

KONERU LAKSMAIAH EDUCATION FOUNDATION
Department of Mechanical Engineering
CENTRE FOR SYSTEM DYNAMICS & CONDITION MONITORING
RESEARCH LAB

List of Equipment

SL. NO	NAME OF THE EQUIPMENT	MAKE	COST (In Lakhs)	Picture Image
01	Servo Hydraulic Damper Test System (15kN)	BISS (ITW,USA)	260.50	
02	Suspension Test Rig (25kN)			
03	UTM: NANO (25kN)	BISS (ITW,USA)	36.00	
04	Vibration Pick-Up (T30Expert)	SPM	4.50	
05	Thermal Imaging Camera (T420)	FLIR (Sweden)	13.65	
06	a. CDAQ-9178 (8 slot USB)	National Instruments	7.62	
	b. NI 9243, 4 input, 24-bit			
	c. NI 9220, DSUB, 16-bit, 16 Channel			
	d. NI 9237, 4 Channel			
	e. NI 9401, 8 Channel			
	f. NI 9263, Screw term, 16-bit			
	g. PCB general purpose Accelerometer			
07	Rockwell Cum Brinell Hardness Testing Machine	FIE	1.98	

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
01	Servo Hydraulic Damper Test System (15kN)	BISS (ITW,USA)	17/6/2017	MICPLSA002/2017	



Description: This is a single station, vertical axis Servo Hydraulic Test System. The applications are shock absorbers and struts durability testing. This is fully controlled by software, with a compact single foot print package. Can perform 8 programmable velocities in a single test. It is embedded with DAQ, fatigue rated force transducers displacement transducers and accelerometer total system integration.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
02	Suspension Test Rig (25kN)	BISS (ITW,USA)	17/6/2017	MICPLSA002/2017	



Description: Fitted with load cell, displacement and accelerometer transducers. The setting and operation are fully computerized. Testing can be done in a single stroke mode. Data recording is incorporated with real time graphics display. Data can be exported to MS Excel format where report generation is available.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
03	UTM: NANO (25kN)	BISS (ITW,USA)			36



Description: Servo hydraulic operated machine with a flexibility to investigate tensile, compression, bending and fatigue strength. In addition Fatigue Crack analysis can also be done on the machine. The machine works on the software and completely automated. Different types of work-piece fixtures are available to conduct the above tests. It is a plug and play type machine. It is IoT compatible.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
04	Vibration Pick-Up (T30Expert)	SPM	14/07/2008	102/2008	4.5



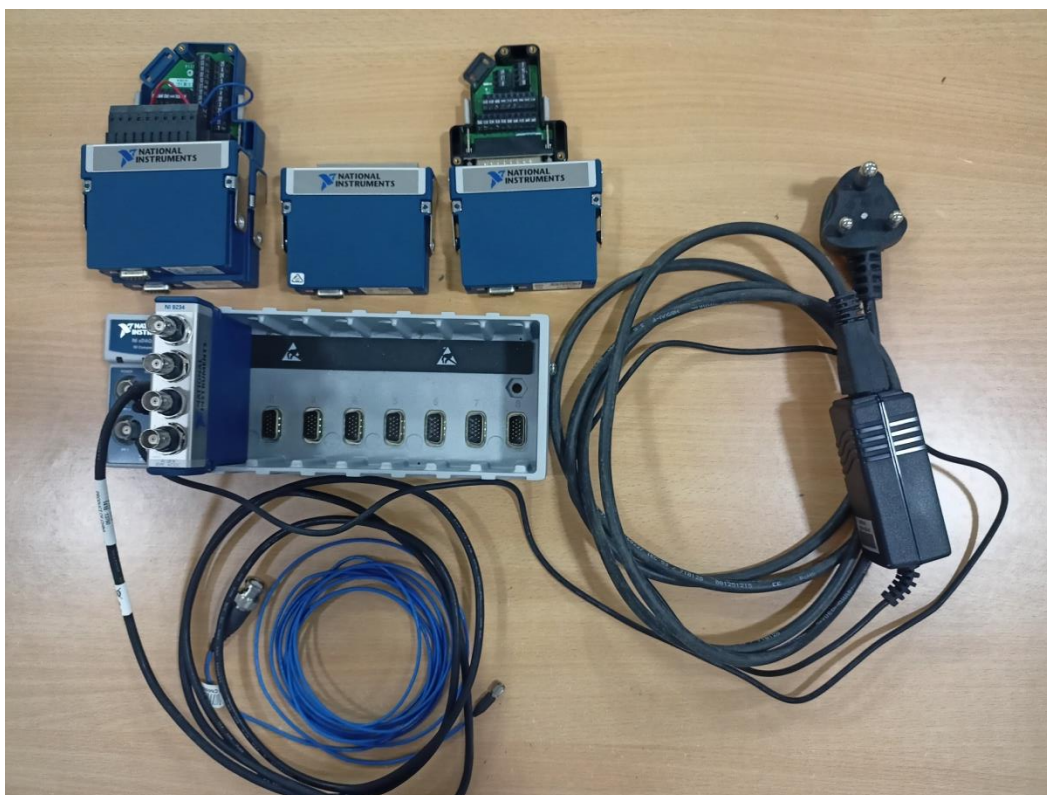
Description: It is a hand held Vibration measuring instrument. The pick-up can be installed on the operating machinery with the magnetic base. This is capable of measuring shocks also. The data can be exported to the software to visualize the Vibration behavior.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
05	Thermal Imaging Camera (T420)	FLIR (Sweden)	31/3/2017	APTS/16/2016-17/14	13.65



Description: It is a non-conduct type temperature measuring instrument. The radiation emitting from the surface is sensed and the display will be in the temperature units ($^{\circ}\text{C}$). The range of the camera is 4mts. The feature of the Camera is the exact hot spot temperature can be measured along with remaining domain temperatures.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
06	NI Lab View	National Instruments	31/3/2017	429485/2016-17	7.62



Description: It is embedded with Accelerometer. Data acquisition is possible for further analysis with the help of a computer. It is a 16 Channel, 16 bit, 8 slot USB operated system.

SL. NO	NAME OF THE EQUIPMENT	MAKE	PURCHASED DATE	BILL NO.	Cost (In Lakhs)
07	Rockwell Cum Brinell Hardness Testing Machine	FIE	24/6/2017	409	1.98



Description: Can be used to measure the hardness of metallic and non-metallic materials. The hardness at different points can be visualized numerically on a display screen and the plot can be obtained.