



Sir M Visvesvaraya Institute of Technology, Bengaluru 562157


Department of Mechanical Engineering

AICTE MODROB PROJECT REQUIREMENTS

Project Title: Siemens Advanced Analysis Laboratory

Proposed Software / Item	Specifications	Number of Licenses
SIEMENS NXACAD100, SIEMENS NXACAD101, SCACAD100	NX Academic Perpetual License Core+CAD NX Animation Designer ELMA ELMA Node Locked NX Academic Perpetual License CAE+CAM NX Multi-Axis Directed Energy Deposition NX Directed Energy Deposition Add-On NX Nastran Multistep Nonlinear Simcenter 3D Academic Bundle NX Open Toolkits Author SC Structures for Nastran Simcenter 3D NVH Composer Simcenter 3D Load Identification	5

Proposed Software / Item	Specifications	Number of Licenses
TL-ACAD100	TL Acquisition Setup TL Octave Analysis TL Sound Quality Analysis TL Instrumentation App TL Fatigue Life Analysis TL Rainflow Based Test Definition TL Track-side Validation TL Acoustic Control TL Frontend driver TL Signature Analysis TL Component based TPA	3


Dr. Prashant S Humnabad/Dr.Hanamantraygouda M B
Project Coordinator/CO- Project Coordinator
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VGST- RGS/F PROJECT REQUIREMENTS

Project Title: Solid State Welding of Ferrous and Non-Ferrous Materials for Automobile and Aviation Industrial Applications

Sl. No.	Items to be procured	Technical Specification of Equipment	Total Unit/ Quantity required
1	Vickers Hardness Tester	Brand: Vickers Automation Grade: Automatic Weight: 73kg. Voltage: 220 V Frequency: 50-60 Hz Finishing: Powder Coated	01
2	MCP Non- contact Digital Laser Infrared Thermometer with Back Light LCD Display	(Temperature Range: -50°C to 550°C)	01
3	Milling Tool Dynamometer with Load Cell	Specification: 1. Force: X Y Z direction. 2. Range of force: 200 Kg. Force (X) & Thrust (Y); 20 Kg. Torque for Vertical Milling. 3. Sensor: 4 Arm bounded strain gauge Component Bridge for each force. 4. Bridge resistance: 350 Ohms typical. 5. Bridge voltage: 12 volts Maximum.. 6. Linearity: $\pm 1\%$ of full scale. Accuracy: $\pm 1\%$ of full scale 7. Mounting : using slots provided 8. Additional Facility: Self centering vice to hold the fixture (Fixture for Friction Stir Welding operation)	01
4	Fixture (Fixture for holding Workpieces during Friction Stir Welding)	Size: 305x610x20 mm (lbh) Made with EN24 Steel Material (Case Hardened / Oil Hardened)	01
5	FSW Tools (TUNGSTEN CARBIDE)	Diameter – 25 mm Length – 100 mm	20
6	Dissimilar Materials (4 – 6 mm Plates)	Mild-Steel and Aluminium plates of 100X50X04 mm	600 No's Workpieces

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