

ANNUAL REPORT-(2020-21)
01.07.2020 TO 30.06.2021

DETAIL OF DEPARTMENT

(I) NAME: Mechanical Engineering Department

(II) Year of Establishment: 2004

(III) (a) Vision:

- To provide scientists and technologists of the highest caliber who would engage in research, design and development to help building the nation towards self reliance in its technological need.
- To retain our status as one of the best Department and continue to play one of the foremost roles in the development of our nation.

(b) Mission:

- To make our students expert in practical problem solving with abstract thinking skills.
- To make our students life-long learners capable of building their careers upon a solid foundation of knowledge.
- To make our students competent in communicating technical materials and concepts in individual and group situations.
- To build a foundation of knowledge by integrating a variety of project experience at every level throughout the curriculum.

(c) Objective of Department:

- To create top quality human resource in order to excel the electronics industry.

(iv) Course offered in the department

Course	Sanctioned intake (Per year)	Present strength(total)
Ph.D.	13	22
P.G	20	17
U.G	60+06(LEET)	236
Any other	--	--

(v) Faculty detail

List Attached

Professor		Associate Professor		Assistant Professor	
<i>Sanctioned</i>	<i>filled</i>	<i>Sanctioned</i>	<i>filled</i>	<i>Sanctioned</i>	<i>filled</i>
03	05*	03	02*	11	05

*Promotion under CAS.

(vi) Office staff detail:

Position	Sanctioned	In position
ADEO	To be obtained from Estt. Branch	00
Steno	--do--	01
Clerk-cum- JDEO	--do--	01
PEON	--do--	01

(VII) a) Students detail in respect of M.Tech Courses

<i>Programme</i>	<i>Sanctioned Intake</i>	<i>Students admitted 1st year</i>	<i>Students present final year</i>
M. Tech.	20	04	12

b) Students detail in respect of MCA Course: NA

c) Students detail in respect of B.Tech Programmers:

1st year		2nd year		3rd year	4th year
<i>Sanctioned intake</i>	<i>Students admitted</i>	<i>Sanctioned intake through LEET</i>	<i>Students present second year</i>	<i>Students present second year</i>	<i>Students present second year filled</i>
60	46	9	54	63	64

d) Detail of foreign students if any: 01

Sr. No.	Name of Course	No. of Students Admitted	Name of Country
1.	B.Tech.	01	Nepal

(VIII) Research Scholars:

Intake capacity	Total no of Ph.D. students	Registered during the year	Thesis completed during the year	Specify number of fellowship
	22	01	01	05

(IX) Sponsored research project:

Title of the Project	Name of the Investigator(S)	Project in process	Awarded during the current year	Completed during the current year	Nature: Research/ Consultancy
Cost-effective Multifunctional Prosthesis for Disabled Persons	Dr. Pankaj Khatak	completed	September 2020		Research

(X) Publication of Faculty (in Total)

Book Chapter	Research paper		Research paper	
	International foreign	National (Indian)	Referred	Non referred
01		00		00

(XI) Faculty wise detail of publication:**a) Books**

Authors	Title	Year of publication	Type of books
Prof. HC Garg	Lubrication performance of Vegetable Oil-based Nanofluids under different lubrication regimes.	2020 Nova Science Publishers, Inc., New York. Book citation index and Scopus Index	Book Chapter

b) Papers

Authors	Year	Title of paper	Name of journal	Vol . & No.	Pages	Publishers
Prof. HC Garg	December 2020	Tribological Challenges and Advancements in Wind Turbine Bearings: A Review	Engineering Failure Analysis	118		
	June 14, 2020	Elasto-hydrodynamic Analysis of Journal Bearing Operating with Nanolubricants.	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology (IMEchE, Part J)			
	June, 2020	Thermohydrodynamic (THD) Analysis of Journal Bearing Operating with Bio-based Nanolubricants	Arabian Journal for Science and Engineering	45	9127-9144	Springer
	June , 2020	Influence of Different Surfactants on the Stability and Varying Concentrations of TiO ₂ Nanoparticles	Applied Nanoscience	10	3617-3637	Springer

		on the Rheological Properties of Canola Oil Based Nanolubricants.				
		Improving the Tribological Performance of Canola Oil by Adding CuO nanoadditives for Steel/Steel Contact.	Materials Today: Proceedings	28(3)	1392-1396	Elsevier
Dr. Munish Gupta	2020	Numerical investigation towards implementation of punched winglet as vortex generator for performance improvement of a fin-and-tube heat exchanger	International Journal of Heat and Mass Transfer			
	28 February 2020	Experimental analysis of heat transfer behaviour of Silver, MWCNT and hybrid (Silver+ MWCNT) nanofluids in a laminar tubular flow	Journal of thermal analysis and calorimetry			
	2020	Heat transfer analysis using zinc Ferrite/water (Hybrid) nanofluids in a circular tube: An experimental investigation and development of new correlations for thermophysical and heat transfer properties	Sustainable Energy Technologies and Assessments	Volume 3		
	2020	Thermal conductivity analysis of GO-CuO/DW hybrid nanofluid.	Materials Today: Proceedings,			
	2020	An updated review on application of nanofluids in flat tubes radiators for improving cooling	Renewable and Sustainable Energy Reviews,			

		performance				
Dr. Mahesh Kumar						
Dr. Kamal Deep	2020	Machine Cell Formation for Dynamic Part Population Considering part Operation Tradeoff and Worker Assignment Using Simulated Annealing based Genetic Algorithm.	European Journal of Industrial Engineering.	14(2)	189-216	
	2020	Facility Layout Design Using Genetic Algorithm Approach.	IUP Journal of Operation Management	14(4)	30-40	
Dr. Sandeep Jindal	Aug 2020	Modelling and Predicting the Effects of Process Parameters for Bead on Plate Characteristics for Submerged Arc Welding of HSLA Steel	International Journal of Mechanical and Production Engineering Research and Development	10-4	403-412	TRANSSTELLAR
Dr. Sandeep Jindal	Aug 2020	Modelling and Predicting the Effects of Process Parameters for Bead on Plate Characteristics for Submerged Arc Welding of HSLA Steel	International Journal of Mechanical and Production Engineering Research and Development	10-4	403-412	TRANSSTELLAR

(XII) Participation of faculty in seminal/conference/workshop during 2020-2021:

a) Total number of Seminars/Conferences attended by faculty and papers presented:

Name of faculty	Title of paper presented	Theme of conference	Name of host organization	Place	dates	
Dr. Pankaj Khatak	Development of a Discretization Methodology for 2.5 D Milling	Advances in Computing and Intelligent Systems			2020	

	Toolpath Optimization Using Genetic Algorithm					
Prof. H C Garg		Outcome based education and accreditation post COVID	ASM Institute		1 July 2020.	
Prof. H C Garg		Inculcating human values in technical education	AICTE		14-18 June 2020	
Dr. Munish Gupta		Waste Management & Sustainable Environment (WMSE-2020)			one week 2020	
Dr. Kamal Deep		Ergonomics in the Era of Industry 4.0	IIT, Guwahati		Dec 14-18, 2020	
Dr. Sandeep Jindal		Enhancing Research Capabilities	SOMME	Bathinda, Punjab	1-5 June 2020	
Dr. Sandeep Jindal		Recent Advancements in Materials & Manufacturing	MRSTU Bathinda	Bathinda	25-30 Jan 2021	
Dr. Amitesh Goswami		Supply Chain Management: Challenges and Strategies	Dr. B.R. Ambedkar N.I.T. , Jalandhar	Jalandhar	13 July - 17 July, 2020	
Dr. Amitesh Goswami		Reliability Maintainability & Quality issues in Process Industries, RMQIPI-2020	Dr. B.R. Ambedkar N.I.T. , Jalandhar	Jalandhar	04 Aug. - 08 Aug. 2020	

b) International Conference/Seminars/Workshops:

Name of faculty	Title of paper presented	Theme of conference	Name of host organization	Place	dates

c) National Conference/Seminars/Workshops: Nil

Name of faculty	Title of paper presented	Theme of conference	Name of host organization	Place	Dates

d) Regional/State Level Conference/Seminars/Workshops: Nil

Name of faculty	Title of paper presented	Theme of conference	Name of host organization	Place	dates	

Refresher Courses/ Orientation Programme

e)

Name of faculty	Title of refresher course	Name of host organization	Dept.	University	Place	Date
Dr. Sandeep Jindal	Interdisciplinary Refresher Course	UGC- HRDC, GJUS&T, Hisar		GJUS&T, Hisar	Hisar	30.10.2020 to 12.11.2020
Mr. Jagdip Chauhan	Participated in 3 week UGC Sponored Refresher Course (From 09-02-2021 to 22-02-2021) organized by Human Resource Development Centre (Panjab University, Chandigarh)	Human Resource Development Centre (Panjab University, Chandigarh)			Chandigarh	09.02.2021-22.02.2021

(f) National/International Webinars Attended

Name of Teacher/Faculty	Title of Webinar	Host organization	Date
Mr. Rakesh Kumar	Use of LMS, Virtual training and OBE Software for Engineering Colleges	vmedulife software services	20.08.2020

f) Total Number of Refresher/Oriented Courses/ Webinar attended:

- i) Refresher Courses :02**
- ii) Oriented Courses :**
- iii) Webinar :01**
- iv) Total :**

(XIII) Association with national and state level bodies

- i) **Membership of professional bodies: 02**
- ii) **Member of expert committee : 03**
- iii) **Member of Academic bodies of various other institute : 02**

(XIV) Detail of consultancy work in dept: N. A

Name of Teacher	Job Work	Name of Agency	Total Amount	

(XV) Lecture delivered (Give teacher wise detail)

Type	Topic/Subject	Institution	Dates
Invited talk delivered in refresher course			
Extension lecture			
Any other			

(XVI) Additional Duties Performed/Positions held in the University (Teacher-wise)

Sr. No.	Name of Teacher	Additional Positions	Duration From To
1	Prof . HC Garg	Director, CIIP	December 14, 2016 ongoing
2	Prof . Vishal Gulati	1st Year Coordinator	January 2018, ongoing

(XVII) Training & Placement Activities of the Department:

Activity	No. of Students placed	No. of Companies in which placed*
Training		
Placement		

- **Note: Please attach a list of companies along with number of students placed and dates of placement.**

(XVIII) Detail of academic activities/program organized in department during the year:

- i) Seminar/conference/refresher course : Nil
- ii) Extension lectures: Nil
- iii) Students tour/ training program :

- iv) Industry interaction programme: Related to TPO Cell
- v) Any other:

(XIX) Award/Honors received by Faculty (Give teacher-wise details about title of award, awarding agency and date of conferment): **Nil**

(XX) Any other important information/achievement of the Department: **Nil**

Chairperson

ANNEXURE
DEPARTMENT OF MECHANICAL ENGINEERING, GJUS&T, HISAR

- (I) TOTAL NO. OF RESEARCH PAPERS PUBLISHED:
NATIONAL:
INTERNATIONAL:**21**

- (II) TOTAL NO. OF FUNDED RESEARCH PROJECTS:
COMPLETED:
ON GOING: **03**

- (III) TOTAL NO. OF PARTICIPATED AND CONTRIBUTED
RESEARCH PAPERS:
SEMINARS & CONFERENCES: **Nil**
INTERNATIONAL LEVEL:**03**

- (IV) TOTAL NO. OF BOOK PUBLISHED: **Nil**

- (V) NUMBER OF SCHOLARS COMPLETED THEIR PH.D.
DEGRESS: **Nil**

- (VI) TOTAL NUMBER OF SCHOLARS REGISTERED TO PH.D.
PROGRAMME:**05**