanda (Post), Narasaraopet – 522601, Guntur District,

Andhra Pradesh, Phone: 08647-239905

M.L. MoRad

Mr. M. LAKSHMI NARASIMHA REDDY Proprietor Janatha Garage Pvt. Ltd., Automobile Training Institute & Research Center, #1-48, Bharath Petrolium Opp., Tadikonda X Roads, Guntur– 522236, Andhra Pradesh,

Phone: 9652157264, 9052313114. For Janatha Garage Automobile Training

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Proprietor

N. Constru Witness:

Mr. N. GANGADHAR REDDY Assistant Technical Officer Janatha Garage Pvt. Ltd., Automobile Training Institute & Research Center, #1-48, Bharath Petrolium Opp., Tadikonda X Roads, Guntur- 522236, Andhra Pradesh, Phone: 9652157264, 9052313114.

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MOUs

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

NARASARAOPETA ENGINEERING COLLEGE AND AXIS GLOBAL INSTITUTE OF INDUSTRIAL TRAINING

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this the 30TH day of AUGUST 2021 by and between.

NARASARAOPETA ENGINEERING COLLEGE the First Party represented herein by its Principal / Director / Head of Institution NARASARAOPETA ENGINEERING COLLEGE And _AXIS GLOBAL INSTITUTE OF INDUSTRIAL TRAINING The Second party, and represented herein by its Centre Head / Director / Managing Director EZHIL MARAN.A Director

WHEREAS:

A) First Party is a Higher Educational Institution named NARASARAOPETA ENGINEERING COLLEGE

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.

C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education, Placement Assistance, Industrial Visit, Expert Lecture.

D) AXIS GLOBAL INSTITUTE OF INDUSTRIAL TRAINING, - the Second Party is engaged in Technical Value Addition Training in Electrical and Electronics allied Courses Like PLC, SCADA, DCS, HMI, VFD, CONTROL PANEL WIRING & Servo as well as Robotics.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

CLAUSE 1 CO-OPERATION

1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.

CLAUSE J SCOPE OF THE MOU

2.1 Industrial Training & Visity: Industry and Institution Interaction, will provide an insight into the latest developments / mapirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group comparies and also involve in Industrial Training Programs for the First Party. This will provide confidence & smooth transition for students work. Also the Second party may register on the AICTE Internship Portal for the benefit of students.

2.2 Guest Lectures: Second Party to extend the necessary support to deliver guest locturers to the students of the First Party on the technology trends and in house requirements.

2.3 Placement of trained students: second party will actively engage to help the delivery of the training and placement of the students of the first party on the technology trends and in house requirements.

2.4 There is no financial commitment on the part of the NARASARAOPETA ENGINEERING COLLEGE, the first party to take up any program mention in MoU. If there is any financial ennsideration, it will be dealt separately.

2.3 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required.

CLAUSE 3 VALIDITY

3.1 This Agreement will be valid until it is expressly terminated by either Party on matually agreed terms, during which period, the Second Part.

CLAUSE 4 RELATIONSHIP BETWEEN THE PARTIES

5.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership.

First/arty

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





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MOUs



ಅಂಧ್ರವೆದೆ೯ आन्ध्र प्रदेश ANDHRA PRADESH

20073Å7-09-2021 Rs.100/- M. Sreenivasa Kumar, S/o.Krishnaiah, Princigal, Narasaraopeta Engineering College, (Sponsbred by Gayatri Educational Development Society) Narasaraopet,



MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (here in after called as the 'MoU') is

entered into on 20th of- September - Two Thousand Twenty One (20-09-2021),

BETWEEN

GAYATRI EDUCATIONAL DEVELOPMENT SOCIETY an Educational Society, having its office at Narasaraopet, Guntur District, Andhra Pradesh, the First Party represented herein by its Principal Dr. M.SREENIVASA KUMAR, NARASARAOPETA ENGINEERING COLLEGE(Autonomous), Kotappakonda Road, Narasaraopet, Guntur, Andhra Pradesh 522601. (Here in after referred as 'First Party', the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors - in-office, administrators and assigns).

AND

INDIAN METAL WORKS (IMW), Srinivas Nagar, Near Singarakonda, Chinakothapalli (V), Addanki (M), Prakasam Dist., Andhra Pradesh 523 260, the Second Party, and represented herein by its Managing Partner, Mr. K. Chiranjeevi. (Here in after referred to as "Second Party", comnano which

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MOUs

(First Party) Principal

NARASARAOPETA ENGINEERING COLLEGE (Autonomous), Kotappakonda Road, Narasaraopet, Guntur (Dist.). Andhra Pradesh 522601

(Second Party

Managing Partner INDIAN METAL WORKS Srinivas Nagar, Near Singarakonda Chinakothapalli (V), Addanki (M) Prakasam (Dist), Andhra Pradesh 523 260

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Prakasam District Jurisdiction, Andhra Pradesh.

AGREED:

Dr.M.SREENIVASA KUMAR Principal NARASARAOPETA ENGINEERING COLLEGE (Autonomous), Kotappakonda Road, Narasaraopet, Guntur (Dist.). Andhra Pradesh 522601.



Mr. K. CHIRANJEEVI Managing Partner INDIAN METAL WORKS Srinivas Nagar, Near Singarakonda, Chinakothapalli (V), Addanki (M)

> Prakasam (Dist). Andhra Pradesh 523 260

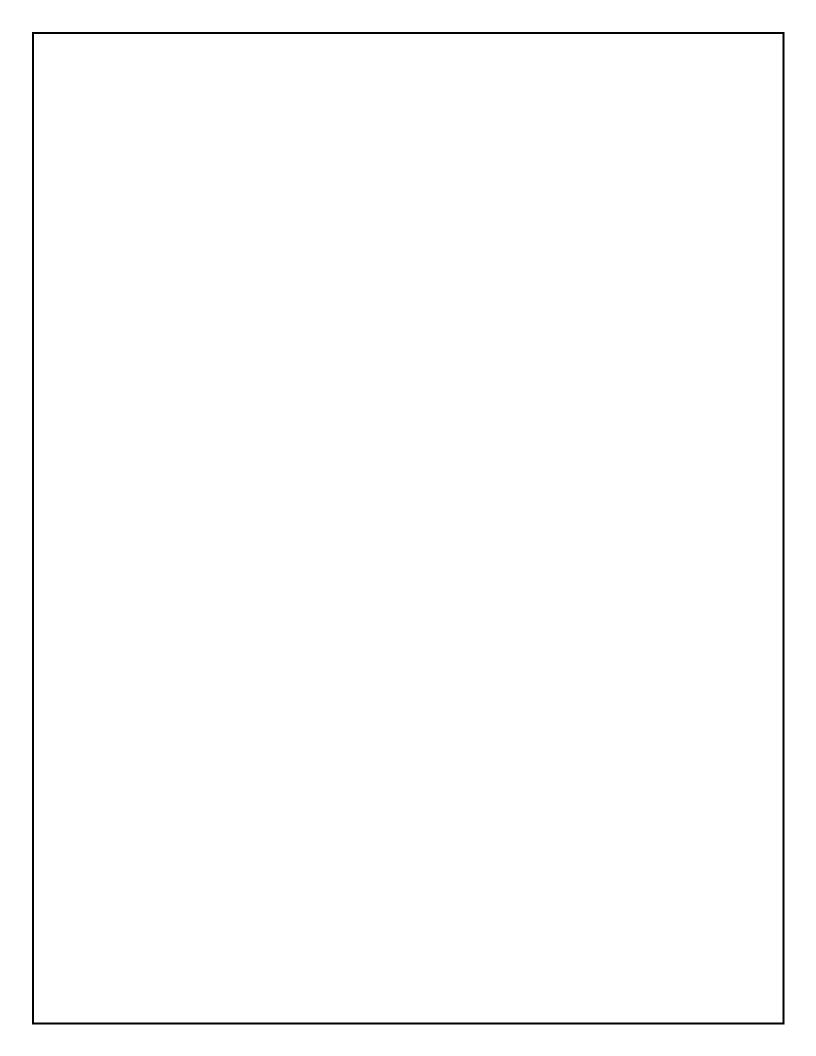
Authorized Signatory

WASHRAUPETA EN JAFEINE CONECE

AUTONOMOUT

NARASARAOPET - 522 005

Bull AP.



COURSES

 PG-M.TECH

Computer Science and Engineering

Power and Industrial Drives

Thermal Engineering

Structural Engineering

Machine Design

Digital Systems and Computer Electronics

Digital Electronics and Communication Systems

UG-B.TECH

Civil Engineering Electrical & Electronics Engineering Mechanical Engineering Electronics & Communication Engineering Computer Science and Engineering Information Technology CSE (Artificial Intelligence)

👸 PG: MBA, MCA

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







Kotappakonda Road, NARASARAOPET - 522 601, Palnadu Dt., Andhra Pradesh.

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

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

