



YANTRA NEWSLETTER

SEP – NOV 2021

Volume-2

NEWSLETTER-ME

VOLUME - 2

Department of Mechanical Engineering

At a Glimpse

- Guest Lectures
- Faculty Achievements
- Student Placements
- Sports & Games
- Teachers Day Celebration
- Batch Toppers
- Student Technical Events
- Vaccination Drive

ABOUT MECHANICAL DEPARTMENT

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. The department has secured high repute through its quality of teaching, infrastructure & equipment. Teaching has been rendered by highly qualified and experienced faculty with good publications in reputed journals. The department is recognized 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.

Vision

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

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*

BRAKING	
PARAMETER	DESIGNED
BRAKE CIRCUIT	X - SPLIT
	X-23.6"
CENTRE OF GRAVITY	FROM FRONT Y-25.8"
	Z-15.43"
	FRONT - 170 mm
DISC DIAMETER	REAR - 170 mm
TRANSMISSION	
ENGINE	CVT
BRIGGS & STRATTON, 10HP,	CV TECH GX90
OHV,	REDUCTION -
305 CC,	0.54-3.0
ENGINE TORQUE	BELT TYPE -
-18.75N-m	BELT LENGTH - 815
GRADABILITY	77.7%
VEHICLE SPECIFICATIONS	
DESIGN	
PARAMETER	DESIGNED
TRACK WIDTH	FRONT : 62"
	REAR : 50"
WHEEL BASE	56"
HEIGHT	58"
GROUND CLEARANCE	12"
WEIGHT	KERB : 180 Kg
	GROSS : 250 Kg
WHEEL (FRONT, REAR)	23" * 7" * 10"
SUSPENSION	
PARAMETER	DESIGNED
FRONT ARMS	DOUBLE WISHBONE
REAR ARMS	SEMI TRAILING ARM
SPRING MASS	180Kg
UNSPRING MASS	70Kg
SHOCK ABSORBER	FOX FLOAT 3 EVOL R
STEERING	
PARAMETER	DESIGNED
MECHANISM	ACKERMANN
TURNING RADIUS	2.5m

Editorial Board:

1. Dr. CH V V M J Satish Asst. Professor
2. Mr. Abdul Arif Asst. Professor
3. Mr. Lokesh Nagala (Student)
4. Mr. Veerababu Pilli (Student)
5. Mr. M. S. Sai Kumar (Student)
6. Mr. CH. Devi Prasad (Student)

Faculty Achievements

Faculty Publications

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



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
--------------------	----------	----------------	---------

Total number of candidates certified in this course: 71

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

Jul-Oct 2021
(12 week course)

Prof. Priya Maheshwari
NPTEL Coordinator
IIT Roorkee

Indian Institute of Technology Roorkee

Roll No: NPTEL21ME88544410218

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
--------------------	----------	----------------	---------

Total number of candidates certified in this course: 73

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

Aug-Oct 2021
(8 week course)

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
--------------------	----------	----------------	---------

Total number of candidates certified in this course: 177

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

Aug-Oct 2021
(8 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

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
--------------------	----------	----------------	-------

Total number of candidates certified in this course: 89

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

Aug-Oct 2021
(8 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL21ME75514410134

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

Student Placements



Congratulations



P PRABHU TEJA
ACUVATE



B SIVA
ACUVATE



D H RAMA KRISHNA
ACUVATE

Sports and Games

Students of Mechanical engineering department has actively participated in different sports as part of international student's day





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, ట్రోఫీ కల్ ఫిజికల్ డ్రైరెక్టర్స్ 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



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

Batch Toppers

Students performed well in their academics and stood as toppers in the class

II B.TECH - I SEM MECHANICAL - A TOPPERS



Mr. SAKIB ALI
19P31A0313 **8.10 (SGPA)**



Mr. A R N KAUSHIK
19P31A0301 **7.88(SGPA)**



Mr. M JAYESH
20P35A0309 **7.86 (SGPA)**

II B.TECH - I SEM MECHANICAL - B TOPPERS



Mr. A PRAKASH
20P35A0358 **8.19 (SGPA)**



Mr. V VENKATESH
20P35A0350 **7.38 (SGPA)**



Mr. R SIVA
20P35A0381 **7.33 (SGPA)**

II B.TECH - I SEM MECHANICAL - C TOPPERS (2020-2021)



Mr. P KUMAR
20P35A0395 **8.12 (SGPA)**



20P35A03A8
Mr. VENKATESH 7.76 (SGPA)



Mr V HARI KUMAR
20P35A03A0 **7.6 SGPA**

IV B.TECH - II SEM MECHANIACL – A TOPPERS (2020-2021)



A N V A CH SANDEEP
18P35A0305 **9 (SGPA)**



D ANIL KUMAR
17P31A0311 **8.88 (SGPA)**



G KISHORE
18P35A0328 **8.88 (SGPA)**

IV B.TECH - II SEM MECHANIACL – A TOPPERS (2020-2021)



K SRINU
18P35A0339 **9 (SGPA)**



S S P SAI RAM
17P31A0332 **8.88 SGPA**



18P35A0343
K U V D RAO 8.75 (SGPA)

B.TECH - II SEM MECHANIACL – C TOPPERS (2020-2021)



S S PRASAD
18P35A03B7 **9.13 (SGPA)**



18P35A03A0
U CHOWDARY 9 (SGPA)



17P31A03B2
Y SATISHKUMAR 8.88(SGPA)



18P35A03B4
P R MANIKANTA 8.88 (SGPA)

IV B.TECH - II SEM MECHANIACL – D TOPPERS (2020-2021)



N DEEP
17P31A0366 **9.13 SGPA**



SK DARVESH
18P35A0385 **9.13 SGPA**



S SAI KUMAR
18P35A0386 **9 SGPA**



17P31A0367
PALLAPU RAMU SGPA 8.88

Student Technical Events

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 **SAE INDIA**
Society of Automotive Engineers INDIA

BAJA SAE INDIA 2022

Under the aegis of **BATAKAS** **CHITKARA** **IIIT** **CAMBRIDGE**
UNIVERSITY GROUP OF INSTITUTIONS

mBAJA SAE INDIA 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	RESURVEILLING	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 ,K. 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	TRACK	FRONT : 62"	FRONT ARMS	DOUBLE WISHBONE
CENTRE OF GRAVITY	FROM FRONT X-23.6" Y-25.6" Z-15.43"	WHEEL BASE	56"	REAR ARMS	SEMI TRAILING ARM
DISC DIAMETER	FRONT - 170 mm REAR - 170 mm	HEIGHT	50"	SPRUNG MASS	180Kg
TRANSMISSION		GROUND CLEARANCE	12"	UNSPRUNG MASS	70Kg
ENGINE	CVT	WEIGHT	KERB : 180 Kg GROSS : 250 Kg	SHOCK ABSORBER	FOX FLOAT 3 EVOL R
BRIGGS & STRATTON, 10HP, OHV, 305 CC,	CV TECH GX90 REDUCTION - 0.54-3.0 BELT TYPE - BELT LENGTH - 815	WHEEL (FRONT, REAR)	23" * 7" * 10"	STEERING	
ENGINE TORQUE -18.79N-m				PARAMETER	DESIGNED
GRADABILITY	77.7%			MECHANISM	ACKERMANN
				TURNING RADIUS	2.5m

4. CAE PROCESS		DESIGN SOFTWARE	SOLID WORKS 2016
FRONT IMPACT - Iy		ANALYSIS SOFTWARE	ANSYS 18.1
STRESS	436.72 MPa	NO. OF NODES	565491
DEFORMATION	2.43mm	NO. OF ELEMENTS	28384
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	3.07mm	TOTAL WEIGHT	260kg
FOS	1.43	MATERIAL	ALSI 4130
CONSTRAINTS	FRONT PART	COMPOSITION (MAX.)	Fe - 98.25%, C - 1.04%, Mn - 0.44%, Si - 0.30%, Mg - 0.25 etc...
SIDE IMPACT - Iy		ULTIMATE STRENGTH	552 MPa
STRESS	423.41 MPa	YIELD STRENGTH	462 MPa
DEFORMATION	6.89mm	DENSITY	7.85g/cm ³
FOS	1.08	ELONGATION OF BREAK(IN 80%)	21%
CONSTRAINTS	OPPOSITE SIDE		
ROLL OVER IMPACT - Iy			
STRESS	400.83 MPa		
DEFORMATION	3.83mm		
FOS	1.14		
CONSTRAINTS	LSH numbers		

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



Unnamed Road, Surampalem, Andhra Pradesh 533437, India

Surampalem
Andhra Pradesh
India

2021-09-28(Tue) 11:06(AM)

29°C
84°F

ఆదిత్యలో విజయవంతంగా వేక్సినేషన్

గండేపల్లి, పెన్ వవర్, సెప్టెంబర్ 28

గండేపల్లి మండలం సూరంపాలెం గ్రామంలో గల ఆదిత్య ప్రాంగణంలో మంగళవారం విశ్వేశ్వరాయణవనం నందు ఉ.7-00 నుండి సా.4-30వరకు 18 సంవత్సరాలు దాటిన విద్యార్థులకు, సిబ్బందికి కోవిడ్ వేక్సినేషన్ కార్యక్రమం విజయవంతంగా జరిగినట్లు ఆదిత్య విద్యాసంస్థల చైర్మన్ చైర్మన్ డా.ఎన్. సతీష్ రెడ్డి తెలియజేశారు. ఈ కార్యక్రమంలో క్యాంపస్ డైరెక్టర్ డా.ఎం. శ్రీనివాసరెడ్డి, ఆదిత్య కాలేజ్ ఆఫ్ ఇంజనీరింగ్ & టెక్నాలజీ కళాశాల ప్రెసిడెంట్, డా.టి.కె.రామకృష్ణారావు పాల్గొని వేక్సినేషన్ ప్రక్రియను వ్యవహరించారు. ఈ సందర్భంగా వక్సలు మోతాదులూ ప్రతి ఒక్కరూ తప్పనిసరిగా వేక్సినేషన్ తీసుకోవాలని, రెండు డోసులు తీసుకున్నావాడా మ్యాన్యువల్ తప్పనిసరిగా దరిస్తూ పొలికదూరం పాటించాలని అన్నారు. ఈ కార్యక్రమంలో కళాశాల ఎస్.ఎస్.ఎస్.విభాగం కో ఆర్డినేటర్ జె.శ్రీనివాస్, విద్యార్థులు సహాయంగా కాటాన్లపల్లి ప్రభుత్వ ఆసుపత్రికి చెందిన వైద్యాధికారి డాక్టర్. రాజశేఖర్ నేతృత్వంలో వేక్సినేషన్ కార్యక్రమం నిర్వహించారు. చైర్మన్ చైర్మన్, ఆదిత్య సిబ్బంది పాల్గొన్నారు.

