Research Based Equipment

Name of the Department	Name of Equipment	Funding Agency	Year of Purchase	Cost	Type of Computational Facilities created	Utilization Details	No. of Patents produced	Publications out of Support	No. of PhD produced with the utilization of the equipment's	No. of M.Tech. produced with the utilization of the equipment's	Any other details	Outcome	Picture
Civil Engineering	Muffle Furnace Thermal Conductivity Meter for non-ferrous metal Accelerated Curing Tank Pull-Off Tester Linear Variable Differential Transformer Half Cell Potentiometer Digital Thermometer and Extensometer Hydraulic Jack 100kN capacity Concrete crack width gauge	Private Industries	2025-26	32,66,476		• To measure the physical characteristics of fibres and the mechanical properties of sustainable products • A research scholar is conducting PhD research on the use of FRP bars in concrete structures.	0	0	1 Ph.D (Ongoing)	0	-	1. Enhanced Research Capability 2. Strengthened Industry–Institute Collaboration 3. Innovation and Product Development	 

	Different-sized Trays Thermal conductivity meter												
	Torque Meter Rotational Speed Sensor Pressure Transducer (Sensor) Data Logger	DST-TDP		4,57,840	Instrumentation and real-time data acquisition facility for soil bearing capacity investigations	• Utilized for real-time monitoring, data acquisition, calibration, and experimental studies related to bearing capacity evaluation of soil under laboratory and field conditions. The setup is being used for DST funded research work, student projects, and geotechnical investigations	01 Patent is published	01 Research Paper is in process of writing to submit to SCI journal	01 PhD Scholor is under pre registration process	0	UG Project	Developed advanced experimental facility for accurate assessment and monitoring of soil bearing capacity, enhancing research capability, field investigation accuracy, and consultancy support in geotechnical engineering	

	Ultra Tech COE (Display of Updations in the Construction field ; Hands on in Concrete Tech. lab)	Internal		3,89,000		1) Utilised by Students and Faculties for Research Purpose, 2) Observational Visits by UG - PG Students for updation of recent materiasl and technology used . 3) Training Program Organized by Ultra Tech for Engineers, Contractors along with UG Studetns for III; IV Year for Skill Enhancment		1			1) UG Project : Integrated Rainwater Harvesting System for managing Water Demand in Residential Apartment ; Dr. M. S. Bhagat (Project Guide) ; 2) Publication: "IoT and ML in Liquid Waste Water Management"	1) Graduates equipped with advanced skills and industry-ready knowledge.2) Strengthened industry–institute collaborations .3) Development of innovative and sustainable construction solutions.4) Enhanced visibility of YCCE as a premier institution in civil engineering education and research.	
	Concrete Water Permeability with air compressor	AICTE-RPS	2020-21	10,50,200		Project & Ph.D. work, Consultancy	----	3	1 Phd Undergoing	----	----	• Phd, UG Projects Use • 01 Paper is published in SCI Journal • 01 Paper published in Scopus Journal • 01 Paper is	

	Rapid Cloride Ion Permeability Apparatus for Concrete Resistivity Equipment for Concrete Rebound hammer Digital											published in Scopus Conference	
	Robatic Total Station	AICTE-MODROB	2019-20	9,50,000		Students gained hands-on experience with advanced surveying equipment like Robotic Total Station.						Students gained practical skills in operating the Robotic Total Station for accurate and efficient modern surveying applications.	
	COD Digestor	Internal	2018-19	87,030		Project, Consultancy	2	10	3Ph.D. Ongoing	15			

	Digital Unconfined Compressive Test Machine	Internal		1,52,000		Project & Ph.D. work			01 Ph.D. On going				
	Profometer	College	21.09.2018	512450.4		Project & Ph.D. work, Consultancy		2	01 Ph.D. On going	5			
	Digital Compression Testing machine 250 k.n. cap.	College	14.07.2009	119542.5		Project & Ph.D. work, Consultancy		40	10	60			
	PROCEQ Pandit Ultaqsonic Testing Instrument	College	26.02.2015	482200		Project & Ph.D. work, Consultancy		2	01 Ph.D. On going	5			

	Humidity Chamber / Stability Chamber	College	13.03.2015	156000		Project & Ph.D. work, Consultancy		2	01 Ph.D. On going	25			
	Schmidt Rebound Hammer	College	21.09.2018	82600		Project & Ph.D. work, Consultancy		2	01 Ph.D. On going	5			
	10 Ten loading frame	College	15.10.1992	181813.85		Project, testing	01 Published	2		1			
	Digital spectrophoto meter Type 118	College	25.10.2011	146250		Project, Consultancy	2	10	**03** Ph.D. On going	30			
	Digital spectrophoto meter	College	21.03.2013	833661.15		Project, Consultancy	2	10	**03** Ph.D. On going	20			

	Orbital Shaking Incubator (BOD)	College	15.06.2015	111000		Project, Consultancy	2		**03** Ph.D. On going	15			
	Digital Balance 2 kg	College	03.04.2018	14368		Project, Consultancy	2		**03** Ph.D. On going	5			
	Triaxial Test Apparatus	College	05.10.2016	498780		Project & Ph.D. work							
	Consolidation Apparatus three-sets New Bench Type Model	College	27.06.2012	286577.22		Project & Ph.D. work							
	Mechanized Compaction Machine	College	23.03.2018	43950		Project & Ph.D. work	02 (Published)	2					

	Loading Frame for soil Testing	College	31.03.2015	10475		Project & Ph.D. work	1	3	1				
Mechanical Engineering	3D Printer Dual Extruder	MSME	2022-23	14,99,900		• Prototyping facility for Students, faculties and Startups. Till date generated consultancy amount of Rs 114000 using facility. • Winner of IRoC U 2024 • Consolation prize of IRoC U 2025 • CROPIS received funding of 2.5 Lakh from IIT Ropar under DST • 5 Lakh from NG-Aif , PDKV • Consultancy project of NEERI. • Prototyping of 4							
	Single Extruder 3D printer												
	CO2 Engraver and Cutting Machine												
	3D Scanner												
	SLA 3D Printer												
	CNC ROUTER												

						commertial patents.							
	EDM (Electronic Discharge Machine)	Internal	2019-20	6,00,000		Manufacturing							
	AVEVA Center of Excellence (PDMS Software)	Internal	2018-19	5,60,000		Pipe Design and Plant Design and Management systems						Training programs for students	Software
	NAFFETIC/ Automation (Flexmill, Flexturn, CNC Controller)	AICTE NAFETIC	2014	2700000		Regular UG,PG Lab ,Certificate courses ,STTP ,Research paper publication ,UG PG Projects		4 SCOPUS Indexed	1	3	UG Projects - 4	Regular UG,PG Lab ,Certificate courses ,STTP ,Research paper publication ,UG PG Projects	
Electronics Engineering	3D Printer	RGSTC	2022-23	80,000		• 3D printing facility is made available for students in the department.	1				Intensively for UG Project work	Project Prototyping	
	EMG Myoware sensors,												
	Stteper motor												

	ATMega 328 Microcontroller Arduino UNO					Prototype model created and submitted to RTMNU. • Patent Granted							
	37-in 1 sensor kit, Arty-A7 FPGA board, OpenScope MZ, Beaglebone Green, Aruino Boards	AICTE-MODROB	2019-20	7,99,845		Used for EDA laboraroty and Embedded systems Lab	4	5 conference Papers			Intensively for UG Project work	Sensor based project design	
	Programmable Logic Controller	Internal		1,51,274	Automation	UG Practicals	0	0	0	0			
	Bubble Etching Machine	Internal		27,553	Fabrication	UG Practical	0	0	0	0			
	Matlab	MGI	--	Centralized Purchase	Scientific computing	PG Projects, PhD Scholars	1	18	15	50	--		Software
	FPGA VLSI Kits	MGI/MODROB	2009	10,00,000	VLSI Design, Analysis	PG Projects, PhD Scholars	0	20	10	60	--		

	Calibration unit	TEQIP	2006	9,34,742	Calibration	Research	0	0	0	0	--		
	6- in-1 Instrument	MGI	2014	84,072	Verification	UG Practicals	0	0	0	0	--		
	DSP Kit, TMS6713	MGI	2014	59,065	Computation	UG Practical	0	0	0	0	--		
	Logic Analyzer	MGI	2017	60562	Testing	UG Practical	0	0	0	0	--		
	Function/Arbitary Generator	MGI	2017	32576	Testing	UG Practical	0	0	0	0	--		

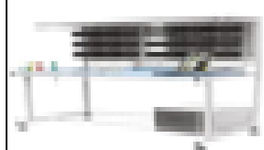
	Fuzzy Logic Trainer	MGI	2016	200000	Training	UG Practical	0	0	0	0	--		
Electronics & Telecommunication Engineering	Workstation with GPUMSI - RTX5080 Ventus X20C164GB.	CSIR-ASPIRE	2025-26	439998		• 01 JRF is working for the development of machine learning algorithm for the analysis of breast cancer.		01 Submitted and 01 in process					
	ASUS Laptop FX507VVLP487WS (RTX 4040- 8GB)												
	NETSIM Research version software	DST-SERB	2019-20	4,50,000		For Research Scholar and PG Students		1 + (1 paper - Under review)	1		One UG project was done using NetSim		Software
	Benchmark Advance Network System	DST-SERB		7,80,000		For Research Scholar and PG Students			1				

	Multisim (SW)	AICTE		3,10,000		For Research Scholar and PG Students							Software
	NETSYS-T, I7 computers, Netsim software, iCONSe-T	SERB-EEQ		22,55,953		• UG , Phd students for workshop and research purpose • Used for students in SDP, workshop, seminar, phd research.							
	Computers i5,Matlab, , Netsim software,printer, LCD projector	AICTE-SPDP	2018-19	15,25,000		UG , Mtech students for conducting practical's, workshop , SDP,seminar							
	Protrus Simulator software, Keil MDK pro software, ARM 7 Development board, Raspberry Pi, Arduino Uno, Sensor kit	AICTE-MODROB		8,96,538		Used for conducting Labs of Microcontroller, Embedded system, IoT subjects. Used for conducting hands on workshops for students							

	Antenna fabrication machine	YCCE	2014	800000		For Research Scholar UG and PG Students	NIL	142	7	31	UG Projects- 28		
	CST Studio Suite Version 2016	YCCE	2017	840000		For Research Scholar UG and PG Students							Software
	VNA	YCCE	2013	800000		For Research Scholar UG and PG Students							

Incubation Center	3D Printer Dual Extruder – Fractal works	Ministry of MSME	2022-23	5,66,400		Prototypes by startups and Innovators					Additive Manufacturing Facility	Additive Manufacturing Facility	
	Single Extruder 3D printer – Fractal Works	Ministry of MSME		2,12,400		prototypes by startups and Innovators					Additive Manufacturing Facility	Additive Manufacturing Facility	
	SLA 3D Printer - zortrax	Ministry of MSME		3,54,000		prototypes by startups and Innovators					Additive Manufacturing Facility	Additive Manufacturing Facility	
	CO2 Engraver and Cutting Machine – SIL-Suresh into laser	Ministry of MSME		4,72,000		prototypes by startups and Innovators					Laser Cutting Facility	Laser Cutting Facility	
	CNC ROUTER: SIL	Ministry of MSME		9,85,300		Prototype by startups and Innovators					Wooden Prototyping Facility	Wooden Prototyping Facility	
	3D Scanner- Shining 3 D	Ministry of MSME		3,06,800		prototypes by startups and Innovators					3D Scanning of Objects	Reverse Engineering Facility	

	Roland make PCB Making/ Engraving	Ministry of MSME	2019-20	6,13,600	PCB Designing Station	PCB manufaturing by startups					1 Desktop is provided along with software	PCB prototyping facility, Project fabrication facility	
	Vinyl Cutter	Ministry of MSME		1,82,900	Graphics Designing Work Station	Display and name plates are prepared at TBI					1 Desktop is provided along with software	Product display and stickers	
	Scroll Saw	Ministry of MSME		94,400		Product development and wooden prototyping					The machine is installed and ready for use	Wooden prototyping	
	Table Saw	Ministry of MSME		90,470		Product development and wooden prototyping					Wood cutting and sizing	Wooden prototyping	
	Meter Saw	Ministry of MSME		1,16,501		ARYY Technological Solutions - Manufacturing of foot operated sanitizer dispensing system					Anguler wood cutting and sizing	Wooden prototyping	

	Cordless Drill	Ministry of MSME		99,013		ARYY Technological Solutions - Manufacturing of foot operated sanitizer dispensing system					drilling operation	Product development and prototyping	
	DSO- 200 MHz	Ministry of MSME		1,18,000		It is used by Medtronics and Mechfarm						Soil Testing instrument is developed	
	Digital Oscilloscope	Ministry of MSME		49,088		It is used by Medtronics and Mechfarm						Ototiama and quick sense product developed	
	ESD Station	Ministry of MSME		48,073		It is used by Medtronics and Mechfarm						Ototiama and quick sense product developed	

	Desktop Intel i3	Ministry of MSME		1,27,404		PCB Milling Machine, Vnyle Cutter, Projector, ARYY Technological solutions, Medtronics					2 desktop are alloted to Startups	Computing facility for startup and as per requirement of machines.	
	Laptop Intel i5	Ministry of MSME		2,16,884	Design Studio	Incubation Activities, Product development by Medtronics - Ototiama, Quicksense					1 laptop is alloted to head office	Computer aided designing and analysis, Virtual prototyping	
	Laptop Intel i7	Ministry of MSME		3,48,686	Rapid prototyping work Station	Product development by Mechfarm - Soil Tester and weed cutter						Rapid prototyping and 3D printing workstation	
	Projector	Ministry of MSME		59,000	Presentation Facility	Presentation of startups and innovative idea of stusents					1 Desktop is alloted	Presentation facility at TBI	
	Metal Cut Off Grinder	Ministry of MSME		11,811		ARYY Technological Solutions - Manufacturing of foot operated sanitizer dispensing system					Metal cutting required in prototype	Metal Cutting Facility	

	Single phase arc welding machine	Ministry of MSME	2019-2020			ARYY Technological Solutions - Manufacturing of foot operated sanitizer dispensing system					Welding process required for prototyping	Welding Facility	
Information Technology	HPE ML 110 G11 Workstation	CSIR-ASPIRE	2025-26	4,24,760		• 01 JRF is working for the research in diseases detection and prediction System using Ancient Nadi Pariksha system • 01 Paper is in process	1 Patent Published		Nil	Nil			
	Arduino												
	USB DAQ Card												
	Pulse Sensor												
	Pressure Sensor												

	HP Workstation Z1 G2	**DST-FIST**	31-03-2015	260000	Computing facility	1. For Ph.D. Research Work 2. Final Year Project 3. Conduction of Practicals (VI-Sem)	2-Patents Published	5	01 +01 (Under progress)	7 M. Tech. Produced		1.Students will be able to understand High Performance computing facility utilized for research outcomes 2. How to Design and Implement high performance computing application or Project	
	MODROBS- High Performance Computing Facility-Cluster	**AICTE**	14-09-2012	8,10,000	High performance Computing Facility	1. Conduction of M.Tech. 2. Practicals 3.Conduction of UG Practicals 4.For Research Purpose	2-Patents Published	12	01+01 (Under Progress)	5 M.Tech. Produced		Students will be able understand and utilized cluster computing facility for Project and Practicals	
Computer Science & Engineering	NVIDIA Jetson Orin Nano Super Developer Kit, Raspberry Pi HQ Camera,	RTMNU	2025-26(05/03/26 & 27,03/26)	1,70,578	ML models performance Testing using	• To develop a prototype for Animal detection and deterence	Nil	1 publication in	–	–	–	Proof of Concept	

	Ultrasonic Distance Sensor Module, Passive Electronic Buzzer Thermal Camera, Laser Diode Dot Module High Speed Servo Motor Solar Inverter Waterproof Rocker Switch				Hardware kit			proces s					
Computer Technology	Sony DSLT A6100Y16-50 and 55-210 lens Intel D405 real sense Depth Camera	RTMNU	2023-24	1,18,000		• Severity and classifications of wounds • 01 Paper is accepted is SCI Journal Can be used further in research proposal		1			Completion certificate has not yet been received Patent filing in process		
	CoE - Artificial Intelligence(NVIDIA DGX Workstation, CDAC GOLD kits, APPLE Machines)	Internal	2021-22	50,00,00 0	High performan ce Computing Facility,Pr ojects,UG Prcaticals, Hackthon	five projects ongoing	NIL		NIL	NIL	Three workshop conducted		

	IBM Workstation LENOVA MAKE E30-7783RW,INTEL E3 1220 3.10GHz, CPU,4CORE,4GN(1x4 GB)NON ECC 1TB SATA HDD, 22"WIDE TFT WITH K.B., Optical Mouse With Printer Hp Color 1025, Scanner Lide 110, Network Switch 10/100/1000MBPS 16 PORT, Other Product Of Network Media Converter, Connector, Pipe, Cable,Coupler Plate, High Definition Camera With Recording Facility Sony Handycam HDR-PJ 50E WITH 220GB HDD, Sony Slr Alpha 35-16.2 Megapixel With Usb HDD 500GB, Usb Adapter Cable, Vmc - Uam With Tripod Stand.	Under RPS	2011-12	298936	Parallel programming Hands on, Practical, Projects (UG, PG), Workshops , Image Processing Pictures	HPCA, Cuda Programming, Workshop , STTP of NVIDIA, For Taking Pictures of various events of department and project of UG,PG	5	4	2	8	1 FDP on Artificial intelligence and Image Processing, 1 FDP High Performance Computing Architecture, VAC on Computer Vision and Image Processing Applications, UG Projects - more than 10 students have worked on Artificial Intelligence and Image Processing, PG Projects - Medical Named Entity Recognition in Bio-medical Literature using Deep Learning Techniques, Pattern Recognition of acute lymphoblastic leukemia using deep learning, Study on generative AI to investigate medical imagery models & datasets, Generative AI - Driven data augmentation of MRI scans for		 

											improved Alzheimer detection, AI Powered Multimodel Crop Disease Detection System Using Deep Learning.		

	CICSO WLAN Controler, Light Weight AP(10), Outoor Access Point (2), Antena (2), 1310 Wall Mount Kit (2), Wireless Ultra Low Loss Cable (2), Lighting Arrestor (2), Switches (1),Implementation Of Wireless N/W, Project Documentation &Execution	Under MODROB	2010-11	972278	Campus wide networking at CCC	Campus wide networking	Nil	3	1	Nil	Practicals are conducted at UG Level		Its connected in YCCE Campus
	HP Workstation Z440 Intel Xeon E5 1630 Processor, 32gb RAM, 2TB HDD, Nvidia K620, 2GB Graphics, Win7 Prof. & HP Workstation MONITOR BZ Z241 24" IPS TFT	NYSS	2016-17	201294	Practical, Project of UG,PG	Practical and Projects	Nil	4	1	4			
Electrical Engineering	Power Analyzer		2013	4,78,000		PROJECT WORK		10	5	8		Hardware based projects are enhanced	

	Dc power supply 0-120 v 0-4 A 480 w		2013	1,88,000		PROJECT WORK							
	4 channel 200 mhz DSO		2013	2,77,000		PROJECT WORK							
	4 channel 500 mhz DSO		2015	548000		PROJECT WORK							
	Thermal Imager Manual Focus		2016	394000		Consultancy							
Applied Mathematics	MATHEMATICA software	MGI	Mar-18	99710/	Analysis and plot	Result analysis	0	40	0			Paper published	

Chemistry	Potentiometer	MGI	2023	12760		Conducted experiments for Applied Chemistry PR and Engineering Chemistry PR							
	Proximal Soilsens Kit	MGI	2024	45135		Soil testing for the project on Investigation of Soil organic carbon	0	01 (submitted)	0	0			
	Stack cell	MGI	2024	30000 sanctioned		Used aa a hydrogen fuelcell stack with NI based.							
	Vacuum oven	MGI	2024	37241		Comparative study of effects of different dying techniques on the quality of fruits and vegetables.						Experimentation in Applied and Engineering Chemistry Practical	

	Karl Fischer titrator	MGI	2025	45000/-		Determination of moisture content in food and pharmaceutical products.							
	Turbiditymeter	MGI	2024	14278/-		Conducted Water Analysis for Applied Chemistry PR and Engineering Chemistry PR							

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