

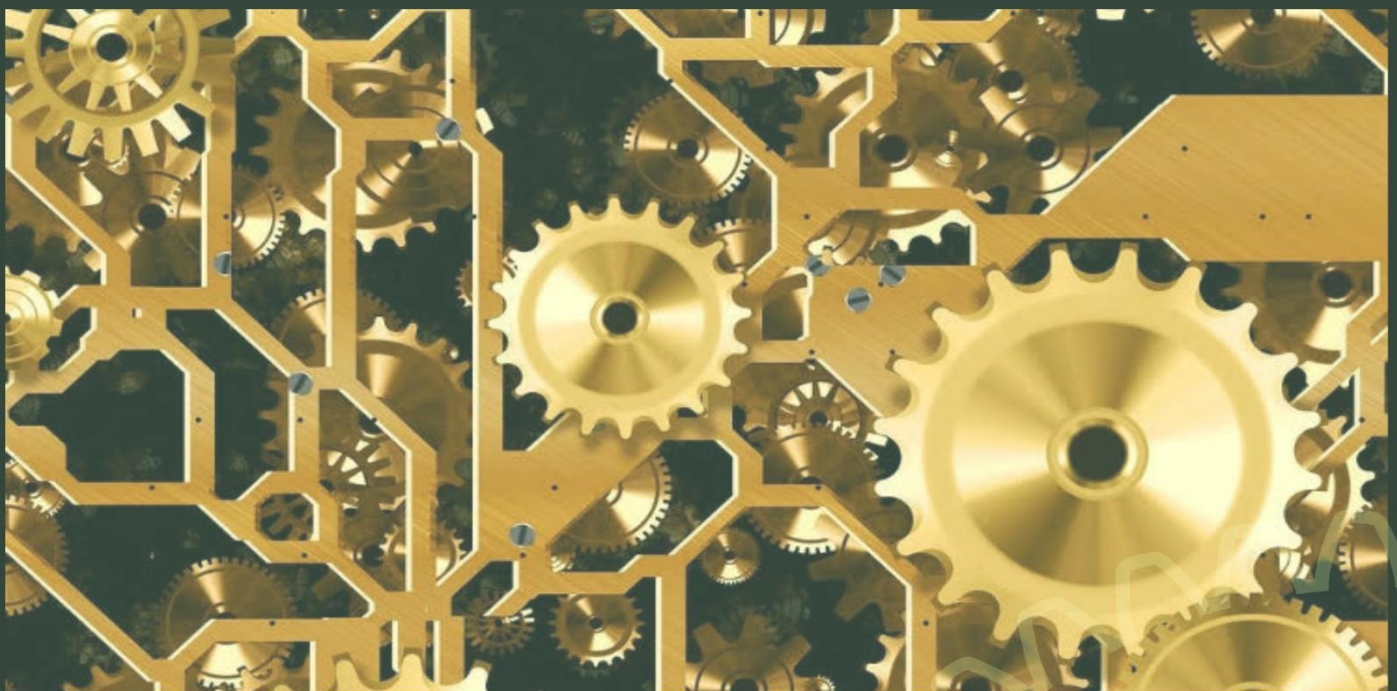


# Aditya College of Engineering & Technology

*Department of Mechanical  
Engineering*

## IGNITO MAGAZINE

June-November 2021



### Editorial Board

Dr. CH V V M J Satish, Asst. Professor

Mr. B Jagadish , Asst. Professor

Mr. Lokesh Nagala (Student)

Mr. Veera babu Pilli (Student)

Mr. M S Sai Kumar (Student)

Mr. CH Devi Prasad (Student)

## Chairman's Message



**Dr. N.SESHA REDDY**  
CHAIRMAN

I believe in the philosophy of thought, word and deed as eternal which made Aditya what it is today. My thought to set a high bar to the institutions I setup by rising to the challenges of the educational field and get prepared for a life dedicated to the pursuit of knowledge, my word which always reflected my vision and gained the conviction of the heads of the institutes and parents, and my deed which makes my home and workplace as extensions of each other by considering the staff and students as the members of my extended family shaped Aditya

I know the value of a good education, more so because I did not have the benefit of the facilities that make the learning process smooth. I began my career as a lecturer, giving up my desire of qualifying in the Service Commission Examination. Out of my despair was born a strong determination which took the shape of Aditya Educational Institutions. The present-day job market poses fresh challenges that need to be managed innovatively. Global business Incubation centre, Microsoft Innovation Centre, Technical Skill Development Institute, T-hub, Training and Placement Cell, GATE coaching etc., act as perfect vehicles for this.

## Vice- Chairman's Message

As a direct product of Aditya, I know how hard my father worked to put Aditya on the academic map of the country during its many stages of expansion, even in the most trying conditions. My master's degree from UTS Australia, the continent's premier university, has given me a better grasp of the educational system. Aditya technical campus in Surampalem was constructed in the aftermath to provide professional education in engineering, technology, management, and pharmacy, with the underlying principle of excellence and quality. The campus has made rapid growth since its beginning in 2001 by upholding its unwavering dedication to advance knowledge and educate students in science and technology. The campus' main goal is to make teaching and research more relevant to the real world. The ultimate aim of Aditya is to make the campus the 'first stop' for companies in the recruitment process. Keeping in view the demands of the work environment which is beyond just knowledge and marks, a lot of emphasis is laid on the overall personality development of the students.



**Dr. N SATHISH REDDY**  
VICE-CHAIRMAN



## Principal's Message



**Dr. T. K. Rama Krishna Rao**  
PRINCIPAL

The major issues we confront can't be handled at the same level of reasoning that we used to create them." Albert Einstein is credited with coining the phrase "theory of relativity." Man can only achieve immortality through knowledge. To stay relevant, knowledge must extend or grow. The road to excellence is the world's toughest, roughest, and steepest. Only quality is required and rewarded in our world. To develop new knowledge, available information must be directed by wisdom and intellect. Education's new duty is to promote creativity. The only way to address current and future problems and discover dynamic answers is to think creatively. Technology should be used to aid in the eradication of poverty around the world. In truth, India is home to 40% of the world's poor. Capacity is a result of confidence.

Miracles are the result of one's faith in oneself. At ACET, education aims to develop character, strengthen the mind, broaden the intellect, and foster a culture of problem-solving. The student is placed through rigorous training so that when he leaves the Institute, he can stand on his own two feet.

## HOD Message



**Dr. Puli Danaiah, HOD**

Mechanical engineering is one of the oldest and broadest engineering discipline, and plays a significant role in enhancing safety, economic vitality, enjoyment and overall quality of life throughout the world.

Mechanical engineers develop state-of-the-art technologies and exhilarating solutions for the mankind. We attempt to provide our students with a cheerful, productive and satisfying experience at all levels of their program of studies to explore the amazing world of mechanical engineering.

Our department has a team of highly qualified and experienced faculty, good infra structure and lab facilities. We are striving hard continuously to improve upon the quality of education and to maintain its position of leadership in engineering and

## Department of Mechanical Engineering

The Department of Mechanical Engineering is a pioneer department since the establishment of college in 2011. The department has extensive facilities in terms of faculty, infrastructure & equipment. The department is recognised as a research centre by JNTUK, Kakinada for pursuing Ph.D. programme in Mechanical Engineering. The department has spacious laboratories and well equipped with experimental set-ups as per the requirement of the curriculum. The faculty are very active and encourage the students in fabricating real models viz., Go-kart, Robots, Solar based vehicles and other working models, which are very useful in day-to-day life and teach students with live examples.

The department has an entrepreneurship cell through which it organises lectures by successful entrepreneurs, bank officers, MSME officials to nurture them as successful entrepreneurs in future. To nurture the students to gain all-round development, the department has many clubs like, 'cultural club', "We can talk" to improve soft skills and improve their intra and inter-personal skills, interactive skills to make them leaders of tomorrow. The faculty encourages students to participate in competitions like Go-kart at National level and present technical papers in conferences and publish papers in journals



## Department Vision

*To be a center of excellence in Mechanical Engineering education and research*

## Department Mission

- *To promote trainings with institutional association*
- *To achieve learning centric infra-structure.*
- *To provide skill-based education with focus on Automotive*
- *To promote innovative ideas through creativity and leadership quality*

## PSO'S

**PSO1** Mechanical Engineers must be able to analyze, design and evaluate mechanical components and systems using cutting edge software tools as required by the industries from time to time.

**PSO2** The ability to work in manufacturing and other sectors operations and maintenance plants.

**PSO3** As part of a team or individually, plan and manage activities in micro, small, medium and large enterprise.

**Article****Biodiesel**

Biodiesel refers to a vegetable oil – or animal fat-based diesel fuel consisting of long-chain alkyl (methyl, ethyl, or propyl) esters. Biodiesel can be used as a pure fuel or blended with petroleum in any percentage. Much of the world uses a system known as the "B" factor to state the amount of biodiesel in any fuel mix:

- 1) 100% biodiesel is referred to as B100
- 2) 20% biodiesel, 80% petrodiesel is labeled B20
- 3) 5% biodiesel, 95% petrodiesel is labeled B5
- 4) 2% biodiesel, 98% petrodiesel is labeled B2
- 5) Blends of 20% biodiesel and lower can be used in diesel equipment with no, or only minor modifications.

**Benefits of Biodiesel**

- a) Produced from Renewable Resources.
- b) Can be Used in existing Diesel Engines.
- c) Grown, Produced and Distributed Locally.
- d) Biodegradable and Non-Toxic.
- e) Better Fuel Economy.
- f) Reductions in greenhouse gas emissions, deforestation, pollution and the rate of biodegradation.



**Mr. K. Kalki Bhagvan**  
**Student IV Mechanical**



### Student Training Programmes

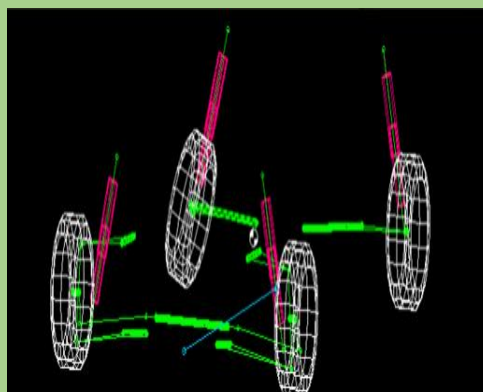
Student hands on training session has been conducted on Design and simulation using Ansys workbench



### Student Technical Events

#### SAE BAJA 2021-2022:

In this event totally 25 students from Mechanical, Electrical and Electronics, Electronics and communications Engineering with two faculty advisors from Mechanical are registered. This event has three phases, virtual round for scrutinizing the participants, virtual dynamic through IPG Car maker and Physical Dynamic Event in which have to participate with Fabricated ATV. Students are preparing for preliminary round, which is a qualifier of further rounds.



## BAJA SAE INDIA

Students of Mechanical engineering has participated in virtual preliminary round in online mode for selection of BAJA SAE India 2022, which is held on Sep3-5. In this event team needs to give technical presentation and quiz on BAJA ATV. Team has been selected in preliminary round

Organized by

SAEINDIA

Society of Automotive Engineers (INDIA)

BAJA SAEINDIA  
2022

Under the aegis of

BATAARA
CHITKARA UNIVERSITY
CAMBRIDGE GROUP OF INSTITUTIONS

mBAJA SAEINDIA 2022 PRELIMINARY - SCORE

TEAM ID	COLLEGE	TEAM NAME	CITY	STATE	PRESENTATION SCORE (OUT OF 50)	QUIZ SCORE (OUT OF 50)	TOTAL SCORE (OUT OF 100)
22001	ABES ENGINEERING COLLEGE	DRIFTERS	GHAZIABAD	UTTAR PRADESH	29.56	30.50	60.06
22002	ADITYA COLLEGE OF ENGINEERING AND TECHNOLOGY	TEAM IGNITO	SURAMPALEM	ANDHRA PRADESH	27.97	17.00	44.97
22003	ENGINEERING	RESOLVE ENGINEERING	PUNE	MAHARASHTRA	35.21	41.00	76.21
22004	AMRITA SCHOOL OF ENGINEERING, COIMBATORE	TEAM TORPEDO	COIMBATORE	TAMIL NADU	33.40	38.00	71.40
22005	BANGALORE INSTITUTE OF TECHNOLOGY	TEAM STRATOS	BANGALORE	KARNATAKA	29.57	35.00	64.57
22006	BANNARI AMMAN INSTITUTE OF TECHNOLOGY	QUATTRO RACING	SATHYAMANGALAM, ERODE(DISTRICT).	TAMIL NADU	35.96	30.50	66.46
22007	BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI - HYDERABAD CAMPUS	TEAM VULCAN	HYDERABAD	TELANGANA	25.08	33.50	58.58
22008	BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI, J. K. BIRLA GOA CAMPUS	GREASE MONKEYS	SANCOALE	GOA	22.00	35.00	57.00
22009	BIRLA INSTITUTE OF TECHNOLOGY MESRA PATNA CAMPUS	ASHWA	PATNA	BIHAR	29.12	29.00	58.12

BRAKING		VEHICLE SPECIFICATIONS		SUSPENSION	
PARAMETER	DESIGNED	PARAMETER	DESIGNED	PARAMETER	DESIGNED
BRAKE CIRCUIT	X - SPLIT				

4. CAE PROCESS		DESIGN SOFTWARE	SOLID WORKS 2016
FRONT IMPACT - Iy		ANALYSIS SOFTWARE	ANSYS 18.1
STRESS	436.72 MPa	NO. OF NODES	565,491
DEFORMATION	2.43mm	NO. OF ELEMENTS	283,814
FOS	1.07	ELEMENT SIZE	8mm
CONSTRAINTS	REAR PART	ELEMENT SHAPE	TETRAHEDRAL
REAR IMPACT - Iy		TYPE OF ANALYSIS	STATIC STRUCTURAL
STRESS	281.79 MPa	SOLVER METHOD	BEAM METHOD
DEFORMATION	3.37mm	TOTAL WEIGHT	260kg
FOS	1.63	MATERIAL	ALSI 4130
CONSTRAINTS	FRONT PART	COMPOSITION (MAX.)	Fe - 98.25%, C - 1.2%, Mn - 0.4%, S - 0.03%, Mg - 0.25 etc.
SIDE IMPACT - Iy		ULTIMATE STRENGTH	580 MPa
STRESS	422.61 MPa	YIELD STRENGTH	410 MPa
DEFORMATION	6.89mm	DENSITY	7.85g/cm <sup>3</sup>
FOS	1.08	ELONGATION OF BREAK(IN 50mm)	21%
CONSTRAINTS	OPPOSITE SIDE		
ROLL OVER IMPACT - Iy			
STRESS	400.28 MPa		
DEFORMATION	3.43mm		
FOS	1.14		
CONSTRAINTS	LSM ALUMINUM		

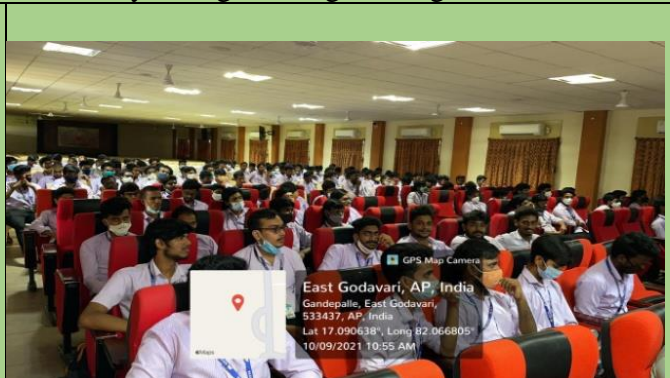
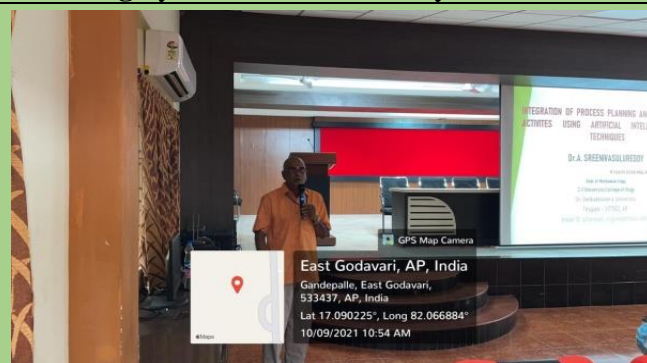


### Guest lectures

The Mechanical Engineering Department has organized one day guest lecture (06-10-2021) on Welding Process and Repairs by A.Ravishankar, G.Manager, MTS ,Mech, Vizag steel Plant ,Hon'Secretary IIW ,Vizag Chapter



The Mechanical Engineering Department has organized one day guest lecture (09-10-2021) on **Process Planning** by A.Srinivasulu Reddy, Assoc.Prof, SV University college of Engineering



## Faculty Achievements

### Faculty Publications

Dr. Nitla Stanley Ebenezer has published in scopus indexed journal, a paper entitled **Effect of Heat Treatment on the Corrosion Behaviour of Nickel Surface-Deposited Agro-Reinforced Metal Matrix Composites**.345–35(2021). Institution of Engineers (India): Series DOI <https://doi.org/10.1007/s40033-021-00266-1>



Dr. Pramod Kumar, Dr. M Murugan and Dr. Akilesh Kumar Singh has published a paper entitled **Effect of welding current in TIG welding 304L steel on temperature distribution, microstructure and mechanical properties** in the Journal of the Brazilian Society of Mechanical Sciences and Engineering volume



Dr. Akilesh Kumar and Dr. Pramod Kumar, has published in SCI Journal entitled **Use of backing mediums increase penetration during TIG welding of P91 steel** in the journal of sadhana



### Faculty as Resource person

Dr M Murugan acted as resource person for 5 Day FDP on advances of solar energy conducted by Bharath Institute of higher education and research, Tambaram





## NPTEL Certifications

Mechanical Engineering department faculty has been completed NPTEL certified courses to gain knowledge in advanced subjects of Mechanical engineering to strengthen teaching and research skills

**Elite**

**NPTEL Online Certification**  
(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to  
**PRAMOD KUMAR**  
for successfully completing the course

**Theory of Production Processes**

with a consolidated score of **70** %

Online Assignments	20.94/25	Proctored Exam	49.5/75
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Total number of candidates certified in this course: 71

Jul-Oct 2021  
(12 week course)

Prof. V. C. Srivastava  
Coordinator, Continuing Education Centre  
IIT Roorkee

Prof. Priya Maheshwari  
NPTEL, Coordinator  
IIT Roorkee

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL21ME8854410218

To validate and check scores: <https://nptel.ac.in/noc>

**Elite**

**NPTEL Online Certification**  
(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to  
**V V M J SATISH CHEMBULY**  
for successfully completing the course

**Mechanics and Control of Robotic Manipulators**

with a consolidated score of **68** %

Online Assignments	21.67/25	Proctored Exam	46.5/75
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Total number of candidates certified in this course: 73

Aug-Oct 2021  
(8 week course)

Dr. Piyush P. Kurur  
Chairman, Centre for Continuing Education  
IIT Palakkad

Prof. Andrew Thangaraj  
NPTEL, Coordinator  
IIT Madras

**Elite**

**NPTEL Online Certification**  
(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to  
**BODDETI JAGADISH**  
for successfully completing the course

**Biomechanics of Joints and Orthopaedic Implants**

with a consolidated score of **67** %

Online Assignments	17.75/25	Proctored Exam	49.5/75
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Total number of candidates certified in this course: 177

Aug-Oct 2021  
(8 week course)

Prof. G P Raja Sekhar  
Dean, Continuing Education  
IIT Kharagpur

Prof. Debjani Chakraborty  
Coordinator, NPTEL  
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL21ME130544410527

To validate and check scores: <https://nptel.ac.in/noc>

**Elite**

**NPTEL Online Certification**  
(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to  
**DR DANAIAH PULI**  
for successfully completing the course

**Fluid Machines**

with a consolidated score of **52** %

Online Assignments	21.79/25	Proctored Exam	30/75
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Total number of candidates certified in this course: 89

Aug-Oct 2021  
(8 week course)

Prof. G P Raja Sekhar  
Dean, Continuing Education  
IIT Kharagpur

Prof. Debjani Chakraborty  
Coordinator, NPTEL  
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL21ME75514410134

To validate and check scores: <https://nptel.ac.in/noc>

## Sports and Games





## Sports and Games



విజేతలకు బహుమతులు అందజేస్తున్న ఆదిత్య యాజమాన్యం

## ఆదిత్యలో ఇంటర్నేషనల్ స్టూడెంట్స్ డే

ప్రజాశక్తి - గండేపల్లి

ఇంటర్నేషనల్ స్టూడెంట్స్ డే సందర్భంగా సూరంపాలెం ఆదిత్య ఇంజనీరింగ్ కళాశాలలో ఆటల పోటీలు నిర్వహించారు. బాలురకు కబడ్డీ, వాలీబాల్, బాలికలకు కబడ్డీ, ట్రోఫీకల్ డైరెక్టర్స్ విద్యార్థులు తదితరులు బాల్ పోటీలు నిర్వహించినట్లు కళాశాల పాల్గొన్నారు.

అడ్మినిస్ట్రేషన్ ఆఫీసర్ వేణుగోపాల్ తెలిపారు. ఈ పోటీలలో విజేతలకు ప్రిన్సిపాల్ డాక్టర్ టి.కె.రామకృష్ణారావు, డీన్ డాక్టర్ ఎ.రామకృష్ణ బహుమతులు అందజేశారు. కార్యక్రమంలో ఫిజికల్ డైరెక్టర్స్ విద్యార్థులు తదితరులు పాల్గొన్నారు.



Fri, 19 November 2021  
epaper.prajasakti.com/c/64430268





**Article****UNDER WATER WELDING**

Underwater welding began during World War 1 when the British Navy used it to make temporary repairs on ships. These repairs consisted of welding around leaking rivets of ship hulls. Underwater welding was also restricted to salvage operations and emergency repair works only. In addition, it was limited to depths below the surface of not over 30 ft (10meters). At first, underwater welding was just applied to weld a patch until a more thorough repair could be performed. But as soon as more experience was gained, ambitious individuals and companies joined forces to improve results and to establish achievable specifications.

While underwater welding have been used for new construction & installation of offshore structures, subsea pipelines, & harbour facilities, it is most often used for maintenance and repair applications. These includes repair of damage caused by corrosion, fatigue, and accidents of offshore structures such us oil platforms, repair & replacement of damaged subsea pipeline sections, repairing holes in ship's hulls or collision damage to harbour facilities.

As the name implies, underwater wet welding is done in an environment where the base metal and the arc are surrounded entirely by water. The electrode types used conform to AWS E6013 classification. These electrodes are waterproofed by wrapping them with waterproof tape or by dipping it into special sodium silicate mixes and allowing them to dry. The power source is a direct current machine rated at 300 or 400 amperes.



**Mr. D Yaswanth Kumar**  
**Student IV Mechanical**

**Student Placements****Congratulations**

Mr. PS Venkata Sai  
Gireesh Kumar  
CADSYS



Mr. D Siva Lakshmana  
Raju  
Pentagon space



Mr. Mohammad Abdul  
Javeed  
Pentagon space



Mr. Gopiseti Vamsi  
Hyundai Motor



P Prabhu Teja  
Acuvate



B Siva  
Acuvate



D H Rama Krishna  
Acuvate

**Batch Toppers****III B. TECH - I SEM MECHANICAL – A TOPPERS**

Mr. D. YASWANTH KUMAR  
18P31A0311 8.86 (SGPA)



Mr. ABHISHEK SINHA  
18P31A0302 8.57 (SGPA)



Mr. P.J. VINAY  
19P35A0332 8.43 (SGPA)



**Batch Toppers****III B. TECH - I SEM MECHANICAL – B TOPPERS**

**Mr. A. SURYA BHAGAVAN**  
18P31A0339 8.71 (SGPA)



**Mr. M. VEERENDRA**  
19P35A0375 8.57 (SGPA)



**Mr. A. RAMESH**  
19P35A0351 8.43 (SGPA)

**III B. TECH - I SEM MECHANICAL – C TOPPERS**

**Mr. K. MANIKANTA REDDY**  
18P31A0351 9.00 (SGPA)



**Mr. M. AJAY**  
18P31A0355 8.71 (SGPA)



**Mr. J. N. MANIKANTA SWAMY**  
19P35A03B1 8.71 (SGPA)



**Mr. Y. S. DURGAPRASAD**  
19P35A03D9 8.57 (SGPA)

**IV B. TECH - I SEM MECHANICAL – A TOPPERS**

**Mr. D. SATHEESH**  
18P35A0320 8.23 (SGPA)



**Mr. B. SIVA**  
17P31A0309 8.00 (SGPA)



**Mr. B. DURGA PRASAD**  
18P35A0312 8.00 (SGPA)



**Mr. B. NANAJI**  
18P35A0310 7.95 (SGPA)

**Batch Toppers****IV B. TECH - I SEM MECHANICAL – B TOPPERS**

**Mr. K. U. V. DURGA RAO**  
18P35A0343 8.23 (SGPA)



**Mr. M. S.V. KALYAN**  
18P35A0348 8.09 (SGPA)



**Mr. K. SRINU**  
18P35A0339 8.00 (SGPA)

**IV B. TECH - I SEM MECHANICAL – C TOPPERS**

**Mr. S. GOPALA KRISHNA**  
18P35A0381 7.91 (SGPA)



**Mr. P. THRIMURTHULU**  
18P35A0375 7.86 (SGPA)



**Mr. NISHANTHDEEP**  
17P31A03667.77(SGPA)



**Mr. P. RAMU**  
17P31A0367 7.77 (SGPA)

**IV B. TECH - I SEM MECHANICAL – D TOPPERS (2020-2021)**

**Mr. Y. SATISH KUMAR**  
17P31A03B2 7.95 (SGPA)



**Mr. V. SATYA**  
18P35A03A3 7.86 (SGPA)



**Mr. T. LAKSHMI GANESH**  
18P35A03C5 7.86 (SGPA)



**Mr. K. CH. DURGA PRASAD**  
17P31A0386 7.82(SGPA)

**Teachers Day Celebration**

Dr CH V V M J Satish, felicitated for being awarded PhD from NIT Warangal



Dr K S S Mohan, felicitated for being awarded PhD from Andhra University



Mr. M Rambabu, felicitated for his long service in the Aditya institutions



Prof. T. Srihari, delivering speech on the occasion of teacher's day



Felicitating senior professor Prof. T. Srihari, on the occasion of teacher's day



Felicitating Head of the Department Dr. P. Danaiah on the occasion of teacher's day



## NSS Activities

## Vaccination Drive

Covid Vaccination Program for the staff and students conducted by NSS unit – Aditya college of Engineering and Technology with primary health center, Katravulapalli



## ఆదిత్యలో విజయవంతంగా వేక్సినేషన్

గండేపల్లి, పెన్ వనర్, సెప్టెంబర్ 28

గండేపల్లి మండలం నూరంపాలెం గ్రామంలో గల ఆదిత్య ప్రాంగణంలో మంగళవారం విశ్వేశ్వరాయణవనం నందు ఉ.7-00 నుండి సా.4-30వరకు 18 సంవత్సరాలు దాటిన విద్యార్థులకు, సిబ్బందికి కోవిడ్ వేక్సిన్ మొదటి డోసు వేక్సినేషన్ కార్యక్రమం విజయవంతంగా అధిగమించి ఆదిత్య విద్యాలయం నైన వైద్యుల దా.ఎన్. సతీష్ రెడ్డి తెలియజేసారు. ఈ కార్యక్రమంలో క్యాంపస్ వైద్యకర్ దా.ఎం. శ్రీనివాసరెడ్డి, అధికార కాలేజ్ ఆఫ్ ఇంజనీరింగ్ & టెక్నాలజీ కళాశాల ప్రిన్సిపాల్, డా.డి.కె.రామకృష్ణారావు పాల్గొని వేక్సినేషన్ ప్రక్రియను వ్యవస్థీకరించారు. ఈ సందర్భంగా పక్షలు మార్చుకుంటూ ప్రతి ఒక్కరూ తప్పనిసరిగా వేక్సినేషన్ తీసుకోవాలని, రెండు డోసులు తీసుకున్నాకూడా మాస్క్ తప్పనిసరిగా ధరిస్తూ తొలికడూరం పాటించాలని అన్నారు. ఈ కార్యక్రమంలో కళాశాల ఎస్.ఎస్.ఎస్.విభాగం కో ఆర్డినేటర్ జె.శ్రీనివాస్, విద్యార్థులు సహాయించగా కాలానుగుణ్య ప్రభుత్వ అనుమతికి చెందిన వైద్యాధికారి డాక్టర్. రాజశేఖర్ నేతృత్వంలో వేక్సినేషన్ కార్యక్రమం నిర్వహించారు. వైద్యునిబ్బంది, అధికార సిబ్బంది పాల్గొన్నారు.



## Covid Awareness and Food Distribution

NSS Volunteers in collaboration with Zeal foundation Kakinada Participated in Covid Awareness program and Food distribution to the needy people by following Covid norms and Restrictions



## DRIVERLESS CARS



Revolutionary radar technology used in the latest Autopilot 8.0 of the most advanced Tesla driverless Models allows the car to see through fog. Improved braking prevents the car from hitting stray bears. And auditory alerts remind the driver to pay attention to the road. Drivers could certainly benefit from these features. According to the National Safety Council, 2015 had the highest percentage increase in traffic deaths over the past half-century with more than 38,000 people killed and 4.4 million injured. The majority of these deaths are caused by human errors like driving while drunk, driving while fatigued and driving while sipping a hot cup of coffee.

Driverless-car technology should solve these problems. After all, these systems don't (or more accurately, can't) get drunk, drowsy or distracted. This makes them in the eyes of some a safe bet. Yet, such technology merely trades one set of problems for another.

For one thing, an autopilot is only as good as the engineer who designed it. The engineer must think of all the problems a driver could face and preemptively come up with solutions. It's the ultimate imagination test. Success means correctly averting an erratic cyclist. Failure means overlooking the fact that not all potholes are coned off. Autopilot technology puts safety at the mercy of an engineer's brilliant yet imperfect mind.

Addiction to technology is also a concern. No system is perfect, and autopilots are no different. Yet, getting drivers to understand this is a tall order, particularly when technology works so well that admittedly imperfect systems appear perfect.

Here, the short-term thrill of not having to pay attention to the road while on the road takes precedence over the reality that the car's autopilot can fail at any time.

Most important of all are the unintended consequences of technology. Mr. Joshua Brown died when his Tesla Model S drove itself into the trailer of a truck that was crossing a Florida highway. The car's sensors were not able to detect the truck, and it crashed into the bottom of the trailer. New solutions invite new problems.