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Consultancy Brochure

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INNOVATE

DEPARTMENT OF MECHANICAL ENGINEERING
SANT LONGOWAL INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Deemed to be University)

(CFTI under MHRD, Government of India)

Longowal, Sangrur (Punjab) India - 148106

ABOUT SLIET

Consequent upon the decision, taken by Govt. of India in 1985, to tender a valuable, yet humble tribute to the everlasting memory of the revered saint, Sant Longowal Institute of Engineering and Technology took its shape. The institute was established by Ministry of Human Resource and Development (MHRD), Govt. of India in the year 1989 and was formally inaugurated on 20th December 1991.

Accepting the new challenge of new education policy, Sant Longowal Institute of Engineering & Technology (SLIET) was established, with a vision to act as an international podium for the development and transfer of technical competence in academics. It is committed to provide best possible technical education and to cater to the technical manpower requirements with emphasis on practical training in industry.

The institute is an autonomous body, fully funded by Govt. Of India and controlled by SLIET society, registered under Societies Registration Act, 1860. The institute awards its own Certificates, Diplomas, Undergraduate and Postgraduate approved and recognized by AICTE, New Delhi. Ph.D. programmes have also been started after it attaining status of Deemed to be University.

It was formulated that the institute, besides catering to the needs of formal education would undertake an arduous task to prepare the skilled and qualified manpower for self-employment. Further, the institute would take up a strategic research and development activities which along with entrepreneurship will help in extending the efforts of the institute in imparting education to the unemployed and working population by updating and upgrading their technical skills. The institute was thought to cater to then existing 3-tier system to modern industry, which incorporates workers, technicians and engineers.



DEPARTMENT OF MECHANICAL ENGINEERING

Department of Mechanical Engineering is the largest department of the Institute. It has highly motivated and well qualified faculty from IITs, NITs and other reputed institutes. A good number (21) of faculty members of department are having doctoral degree. Department offers 05 Integrated Certificate Diploma courses (ICD), 02 B.E. courses, 02 M.Tech. courses and Ph.D. in various areas of Mechanical Engineering. Admission to the various programs are through SET, JoSAA (JEE (main)), CCMT (GATE). Department has completed many cycles of NBA accreditation. Alumni of the Department are serving in leading organizations in India and abroad, a few to list are: Tata Motors, Honda, Mahindra & Mahindra, Hindustan Unilever, Godrej, L&T, ISGEC, Vizag Steel, Jindal Steel & Power Ltd., Indian Oil, NTPC, NHPC, Vardman Group, Federal-Mogul, Trident Industries, Welspun, Sonalika Tractors, Swaraj-Mazda Ltd., Hero Cycle, Eastman Cast & Forge Ltd., New Swan Group, Satyam Autos, Kangaro Industries, Cheema Boilers, Infosys Ltd., IBM, TCS, LG, Indian Air Force etc.

Department has very good infrastructure and laboratories with latest equipments for experimentation and testing. Material Characterization and testing, wear analysis, cryogenic treatment, advance welding and manufacturing, condition monitoring facilities are among the best in the region. Faculty of the Department has published good quality research in various international journals and handled many sponsored research projects.





CONSULTANCY AREAS

Area of Consultancy	Specialised Faculty
Thermal Systems and Energy Audit	Dr. Indraj Singh, Associate Professor and Certified Energy Auditor Dr. R. K. Yadav, Associate Professor Mr. Sumit Kumar, Assistant Professor
Mechanical Design and FEM Analysis	Dr. R. K. Saxena, Professor Dr. Sunil Kumar, Assistant Professor Dr. Vivek Kumar, Assistant Professor Mr. Surinder Kumar, Assistant Professor
Condition Monitoring	Dr. Rajesh Kumar, Professor Mr. Surinder Kumar, Assistant Professor
Welding & Metallurgy	Dr. Kulwant Singh, Professor Dr. A. S. Shahi, Professor Dr. Jaspal Gill, Associate Professor Dr. Mohd. Mazid, Assistant Professor Dr. Harish Arya, Assistant Professor Sh. Anil Kumar Singla, Associate Professor
Engineering Optimization	Dr. P. K. Singh, Professor Dr. Jagtar Singh, Professor Dr. R. K. Saxena, Professor
Industrial Engineering, Quality Control, TPM, Supply Chain Management	Dr. Pardeep Gupta, Professor Dr. Amrik Singh, Associate Professor Dr. Arvind Jayant, Associate Professor
Automotive Design	Dr. Shankar Singh, Professor Dr. Indraj Singh, Associate Professor
Manufacturing Technology	Dr. Pardeep Gupta, Professor Dr. P. K. Singh, Professor Dr. Rajesh Kumar, Professor Dr. Shankar Singh, Professor Mr. Rakesh Kumar, Associate Professor

MAJOR EQUIPMENTS

Name of Equipment	Test that could be performed
Dry Sand Abrasion Test Rig	Wear test (metal-to-soil)
Slurry Abrasion Test Rig	Wear test (metal-to-soil)
Jet Erosion Test Rig	Wear test (metal-to-soil)
Rotating Beam Fatigue Tester	Fatigue Test
Cryogenic Treatment Chamber	Sub Zero temperature treatment
Muffle Furnace	Melting/treatment of metal up to 1000°C
Wear & friction monitoring machine	Wear test (metal-to-metal) dry and wet
Labotom specimen cutting	Specimen cutting
Fatigue crack growth rate (FCGR) testing	Fatigue studies of metallic materials
Micro Hardness tester	Micro hardness measurement
Ferritoscope	Ferrite content measurement
Impact tester	Toughness measurement
Tensile testing machine	Tensile strength assessment
Microscope	Microstructure evaluation
Portable surface roughness tester	Roughness measurement
Wire Cut EDM	Machining of conducting materials
CNC Turning Centre	Machining
3-D Engraving Machine	Engraving Pattern
SAW (MS) and SAW (SS)	Welding
GMAW (MIG) (MS) & GMAW (MIG) (SS)	Welding
TIG (MS) and TIG (SS)	Welding
Micro Plasma	Welding
Stir casting Equipment	Stir casting
Solaris CCD plus spectrometer	Chemical composition of ferrous metals/ alloys
Computerized UTM	Mechanical properties
Digital Micro VHT	Hardness Measurement
Exhaust Gas Analyzer	Emission Measurement of engine
XRD (X-Ray Diffraction) Machine	Phase identification of a crystalline material, unit cell dimensions, determination of average bulk composition
Portable data acquisition system (National Instruments)	Vibration data acquisition and processing
Software: MSC-Nastran, Pro-E, MasterCAM, Edge CAM, LabView	Design, Manufacturing, Signal processing

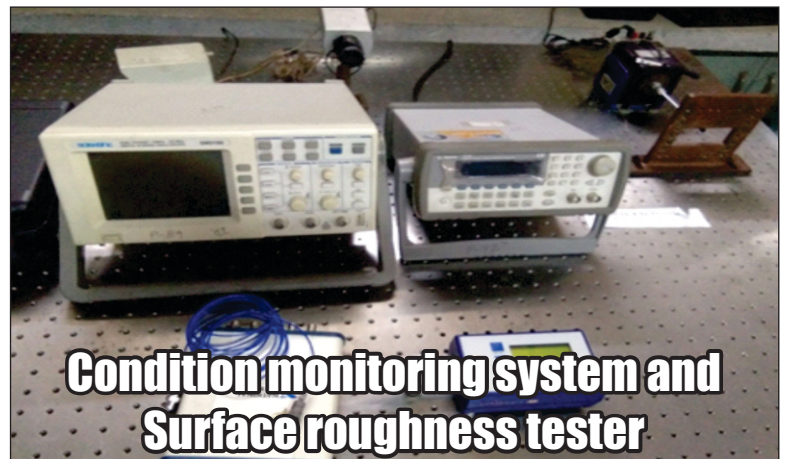
GLIMPSE OF FACILITIES



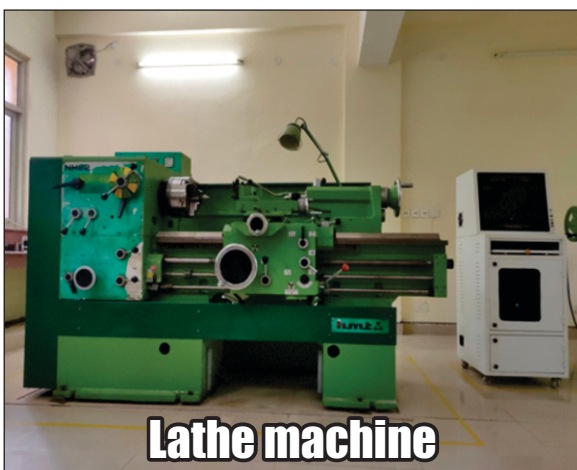
X-Ray Diffraction Instrument



Wire Cut EDM



**Condition monitoring system and
Surface roughness tester**



Lathe machine

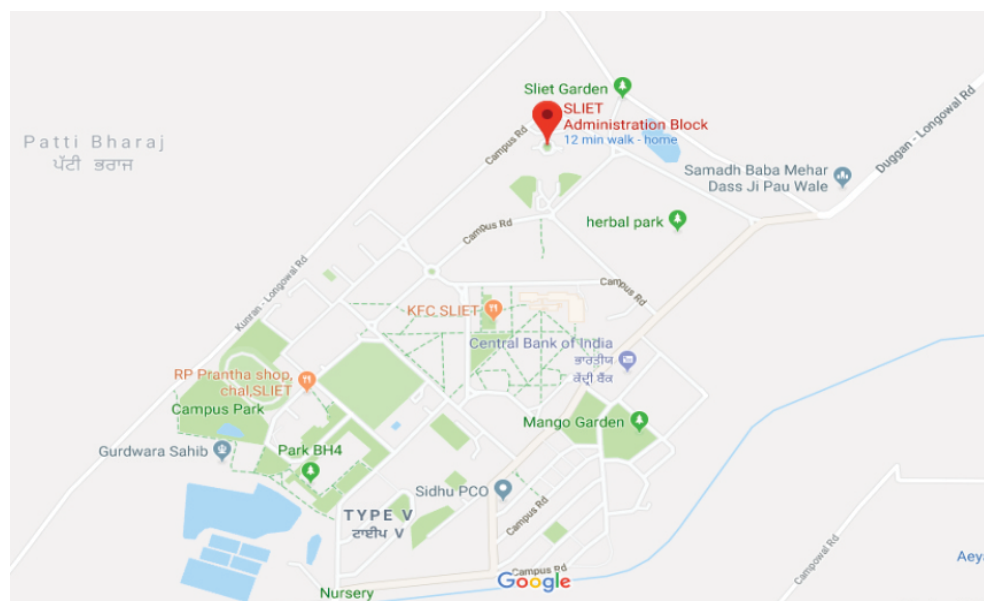


Submerged Arc Welding Machine

SLIET LONGOWAL



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or scan QR code



| www.sliet.ac.in

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