



Gyan Ganga Institutes of Technology & Sciences, Jabalpur

Approved by AICTE, New Delhi

YANTRAGYAN, Newsletter of Department of Mechanical Engineering

Yantragan
Newsletter –
January-June
2021, Volume 1,
Issue 2

EDITORIAL TEAM

Prof. M. Krishna

Prof. P.K. Sahu

Prof. T.K. Mishra

Prof. Ajinkya Phatak

Prof. Arun Sharma

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Message from Editor's Desk:

Welcome to this issue of Newsletter from the Department of Mechanical Engineering. We are delighted to launch our Bi-Annual Newsletter "YANTRAGYAN". This newsletter is a digital way for us to communicate with our students, faculty members, alumni and industrial partners. This newsletter will provide a glimpse of the departmental activities and achievements. Also, it enlightens the readers about the latest happenings in the department, focusing about different activities like placement, ISA, institutional club activities, student and faculty achievements. We look forward for more activities and achievements for the department to march towards excellence in the future. We would like to thank all teaching, supporting staff and our beloved students for their constant support.

Message from Head of the Department



Dr. SVH, Nagendra, HoD

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

Warm greetings!!

I am happy to release this year's first issue of department newsletter. There are many updates to share with respect to the department activities, staff and student achievements, and placements details etc., happened during the last six months.

During this pandemic the department has successfully organised online classes, were conducted for UG. The online classes were conducted using Zoom, Google Meet, Microsoft teams, and WebEx Cisco platforms. The continuous internal assessments Project work evaluations and technical seminar evaluations happened online using various platforms. During this period conducted online parents teacher meets and Annual Alumni meet. Our students involved in many activities to help society during this pandemic. Faculties have attended various workshops, FDP s, and webinars online. Taken up the online certification courses. Happy to inform that online FDP were also delivered by the faculty.

Happy to share that this year 80% placements happened until now for the final year students, with an average package of 6.96 LPA. All the students of both 2nd year and 3rd year have enrolled for online internships like AICTE Internshala and other virtual online internships. I heartily congratulate our final year students for successfully clearing the GATE with high percentile.

Stay Safe & Stay Healthy
Dr. S.V.H. Nagendra
Associate Professor & HoD
Department of ME

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.

Departmental Activities from JANUARY 2020 to JUNE 2020

S. No.	Name of the Activity	Date
1	One week online AICTE Recognized Faculty Development Programme on Alternate Fuels by , Jabalpur	12 th to 16 th June, 2021
2	AICTE Training And Learning (ATAL) Academy Online 5 days FDP on "Design Thinking" conducted by Mechanical Engineering Department of GGITS, Jabalpur	1 st to 5 th June, 2021

Major Project Details of UG

Guide	Project Title
Prof. Amit Dixit	A Case Study Project Report On Role Of Machine Learning For Manufacturing Sector
Prof. T.K. Mishra	A Study the Effect of Lanthanum Oxide (La ₂ O ₃) On Microstructural And Abrasive Wear Property Of Copper (Cu) Based Metal Powder Composite
Prof. T.K. Mishra	A Study The Effect of Silicon Carbide (SiC) on Microstructural And Abrasive Wear Property of Aluminium (Al) Based Metal Powder Composite

Prof. P.K. Sahu	Automation In Logistick And Supply chain Management
Prof. Yogesh Borse	Design And Fabrication Of River Cleaning Machine
Prof. T.K. Mishra	Effect Of Heat Treatment On Abrasive Wear Behavior Of Wc12%Co Coated Specimens Of Low Carbon Steel
Prof. T.K. Mishra	Effect Of Wc On Wear And Microstructurural Properties On Iron (Fe) Based Metal Powder Composite
Prof. Sandeep Ku. Dubey	Electricity Generation From Speed Breaker
Prof. Jyoti Soni	Experimental Analysis Of Single Cylinder Ic (Diesel) Engine Using Different Biofuels Blends
Prof. Sandeep Ku. Dubey	Four Wheel Steering System
Prof. Amit Dixit	Hydraulic Jack
Prof. Sandeep Ku. Dubey	I. C. Engine Go-Kart
Prof. P.K. Sahu	Integrated Solar Powered Air Conditioner Heat Pump And Water Heater
Prof. Murali Krishna	Performance Assessment Of Two Wheeler Servicing Station Using Mcdm Technique
Prof. Pragyan Jain	Performance Degradation Analysis Of Radial Plunger Pump
Prof. Ajinkya Phatak	Preparation Of Pesticide Using Cow Urine By Ark (Distillation) Formation
Prof. Jyoti Soni	Refrigeration System Performance Using Liquid-Suction Heat Exchangers
Prof. Murali Krishna	To Study The Supply Chain Management At Bilt Unit Sewa
Prof. Sandeep Ku. Dubey	Use Of Exhaust Heat Energy Of Two Wheelers To Generate Power By Seebeck Effect
Prof. P.K. Sahu	Treated And Untreated Fibre
Prof. Sandeep Ku. Dubey	Analysis Of Composite Material
Prof. Sandeep Ku. Dubey	Construction And Working
Prof. Jyoti Soni	Performance Analysis Of Domestic Refrigerator With Using Defferent Refrigerent
Prof. Sandeep Ku. Dubey	Brake Dynamometer

List of paper presentation/publications by students in inter-institute events

S. No.	Name of Students	Event details	Institute/Place	Date	Position / Participation
1	Prakhar Mani Tripathi,	D' Evolution (Hackathon by E-Cell)	RGPV BHOPAL	17/02/2021-24/03/2021	1 ST
2	Nishi Patil	D' Evolution (Hackathon by E-Cell)	RGPV BHOPAL	17/02/2021-24/03/2021	1 ST
3	Suhel Ahmed	A Paper presentation on the topic of " An investigation on Mechanical Strength of Sintered Al Powder Perform Reinforced with Tungsten "	Global Engineering College, Jabalpur	12/2/2021	Participation

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

S. No.	Faculty Name	FDP	Date
1	Dr. SVH Nagendra	Five days, 6th National Workshop on "Research Methodology in Fluid Mechanics", organized by NSFMFP and BITS Pilani.	7 th to 11 th June, 2021
2	1) Dr. SVH Nagendra 2) Prof. Vivek Gedam	One Week Teacher Training Program, organized by AICTE-RGPV at Technocrats Institute of Technology (Excellence), Bhopal	24 th to 30 th June, 2021
3	1) Prof. Murali Krishna.M 2) Prof. P.K.Sahu 3) Prof. Jyoti Soni 4) Prof. Ankur Dave 5) Prof. Amit Dixit 6) Prof. Anupam Jain 7) Prof. Vivek Gedam 8) Prof. Sudhanshu Atkare	AICTE Training And Learning (ATAL) Academy Online 5 days FDP on "Design Thinking" conducted by Mechanical Engineering Department of GGITS, Jabalpur	1 st to 5 th June, 2021
4	1) Prof. Murali Krishna.M 2) Prof. P.K.Sahu 3) Prof. Vivek Gedam 4) Prof. Ankur Dave 5) Prof. Sandeep Kumar Dubey	One week online AICTE Recognized Faculty Development Programme on Alternate Fuels by , Jabalpur	12 th to 16 th June, 2021
5	Prof. P.K.Sahu	FDP on "Emerging trends in Automotive and energy systems" on 23rd to 27th August , 2021 organised by Sree Vidyanikethan Engineering College, Tirupati.	23 rd to 27 th August , 2021
6	Prof. Jyoti Soni	1 Week FDP on "Modelling and Simulation on dynamic systems" conducted by NPTEL in Jan-Mar2021.	Jan-March, 2021

7	Prof. Jyoti Soni	AICTE – ISTE sponsored 1 week FDP on “Solar PV System Design Using IoT (Phase - II)” conducted by Sri Venkateswara College of Engineering	31 st March - 8 th April
8	Prof. Prof. Amit Dixit	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Introduction to Software Robots and Automation" at 1-476504581, Bharathiar Centenary Memorial Government Womens Polytechnic College.	7 th to 11 th June, 2021
9	Prof. Amit Dixit	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "3D Printing & Design for Innovative Medical Devices" at Malaviya National Institute of Technology Jaipur.	28 th June to 2 July 2021
10	Prof. Amit Dixit	AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "The role of Additive Manufacturing in the Era of Industry 4.0" at Chennai Institute of Technology.	21 st to 25 th June 2021

Publication details of faculty

Sr. No.	Authors	Title of Publication	Journal/Conference	Volume/ Issue	DOI No.
1	Pragyan Jain, Amit Dixit	Effect of wind velocity on Flexible PV panel for Automobile hybridization	International conference on recent advances in renewable energy sources 2021		http://dx.doi.org/10.2139/ssrn.4099576
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, Impact Factor4.804	https://doi.org/10.1016/j.ijrmhm.2020.105404
3	Amit Dixit	Presented paper entitled “Effect of wind velocity on Flexible PV panel for Automobile hybridization”	International Conference on Recent Advances in Renewable Energy Sources (RARES 2021) held at Engineering College Banswara (Raj.), India during February 26 – 27, 2021.		
4	Tribhuwan Kishore Mishra, Vivek Gedam;	The Effect Of Copper Addition On Microstructural And Wear Proportion Of Aluminium Based Metalpowder Composities”	International Journal of Scientific Research in Engineering and Management	Volume:5, Issue:12	ISSN; 2456-1037

			(IJSREM);		
5	Pragyan Jain	Synthesis of Graphene Oxide incorporated Poly (vinyl alcohol) Supported Flexible nanocomposite and their morphology structure & Mechanical Property	International conference on current trends in materials science and engineering (ctmse 2021)		
6	Pragyan Jain	"International E-conference on Synthesis, Characterization & Applications of Emerging Materials with Special Reference to Sustainable Technologies"	Department of Applied Physics, Jabalpur Engineering College, Jabalpur, (M.P.), India		
7	Tribhuwan Kishore Mishra	Vivek Gedam et al, 'The effect of copper addition on microstructural and wear proportion of aluminium based metalpowder composites'; Publication date	2021, International Journal of Scientific Research in Engineering and Management (IJSREM)	Volume 05, Issue 12	ISSN:2582-3930
8	Tribhuwan Kishore Mishra	Evaluation of Performance Indicators for B2C E-Commerce Websites using GRA: A Case Study.	2021, Journal of Production Research & Management	VOLUME-11 ISSUE 2	VOLUME-11 ISSUE 2
9	Murali Krishna Vivek Gedam, Preetam Kumar Sahu.	Investigation of Mechanical Properties of Jute and Bamboo Natural Fiber Composites.	Journal of Production Research & Management. 2021	VOLUME-11 ISSUE 2	DOI 10.37591/JoPRM
10	Vivek Gedam	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.	Volume 11, Issue 2, 2021ISSN: 2249-4766 (Online) ISSN: 2347- 9930 (Print)	DOI (Journal): 10.37591/JoPRM
11	Vivek Gedam	Vivek Gedam et al, Investigation of Mechanical Properties of Jute and Bamboo Natural Fiber Composites.	Journal of Production Research & Management. 2021; 11(2):20–33p.		
12	Sandeep Ku. Dubey	Investigation of Mechanical Properties of Jute and Bamboo Natural Fiber Composites	Journal of Production Research and management	Volume 11, Issue 02	ISSN NO. 2347- 9930
13	Tribhuwan Kishior Mishra, Sandeep Ku Dubey	Investigation of Tribological Behavior of Thermally Sprayed NI-WC Coating	International Journal of Engg. & Mgt(IJIERM-VIII)	Volume 08, Issue 04	ISSN; 2348:4918

14	Tribhuwan Kishior Mishra, Murali Krishna M	Study of Mechanical and tribological Behavior of Aluminium Composites Reinforced by Tungsten Carbide Through Powder Metallurgy Technique	International Journal of Engg. & Mgt(IJERM-VIII)	Volume 08, Issue 04	ISSN; 2348:4918
15	Sandeep Kumar Dubey, S.V.H. Nagendra	A Multipurpose Article Holder: Using New Product Design and Development Techniques	Accent journal of Economics ecology & Engg.	Volume 06, Issue 11	ISSN; 2456-1037
16	Ajinkya Phatak	Review and theoretical study on Com dung Based Fuels for rural masses	Accent Journal of Economics Ecology & Engg.	Volume: 07; Issue 01	ISSN NO. 2456-1037
17	T.K. Mishra, P.K. Sahu	Review Paper on WC-12Co and WC-20Cr2C3-7Ni HVOF Sprayed coatings	Accent journal of Economics ecology & Engg.	Volume 06, Issue 07	ISSN:2456-1037
18	Sandeep Kumar Dubey, S.V.H. Nagendra	Design and Development of new product based on customer knowledge management	Accent journal of Economics ecology & Engg.	Volume 06, Issue 05	ISSN:2348-4918
19	Tribhuwan Kishor Mishra	literature Review on Metal Powder Composite	Accent journal of Economics ecology & Engg.	Volume 06, Issue 10	ISSN:2456-1037

Placement Details of UG

S. No.	Name of The Student Placed	Enrollment No.	Name of The Employer	Appointment Letter Reference No. With Date
1	Vedant Pandey	0206ME171081	COLLABERA	17/03/2021
2	Abhishek Mishra	0206ME183D01	EKTA CASTING	EC/JBP/GET/2021
3	Utkarsh Dixit	0206ME171077	EKTA CASTING	EC/JBP/GET/2021
4	Tinku Kr Rai	0206ME171076	EKTA CASTING	EC/JBP/GET/2021
5	Tarun Bopche	0206ME171074	EKTA CASTING	EC/JBP/GET/2021
6	Suraj	0206ME171070	EKTA CASTING	EC/JBP/GET/2021
7	Rishabh Patel	0206ME171052	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
8	Shubhendu Shukla	0206ME171065	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
9	Tarun Kumar Pasi	0206ME171075	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
10	Vishal Pandey	0206ME171084	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
11	Arnimesh Malik	0206ME171019	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
12	Praveen Dharmak	0206ME171047	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
13	Rahul Narendran K	0206ME171050	SIMPLEX ENGG COPERATION	SEC/JBPMP/2021
14	Prashant Poddar	0206ME171046	BOSCH SERVICE	BOSCH/HR/ET/2021
15	Ojas Mishra	0206ME183T01	BOSCH SERVICE	BOSCH/HR/ET/2021
16	Shefali Chouksey	0206ME183D08	BOSCH SERVICE	BOSCH/HR/ET/2021

				1
17	Pankaj	0206ME171041	BOSCH SERVICE	BOSCH/HR/ET/2021
18	Amit Kumar Sahu	0206ME171012	GAYATRI CEMENT PRODUCT	GC/JBP-ME/21
19	Apurv Singh Chouhan	0206ME171018	EKTA CASTING	EC/JBP/GET/2021
20	Aniket Prasad	0203ME171002	EKTA CASTING	EC/JBP/GET/2021
21	Akashdeep Rajak	0206ME171007	GAYATRI CEMENT PRODUCT	GC/JBP-ME/21
22	Vivek Singh Lodhi	0206ME161164	ORIENT PAPER MILE	OPA/PD/ER/48 7/6/2021
23	Akash Kumar Tiwari	0206ME161017	ORIENT PAPER MILE	7/6/2021
24	Ankit Vishwakarma	0206ME161034	ORIENT PAPER MILE	7/6/2021 (Joining Letter)
25	Saksham Dadwal	0206ME161130	INFOSOFT	INST/235- 31/03/2021
26	Himanshu Vishwakarma	0206ME161062	ORIENT PAPER MILE	7/6/2021
27	Mayank Gadekar	0206ME161083	DURATUF GLASS INDUSTRIES (P) LTD.	25/02/2021
28	Mounish Upadhyay	0206ME161094	DURATUF GLASS INDUSTRIES (P) LTD.	25/02/2021
29.	Sahil Soni	0206ME151129	DASKALOS VIRTUAL ACADEMY PVT. LTD.	19/6/2021

List of events organized under Professional Societies/ Chapters

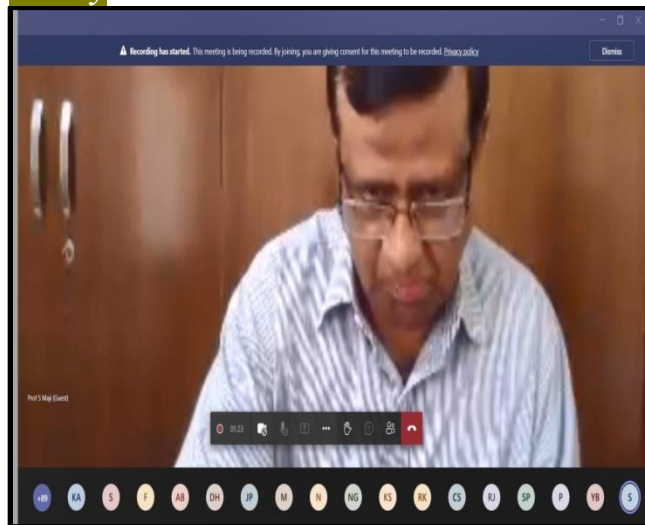
S. No.	Name of Professional Societies/ Chapters	Event and Title	Chief Guest/ Resource Person	Date of event	No. of Participants/ Attendees	No. of days
1	MES	Solid works From Industrial Perspective	Prof. SVH Nagendra	18/01/2021- 23/01/2021	56	6 days
2	CNA	IOT And its Application using Node MCU	Prof. Anupam Dubey	28/01/2021- 01/02/2021	44	5 days
3	MES	Expert lecture on Application of Modeling and Simulation in Design and Manufacturing Capabilities	Dr. K. K. Pathak	7/3/2021	53	1 day
4	E-cell	Guest Lecture on Expectation of Corporate from Freshers	Mr. Vikas Thakur	9/3/2021	82	1 day
5	MES	Expert lecture on Need of Alternative fuels	Dr. Saurbh Tiwari	03/06/2021	55	1 day

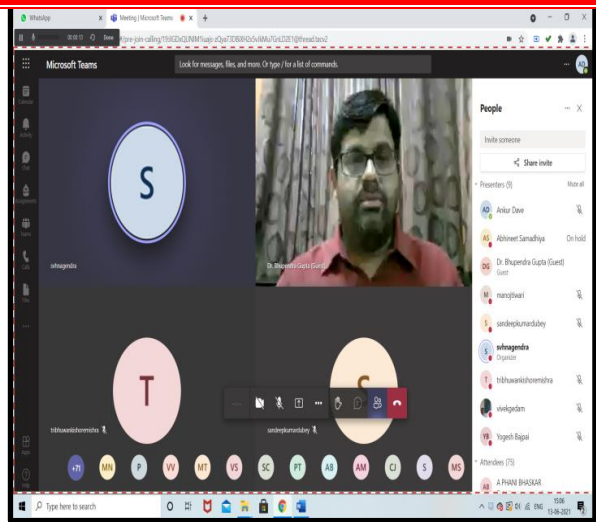
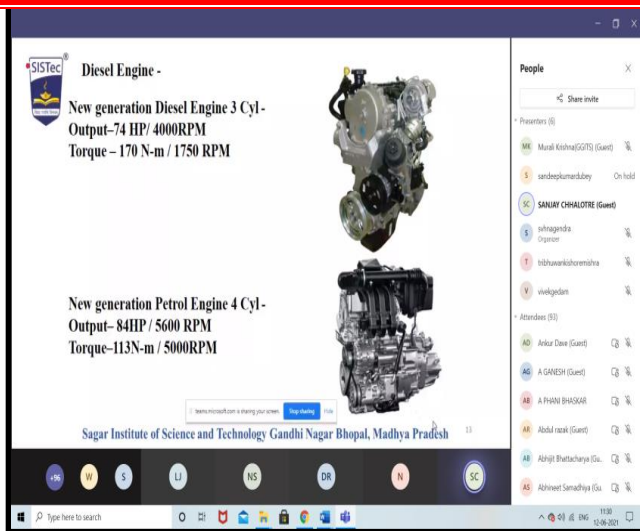
		for IC Engines				
6	MES	Expert lecture on Biomass as an alternative fuels	Dr. Bhupendra Gupta	13/06/2021	61	1 day

Extra-Curricular activities

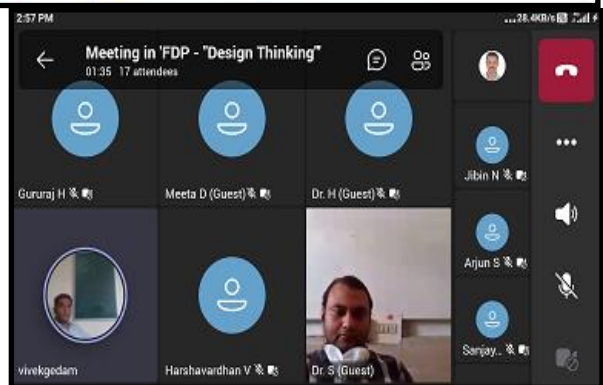
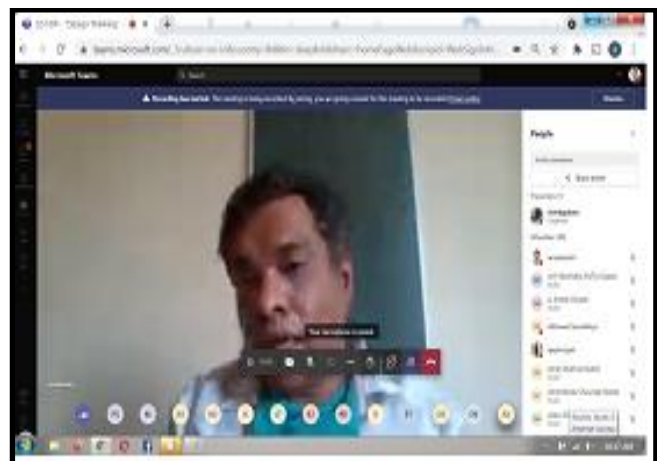
S. No	Name of the Activity	Date	Duration
1	Organized Tree Plantation Drive in Gyan Ganga premises with Bagwan Foundation and ISKCON Temple Jabalpur	26/06/2021	1 day
2	Organized Tree Plantation drive on Tree plantation week of June	6/06/2021	1 day
3	Help to organized "PLOG Run" on the occasion of India's freedom struggle	14/04/2021	1 day
4	Follow traffic rule and wear helmet campaign organized on the Gyan Ganga Main gate to make aware people about traffic rules	11/02/2021-13/02/2021	3 days
5	Organised a program in which Staff of 4MPCTR vested GGITS in which they gave information about various camps and duties of NCC cadets.	15/06/2021	1 day

Gallery





Five Days AICTE ATAL FDP conducted by Mechanical Engineering Department on "Alternate fuels"



AICTE Training And Learning (ATAL) Academy Online 5 days FDP on "Design Thinking" conducted by Mechanical Engineering Department of GGITS, Jabalpur