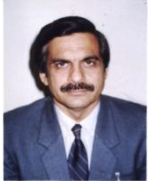






MECHANICAL ENGINEERING DEPARTMENT

1. Faculty profile, adequacy & competency of faculty :

S. No.	Name	Photograph	Date of Birth	Date of Joining (Institute)	Professional Qualification	Nature of Employment	Research Interests
1.	Dr. V. Sahni, Prof.		28.11.54	16.10.1992	Ph.D	Regular	Thermal Engineering
2.	Sh. Amrik Singh, ASP		22.06.61	10.09.1999	M.E.	Regular	Production & Industrial System Engineering
3.	Dr. H.S.Bains, ASP		11.05.63	15.06.1999	Ph.D	Regular (On Deputation to PTU.)	Composites
4.	Sh. K.P.Singh, ASP		11.01.70	08.03.1999	M.Tech.	Regular	System Dynamics, CAD/CAM
5.	Sh. M.A. Akhtar, ASP		08-07-65	14.09.1992	M.Tech.	Regular	Non conventional energy

6.	Dr. P.K.Singh, Prof.		15.05.67	27.09.1994	Ph.D.	Regular	Tolerance Design, Design for manufacture & assembly, Non traditional optimization, Modeling & Simulation
6.	Dr. Pardeep Gupta, Prof.		24.11.67	20.02.1991	Ph.D.	Regular	Industrial & production Engineering
7.	Dr. Rajesh Kumar, ASP		01.01.67	26.09.1994	Ph.D.	Regular	Vibrations, Condition monitoring, Opto-mechanics,
8.	Sh. Manoj Kumar, ASP		13.12.64	21.02.1993	M.E.	Regular	Industrial Engg., Mechanical Measurements
9.	Sh. S.C.Verma, ASP		01.05.65	30.08.1993	M.E.	Regular	Refrigeration & Air conditioning
10.	Dr. Kulwant Singh, ASP		18.11.61	18.10.1991	Ph. D.	Regular	Welding Engineering Production Engineering

11.	Dr. Jatinder Madan, ASP		04.01.70	11.05.1993	Ph. D	Regular	CAD/CAM, DFM, Design Automation, PLM
12.	Dr. Vikas Rastogi, ASP.		30.06.72	22.08.1995	Ph. D	Regular	Modeling Simulation, System Dynamics
13.	Dr. R. K. Saxena, ASP.		04.07.73	11.06.1996	Ph.D.	Regular	FEM, Metal Forming, High Velocity Impact Plasticity, Vibrations
14.	Sh. Anil Singla, ASP.		16.12.70	13.06.1995	M.E.	Regular	Robotics, Mechatronics, System Dynamics and Control
15.	Sh. J.S.Gill, A.P		27.01.72	10.09.1996	ME	Regular	Production Engineering
16.	Dr. A.S.Shahi, ASP.		23.01.69	20.06.1996	Ph.D	Regular	Welding Metallurgy, Material Joining

18.	Dr.Shankar Singh, ASP		23.07.1964	10.07.2007	Ph.D	Regular	Manufacturing Process, Non Traditional Machining, Processing of Metal Matrix Composites (MMCs)
19.	Sh.R.K.Yadav ASP.		26.12.66	23.06.1995	M.Tech.	Regular	Fluid mechanics, Thermal Engineering
20.	Sh. Arvind Jayant, ASP		19.03.73	01.08.1996	M.Tech.	Regular	Industrial Engineering
21.	Dr. H.K.Kansal, ASP.		01.01.72	26.08.1997	Ph.D.	Regular (On Lien)	EDM, Production technology
22.	Dr. Jagtar Singh, A.P		02.05.69	25.10.1997	Ph.D	Regular	Industrial Engineering, Optimization Techniques, Bio Energy, Friction Stir Welding
23.	Sh. Indraj Singh A.P.		10.07.74	29.08.1997	M.E.	Regular	Energy auditor (Power Plant, Sugar industry etc), Alternative fuel and IC engine.

24.	Sh.Rakesh Kumar, A.P.		06.04.1965	22.08.1997	M.E.	Regular	Production Technology
25	Sh. Surinder Kumar A.P.		13.01.1981	28.09.2006	B.E	Regular	1. Manufacturing Technology 2. Welding Technology
26.	Sh. Harish Kumar Arya , A.P.		15.08.1982	08.10.2006	M.Tech	Regular	1. Welding Technology, 2. Thermal Modeling & Simulation
27.	Sh Sunil Kumar, A.P.		26.10.1979	16.10.2006	M.E.	Regular	CAD/CAM
28.	Sh. Mohd. Majid, A.P.		12.09.1973	01.08.2007	M.Tech	Regular	Welding technology
29.	Sh. Manpreet Singh, A.P.		12.01.1979	07.08.2007	B.E	Regular	Manufacturing
30.	Sh. Sumit Kumar, A.P.		12.03.1982	17.08.2007	B.E	Regular	Refrigeration & Air Condition
31.	Sh. Vivek Kumar, A.P.		05.07.1977	28.10.2007	M.Tech.	Regular	Manufacturing Systems Engineering

2. **Student profile according to the programs of study, Region, Gender in last five years:**

Region → Course ↓	Other States	Punjab State	No. of Students(Gender Wise) →	Total	
				Male	Female
Certificate	256	648	Certificate	901	03
Diploma	145	569	Diploma	706	08
Degree	231	239	Degree	466	04
M.Tech	38	32	M.Tech	67	03

3. **Changes made in the courses or programmes during past five years and the contribution of faculty to these changes:**

Study schemes and course contents are revised so as to keep the curriculum updated and in tune with the recent trends in academics/industry. Workshops are conducted to carry out this process and faculty of SLIET does brain storming along with experts from industry and reputed academic institutes. Faculty plays an active role in this process.

4. **Trend in the success rate and drop rate of students during the last five years: (On institute basis)**

CERTIFICATE					
Passing year	2005	2006	2007	2008	2009
% of Passes	75.12	52.77	67.91	77.34	76.38

DIPLOMA					
Passing year	2005	2006	2007	2008	2009
% of Passes	93.93	96.34	92.56	95.55	89.01

DEGREE					
Passing year	2005	2006	2007	2008	2009
% of Passes	75.17	77.49	70.64	78.42	71.94

POST GRADUATE					
Batch	2005	2006	2007	2008	2009
% of Passes	100	100	93.75	90.47	*

*Thesis work going on.

5. ***Learning resources of the department like library, computers, laboratories and other such resources:***

Laboratories (No. of Labs-14):

- Advanced Welding Lab
- Non destructive Testing Lab
- Metrology Lab.
- CAD/CAM Lab.
- Simulation Lab.
- Mechatronics Lab.
- SOM Lab.
- TOM Lab.
- Thermal Engineering Lab.
- Hydraulics Lab.
- Refrigeration and Air-conditioning Lab.
- Auto-Farm Lab.
- Innovation Centre
- Industrial Engineering

No. of computers in all labs: 125

No. of books in library: 154

Thesis in M.E.: 40

Projects of B.tech: 200

6. ***Enhancement of the learning resources during the past five years:***

Department has two lecture/seminar halls which are equipped with multimedia facilities. Teachers are encouraged to plan their course in advance and prepare soft copies of learning material. Central as well as departmental Libraries are updated every year so that latest books are available to the students. Following equipments /software have been purchased during last five years:

- (a) Four stroke four cylinder petrol Engine
- (b) Symbol shakti software
- (c) Gas analyzer
- (d) Single cylinder four stroke diesel engine test Rig
- (e) Hand Tachometer
- (f) Stir Casting Equipment with accessories
- (g) Cut model
 - i) Four Stroke Four cylinder of Diesel Engine
 - ii) Four stroke Single Cylinder of Petrol Engine
- (h) Air Conditioning Trainer
- (i) Domestic Refrigerator Rig
- (j) Dell server
- (k) Master CAM software
- (l) CATIA V5 software

- (m) ARENA software
- (n) SPC software
- (o) Micro hardness Tester
- (p) Image Analysis Software
- (q) Electrolytic Polishing Machine
- (r) Universal Testing Machine(Digital)
- (s) Thermal Spray Gun
- (t) Electronic Weighing Balance(Digital)
- (u) Variable Compression Ratio Multi Fuel Engine Test
- (v) Electronic Weighing Balance (Digital)
- (w) Image Acquisition System
- (x) Lab View
- (y) Vibration Analyzer
- (z) Digital Storage oscilloscope
- (aa) Data Acquisition System
- (bb) Ansys Software
- (cc) Digital Viscometer
- (dd) Semi Automatic Bio Diesel Plant

Purchase orders of following equipments have been placed and delivery waited:

- (a) Fuel Consumption meter
- (b) Demonstration tractor differential
- (c) Mechanical heat pump
- (d) Refrigeration fault simulator
- (e) Mini cold storage trainer
- (f) Stereo Zoom microscope
- (g) Impact testing machine
- (h) Automatic Polishing machine
- (i) Hand dynamometer and tri axial accelerometer with data acquisition system
- (j) Muscle Monitoring system through EMG
- (k) Low Force Vibration Model Shaker/ Exciter along with amplifier
- (l) Function Generator
- (m) Miniature Accelerometer Kit
- (n) CNC Simulation Software

7. ***Modern teaching methods in practice other than the lecture method:***

Multimedia presentations, internet, quiz, seminars and group discussions are integral part of curriculum.

8. ***Participation of teachers in academic and personal counseling of students:***

Well established counseling system is in place for counseling of students. Department level coordinators help Chief counselor to disseminate counseling among students through individual course counselors. Regular counseling sessions are conducted by Course counselors to inculcate moral values in students apart from technical education.

9. ***Details of faculty development programmes and teachers who benefited during the past five years:***

The department has organized 08 Nos. short term training programmes for the development of the faculty. Faculty members from the department have attended 92 Nos. short term courses organized by SLIET Longowal and other engineering institutes.

10. ***Participation of teachers in academic activities other than teaching & research:***

Teachers are permitted to attend short term courses/workshops at Institutes of national repute anywhere in India. Short term courses and workshops are conducted at SLIET campus also to keep the faculty up dated. Teachers are involved in examination related activities like paper setting, examination duty, student evaluation etc.

11. ***Collaboration with the other departments and institutions at the national and international levels and their outcome during past five years:*** NIL.

12. ***If research is a significant activity, the thrust areas of the department:***

Following are thrust areas:

- (a) CAD/CAM
- (b) System Dynamics and Control.
- (c) Non conventional Machining
- (d) Welding

13. ***The details of ongoing projects & projects completed during the last five years:***

TITLE OF THE PROJECT	INVESTIGATORS	SPONSORING AGENCY	DURATION	AMOUNT IN LACS	STATUS
Automated design of die from part product model	Dr. Jatinder Madan, Dr. Sukhwinder Singh	AICTE	3 years	9.00	In progress

14. ***“Programmes by Research” offered by the university in mechanical engineering department:***

- Programmes offered:
1. PhD. In the followings
 - a. Welding
 - b. Vibration Analysis
 - c. Metal Cutting/ Scheduling
 - d. CAD/CAM
 - e. Non-conventional Machining
 - f. Ergonomics
 - g. Industrial engineering
 - h. Availability/Reliability
 - i. System Dynamics

- j. I.C. engines
- 2. M.Tech in the following specializations-
 - a. Manufacturing Systems Engineering
 - b. Welding technology

15. Publications of the faculty, for the past five years. Details regarding citation index and impact factor analysis.

No. of papers published in international journals	: 56
No. of papers published in national journals	: 20
No. of papers presented in international conferences/ seminars	: 104
No. of papers presented in national conferences/ seminars	: 163

16. Participation of the department in the extension activities of the university:

Department is involved in vocational courses under CDC (Country Development Centre) and Scheme for PWD (Persons with disabilities).

17. Method of continuous student assessment:

Students are assessed continuously throughout the semester by:

- (a) Minor tests (three) at regular intervals.
- (b) Quiz.
- (c) Lab viva and practical skill tests.
- (d) Tutorials and assignments.

18. Placement record of the past students and the contribution of department in student placements:

No. of graduate students placed: 215 (in last five years). There is a separate Training & Placement department in the institute. The department organizes industry institute meet every year to enhance placement of students. The department profile is prepared every year to apprise industry about the department's activities.

19. Significant achievements of the department or faculty or students during the past five years:

- Two teams ('JUNKYARD WARRIORS' and 'SLIETIAN SPARKZ') that registered for **BAJA SAE (Society of Automotive Engineers) INDIA 2009** for a 3 Day BAJA SAE INDIA Student Competition that was held at NATRAX Facility of NATRIP, Pithampur near Indore from 30th to 1st Feb 2009, got 1st prize.
- Department has organized 07 Nos. national conferences.
- Department has organized 08 No. of Training Programmes / Short Term Courses
- The department has already acquired one patent and has applied for the second patent

20. Participation of the department in COSIT/COHSSIT/SAP/CAS/DASA/DRS/FIST etc.:

Financial assistance by department of science & technology (SERC division), ministry of science & technology, government of India has sanctioned to department of Mechanical Engineering, SLIET, Longowal in the year 2003 on FIST programme. The total amount sanctioned for the development of infrastructure and labs in the department was 6.5 lacs.

The total tenure of the project was five years which was successfully completed in the year 2009. The total of 17, 52,867/- including the interest was utilized for the development of infrastructure in labs.

21. Plan of action of the department for the next five years:

- a) Setting up of Advance Centre of Manufacturing
- b) Learning Resources for certificate & Diploma
- c) Setting up of an industry sponsored chair in thrust area
- d) Development & promotion of industrial consultancy
- e) Development of institute workshop as Production/Training centre
- f) Energy Auditing centre
- g) Modernization of centre of innovation