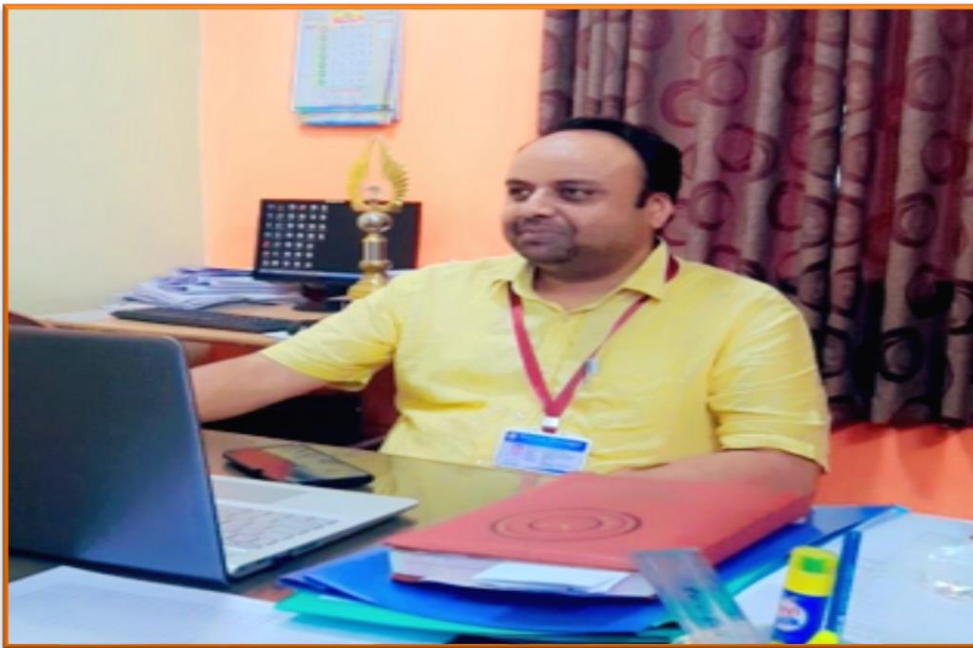




Gyan Ganga Institutes of Technology & Sciences, Jabalpur

Approved by AICTE, New Delhi

YANTRAGYAN, Newsletter of Department of Mechanical Engineering



Dr. SVH, Nagendra, HoD



Warm greetings!!

Welcome and best wishes to all the friends of the Department who receive this Newsletter. It has been an interesting and busy semester for members of the Department.

This Newsletter is an attempt towards the achieving Motivation. The newsletter which is being rolled out today marks the launch of a sparkling activity that would enable the Management to bring out to the eyes of the competitive world, the academic achievements of our prestigious institution.

The newsletter is one of the ways in which we can disseminate information on the life of the Department. The past semester was highly affected by the Pandemic of Covid-19. Most of the activities were conducted through online mode. As you read through the pages you will realize, that the Department had a particularly successful semester, during pandemic. I would like to thank all my colleagues for their tireless efforts to help the department progress at a very steady pace.



Yantragyan
Newsletter July-
Dec. 2021,
Volume 1, Issue 1

EDITORIAL TEAM

Prof. P.K. Sahu

Prof. T.K. Mishra

Prof. M. Krishan

Prof. Arun Sharma

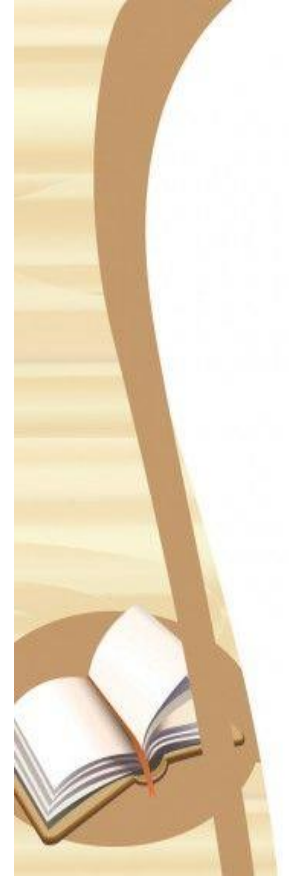
Prof. Ajay kongari

Message from Editor's Desk:

This Newsletter gives an opportunity to our student and staff to spotlight their insights, ideas and innovations and to show how this can be applied in almost any organization. The success of this newsletter depends on your response. I would appreciate your feedback.

H H G H L I G H S

- *Department Vision, Mission, PEOs and PSOs*
- *Program Specific Outcomes (PSOs) of the Department*
- *Major Project Details of UG*
- *Students Patent/ Paper Publications*
- *Workshops/seminars/FDP/conference/attended by faculty through online*
- *Publication details of faculty*
- *Participation in inter-institute events by students*
- *Placement Details of UG*
- *Student' Achievements*
- *Extra-Curricular activities*



Department Vision, Mission, PEOs and PSOs

Vision

To be centre of excellence in teaching, employability, and research & development in the field of mechanical engineering for accomplishment of societal needs.

Mission

- To educate and develop an ethical mechanical engineering professionals.
- To develop an aptitude of technological innovation, team work, R & D, entrepreneurship and excellence with environmental sustainability.
- To develop quality teaching-learning and infrastructure facilities even beyond required by the curriculum.

Program Specific Outcome (PSOs) of the Department

On successful completion of graduation degree, the graduates will be able to:

- **PSO 1**-Gain a sound foundation in mathematical, scientific and engineering areas to solve and analyze complex mechanical engineering problems using knowledge, research, and method

based feasible solutions so as to meet the industrial requirements and to satisfy the societal needs.

- **PSO 2-**Understand the concept of the design, production and thermal engineering subsequently to develop products using modern tools such as CAD/CAM etc. and latest manufacturing practices which are eco-friendly and sustainable with an aptitude to adopt lifelong learning of technological changes.
- **PSO 3-**Acquire project managerial skills to work independently or as a team with good communication, effective presentation, documentation and professional ethics for the benefits of society.

Major Project Details of UG

S. No.	Title
1	Induced Draft Cooling Tower
2	Comparitive Analysis Of Mechanical Properties Of Product Manufactured By 3 D Printer
3	Study Of Air Ducting System
4	Sliding Wear Behavior Of Copper -Tin Metal Powder Composite Prepared By Microwave And Muffle Furnace Sintering
5	Wooden Cnc Lathe
6	Hydraulic Press Machine
7	The Effect Of Alkaline Treatment On Mechanical Properties Of Jute And Banana Fibre Composites
8	Sliding Angle Multipurpose Grinder
9	Fabrication And Design Of Cotton Bale Press Machine
10	Design And Analysis Of Electric Powered Go-Kart
11	Design And Fabrication Of Food Waste Bio Digester
12	Path Finder

Students Patent/ Paper Publications

S. No.	Name of Students	Patent /Paper Publication	Reference No.	Name of Institute
1	Manpreet Zhandu	Smart UVC Soap Box	Application No. - 48310-001) in 24-09-2021	GGITS
2	Rahul Asati	Smart UVC Soap Box	Application No. - 48310-001) in 24-09-2021	GGITS
3	Aditya Gaiki	Clothes Dryer with Sanitization Chamber	Application No. - 48310-001, 06-11-2021	GGITS
4	Ashwin Sahu	Bicycle seat with back support arrangement	Application No.- 339203-001.	GGITS

Workshops/seminars/FDP/conference/attended by faculty through online

S. No.	Title	SESSION	Faculty Name
1	One Week Online Faculty Development Programme on "Recent Trends In Materials and Manufacturing" By Karpagam College Of Engineering	2 nd to 6 th August 2021	1) Prof. Murali Krishna.M 2)Prof. Vivek Gedam
2	FDP On "Emerging Trends In Automotive and Energy Systems" at Sree Vidyanikethan Engineering College,Tirupati	23 rd to 27 th August , 2021	Prof. Murali Krishna.M
3	NPTEL-AICTE FDP on "Product Design and Development(Jul-Aug 2021)	Jul-Aug 2021	1) Prof. Murali Krishna.M 2) Prof. P.K.Sahu
4	Introduction to Electric Vehicles; Challenges and Opportunities In Future-ATAL FDP Organised By OIST Bhopal.	20 th to 24 th Sep. 2021	Prof. P.K.Sahu
5	NPTEL-AICTE FDP on "Innovation By Design"	Aug-Sep 2021	Prof. P.K.Sahu
6	Recent Trends in Mechanical Engineering, Organized By Icfai University, Jaipur	20 th to 24 th July 2021	1) Prof. Vivek Gedam 2) Prof. Sudhanshu Atkare 3) Prof. Sandeep Kumar Dubey
7	Advances In Metal And Multimaterial 3D Printing -ATAL FDP	16 th to 20 th July 2021	Prof. Ankur Dave
8	Additive Manufacturing: From 3d Printing To The Factory Floor -ATAL FDP	23 rd to 27 th August	Prof. Ankur Dave
9	NPTEL-AICTE FDP on "Robotics"	July -Sep 2021	Prof. Ankur Dave
10	ATAL FDP on Additive Manufacturing: Current Trends And Prospects Towards Developing Am Research ,Indian Institute of Technology Kanpur	22 nd to 26 th August 2021	Prof. Anupam Jain
11	ATAL FDP on Sustainable Green Composites: Design, Manufacturing And Characterization , National Institute Of Technology Meghalaya	9 th to 13 th August 2021	Prof. Anupam Jain

Publication details of faculty

S. No.	Authors	Title of Publication	Journal/Conf erence	Volume/ Issue	DOI No.
1	S.V.H.Nagendra,	"Effect of orifice lip geometry on the mean flow properties of a plane wall jet"	Fluid Mechanics and Fluid Power – Contemporary Research, Sep 2021 Springer ,	Volume-1, issue-6 ISBN 978-981-16-0697-7 (Scopus Index)	https://doi.org/10.1007/978-981-16-0698-4_38
2	Tribhuwan Kishore Mishra	<u>Experimental investigation and study of HVOF sprayed WC-12Co, WC-10Co-4Cr and Cr3C2-25NiCr coating on its sliding wear behaviour,</u>	International Journal of Refractory Metals and Hard Materials, 2021, elsevier	Volume 94,	https://doi.org/10.1016/j.ijrmhm.2020.105404
3	Tribhuwan Kishore Mishra	<u>Sliding wear behaviour of thermally sprayed WC-20Cr3C2-7Ni and La2O3 composite coatings,</u>	2021, Emerging Materials Research (ICE Publishing)	Volume 10, Issue 4	https://doi.org/10.1680/jemmr.20.00138

4	Vivek Gedam	Vivek Gedam et al,'The effect of copper addition on microstructural and wear proportion of aluminium based metalpowder composites'; Publication date	2021/12, Journal,International Journal of Scientific Research in Engineering and Management (IJSREM)		
5	Vivek Gedam	Vivek Gedam et al,Fabrication & Mechanical Testing of NFRC of Rice Husk & Egg Shell	2021/8;Journal International Journal of Advances in Engineering and Management (IJAEM)		
6	Jyoti Soni	Recent Advances to Compare the Performance of Domestic Refrigerator Using New Eco-friendly Refrigerants	Journal of Refrigeration, Air Conditioning, Heating and Ventilation	Volume 8, Issue 3, 2021 DOI (Journal): 10.37591/JoRA CHV	ISSN: 2394-1952
7	Tribhuwan Kishore Mishra	Development of Fe-Based Metal Matrix Composite Using Wc As Reinforcement By Powder Metallurgy Route,	2021, Accent Journal of Economics Ecology & Engineering	Volume 06, Issue 03	ISSN NO. 2456-1037
8	Murali Krishna, Vivek Gedam, Tribhuwan Kishore Mishra, Preetam Kumar Sahu	Evaluation of Performance Indicators for B2C E-Commerce Websites using GRA: A Case Study.	Journal of Production Research & Management. 2021	VOLUME-11 ISSUE 2	DOI 10.37591/Jo PRM
9	Preetam Kumar Sahu	Murali Krishna M, Vivek Gedam, Tribhuwan Kishore Mishra, Preetam Kumar Sahu. Evaluation of Performance Indicators for B2C E-Commerce Websites using GRA: A Case Study.	Journal of Production Research & Management. 2021; 11(2): 9–19p.		
10	Vivek Gedam	Performance Assessment of B2C E-Commerce Websites using MCDM Approach: A Case Study,Murali Krishna M, Vivek Gedam	International Journal of Production Engineering	Vol. 6: Issue 2	IJPE (2020) 29–40 © JournalsPub 2020, pages 29-40
11	Vivek Gedam	,Static and Dynamic Analysis of Safe Hydraulic Cylinder for Commercial Use	International journal of Advances in Engineering and Management (IJAEM);	Volume 3, Issue 8, pp: 977-985 ISSN: 2395-5252	DOI:10.35629/5252-0308977985
12	Sandeep Kumar Dubey	.Investigation of Mechanical Properties of Jute and Bamboo Natural Fiber Composites.	Journal of Production Research & Management. 2021; 11(2):20–33p.		
13	Sandeep Kumar Dubey & S.V.H. Nagendra	Design And Development of Jute Fiber Based Door Opening Assembly	Accent Journal of Economics ecology & Engg.	Vol. 06, Issue 05,	ISSN NO. 2456-1037

14	Tribhuwan Kishor Mishra, Murali Krishna M	Study of Mechanical and tribological Behavior of Aluminium Composites Reinforced by Tungsten Carbide Through Powder Metallurgy Technique: A Review	Accent journal of Economics ecology & Engg.	Volume 06, Issue 07	ISSN; 2456-1037
15	Sandeep Kumar Dubey, S.V.H. Nagendra	Design and Development of new product based on customer knowledge management	International journal of Innovation in Engg. Research & mgt.	Volume 08, Issue 03	ISSN:2348-4918
16	Vivek Gedam, Ajay Kongari	Fabrication & Mechanical Testing of NFRC of Rice Husk & Egg Shell	International Journal for Science Research & Development	VOL. 6 Issue 08	ISSN: 2321-0613
17	Tribhuwan Kishor Mishra and Sandeep Kumar Dubey	Review paper on Wear Property of Ni-WC Composite coatings	Accent journal of Economics ecology & Engg.	Volume 06, Issue 07	ISSN:2456-1037
18	Pragyan Jain, T.K. Mishra	An investigation on Effect of Static and Dynamic load on wear behavior of Sintered silicon carbide reinforced copper metal Powder Composite	Accent journal of Economics ecology & Engg.	Volume 06, Issue 11	ISSN:2456-1037
19	Tribhuwan Kishor Mishra	Investigation of Effect of Graphite content on the Tribological Properties of Iron Composites Processed by Powder Metallurgy	International Journal of Advance and Innovation Research	Volume 08, Issue 06	ISSN:2348-4918

Participation in inter-institute events by students

S. No.	Name of Students	Event details	Institute/Place	Date	Position / Participation
1	Harshit Prakash Taunk	A paper presentation in national conference on "Remote controlled Floor Cleaning ROBOT" under Techno vision 2021	Shri Ram Engineering College, Jabalpur	11/10/2021	Participation certificate
2	Shreya Tiwari	A paper presentation in national conference on "Adaptive traffic light control using digital image processing" under Technovision 2021	Shri Ram Engineering College, Jabalpur	11/10/2021	Participation certificate
3	Ritik Vishwakarma	Participated in "HackWithMAIT2.0-a"	MAIT Bhopal	26/10/2021-27/10/2021	Participation certificate
4	Abhishek Pateriya	Participated in "HackWithMAIT2.0-a"	MAIT Bhopal	26/10/2021-27/10/2021	Participation certificate
5	Saurabh Sahu	Participated in "HackWithMAIT2.0-a"	MAIT Bhopal	26/10/2021-27/10/2021	Participation certificate

6	Shobhit Sahu	Participated in "HackWithMAIT2.0-a"	MAIT Bhopal	26/10/2021-27/10/2021	Participation certificate
7	Prakhar Mani Tripathi,	Participated in "State level Hackathon 1"	RGPV BHOPAL	5/10/2021	1 ST
8	Nishi Patil	Participated in "State level Hackathon 1"	RGPV BHOPAL	5/10/2021	1 ST
9	Gagandeep Singh	A paper presentation on the theme of "Edge AVOIDER with obstacle Detector ROBOT" in national Symposium	OIST, Jabalpur	21/09/2021	Participation certificate
10	Prakhar Mani Tripathi	Participated in "State level Hackathon 1"	RGPV BHOPAL	4/9/2021	1 ST
11	Nishi Patil	Participated in "State level Hackathon 1"	RGPV BHOPAL	4/9/2021	1 ST

Placement Details of UG

S.No.	Name Of The Student Placed	Enrollment No.	Name Of The Employer	Appointment Letter Reference No. With Date
1	Amit Hutait	0206ME183D02	YOUNGMAN INDIA (P) LTD	5 OCT. 2021
2	Vimal Kant Sahu	0206ME171083	YOUNGMAN INDIA (P) LTD	5 OCT. 2021
3	Rishab Roy	0206ME171051	YOUNGMAN INDIA (P) LTD	5 OCT. 2021
4	Pulkit Neb	0206ME171049	YOUNGMAN INDIA (P) LTD	5 OCT. 2021
5	Bhanu Pratap Tripathi	0206ME171027	MAHINDRA FIRST CHOICE	10 NOV. 2021
6	Pranjal Tiwari	0206ME171043	MAHINDRA FIRST CHOICE	10 NOV. 2021
7	Preetish Sen	0206ME171048	MAHINDRA FIRST CHOICE	10 NOV. 2021
8	Shivam Patel	0206ME171063	UFABER EDUTECH (P) LTD.	15 NOV. 2021
9	Pratima Soni	0206ME183D05	UFABER EDUTECH (P) LTD.	15 NOV. 2021
10	Ruhi Pandey	0206ME183D07	UFABER EDUTECH (P) LTD.	15 NOV. 2021
11	Rohit Kumar	0206ME171053	PRISM JOHNSON LTD.	PRISM/HR/2021/878-DECEMBER 29,2021
12	Shirish Sharma	0206ME171061	BHARAT ELECTRONICS-GOV. OF INDIA	410919(Employee Id No.)
13	Sandeep Suryavanshi	0206ME171058	UFABER EDUTECH (P) LTD.	15 NOV. 2021
14	Archit Jain	0206ME161039	COGNIZANT	24/11/2021

List of events organized under Professional Societies/ Chapters

S. No.	Name of Professional Societies/	Event Title and	Chief Guest/ Resource Person	Date of event	No. of Participants/ Attendees	No. of days
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	Chapters					
1	MES	Expert Lecture on Hidden Challenges in E- Vehicle	Dr. Sanjay Chhalotre	05/07/2021	31	1 day
2	CNA	Seminar on Cyber Security	Mr. Pandey, Jabalpur Cyber Cell	14/8/2021	75	1 day
3	OA	Workshop on IoT	Prof. S U Khaparkar	25/9/2021	92	1 day
4	AWS	Guest Lecture on Cloud Computing	Mr. Sourabh Kapoor	12/11/2021	56	1 day
5	JIC	Workshop on Entrepreneurship	Mr.Prem Dubey , Jabalpur Chamber of commerce	14/12/2021	65	1 day
6	MES	Training on Refrigeration & Air Conditioning	Prof. Pragyan Jain	26/11/2021-30/11/2021	32	5 days

Student' Achievements

Sr.No.	Name Of The Student	Event Detail	Institute/ Place	Date	Prize/ Award
1	Ritik Vishwakarma	HackWithMAIT 2.0 - a 24-hour virtual hackathon, virtual,	JABALPUR	26 OCT 2021	4 TH RANK
2	Abhishek Pateriya	HackWithMAIT 2.0 - a 24-hour virtual hackathon, virtual,	JABALPUR	26 OCT 2021	4 TH RANK

Extra-Curricular activities

RGPV Inter Engineering Colleges Sports Events 2021-22

S.no.	Event Name	Student Name	Branch & Sem	Position	Date
1	Athletics	Om Chouksey	ME III	Participation	18-12-2021
2	Weight Lifting	Navaldeep Singh	ME V	Gold	20.12.21
3	Basketball	kunal Patel	MEV	Runner UP	28.12.21
4	Football	Ayush Namdeo Football	ME VII	Runner UP	17.12.21 - 21-12-2021
5	Football	Neelash Kushwaha	ME VII	Runner UP	17.12.21 - 21-12-2021

Sr.No	Name of the Activity	Date	Duration
1	Tree plantation drive in the occasion of Tree plantation fortnight	10/08/2021	1 day
2	Recording RashtraGaan and uploading its video in Portal of Rashtragaan.in	7/08/2021-15/08/2021	1 week

Sr. No	Name of the Activity	Date	Duration
1.	Statue cleaning activity of NCC cadets at Dhanvantri Nagar Square	13/08/2021	1 day
2.	Poster Making on kargil Vijay Divas and uploading posters in Social Media FB, Insta, Twitter with #Tag #NCC, #GGITS, #Jabalpur # Kargil Vijay Divas	26/07/2021	1 day
3.	Trained NCC Cadets for Covid-19 through Dikhsha app for these cadets got certificates.	02/08/2021	1 day
4.	Registered all NCC cadets in fit India Run Portal. Cadets registered and got certificates for this.	10/08/2021-20/08/2021	2 week
5.	Organised Tree Plantation drive on Tree plantation week of June	6/06/2021	1 week

6.	Poster making on topics “Tree plantation, and Green Environment” and uploading on NCC Digital Forum on the occasion of “World Environment Day”	5/06/2021	1 day
7.	Instruct NCC cadets to Participate “Ek Bharat Shreshtha Bharat” Webinar and NCC cadets took pledge on Ek Bharat Shreshtha Bharat.	25/04/2021-30/04/2021	7 days

Gallery Section

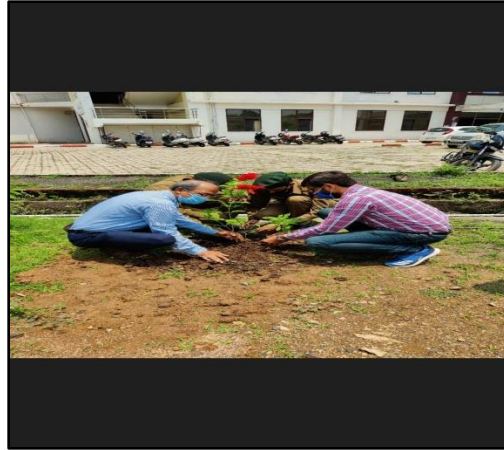
- TREE PLANTATION

National Cadet Corps trains the Youth for Unity, Discipline and Leadership. Along with that it also inspires the youth for their duty toward society by social service . 2MP Naval NCC cadet participated in TREE PLANTATION. Total 50 plants of various species were planted by cadets and college staff.

Cadets Participated:-

AshwinKhareShrikant Patel
Rohit KumarVyom Narad
Aryan PandeAbhishek Mishra
Yashita Patel
Samuel David
AbhyaKhare





- As part of the awareness drive , the participants interacted with people ,especially the youth, urging them to be alert while driving the vehicle on road.

They said safe driving would go a long way in creating a safe society.



Cadet participated:-

AshwinKhareShrikant Patel

Rohit KumarVyom Narad
Aryan PandeAbhishek Mishra
Yashita Patel Samuel David
AbhyaKhare

► 2021 # Best Cadet

1. UO Anukriti Jain

NCC Yodan

1. SUO HarshitTaunk
2. 2.UO Priyank Namdeo
3. 3. UOAnkur Nagwanshi
4. 4. Lcpl Vasu nema



Road Safety Abhivan





Youth Traffic controller

