

BAPATLA ENGINEERING COLLEGE :: BAPATLA
CIVIL ENGINEERING DEPARTMENT

LABORATORY DETAILS April 24, 2023

S. NO	NAME OF LABORATORY	SPACE (SQ.M)	COST OF EQUIPMENT (LAKHS)
1	Material Testing Lab	268	75.61
2	F.M, Hydraulics & H.M Lab	402	10.04
3	Geotechnical Engg. Lab	263	20.45
4	Transportation Engg. Lab	154	21.49
5	Environmental Engg. Lab	154	15.36
6	Surveying Stores	104	28.07
7	Engineering Geology Lab	53.57	4.99
8	Computer Center	90	
	Hardware	-----	51.63
	Software	-----	34.23
	TOTAL		262.23

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1. MATERIAL TESTING LAB

Name of the Equipment	Cost
Computer Interfaces Compression Testing Machine (3000 KN)	7,32,777.00
Computer Interfaced Universal Testing Machine (1000 KN)	7,32,766.00
Non Destructive Testing Equipment (NDT)	5,41,993.00
Brinell Harness Testing Machine	3,50,064.00
Rockwell Testing Machine	1,10,500.00
Torsion Testing Machine	1,32,158.00
Vibrating Table (2 m X 1m)	99,736.88
Digital Spring Testing Machine	98,381.00
Impact Testing Machine	97,682.00
Accelerated curing tank	92,278.00
Honnsfield tensograph. (condemned)	57,065.00
Concrete mixer	30,122.00
Vickers Hardness Tester	29,895.00
Compression Testing Machine (500 KN)	23,388.75
Needle vibrator	18,647.00
Dial gauges, strain gauges	16,559.75
Vibrating Table	15,080.00
Vibrating Machine for Moto Cubes	12,075.00
Electronic Weighing Machine (12 Kg)	11,081.00
Electronic Weighing Machine (100 Kg)	18,281.00
Beam Moulds	12,470.00
Cement tensile testing machine	7,711.20
Shear Test Attachment With Disc	5,899.89
Is Sieves	5,650.00
Cement Moulds	5,737.00
Is Sieves (Aggregate)	4,900.00
Magnetic Bases With Dial Gages	4,304.40
Cube Mould Cast Iron (150 Mm Cube)	4,108.00
Vicat's Apparatus	4,050.00
Cylindrical Mould 15cmx30cm Height.	3,685.50
Electric Motor For Vibrating Table	3,675.00
Mould (Cast Iron) for 150mm Cube.	3,496.50
Lateral Extensometer	2,230.20
Beam Moulds	23,310.00
Cube Mould Cast Iron (150 MM Cube)	51,975.00
Cylindrical Mould 15 cm x 30 cm Height	24,570.00
Loading Frame	22,32,000.00
Compaction factor Machine	3,402.00
Channels	36,875.00
Shake Table	9,51,937.00
Density bottle	6,620.00
Self – Compacting Concrete equipment's	14,439.52
Density baskets	7476.48
Concrete Pan Mixer	1,65,183.48
Slump Test Apparatus	1,417.50
Le-Chatelier mould & Water bath	27,813.78
Total Cost Rs:	75,61,478.35

2. GEO TECHNICAL ENGG. LAB

<i>Name of the Equipment</i>	<i>Cost (Rs.)</i>
Electronic Triaxial Test Aparatus	4,32,900.00
Electronic Shear Test Apparatus	2,26,413.00
Electronic Three Gang Bench Type Consolidometer	1,41,750.00
SPT Equipment and Accessories	73,902.38
Proctor Automatic Compactor	48,375.00
Hydraulic Jack with hand operated pump and 3m connecting pipe capacity 200t	47,250.00
CBR apparatus motorized	41,952.00
Swell pressure test apparatus	30,375.00
Universal Permeameter	24,675.00
Static cone Penetrometer 30KN(SCPT)-1 no	18,900.00
Relative density Apparatus-1 no	14,950.00
Plate Bearing Test Apparatus –1 no	14,638.00
CBR Moulds - 6 no's	14,188.00
Electrical operated sieve	13,500.00
Odeometer only- 1 no	13,244.00
Constant Pressure System (0.10 to0.5 kg/cm ²)-1 no	12,265.00
Sieves-20cm dia Brass frame-20.00mm-;4.75 mm-11no's 2.00mm-6 no's;1.00mm-5 no's	11,750.00
Liquid limit Motorized	11,475.00
Split Spoon Samplers -2 no's	10,077.00
Peremeability Moulds and Porous stones	10,600.00
SPT-drill rods -11 no's	9,918.00
Surcharge Weights-slotted -18 no's	8,857.00
Hot air Oven chambers-3 no's	8,100.00
SPT –kit -1 set	8,005.00
Motorised Direct shear Apparatus-1 no	7,275.00
Test Sieves	6,300.00
Consolidation Machine-1 no	5,100.00
Pore Pressure Apparatus-0.20kg/cm ² complete set:1	5,040.00
Shrinkage Limit	5,040.00
Laboratory CBR test Apparatus-Hand operated-1no	4,975.00
Liquid limit hand operated	4,500.00
A-Drill rods -6 no's	4,899.00

CBR Test Appartius	3,600.00
Vicksberg Penetrometer(Proving ring type)-1 no	3,670.00
Infra red Moisture meter-1no	3,760.00
Triaxial cell with stationary Bushing-1 no	2,940.00
Sensitive volume change gauge - 1no	2,620.00
Sieve shaker –Hand operated-1 no	2,320.00
Sampling outfit-Heavy duty –1 no	2,870.00
Vane shear Apparatus-Motorised -1no	2,800.00
Split Spoon Sampler 5 No's	33,500.00
A Drill Rods 1.5 Mtr 5 No,s	15,000.00
A Drill Rods 0.75 Mtr 5 No,s	11,000.00
Adopters 10 No,s	6,000.00
Test Sieves Brass 20 Cm Dia 4.75mm, 2.36mm, 2.0mm, 600mic, 150mic, 75mic, 425mic, Lid and Pan	8,800.00
Borosil Measuring Jar 1000 ml, 100 ml, 50 ml,	21,900.00
Big Sqatula 12 No's	960.00
Electronic Balance 5 kg capacity with 1 gm 1 no 5,500-00	5,500.00
Weigh Box x 0.5 mg -200 gm 5 no's	6,000.00
Unconfined Compression Testing Moulds 1 no	3,020.00
Pycnometer Bottles 6 No's	5,100.00
Density Bottles 50 ml 60No's 2,700-00	2,700.00
Set of liquid Limit ASTM Grooving tool Casagrande Grooving tool and Gauge Block 2 set's	1,200-00
Permeability moulds, variable head, constant head, CBR moulds Complete set, Dial Gauge, Proctors Light Compaction Moulds, Soaking Tank, Aluminium tins, PlasticJars(50ml,100, 250,500,1000ml), Weighing Balance.	319843-00
Drill Rods of length 2.00 m (8), 1.5m(8),1.0m(8),0.5m(8) , split spoon samplers(10) and adopters(20)	290044-00
Total	20,45,135-38

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3. SURVEYING LAB

Name of the Equipment	Cost
PENTAX Electronic Total Stations	12,30,000.00
TOPOCON Electronic Total Station	3,35,000.00
Electronic Theodolites	3,40,000-00
Vernier Theodolites	5,15,085.00
Plane Table sets	24,500.00
Automatic Levels	2,30,100.00
Levelling staves	30,000.00
Prismatic Compasses	6,730.00
Wooden 4 m long	2,100.00
Surveyors Compass	794.00
Abney level	7,245-00
Penta graph	12,600-00
Planimeter	10,080-00
Garmin GPS	53,550-00
Miscellaneous (Ranging rods, tapes, cross staves etc)	10000-00
Total Cost Rs.	28,07,784-00

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**4. COMPUTER APPLICATIONS IN CIVIL ENGINEERING LAB
Hardware**

S.No	Name of the Equipment & Software	Cost Rs. Ps.
01	HP PRO TWR280 G9 INTEL 12TH GEN CORE I7-12700 PROCESSOR , 16GB DDR4 RAM, 512GB SSD, HP 19.5 LED MONITOR, OPTICAL MOUSE, HP KEYBOARD	2242000.00 (38 nos.)
02	Desktop HP 280 G4(Core I7 8th gen) 16 GB RAM, 1 TB HDD, HP 19.5” LED Monitor, USB Optical Mouse & KB	610500.00 (11 Nos)
03	DELL Optiplex 3020 Minitower Desktop PC- I7-4790(Quad core 3.6GHz, 8 MB cache, W/HD Graphics 4600), 16 GB RAM(2*8) 1600 MHz DDR3 Non ECC 1TB HDD, 18” LED Monitor – 33 at RP-23 lab(1 to Academic advisor, 2 to CACE lab)	1664000.00 (36 Nos)
04	HP Pro 3335 MT PC: AMD Athlon II X 2 B26 CPU/2GB DDR3-1333 RAM/500 GB 7200 RPM SATA HDD/HP Pro333 x/334/338x country kit/HP Pro 3335 series MT 300W APFC Chassis/HP USB Key Board & Optical Mouse/HP LV 1911 40.0 cm LED Monitor	604856.86 29(Nos)
05	Intel core 2 duo 2.8 GHz CPU Intel DG35 mother board/3.24GB RAM/365 GB HDD.Acer TFT LCD23”/DVD Optiarc RW AD-7220A/ MS Optical mouse &KB	29900.00 (1 Nos)
06	D-Link switches (16 port – 01) (24 port – 01)	12,000.00
TOTAL:		5151256.86

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Software's

01	Auto Desk Software (20 User)	2,08,000.00
02	Up gradation of Staad Pro 2002 to Staad Pro 2006 (5 User)	1,12,240.00
03	Ms Project Standard Education (10 User)	90,000.00
04	STAAD Pro V8i India Structural (STAAD BECN Bundle Perpetual License with IS Design Code BECN Bundle Consisting of STAAD Pro-STAAD Foundation Advanced & STAAD Beava software to work on WIN XP/WIN 7 5 User 21-06-2013	3,89,543.00
05	SELECT Subscription on STAAD Pro BECN Bundle Consisting of STAAD Pro & STAAD Foundation Advanced & STAAD Beava Software for Three Years 21-06-2013	92,697.00
06	SELECT Subscription on STAAD Pro BECN Bundle Consisting of STAAD Pro & STAAD Foundation Software for Three Years (14-06-2016 to13-06-2019)	1,08,775.00
07	ESRI India GIS Academy Program (EIGAP Plus 50 Users) – 03 years subscription. Training: E-Learning+03 days (1 Batch for 3 days, maximum 10 participants) of training as per the module agreed, training material and certification from ESRI India. 21-03-2019	8,26,000.00
08	Renewal of SELECT Subscription on Academic Perpetual offering for a period of 3 years (2019-2022) 13-07-2019	1,41,600.00
09	MATLAB Part No.ML Master License 31600366 Bapatla Engineering College License 4059835 Academic/concurrent /Perpetual 31-12-2021	4,68,592.00
10	ArcGIS Software Academic EIGAP-Basic 13-09-2022	9,86,015.00
	Total Cost	3423462.00

Hardware	51, 63,256.86
Software	34, 23,462.00

Total	85, 86,718.86

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5. ENVIRONMENTAL ENGINEERING LAB

Name of the Equipment	Cost
Shimadzu Atomic Absorption Spectrophometer	11,98,029.00
Imhoff Cones	865.76
Conductivity meter	6175.00
Muffle furnace , Amil Products(New)	34200.00
Lab Centrifuge	16,000.00
Digital pH meters (2)	20178.00
Hot air oven	33,000.00
Muffle Furnace	15,000.00
Wall mounted charts	12,388.75
Digital DO meter	11,286.00
Laboratory Oven,2007	12,000.00
Electronic Weighing Scale	9,739.00
Water still 8 lit/hr	1497.82
Hot Plate Rectangular size	2,600.00
Nephelo turbidity meter	7,904.00
Jar test apparatus	31490.00
Imported Jackson turbidity meter	4,737.20
Glassware	119402.05
Total Cost	15,36,492.58

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6. HYDRAULICS & HYDRAULIC MACHINES LAB

Name of the Equipment	Cost
Open Channel	3,45,774.00
Kaplan Turbine (Vertical Shaft Type) Test Rig.	1,52,250.00
Wind Tunnel (Demonstration)	1,51,200.00
Francis Turbine Test rig	57,876.00
Variable speed Centrifugal Pump Test Rig	36,000.00
Variable speed reciprocating Pump Test Rig	34,500.00
Major Loss and Minor Loss Apparatus	33,750.00
Orifice and Mouthpiece Apparatus	33,000.00
Pelton Turbine.	32,240.00
Apparatus For Impact Of Jet On Vanes.	31,500.00
Reynolds Apparatus	24,000.00
Bernoulli's Apparatus	22,500.00
Associated Runners & Impellers with Stand (6 Impellers + 4 Runners)	16,006.00
Venturi Meter & Orifice Meter Apparatus	13,650.00
Pipe friction apparatus	7,748.00
Irrigation Models	6,270.00
Stop Watches	6,390.00
Total Cost Rs:	10,04,654.00

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7. TRANSPORTATION ENGINEERING LAB

<i>Name of the Equipment</i>	<i>Cost</i>
Compression Testing Machine	80,309.00
Benkelman Beam	50,625.00
Thermo Statically Controlled Oven	27,585.00
C.B.R. Apparatus	27,586.00
Thermo Statically Controlled Oven	21,062.00
Ductility Testing machine	10,804.00
Marshall Stability Apparatus	10,343.00
Top Pan Electronic balance	10,500.00
Los angeles Abrasion Testing Machine	9,712.00
Proving Ring	7,072.00
Deval Attrition Testing Machine	6,510.00
Water Bath small	9,900.00
Bitumen extractor, manual	11,000.00
Penetrometer automatic type Elect. Operated, with timer	19,800.00
Ring and Ball apparatus electrically operated as per IS:1205	16,591.00
Flash point and fire point apparatus Cleveland IS:1448(P-69)	9,800.00
Tar viscometer with 4mm & 10 mm orificers, IS:1206, BS:2000	10,850.00
Kinematic Viscometer	75,668.00
Fine Aggregate Sieves Set	36,023.00
Dynamic Cone Penetrometer	20,868.00
Merlin	26,831.00
Standard Tar Viscometer	14,528.00
Automatic Compactor for Bituminous mixes	1,98,594.00
Marshall moulds (4" & 6" Dia)	68,021.00
Electric Oven	80,845.00
Abrasive Charge	6,441.00
Brookfield Viscometer-RVDV2T-EZ, Thermosel, Spindle-21	9,45,738.00
Elastic Recovery mould	12,744.00
Asphalt Mixer Theoretical Density Meter	71,903.00
Thin Film Oven	84,960.00

Buoyancy Balance	1,13,634.00
Bitumen Penetration Kit	4,190.00
Ductility Mould with base plate	48,278.00
Total Cost Rs:	21,49,315-00

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8. GEOLOGY LAB

Name of the Equipment	Cost
Micro Processor Based Resistivity Meter	1,25,195.00
Garmin Make Model etrex vista	16,603.00
Satellite Imageries – PAN, LISS-III, PAN+LISS-III, WiFS	24,750.00
Seismic Timer, Single Channel	21,840.00
Signal Stacking Resistivity Meter (Model SSR-MP-ATS)	253,110.00
Rocks & Minerals for Lab Display 7.5 cm approx.	57,565.00
Geological Specimens	
Streak Plates	
3D Raised Relief Models on Interior of the Earth	
3D Raised Relief Models on Rivers in Action (Water Cycle)	
3D Raised Relief Models on Rocks & Volcanoes	
3D Raised Relief Models on Volcanic System	
3D Raised Relief Models on Formation of Rocks	
3D Raised Relief Models on Model Earth Quake	
3D Raised Relief Models on Folds & Faults	
3D Self Framed Models on Rock Cycle	
Total Cost Rs	

BAPATLA ENGINEERING COLLAGE: BAPATLA

DEPARTMENT OF CIVIL ENGINEERING

LAB EQUIPEMENT PURCHASE DETAILS (2015-2023)

MATERIAL TESTING LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2015-2016	Cube Moulds(12Nos)	30,240-00
2015-2016	Shake Table	9,51,937-00
2015-2016	Density Bottle	6,620-00
2019-2020	Self-compacting concrete apparatus	32,898-00
2019-2020	Cylindrical moulds (20)	54,752-00
2019-2020	Cube moulds (20)	39,648-00
Total Cost of Purchase RS		1,116,095-00

SURVEYING LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2015-2016	GPS(3 Nos)	53,550-00
2015-2016	Total station Batteries	13,860-00
2015-2016	Pentax Total station(2 Nos)	6,93,000-00
2015-2016	Abney level (6 Nos)	7,245-00
2015-2016	Penta graph (6 Nos)	12,600-00
2015-2016	Planimeter (6 Nos)	10,080-00
2018-2019	Electronic Tholidates (2)	1,68,150-00
Total Cost of Purchase RS		958,485-00

ENVIRONIMENTAL ENGINEERING LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2017-2018	Jar Test, DO meter, Conductivity test	55,900-00
2017-2018	Hot air oven, Muffle furnace, Digital PH Meter	97,527-00
2019-2020	Plastic Jars(50ml,100ml, 250ml,500ml,1000ml)	17895.00
Total Cost of Purchase RS		171,322-00

TRANSPORTATION ENGINEERING LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2017-2018	Density basket, Pavement dynamic cone ,Briquette mould, Modified roughness indicating machine,Tar viscometer	75,927-00
2018-2019	Automatic Compactor for Bituminous Mixes , Marshall Mould, Compaction Mould steel, Cylindrical (AIM 55002), IS Test Sieves (Fine aggregate),Laboratory Electric Oven, Abrasive charge, Brookfield Viscosity equipment.	13,12,933-00
2019-2020	5mm Sieve Segregation test	1,416-00
2019-2020	Elastic Recovery mould (4)	12,744-00
2019-2020	Asphalt Mixer Theoretical Density Meter	71,903-00
2019-2020	Thin Film Oven	84,960-00
2019-2020	Buoyancy Balance	1,13,634-00
2019-2020	Bitumen Penetration Kit (3)	4,190-00
2019-2020	Ductility Mould with base plate (4)	48,278-00
Total Cost of Purchase RS		1,725,985-00

GEOTECHNICAL LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2017-2018	Split spoon sampler, Electric Oven, base plates, Rammers, Vane shear test apparatus, Hydrometers, Pycnometer	1,95,950/-
2018-2019	Electronic oven, Laboratory vane shear, Drill rods. Etc., Proctor Compaction Moulds, Sieves, Specific Gravity bottle, Core cutter, Sieve brass frame	5,10,236-00
2019-2020	Permeability Test Apparatus (Falling Head)	31,026-00
2019-2020	Permeability moulds set (2)	53,100-00
2019-2020	CBR moulds Complete set (4)	89,208-00
2019-2020	Dial Gauge (4)	16,312-00
2019-2020	Proctors Light Compaction Moulds (4)	52102.00
2019-2020	Plastic Jars(50ml,100ml, 250ml,500ml,1000ml)	17895.00
2019-2020	Weighing Balance	21484.00
2022-2023	Drill Rods of length 2.00 m (8), 1.5m(8),1.0m(8),0.5m(8), split spoon samplers(10) and adapters(20)	290044.00
Total Cost of Purchase RS		1,277,357-00

FLUID MECHANICS & HYDRAULIC MECHANICAL LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2019-2020	Bernoulli's, Orifice, Mouth piece and Reynolds Apparatus	2,74,704-00
Total Cost of Purchase RS		2,74,704-00

COMPUTER APPLICATIONS IN CIVIL ENGINEERING LAB		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2016-2017	Staad Pro Software Update	1,08,775-00
2018-2019	ESRI India -GIS software 50 users	8,26,000-00
2018-2019	HP 280 G4 Desktops (11)	6,10,500-00
2018-2019	Renewal of STAAD software	1,41,600-00
2021-2022	MATLAB	4,68,592-00
2022-2023	ESRI India -GIS software 50 users Renewal	9,86,017-00
Total Cost of Purchase RS		3,141,484-00

Engineering Geology Lab		
YEAR	EQUIPMENT PURCHASE DETAILS	COST OF EQUIPMENT
2019-2020	Signal Stacking Resistivity Meter (Model SSR-MP-ATS)	253,110-00
2019-2020	Rocks & Minerals for Lab Display 7.5 cm approx.	57,565-00
2019-2020	Geological Specimens	
2019-2020	Streak Plates	
2019-2020	3D Raised Relief Models on Interior of the Earth	
2019-2020	3D Raised Relief Models on Rivers in Action (Water Cycle)	
2019-2020	3D Raised Relief Models on Rocks & Volcanoes	
2019-2020	3D Raised Relief Models on Volcanic System	
2019-2020	3D Raised Relief Models on Formation of Rocks	
2019-2020	3D Raised Relief Models on Model Earth Quake	
2019-2020	3D Raised Relief Models on Folds & Faults	
2019-2020	3D Self Framed Models on Rock Cycle	
2019-2020		
Total Cost of Purchase RS		310,675-00

TOTAL EQUIPMENT PURCHASED FROM 2015 TO 2023 = 7,976,107-00--/

Bapatla Engineering College: Bapatla-522102

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

LAB EQUIPMENT DETAILS		
LAB-NAME	SYSTEM CONFIGURATION	TOTAL COST
CCLAB-1 PROGRAMMING LAB	HP PRO 280 G9 MT DESKTOP PCs INTEL 12 TH GEN CORE I7 – 12700 PROCESSOR 16 GB DDR4-2933 MHz RAM 512 GB M.2 2280 PCIe NVMe SSD INTEL UHD Graphics 770 HP 19.5" LED MONITOR	18,88,000/-
CCLAB-2 WEB TECHNOLOGY LAB	HP PRO 280 G9 MT DESKTOP PCs INTEL 12 TH GEN CORE I7 – 12700 PROCESSOR 16 GB DDR4-2933 MHz RAM 512 GB M.2 2280 PCIe NVMe SSD INTEL UHD Graphics 770 HP 19.5" LED MONITOR	18,88,000/-
CCLAB-5 DATA ENGINEERING LAB	HP PRO 280 G9 MT DESKTOP PCs INTEL 12 TH GEN CORE I7 – 12700 PROCESSOR 16 GB DDR4-2933 MHz RAM 512 GB M.2 2280 PCIe NVMe SSD INTEL UHD Graphics 770 HP 19.5" LED MONITOR	14,16,000/-
RPLAB-11 DATA SYSTEMS & ALGORITHMS LAB	DELL OPTIPLEX 3020 MINI TOWER DESKTOP PC INTEL CORE i7 – 4790 PROCESSOR 16GB RAM 1 TB DDR 3 NON-ECC HDD DELL E-SERIES E1916He 18.5" TFT LED MONITOR KEYBOARD & OPTICAL MOUSE UBUNTU LINUX	20,09,000/-
RPLAB-12 CLOUD PROGRAMMING LAB	DELL OPTIPLEX 3020 MINI TOWER DESKTOP PC INTEL CORE i7 – 4790 PROCESSOR 16GB RAM 1 TB DDR 3 NON-ECC HDD DELL E-SERIES E1916He 18.5" TFT LED MONITOR KEYBOARD & OPTICAL MOUSE UBUNTU LINUX	20,09,000/-
RPLAB-31 SKILL & PERSONALITY DEVELOPMENT PROGRAM CENTER	DELL VOSTRO 3670 I7 PROCESSOR/DDR4/1 TB/K/B/DOS/3YEARS 16GB RAM, DELL MONITOR 19.5" LED	20,01,280/-

Bapatla Engineering College: Bapatla-522102
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SERVERS DETAILS.

S.No.	SERVER CONFIGURATION	BILL NO. & DATE	QUANTITY	. COST
1	HPE D1 380 GEN 9 E5-2620 V4 2P 32 G INDIA SERVER 2 X	CORPOUT-3, 17.04.2018.	01	4,61,000=00
2	INTEL MODULAR STORAGE SERVER (MFSYS 35)	SL/1112/0104, 03.08.2011.	01	6,75,000=00
3	HP ML 150 GEN 9 4 LFF SERVER	CORPOUT-2, 17.04.2018.	01	1,41,750=00
			TOTAL	12,77,750

Bapatla Engineering College:: Bapatla
(Autonomous)
Department of Electronics and Communication Engineering



Equipment Cost Labwise

S.No	Name of the Laboratory	Cost of the Equipment
1.	Computer Center Lab	20,10,497
2.	Digital Electronics Lab	4,40,925
3.	Digital Signal Processing Lab	66,09,263
4.	Electronic Devices and Circuits Lab	7,28,995
5.	Communication Lab	67,46,418
6.	Internet of Things Lab	30,81,060
7.	Total (One crore ninety six lakhs and seventeen thousands and one fifty eight only)	1,96,17,158

Dr. B. Chandra Mohan

Dr.B.Chandra Mohan
HOD, ECE

Bapatla Engineering College:: Bapatla
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Department of Electronics and Communication Engineering



COMPUTER CENTER LAB

List of Equipment with Cost

S.No	Name of the Item	Qty	Total Amount in Rs
1.	Intel CORE I3™ Processor 3.40(3210) GHz, 8GB DDR3 RAM, 1 TB HDD,ADC 20" LED Monitor	39	10,02,857
2.	Intel DELL i7-4790 Processor 3.6 GHz, 16GB DDR3 RAM, 1TB HDD,DELL 19" LED Monitor	01	47,000
3.	Arduino board with USB cable	08	4,040
4.	Xilinx Artix - 7 Nexys - 4 DDR FPGA Kit	12	2,02,800
5.	Xilinx vivado software	25 user licence	1,43,800
6.	Mentor graphics design tool	25 user licence	3,50,000
7.	20 KVA UPS EMERSON(ITA - 2)	01	2,60,000
Total cost			20,10,497
Total amount of Twenty Lakhs Ten Thousand Four Hundred and ninety seven Rupees only			
Total Computers			40

Dr. B. Chandra Mohan

Dr.B.Chandra Mohan
HOD, ECE

BAPATLA ENGINEERING COLLEGE :: BAPATLA

DEPARTMENT OF ECE

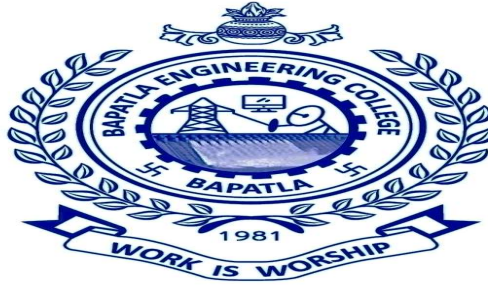
DIGITAL ELECTRONICS LAB LIST OF EQUIPMENT WITH COST

SL.NO.	NAME OF THE ITEM	QTY.	AMOUNT(RS)
01.	SCIENTECH (ST 223) CROs WITH FUNCTION GENERATOR	02	44,100.00
02.	SCIENTECH (CADDO 802) 20MHz CROs	02	28,000.00
03.	SCIENTECH 20MHz CROs WITH LOGIC SCOPE	02	31,500.00
04.	SCIENTECH 20MHz CROs WITH POWER SUPPLY	03	45,150.00
05.	SCIENTECH 20MHz CROs WITH CURVE TRACER	03	45,150.00
06.	SCIENTECH 1MHz FUNTION GENERATORS	05	27,987.00
07.	SCIENTECH 3MHz FUNTION GENERATORS	05	34,825.00
08.	E - TECH AUTOMATION DIGITAL CIRCUIT BOARDS	12	68436.00
09.	SS LAB EQUIPMENTS DIGITAL CIRCUIT BOARDS	11	61277.00
10.	SCIENTECH MULTIPLE POWER SUPPLY UNITS	05	32,900.00
11.	E - TECH AUTOMATION DC (0-30V) DUAL POWER SUPPLY	06	21,600.00
TOTAL COST			4,40,925.00
FOUR LAKHS FOURTY THOUSAND NINE HUNDRED TWENTY FIVE RUPEES ONLY.			



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Department of Electronics and Communication Engineering



DIGITAL SIGNAL PROCESSING LAB

List of Equipment with Cost

S.No	Name of the Item	Qty	Total Amount in Rs
1.	DSP Trainer Kits TMS320C5416	05	81,090
2.	DSP Trainer Kits TMS320C6713	05	81,090
3.	MATLAB 7.0.1 Software with 29 Tool Boxes	30 user	15,31,400
4.	8086 Trainer Kits	03	17,641
5.	Interfacing Modules	02	46,570
6.	Image Developer Kits	01	2,78,500
7.	DSP starter Kits	05	1,25,875
8.	Bloom with DSP (30 users)	01	66,500
9.	Intel DELL i7-4790 Processor 3.6 GHz, 16GB DDR3 RAM, 1TB HDD,DELL 19" LED Monitor	01	47,000
10.	Intel HP i7-4C Processor, 16GB DDR4 RAM, 1TB HDD,HP 19.5" LED Monitor	08	4,44,000
11.	20 KVA UPS EMERSON(ITA-2)	1	2,60,000
12.	Pen Table wacom CTL-672	06	35,046
13.	Intel HP PRO TWR280 G9,12 th gen Core i7-12700 Processor, 16GB DDR4 RAM, 512GB SSD HDD,HP 19.5" LED Monitor	62	36,58,000
Total Cost			66,09,263
Total amount of Sixty six Laks Nine thousand Two hundred Sixty Three Rupees only			
Total No.of Computers			71

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ELECTRONICS DEVICES AND CIRCUITS LAB

LIST OF EQUIPMENT

S.NO.	NAME OF THE EQUIPMENT	QTY.	TOTAL COST (RS)
01	20 MHz Cathode Ray Oscilloscopes	10	1,32,300
02	20 MHz Cathode Ray Oscilloscopes with logic scope	04	63,000
03	20 MHz Cathode Ray Oscilloscope with Power Supplies	02	30,100
04	20 MHz Cathode Ray Oscilloscopes curve Tracer	02	30,100
05	20 MHz Cathode Ray Oscilloscopes plain model	02	33,900
06	20 MHz Cathode Ray Oscilloscopes Demo Trainer	01	17,631
07	Function Generators 1 MHz	05	27,985
08	Function Generators 10 MHz	06	56,700
09	Function Generators 1 MHz	10	55,650
10	Function Generators 3 MHz	05	34,825
11	Circuit Designer Boards	21	1,19,763
12	Bread Board Trainer Kits	07	38,675
13	Multimeter Model : DM97	40	67,082
14	DC Power Supplies Multiple	14	92,120
15	Dual Power Supplies, 0-30V, 1A	10	37,440
16	DC Power Supplies Multiple	05	36,584
17	DC Power Supplies Multiple	10	79,200
18	3 KVA Stabilizer	01	5,200
Total Cost			7,28,995
Total Amount :Seven lakhs twenty eight thousand nine hundred ninty five rupees only			



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COMMUNICATION LAB

LIST OF EQUIPMENT WITH COST

S. No	Name of the Item	Qty	Total Amount in Rs.
1.	20 MHz CROs	20	3,01,000
2.	20 MHz CROs with Function Generators	04	88,200
3.	10 MHz Function Generator	02	18,900
4.	1MHz Function Generator	02	16,792
5.	100 MHz Digital Storage Oscilloscope Tektronix	03	2,02,800
6.	100 KHz - 1GHz RF Synthesized Signal Generator	01	3,33,956
7.	9 KHz-3 GHz Spectrum Analyzer Agilent	01	6,86,089
8.	Logic Analyzer	01	62,560
9.	LCR meter	01	13,563
10.	DATA Formatting And Carrier Modulation Trainer	01	12,710
11.	TV Dynamic demonstrator	01	12,750
12.	Adaptive Delta Modulation And Demodulation	02	31,620
13.	Delta Modulation And Demodulation	02	5,760
14.	TDM Pulse Code Modulation Transmitter Trainer	01	12,710
15.	TDM Pulse Code Modulation Receiver Trainer	01	12,710
16.	TDM Pulse amplitude Modulation &Demodulation	02	14,570
17.	FDM Trainer	02	22,940
18.	Sampling and Reconstruction Trainer	02	12,710
19.	DPSK Trainer	02	4,960
20.	PSK Trainer	02	4,960
21.	FSK Trainer	02	4,960
22.	PCM Trainer	02	9,360
23.	Amplitude Modulation &Demodulation Trainer	02	3,600
24.	Frequency Modulation &Demodulation Trainer	02	3,600
25.	Mixer Characteristics Trainer	02	3,600
26.	PWM Modulation &Demodulation Trainer	02	2,560
27.	PPM Modulation &Demodulation Trainer	02	2,560
28.	GSM Trainer	01	1,16,000
29.	Satellite Communication Trainer	01	86,400
30.	CDMA Trainer Kit	01	2,63,000
31.	DTMF Trainer Kit	01	12,560
32.	EPABX Trainer Kit	01	53,870

33.	ISDN Trainer Kit	01	2,93,000
34.	Fiber Optic Trainer Kits	06	2,75,516
35.	X-Band Microwave Bench setups (Gunn -1, Klystron-3, Scientech)	04	2,16,554
36.	K-Band Microwave Bench setup (Gunn , Vidyut Yantra)	01	2,51,948
37.	S-Band Microwave Bench setup (Klystron, Vidyut Yantra)	01	2,86,202
38.	Klystron power supply	01	21,290
39.	Physics of Fiber Optic System He Ne Laser	01	3,31,875
40.	Fiber Optic System Source and Detector Module	01	30,419
41.	Dual Wavelength Fiber Optic System Source and Detector Module	01	3,04,186
42.	Multi mode Fiber Optic cable Module	01	14,315
43.	Fiber Optic Power Meter	01	54,753
44.	5 K V A Voltage Stabilizer	01	4,370
45.	USRPHardware 2901 bundle with NI Lab View Software	01	5,60,103
46.	USRPHardware 5 users bundle with NI Lab view Software	01	8,52,886
47.	Intel core D 2.13 GHz	06	2,33,400
48.	Intel core I 3 3.20	01	25,714
49.	HP 280G4	10	5,55,500
Total Cost			67,46,418
Total amount: Sixty seven lakhs forty six thousand four hundred and eighteen Rupees only.			

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IOT LAB

List of Equipment with Cost

S.No	Name of the Item	Qty (Nos)	Amount (in Rs)
1	Physitech - Universal IoT Trainer 1412B	15 No	4,60,200.00
2	Opti Thought - NI myRIO-1900 University Purchase Incl. WIFI and MSP Connector	3 No	1,84,965.00
3	EdGate - Educational BoosterPack MKII	2 No	14,514.00
4	EdGate - Crossworks software for ARM	1 No	33,866.00
5	PIC 18 Development Board	2 No	26,550.00
6	ARM Cortex M4 IOT Development Board	2 No	30,798.00
7	Microchip AVR-IoT WG Development Board	1 No	2,598.37
8	Microchip AVR-IoT WA Development Board	1 No	2,551.65
9	Microchip PIC-IoT WA Development Board	2 No	5,103.31
10	STM32L4 Discovery B-L475E-IOT01A	2 No	9,120.99
11	NXP LPCXPRESSO LPC54018 IOT Module OM40007UL	1 No	4,016.83
12	NXP LPCXPRESSO LPC54018 Base board OM40006UL	1 No	14,237.54
13	TI TIVA C - EK-TM4C123GX Board	8 No	12,577.98
14	TI MSP432P401R	2 No	1,334.75
15	TI CC3100	8 No	18,303.06
16	Beagle Bone Black Wireless	2 No	13,014.45
17	TI MSP430F5529 Launchpad	2 No	2,669.24
18	TI MSP430G2553 Launchpad	2 No	2,638.83
	Equipment/Software Total		8,39,060.00
19	Desktop Computers Intel HP PRO TWR280 G9, 12 th gen Core i7-12700 Processor, 16GB DDR4 RAM, 512GB SSD HDD, HP 19.5" LED Monitor	38 No	22,42,000.00
	Total		30,81,060.00

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IOT Lab Equipment List				
S.No	Name of the Equipment	Quantity	Unit Cost	Total Amount
1.	ArduinoUNO RV3 with cable	15	360	5400/-
2.	Raspberry pi 3B with cable	5	2956	14780/-
3.	NODE MCU ESP8266	15	240	3600/-
4.	4 Channel Relay Module	5	138	690/-
5.	Bluetooth Module	5	194	970/-
6.	Bread Boards	15	52	780/-
7.	Temperature sensor	5	49	245/-
8.	Pulse sensors	5	174	870/-
9.	Soil moisture sensors	5	62	310/-
10.	Bipolar Stepper motor for DIY Projects	5	800	4000/-
11.	0.96 inch OLED Display	5	194	970/-
12.	Reed switch	5	35	175/-
13.	PIR Sensor	5	63	315/-
14.	Ultrasonic sensors	5	57	285/-
15.	Vibration Sensor	5	64	320/-
16.	Potentiometer	5	29	145/-
17.	DTH11 Sensor	5	98	490/-
18.	2-axis joystick	5	54	270/-
19.	USB to Micro USB Cable	5	67	335/-
20.	LED'S	50	1	50/-
21.	Buzzer	5	4	20/-
22.	Servo Motor 9g	5	112	560/-
23.	Multimeter and Cables	5	148	740/-
24.	Jumper wires (M-M,M-F,F-F)	500	2	1000/-

25.	ESP-32s Wireless Bluetooth/Wifi Module	5	471	2355
26.	SD card Reader Module	10	56	560
27.	MQ2 Gas/Smoke Sensor	10	85	850
28.	L293D Motor Driver	5	126	630
29.	MPU 6050 3 axis Gyroscope/ Accelerometer	5	79	395
30.	LM2596 Buck Voltage convertor	5	193	965
31.	W1209 Thermostat	5	98	490
32.	Adaptor 12V/1A	5	126	630
33.	LCD Display 16x2	5	87	435
34.	Arduino SMD Uno	20	516	10320
35.	Arduino board cable	20	46	920
36.	NODE MCU ESP8266	15	217	3255
37.	4 Channel Relay Module	20	217	4340
38.	Single Channel Relay Module	30	75	2250
39.	Bluetooth Module	5	259	1295
40.	Bread Boards	15	173	2595
41.	Pulse sensors	25	131	3275
42.	Soil moisture sensor	25	43	1075
43.	OLED Display	10	470	4700
44.	PIR Sensor	25	67	1675
45.	Ultrasonic sensors	25	66	1650
46.	Potentiometer	25	35	875
47.	DTH11 Sensor	25	91	2275
48.	Jumper wires(M-M ,M-F,F-F)	1300	2	2600
49.	LEDS	100	1	100
50.	Buzzer	25	17	425
51.	SERVO Motor 9g	25	108	2700
52.	Multimeter with probes	5	736	3680
53.	ESP32	5	408	2040
54.	L293D Motor driver	25	32	800
55.	Soldering rod (pencil type)	2	311	622
56.	Voltage sensor	10	132	1320
57.	Current sensor	10	128	1280
58.	Raspberry pi- 4B, 2GBram, adaptor, HDMI cable, 7inch LCD, 16GB card, case	5	13600	68000

59.	Bipolar stepper motor	10	85	850
60.	Camera sensors	10	512	5120
61.	1.8 Inch TFT Full-color Screen Module support Arduino UNO	5	482	2410
62.	HP Desktop/ i7 processor/12 th gen/ 16 GB RAM/ 500 GB SSD	35	60000	2100000
	Total Cost			22,39,757 /-

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Basic Electrical and Electronics Lab Equipment List

S.No	Name of the Equipment	Quantity	Unit Cost	Total Amount
	Machines:			
1	I KVA, 230V,1-Ø Transformer	4	2995	11980
2	1-Ø Auto Transformer 230V/(0-270)V	5	2005	10025
3	DC Regulated power supplies	8	10000	80000
4	1-Ø,230V/20A Loading Rheostats	2	7118	14236
5	MC Voltmeter (0-15V-30V-75V)	11	915	10065
6	MC Voltmeter (0-15V-30V)	3	735	2205
7	MI Ammeter (0-5)A	2	308	616
8	MI Ammeter (0-1.5A-3A)	2	810	1620
9	300V/600V-10A/20A,UPF Wattmeter	2	1345.50	2691
10	0-150V/300V/600V-2.5A/5A, LPF Wattmeter	1	2950	2950
11	Single tube Rheostats 8Ω/10A	7	1350	4050
12	Single tube Rheostats 20Ω/5A	5	560	2800
13	Single tube Rheostats 12Ω/5A	5	420	2100
14	Digital Multi meter	10	1677	16770
15	Diodes	400	1	400
16	Zener diode	400	2	800
17	Transistors	400	12	4800
18	Transformer	10	95	950
19	AAA batteries	50	8	400
20	Bread boards	40	175	7000
21	Resistors	200	0.5	100
22	Capacitors	40	4	160
23	Banana pins	400	7.50	3000
24	sockets	200	0.5	100
25	Led	6	70	420
26	flux	6	10	60
27	Soldering rod	4	200	800
28	Insulation Remover	6	55	330
29	Nose player	2	170	340
Grand Total				181768/-

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COMPUTER LAB

DETAILED LIST OF INSTRUMENTS AND EQUIPMENT :

COMPUTER LAB EQUIPMENT LIST :

S.NO	Name of the Equipment	Quantity	Unit cost (Rs/-)	Total Cost(Rs/-)
1	HP Intel Core I7 Processor (New)	25	60000	15,00,000
2	HP Intel Core I7 Processor	23	55500	12,76,500
3	Intel Core I3 Processor	20	27000	5,40,000
4	HP Amd Athlon	13	20857.14	2,71,142.82
5	Intel(R), core(TM) 2 Duo CPU	4	29900	1,19,600
6	P4 3.2Ghz	1	44000	44,000
7	Printer Epson LQ 1150	1	13800	13,800
8	Printer Epson Hp LJ 1020	1	6190.57	6190.57
9	3KVA stabilizers	1	5200	5200
10	10KVA online UPS system	2	110200	2,20,400
11	Network RACK	1	5289	5289
	Total Cost			Rs. 40,02,122.39

COMPUTER LAB SOFTWARE LIST:

S.NO	Name of the Equipment	Quantity	Unit cost (Rs/-)	Total Cost(Rs/-)
1	MATLAB 2020B	10 Users	7,25,909	7,25,909
2	Gate Lecturers CD Drive	1	11,500	11,500
3	Mipower 9.1	5 Users	2,24,200	2,24,200
4	Multisim (Spice based mix mode circuit simulation)	5 Users	29714	29714
5	PSIM	5 users	291950	291950
6	ETAP6.0	5 Users	219375	219375
7	PSCAD4.2.1	5 Users	281250	281250
	Total Cost			Rs. 18,13,612.00

Grand Total

Value of instruments equipment		
Software	Equipment	Grand Total
Rs. 18,13,612.00	Rs. 40,02,122.39	Rs. 58,15,734.39

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CONTROL SYSTEMS LAB EQUIPMENT LIST				
S.NO	Name of the item	QTY	Unit Cost	Total Cost
			Rs - Ps	
1.	First and second order system	2	500	1000
2.	P.I.D Controller	2	500	1000
3.	Stepper motor	1	4350	4350
4.	D.C Position Control System	2	11907	23,814
5.	Synchro transmitter and receiver pair	2	9923	19845
6.	Temperature controller using PID	2	15950	31900
7.	Characteristics of AC servo motor	2	11950	23900
8.	8085 Microprocessor Trainer Kit	3	3470	10,410
9	Opto Isolated Output Interface module	3	1590	4770
10	8085 Micro Processor Kits with power Supplies	3	5049	15,147
11	Lead -Lag Network Simulator	2	13,275	26,550
12	Transfer Function of D.C Motor Study Trainer	1	17,978	17,978
13	Linear System Simulator Kit	1	25,155	25,155
14	Magnetic Amplifier Kit	2	10,040	20,080
15	Effect of feedback on DC Servo motor	2	19580	39160
16	Simulation of Transfer function using Op-amp	2	6845	13690
17	Frequency Response of first and second order system	2	18480	39960
18	Effect of P,PI,PD,PID controllers on second order system	2	18480	39960
19	A.C Servo Motor speed torque characteristics	2	21000	42000
20	DC Position Control System	2	28600	57200
21	Temperature control using PID	2	32500	65000
22	Stepper Motor Control	2	9500	19000
23	PLC 3D Comprising PSU With 6 SAP Modules	1	135271	135271
TOTAL EQUIPMENT COST				Rs.6,77,140

ACCESSORIES AND INSTRUMENTS				
S.NO	Name of the item	QTY	Unit Cost	Total Cost
			Rs - Ps	
24	Regulated D.C Power supplies	3	940	2820
25	Audio tape Interface with cable	1	705	705
26	Dual scope ADC interface module	2	825	1650
27	DAC interface module	1	825	825

28	Relay interface module	1	4230	4230
29	Function Generators FG-18 Model	2	3213	6426
30	C.R.O's MD-201(20MHz oscilloscopes)	4	13,468	53,872
31	C.R.O's MD-201 with FG	4	15,885	63,420
32	C.R.O-20 MHZ Model:3305 (Dual Trace Oscilloscopes)	3	14,495	43,485
33	D.C R.P.S	1	5500	5500
34	3 ½ Digit Digital Multimeter	5	1600	8000
35	200 MHZ Digital Storage Oscilloscope	1	2,72,357	2,72,357
36	Portable Milli Ameters	24	710	17037
37	MECO Digital Multimeters	5	3550	17750
TOTAL INSTRUMENTS COST				Rs.4,98,077
GRAND TOTAL				Rs.11,75,217

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Bapatla Engineering College: Bapatla
Department of Electrical and Electronics Engineering

Electronics Design Lab

Accessories:

S.No	Name of the Accessories	Quantity	Unit Cost	Total Amount
1	Multimeters	12	550	6600
2	Insulation removers	10	50	500
3	transformers	20	100	2000
4	Node MCU(ESP8266)	20	275	5500
5	LCD (7inches)	5	3900	19500
6	Solar panels	5	1800	9000
7	Rasberrypi	5	5300	26500
8	Tweezers	25	50	1250
Grand Total				70850

Consumables:

S.No	Name of the Consumables	Quantity	Unit Cost	Total Amount
1	Resistors(1Kohm to 1Mohm)	10200	0.50	5100
2	Transistors(BC107)	50	12	600
3	Transistors(BC547)	400	1	400
4	Transistors(SK100)	50	12	600
5	FET	20	225	4500
6	IC 's	250	6.5	1625
7	IC 's(7400)	50	6.25	325
8	IC 's(7486)	50	9.5	475
9	IC 's(7410)	50	7.5	375
10	IC 's(7411)	100	8	800
11	IC's	300	10	3000
12	IC 's	150	12	1800
13	Diode(IN4007&IN4001)	800	0.50	400
14	BreadBoard	10	150	1500
15	MOSFET	20	70	1400
16	Batteries(9v)	50	12	600
17	Capacitors(10nf to330μf)	750	0.50	375
18	Inductors(1mh&10mh)	50	6	300
19	Variable Capacitors	10	0.50	5
20	Wire Coils	20	50	1000
21	Photo Diode	50	5	250
22	LED	200	1	200

23	Desoldering strip	20	15	300
24	LDR	50	5	250
25	Soldering iron stand	20	350	7000
26	General purpose PCB(4*6)	100	30	3000
27	Battery s(500 mah,5v,LIPO)	20	80	1600
28	Power Relay	20	85	1700
29	Sensors(Infrared)	20	40	800
30	Sensors(Ultra sonic)	10	80	800
31	Sensors(Light intensity)	10	250	2500
32	Sensors(Voltage)	5	100	500
33	Power Transistor's	10	40	400
34	Soldering iron station	1	1500	1500
36	Optocupler	50	15	750
37	Ic base(8 pin)	200	1	200
38	Ic base(10&14pin)	400	2	800
39	Jumper pins	100	6	600
40	Jumper Wires	800	1.5	1200
Grand Total				49530

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Bapatla Engineering College: Bapatla
Department of Electrical and Electronics Engineering

Electronic Devices Lab

Equipment List:

S.No	Name of the Equipment	Quantity	Unit Cost	Total Amount
1	1MHZ Function generator	9	5119	46,069
2	30MHZ Dual trace oscilloscope	12	14254	1,71,045
3	Multiple DC power supply	12	6693.7	80,325
4	Bread board Trainer kits	06	5645	33,870
Grand Total				3,31,309

Consumables:

S.No	Name of the Consumables	Quantity	Unit Cost	Total Amount
1	Resistors(100Ohmto 120Mohm)	16907	1	16907
2	Transistors	585	11	6435
3	FET	130	175	1950
4	P N junction diode	500	1	500
5	Zener Diode	150	2	300
6	Multimeters	30	1452	43560
7	InsulationRemovers	3	35	105
8	ScrewDriver	6	20	120
9	Transformers	5	70	350
10	BreadBoard	15	175	2625
11	UJT	10	45	450
12	MultimeterBatteries	10	5	50
13	Capacitors	1350	1	1350
14	Inductors	10	10	100
15	WireCoils	7	250	1750
16	CrocodileCable	40	127.5	5100
17	CrocodileClips	30	5	150
18	BananaPins	225	8	1800
19	Crystaloscillator	35	8	280
20	Precision screw driver	4	20	80
21	Screwdriverset	2	180	360
22	LED	75	1	75
23	LDR	28	15	420
24	Noseplayer	1	165	165
25	Forceps	1	15	15
26	Solderingironstand	1	50	50

27	SolderingStation	1	1800	1800
28	SCR	5	25	125
29	Multimeter probes	15	85	1275
30	PCB Boards	200	10	2000
31	IC7476	100	175	17500
32	IC7400 &7402, 7404	1350	6.50	8775
33	IC7486	300	10	3000
34	IC7410	350	10	3500
35	IC7432	400	7.5	3000
36	IC7408	530	7	3710
37	IC7411	350	10	3500
38	IC7815	50	10	500
39	IC7805	55	10	550
40	IC555	150	8	1200
Grand Total				135432

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Dr. N Rama Devi

BAPATLA ENGINEERING COLLEGE:: BAPATLA

EEE DEPARTMENT

Lab Equipment cost

Sno	Lab Description	Cost
1	BEE lab cost	1,81,768/-
2	EEE Computer centre Lab	58,15,734/-
3	Control Systems Lab	11,75,217/-
4	Electronics Design Lab	1,20,380/-
5	Electronic Devices Lab	4,66,741/-
6	Electrical Measurements Lab	8,84,011/-
7	ELECTRO MECHANICS LAB – I	18,96,003/-
8	IOT Lab	22,39,757/-
9	MPMC Lab	1,00,994/-
10	Power Electronics Lab	33,24,263/-
11	Power Systems Lab	28,47,324/-
12	EM-II Lab	30,58,983/-
	Grand Total	2,21,11,175/-

Department HOD
Dr. N Rama Devi

Bapatla Engineering College: Bapatla

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Electrical & Electronics Engineering Department Electrical Measurements Lab

Equipment:

Sl. No.	Description of the Item	Quantity	Each cost in Rs/-	Total cost in Rs/-
1	Transformer Oil Testing Kit (0-60KV)	1	20548-00	20548-00
2	Transformer Oil Testing Kit (0-100KV)	1	188210-00	188210-00
3	Wheatstone Bridge	1	2085-00	2085-00
4	Anderson Bridge	1	1500-00	1500-00
5	1KVA 230/230V Transformer	1	2995-00	2995-00
6	1-phase Auto transformer 6A	3	1699-00	5196-00
7	Spot Reflecting Galvanometer	1	1705-00	1705-00
8	Super sensitive galvanometer	1	435-00	435-00
10	Ballastic Galvanometer	1	870-00	870-00
11	Phase sequence meter	1	495-00	495-00
12	Schering Bridge Kit	1	4227-00	4227-00
13	1-Phase energy meter test bench	1	130500-00	130500-00
15	Thermocouple Characteristics kit	2	6360-00	12720-00
16	RTD Module kit	2	6280-00	12560-00
17	Thermistor Characteristics and Temperature Measurement kit	2	6360-00	12720-00
18	Characteristics of photo transistor kit	2	11960-00	23920-00
19	LVDT Module kit	1	9560-00	9560-00
20	Strain gauge kit	2	9560-00	19120-00

Accessories:

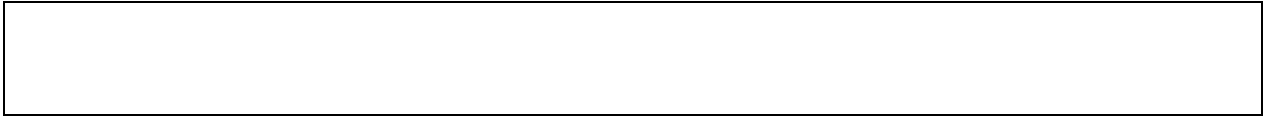
Sl. No.	Description of the Item	Quantity	Each cost in Rs/-	Total cost in Rs/-
1	DC RPS (0-30V/5A)	1	5500-00	5500-00
2	1-Phase energy meter 5/10A	1	300-00	300-00
3	Oscilloscopes Model 201	2	13468-00	26936-00
4	Oscilloscopes Model 201 FG	2	15855-00	31710-00
5	Function Generator FG 18	1	3213-00	3213-00
6	Cable Fault Locator	1	217266-00	217266-00
7	5KV Insulation tester	1	120114-00	120114-00
	Digital Multi meter	2	1480-00	2960-00
8	Dynamometer type ammeters:			
	0-2.5A/5A	1	1150-00	1150-00
	0-5A/5A	2	1150-00	2300-00
9	M.I Ammeters			
	0-1.5A/3A	2	810-00	1620-00
	0-5A/10A	2	810-00	1620-00
10	M.C Ammeters			
	0 - 5A / 10A	1	930-00	930-00
	0 - 1.5A / 3A	3	930-00	2790-00
11	Dynamometer type volt meters:			
	0 - 125V / 250V	2	675-00	1350-00
	0 - 15V / 30V / 60 V	2	720-00	1440-00
	0 - 62.5V /125V/250V	1	886-00	886-00
	0 - 75V /150V/300V	2	886-00	1772-00
12	M.I Voltmeters			
	0 - 150V /300V/600V	2	835-00	1670-00
13	Portable wattmeters			
	50V / 100V / 200V, 1/2A	2	781-00	1562-00
	125V / 250V / 500V, 10/20A	2	820-00	1640-00
14	Powerfactor meters			
	125V / 250V/ 500V, 10/20A	2	919-00	1838-00
15	Wattmeters:			
	62.5V / 125V / 250V, 1/2AL.P.F	1	1150-00	1150-00
	75V / 150V / 300V /, 2.5/5A U.P.F	2	974-00	1948-00
16	Rheostats			
	8 ohms / 10A	1	980-00	980-00

Grand Total cost: Rs.8,84,011-00

Department HOD
Dr. N Rama Devi

BAPATLA ENGINEERING COLLEGE ::BAPATLA**EEE DEPARTMENT****ELECTRO MECHANICS LAB – I EQUIPMENT LIST**

Electro Mechanics Lab-I				
S. No	Name of the Equipment	Qty	Unit-cost	Total Cost
	INDUCTION MACHINES			
1	3 KW,3-Phase induction generator coupled to 3Hp DC shunt motor with DOL & 4-point starter	1	26000	26000
2	5HP,3-phase Slip ring Induction motor	1	18767	18767
3	5HP,3-phase Slip ring Induction motor starter panel	1	5810	5810
4	1HP,1-phase capacitor start induction motorwith brake drum loading	1	9200	9200
5	3-phase,3-HP,415V,1440rpm Squirrel cage induction motor with brake drum	1	13747	13747
	SYNCHRONOUS MACHINES			
6	7.5 HP 3-PHAE,415V SYNCHRONOUS MOTOR WITH MECHANICAL LOADING ARRANGEMENTWITH STAR-DELTA STARTER	1	162354	162354
7	3 KVA 3-phase alternator-3KW,DC compound motor with 4-point starter	1	32000	32000
8	3.5KVA,3-phase alternator-5HP,DC compound motor set	2	29569	59138
9	static excitation with starter and field regulator	2	5355	10710
10	5HP,3-phase synchronous motor-3KW DC shunt generator set	2	31526	63052
11	3-phase,5KVA,415V,1500rpm DC Compound machine 7.5HP 220V,1500rpm alternator set	1	62820	62820
12	3-phase,3KVA,415V,1500rpm DC Compound machine 3.5kw220V,1500rpm alternator set	1	43380	43380
13	5HP,220V,1500rpmDC Shunt motor coupledto 3 KVA,415V,4-POLE SALIENT POLE Alternator set	1	80550	80550
14	5HP,220V,1500rpmDC Shunt motor coupledto 3 KVA,415V,4-POLE Cylindrical POLE Alternator set	1	80550	80550
15	DC 3-POINT Starter	1	3000	6000
16	DC Static Rectifier 220V,100A	1	125000	125000
17	POWER NETWORK ANALYER	1	600000	600000
Total Cost			Rs.13,99,078	



**ACCESSORIES &
INSTRUMENTS**

	LOADING RHEOSTATS	Qty	Unit cost	Total Cost
18	3-phase Resistive load,15A	1	15165	15165
19	3-phase variable inductive load,15A	1	12922	12922
20	3-phase Resistive load,15A	1	13200	13200
21	1-phase Resistive load,15A	2	7118	14236
22	1-phase Resistive load,15A	2	6280	12560
23	1-phase Resistive load,20A	2	13200	26400
	AUTO TRANSFORMERS			
24	3-phase Varaiac, 20-Amps	3	9859	29577
25	1-phase Varaiac 15-Amps	2	3825	7650
26	3-phase Varaiac 20-Amps	1	11200	11200
27	1-phase Varaiac 8-Amps	8	2005	16040
	TRANSFORMERS			
28	5kva,3-phase transformer +2.5%,5% tapping	2	8200	16400
29	1-KVA ,1-Phase Transformers	4	2995	11980
30	1-KVA ,1-Phase scott connected transformers	2	2995	5990
31	1-KVA ,1-Phase scott connected transformers	2	3400	6800
32	1-KVA ,1-Phase with 50% tapping transformer	1	3400	3400
	WATTMETERS			
33	UPF Wattmeter 300/600V,10/20A	2	1346	2692
34	LPF Wattmeter150/300/600 - 2.5A/5A	7	3050	21350
35	LPF Wattmeter150/300/600 - 2.5A/5A	2	2550	5100
36	LPF Wattmeters 125/250/500 - 2.5A/5A	3	1120	3360
37	LPF Wattmeter150/300/600 - 1A/2A	2	3050	6100
38	UPF Wattmeter150/300/600 - 5A/10A	15	1370	20550
39	UPF Wattmeter (F&R)150/300/600 - 5A/10A	8	1480	11840
40	UPF Wattmeter (F&R)150/300/600 - 5A/10A	6	1650	9900
41	LPF Wattmeter150/300/600 - 2.5A/5A	5	2950	14750
42	LPF Wattmeter150/300/600 - 1A/2A	5	2950	14750
	MI VOLTMETERS			
43	0-125-250V	1	675	675
44	0-250-500V	1	320	320
45	0-300-600V	4	838	3352
46	0-150-300V-600V	16	835	13360
47	0-15/30/60V	6	835	5010
48	0-75-150V	9	810	7290
	MI AMMETERS			
49	0-5A	3	308	924
50	0-5-10A	13	801	10413
51	0-1.5-3A	5	810	4050
	MC VOLTMETERS			
52	0-15V/30V	1	735	735
53	0-150V/300V	3	400	1200
54	0-150V/300V	10	880	8800
55	0-15V/30/75V	2	915	1830
56	0-150V/300V/600V	3	1275	3825

M C AMMETERS				
57	0-1/2A	1	776	776
58	0-5A	1	705	705
59	0-10A	3	705	2115
60	0-15A	2	370	740
61	0-1.5/3.0A	7	930	6510
62	0-5A/10A	3	930	2790
63	0-10A/20A	5	1190	5950
RHEOSTATS				
64	single tube rheostats,12ohm/5A	1	420	420
65	single tube rheostats,20ohm/5A	1	560	560
66	Double tube rheostats,600ohm/5A	6	2000	12000
67	single tube rheostats,50ohm/5A	7	1180	8260
68	single tube rheostats,350ohm/5A	7	1280	8960
69	double tube rheostats,600ohm/5A	3	1680	5040
TACHOMETERS				
70	Digital Contact type	3	1284	3852
71	Digital Contact type	5	1650	8250
72	Digital Non-Contact type	2	3800	7600
73	Synchroscope	2	5984	11968
74	DC Regulated power supplies 0-30V/5A	1	5500	5500
75	Oscilloscope Model-201	2	13468	26936
76	Tool Kit	1	2180	2180
Total			Rs.4,96,925	
			Grand Total:	Rs.18,96,003

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Department of EEE

Micro processor and Micro controllers Laboratory equipment list

S.No	Name of the Equipment	Quantity	Unit Cost	Total Amount
1.	8086 Microprocessor trainer kit (Micro 86 LCLCD)	10	4,910.20	49,102.00
2.	8051 Micrcontroller trainer kit (Micro 51 LCLCD)	10	3,927.40	39,274.00
3.	Keyboard & display interface board (VBMB 001) (8259)	1	1855.00	1855.00
4.	2 Channel DAC interface board (VBMB 002) (8279)	1	1715.00	1715.00
5.	8 Channel ADC interface board (VBMB 003) (8255)	1	1491.00	1491.00
6.	8251 & 8253 interface board (VBMB 004) (8251)	1	1365.00	1365.00
7.	8259 Interface board (VBMB 007) (ADC Interface)	1	1607.00	1607.00
8.	8255 Interface board (VBMB 008) (DAC Interface)	1	1607.00	1607.00
9.	Elevator simulator interface (VBMB 022)	1	1607.00	1607.00
10	Traffic light control system (TLC)	1	770.00	770.00

Total Cost in **Rs. 1,00,994/-**

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Electronics and Instrumentation Engineering

LABORATORY EQUIPMENT DETAILS (2023-24)

COST OF THE INSTRUMENTS & EQUIPMENT IN THE LABS

S.No.	Name of the Lab	Value of instruments and equipment in each Lab		
		Instruments	Equipment	Total
01	EIE Computer Center	2,41,199-00	43,66,010-00	46,07,209-00
02	Embedded Systems Lab	1,00,000-00	18,54,733-00	19,54,733-00
03	Process Control Lab	6,33,052-00	26,57,227-00	32,90,279-00
04	Bio-Medical Lab	3,43,100-00	18,23,570-00	21,66,670-00
05	Transducers Lab	0-00	5,50,007-00	5,50,007-00
06	Measurements Lab	1,71,276-00	3,13,879-00	4,85,155-00
TOTAL COST OF THE LABS:		14,89,627-00	1,15,65,426-00	1,30,54,053-00


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Electronics and Instrumentation Engineering Department


1. EIE COMPUTER CENTER

List of Instruments with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	20 KV On Line UPS System	01	1,95,700-00
02	3 KV Online UPS	01	45,499.00
TOTAL COST OF THE INSTRUMENTS:			2,41,199-00

List of Equipment with cost:

S.No.	Name of the Equipment	Qty	Total Cost
01	Multisim Edu Version 25 users Licence	01	2,08,000-00
02	VLSI Design Suite: (Plus Edition)	01	1,49,760-00
03	NI Academic Site License Department Teaching license Includes 1 year SW Maintenance, Lab View PDS Meas, Studio, Imaq Vision, Lab VIEW RT and Lab and Hard ware.	01	15,00,000-00
04	CPU P-IV 1.86D, M/B Intel 0 946 GHz, 1 GB DDR RAM, HDD SEGATE 250 GB, M/S Wired desktop Black, Cabinet P IV ATX,AOC LCD 17" SONY DVD COMBO,FDD 1.44.Intel 946 Motherboard	24	9,57,600-00
05	Dual Core 3.4 GHz, 945 MOTHER BOARD,1 GB RAM,250 GB SATA HDD,17" SONY TFT LCD MONITOR OPTICAL MOUSE, KEYBOARD	11	4,94,450-00
06	Servers P-III 1.4 GHZ, 512, CACHE, 1GB ECCRAM, 3682 GB HDD, 8X DVD, 1.44 FDD,LG COLOR MONITOR , KB, MOUSE	02	3,96,400-00
07	Server Intel xeon 5060 Dual Core Processor 3.20 GHz	01	2,94,000-00
08	HP SERVERS	02	3,65,800-00
TOTAL COST OF THE INSTRUMENTS:			43,66,010-00


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Electronics and Instrumentation Engineering


2.EMBEDDED SYSTEMS LAB

List of Instruments with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	DSP Starter Kit TMS 320C6416 With CCS - 02	02	50,000-00
02	DSP Starter Kit TMS 320C6713 With CCS - 02	02	50,000-00
TOTAL COST OF THE INSTRUMENTS:			1,00,000-00

List of Equipment with cost:

S.No.	Name of the Equipment	Qty	Total Cost
01	VX WORKS EMBEDDED SYSTEM SOFTWARE (05 USERS) SBC 741 PPC HARDWARE	01	11,91,683-00
02	Code Composer Studio all Software Development Tool for all Texas DSP Processors - 01	01	71,250-00
03	Hp desktop with accessories	06	1,80,000-00
04	Core 2 Duo 2.13 GHz / Intel 975 Mother Board 1GB DDR2 RAM/1.44 FDD/Sony DVD Combo 250GB SATA HDD/NIC, 19" TFT LCD Monitor (AOC), Micro soft Key Board, Microsoft Mouse, Power Cards.	08	3,11,200-00
05	P-IV 2.4 GHZ, 40GB HDD, 1,44 FDD, KB, MOUSE, 32 BIT ETHERNET CARD, 845 GVAD MOHTER BOARD	02	65,700.00
06	P-IV 2.4 GHZ, 40GB HDD, 1,44 FDD, KB, MOUSE, 32 BIT ETHERNET CARD, 865 GVAD MOHTER BOARD 512 MP RAM	01	34,900.00
TOTAL COST OF THE INSTRUMENTS:			18,54,733-00


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Electronics and Instrumentation Engineering

3. PROCESS CONTROL LAB

List of Instruments with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	Air Compressor (Eligi-Make 100B) - 01	01	20,132-00
02	2KV servo controlled voltage stabilizer -01	01	4,370-00
03	Air Compressor 100 Litres ,1.5hp,ELGI, 10kg / cm2 - 01	01	36,000-00
04	P-IV 2.4 GHZ, 40GB HDD, 1,44 FDD, KB, MOUSE, 32 BIT ETHERNET CARD, 845 GVAD MOHTER BOARD	03	98,550-00
05	P-IV 2.4 GHZ, 40GB HDD, 1,44 FDD, KB, MOUSE, 32 BIT ETHERNET CARD, 845 GVAD MOHTER BOARD	06	1,97,100.00
06	Core Duo 2.80 GHZ DG35EC MOTHER BOARD, 4GB Ram,23.5 inch Accer monitor , 500 GB HDD, DVD WRITER, KEY BOARD, MOUSE.	06	1,79,400.00
07	P-IV 3.2 GHZ, 256 MB,80GB HDD, 32 BIT ETHERNET CARD, 32 BIT AGP PCI VGA CARD, KB, MOUSE, 15" COLOR MONITOR 845 mother board	01	42,900.00
08	P-IV 3 GHZ, INTEL 915 MOTHER BOARD	01	39,000.00
09	3 KV Server Stabilizer	01	15,600.00
	TOTAL COST OF THE INSTRUMENTS:		6,33,052-00


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List of Equipment with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	Digital Multi Meters (M : AS 9208 L)	03	4,350-00
02	Computerized Closed Loop Flow Control System	01	1,56,641-00
03	Computerized Closed Loop Level Control System	01	1,08,444-00
04	Computerized Closed Loop pressure Control System	01	1,08,444-00
05	Computerized Closed Loop Temperature Control System	01	1,56,641-00
06	Data Acquisition Unit DAQ	01	12,367-00
07	Ratio control loop -01 with PC	01	1,25,867-00
08	Cascade control loop	01	1,16,383-00
09	Feed-forward loop	01	1,15,880-00
10	Level Process controller- CE(VLPA-101-CE) Pressure Process with PC	01	1,17,620.00
11	Flow Process controller - CE(VFPA-201-CE) with PC	01	1,57,724.00
12	Temperature Process Controller - CE(HEAT EXCHANGER) (VTPA-H-351-CE) with PC	01	1,34,036.00
13	Controller- CE(VPPA-401-CE)	01	1,06,480.00
14	Control Valve (Component Study) Trainer :[VCVT-04]	01	22,136.00
15	I/P & P/I Converter Trainer	01	42,888.00
16	Flapper Nozzle system:[VFNS-01]	01	31,748.00
17	Interacting and Non - Interacting Trainer [VINT-01]	01	33,664.00
18	Flame Photometer	01	29,015-00
19	Digital PH Meter	01	5,800-00
20	Colorimeter	01	9,190-00
21	PLC Trainers	10	2,02,760-00
22	PLC Based Level Control	01	2,67,784-00
23	PLC Based Pressure Control	01	
24	PLC Based Motor Speed Control	01	

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S.No.	Name of the Equipment	Qty.	Total Cost
25	PLC (Vikasha) Modules	03	30,000-00
26	Stepper Motor Controller(SMC)	01	3,984-00
27	DSP Trainer Kit	01	11,620-00
28	FHP Motor Speed Control Unit	01	3,984-00
29	Temperature On/Off with Sensor	01	3,984-00
30	Level Controller Module(LCM)	01	13,612-00
31	Pressure Control Module(PCM)	01	13,612-00
32	Process Control Simulator	02	23,964-34
33	Micro Controller Kits	05	24,815-00
34	CatI/C HODe Ray Oscilloscope (201)	02	33,900-00
35	PLC Trainer kits(S7-1200)-SEIMENS	03	4,27,890-00
TOTAL COST OF THE INSTRUMENTS:			26,57,227-00

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Electronics and Instrumentation Engineering


4. BIOMEDICAL INSTRUMENTATION LAB

List of Instruments with cost:

S.No.	Name of the Equipment	Qty	Total Cost
01	P-IV 2.4 GHZ, 40GB HDD, 1,44 FDD, KB, MOUSE, 32 BIT ETHERNET CARD, 845 GVAD MOHTER BOARD	04	1,31,400.00
02	Dual Core 3.4 GHz, 945 Mother Board,1 GB RAM, 250 GB Sata HDD,17" Sony TFT LCD Monitor Optical Mouse, Keyboard	04	1,71,800.00
03	Core due CPU P-IV 0.946 GHZ, 1GB DDR RAM, HDD SEGATE 250GB	01	39,900.00
	TOTAL COST OF THE INSTRUMENTS:		3,43,100-00

List of Equipment with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	Blood Flow System With Pulse Oxymeter (Dicrowin)	01	85,000-00
02	ECG Polygraph	01	30,000-00
03	EEG Polygraph	01	95,000-00
04	EMG Polygraph	01	95,000-00
05	Defibrillator Demo Type	01	57,000-00
06	Measurement of Heart Sounds	01	35,000-00
07	BP Monitoring Unit	02	23,210-00
08	Dialyzer Unit	01	53,195-00
09	Diathermy Unit	01	21,280-00


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S.No.	Name of the Equipment	Qty.	Total Cost
10	Pulse Oximeter Unit	01	28,050-00
11	Pace Maker	01	28,050-00
12	Blood Flow Measurement	01	24,180-00
13	Blood cell counter	01	76,570-00
14	Tread Mill	01	91,885-00
	Accessories :		
	i) Stress test System	01	87,050-00
	ii) ECG Arrthmia simulator	01	28,210-00
	iii) Bio signal Amplifier	01	52,390-00
	iv) PCO2 Detector	01	74,960-00
	v) Digital Weight Machine	01	2,340-00
15	Polyrite D For measurement of (ECG,EMG,EEG,EOG, Respiration Blood Pressure, Heart sound, GSR, PPG(Plethysmograph,) Temperature, Force)	01	2,90,000-00
16	PC Based ENG	01	2,20,000-00
17	PC Based Spiro meter	01	29,120-00
18	ECG 12 channel with Interpretation	01	33,280-00
19	Blood Analyzer	01	1,27,600-00
20	Digital Storage Oscilloscope	02	1,35,200-00
21	Inverter 500w with the kit and spare parts and material	01	7,000-00
22	EM 60 EXIDE MAX MF Batteries with charged	02	8,022-00
			1,685-00
TOTAL COST OF THE INSTRUMENTS:			18,23,570-00

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Electronics and Instrumentation Engineering

5. TRANSDUCERS LAB

List of Equipment with cost:


S.No.	Name of the Equipment	Qty.	Total Cost
01	LDR/Photo Diode / Photo Transistor Trainer	01	4,504-50
02	Displacement Measurement Using LVDT	02	17,900-00
03	Transfer Characteristics of Thermo Couple (T/C)	02	5,980-00
04	Weight Measurement Using Load Cell	02	17,900-00
05	Pressure Module	02	18,500-00
06	RTD Module	02	7,380-00
07	Speed Measurement Using Photo Electric& Magnetic Pickup	02	19,162-50
08	Position Transducer Synchro Tr & Rr	02	18,375-00
09	LDR Module	02	5,162-50
10	Temperature Measurement System Using Thermister (INSVT)	02	5,057-50
11	Analog PH Meter with glass & Reference Electrode	02	9,000-00
12	Vibration Measurement System	01	29,250-00
13	Humidity Measurement System	01	29,250-00
14	CatI/C HODe Ray Oscilloscope (M : 201)	03	50,850-00
15	Function Generator	02	18,900-00
16	Digital Multi Meters (M:603)	05	7,000-00
17	LVDT with dial Gauge IT 5(b) N	01	9,495-00
18	Temperature Measurement Using RTD ,IT-4N	01	3,915-00
19	Transform Characteristics of thermistor , IT-3	01	3,231-00


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S.No.	Name of the Equipment	Qty.	Total Cost
20	Speed Measurement Unit, IT - 1 N	01	13,635-00
21	Study of light dependent resistor, IT-10	01	3,231-00
22	Characteristics of thermo Couple ,IT-2N	01	4,095-00
23	Weight Measurement Using Load cell , IT 6(b)N	01	8,721-00
24	Torque Measurement,(IT-14)	01	25,155-00
25	Vibration Measurement , IT-28	01	25,155-00
26	Synchro Transmitter Receiver Pair, CE-6	01	11,295-00
27	Pressure Measurement, IT-13(b)	01	13,455-00
28	Transducer lab equipment cost		1,64,452-00
TOTAL COST OF THE INSTRUMENTS:			5,50,007-00


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Electronics and Instrumentation Engineering


6. MEASUREMENTS LAB

List of Instruments with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	LCR Q Meter	01	16,387-00
02	DC Ammeters(Analog)	06	3,726-00
03	CatI/C HODe Ray Oscilloscope's	04	60,200-00
04	Function Generator	08	75,600-00
05	True RMS Volt Meter 3 1/2 Digit True RMS Digital Multi Meter type 437T with instruction manual	02	15,363-00
TOTAL COST OF THE INSTRUMENTS:			1,71,276-00

List of Equipment with cost:

S.No.	Name of the Equipment	Qty.	Total Cost
01	Audio Power Meter(APM)	02	8,440-00
02	Tuned Amplifier(D 13)	01	2,040-00
03	DT Analog Multi Meter(M1)	02	5,880-00
04	Maxwell's Bridge(R3)	02	4,740-00
05	Schering Bridge(R5)	02	4,740-00
06	Kelvin's Bridge(R7)	02	4,440-00
07	R.P.S. (Single)	06	11,160-00
08	CRO Demo Trainer	01	17,631-00
09	R.P.S.(Multiple)	06	41,058-00
10	Digital Multi Meters (Model AS 9208 L)	02	2,900-00


(Dr. M. V. N. Chakravarti)



I/C HOD, EIE

S.No.	Name of the Equipment	Qty.	Total Cost
11	Bread Boards	06	34,218-00
12	OSAW Industrial Kelvin double Bridge	02	40,298.00
13	OSAW Spot Reflecting Galvanometer	02	13,266.00
14	OSAW adjustable heavy duty DC Source	02	24,300.00
15	OSAW Conductivity attachment, 50 cm.	02	4,456.00
16	OSAW Anderson Bridge with headphone and digital null detector	02	14,256.00
17	OSAW Maxwell's Bridge with headphone and digital null detector	02	13,646.00
18	OSAW De Sauty Bridge with headphone and digital null detector	02	12,836.00
19	OSAW Schering Bridge with headphone and digital null detector	02	12,836.00
20	OSAW Wein Bridge with headphone and digital null detector	02	12,836.00
21	OSAW Hay Bridge with headphone and digital null detector	02	14,256.00
22	OSAW Owen Bridge with headphone and digital null detector	02	13,646.00
TOTAL COST OF THE INSTRUMENTS:			3,13,879-00

Chakravarti
(Dr. M. V. N. Chakravarti^D)



I/C HOD,EIE



Bapatla Engineering College :: Bapatla
(Autonomous)
Department of Information Technology
Equipment Details

Labs Equipment details:

Servers:

Sl. No.	Lab Name	System Configuration	Quantity	Purchase Order/ Invoice No. & Date	Unit Cost	Total Cost
1	Servers	HP ML 150 Gen 9 4 LEF Server - Intel Xeon E5-2609V4(1.7 GHZ/8-Core/20mb/82w) /16GB DDR4-240R Memory/ 16DIMM Slots	1	31/03/2018	₹1,41,750	₹1,41,750
2	Servers	MFSYS35 - Intel Modular Storage Server/ 3 Xeon Quad core processors / 3 Server Compute Modules/24GB RAM	1	27/06/2011	₹6,75,000	₹6,75,000
Total Cost:						8,16,750

Labs:

Sl. No.	Lab Name	System Configuration	Quantity	Purchase Order/ Invoice No. & Date	Unit Cost	Total Cost
1	CC-L3 LAB	Desktop PRO TWR 280 G9 (7G708PA) - HP with Intel 12th Gen. Core i7 Processor, 16GB DDR4 RAM, 512GB Solid State Drive, Intel UHD Graphics 770, 19.5" LED Monitor.	32	S3700290/22-23 & 13/01/2023	59,000	₹18,88,000
2	CC- L4 LAB	Desktop PRO TWR 280 G9 (7G708PA) - HP with Intel 12th Gen. Core i7 Processor, 16GB DDR4 RAM, 512GB Solid State Drive, Intel UHD Graphics 770, 19.5" LED Monitor.	32	S3700290/22-23 & 13/01/2023	59,000	18,88,000
3	RP- IT LAB	Desktop PRO TWR 280 G9 (7G708PA) - HP with Intel 12th Gen. Core i7 Processor, 16GB DDR4 RAM, 512GB Solid State Drive, Intel UHD Graphics 770, 19.5" LED Monitor.	39	S3700290/22-23 & 13/01/2023	59,000	23,01,000
Total Cost:						60,77,000 /-

Department Equipment Details:

Sl. No.	Equipment Name	Description	Quantity	Purchase Order/ Invoice No. & Date	Unit Cost	Total Cost
1	Desktops	Desktop PRO TWR 280 G9 (7G708PA) - HP with Intel 12th Gen. Core i7 Processor, 16GB DDR4 RAM, 512GB Solid State Drive, Intel UHD Graphics 770, 19.5" LED Monitor.	1	S3700290/22-23 & 13/01/2023	59,000	18,88,000
		HP PRO AMD Athlon(tm) II B.28 Processor , 3.4GHz, 2GB RAM Desktops	2	7032 06/03/2009	29,900	59,800
		Intel Core i7 – 7700 processor, 3.2GHz, 16GB RAM Desktops.	5	VIZ-1549 29/9/2018	55.500	2,77,500
		Intel Core – i3 3210 processor, 3.4 GHz, 4GB RAM desktops.	1	HO-02 29/03/2011	25850	25850
2	Pen tablets	WACOM CTL-672 Pen Tablets	4	HO-OUT-80 & 31/01/2022	5,841	23,364
3	AC unit	Blue Star 1.5 TR 3 Star AC Unit	1	VJA2122-250 & 28/07/2021	36,700	36,700
4	Mic	Ahuja AWM- 520VHL Wireless Microphone	1	STV/19-20/11371	3644	4,300
5.	Projectors	EPSON EB Projectors	6	CORPOUT-19 & 14/09/2018	33,500	2,01,000
6.	Printers	HP Laser Jet printer M203dn	1	HO-OUT/49 & 25/01/2019	12,750	12,750
		XEROX Work Centre 5021	1	BEC/J/8/1570 & 20/11/2015	43,275	43,275
7	Switches	D-Link DES-1008A	3	HO-8 / 07/10/2015	2047.5	6142.5
8	Web Camera & Mic	Zebronics Web Camera with Built in Mic	4	2020-21 180 & 06/08/2020	884.0	3,536
9	Headset with Mic	Zebronics Head Set with Mic	4	2020-21 180/06/08/2020	447.2	1,789
10	DVD Burner	Lenovo Slim USB Portable DVD Burner Model: DB60	1	HO-822 & 08/06/20212	27,000	27,000
11	Speakers	Zync Karaoke 32W Wireless Portable Bluetooth Speaker with Wireless Mic.	1	IN-SDEE-111 & 16/08/2020	3,825	3,825
Total Cost:						23,64,831 /-

Total Cost of Labs: 68,93,750 /-

Total Cost of Department Equipment: 23,64,831 /-


 26/12/2023
 Signature of the HOD, IT Dept.

Bapatla Engineering College: Bapatla

Department of Mechanical Engineering

2022-23

PROGRAMME: B.TECH

COURSE: MECHANICAL ENGINEERING

Lab wise equipment/ Instruments:

Laboratory	Equipment /Instrument Name	Number of	Purchased
Fuels and Oils Lab	Pensky Martens flash point apparatus	1	02.02.2022
	Abel's Flash point apparatus	1	18.11.2005
	Conradson's carbon Residence four test apparatus	1	18.11.2005
	Red Wood Viscometer 1	1	18.11.2005
	Red wood viscometer 2	1	02.02.2022
	Saybolt viscometer	1	02.02.2022
	Cleave land's Flash & fire point apparatus	1	02.02.2022
	Dead Weight Pressure Guage	1	23.06.2018
	Englers Viscometer Apparatus	1	23.05.2018
	Penetrometer Apparatus	1	23.05.2018
	Stop watches	6	23.05.2018
	Electronic weighing machine	1	02.02.2022
	Junker's Gas Calorimeter	1	02.02.2022
	Thermometers 0°C to 110°C	6	02.02.2022
	Silicon Crucibles	6	02.02.2022
I.C. Engines Lab	Two stage air Compressor test Rig.	1	29.08.2006
	Centrifugal Blower test Rig.	1	29.08.2006
	Single Cylinder 2-stroke Petrol Engine Test Rig.	1	29.08.2006
	Single cylinder 4 – stroke petrol Engine Test Rig	1	29.08.2006
	Vapour compression (AC) trainer -Duct Type.	1	23.08.2006
	Variable Compression Ratio single Cylinder 4 stroke	1	23.08.2006
	Four stroke Diesel Engine Test Rig with Hydraulic	1	28.08.2006
	Four cylinder four stroke Petrol Engine test Rig with	1	28.12.2006
	Computer Interfaced Single Cylinder 4 – stroke	1	07.03.2007

	P.C. Based single cylinder 4 – stroke Diesel Engine	1	07.03.2007
	Single cylinder 2 stroke petrol engine model	1	23.01.2006
	Single cylinder 4 stroke petrol engine model	1	23.01.2006
	Single cylinder 2 stroke diesel engine model	1	23.01.2006
Heat Transfer Lab	Composite wall	1	03.07.2002
	Emissivity measurement apparatus	1	03.07.2002
	Heat transfer through insulating powder	1	03.07.2002
	Refrigeration test rig.	1	29.08.2006
	Air conditioning trainer	1	23.08.2006
	Forced convection apparatus	1	23.05.2018
	Heat transfer through pin fin apparatus	1	23.05.2018
	Stefan Boltzmann Apparatus	1	23.07.2018
	Lagged pipe Apparatus	1	23.05.2018
	Natural convection Apparatus	1	23.05.2018
	Double pipe Heat exchanger	1	23.05.2018
Machine shop	Tool and Cutter Grinder	1	11.11.1992
	High Speed Precision Lathe	1	11.07.2007
	BFW Universal Milling Machines	2	11.07.2007
	Universal Milling Machine	1	19.2.1991
	Capston Lathe,	1	19.02.1991
	H.M.T. Qetcos All geared Lathe Machines (Ten Nos)	10	16.06.2007
	Planing Machine	1	23.08.2005
	Radial Drilling Machine	1	12.08.2006
	Pillar Drilling Machine	1	18.1.1984
	Shimago Lathe (Wood Lathe)	2	21.12.1984
	Shaping machines (4 no.s)	4	30.12.2005
	Gear Hobbing Machine	1	16.10.2006
	Slotting Machine	1	16.10.2006
	Power Hacksaw Machine	1	16.10.2006
	Surface Grinding Machine	1	12.10.2007
	Centreless grinder	1	02.05.1985
	Chain cappy	1	20.04.2006

Design & Metrology Lab	Tool Makers Microscope,	1	13.10.1992
	Surf Tester	1	04.04.2019
	Profile Projector,	1	23.11.1993
	Dynamic Balancing machine	1	13.09.2007
	Journal Bearing Demonstration Apparatus	1	08.08.2007
	Wear and Friction Monitor with 100°C pin Heating	1	04.10.2007
	Outside Micro meter , vernier caliper , vernier	1	30.07.2003
	Dial Bore gauge, Height gauge, Thread gauge,	1	30.07.2003
	Plug gauge, loose three piece set, Lever type dial	1	30.07.2003
	Plain ring gauges, Taper plug gauge etc.	1	30.07.2003
	Plain plug gauge GO& NO GO	2	22.09.2003
	Swivel centre support for TM 100 tool makers	1	22.09.2003
Fitting & Foundry	Bardhan Moulding tool kits (10 no.s)	10	16.06.1982
Basic trades workshop	Welding transformer models: dsa 300, 300 amp.	1	16.06.1982
	Instruments	1	16.06.1982
CAD Lab	Servers – 2 Number of systems – 56	56	1.1.2005; 5.9.2006;
	PTC Creo University plus software (50 users)	1	18.01.2022
	20 KVA online UPS system	1	15.06.2022
	8.5 TR Ducted Split AC	2	03.04.2019
	Ansys (Mech +CFD) Academic license (25 users)	1	20.3.2018
	LCD Projector	1	26.12.2014
	Star CCM++/design (software)	--	29.09.2007
	Pro – E , Wild Fire 3.0 (50 Users)	50	28.06.2007
	CATIA V 5 ED-2 (5+1 Users)	1	08.07.2006
	ANSYS Multi Physics Ver10.0 (5 Users)	5	12.12.2005
	Auto desk mechanical Solution Set 2006 (10 Users)	10	30.08.2005
	Inventor series 5.3	--	31.07.2002
CAM LAB	C.N.C.Trainer Lathe	1	29.11.2002
	C.N.C. PC Mill Trainer	1	27.07.2005
	Master CAM V 9.1 (5 Users)	1	19.03.2005
	EMCO software – 3D view – M	1	13.07.2006

	CNC Office simulation software GE Fanuc 21 T&M .	1	27.07.2007
	Scorbot – ER 4U Robot with accessories , ROBO Cell Software (5 Users)	1	16.08.2005
SIEMENS CENTER OF EXCELLANCE	NX-8.0,SOLID EDGE,FEMAP with Nastran10.3,CAM	1 set	30-11-2012
	17 HP desktops	28	15-03-2023
Bosch Centre of Competence in Automation Technology	Pneumatics Kit	2	18-8-2012
	Electro Pneumatics Kit	2	18-8-2012
	Electro Pneumatics Control Kit	1	18-8-2012
	Hydraulic Kit	2	18-8-2012
	Sensorics Kit	2	18-8-2012
	PLCs and simulators	3	18-8-2012
	Modular Mechatronics System	1	18-8-2012
	CNC play Module	1	18-8-2012
	Motion Logics Design	1	18-8-2012
	Automation Studio	1	18-8-2012
	HP Laptops with carry case	10	18-8-2012
	Pneumatic Trainer Kit & Electro Pneumatic Trainer Kit, PLC , Noiseless compressor with Automation studio software	1	02-8-2005
Engineering Graphics Lab	HP 280 G3 Desktop PC/Intel 7700 7th Generation	62	2019
	3.0TR MEGA SPLIT AC BLUE STAR	3	01-02-2019
	LCD Projector	01	2019
	CERAMIC BLACK BOARD WITH STAND	1	14-8-2019
	Ahuja Portable PA System	01	2019
	BENCHES	31	2019
	CHAIRS	63	2019

Head of the Department

Bapatla Engineering College: Bapatla
Department of Mechanical Engineering
Summary of Total cost of Lab Equipment Details

S.No.	Laboratory	Total Cost
1	Fuels and Oils Lab	2,81,848-00
2	I.C. Engines Lab	22,33,901-00
3	Heat Transfer Lab	4,57,217-00
4	Machine shop	59,16,442-88
5	Design & Metrology Lab	13,84,445-00
6	Fitting & Foundry	5,905-45
7	Basic trades workshops	51,808-30
8	CAD Lab	70,80,847-00
9	CAM LAB	28,07,289-00
10	Siemens Center of Excellence	21,53,658-00
11	Bosch Rexroth Center of Excellence	1,67,56,000-00
12	Engineering graphics lab	40,04,415-00
Total Cost		4,31,33,776.63

Fuels and Oils Lab		
S.N.o	Name of the Equipment	Cost
1	Pensky martens flash point – Digital Version	18,500.00
2	Abel's Flash point apparatus with IP 74 & 75Cthermomter	5,600.00
3	Conoradson's carbon Residence four test apparatus	6,250.00
4	Red Wood Viscometers 1	6,150.00
5	Red wood viscometer no : 2 Digital Version	22,000.00
6	Saybolt viscometer	19,500.00
7	Cleve land's Flash & fire point apparatus –Digital Version	18,500.00
8	Junkers Gas Calorimeter	90,000
9	Electronic weighing machine	24,500.00
10	Englers Viscometer Apparatus	19,116.00
11	Penetrometer Apparatus	13,593.60
12	Stop watches	4,141.80
13	Dead weight pressure gauge	29,948.40
14	Thermometers 0°C to 110°C	3,000.00
15	Silicon Crucibles	1,050.00
Total :		2,81,848.00

I.C. Engines Lab		
S.No.	Name of the Equipment	Cost
1	Two stage air Compressor test Rig.	83,000.00
2	Centrifugal Blower test Rig.	85,000.00
3	Single Cylinder 2-strokePetrolEnginetest Rig.	67,032.00
4	Single cylinder 4 – stroke petrol Engine Test Rig with DC generator for conducting motoring test.	1,12,896.00
5	4 Cylinder 4 stroke Diesel Engine	57,928
6	Variable Compression Ratio single Cylinder 4 stroke petrol engine test Rig.	2,17,560.00
7	Four stroke Diesel Engine Test Rig. With Hydraulic dynamometer.	2,99,250.00
8	Four cylinder four stroke Petrol Engine test Rig with Morse test and with Hydraulic Dynamometer.	3,67,500.00
9	Computer Interfaced Single Cylinder 4 – stroke Petrol Engine Test Rig.	4,63,360.00
10	P.C. Based single cylinder 4 – stroke Diesel Engine Test Rig.	4,45,200.00
11	IC Engine Models	35,175
Total :		22,33,901.00

Heat Transfer Lab		
S.No.	Name of the Equipment	Cost
1	Composite wall	9,320
2	Emissivity measurement apparatus	10,488
3	Heat transfer through insulating powder	11,528
4	Refrigeration test rig.	82,908
5	Air conditioning trainer	82,320
6	Forced convection apparatus	44,840
7	Heat transfer through pin fin apparatus	44,840
8	Stefan Boltzmann Apparatus	1, 70,973
9	Lagged pipe Apparatus	
10	Natural convection Apparatus	
11	Double pipe Heat exchanger	
	Total	4,57,217

Machine shop		
S.No	Name of the Equipment	Cost
1	Tool and Cutter Grinder	1,74,521.33
2	High Speed Precision Lathe,	53,610.00
3	BFW Universal Milling Machines – 2No.s	7,40,376.00
4	Capstan Lathe,	53,610.00
5	H.M.T. Qetcos All geared Lathe Machines Ten Nos.	20,00,000.00
6	Planning Machine Sagar.	3,00,000.00
7	Radial Drilling Machine	2,04,635.00
8	Shaping machines4.no.s	6,00,000.00
9	Gear Hobbing Machine	8,29,909.00
10	Slotting Machine	1,36,180.00
11	Power Hacksaw Machine	84,079.00
12	Praga surface grinding Machine	6,93,941.00
13	Centreless grinder	27,501.55
14	Chain cappy	8,000.00
15	Pillar Drilling Machine	11,000.00
16	Shimago Lathe (Wood Lathe)	50,510.00
17	Universal Milling Macchine	84,750.00
	Total :	59,16,442.88

Design & Metrology Lab		
S.No	Name of the Equipment	Cost
1	Tool Makers Microscope	1,53,000.00
2	Surface Tester	1,41,600-00
3	Profile Projector	45,000.00
4	Dynamic Balancing machine	1,90,062.00
5	Journal Bearing Demonstration Apparatus	2,84,731.00
6	Wear and Friction Monitor with 100°C pin Heating Option	4,68,927.00
7	Outside Micro meter , vernier caliper , vernier depth gauge	15,016.00
8	Dial Bore gauge, Height gauge, Thread gauge, universal Bevel protractor, gear tooth vernier caliper, loose three wire set.	32,000-00
9	Plug gauge, loose three piece set, Lever type dial test indicator, magnetic stand, slip gauges set, etc.	17,865-00
10	Plain Ring gauges, Taper plug gauge, etc.	2754-00
11	Plain plug gauge GO& NO GO	490-00
12	Swivel centre support for TM 100 tool makers microscope	33,000-00
	Total :	13,84,445-00

Fitting & Foundry		
S.No	Name of the Equipment	Cost
1	Bardhan Moulding tool kits. 10	5,905.45
	Total :	5,905.45
Basic trades workshop		
S.No	Name of the Equipment	Cost
1	Welding transformer models: dsa300, 300 amps.	16,808.30
2	Instruments	35,000.00
	Total :	51,808.30

CAD Lab		
S.No	Name of the Equipment	Cost
1	Servers – 2	1,50,000.00
2	Computer systems (56 Nos)	33,33,900.00
3	PTC Creo University plus software (50 users) 4 years subscription	5,31,000.00
4	20 KVA online UPS system	2,39,950.00
5	8.5 TR Ducted Split AC	3,83,040.00
6	ANSYS (Mech+ CFD) Ver 19.0 (25 Users)	5,60,500.00
7	LCD projector	30,000.00
8	Auto desk mechanical Solution Set 2006	2,00,000.00
9	Pro – E , Wild Fire 3.0 (50 Users)	6,19,124.00
10	CATIA V 5R 15	3,38,000.00
11	Star CCM++/design (software)	3,12,000.00
12	Inventor series 5.3	3,83,333.00
	Total :	70,80,847.00

CAM Lab		
S.No	Name of the Equipment	Cost
1	C.N.C.Trainer Lathe	5,00,000.00
2	C.N.C.PC Mill Trainer	7,39,778.00
3	Master CAM V 9.1 (5 Users)	4,16,000.00
4	Scorbot – ER 4U Robot with accessories ,ROBO cell Software (5 Users)	7,00,000.00
5	EMCO software – 3D view – M	35,511.00
6	CNC offline simulation software GE Fanuc 21 T&M	4,16,000
	Total :	28,07,289.00

SIEMENS CENTER OF EXCELLANCE		
S.No	Name of the Equipment	Cost
1	NX-8.0,SOLID EDGE,FEMAP with Nastran10.3,CAM Express 8.0,Technomatrix,RobCAD,TeamCenter,ProgeCAD	6,93,658.00
2	28 i7 HP desktops	14,00,000
3	2 i3 desktops	60,000
	Total :	21,53,658

BOSCH REXROTH CENTER OF EXCELLANCE		
S.No	Name of the Equipment	Cost
1	Pneumatics/ Hydraulics/Sensorics/PLC/MDT systems	1,60,20,000.00
2	Pneumatic Trainer Kit & Electro Pneumatic Trainer Kit, PLC , Noiseless compressor	5,50,000.00
3	Automation studio software Ver 5.2 (5 Users)	1,86,000.00
	Total :	1,67,56,000.00

DETAILS OF HARDWARE IN ENGINEERING GRAPHICS LAB			
S.No	NAME OF THE EQUIPMENT	NUMBER OF ITEMS	EXPENDITURE (RS)
1	HP 280 G3 Desktop PC/Intel 7700 7th Generation i7-4C Processor/ 16GB(1x16GB) DDR4 2400 RAM/ITB 7200 SATA-6G 3.5HDD/HP USB Key board/HP USB Mouse/ HP 19.5" LED Monitor.	62	3410000-00
2	3.0TR MEGA SPLIT AC BLUE STAR	3	213000-00
3	LCD Projector	01	36000-00
4	CERAMIC BLACK BOARD WITH STAND	1	11800-00
5	Ahuja Portable PA System	01	3140-00
6	BENCHES	31	310000-00
7	CHAIRS	63	20475-00
	Total:		40,04,415-00

BAPATLA ENGINEERING COLLEGE :: BAPATLA

Department of M C A

Lab Equipment Details

S.No.	Name of the Equipment	Number of Available	Cost each (in Rs.)
Server Room			
1	Emerson Vertiv ups 40 KVA online UPS System with three Phase input , one phase output.	1	3,50,000
2	Windows Server HPML350 G4 Xeon Server Dual Xeon 3Ghz 2GB registred ECC DRR / 1.44MB FDD / DVD Combo Drive / Keyboard/ Mouse/ 17" Color Monitor	1	2,96,490
3	HP 280 G4(Core I7 16 GB RAM LED Monitor, Keyboard, Mouse, Color Monitor	2	80,068
4	HP Laserjet Pro M203dn	1	20,000
5	Scanner	1	5000
6	Mounting Cards	135	16,200
7	Rack 22U	1	17,500
8	Switch 24Port D-Link Rack Mount	7	11,000
MCA Software - I			
1	HP 280 G4(Core I7 16 GB RAM LED Monitor, Keyboard, Mouse, Color Monitor	65	2,602,210
2	Data Projectors	1	5,000
MCA Software - 2			
1	HP 280 G4(Core I7 16 GB RAM LED Monitor, Keyboard, Mouse, Color Monitor	64	2,562,176
2	Data Projectors	1	5,000
	Grand Total:		5,970,644



HOD, MCA Department

Bapatla Engineering College: Bapatla

(Autonomous)

Department of English
English Communication Skills Lab

List of Equipment with Cost

S. No	Software	Qty. (No's)	Total Cost (Rs)
1	iTell Orell Digital Lab	01-for LAN 61 Systems	2,40,000.00
2	New Interchange-level 1,2,3	1	19,500.00
3	Buzzers for Conversations	1	22,500.00
4	English in Mind Series	1	11,400.00
Total Cost			2,93,400.00
Total Amount :Two Lakh Ninety Three Thousand and Four Hundred Rupees			



Head- Department of English
(Dr P.V.N. Malleswara Rao)

1.1 of English & Commu.
Bapatla Engineering College
BAPATLA - 522 101



Bapatla Engineering College :: Bapatla
(Autonomous)

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Department of PHYSICS

Lab-wise Equipment Cost details

S.No	Name of the Laboratory	Cost of the Equipment in Rs.
1	ENGG.PHYSICS LAB-1	9,28,067.00
2	OPTICS LAB-2	2,02,017.00
3	MSc EDC LAB	3,71,383.00
4	MSc SSP LAB	6,66,050.00
5	RESEARCH LAB	3,12,500.00
	TOTAL	24,80,117.00

V. Aruna
HOD, PHYSICS

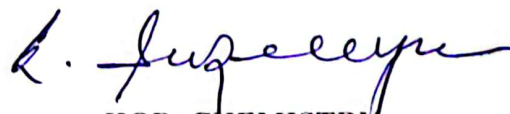


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**Department of Chemistry
Lab-wise Equipment Cost details**

S.No	Name of the Laboratory	Cost of the Equipment in Rs.
1	ENGG.CHEMISTRY LAB-1	51488.00
2	ENGG.CHEMISTRY LAB-2	91,633.00
3	M.Sc., PREVIOUS CHEMISTRY- LAB-3	277254.00
4	M.Sc., FINAL ANALYTICAL/ORGANIC CHEMISTRY- LAB-4	73600.00
TOTAL		4,93,975.00


HOD, CHEMISTRY



Bapatla Engineering College :: Bapatla
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LIST OF EQUIPMENT WITH COST
ENGG.CHEMISTRY LAB-1

S.No	Equipment Name	Quantity	Cost of each item	Total Amount in Rs
1	Digital PH meter	1	14,170	13,500.00
2	Digital balance	1	12,688	12,688.00
3	analytical balances	1	1100	1100.00
4	melting point apparatus	1	5800	5800.00
5	Magnetic stirrers	2	9200	18400.00
TOTAL				51,488.00

ENGG.CHEMISTRY LAB-2

S.No	Equipment Name	Quantity	Cost of each item	Total Amount in Rs
1	Digital PH meter	1	14,170	14,170.00
2	Digital potentio meter	2	13080	26160.00
3	Digital conductivity meter	1	14170	14170.00
4	Digital colorimeter	1	13080	13080.00
5	Distilled water plant	1	11330	11330.00
6	Analytical balances	1	1100	1100.00
7	REMI MEDICO CENTRIFUSE	1	11623	11623.00
TOTAL				91,633.00

K. Supreya
HOD, CHEMISTRY



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LIST OF EQUIPMENT WITH COST
M.Sc., PREVIOUS CHEMISTRY- LAB-3

S.No	Equipment Name	Quantity	Cost of each item	Total Amount in Rs
1	Digital PH meter	2	17298	34596.00
2	Digital potentio meter	3	16895	50685.00
3	Digital conductivity meter	3	17549	52647.00
4	Digital colorimeter	2	13080	26160.00
6	Digital balance	1	28340	28340.00
7	melting point apparatus	2	4251	8502.00
8	Magnetic stirrers with hot plate	3	10028	30084.00
9	Hot air oven	1	9240	9240.00
10	Vaccum pump	1	28000	28000.00
11	Electric water both	1	2000	2000.00
12	Stabilizer 1KV	1	2000	2000.00
13	Stabilizer 5KV	1	5000	5000.00
TOTAL				277254.00

M.Sc., FINAL ANALYTICAL/ORGANIC CHEMISTRY- LAB-4

S.No	Equipment Name	Quantity		
1	melting point operator	2	5800	11600.00
2	Magnetic stirrers with hot plate	3	10028	30084.00
3	Hot air oven	2	10028	20056.00
4	Electric water both	1	2000	2000.00
5	Electric Hot plates	2	2130	4260.00
6	UV chamber	1	4500	4500.00
7	analytical balances	1	1100	1100.00
TOTAL				73600.00

K. Supereya
HOD, CHEMISTRY



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**Department of Chemistry
Lab-wise Equipment Cost details**

S.No	Name of the Laboratory	Cost of the Equipment in Rs.
1	ENGG.CHEMISTRY LAB-1	51488.00
2	ENGG.CHEMISTRY LAB-2	91,633.00
3	M.Sc., PREVIOUS CHEMISTRY- LAB-3	277254.00
4	M.Sc., FINAL ANALYTICAL/ORGANIC CHEMISTRY- LAB-4	73600.00
TOTAL		4,93,975.00

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**LIST OF EQUIPMENT WITH COST
ENGG.CHEMISTRY LAB-1**

S.No	Equipment Name	Quantity	Cost of each item	Total Amount in Rs
1	Digital PH meter	1	14,170	13,500.00
2	Digital balance	1	12,688	12,688.00
3	analytical balances	1	1100	1100.00
4	melting point apparatus	1	5800	5800.00
5	Magnetic stirrers	2	9200	18400.00
TOTAL				51,488.00

ENGG.CHEMISTRY LAB-2

S.No	Equipment Name	Quantity	Cost of each item	Total Amount in Rs
1	Digital PH meter	1	14,170	14,170.00
2	Digital potentio meter	2	13080	26160.00
3	Digital conductivity meter	1	14170	14170.00
4	Digital colorimeter	1	13080	13080.00
5	Distilled water plant	1	11330	11330.00
6	Analytical balances	1	1100	1100.00
7	REMI MEDICO CENTRIFUSE	1	11623	11623.00
TOTAL				91,633.00

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LIST OF EQUIPMENT WITH COST
M.Sc., PREVIOUS CHEMISTRY- LAB-3

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8	Magnetic stirrers with hot plate	3	10028	30084.00
9	Hot air oven	1	9240	9240.00
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12	Stabilizer 1KV	1	2000	2000.00
13	Stabilizer 5KV	1	5000	5000.00
TOTAL				277254.00

M.Sc., FINAL ANALYTICAL/ORGANIC CHEMISTRY- LAB-4

S.No	Equipment Name	Quantity		
1	melting point operator	2	5800	11600.00
2	Magnetic stirrers with hot plate	3	10028	30084.00
3	Hot air oven	2	10028	20056.00
4	Electric water both	1	2000	2000.00
5	Electric Hot plates	2	2130	4260.00
6	UV chamber	1	4500	4500.00
7	analytical balances	1	1100	1100.00
TOTAL				73600.00

HOD, CHEMISTRY