

SHRI G S INSTITUTE OF TECHNOLOGY & SCIENCE INDORE



MECHANICAL ENGINEERING DEPARTMENT

NEWSLETTER 2020-2021

Paper Publications

1. Artificial neural network-based fault diagnostics for three phase induction motors under similar operating conditions, A Chouhan, P Gangsar, **R Porwal**, CK Mechefske, *Vibroengineering Procedia* 30, 55-60, 7, 2020
2. Pyrolysis of biomass for efficient extraction of biofuel, A Patel, **B Agrawal**, **BR Rawal** *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 42 ..., 37, 2020
3. Walnut Shell Particulates as Filler Material in Polymeric Matrix: A Review, SK Shejkar, A Agrawal, **B Agrawal**, *International Journal of Engineering Research in Current Trends (IJERCT)*, 2, 2020
4. Influence of graphite and polytetrafluoroethylene dispersions on mechanical, abrasive, and erosive wear performance of thermal spray coatings, JV Christy, AHI Mourad, **S Tiwari**, MM Sherif, *Surfaces and interfaces* 21, 100737, 10, 2020.
5. Study on the effects of fibre volume percentage on banana-reinforced epoxy composite by finite element method, US Gupta, M Dhamarikar, A Dharkar, **S Tiwari**, R Namdeo, *Advanced Composites and Hybrid Materials* 3 (4), 530-540, 20, 2020.
6. Investigation of tribological behaviour of 88WC-12Co coating, S Rakhecha, V Pare, S Tiwari, G Yadav, *IOP Conference Series: Materials Science and Engineering* 810 (1), 012059, 2, 2020
7. Study on the development of banana fibre reinforced polymer composites for industrial and tribological applications: a review, US Gupta, **S Tiwari**, *IOP Conference Series: Materials Science and Engineering* 810 (1), 012076 2020

8. Static structural and thermal analysis of disc brake pad model,Y singh Chouhan, **S Tiwari**, *IOP conference series: materials science and engineering 810 (1)*, 012073
2 2020
9. Pyrolysis of biomass for efficient extraction of biofuel,A Patel, **B Agrawal, BR Rawal**, *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 42 ,2020
10. Automotive vehicle clutch engagement characteristics for different types of force trajectories,D Raghuvanshi, **V Pare, M Chouksey, BR Rawal**,*IOP Conference Series: Materials Science and Engineering 810 (1)*, 012005 ,2020
11. Investigation of tribological behaviour of 88WC-12Co coating,S Rakhecha, **V Pare, S Tiwari**, G Yadav,*IOP Conference Series: Materials Science and Engineering 810 (1)*, 012059,2,2020
12. Automotive vehicle clutch engagement characteristics for different types of force trajectories,D Raghuvanshi, **V Pare, M Chouksey, BR Rawal**, *IOP Conference Series: Materials Science and Engineering 810 (1)*, 012005 ,2020
13. Modal and frequency response characteristics of vehicle suspension system using full car model,S Sharma, **M Chouksey, V Pare**, P Jain, *IOP Conference Series: Materials Science and Engineering 810 (1)*, 012056 2 2020
14. Multistage forming analysis of spoke resonator end-wall,NK Sharma, P Karma, **V Pare**, A Chaturvedi, N Nigam, GV Kane, *IOP Conference Series: Materials Science and Engineering 810 (1)*, 012060 2020
15. Flow Around Three Side-by-Side Square Cylinders and the Effect of the Cylinder Oscillation,**BS More**, S Dutta, BK Gandhi,*Journal of Fluids Engineering* 142 (2) 6
2020
16. Effect of machine feed rate on kerf-width, material removal rate, and surface roughness in machining of Al/SiC composite material with wire electrical discharge machine,M Modi, G Agarwal, **SD Chaugaonkar**, U Bhatia, V Patil,*Strojnicky časopis-Journal of Mechanical Engineering* 70 (1), 81-88 7 2020
17. Automotive vehicle clutch engagement characteristics for different types of force trajectories,D Raghuvanshi, **V Pare, M Chouksey, BR Rawal**,*IOP Conference Series: Materials Science and Engineering 810 (1)*, 012005
18. Modal and frequency response characteristics of vehicle suspension system using full car model,S Sharma, **M Chouksey, V Pare**, P Jain, *IOP Conference Series: Materials Science and Engineering 810 (1)*, 012056 2 2020
19. Multistage forming analysis of spoke resonator end-wall,NK Sharma, P Karma, **V Pare**, A Chaturvedi, N Nigam, GV Kane, ... *IOP Conference Series: Materials Science and Engineering 810 (1)*, 012060 2020
20. Heat Transfer and Friction Factor Correlations for Solar Air Heater with gap in V-rib with symmetrical gap and staggered ribs **SS Patel**, A Lanjewar, *Journal of Thermal Science and Engineering Applications* 12 (3), 031018 7 2020

Faculty as participants in FDP/Training

Prof. Beniram Rawal	Professional Development Training Programme for faculties and Administrators of Project Institution of TEQIP-III
Dr. Vinod Pare	One week orientation training program for mentor by NITTTR 29 June to 4th July 2020
Smt. Swati Chaugaonkar	One and half Week Faculty Development Program “Aircraft Propulsion” conducted by NPTEL-AICTE during September-December 2020.
Dr. Manoj Chouksey	<ul style="list-style-type: none">• Attended STTP “Condition Monitoring of Rotating Machines using Advanced Signal Processing Techniques” in the Department of Mechanical Engineering from 21st to 23rd December, 2020 at IIT Indore.• Attended TEQIP III online STTP “Industrial noise and vibration control” 26-28 November, 2020 organized by IIT Indore
Shri. Dinesh Kumar Pasi	<ul style="list-style-type: none">• Condition Monitoring of Rotating Machines using Advanced Signal Processing Techniques, 21-23 Dec, 2020, IIT Indore• Industrial Noise and Vibration control, 26-28 November, 2020, IIT Indore• Noise and Vibration Monitoring of Mechanical Systems, 29-31 October, 2020, IIT Indore
Shri. Ravi Jatola	Online Short-Term Course on "Condition Monitoring of Rotating Machines using Advanced Signal Processing Techniques" 21-23 Dec. 2020 at IIT Indore
Shri. Anil Mulewa	<ul style="list-style-type: none">• Online Short-Term Course on "Industrial Noise and Vibration Control" 26-28 Nov. 2020 at IIT Indore• Online Short-Term Course on "Condition Monitoring of Rotating Machines using Advanced Signal Processing Techniques" 21-23 Dec. 2020 at IIT Indore
Shri. Gangaram Mourya	FDP on Artificial intelligence in Design & Manufacturing held 26 to 30 July 2021
Shri Punit Mishra	Energy Engineering, 14-18 December 2020 under AICTE Training and Learning (ATAL) Academy at IET DAVV.

Student Activities

EVENT- SUPRA SAE INDIA

SUPRA (Super Racing) SAEINDIA is a national-level engineering student competition where teams design and fabricate a Formula- style vehicle as per the design standards of SAE International.

TEAM MEMBERS

1. Mayank Dalvi
2. Priyanshu Tiwari
3. Amal Kanungo
4. Kanav Khanna
5. Syed Faraz Alam
6. Anuj Rawat
7. Abbas Jamdar
8. Vivek Kumar Trivedi
9. Sushant Kumar
10. Divyanshu Parekh



EVENT- EFFICYCLE

Efficycle is an intercollegiate design competition for undergraduate and graduate students where teams have to design and fabricate an energy efficient entirely human powered three-wheeled vehicle. The vehicle must be aerodynamic, highly engineered and ergonomically designed.

TEAM MEMBERS

1. Devansh Mangal.
2. Kalpish Choudhary
3. Samarth Agrawal
4. Kushagra Hardikar
5. Shubham Singh



EVENT- BAJA SAE INDIA

Baja SAE is a Collegiate Design Series competition run by the Society of Automotive Engineers International (SAE International). Teams of students from universities all over the world design and build small off-road cars.

TEAM MEMBERS

Chirag Rathi, Pragvansh Sharma, Ubaid Khan, Satvik Jain, Gaurang Shukla, Yash Raj Dhakad, Piyush Kushwah, Arohan Shrivastav, Harsh Sharm, Anidhya Verma, Varun Dutt Saxena, Rishabh Gupta, Shreya Rajput, Nikhil Jain, Ayush Sharma, Soumya Jain, Samarth Jain, Sanaskar Agrawal, Adarsh Kumar Jha



SAE AEROSPACE DESIGN COMPETITION 2021

SAE Aero Design challenges university students to assume a system engineering approach to design and prototype radio-controlled or autonomous aircraft. Students analyze requirements, perform trade-studies, present a technical design report and build a prototype aircraft to match the requirements.

TEAM FOUNDING MEMBERS

1. Anjali Rathore,
2. Garima Singh
3. Sahil Choure
4. Sakshi Soni
5. Shraddha Bansal
6. Vivek Panth



FACULTY DEVELOPMENT PROGRAMS AND WEBINARS

S. NO	NAME OF FACULTY	WEBINAR/ FDP	TITLE	DATE
1	Dr. Husain Kanchwala (External)	FDP	Vehicle Suspension Modelling using computation and test-based approaches	07/06/2020
2	Dr. Husain Kanchwala (External)	FDP	ORES: Off- road engineering RT HIL simulator	07/06/2020
3	Dr. I A Palani (External)	FDP	Laser Assisted Manufacturing Macro to Micro	09/06/2020
4	Dr. Faisal Rahmani (External)	FDP	Stability of Rotor Bearing System	09/06/2020
5	Dr. Pavan Kumar Kankar (External)	FDP	Predictive Maintenance of Mechanical Components	10/06/2020
6	Dr. Girish Verma (External)	FDP	Modelling of Ultrasonic Assisted Milling Process	10/06/2020
7	Dr. S N Sapali (External)	FDP	Evaluation of low temperature of History of Refrigeration field	12/06/2020
8	Dr. Gurminder Singh (External)	FDP	3D Printing in Biomedical Application	13/06/2020
9	Dr. P R Dhamangaonkar (External)	FDP	Innovative Heat Exchanger	13/06/2020
10	Dr. Sandeep Kumar (External)	Webinar	Sustainable Energy Sources and Challenges	05/06/2020
11	Mr. Hemant Bari (External)	Webinar	Basics of Condition Monitoring with introduction to CM techniques and case studies	14/06/2020
12	Mr. Manoj Kulkarni	Webinar	Fluid Power & Hydraulics, Day 1	17/06/2020
13	Mr. Manoj Kulkarni	Webinar	Fluid Power & Hydraulics, Day 2	18/06/2020

PLACEMENTS

S. No.	Enrolment #	Student Name	Company Name
1	0801IP171052	Shobhit Mahajan	Cognizant Technology Solutions India Pvt Ltd (GenC)
2	0801IP171060	Yash Baviskar	Accenture Solutions Pvt Ltd
3	0801ME171002	Aditya Agrawal	Infosys Ltd (Day-01 Sharing - System Engineer)
4	0801ME171005	Amay Verma	VE Commercial Vehicles Ltd
5	0801ME171007	Ankit Shrivastava	Cognizant Technology Solutions India Pvt Ltd (GenC)
6	0801ME171010	Anuj Rawat	Think & Learn Pvt Ltd (BYJU's)

7	0801ME171011 Apurv Gadre	VE Commercial Vehicles Ltd
8	0801ME171013 Avani Agrawal	Cognizant Technology Solutions India Pvt Ltd (GenC)
9	0801ME171016 Chirag Rathi	Reliance Retail Ltd
10	0801ME171018 Deeksha Singh Yadav	Addverb Technologies Pvt Ltd (PPO)
11	0801ME171020 Devansh Mangal	Asian Paints Ltd
12	0801ME171021 Dheeraj Kumar Sharma	Think & Learn Pvt Ltd (BYJU's)
13	0801ME171028 Kashish Nogriya	Reliance Retail Ltd
14	0801ME171035 Mohd Saad Siddiqui	Cognizant Technology Solutions India Pvt Ltd (GenC)
15	0801ME171037 Palak Rawat	National Engineering Industries Ltd
16	0801ME171038 Pooja Borkar	Reliance Retail Ltd
17	0801ME171040 Prakhar Dubey	Tata Consultancy Services Ltd (NQT - Ninja)
18	0801ME171041 Pranjal Jaiswal	Cognizant Technology Solutions India Pvt Ltd (GenC)
19	0801ME171043 Priyansh Modi Jain	Cognizant Technology Solutions India Pvt Ltd (GenC)
20	0801ME171045 Rohan Lokhande	Rajratan Global Wire Ltd
21	0801ME171048 Saurabh Soni	Jash Engineering Ltd
22	0801ME171053 Subodh Dwivedi	National Engineering Industries Ltd
23	0801ME171055 Syed Faraaz Alam	Infosys Ltd (Day-01 Sharing - System Engineer)
24	0801ME183D05 Ashish Kumar Ahirwar	Rajratan Global Wire Ltd
25	0801ME183D06 Avinash Rawat	Jash Engineering Ltd
26	0801ME183D07 Gaurav Tiwari	Rajratan Global Wire Ltd
27	0801ME183D09 Indramohan Lal	Think & Learn Pvt Ltd (BYJU's)
28	0801ME183D10 Pragati Kathil	Force Motors Ltd (Phase II)
29	0801ME183D12 Shubham Shah	Think & Learn Pvt Ltd (BYJU's)