POORNIMA
COLLEGE OF ENGINEERING
An autonomous institution approved by RTU, AICTE & UGC • NAAC A+ Accredited

CELEBRATING 25 YEARS OF EXCELLENCE

POORNIMA COLLEGE OF ENGINEERING
AN AUTONOMOUS INSTITUTE

Metric File

Criteria	**4 - Infrastructure and Learning Resources**
Key Indicator	**4.1 - Physical Facilities**
Metric	**4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching learning. viz., classrooms, laboratories, computing equipment etc.**
Contents	1. **QLM** 2. **Geo Tagged Photos of Infrastructure and Physical Facilities** 3. **Research Facilities in College** 4. **Centre of Excellence (CoE)** 5. **Location wise detail of Classrooms and Laboratories** 6. **Rainwater Harvesting** 7. **Sewage Treatment Plant** 8. **Solar Power Plant**

INDEX

4.1.1 QLM

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
• Phone: +91-9829255102, +91-9414728922 • E-mail: principal.pce@poornima.org
• Website: www.pce.poornima.org

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching-learning. viz., classrooms, laboratories, computing equipment etc.

Poornima College of Engineering has good infrastructure which includes properly ventilated spacious classrooms, well equipped laboratories, tutorial rooms, seminar halls, playground, canteen, and eco-friendly environment.

The Institute has classrooms (44) and tutorial rooms (17) with proper resources and ventilation. Each class room has green and white boards with LCD projector and LAN/Wi-Fi connection for ICT enabled learning. Classrooms have windows with covered curtains for ventilation, fans and lights.

The Institute has well-equipped laboratories (59) as per the norms of RTU and AICTE. Laboratories are equipped with latest and adequate well-maintained machines, devices, fire safety equipment, first aid kits, and open source & proprietary software for experiential learning. The Institute has 5 seminar halls and 1 air conditioned conference hall for the conduction of seminars, conferences, FDP, guest lectures, and workshops.

The institute has sufficient number of computers according to AICTE Guidelines. In every department computer laboratories are established for the purpose of conduction of within curriculum and beyond curriculum experimentations and project works. The laboratories have all required software with internet connectivity. Faculty members have separate desktop with LAN/WIFI connectivity.

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4.1.1Geo Tagged Photos of Infrastructure and Physical Facilities

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
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Updated list of Facilities and Infrastructure Available in the College

ACADEMIC BLOCK-I			
S. No.	**Facility Type**	**Quantity**	**Area (Sq. M)**
1.	Lecture Theater	09	694.50
2.	Tutorial Theater	10	359.68
3.	Laboratory/ Computer LAB	38	2897.32
4.	CoE Advanced Manufacturing	01	72.91
5.	CoE Automobile & Electric Vehicles	01	203.27
6.	Seminar Hall	01	76.87
7.	Faculty Cabin	37	450.95
8.	Administrative Office	09	186.03
9.	PIIC Office	01	11.41
10.	IQAC Office	01	35.82
11.	Training & Placement Office	01	34.60
12.	Poornima College Alumni Society	01	39.78
13.	Conference Hall	01	101.23
14.	Board Room	02	59.52
15.	Department Library	01	48.98
16.	Visitor's Lounge	01	50.52
17.	Surveillance Room	01	48.27
18.	Server Room	01	14.79
19.	Exam & Secrecy Cell	01	11.57
20.	Provision Store	01	23.64
21.	Waiting Area for Administration	01	126.9
ACADEMIC BLOCK-II			
S. No.	**Facility Type**	**Quantity**	**Area (Sq. M)**
1.	Lecture Theater	17	1187.49
2.	Tutorial Theater	01	34.81
3.	RTU CoE Advance Wireless Communication Lab Under AICTE MODROB	01	56.33
4.	Laboratory/ Computer LAB	19	1192.83
5.	Seminar Hall	04	690.12
6.	Faculty Cabin	40	378.30
7.	Central Library	03	1024.43
8.	R & D Office	01	09.20
9.	Student Council Office	01	37.45
10.	Board Room & Department Library	05	153.35
11.	Common Room	02	127.18
12.	Examination Cell	01	137.00

ACADEMIC BLOCK-III			
S. No.	**Facility Type**	**Quantity**	**Area (Sq. M)**
1.	Lecture Theater	12	1066.38
2.	Laboratory/ Computer LAB	18	1450.56
3.	Seminar Hall	01	177.69
4.	Faculty Cabin	25	366.25
5.	ICC Office	01	21.93
6.	SUPW Office	01	13.62
7.	Common Room	02	75.67
8.	Zircon Club	01	37.54
9.	Department Library	01	21.26
10.	Server Room	01	11.39
11.	Mess	01	362.66
ACADEMIC BLOCK-IV			
S. No.	**Facility Type**	**Quantity**	**Area (Sq. M)**
1.	RTU CoE AI & Big Data	01	163.81
2.	PIIC Cell	01	146.56
3.	Laboratory/ Computer LAB	05	567.57
4.	Admission Cell	04	184.05

Geo-Tagged Photos of Updated Infrastructure

Classrooms and Tutorials

Lecture Hall: 1004

Lecture Hall: 1004

Labs

1107 Advance Java Programming Lab

1108 Software Testing & Design Lab

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3202 Electrical Lab   3B01 MP Workshop

Center of Excellence

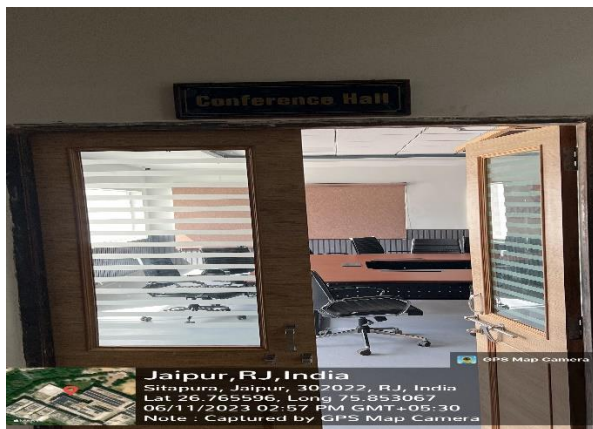1B11 Automobile & Electric Vehicles Lab   1B02 Advanced Manufacturing Lab

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4009 RTU CoE AI & Big Data   2308-B RTU CoE Advance Wireless Communication

Conference Room

Conference Hall

Conference Hall

Central Library

2109 Central Library

Book Section

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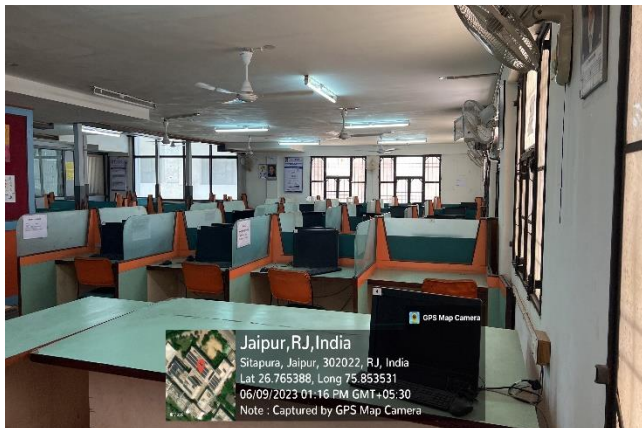
E-Library Section   2108 Examination Hall

Gym

Gym   Gym
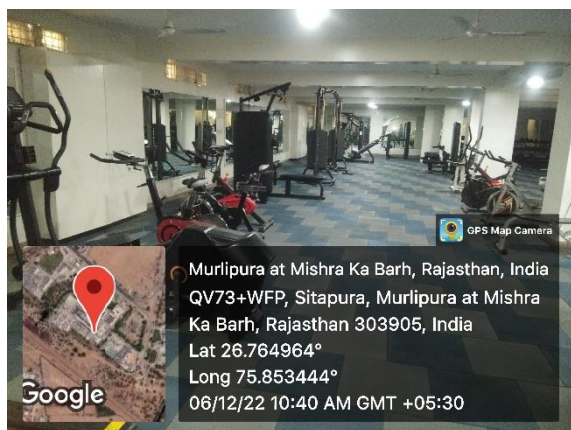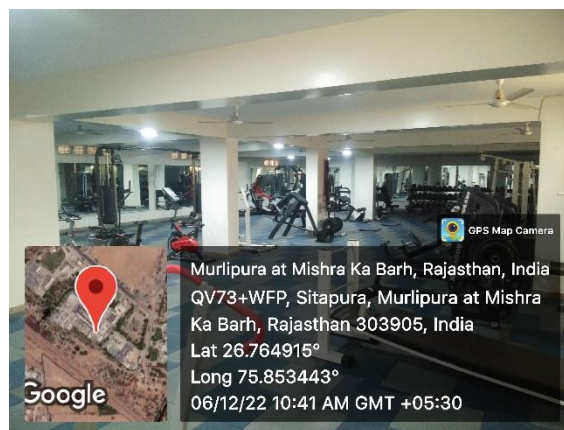
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Faculty Rooms

Faculty Cabin

2209-B

Offices

Principal Office
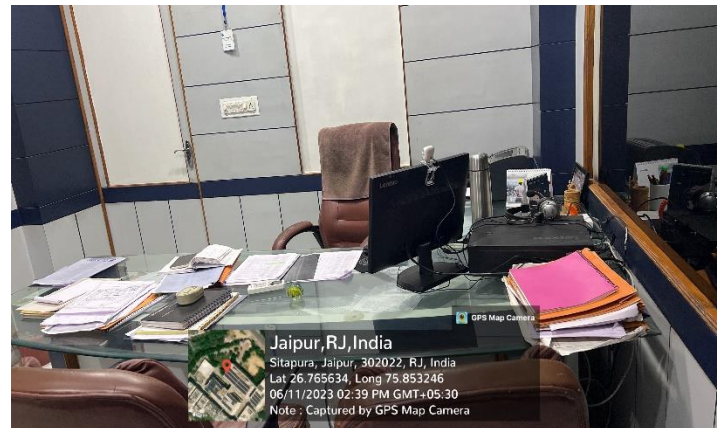
Vice Principal Office

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Registrar Cabin   Chief Proctor Office
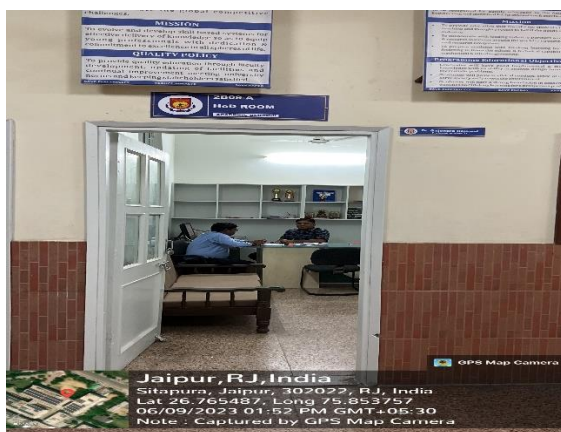
HOD Cabin   HOD Cabin

Mess & Canteen

Campus Canteen   Campus Canteen

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4.1.1 Research Facilities in Institute

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Recognized by UGC under Section 2(f) of the UGC Act, 1956

4.1.1 Research Facilities in Department of Electrical Engineering

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Research Facilities

S. No	Name of Equipment	Laboratory	Date of purchase & cost	Bill no. & Date
Research Facility in Electric Drives Lab Engineering				
1	3-Phase Induction motors, S.no. A-090270-271, (Rotomatic A-090271, 71)	Electric Drives Lab	9.9.2014	1415/3272/9.9.2014
2	AC Synchronous motor, S.no. 983	Electric Drives Lab	9.9.2014	1415/3272/9.9.2014
Research Facility in Electrical Machine Lab Engineering				
3	Control panel OC/SC test of 3 phase transformers	Electrical Machine Lab	20.02.20 06	20.02.2006
4	Control panel Scott connection of 3 phase transformer	Electrical Machine Lab	20.02.20 06	20.02.2006
Research Facility in Protection Lab Engineering				
5	Burden effect of CT (setup)	Power System Protection Lab	18.08.20 04	EL8831/18.08.2004
6	40 litre oil filtering test set	Power System Protection Lab	10.09.20 12	EL/3764/1213/10.09.2012
7	High voltage circuit breaker testing unit	Power System Protection Lab	10.09.20 12	EL/3764/1213/10.09.2012
8	High voltage transmission line simulation panel	Power System Protection Lab	10.09.20 12	EL/3764/1213/10.09.2012
9	HT & LT bushing, lightening arrester	Power System Protection Lab	10.09.20 12	EL/3764/1213/10.09.2012
Research Facility in Power Electronics Lab Engineering				

Department of Electrical Engineering

10	Phase controlled rectifier SCR Aditron	Power Electronics Lab	24.04.20 04	1061/24.04.200 4
11	Single Phase Half Controlled Symmetrical & Asymmetrical Rectifier_ET THYSET_5/6 MR	Power Electronics Lab	17.11.20 10	EL5101/17.11. 2010
12	Voltage Commutated Chopper ET THYSET_20 MR	Power Electronics Lab	23.03.20 07	36194/23.03.20 07
13	Single phase PWM inverter Thyristor ET THYSET_25 MR	Power Electronics Lab	23.03.20 07	36193/23.03.20 07
14	Single phase PWM inverter_PET-422	Power Electronics Lab	07.05.20 11	EL01040/07.05 .2011
15	Single phase Parallel inverter ET THYSET_18MR	Power Electronics Lab	23.03.20 07	36193/23.03.20 07
16	Buck Boost Regulator ET THYSET_21 MR	Power Electronics Lab	23.03.20 07	36193/23.03.20 07
17	Control the speed of AC motor using AC Converter with close loop option F/B with fan Rider_Powercon	Power Electronics Lab	15.02.20 06	998/24.02.2006
18	CRO 30 MHz Scientific EE/PE/CRO/4/1	Power Electronics Lab	28.01.20 03	28.01.2003
Research Facility in Research & Development lab in Electrical Engineering				
19	UV machine	Research & Development Lab	01.06.20 12	EL/01465/1213 /01.06.2012
20	Etching Machine	Research & Development Lab	01.06.20 12	EL/01465/1213 /01.06.2012
21	Roller tinning machine	Research & Development Lab	01.06.20 12	EL/01465/1213 /01.06.2012
22	PCB drilling machine	Research & Development Lab	23.01.20 13	EL/06990/1213 /23.01.2013
23	Photo Resist Dip Coating Machine	Research & Development Lab	01.06.20 12	EL/01465/12-13/01.06.2012

Department of Electrical Engineering

24	Dye Developer machine	Research & Development Lab	23.01.20 13	EL/06990/12-13/23.01.2013
Research Facility in PLC/SCADA lab in Electrical Engineering				
25	Computerised Variable Compression Ratio Diesel Engine coupled with Eddy current dynamometer	PLC/SCADA lab	10.09.20 15	08750/1563/10.09.15
26	PLC based monitoring and sequence controller system	PLC/SCADA lab	10.09.20 15	08790/1568/10.09.15

Equipment Name: 3-Phase Induction motors
Make and Model: Powercon
Cost: Rs. 16000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: AC Synchronous motor
Make and Model: Powercon
Cost: Rs. 32000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: Control Panel OC/SC Test of 3 Phase Transformer
Make and Model: PCE/EE/000173
Cost: Rs. 45000/ - **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: Control Panel Scott Connection of 3 Phase Transformer
Make and Model: PCE/EE/000148

Cost: Rs. 67000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: Burden Effect of CT
Make and Model: Powercon
Cost: Rs. 50000/-   **Year of Purchase:** 18.08.2004

Department of Electrical Engineering
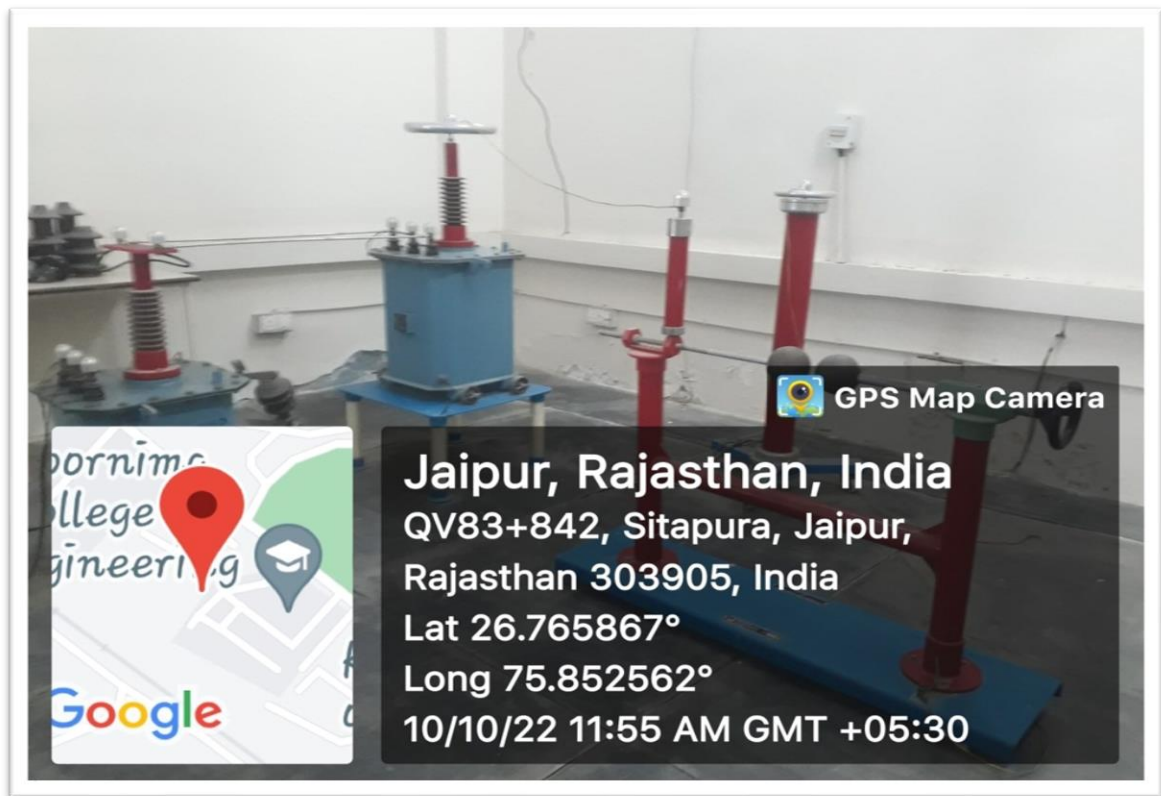
Equipment Name: HT & LT bushing, lightening arrester
Make and Model: High voltage (INDIA)

Cost: Rs. 57000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: Oil Testing Machine
Make and Model: Protection systems (INDIA)

Cost: Rs. 87000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: High voltage transmission line simulation panel
Make and Model: Protection systems (INDIA)

Cost: Rs. 75000/- **Year of Purchase:** 9.9.2014

Department of Electrical Engineering

Equipment Name: Transformer oil filtering Machine
Make and Model: High voltage (INDIA)

Cost: Rs**.**150000/-   **Year of Purchase:** 9.9.2014

Department of Electrical Engineering
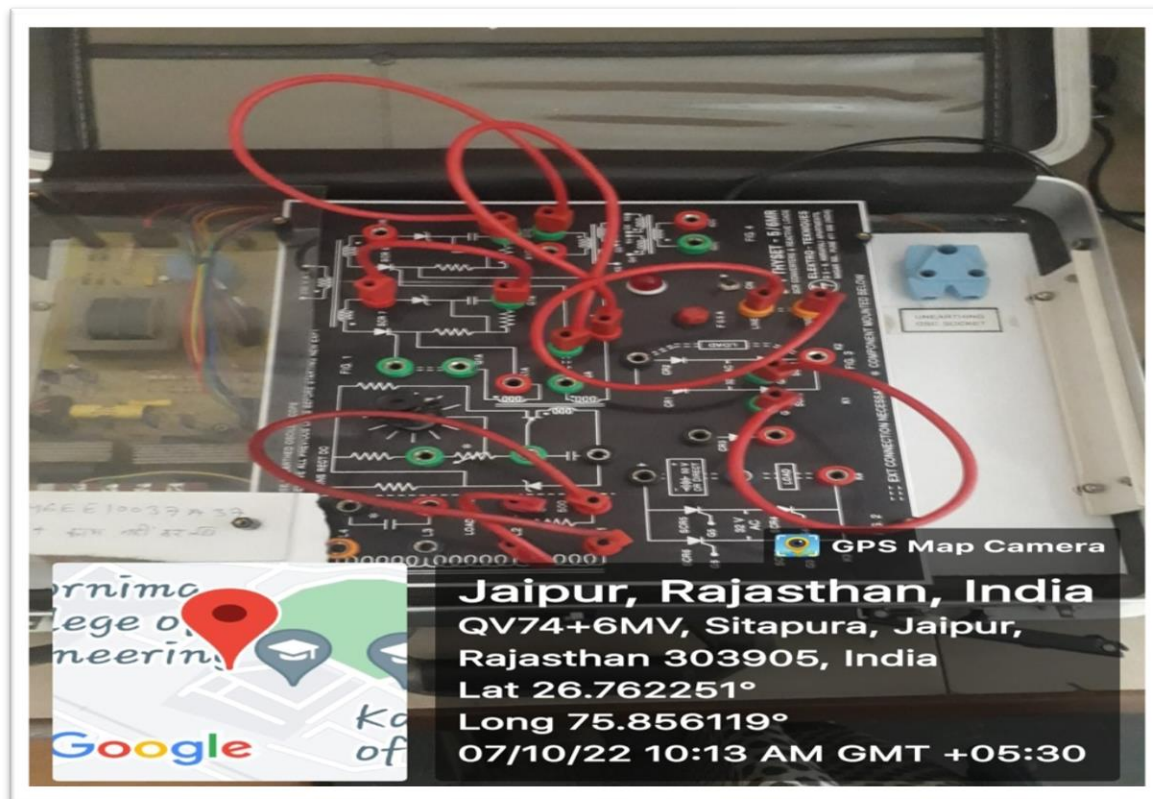
Equipment Name: Single Phase Half Controlled Symmetrical & Asymmetrical Rectifier

Make and Model: ET THYSET_5/6 MR

Cost: Rs. 25000/-   **Year of Purchase:** 17.11.2010

Department of Electrical Engineering

Equipment Name: Voltage Commutated Chopper
Make and Model: ET THYSET_20 MR

Cost: Rs. 21500/-   **Year of Purchase:** 23.03.2007

Department of Electrical Engineering

Equipment Name: Single phase PWM inverter
Make and Model: OMEGA PET-422
Cost: Rs. 25000/- **Year of Purchase:** 23.03.2007

Department of Electrical Engineering

Equipment Name: Single phase Parallel inverter
Make and Model: ET THYSET_18MR

Cost: Rs. 14500/- **Year of Purchase:** 23.03.2007

Department of Electrical Engineering
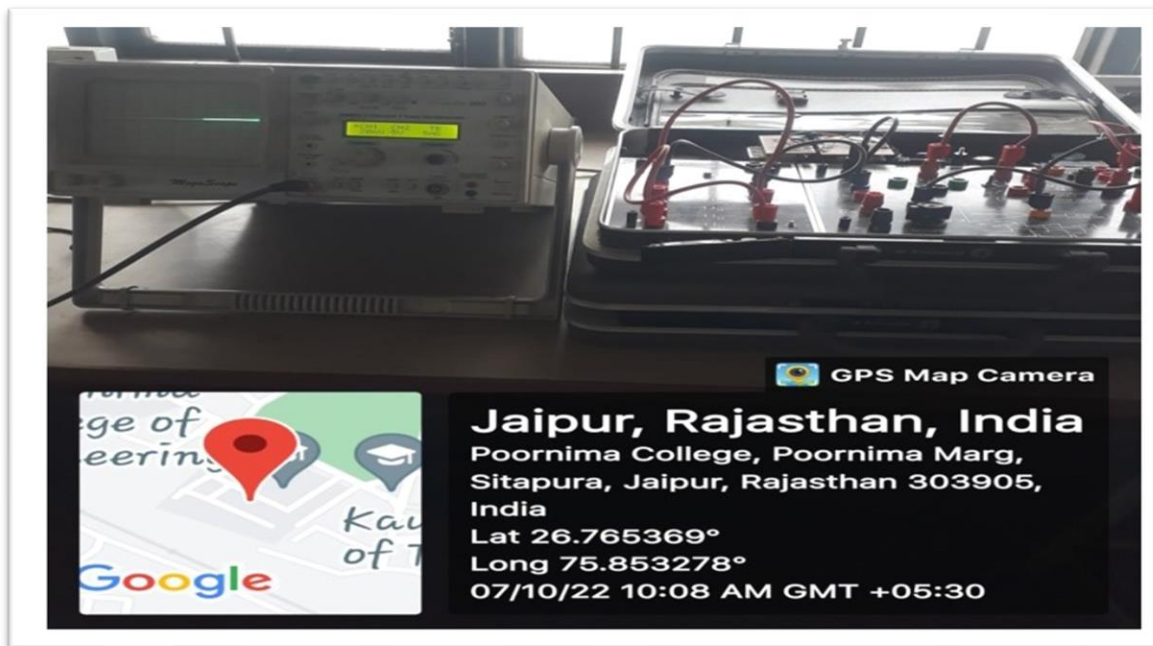
Equipment Name: Buck Boost Regulator
Make and Model: ET THYSET_21 MR

Cost: Rs.25000/- Year **of Purchase:** 23.03.2007

Department of Electrical Engineering

Equipment Name: Control the speed of AC motor using AC Converter with close loop option F/B with fan Rider

Make and Model: Powercon

Cost: Rs.35000/- **Year of Purchase:** 15.02.2006

Department of Electrical Engineering
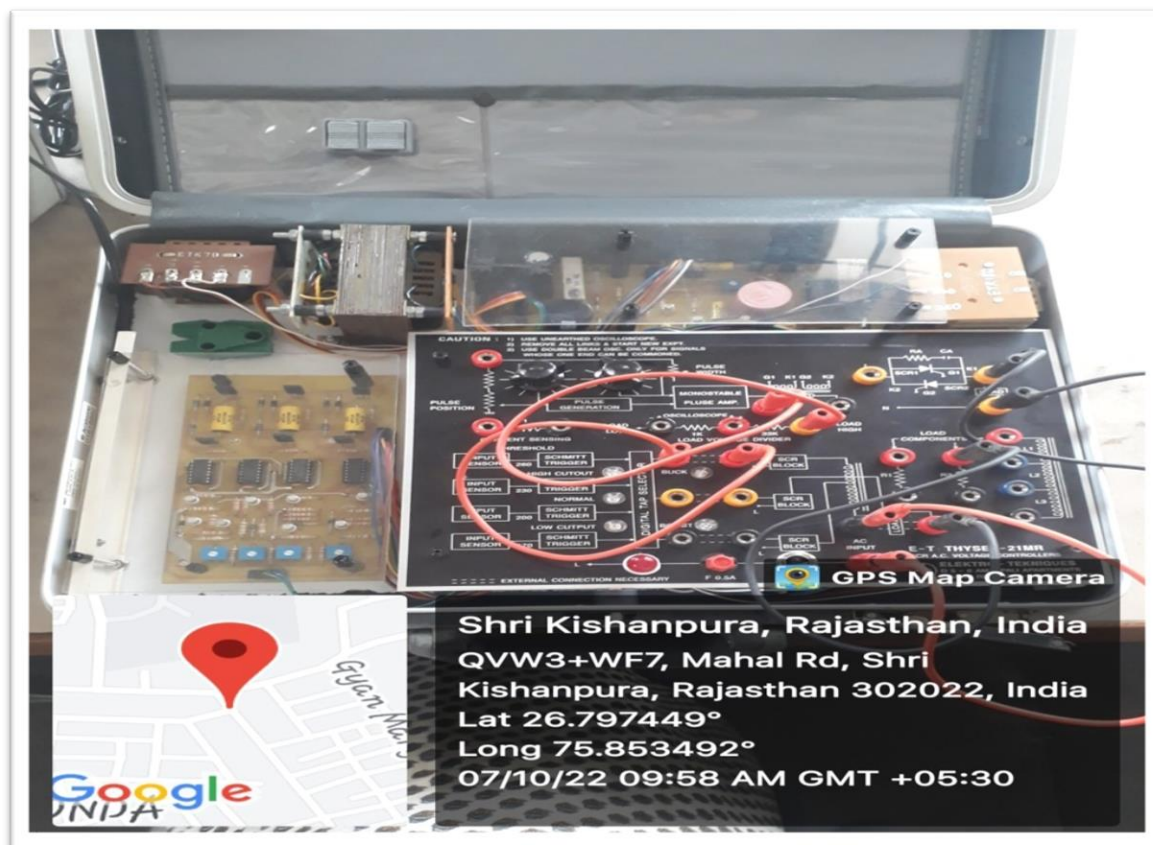
Equipment Name: Buck, Boost and Buck Boost regulator
Make and Model: ET-Thyeset-21MR

Cost: Rs.35000/-   **Year of Purchase:** 23.03.2007

Department of Electrical Engineering

Equipment Name: UV machine

Make and Model: Ultra II

Cost: Rs.125000/- Year **of Purchase:** 01.06.2012

Department of Electrical Engineering

Equipment Name: Roller tinning machine

Make and Model: Ultra II

Cost: Rs.56000/- **Year of Purchase:** 01.06.2012

Department of Electrical Engineering

Poornima Marg, Sitapura, Jaipur, Rajasthan 303905, India

12 Nov 2022 12:33 pm

Equipment Name: Photo Resist Dip Coating Machine

Make and Model:

Cost: Rs. 26500/- **Year of Purchase:** 2012

Department of Electrical Engineering

Equipment Name: Etching Machine

Make and Model: ULTRA-II

Cost: Rs.135000/- **Year of Purchase:** 2012

Department of Electrical Engineering

Equipment Name: Dye Developer Machine

Make and Model: ME-5755DR-4

Cost: Rs.95000/- **Year of Purchase:** 2013

Department of Electrical Engineering

Equipment Name: PCB drilling machine

Make and Model: ME-5565DR-2

Cost: Rs. 175000/- **Year of Purchase:** 2013

Department of Electrical Engineering
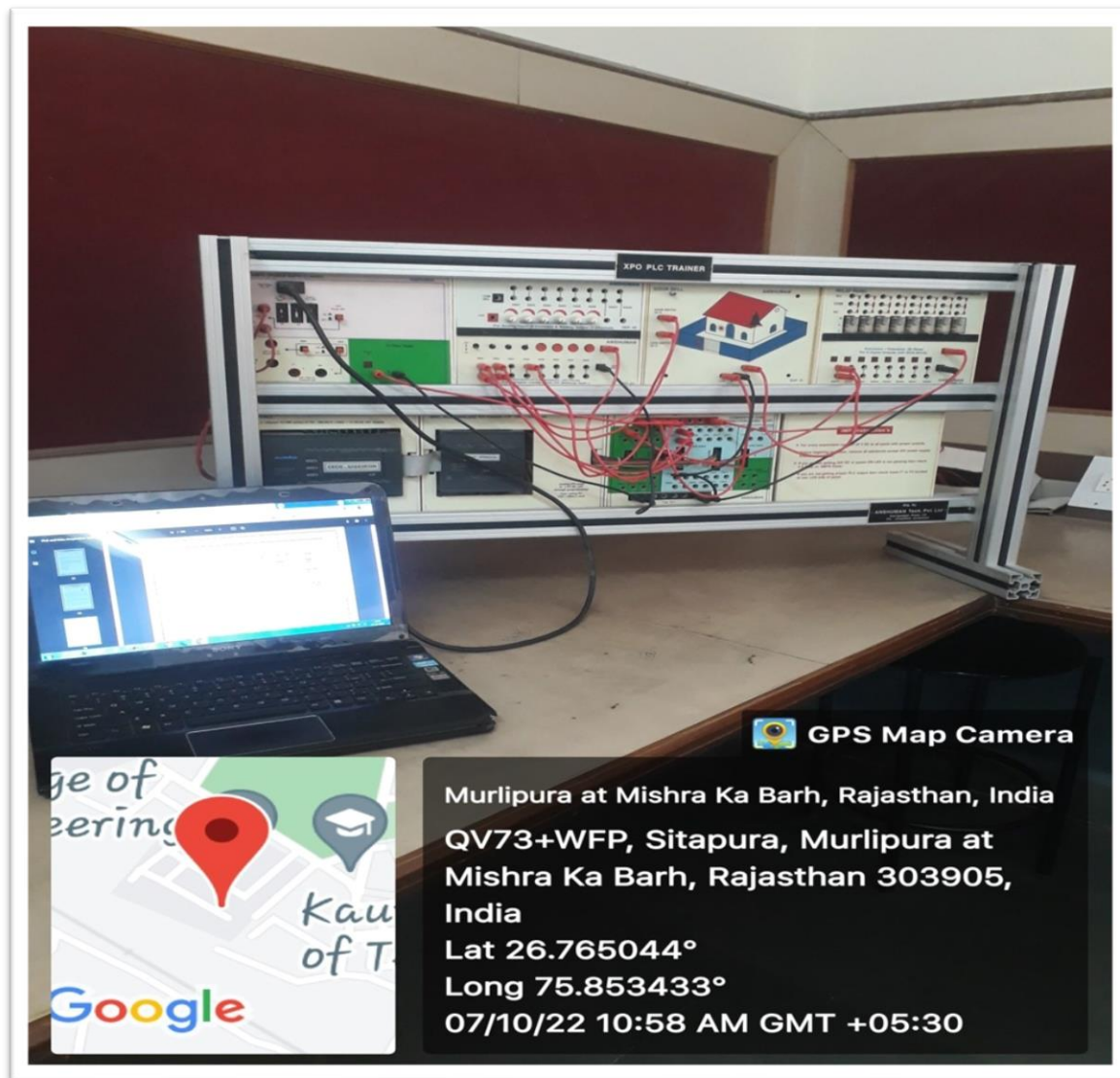
Equipment Name: PLC based monitoring and sequence controller system

Make and Model: Technical Teaching Equipments, Bangalore (Kirloskar TV1)

Cost: Rs.13,15,139/- **Year of Purchase:** 2015

Department of Electrical Engineering
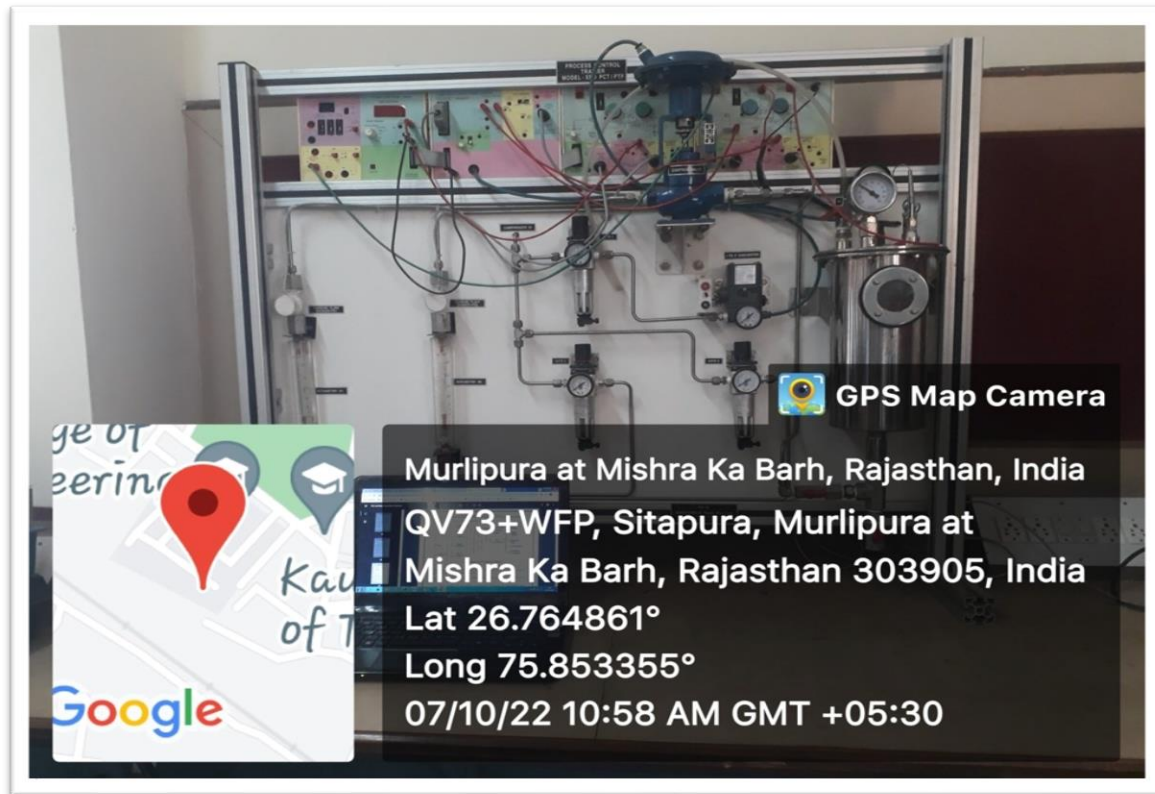
Equipment Name: Computerised Variable Compression Ratio Diesel Engine coupled with Eddy current dynamometer

Make and Model: Technical Teaching Equipment, Bangalore (Kirloskar TV1)

Cost: Rs.11,25,139/-**Year of Purchase:** 2015

Department of Electrical Engineering

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4.1.1 Research Facilities in Department of Electronics & Communication Engineering

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Research Facilities

| S. No	Name of Equipment	Laboratory	Quantity	Cost	Bill no. & Date
1	SENSE- nut ProLab	Advancement in Wireless & Optical Fiber Lab	1	4,72,000/-	EGIEN/1819/T-72/ 25.3.2019
2	Advanced Fiber Optic Communication Trainer	Advancement in Wireless & Optical Fiber Lab	2	94,400/-	SAL-0145/ 27/03/2019
3	Power Meter	Advancement in Wireless & Optical Fiber Lab	1	35,400/-	SAL-0145/ 27/03/2019
4	ENA Vector Analyzer	Advanced Microwave Engineering Lab	1	8,37,000/-	SAL-0069/ 16/12/2019
5	Antenna Trainer Kit	Wireless Communication Lab	1	2,14,209/-	EL/01673/12-13/ 09/06/2012
			5	5,84,588/-	EL/03507/12-13/ 30/08/2012
			1	2,14,200/-	EL/01678/12-13/ 09/06/2012
6	Radar Trainer Kit	Wireless Communication Lab	2	1,12,613/-	EL/012271/12-13/ 24/05/2012
			1	51,350/-	EL/3930/09-10/ 10-09-2009
7	Satellite Trainer Kit	Wireless Communication Lab	2	1,68,919/-	EL/01299/12-13/ 28/05/2012
			1	80,106/-	EL/3423/09-10/ 24/08/2009
8	GPS Trainer Kit	Wireless Communication Lab	1	40,258/-	EL/3308/09-10/ 19/08/2009
			2	85,893/-	EL/01153/12-13/ 12/05/2012
9	Logic Analyzer Kit	Wireless Communication Lab	1	58,745/-	EL/3423/09-10/ 24/08/2009
10	Fiber Optic Trainer Kit	Wireless Communication Lab	4	61,103/-	EL/07307/11-12/ 23/01/2012
			3	71,820/-	EL/00199/11-12/ 11/04/2011
			2	35,256/-	EL/05677/15-16/ 05/01/2016
11	CDMA DSSS Trainer Kit	Wireless Communication Lab	1	1,44,602/-	EL/3423/09-10/ 24/08/2009
			2	3,42,672/-	EL/01153/12-13/ 12/05/2012

Department of Electronics & Communication Engineering

12	Digital Storage Oscilloscope	Wireless Communication Lab	8	1,86,900/-	SAL-040/ 03/08/2015
13	SENSE- nut interface Software	Advancement in Wireless & Optical Fiber Lab	1	Mention in Above	EGIEN/1819/T-72/ 25.3.2019
14	CST MW Software 2020 (20 Users)	Advanced Microwave Engineering Lab	20 users	1,53,400/-	R-191/ 2019-20/ 16/12/2019
15	Spectrum Analyzer	Wireless Communication Lab	1	2,20,000/-	TS/20-21/0065/ 23/09/2020
			1	98,666/-	EL/2631/10-11/ 30/07/2010
16	Optical Communication Software (Optisystem Version-16)	Advancement in Wireless & Optical Fiber Lab	2 users	6,90,300/-	HRU/2018-19/17/ 26/03/2019
17	Digital Signal Processing Development	Wireless Communication Lab	10	3,38,000/-	EL/3027/09-10/ 03/08/2009
18	FPGA Trainer Kit (mission 10X)	Wireless Communication Lab	6	96,154/-	EL/07626/12-13/ 19/02/2013
			4	53,193/-	EL/07082/11-12/ 13/01/2012
19	Raspberry Pi	IOT Lab	1	3,500/-	MIC299/ 28/02/2020
			9	31,500/-	MIC299/ 28/02/2020
20	Microwave Test Bench	Microwave Lab	4	2,41,250/-	EL/1308/10-11/ 31/05/2010
			2	1,44,750/-	
			3	1,35,100/-	
			2	1,49,948/-	EL/1240/12-13/ 25/05/2012
21	RF/ Microwave Circuit Board	Microwave Lab	1	2,36,000/-	SAL-0069/ 16/12/2019
22	Advanced MIC Trainer Kit	Microwave Lab	2	2,53,151/-	El/03065/17-18/25/05/2017
23	Art Work Film Maker Proto Contact	Project Lab	1	15106/-	El/6739/07-08/ 22-01-2008
24	PCB Curing Machine	Project Lab	1	12450/-	
25	PCB Photo resist Dip Coat	Project Lab	1	19090/-	
26	PCB UV Exposure Proto	Project Lab	1	19920/-	
27	PCB Etching Machine	Project Lab	1	19712/-	

Department of Electronics & Communication Engineering

28	PCB Drilling Machine	Project Lab	1	13280/-	El/6739/07-08/ 22-01-2008
29	PCB Shearing Machine	Project Lab	1	11620/-	
30	PCB Tinning Machine	Project Lab	1	27390/-	
31	PCB Proto Dye Developer Machine	Project Lab	1	17430/-	
32	PCB Artwork Table Illuminated	Project Lab	1	7470/-	
33	PCB Etching Machine	Project Lab	1	17818/-	EL/155/10-11/ 09-04-2010

Department of Electronics & Communication Engineering
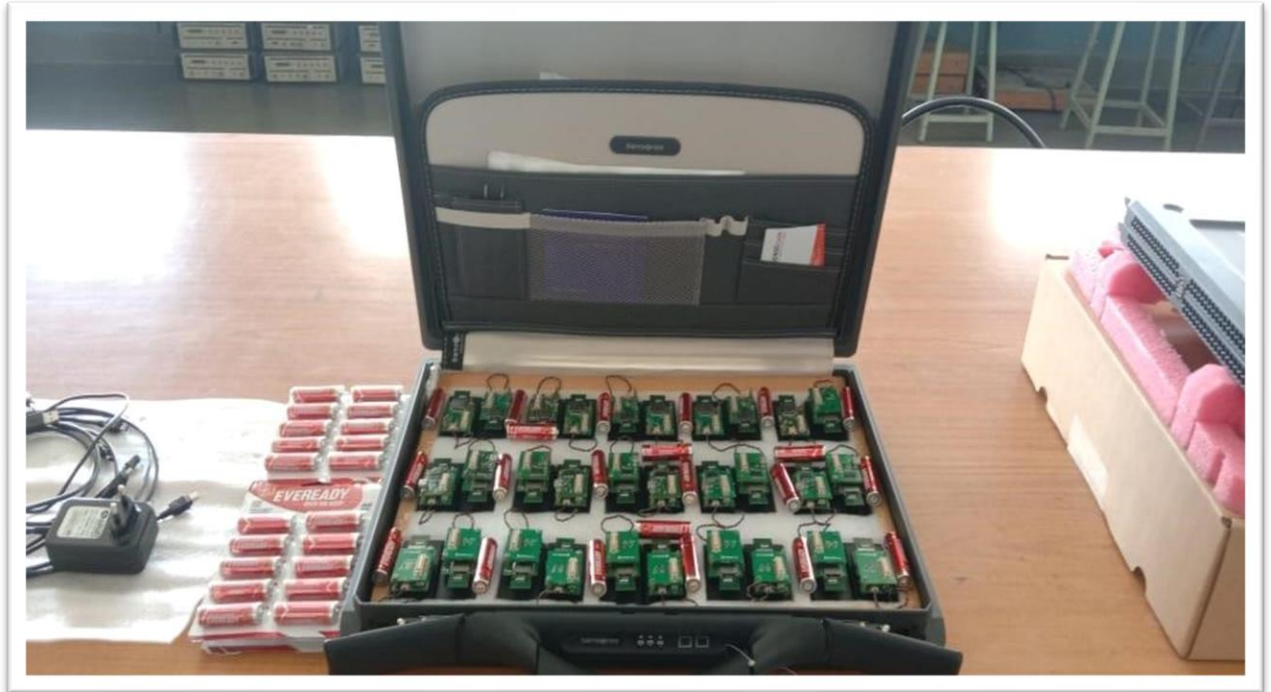
SENSEnuts Kit

SENSEnuts Modules
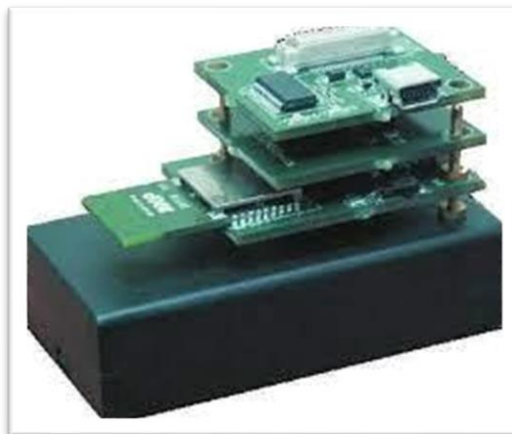
Equipment Name: SENSEnut ProLab
Make and Model: EIGEN Technologies Pvt. Ltd
Cost Rs. 4,72,000/-
Bill No. : EGIEN/1819/T-72/ 25.3.2019
Year of Purchase: 2019

Department of Electronics & Communication Engineering

Opti-system 17.1
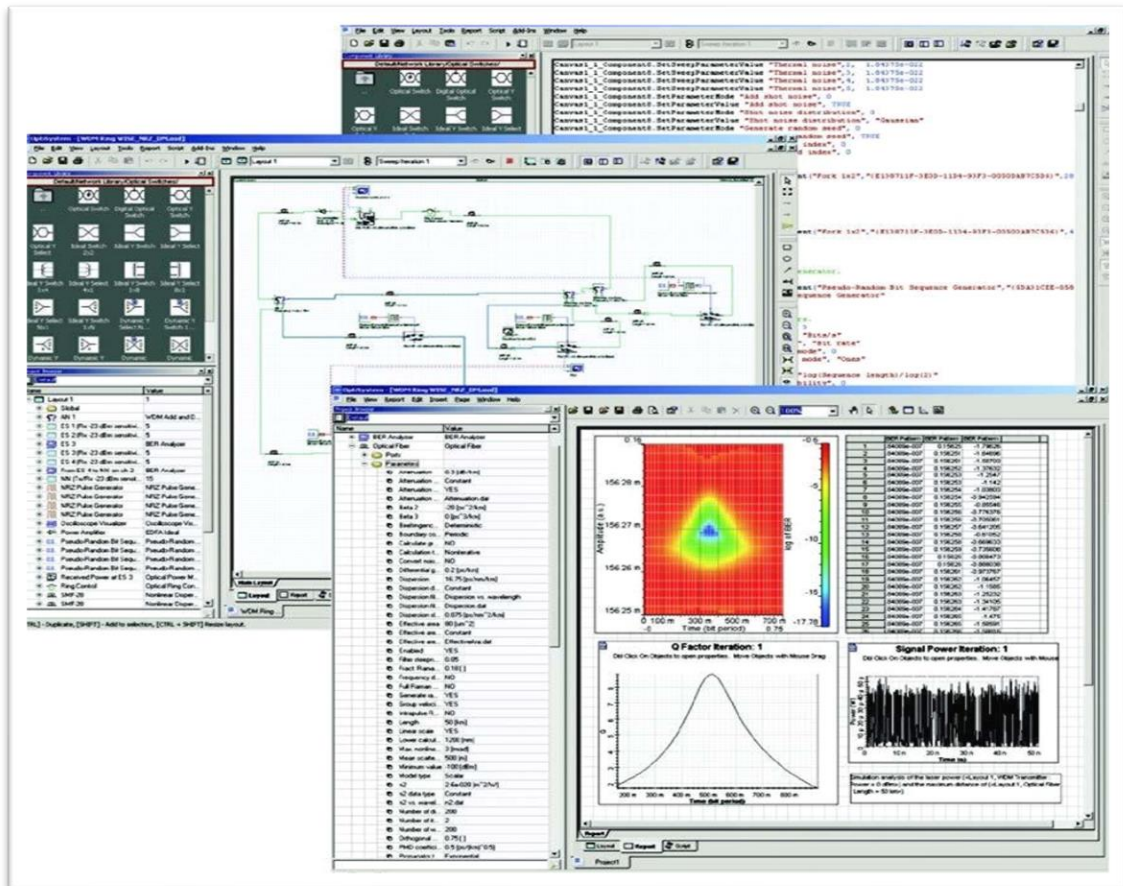
Equipment Name: Opti-system Version-17.1
USER: 2 users
Make and Model: Optiwave Photonic Software
Cost Rs. 6,90,300/-
Bill No.: HRU/2018-19/17/ 26/03/2019
Year of Purchase: 2019

Department of Electronics & Communication Engineering

Advanced Fibre Optical Communication Training Kit

**Equipment Name: Advanced Fiber Optic Communication
Trainer
Make and Model: Optiwave Photonic Software
Cost Rs.: 94,400/-
Bill No. : SAL-0145/ 27/03/2019
Year of Purchase: 2019**

Department of Electronics & Communication Engineering

ENA vector network Analyzer

Equipment Name: ENA vector network Analyzer
Make and Model: keysight technologies
Cost Rs.: 8,37,000/-
Bill No. : SAL-0069/ 16/12/2019
Year of Purchase: 2019

Department of Electronics & Communication Engineering

Power Meter

Equipment Name: Power Meter
Make and Model: Techtest
Cost Rs.: 35,400/-
Bill No. : SAL-0145/ 27/03/2019
Year of Purchase: 2019

Department of Electronics & Communication Engineering

Antenna Trainer Kit
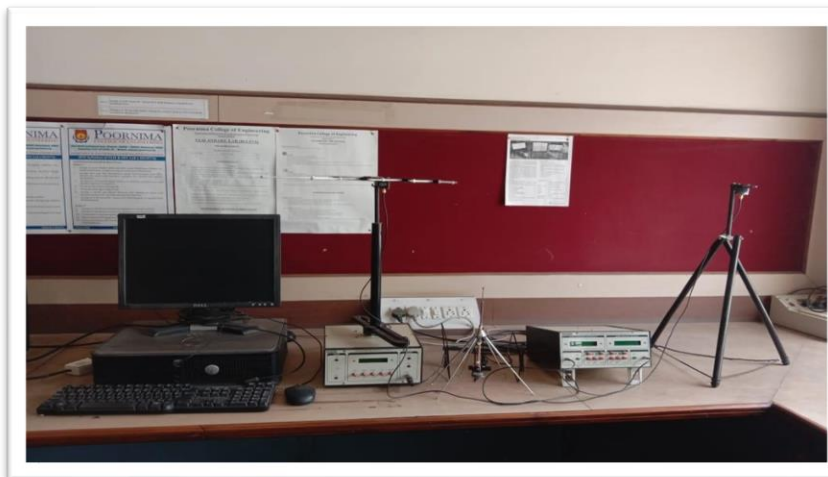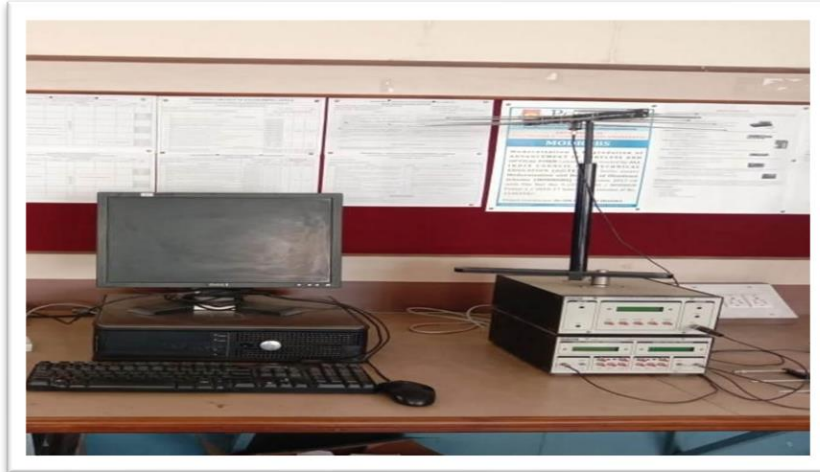
Equipment Name: Antenna Trainer Kit.
Make and Model: Amitech India Pvt Ltd
Cost Rs.: 1. 2,14,209/- 2. 5,84,588/- 3. 2,14,200/-
Bill No.:   1. EL/01673/12-13/ 09/06/2012
2. EL/01678/12-13/ 09/06/2012
3. EL/01678/12-13/ 09/06/2012
Year of Purchase: 2012

Department of Electronics & Communication Engineering

GPS Trainer Kit

Equipment Name: GPS Trainer
Make and Model: Scientech Technology re
Cost Rs.: 1. 40,258/- 2. 85,893/-
Bill No.: 1. EL/3308/09-10/ 19/08/2009
2. EL/01153/12-13/ 12/05/2012
Year of Purchase: 2009, 2012

Department of Electronics & Communication Engineering

Satellite Communication Trainer Kit

Equipment Name: Satellite Communication Trainer Kit
Make and Model: Scientech Technology
Cost Rs.: 1. 1,68,919/- 2. 80,106/-
Bill No. : 1. EL/01299/12-13/ 28/05/2012
2. EL/3423/09-10/24/08/2009
Year of Purchase: 2009, 2012

Department of Electronics & Communication Engineering

RADAR Trainer Kit

Equipment Name: Radar Trainer
Make and Model: Scientech Technology
Cost Rs.: 1. 1,12,613/- 2. 51,350/-
Bill No. : 1. EL/012271/12-13/ 24/05/2012
2. EL/3930/09-10/ 10-09-2009
Year of Purchase: 2009, 2012

Department of Electronics & Communication Engineering
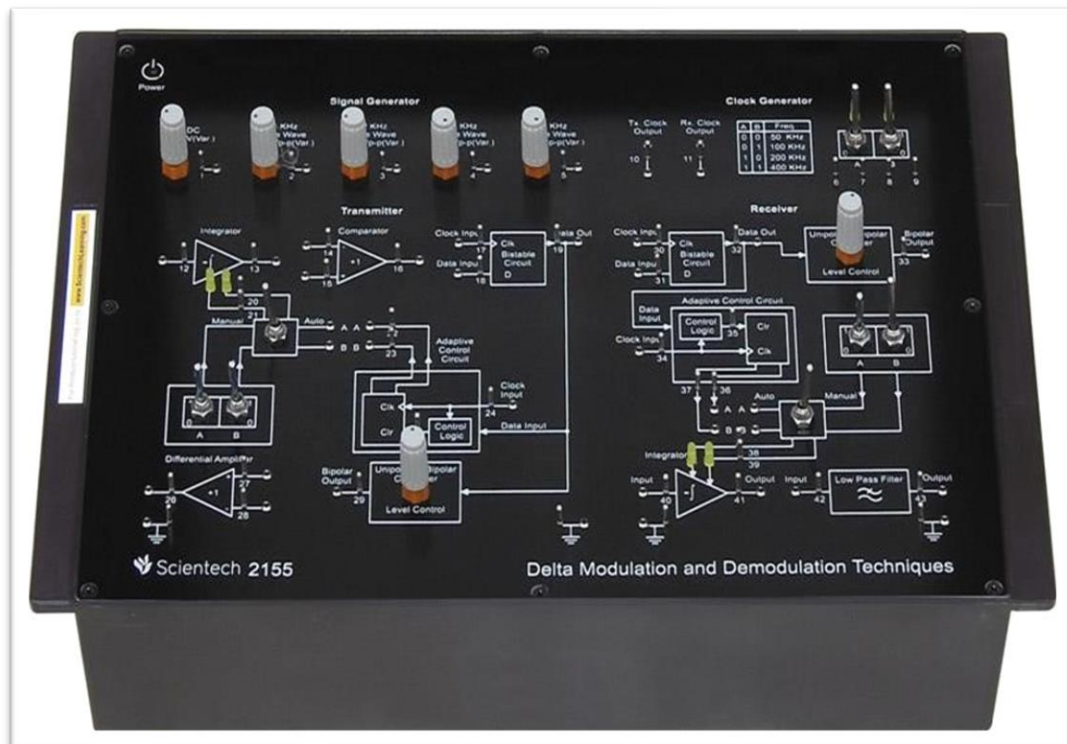
CDMA Trainer Kit

Equipment Name: CDMA Trainer Kit
Make and Model: Scientech Technology re
Cost Rs.: 1. 1,44,602/- 2. 3,42,672/-
Bill No. : 1. EL/3423/09-10/ 24/08/2009
2. EL/01153/12-13/ 12/05/2012
Year of Purchase: 2009, 2012

Department of Electronics & Communication Engineering

Microwave Test Bench Trainer Kit

Equipment Name: Microwave Test Bench
Make and Model: NVIS
Cost Rs.: 1. 521100/- 2. 1,49,948/-
Bill No. : 1. EL/1308/10-11/ 31/05/2010
2. EL/1240/12-13/ 25/05/2012
Year of Purchase: 2010

Department of Electronics & Communication Engineering

Digital Storage Oscilloscope
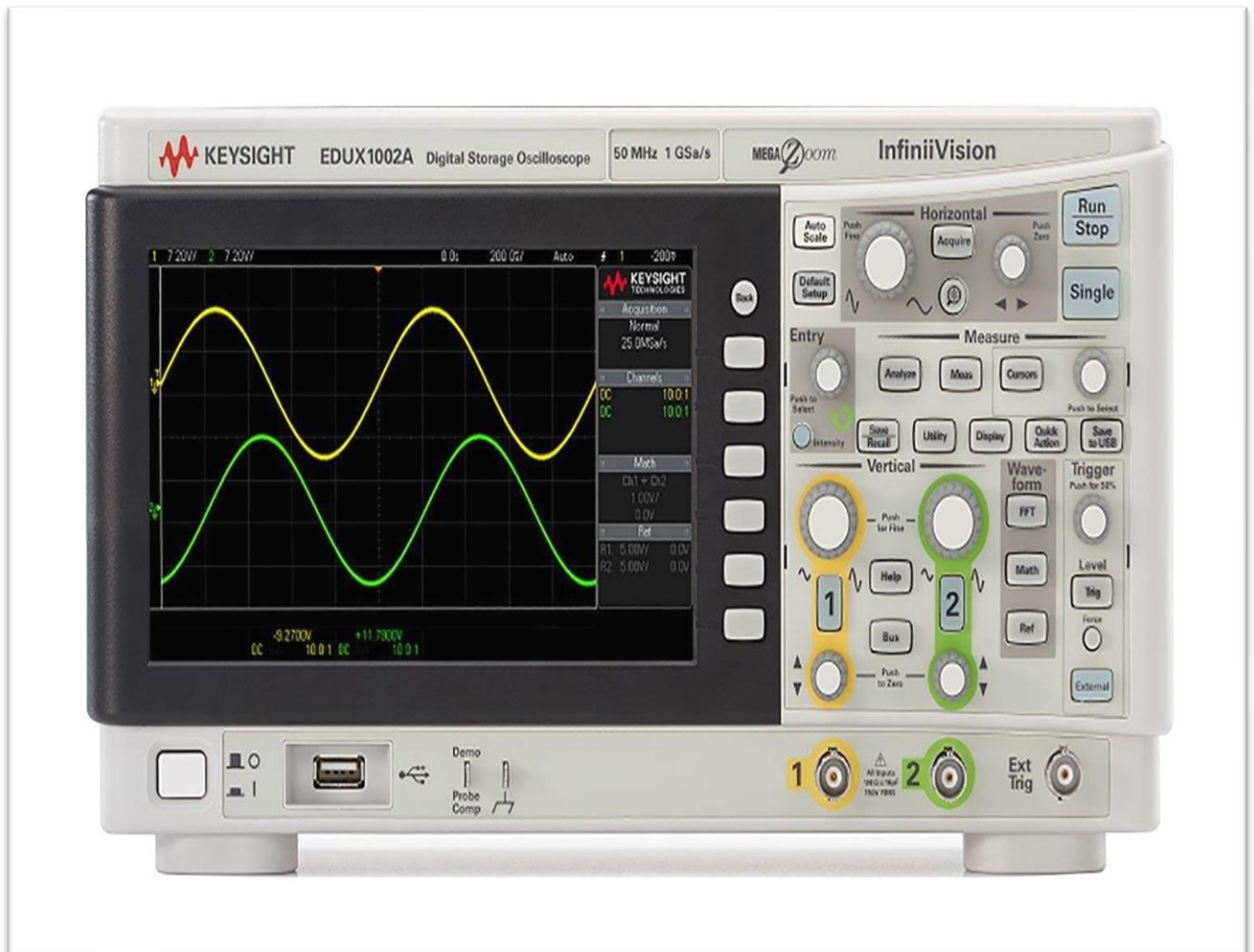
Equipment Name: Digital Storage Oscilloscope
Make and Model: keysight technologies
Cost: Rs.: 1,86,900/-
Bill No. : SAL-040/ 03/08/2015
Year of Purchase: 2015

Department of Electronics & Communication Engineering

FPGA Trainer Kit

Equipment Name: FPGA Development Board
Make and Model: Scientech technology
Cost: Rs.: 1. 96,154/- 2. 53,193/-
Bill No. : 1. EL/07626/12-13/ 19/02/2013
2. EL/07082/11-12/ 13/01/2012
Year of Purchase: 2012, 2013

Department of Electronics & Communication Engineering
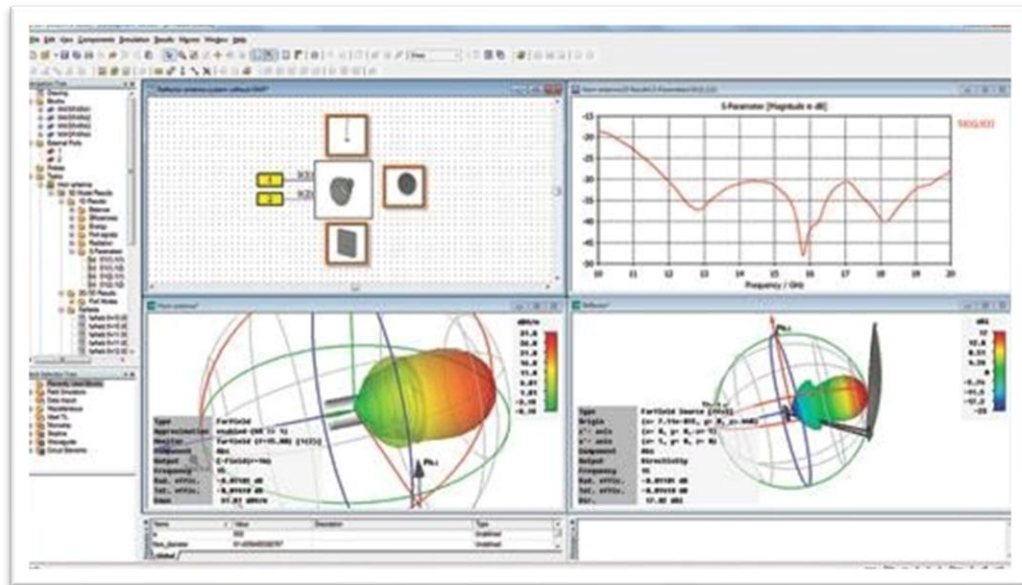
CST Studio Suite

Equipment Name: CST STUDIO SUITE (Software)
Make and Model: Dassault Systems
User: 20 Users
Cost: Rs.: 1,53,400/-
Bill No.: R-191/ 2019-20/ 16/12/2019
Year of Purchase: 2019

Department of Electronics & Communication Engineering

POORNIMA
COLLEGE OF ENGINEERING

Approved by AICTE
Affiliated to Rajasthan Technical University, Kota
Recognized by UGC under Section 2(f) of the UGC Act, 1956

4.1.1 Research Facilities in Department of Mechanical Engineering

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
• Phone: +91-9829255102, +91-9414728922 • E-mail: principal.pce@poornima.org
• Website: www.pce.poornima.org

Research Facilities

S. No	Name of Equipment	Laboratory	Date of purchase	Bill no.
1	Refrigeration Test Rig	Thermal Lab	05/10/2016	SAL-037
2	3D Printer	CAD Lab	15/07/2020	L3d/inv/2020-21/005
3	High Speed 3D Printer	CAD Lab	22/05/2022	SG/22-23/011
4	Vickers Hardness Test	Material Testing Lab	05/10/2016	SAL-037
5	Disc Polishing Machine	Material Testing Lab	05/10/2016	SAL-037
6	Digital Vernier Calliper	Material Testing Lab	05/10/2016	SAL-037
7	Muffle Furnace	Material Testing Lab	05/10/2016	SAL-037
8	Universal Vibration Apparatus	Vibration Lab	18/07/2015	EME/32/15-16/TRD
9	Critical Shaft Speed Apparatus	Vibration Lab	18/07/2015	EME/32/15-16/TRD
10	Emissivity Measurement Apparatus	Thermal Lab	01/01/2017	123758
11	Parallel and Counter Flow Double Heat Exchanger Apparatus	Thermal Lab	18/07/2015	EME/32/15-16/TRD
12	TIG Welding	P&I Lab	08/09/2016	SAL-025
13	SPOT Welding	P&I Lab	10/07/2015	SAL-18
14	MIG Welding	P&I Lab	10/06/2017	SAL-013
15	Submerged Arc Welding	P&I Lab	08/09/2016	SAL-013

Department of Mechanical Engineering

Equipment Name: Lathe Machine

Department of Mechanical Engineering

Submerged Arc Welding

Department of Mechanical Engineering

Surface Polishing Machine

Department of Mechanical Engineering
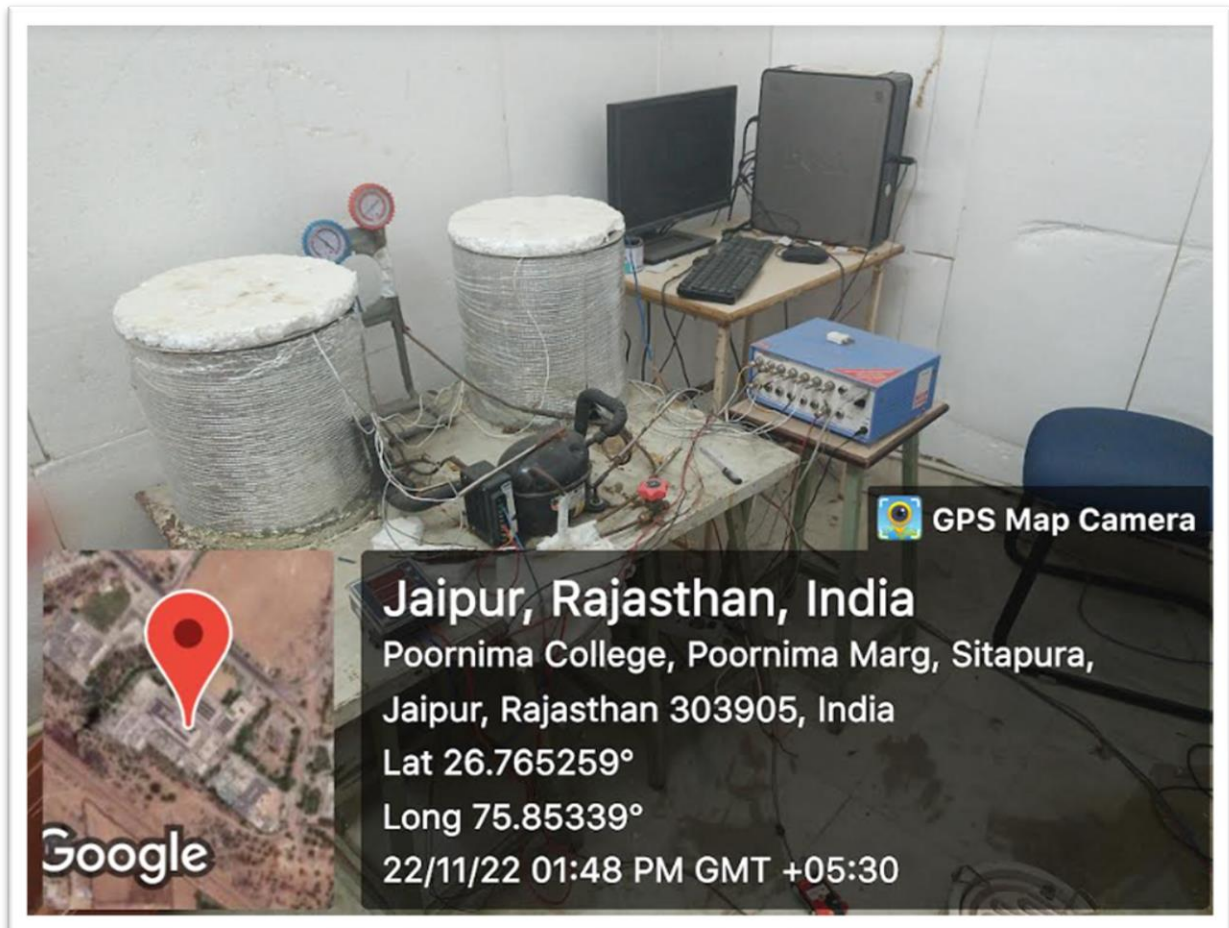
Refrigeration and Air Conditional Experimental Setup

Department of Mechanical Engineering

Experimental Setup

Department of Mechanical Engineering
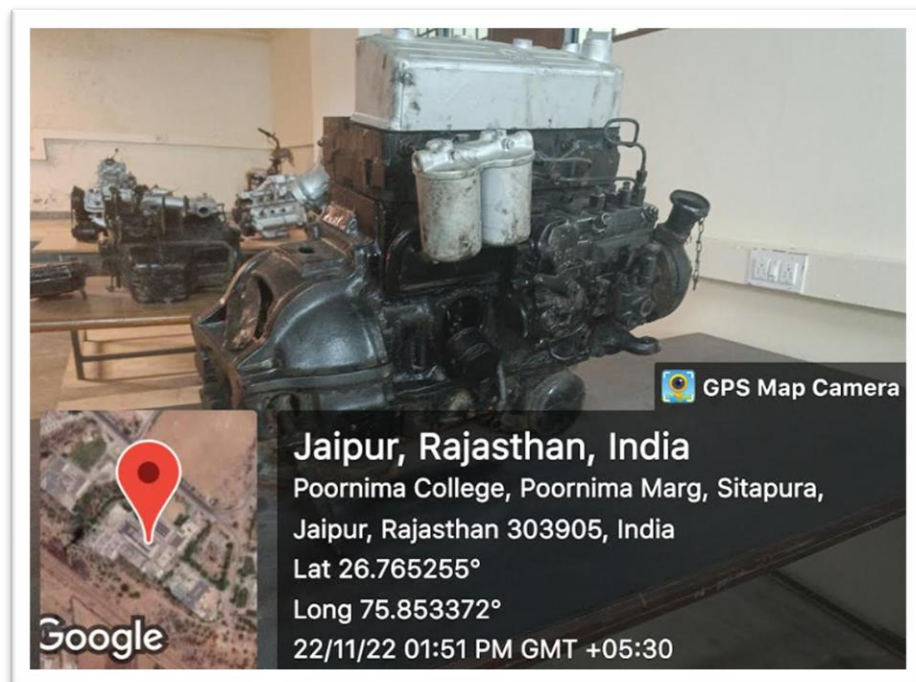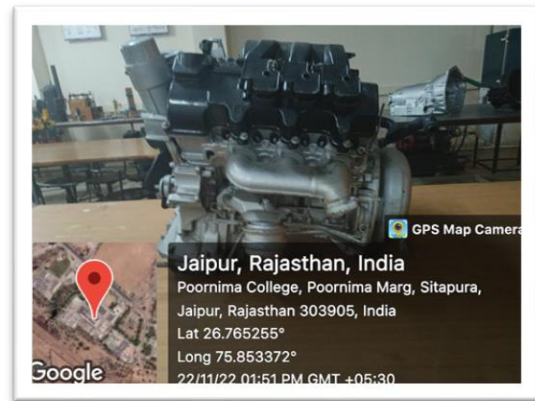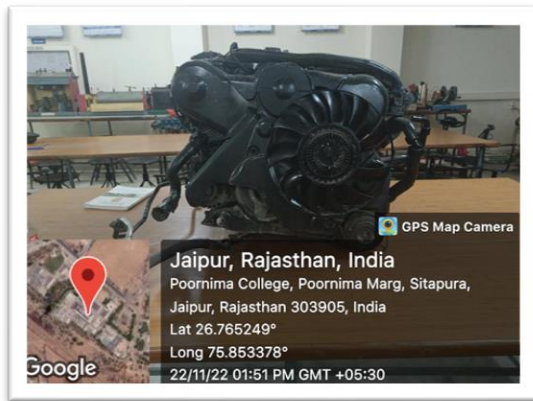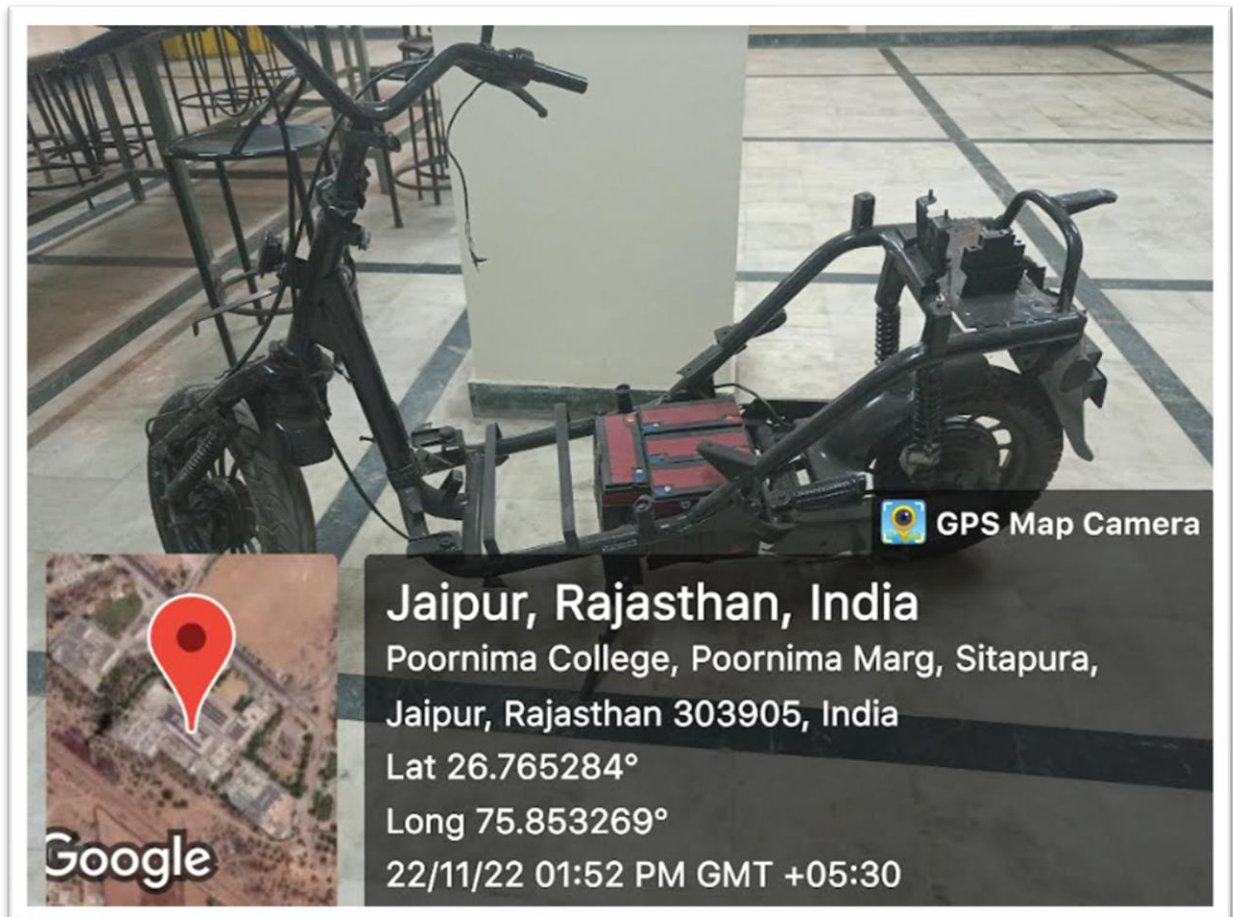
Electrical Vehicle Setup

Department of Mechanical Engineering

High Speed Three-Dimensional (3D) Printer

Department of Mechanical Engineering

Universal Testing Machine

Department of Mechanical Engineering

Vickers Hardness Tester

Department of Mechanical Engineering
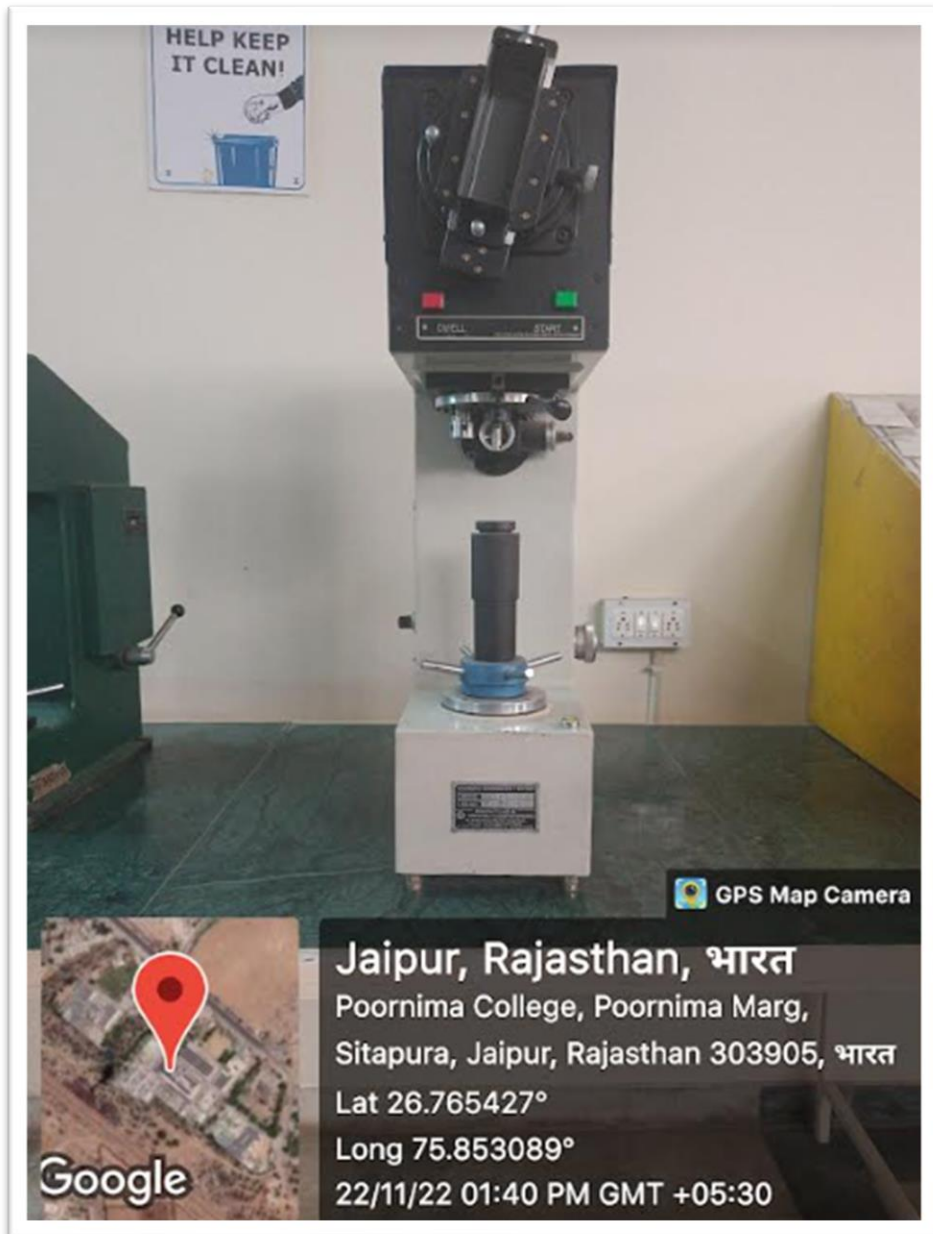
Solar Energy based Experimental Setup

Department of Mechanical Engineering

POORNIMA
COLLEGE OF ENGINEERING

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Recognized by UGC under Section 2(f) of the UGC Act, 1956

4.1.1 Research Facilities in Department of Civil Engineering

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
• Phone: +91-9829255102, +91-9414728922 • E-mail: principal.pce@poornima.org
• Website: www.pce.poornima.org

Research Facility in Geotechnical Engineering Lab

S. No.	Name of Equipment	Laboratory	Date of purchase & cost	Bill no. & Date
1	CORE-CUTTER APPARATUS	GEOTECHNICAL LAB	2/6/2014 2100/-	8 2/6/2014
2	CONE PENTOMETER APPARATUS	GEOTECHNICAL LAB	2/6/2014 3600/-	8 2/6/2014
3	PERMEABILITY TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 22500/-	9 2/6/2014
4	CBR TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 74500/-	9 2/6/2014
5	CONSOLIDATION TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 46000/-	9 2/6/2014
6	DIRECT SHEAR TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 70600/-	9 2/6/2014
7	TRI- AXIAL TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 138000/-	9 2/6/2014
8	UNCONFINED COMMPRESSION TEST APPARATUS	GEOTECHNICAL LAB	2/6/2014 41800/-	8 2/6/2014
9	OVEN	GEOTECHNICAL LAB	2/6/2014 9400/-	9 2/6/2014
10	PLASTIC LIMIT APPARATUS	GEOTECHNICAL LAB	2/6/2014 1700/-	8 2/6/2014
11	PROCTER TEST (LIGHT)	GEOTECHNICAL LAB	2/6/2014 4200/-	82/6/2014
12	PROCTER TEST (HEAVY)	GEOTECHNICAL LAB	2/6/2014 6800/-	8 2/6/2014
13	CASSAGRANDE APPARATUS	GEOTECHNICAL LAB	2/6/2014 1300/-	8 2/6/2014

Department of Civil Engineering

Research Facility in Civil Engineering Material

Equipment Name: V CAT APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 2600/- Year of Purchase: 2012

Department of Civil Engineering

Equipment Name: WATER BATH
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 8800/- Year of Purchase: 2012

Department of Civil Engineering

Equipment Name: WEIGHT BALANCE MACHINE
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 8500/- Year of Purchase: 2012

Department of Civil Engineering

Equipment Name: BLAIN'S AIR PERMABILITY APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 2200/- Year of Purchase: 2020

Department of Civil Engineering

Equipment Name: CONCRETE PERMABILITY TEST AP APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 61600/- Year of Purchase: 2020

Department of Civil Engineering

Equipment Name: BEAM
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 3200/- Year of Purchase: 2020

Department of Civil Engineering

Equipment Name: FLEXURAL STRENTH BEEM
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 1200/- Year of Purchase: 2020

Department of Civil Engineering

Equipment Name: COMPRESSION TESTING MACHINE
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.80500/-
Year of Purchase: 2012

Department of Civil Engineering

Equipment Name: CONCRET MIXER
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.65000/- Year of Purchase: 2017

Department of Civil Engineering

Equipment Name: FLOW TABLE
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.15700/- Year of Purchase: 2012
Department of Civil Engineering

Equipment Name: REBOUND HAMMER
Make and Model: SHIVAM ENTERPRISES
Cost: Rs.9400/- Year of Purchase: 2016

Department of Civil Engineering

Equipment Name: SLUMP TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.2100/- Year of Purchase: 2012

Department of Civil Engineering
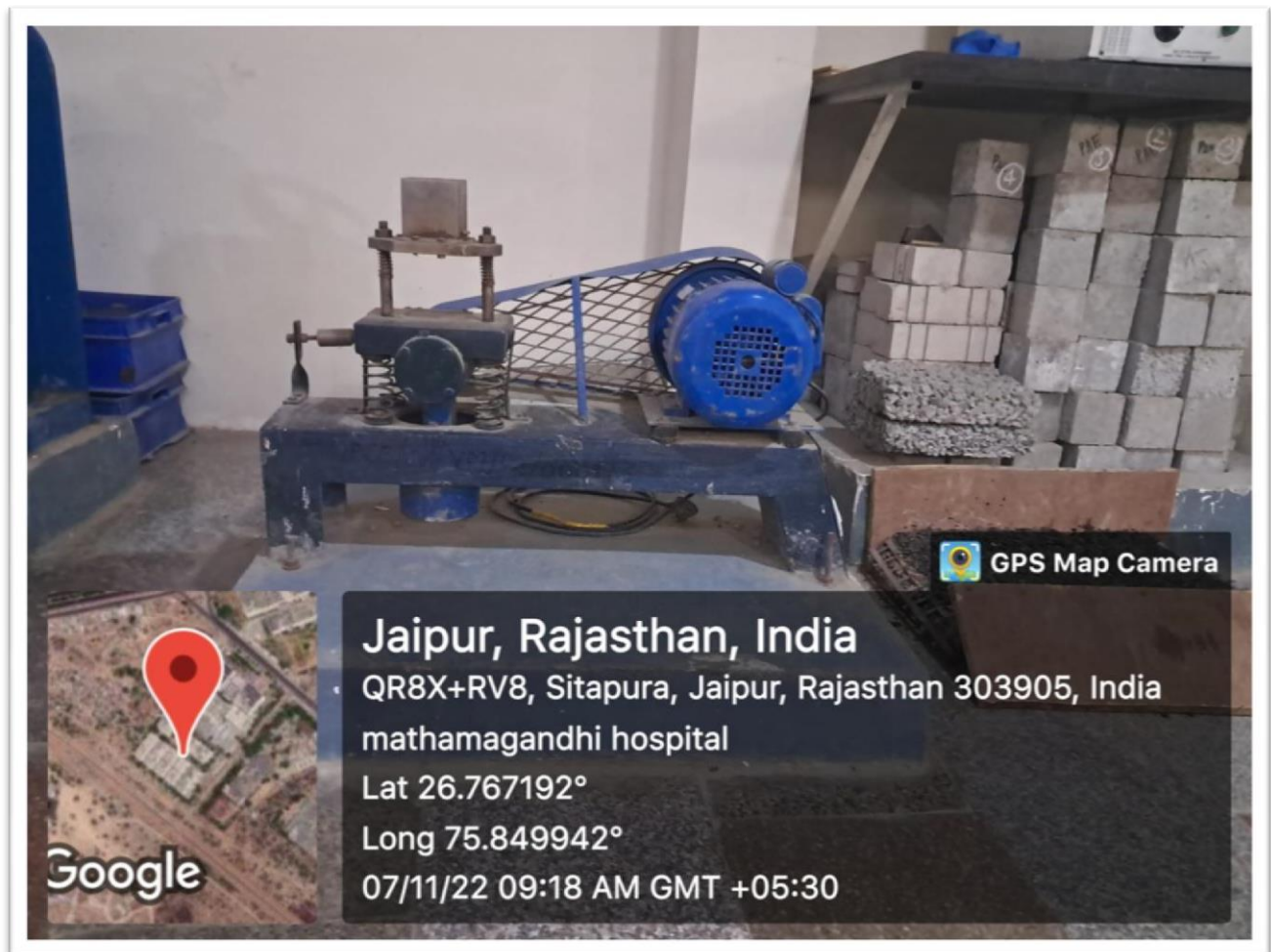
Equipment Name: VIBRATING TABLE
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 23800/- Year of Purchase: 2012

Department of Civil Engineering

Research Facility in Road Material Engineering
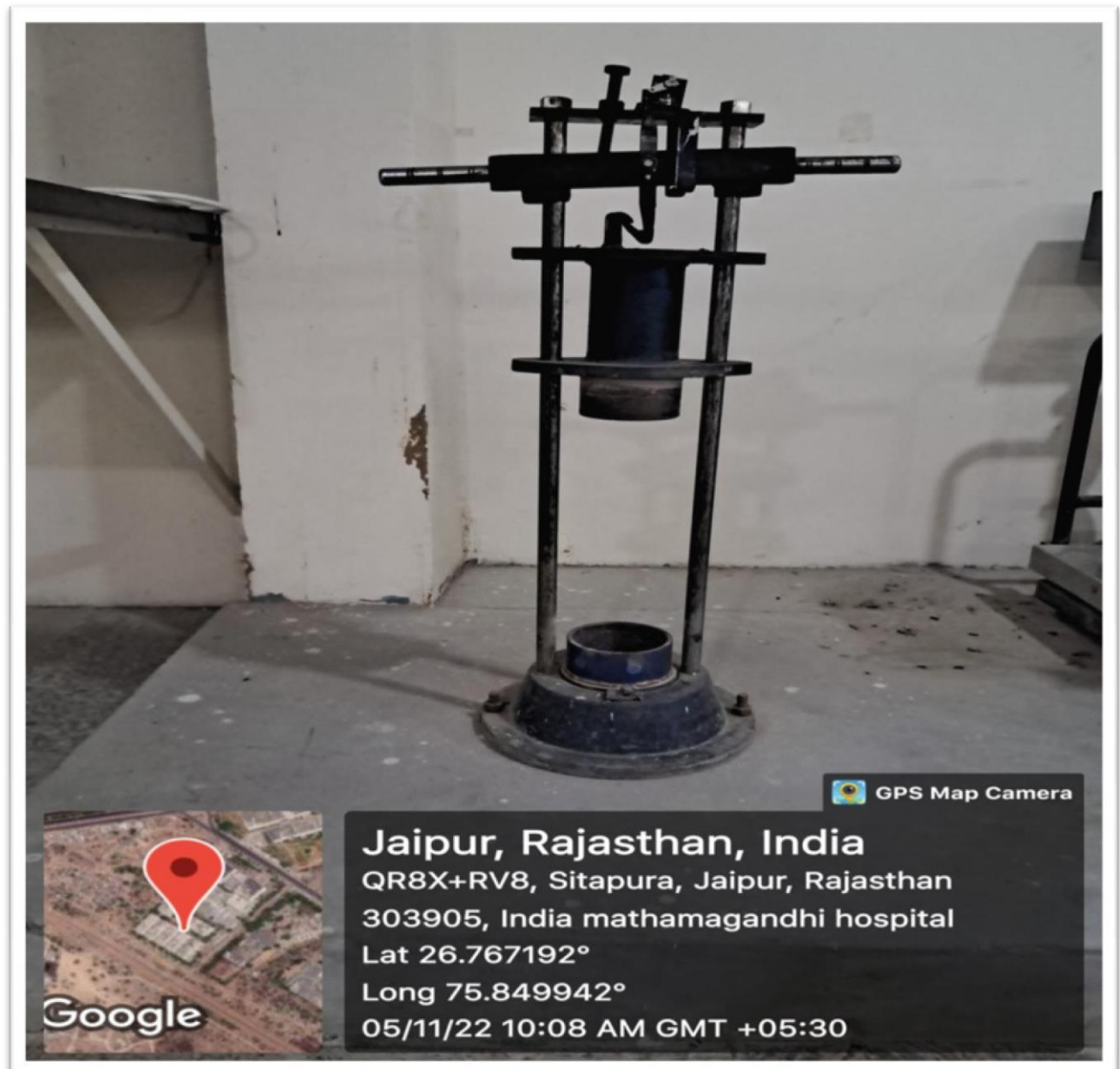
Equipment Name: AGGRAGATE IMPACT TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.8500/- Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: DUCTILITY TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 48100 /-   Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: LOS ANGELES ABRASSION TESTING MACHINE Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.62500/- Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: MARSHAL APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.65200/- Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: RING & BALL APPARATUA
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.7600/- Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: STANDERD TAR VISCOMETER
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 7600/-
Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: CRUSHING VALUE APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.6700/- Year of Purchase: 2013

Department of Civil Engineering

Equipment Name: SIEVE SHAKER
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.23800/- Year of Purchase: 2013

Department of Civil Engineering

Research Facility in Geotechnical   Engineering

Equipment Name: CORE CUTTER APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.2100/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: CONE PENTOMETER APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.3600/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: PERMEABILITY TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 22500/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: CBR TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 74500/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: CONSOLIDATION TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 46000/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: DIRECT SHEAR TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 70600/- Year of Purchase: 2014
Department of Civil Engineering

Equipment Name: TRI- AXIAL TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs. 138000/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: UNCONFINED COMMPRESSION TEST APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.4 1800/- Year of Purchase: 2014

Department of Civil Engineering

]

Equipment Name: OVEN
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.9400/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: PLASTIC LIMIT APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.1700/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: PROCTER TEST (LIGHT)
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.4200/- Year of Purchase: 2014

Department of Civil Engineering

Equipment Name: PROCTER TEST (HEAVY)
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.6800/- Year of Purchase: 2014

Department of Civil Engineering
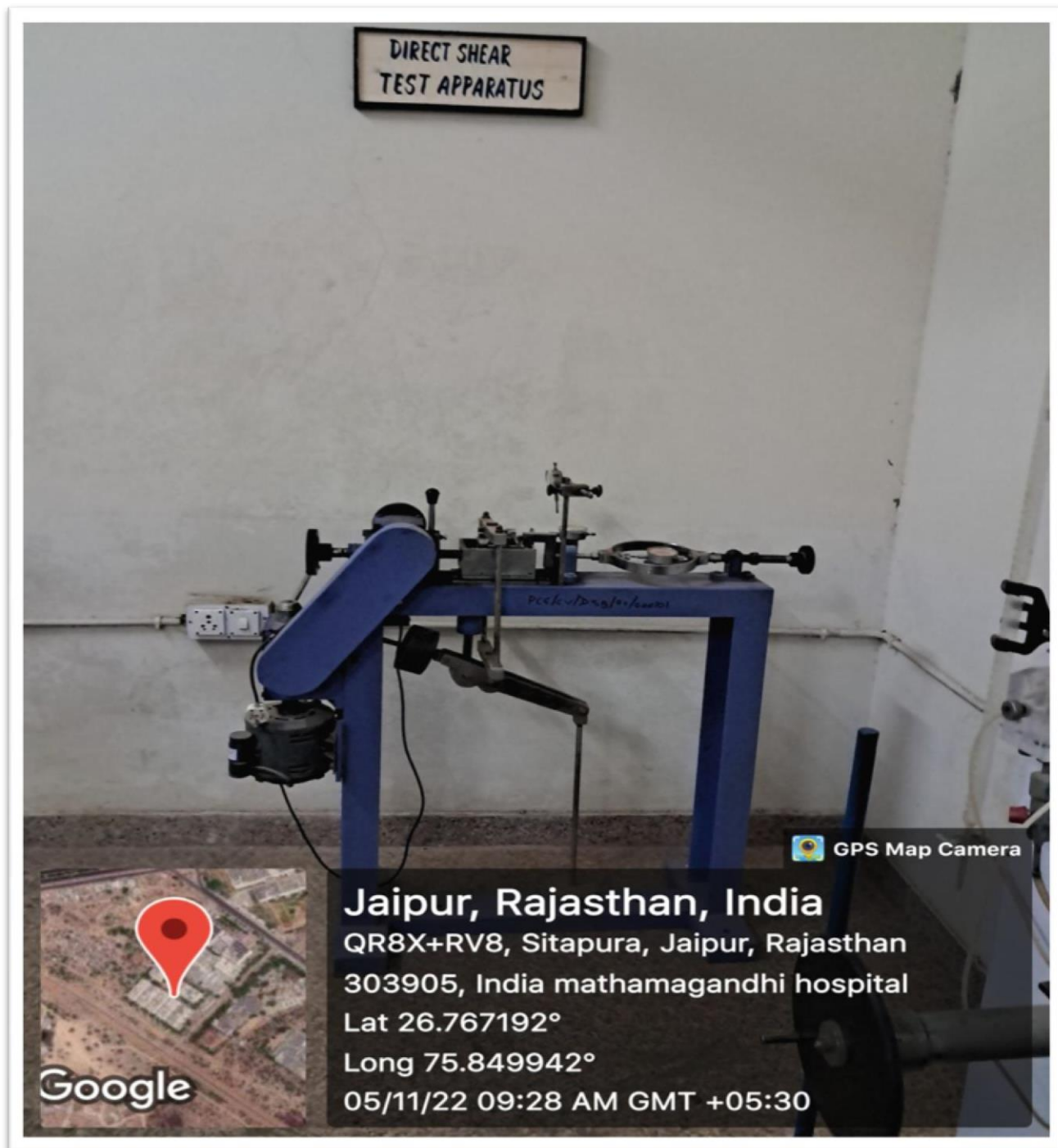
Equipment Name: CASSAGRANDE APPARATUS
Make and Model: ENGINEERING MODELS & EQUIPMENT
Cost: Rs.5200/- Year of Purchase: 2014

Department of Civil Engineering

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UGC under Section 2(f) of the UGC Act, 1956

4.1.1 Research Facilities in Department of Computer Engineering & IT

Research Facilities

S. No	Name of Equipment/ Software	Laboratory	Quantity	Cost	Bill no. & Date
1	**Operating System:** Microsoft Windows 10 Pro **Processor**: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) **RAM**: 8.00 GB **HDD**: 1 TB	AI & Big Data Lab (COE)	70	34,27,500.00	BDCS/16-17/1590 BDCS/16-17/1591 BDCS/16-17/1592
2	Raspberry Pi Model 3, with case	IOT Lab (COE)	30 Nos	114,000.00	116 31-10-2017
3	**Operating System:** Microsoft Windows 10 Pro Lenovo Think Station P310, Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) **Memory (RAM):** 8.00 GB **HDD**: 1 TB	IOT Lab (COE)	42	1919400.00	BDCS/16-17/1594 BDCS/16-17/1595 (2285000 Rs for 50 PCs)
4	**GPU Server:** Dell Power Edge R 750 Server CLX 4208 2P 8C/16T 2.1G 11M 9.6GT 85W 3647 R1 32GB 2933MHz DDR4 RAM NVIDIA A100 40GB Passive card	Computer Vision Lab (COE)	1	19,48521.00	Voucher No. 58
5	**Higher Configuration Desktop with Graphic Card** Intel Core i7 10700 F X 2 Cooler Master Cabinet SMPS 600-watt Cooler Motherboard Gigabyte B560M DS3H AC X 2 RAM 16 GB DDR4 2656 8TB HDD Seagate 500 GB SSD Graphic card 8gb 3050 Gaming RTX	Computer Vision Lab (COE)	2	2,12,457.62	BDCS/5573/21-22
6	**FujiFilm-FX-X-100V S-EE Digital Rangefinder Camera**	Computer Vision Lab (COE)	1	1,06,245.76	BDCS/5573/21-22
7	**BASLER ACE GIGE Camera**	Computer Vision Lab (COE)	1	1,40,000.00	BDCS/5573/21-22
8	**Operating System:** Microsoft Windows 10 Pro	Data Science Lab	24	1142500.00	BDCS/16-17/1589

Department of Computer Engineering & IT

	Processor: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) **RAM**: 8.00 GB **HDD**: 1 TB				
9	**Operating System:** Microsoft Windows 10 Pro and Ubuntu **Processor**: Intel(R) Core(TM) i3-CPU @ 3.70GHz, 4 Logical Processor(s) **RAM**: 4.00 GB **HDD**: 500 GB	Cyber Security Lab	24	689700.00	BDCS/16-17/2932
10	**Einscan Pro 2X 2020 + Solid Edge Software, Multifunctional 3D Scanner**	AI & Big Data Lab (COE)	1	713,900	IN21-22-088 30-03-2022
11	**Anaconda (Python distribution)**	Artificial Intelligence Lab & Data Science Lab	-	Open Source	NA
12	**Weka**	Artificial Intelligence Lab & Data Science Lab	-	Open Source	NA
13	**VMware**	Cyber Security Lab	-	Open Source	NA
14	**IBM SPSS software platform**	Artificial Intelligence Lab & Data Science Lab	-	Open Source	NA
15	**Snort - Network Intrusion Detection & Prevention System**	Cyber Security Lab	-	Open Source	NA
16	**Wireshark**	Cyber Security Lab	-	Open Source	NA
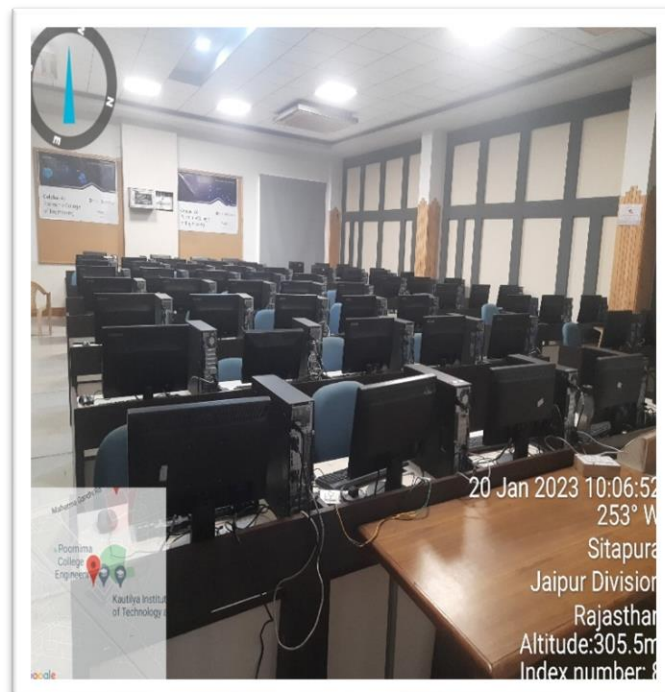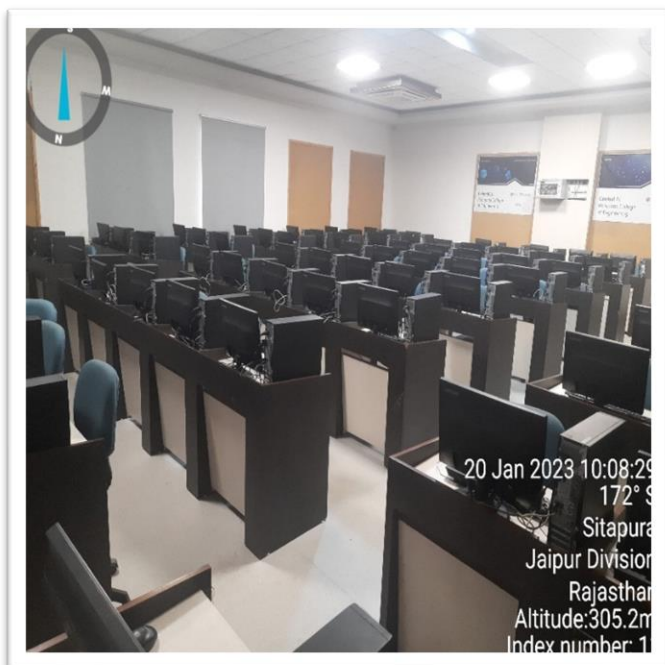
AI & Big Data Lab (COE)
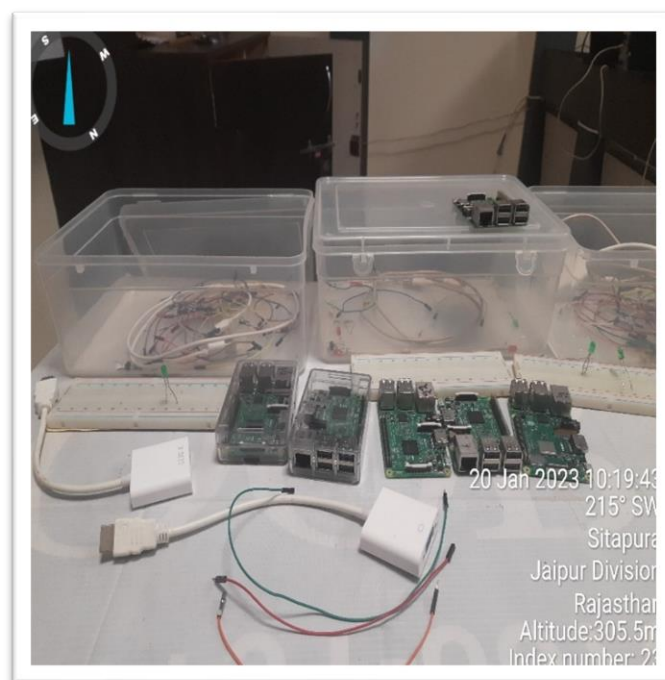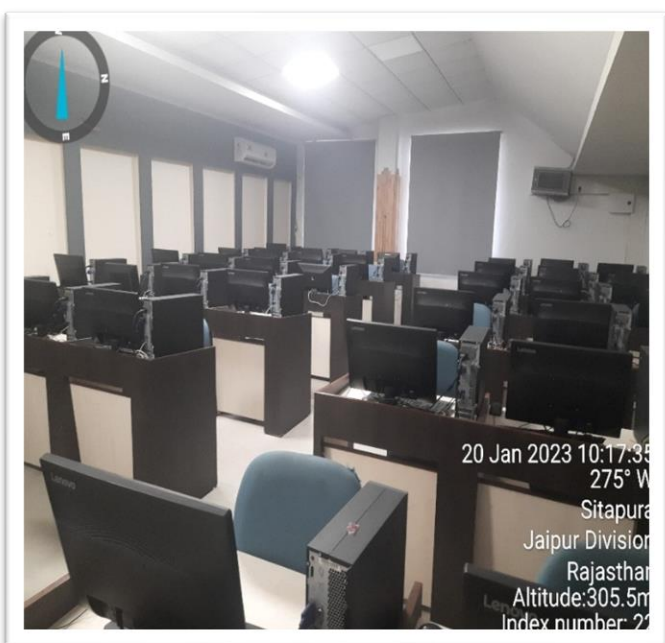
IOT Lab: (COE)

GPU Server

Higher Configuration Desktop with Graphic Card (Computer Vision Lab:)

Digital Rangefinder Camera & DSLR Cameras:
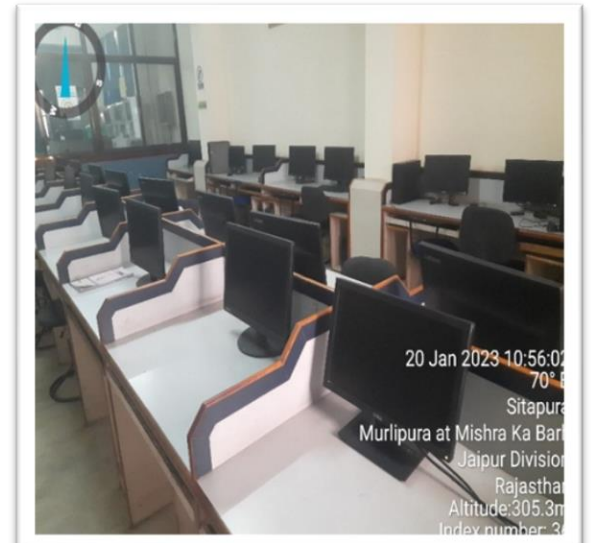
Data Science Lab

Cyber Security Lab

3D Scanner AI & Big Data Lab (COE):

Department of Computer Engineering & IT

4.1.1 Center of Excellence in Artificial Intelligence and Big Data

OFFICE OF THE DEAN ACADEMIC AFFAIRS
RAJASTHAN TECHNICAL UNIVERSITY
AKELGARH, RAWATBHATA ROAD, KOTA-324010
Ph-0744- 2473015, website : www.rtu.ac.in, email : dean.academic@rtu.ac.in

RTU/Acad./F(17)14/2021/3646   Date: 28.06.2021

To
Principal/Director
Poornima College of Engineering
ITS-1, IT Park, EPIP Sitapura
Jaipur-302028

Sub: Recognition of Centre of Excellence in **Artificial Intelligence and Big Data.**
Ref.: 1. University letter no. RTU/F(17)Acad./2020/1414-15, dtd. 30.09.2020.
2. Your proposal dtd. 23.04.2021.

Sir

With reference to University call for proposals for establishment of Centre of Excellence, your application for recognition of Centre of Excellence in the area of **Artificial Intelligence and Big Data** was considered. On the recommendation of Expert Evaluation Team and subsequent approval of 68th Board of Inspection vide agenda no. 66.3, University has recognised the Centre of Excellence in the area of **Artificial Intelligence and Big Data** at your institute.

The modalities of operation for Centre of Excellence shall be communicated in due course of time.

Yours sincerely

(Prof. D.K. Palwalia)
Dean, Academic Affairs

Vision: To be the leading research institute in the Area of AI & Big Data in the stateof Rajasthan and upliftment of other institutions and their stakeholders.

Objectives of setting up RTU COE in AI & Big Data:

1. To impart knowledge about AI & Big Data to the students and the faculty from the institutions across Rajasthan.
2. To make the resources available to advanced learners and researchers for developing solution to any societal, industrial and environmental applications using AI & Big Data.
3. To create project-based learning environment in and around the institute across the state of Rajasthan.

Physical Resources Available

1. **Artificial Intelligence Lab I:**

   This lab is established in the year 2017 in a space of 1500 Square Feet having:

   Hardware: Lenovo Think Station P310, Microsoft Windows 10 Pro, Intel(R) Core (TM) i5- 6400CPU @ 2.70GHz, 2712 MHz, Core(s), 4 Logical Processor(s) and Memory (RAM) 8.00GB **[72 Nos.]**

   Software: All open-source AI & Big Data tools with an access to virtual processing and software resources.

   IBM Tools & Access- Cognos, BI, Bluemix

2. **Artificial Intelligence Lab II:**

   This lab is also established in the year 2017 in a space of 600 Square Feet having:

   Hardware: Lenovo Think Station P310, Microsoft Windows 10 Pro, Intel(R) Core (TM) i5-6400CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) and

Centre of Excellence (COE) in AI & Big Data

Memory (RAM) 8.00GB. **[42 Nos.]**

Raspberry Pi Model 3, with case and NOOBS on Micro SD 16 GB Card, Sensors and otheraccessories. **[50 Nos]**

Software: All open-source AI & Big Data tools with an access to virtual processing and software resources.

IBM Tools & Access- Cognos, BI, Bluemix.

3. **Training and Learning Provisions:**

- Well-furnished meeting room with TV screen for video conferencing.

- Furnished Training room with Projector, Screen, White Board and furniture.

- Working and learning space furnished with tables, chairs, power plugs and internet connectivity.

Virtual Resources

1. **In collaboration with IBM**

Artificial Intelligence Lab I and II were established in the year 2017 when Poornima Collegesigned MoU with IBM to train students and faculty in the area of Cloud Computing and IoT.Since 2017 students and faculty members are being trained in following three areas;

    a. Internet of Things (IOT) Lab for Application Development & Deployment using IBMBlueMix;

    b. Cloud Computing Lab for App Development & Deployment for Cloud using IBMBlueMix;

    c. Business Intelligence Lab for Learning Business Intelligence using IBM Cognos BI;

    d. Participant are able to use the IBM software in the lab for their non- commercial research interests;

    e. Participant receive the printed course material

    f. Participant have access to various IBM online forums for additional study material

Centre of Excellence (COE) in AI & Big Data

and resources to interact with experts & participate in discussions;

    g.   Participants receive certification from IBM at the completion of the course;

    h.   IBM Experts provide real world challenges for project experience & also mentor theparticipants through the various phases of these projects.

Application Development and Deployment for Cloud using IBM Bluemix:

Built on Cloud Foundry open-source technology, Bluemix makes application development easier with Platform as a Service (PaaS). Bluemix also provides prebuilt Mobile Backend asa Service (MBaaS) capabilities.

Learning Business Intelligence using IBM Cognos:

BI Module 1: IBM Cognos Insight: Analyze and Share Module 2: IBM Cognos Business Intelligence Advance.

IoT Application Development and Deployment using IBM BlueMix:

All the students of II, III- and IV-year's students of all disciplines are opting for any one optionevery year and are being trained.

2. **In Collaboration with Microsoft:**

MoU has been signed with Celebal Technologies Jaipur in January 2020 to get access toMicrosoft processing resources and tools.

Celebal Technology Jaipur is in general collaborating with Poornima College of Engineeringfrom 2018 in terms of training and hiring the students.

Microsoft resources available to the students and faculty are;

- Virtual Machines, Azure Tools and Services

- 5TB Blob Storage, Azure Credits for Azure services, AI/ML/DL Tools access

- High End Virtual Machines and Azure Credits with latest Data Science,AI and Deep Learning Tools

- Learning of multiple aspects and languages like: Big Data, Chatbots,Enterprise Integration, Python, Databricks, Power BI, Power Apps

Centre of Excellence (COE) in AI & Big Data

- 5TB Blob Storage

- Microsoft Azure Certifications by faculty and students

- App Service Plan

- Application Insight

- SQL Database

- Azure Data Factory

- SQL Server

- Azure Database for MySQL

- Web App Bot

- App Service

- Azure Synapse

- Azure Consumption: 60,000 Units for year 2021

3. **SAP: MoU with SAP University Alliance**

Poornima College of Engineering has signed MoU with SAP University alliance in January2021 for utilizing SAP online resources to train faculty and students. Training resources are as under;

- Overview of SAP's vision of the Intelligent Enterprise

- Basic concepts of an ERP solution based on S/4HANA system

- SAP Fiori User Interface to interact with the S/4HANA system

- Case studies provided to understand various business processes.

- Business simulation games for SAP S/4 HANA

- Help improve knowledge of business processes

Centre of Excellence (COE) in AI & Big Data

- Dynamic environment where it accelerates time, simulates interactions with businesspartners, & automates administrative tasks execution to understand how ERP systemsare effective at managing business processes.
- Faculty training is in progress and soon we are going start student training on SAP.

Research Facilities

S. No	Name of Equipment/ Software	Laboratory	Quantity	Cost	Bill no. & Date
1	Raspberry Pi Model 3, with case	IOT Lab (COE)	30 Pcs.	114,000.00	116 31-10-2017
2	**Operating System:** Microsoft Windows 10 Pro Lenovo Think Station P310, Intel(R) Core (TM) i5-6400 CPU @ 2.70GHz, 2712 Mhz, Core(s), 4 Logical Processor(s) **Memory (RAM):** 8.00 GB **HDD**: 1 TB	IOT Lab (COE)	42	1919400.00	BDCS/16-17/1594 BDCS/16-17/1595 (2285000 Rs for 50 PCs)
3	**GPU Server:** Dell Power Edge R 750 Server CLX 4208 2P 8C/16T 2.1G 11M 9.6GT 85W 3647 R1 32GB 2933MHz DDR4 RAM NVIDIA A100 40GB Passive card	Computer Vision Lab (COE)	1	19,48521.00	Voucher No. 58
4	**Higher Configuration Desktop with Graphic Card** Intel Core i7 10700 F X 2 Cooler Master Cabinet SMPS 600-watt Cooler Motherboard Gigabyte	Computer Vision Lab (COE)	2	2,12,457.62	BDCS/5573/21-22

Centre of Excellence (COE) in AI & Big Data

	B560M DS3H AC X 2 RAM 16 GB DDR4 2656 8TB HDD Seagate 500 GB SSD Graphic card 8gb 3050 Gaming RTX				
5	**FujiFilm-FX-X-100V S-EE Digital Rangefinder Camera**	Computer Vision Lab (COE)	1	1,06,245.76	BDCS/5573/21-22
6	**BASLER ACE GIGE Camera**	Computer Vision Lab (COE)	1	1,40,000.00	BDCS/5573/21-22
7	**Einscan Pro 2X 2020 + Solid Edge Software, Multifunctional 3D Scanner**	AI & Big Data Lab (COE)	1	713,900	IN21-22-088 30-03-2022

Library Resources

We have subscription to following library resources those are being used by the faculty and students while doing projects and R&D in AI and Big Data.

- IEEE IEL Online full subscription

- DELNET

- ASME for Mechanical Engineering

- J-Gate

- Scopus

- Turnitin Plagiarism check software

Centre of Excellence (COE) in AI & Big Data

INFRASTRUCTURE PICS

AI Lab 1

AI Lab 2

Centre of Excellence (COE) in AI & Big Data
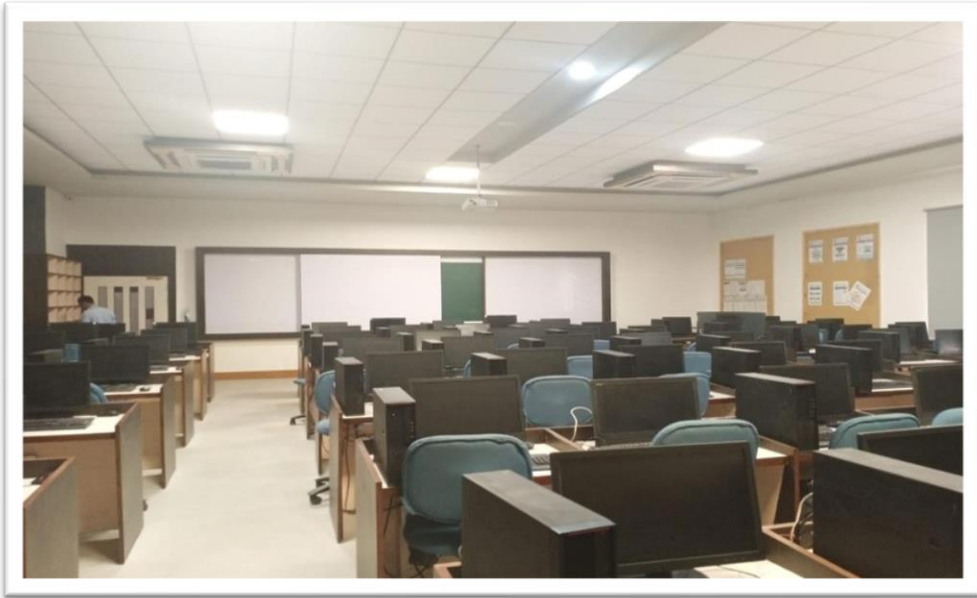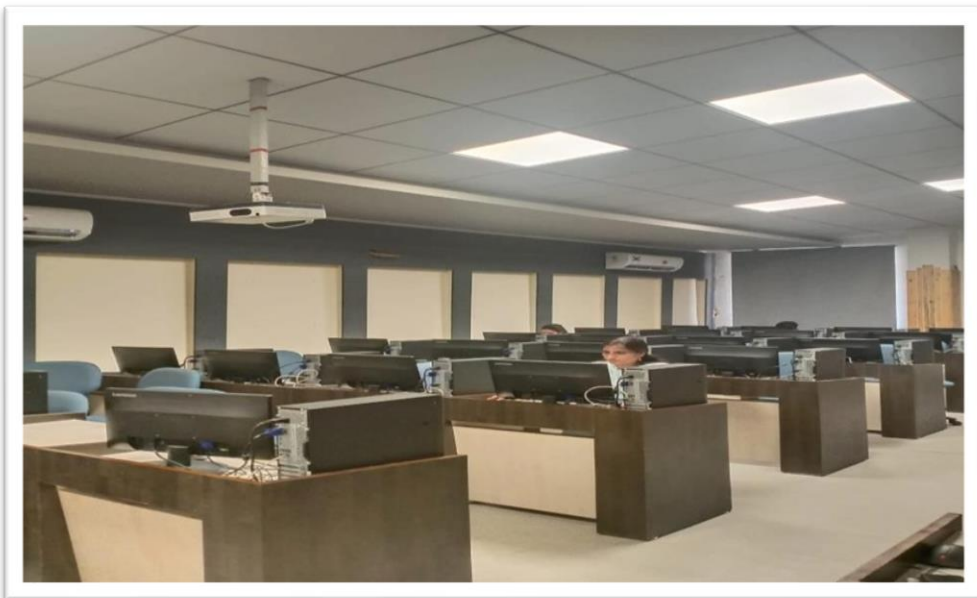
Centre First Floor Entry

Meeting Room

Centre of Excellence (COE) in AI & Big Data
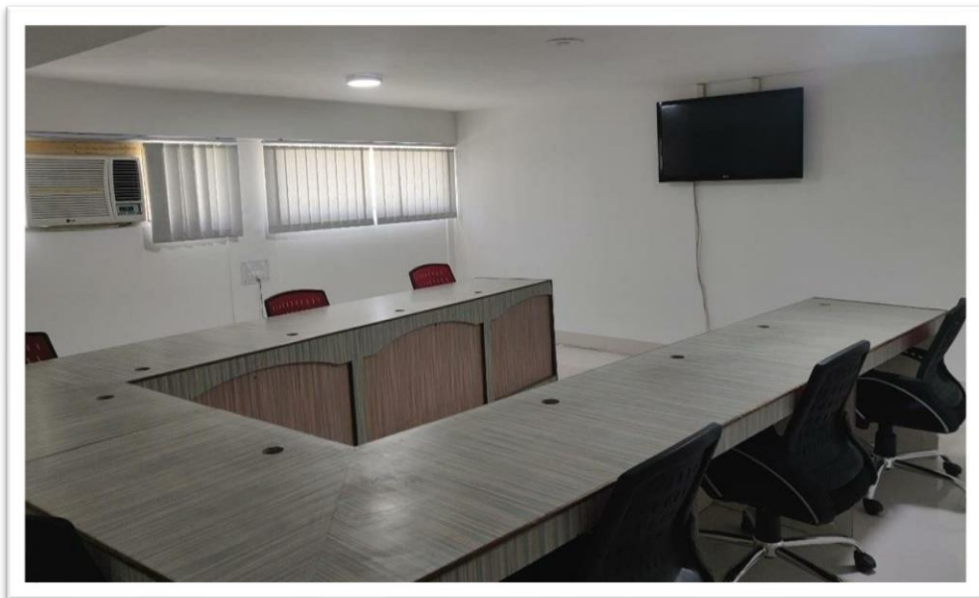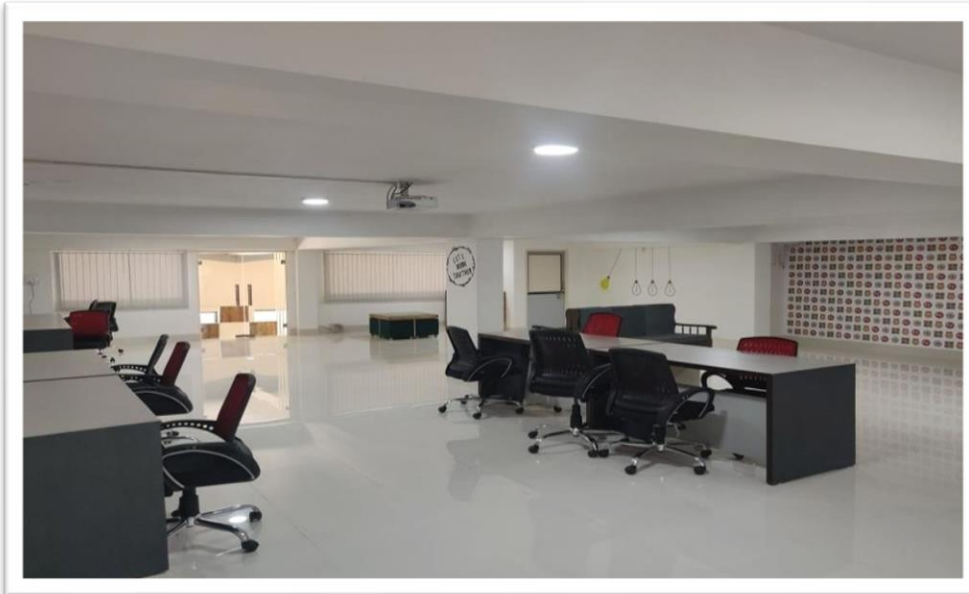
Working Space
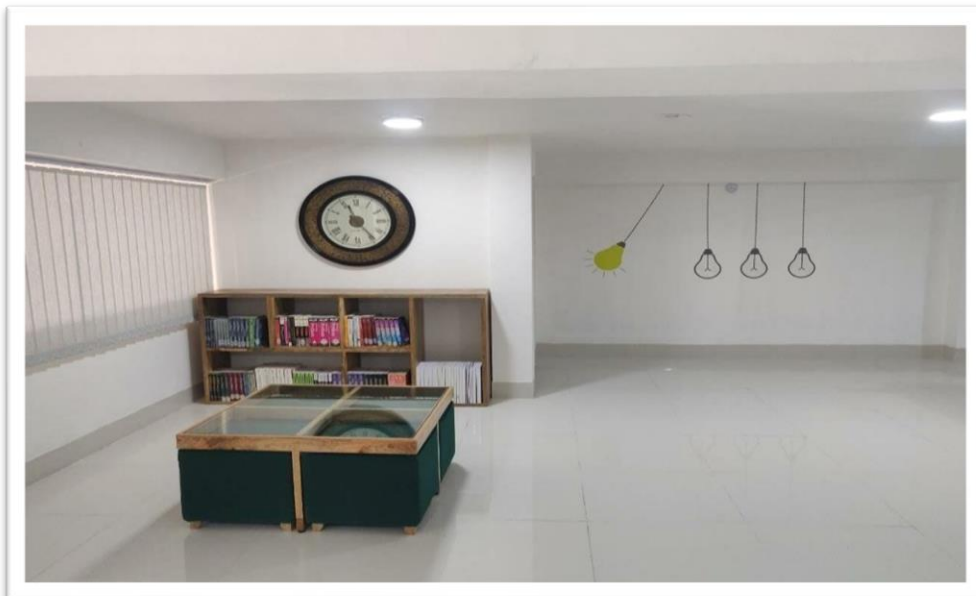
Reference Section

Centre of Excellence (COE) in AI & Big Data

Digital Rangefinder Camera & DSLR Cameras:

Centre of Excellence (COE) in AI & Big Data

3D Scanner AI & Big Data Lab (COE)

Centre of Excellence (COE) in AI & Big Data

4.1.1 Center of Excellence in Advance Wireless Communication

ISI-6, RIICO Institutional Area, Sitapura, Jaipur-302022 (Rajasthan)
• Phone: +91-9829255102, +91-9414728922 • E-mail: principal.pce@poornima.org
• Website: www.pce.poornima.org

OFFICE OF THE DEAN ACADEMIC AFFAIRS
RAJASTHAN TECHNICAL UNIVERSITY
AKELGARH, RAWATBHATA ROAD, KOTA-324010
Ph-0744- 2473015, website : www.rtu.ac.in, email : dean.academic@rtu.ac.in

RTU/Acad./F(17)14/2023/ 1034-35   **Date: 23.05.2023**

Principal/Director
Poornima College of Engineering
ISI-6, RIICO Institutional Area, Sitapura
Jaipur-302022

Sub: Recognition of Centre of Excellence in **Advanced Wireless Communication Lab.**

Ref.: Your proposal dtd. 23.03.2022.

With reference to University call for proposals for establishment of Centre of Excellence, your application for recognition of Centre of Excellence in the area of **Advanced Wireless Communication Lab** was considered. On the recommendation of Expert Evaluation Team and subsequent approval of 75th Board of Inspection vide agenda no. 75.3.1, University recognise the Centre of Excellence in the area of **Advanced Wireless Communication Lab** at your institute from session 2022-23.

Further, BOI has not approved the COE proposal for Advanced Manufacturing Lab.

(Prof. D.K. Palwalia)
Dean, Academic Affairs

C.C.to:
PS to HVC

(Diwakar Joshi)
Dy. Registrar, A/A

Vision and Mission of COE:

Vision: To be the leading research institute in the Area of Advanced Wireless Communication in the state of Rajasthan and upliftment of other institutions and their stakeholders.

Mission:

1. To offer state of the art education of global standards through innovative methods of teaching and learning with practical orientation aiming to prepare the students for successful careers and to provide required technological services.

2. To pursue high quality contemporary research in advance wireless communication technologies and its applications.

3. To empower students by imparting quality education in Communication Engineering for better employability and preparing them to be competent in dealing with industrial and societal challenges.

4. To expose its students to an advanced technology spectrum in order to prepare them for diverse and competitive career paths.

5. To develop innovative & simple instructional materials to drive the concepts into the minds of students.

6. To promote research culture by infusing scientific temper in the students and guiding them towards R&D activities.

Objective and Relevance of the COE

1. To impart knowledge about Advanced Wireless Communication to the students and the faculty from the institutions across Rajasthan.

2. To make the resources available to advanced learners and researchers for developing solution to any societal, industrial and environmental applications using Wireless Communication.

3. To create project based learning environment in and around the institute across the state of Rajasthan.

Detail of the National/International Institutes. Industries involved in the Centre of Excellence

International Institute:

- Universiti Teknologi Mara, Malaysia
- RI Instruments and Innovation Pvt. Ltd., Uttarakhand and RINZTECH, New Zealand

National Institute:

- IIT Indore
- IIT Dharwad
- MNIT, Jaipur
- Siemens Centre of Excellence, NIT, Kurukshetra
- Government Engineering College, Dahod

Industries:

- Elektrolites Pvt. Ltd., Jaipur
- VVDN Technologies Pvt. Ltd., Manesar
- Research for Resurgence Foundation, India
- SAP
- IBM
- Celebal Technologies
- Latashri 3D Creations, Jaipur
- Latashri 3D Creation (3D Printer), Jaipur

INFRASTRUCTURAL FACILITIES

Major Equipment's accessories exclusive for COE

S. No.	Name of Equipment	Specification	Make	Quantity	Total Cost
1	SENSE- nut	• Microcontroller with integrated 802.15.4 transceiver. • Variety of sensors: Environment, Meteorological, Air & water quality etc. • Modular design having Gateways, Radios & sensors devices.	SENSE-nut ProLab	1	4,72,000/-
	USB Gateway Module	• USB to Asynchronous serial data transfer interface. • USB protocol handled by the device (No USB specific programming required). • Data Transfer rate 115200 baud • 128 byte receive buffer and 256 byte transmit buffer			
	Radio Module:	• 32-bit RISC JN 5168 Microcontroller • 1-32MHz clock speed • 256KB flash, 32KB RAM, 4KB EEPROM • 2.4 GHz IEEE 802.15.4 compliant transceiver			

		• 128-bit AES security processor • Time of Flight engine for ranging • Integrated PCB antenna • Rx current 17mA, Tx current 15mA • 2V to 3.6V battery operation • Controllable transmission power (-32 to +2.5 dBm)			
	Wi-Fi Gateway Module:	• Low-power Wi-Fi networking module • Integrated SPI-serial flash for software • Broadcom BCM43362 single band 2.4GHz IEEE 802.11b/g/n 1x1 Wi-Fi transceiver • Includes support for all Wi-Fi security modes including Open, WEP, WPA,WPA2-PSK • Integrated 1MB Flash memory and 128kB SRAM • Operational Temperature Range: -30°C to +85°C • Wi-Fi Power save : 0.77mA • Active receive : 6.9mA @ 1Mbit/s • Active transmit : 12.5mA @ 1Mbit/s			

	TL Sensor Module	• Temperature Range -25 C to 80 C with12 bit resolution, • Light Range 3 to 64k lux with16 bit resolution, Excellent IR/UV rejection • 1.5uA shutdown current			
	HTP Sensor Module	• The humidity sensor provides digital output with a 14-bit resolution (0.04% RH) • Pressure sensor outputs the barometric pressure in 24-bit resolution • Hardware interrupts in order to update the microcontroller about any critical events			
	Extender Module	• Connect external sensors and devices. • Debug hardware/checking output on DIOs and other ports • Access ADC, SPI, UART, I2C, and PWM generators			
2	Advanced Fiber Optic Communication Trainer - Model - FOL-A-P	• Fiber Optic Transmitter: Two wavelength (660nm and 950nm) • Fiber Optic Receiver : 2 types (PIN Photo Diode, Photo Transistor detector) • On board functional generator N.A. measurement	Falcon	2	94,400/-
3	Power Meter	A Power Meter is one of the most useful and simple	RY-PM3008	1	35400/-

		instruments to measure electrical power when no deeper analysis of the measured data is required. It measures the voltage (V) and current (A) and derives from these the most important power results.			
4	ENA Vector Analyzer	Analyzer need to measure S-parameters, the right mix of speed and performance gives you an edge. Key sight ENA vector network analyzers provide affordable measurement integrity to help you transform a deeper understanding into a better design. The full contents of the kit include: • C6713 DSP Development Board with 512K Flash and 16MB SDRAM • C6713 DSK Code Composer Studio™ IDE including the Fast Simulators and access to Analysis Toolkit on Update Advisor.	Keysight Technology	1	8,37,800/-
5	Antenna Trainer Kit	The Antenna Training System also comes with Motorized Antenna Unit (Model Amitech 2261A) to automate the recording of the radiation pattern of the antennas. The Motorized Unit consists of a Microcontroller based	Amitech	1	2,14,200/-

		system for Capturing, Displaying and Printing of radiation pattern. The system capture signal at an interval of 1degree rotation using stepper motor and radiation pattern is displayed on PC. The Windows based Software is supplied in CD Rom. The PC Communication is via RS232 port. It used with Amitech.			
6	Radar Trainer Kit	Trainer is useful classroom training equipment provided with different types of accessories for experimentation, and a Windows based software for observation and calculation of different parameters. On-board Test points are provided, which enable students to observe the signals on an Oscilloscope or a PC.The trainer is capable of measuring the Speed of Object, Frequency of Vibrations and RPM of any fan. Students can also study the properties of different types of materials like Metal, Acrylic, Teflon, Bakelite, etc.	NVIS	1	53,404/-
7	Satellite Trainer Kit	• Simultaneous Communication of three	Scientech	1	80,106/-

		different signals at each up-linking frequency • 2414-2468 MHz PLL microwave operation			
8	GPS Trainer Kit	Nvis GPS module MC20GPS is an extension module for Nvis Microcontroller development platforms. The module has been designed for students and practicing engineers to gain invaluable practical experience on the principle and applications of microcontroller & GPS Module. The objective is to have a clear understanding of how GPS module is interfaced and controlled with microcontroller. It has various terminals for connection to external real world applications. Nvis GPS module will provide a basic understanding of the GPS fundamentals, Satellites & Design aspects of GPS receiver by actually connecting to the Satellite by GPS antenna.MC20GPS, GPS module for Embedded Platforms is an ideal platform to enhance education, training, skills & development among our young minds.	Scientech	1	40,258/-

9	CDMA DSSS Trainer Kit	The Wireless mobile communication systems provide access to the capabilities of the global network at any time, irrespective of the location or mobility of the user. The Direct Sequence Spread Spectrum (DS-SS) technique, incorporated into CDMA can accommodate large number of users in one radio channel depending on the voice activity level.	Scientech	1	1,44,602/-
10	Microwave Test Bench	• Gunn Power Supply: • Gunn Oscillator: • Isolator: • PIN modulator: • Variable attenuator: • Detector Mount: • SWR meter:	Scientech / NVIS	8	5,49,326/-
11	Digital Storage Oscilloscope	30Mhz	Keysight	8	1,86,900/-
12	Spectrum Analyzer	9Khz-6.2Ghz	Scientech/ CADDO	2	3,39,675/-
13	FPGA Trainer Kit	VLSI Trainer	Scientech / NVIS	10	1,49,347/-

14	Digital Signal Processing Development	• Up to 600 MHz high performance black fin processor
		• Two 16 bit MAC
		  • Two 40 bit ALU
		  • Four 8 bit video ALU
		  • 40 bit shifter
		• Advanced debug, trace and performance monitoring
		• Wide range of operating voltages
		• Qualified for automotive application
		• Programmable on chip voltage regulator
		• Up to 148 k byte of on chip memory
		• On chip PLL capable of 0.5 to 64 frequency multiplication core timer
			Scientech	10	3,38,000/-

15	Advance MIC Trainer kit	• Frequency Range : 2.2 - 3GHz continuously variable • Modulating Frequency : 100Hz to 5kHz AM square wave, FM triangular wave • Output Level Variation : 10 - 20 dB • Impedance : 50V Min RF level : 5mW	Scientech	2	2,53,151/-
16	RF/ Microwave Circuit Board	Cover the 5 parameter measurement up to 5 band (ENA)	Scientech	1	2,36,000/-

17	Logic Analyzer Kit	32-channel logic analyzer with 256K memory	Scientech	1	58,744/-
18	Fiber Optic Trainer Kit	Fiber-Optic Trainer, Single Channel and Dual Channel	Scientech	9	1,71,179/-
				Total Cost	42,54,492/-

Major Software and IT structure for COE

S. No.	Name of Equipment	Research Application	Total Cost
1	CST MW Software 2020 (20 Users)	CST Studio Suite® is a high-performance 3D EM analysis software package for designing, analyzing and optimizing electromagnetic (EM) components and systems. Electromagnetic field solvers for applications across the EM spectrum are contained within a single user interface in CST Studio Suite.	1,53,400/-
2	Optical Communication Software (2 Users)	Opti-System Ver. 16	6,90,300/-
3.	SENSE- nut interface Software	Wireless Sensors Network	Mention in Above table

Virtual Resources

In collaboration with Celebal Technologies

 ➢ The industry-connect which will enable students to increase their literacy technical skill & supervisory skill. Enhancing the personality development aspect of an individual through soft skills, Learning modules of various latest technologies, through the technical curriculum specially designed for Computer, Electronics & Communication Engineering, students by subject matter expert (SMEs) of Celebal Technologies, through Workshops, Guest Lectures, SDP'S etc. Access to learning content from Microsoft & Pluralsight.

 ➢ Consultancy support from Celebal Technology on how the quality of infrastructure for

different technical labs can be increased and brought to the level of industry acceptance.

➤ Onsite resources for carrying out FDP training activities on Wireless Communication by Microsoft trainers

➤ Ecosystem level support in Hackathons/ events NKN and/ or 50mbps / higher internet connectivity

In collaboration with Elektrolites Pvt. Ltd.

➤ Seek mutual advice and support in planning and executing Programs promoting Excellence in respective areas of research and industrial solutions.

➤ Encourage students and faculties of PCE and Scientific staff of Eletrolites pvt. Ltd to visit the either institute for short duration for getting research inputs and guidance upon recommendation from the research guides and directors from Elekrolites pvt ltd.

➤ Encourage joint research activities and project for students.

➤ Industry and institution interaction will give an insight into the latest development of the industries.

➤ The industrial Training and exposure provided to the students will build confidence and prepare the students to have smooth transition from academic to working career.

In collaboration with VVDN Technologies

➤ Giving a chance to the faculty (Trainers) to have an interaction with SMEs of VVDN Technologies to enhance their employability by learning latest technologies and giving them actual industry flavour of today.

➤ VVDN Technology would help the best students from different Branches that have been enrolled in their learning modules with the recruitment aspect on merit basis.

➤ The subject matter experts can be made available to train the faculty of the college on certain new industry practices.

➤ Industrial visit would be organized for the students of Poornima College of Engineering.

➤ Aiming to bridge the academia-industry gap "VVDN Technologies". It would help a college come up with a Centre of Excellence on varied topics.

Library Resources

We have subscription to following library resources those are being used by the faculty and students while doing projects and R&D in Advance Wireless Communication

➤ IEEE IEL Online full subscription

> ➢ DELNET
> ➢ J-Gate
> ➢ SCOPUS
> ➢ Turnitin Plagiarism check software

Glimpses of Infrastructure of Centre of Excellence
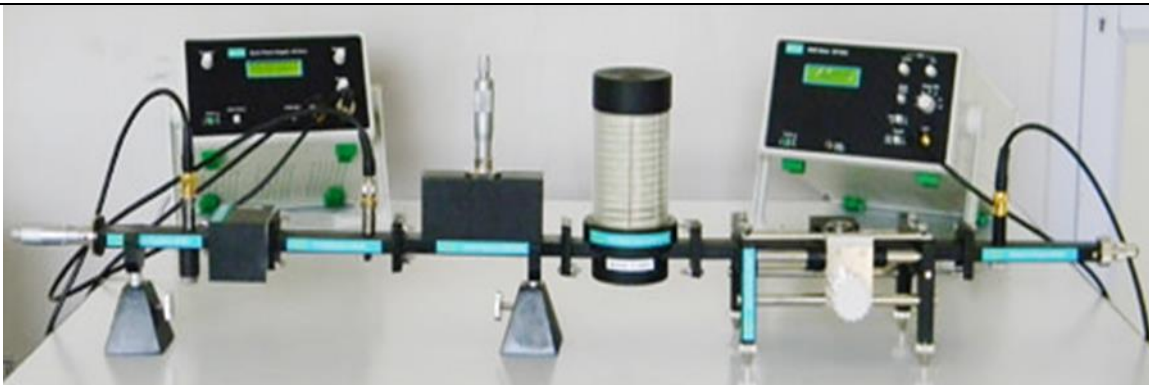
Microwave Test Bench

Power Meter	ENA Vector Analyser
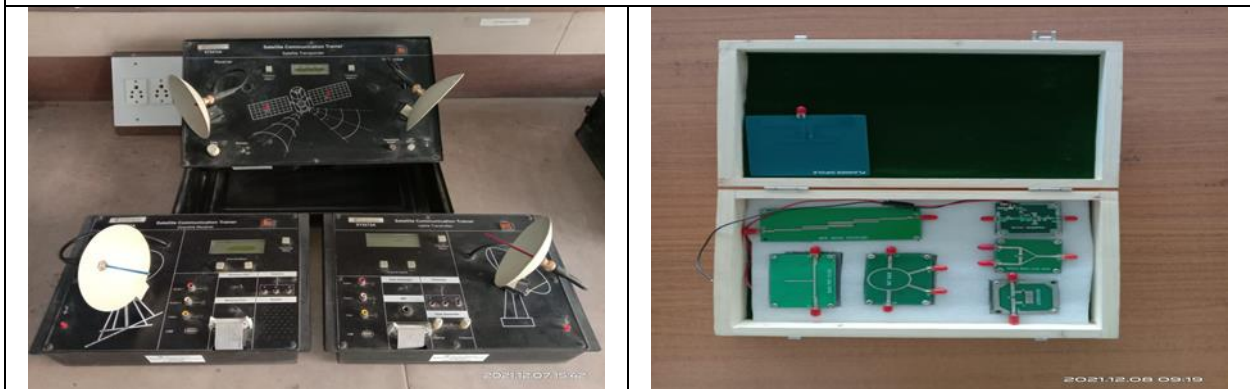
Radar Trainer Kit

Satellite Communication Trainer Kit

Microwave Patch Antenna
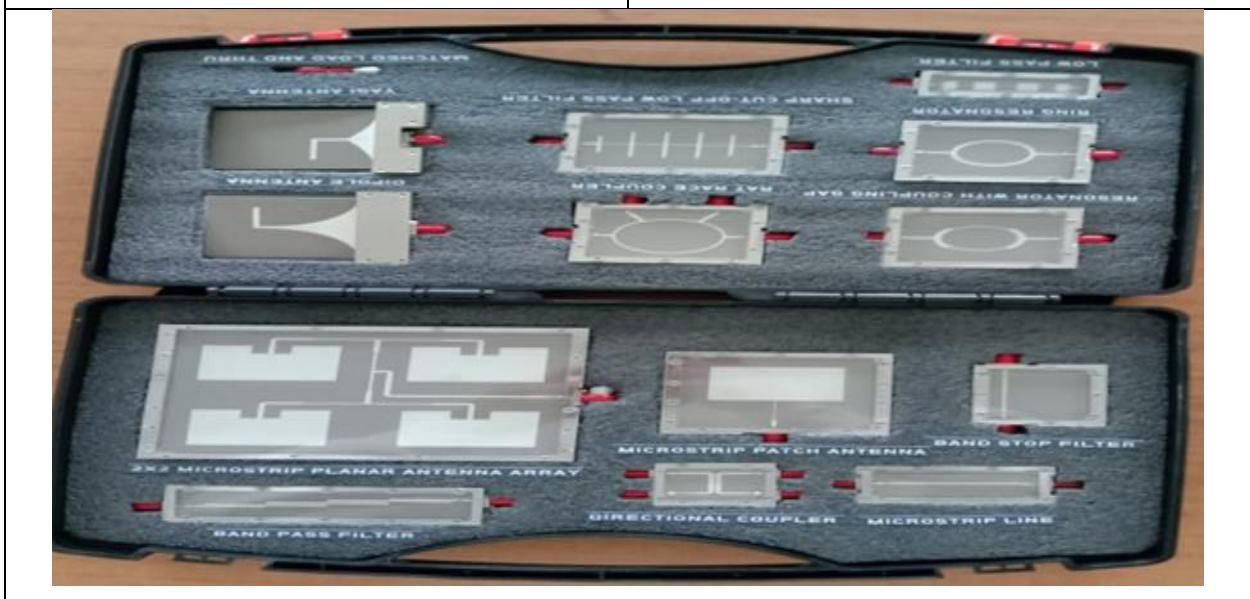
Microwave Patch Antenna Kit Setup

Advanced Optical fiber Trainer Kit
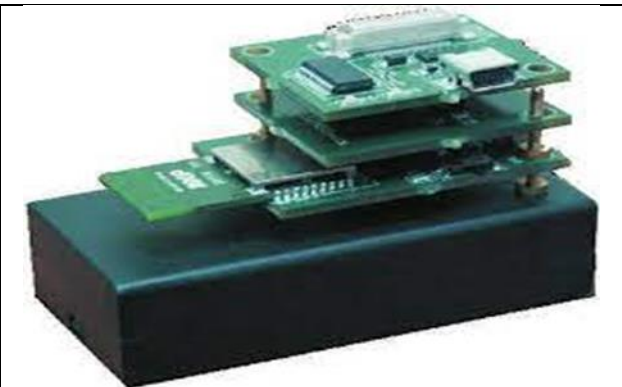
SensNut Module

SensNut Module

Antenna Trainer Kit	GPS Trainer Kit
Digital Storage Oscilloscope	Rigol Spectrum Analyzer
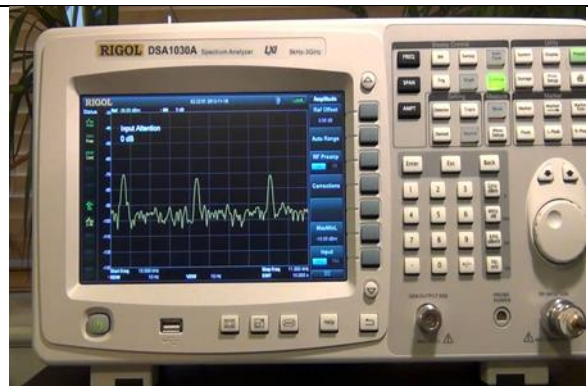
Glimps of of Centre of Excellence

4.1.1 Center of Excellence in Advanced Manufacturing

Vision and Mission of proposed COE:

Vision: To become a forward-thinking and cutting-edge research center dedicated to promoting research in the areas of advanced manufacturing in order to provide better trainings and research solutions to industries and researchers especially in the State of Rajasthan.

Mission: To establish cutting-edge research facilities in advanced manufacturing processes and three dimensional printing in order to give practical solutions to meet technological advances.

Objective and Relevance of the proposed COE

1. To foster ideas, research, and end user product development for both researchers and industries.

2. To build cutting-edge research facilities in the areas of advanced manufacturing in order to resolve industries problems.

3. To encourage international collaboration between Local NGOs, industries, academia, and government bodies.

4. To ensure that Graduate, Postgraduate, and local artisans can participate in research and internship programs, as well as training and entrepreneurship.

5. To encourage women and physical disabled persons to work as a researchers and entrepreneurs in the field of advanced manufacturing and three dimensional printing.

Centre of Excellence Functions

1. Student projects with beyond syllabus concept – project every semester

2. Faculty members pursuing research projects, sponsored research and other works in advance manufacturing utilizing existing resources.

3. Conducting Workshops, Seminars, FDPs, Trainings for the Students and Faculty members.

4. Collaborative research work with emerging industries.

5. To provide research solutions to the research scholars as well industries.

6. To conduct Skill based training programs for students and industry technical persons.

7. To provide Summer Internship for in/out side Students and research scholars

8. To provide research facility to the faculties in summer/winter vacations.

Technical Novelty and Utility

This centre will allow the students, faculty members and researchers to work in advanced manufacturing laboratory and to work with latest cutting edge and to enhance their project/research development.

- Synthesize of advanced polymers based composites.
- Machining of difficult to cut materials using laser cutter.
- Design and fabrication of parts for defence, biomedical, electronic and jewellery industries using 3D printer.
- Characterization and surface quality measurement of manufactured miniaturize parts.
- Joining of dissimilar metals.
- Development of in-house hybrid machines.

Detail of the National/International Institutes. Industries involved in the Centre of Excellence

International Institute:

➢ Centre for Advanced Manufacturing at Adama Science & Technology University Ethiopia

National Institute:

➢ MNIT, Jaipur
➢ CIPET Jaipur
➢ MSME Jaipur
➢ NIT Kurukshetra

Industries:

➢ Jaipur Foot, Jaipur
➢ Tarun International Ltd. Jaipur

- BOSCH, Jaipur
- HUMBOT Pvt. LTD. Jaipur
- TechnoHub, Jaipur
- Latashri 3D Creation (3D Printer), Jaipur

INFRASTRUCTURAL FACILITIES

Major Equipment exclusive for COE

Name	Quantity	Specifications	
3D Printer	2	Make	L3D Creation
Electronic Balance Machine	1	Make	Wesner
Digital Microscope	1	Make	ISM- Pro
Lathe	3	Make	MACPOWER Industries Rajkot (Gujrat)
		Model No.	
		Type	Engine lathe
		Bed Length	3.5 Feet
		Power Supply	AC 3-Phase /415 V/ 50Hz/1.9 AMP
		Power	1.0 Horse Power (H.P.)
		Speed	1440 rpm
		Distance between live center and dead center	24 inch
		Diameter of chuck	8 inch
		Diameter of job, which can be held in the chuck	6 inch

		Height of the center above the top of the bed	6 inch
		Range of spindle speed	150-780 RPM
Lathe	1	Make	MACPOWER Industries Rajkot (Gujrat)
		Model No.	
		Type	Engine Lathe
		Bed Length	4 Feet
		Power Supply	AC 3-Phase /415 V/ 50Hz/3.5 AMP
		Power	1.5 Horse Power (H. P.)
		Speed	1440 rpm
		Distance between live center and dead center	30 inch
		Diameter of chuck	8 inch
		Diameter of job, which can be held in the chuck	6 inch
		Height of the center above the top of the bed	6 inch
		Range of spindle speeds	150-780 RPM
Lathe	1	Make	Sadguru (SELECT) Industries Rajkot (Gujrat)
		Type	Engine Lathe
		Power Supply	AC 3-Phase /415 V/

			50Hz/2.2 AMP
		Motor	Three (03) phase
		Motor Power	1 Horse Power (H. P.)
		Speed	1440 RPM
		Distance between live center and dead center	42 inch
		Diameter of chuck	6 inch
		Diameter of job, which can be held in the chuck	4 inch
		Height of the center above the top of the bed	7 inch
		Range of spindle speeds	150- 780 RPM
Lathe	1	Make	MACPOWER Industries Rajkot (Gujrat)
		Model No	
		Type	Gear Lathe
		Bed Length	4 Feet
		Power Supply	AC 3-Phase /415 V/ 50Hz/3.5 AMP
		Power	2.0 Horse Power (H. P.)
		Speed	1440 rpm
		Distance between live center and dead center	24 inch

		Diameter of chuck	8 inch
		Diameter of job, which can be held in the chuck	6 inch
		Height of the center above the top of the bed	6 inch
		Range of spindle speeds	80 – 900 RPM
Capstan Lathe (CLATHE)	1	Make	HERBERT
		Model No.	2D
		Collet Capacity	20 mm
		Max. distance between spindle nose to turret face	11 inch
Sharper	1	Make	ANOOP Rajkot (Gujrat)
		Model No.	A-1
		Power Supply	AC 3-Phase /415 V/ 50Hz
		Speed	1440rpm
		Motor Power	1.5 Horse Power (H. P.)
		Length, breadth and depth of the bed.	39 inch X 9 inch X 2 inch
		Maximum axial travel of the Ram	18 inch
		Maximum length of the stroke	18 inch

		Vertical travel of tool post slide	4 inch
Milling	1	Make	Gajjar Machine Tool (Gujrat)
		Model No.	GUA-1,CODE NO.-532
		Power Supply	AC 3-Phase /415 V/ 50Hz
		Speed	2700 rpm
		Working Surface	1050 x 250 mm
		Number of T-Slots	3
		Width of T-Slots	15 mm
		Pitch of T-Slots	62 mm
		Number of Spindle Speed	6
		Range of spindle speed	50, 85, 110, 240, 350,525 RPM
		Floor Space	600 mm x 925 mm
		Height	1500 mm
		Coolant Tank Capacity	20 Litre
Power Hack Saw	1	Make	MMT
		Power Supply	AC 3-Phase /415 V/ 50Hz/1.9 AMP
		Motor Power	1H.P.
		Speed	1440 rpm

Power Hack Saw		Max. Size of materials that can be cut	170 mm.
		Stroke length	6 inch
		No. of speed strokes	1
Arc welding (AW)	1	Make	HEEREX
		Power Supply	AC 3-Phase / 50Hz
		Current	35 to 300 AMP
		Voltage	380-440 V
		Welding Current	20-400 AMP
		Welding voltage	65 - 75 V DC (Open circuit voltage)
		Maximum Rated	17 KVA
		Dimension (mm)	550X280X545mm
		Weight	33 Kgs
Spot Welding	1	Make	Vijay Electricals
		Model	28913
		Frequency	50 - 60 Hz
		Input Power	25 kVA
		Electrodes Length	200 mm
TIG Welding (TW)	1	Make	ELECTRA KOKO TAWA
		Current	200AMP.
		TIG Welding Current	4 - 400 Amps
Submerge Arc Welding	1	Make	Electro Koko Tawa
		Power Supply	AC 3-Phase / 415 V/ 50Hz

		Welding Current	150 to 1200 Amps
		Open Circuit Voltage	72 Volts (DC)
		Welding Voltage	20 to 46 Volts DC
Sensitive Drilling	1	Make	MUNISH
		Motor Power	1HP
		Speed	1440rpm
		Power Supply	AC 3-Phase / 6AMP/220 V/50Hz
Radial Drilling	1	Make	NATIONAL ENGINEERING
		Model No.	
		Power Supply	AC 3-Phase / 415 V/1.9 AMP/50Hz
		Motor Power	1 Horse Power (H. P.)
		Speed	1440 rpm
Bench Gridding (BG)	1	Make	PERFECT
		Power Supply	AC 3-Phase / 440 V/0.8 AMP/50Hz
		Wheel Diameter	200 mm
		Motor Power	0.5 Horse Power (H. P.)
		Speed	2880 rpm
ELECTRIC FURNANCE HORIZONTAL (EFH)	1	Working Temperature up to 950°	

Electric Furnace Vertical (EFV)	1	Working Temperature up to 950°	
Rapid Moisture Tester (RMT)	1	Make	Versatile Equipment's Pvt. Ltd.
		Model No.	V/M 060211
		The instrument specifies moisture on wet/weight basis and easily convertible to dry weight basis.	
Sand Rammer	1	Make	Versatile Equipment's Pvt. Ltd.
		Model No.	V/R 060302
		The Sand Rammer can be used to prepare a standard sand specimen diameter	50mm x Height 50mm
Sieve Shaker	1	Make	Versatile Equipment's Pvt. Ltd.
		Model No.	VGH 060302
Clay Washer	1	Make	Versatile Equipment's Pvt. Ltd.
		Model No.	VCW 060206
Permeability Meter (PM)	1	Make	Versatile Equipment's Pvt. Ltd.
		Model No.	V/P 060303
Universal Testing Machine for Foundry Shop (UTMF)	1	Make	Engineering Models and Equipment's

		Model No.	Adi Artech O/P 3.13, 500Kg
Core and Mould Hardness Tester (C&M HT)	1	Make	Engineering Models and Equipment's
PROFILE PROJECTOR (PP)	1	Make	METZER-M
MONOCHROMATIC AND OPTICAL FLATE (M&OF)	1	Make	PRISMS INDIA
COMBINATION SET (300 MM) (CS)		Make	MITUTOYO
		Model No.	180-907
FILLER GAUGE (FG)		Make	MITUTOYO
		Model No.	184-304
MICROMETER OUTSIDE (0.25mm) (M0-1)	1	Make	MITUTOYO
		Model No.	103-101
MICROMETER OUTSIDE RANGE (25-50) (M0-2)	1	Make	MITUTOYO
		Model No.	103-138
SMALL BORE GAUGE WITH DIAL RANGE (8-10 MM) (SBG-1)	1	Make	CHINA
SMALL BORE GAUGE WITH DIAL (10-18 MM) (SBG-2)		Make	CHINA
SMALL BORE GAUGE WITH DIAL (18-36) (SBG-3)	1	Make	CHINA
TELESCOPIC GAUGE (TG)	1	Make	INSIZE

DIAL GAUGE (DG)	1	Make	ASAHI
MAGNETIC STAND (MS)	1	Make	MITUTOYO
THERMOMETER	1	Make	WORK ZONE
		Model No.	MT-14A
		Range	50 -1500 $_o$C
DIAL VERNIER CALIPER RANGE-150 MM (VC-1)	1	Make	MITUTOYO
		Model No.	505-671
		Size	150 mm
		Accuracy/ Least Count	0.02 mm
		Display Type	Dial
DIGITAL VERNIER CALIPER RANGE-300 MM (VC-2)	1	Make	MITUTOYO
		Model No.	500-193
		Size	300
		Accuracy/ Least Count	0.02 mm
		Display Type	Digital
ORDINARY VERNIER CALIPER RANGE-150 MM (VC-3)	1	Make	MITUTOYO
		Size	150 mm
		Accuracy/ Least Count	0.02 mm
		Display Type	Analog
ORDINARY VERNIER CALIPER RANGE-300 MM (VC-4)	1	Make	MITUTOYO
VERNIER HEIGHT GAUGE (0-300 MM) (VHG-1)	1	Make	MITUTOYO
		Model No.	514-103
		Size	300 mm
		Accuracy/ Least Count	0.02 mm

		Display Type	ANALOG
DEPTH GAUGE MICROMETER (DGM)	1	Make	MITUTOYO
		Model No.	129-111
		Base size	16 X 64 mm
		Range	10-100 mm
		Rod size	4 mm
UNIVERSAL BEVEL PROTECTOR (UBP)	1	Make	CHINA
		Model No.	
		Blade Length	150 X 300 mm
PLANE SNAP GAUGE (PSG)	1	Make	Indian
SINE BAR (SB)	1	Make	OMEGA
		Model No.	604
		Size	200 mm
		Model No.	
INSIDE MICROMETER (IM)		Make	MITUTOYO
		Model No.	141-205
		Size	20 mm
GEAR TOOTH VERNIER	1	Make	ALEN
WIRE GAUGE AND SHEET GAUGE (W&S G)	1	Make	KRISTEEL
		Model No.	1505
ANGLE PLATE (AP)	1	Make	INDIAN
OXYGEN CYLINDER (OC)	1	Make	INDIAN

ACETYLENE CYLINDER (AC)	1	Make	INDIAN
DRILL TOOL DYNOMOMETER (DTD)	1	Make	INDIAN
MILLING TOOL DYNOMOMETER (MTD)	1	Make	INDIAN

Images of Digital Microscope, 3D Printer, Balance machine and surface roughness tester

IT infrastructure for COE

S. No.	PC Brand	Modal No.	PC Serial No.	Processor	RAM	Hard Disk	MAC
1	Lenovo	Lenovo	PC0B3BCC	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9E-86
2	Lenovo	Lenovo	PC0C1ZQ9	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-57-0A-59
3	Lenovo	Lenovo	PC0B3BFW	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9E-D5
4	Lenovo	Lenovo	PC0B3BB5	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-A0-3E
5	Lenovo	Lenovo	PC0B3BBC	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9B-03
6	Lenovo	Lenovo	PC0B3AFD	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-51-B6-64
7	Lenovo	Lenovo	PC07DHWV	i3-4170 cpu@3.70 GHz	4GB	500GB	B8-AE-ED-D8-E2-F6
8	Lenovo	Lenovo	PC0B3BH9	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9E-D0
9	Lenovo	Lenovo	PC0B3B6J	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9B-01
10	Lenovo	Lenovo	PC0BUHXZ	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-55-5D-B4

11	Lenovo	Lenovo	PC07DHZL	i3-4170 cpu@3.70 GHz	4GB	500GB	B8-AE-ED-D4-04-A6
12	Lenovo	Lenovo	PC0B3BEQ	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9B-43
13	Lenovo	Lenovo	PG00QMZF	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-59-6D-99
14	Lenovo	Lenovo	PG00QN2H	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D6-09-1B
15	Lenovo	Lenovo	PC0BUHXT	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-55-5D-A7
16	Lenovo	Lenovo	PG00QMZ0	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D6-0F-5F
17	Lenovo	Lenovo	PC0BUHXW	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-55-5A-FB
18	Lenovo	Lenovo	PG00QNKK	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D4-FC-3D
19	Lenovo	Lenovo	PC07DJ1Y	i3-4170 cpu@3.70 GHz	4GB	500GB	B8-AE-ED-D4-04-C7
20	Lenovo	Lenovo	PG00QNKC	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D4-FC-25
21	Lenovo	Lenovo	PG00QNJY	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D4-FC-2B

22	Lenovo	Lenovo	PC0B3BFV	i3-4170 cpu@3.70 GHz	4GB	500GB	F4-4D-30-52-9D-3F
23	Lenovo	Lenovo	PG00QMZC	i3-4170 cpu@3.70 GHz	4GB	500GB	00-01-6C-D6-0A-0C
24	Dell	Dell	OPTIPLEX360	Intel care 2Duecpu E7400@2.80GHz	2 GB		00-23-AE-86-EE-15

Items	Functions	Cost
PROJECTOR , PANASONIC	Presentation, Training	26250
PRINTER, 2900 CANNON	Documentation	9145
SCANNER, CANNON	Documentation	2375

List of Consumables

S. No.	Item	Quantity	Total Cost
1	MS Steel rod	100	6558
2	Copper Rod	10	9500
3	Brass Rod	10	6200
4	Aluminum Rod	10	4500
5	Cast Nylon Rod	10	2750
6	Aluminum Sheet	5	2500
7	Emery Paper	50	1500
8	Single point cutting tool	5	1250

9	Milling Cutter	5	1250
10	Consumable and non-consumable electrodes	5 packets	2000
11	3D printer material (PLA)	5 spool	6000
12	Drilling bit	10	1000

Glimpses of Infrastructure of Centre of Excellence

Production Lab

Aero-modeling Lab
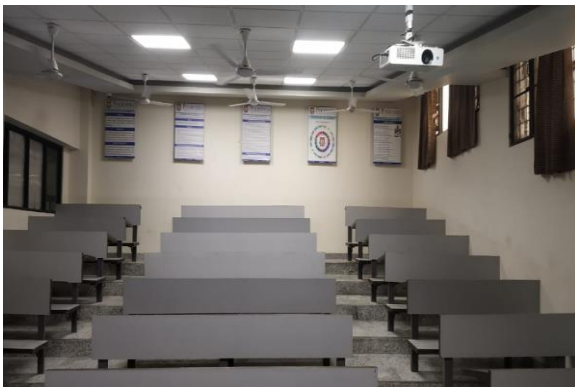
Lecture Theatre

3D Printer

Computer Lab

TIG Welding Setup

4.1.1 Center of Excellence in Geoinformatics

ABOUT THE CoE

Poornima College of Engineering started a Center of Excellence (CoE) for GEOINFORMATICS that focuses on research, development, education, and practical applications related to geoinformatics. Geoinformatics is an interdisciplinary field that combines geographic information systems (GIS), remote sensing, geospatial analysis, and other technologies to acquire, manage, analyze, and visualize geographic and spatial data.

An effort called the Center of Excellence for Geoinformatics aims to advance research, education, and support services for geospatial applications. Its core initiatives are focused on employing a collaborative and community-driven approach to raise knowledge, understanding, appreciation, and implementation of geospatial solutions.

The research, outreach, and consulting efforts of the Center are concentrated on many elements of Geoinformation technology and systems. The center's research initiatives take the shape of funded projects by domestic and international funding organizations and community development initiatives. The center for the promotion of multidisciplinary research for sustainable development is affiliated with faculty members from all of the institute's departments, including Electronics & Telecommunication Engineering, Computer Engineering, and Information Technology.

Vision and Mission of proposed COE:

Vision: To be a Global Centre of Excellence for Geoinformatics in Academic, Research, Government support and Industrial Training.

Mission: To be a leading Centre of Excellence in Geoinformatics Research of international repute for the investigation of multidisciplinary areas.

To enhance the knowledge based on research, education and information transfer by using the advanced approach.

To organize trainings/workshop/social activity for capacity building in Geoinformatics.

To provide academic support to undergraduate/post-graduate/ PhD program in the discipline of Geoinformatics.

Objective and Relevance of the proposed COE

1. ICT and geospatial knowledge co-creation and sharing based on Geoinformatics principles.

2. To enhance quality of life and create proactive local communities, integrate and employ geospatial solutions and open-source principles.

3. Offer deployment and consulting services for geospatial solutions based on BIG data, AI and Machine Learning.

4. Strengthening capacity via awareness campaigns, instruction, workshops, teacher training sessions, consultations, displays, and outreach initiatives.

5. Use cutting-edge geospatial software to meet various needs for monitoring and evaluation (M&E).

Centre of Excellence Aims

Research: Conduct cutting-edge research in the field of geoinformatics, exploring new methodologies, technologies, and applications to address various spatial challenges and problems. Education: Offer training programs, workshops, and courses to educate professionals, students, and the public about geoinformatics principles, tools, and techniques.

Application Development: Develop practical applications, software tools, and solutions that leverage geoinformatics to address real-world issues in sectors like urban planning, environmental monitoring, agriculture, disaster management, and more.

Data Management: Focus on the collection, management, and analysis of geospatial data, including satellite imagery, aerial photographs, geographic databases, and other spatial datasets. Collaboration: Foster collaborations with academia, government agencies, industries, and other stakeholders to advance geoinformatics research and applications.

Policy and Decision Support: Provide expertise to policymakers and decision-makers by utilizing geoinformatics data and analyses to make informed choices related to land use, resource

management, infrastructure planning, and more.

Innovation: Drive innovation by pushing the boundaries of geoinformatics technology and its integration with emerging fields such as artificial intelligence, machine learning, and big data analytics.

This center will play a vital role in advancing the understanding and application of geoinformatics in various domains. It will contribute to scientific advancements, support sustainable development, and enhance decision-making processes by providing valuable geospatial insights.

FUTURE COMMITMENT

- ➢ Patent

- ➢ Publications in reputed journals (SCI/WOS & SCOPUS Indexed)

- ➢ Collaborative research work with International and National Organization

- ➢ External Funded Projects

- ➢ Presenting research outcome in National and International conferences

- ➢ Conducting workshop/seminar/ training program. Capacity Building

INFRASTRUCTURAL FACILITIES

IT infrastructure for COE

S. No.	PC Brand	Modal No.	PC Serial No.	Processor	RAM	Hard Disk	MAC
1	Lenovo	Lenovo Think Centre E63z	P900JQP9	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-20

2	Lenovo	Lenovo Think Centre E63z	P900JQPB	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6D-DB
3	Lenovo	Lenovo Think Centre E63z	P900JQSX	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6F-8A
4	Lenovo	Lenovo Think Centre E63z	P900JQPY	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-14
5	Lenovo	Lenovo Think Centre E63z	P900JQQW	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-75-16
6	Lenovo	Lenovo Think Centre E63z	P900JQSW	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6F-B4
7	Lenovo	Lenovo Think Centre E63z	P900JQQ8	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-4F
8	Lenovo	Lenovo Think Centre E63z	P900JQQ1	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-78-06
9	Lenovo	Lenovo Think Centre E63z	P900JQNY	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6E-5E
10	Lenovo	Lenovo Think Centre E63z	P900JQNX	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-F4
11	Lenovo	Lenovo Think Centre E63z	P900JQSN	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-2F
12	Lenovo	Lenovo Think Centre E63z	P900JQPL	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-6F

13	Lenovo	Lenovo Think Centre E63z	P900JQSA	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-52
14	Lenovo	Lenovo Think Centre E63z	P900JQPX	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6E-47
15	Lenovo	Lenovo Think Centre E63z	P900JQT6	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7A-08
16	Lenovo	Lenovo Think Centre E63z	P900JQT9	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-77-DB
17	Lenovo	Lenovo Think Centre E63z	P900JQPH	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6E-97
18	Lenovo	Lenovo Think Centre E63z	P900JQR1	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6D-E0
19	Lenovo	Lenovo Think Centre E63z	P900JQPF	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-17
20	Lenovo	Lenovo Think Centre E63z	P900JQTY	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-0A
21	Lenovo	Lenovo Think Centre E63z	P900JQSV	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-79-AC
22	Lenovo	Lenovo Think Centre E63z	P900JQQL	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7L-79-AC
23	Lenovo	Lenovo Think Centre E63z	P900JQQD	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6F-8D

24	Lenovo	Lenovo Think Centre E63z	P900JQQB	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7C-C4
25	Lenovo	Lenovo Think Centre E63z	P900JQQ2	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-79-FA
26	Lenovo	Lenovo Think Centre E63z	P900JQSG	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6F-84
27	Lenovo	Lenovo Think Centre E63z	P900JQRV	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-0D
28	Lenovo	Lenovo Think Centre E63z	P900JQRB	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7C-6B
29	Lenovo	Lenovo Think Centre E63z	P900JQPW	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6D-FF
30	Lenovo	Lenovo Think Centre E63z	P900JQNW	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-D6
31	Lenovo	Lenovo Think Centre E63z	P900JQTL	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-79-B0
32	Lenovo	Lenovo Think Centre E63z	P900JQPR	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-6E-4E
33	Lenovo	Lenovo Think Centre E63z	P900JQQQ	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-71-01
34	Lenovo	Lenovo Think Centre E63z	P900JQP4	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-E5

35	Lenovo	Lenovo Think Centre E63z	P900JQRA	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-70-F5
36	Lenovo	Lenovo Think Centre E63z	P900JQPK	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	00-25-AB-7D-7C-93
37	Lenovo	Lenovo Think Centre A10	L90MA04	Intel ® Core ™ i3-2120 CPU @ 3.30GHz	4GB	260 GB	AC-FD-CE-84-B7-FA
38	Lenovo	Lenovo Think Centre E63z	P900JQPJ	Intel ® Core ™ i3-4005U CPU @ 1.70GHz	4GB	500 GB	F8-0F-41-2E-51-CC

Items	Functions
PROJECTOR, PANASONIC	Presentation, Training
Computer Cabinet (DELL OPTIPLEX 360, Intel ® Core ™ 2 Duo CPU E7400 @2.80 GHz, RAM 1GB, HDD 160GB, MAC 00-23-AE-87-12-B6) for Projector	Documentation

LIST OF SOFTWARE

S. No.	Item	Quantity	Total Cost
1	QGIS 3.12	20	0 (Open Source)
2	SAGA 8	10	0 (Open Source)
3	SketchUp Desktop 2024.0	20	0 (Open Source)

EXISTING FACILITY/SUPPORT FROM LAB

The Instruments/ equipment and software from the following labs will be used-

➢ Computer Aided Design Lab

➢ Concrete & Material Testing Lab

- Geo-Mechanics & Environmental Engineering lab

- Artificial Intelligence lab

- Existing facilities in the Poornima College of Engineering

- Permanent Equipment and Software

- Desktop and CPU with advanced configuration

- Software available: QGIS, AUTO-CAD

- Handheld GPS

- Water quality testing equipment

TEAM MEMBERS

Multi-disciplinary research team are involved from various department at Poornima College of Engineering.

- Dr. Pran N. Dadhich is the Coordinator of the Centre along with the relevant experts from the following Department of PCE as Members.

- Department of Civil Engineering

- Department of Computer Science and Engineering

- Poornima Innovation Incubation Cell

- Research and Development Cell

- Intellectual Property Right Cell

- CoE – Artificial Intelligence and Big Data

- CoE – Automobile and e-Vehicle

- CoE – Advanced Wireless Communication

Glimpses of Infrastructure of Centre of Excellence

Report - Hands on Training in Digital Image Processing & its Applications

NAME OF ACTIVITY: Workshop on Hands on Training in Digital Image Processing & its Applications

DATE & DURATION: May 14-16, 2024

ORGANIZED BY: Department of Civil Engineering

RESOURCE PERSON: Dr. Pran Nath Dadhich

DATE: 14/05/2024 to 16/05/2024

OBJECTIVE:

• Train the participants with the theoretical concepts of the digital image processing techniques with main emphasize to remote sensing applications.

• Understanding of various state-of-art techniques in image processing.

• Training on the development of pattern recognition and digital image analysis algorithms.

• Knowledge and hands-on training of software for image analysis.

•Training of the students with recent developments in digital image processing in industries.

CIRCULAR

Workshop on Hands on Training in Digital Image Processing & its Applications

HOD CIVIL PCE <hodcivil.pce@poornima.org>   Wed, 8 May, 13:59 (8 days ago)

to PCE-

Dear Students,

The Department of Civil Engineering is organizing a Workshop on Hands on Training in Digital Image Processing & its Applications from May 14-16, 2024.

The focus of the workshop will be: Digital Image, Representation of Digital Image, RGB Color Image, Image Enhancement Techniques and the Concept of Histogram and Application of Image Processing.

It is informed to register for this workshop through the below google form link.
https://forms.gle/wuULNCm87FVbw2XX8

--
Thanks and Regards

Pran N. Dadhich (D. Eng.)
Department of Civil Engineering
Poornima College of Engineering
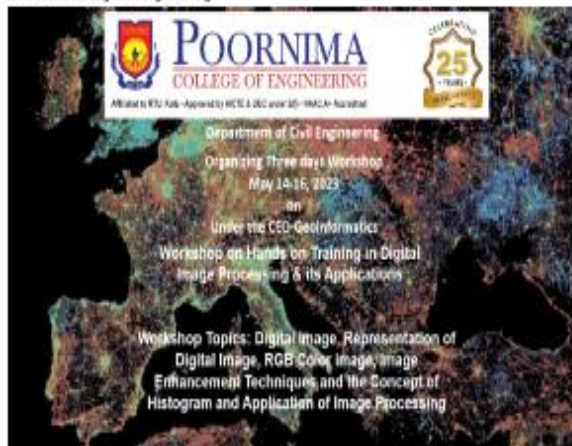
Google Form for Registration:

BROCHURE:

INTRODUCTION:

In this workshop, we'll delve into the intricate world of digital image processing, a pivotal component of remote sensing technology. From satellite imagery capturing the Earth's surface to drones surveying inaccessible terrains, remote sensing platforms provide us with a wealth of data that holds immense potential for scientific research, environmental monitoring, urban planning, agriculture, disaster management, and much more.

Throughout our session, we'll unravel the complexities of digital image processing techniques tailored for remote sensing applications. We'll explore how algorithms and software tools transform raw sensor data into meaningful insights, enhancing our understanding of natural phenomena and human activities on a global scale.

Through hands-on demonstrations, case studies, and interactive discussions, we aim to equip

you with the knowledge and tools needed to navigate the dynamic landscape of digital image

processing in remote sensing.

Session Overview:

Date	Day	Topics Covered
14/05/2024	TUESDAY	• Basic of Satellite Images • Digital Image Concepts • Representation of Digital Image • Acquiring Satellite Images using Bhoonidhi portal of ISRO
15/05/2024	WEDNESDAY	• Introduction to Erdas imagine software • RGB Color images • Image Enhancement Techniques and the Concept of Histogram technique. • Image enhancement through the PAN merge.
16/05/2024	THURSDAY	• Basic concepts of Image classification • Image Interpretation Keys/ Elements • Image Classification Methods- Supervised and Unsupervised • Analysis and Discussion of classified satellite image

Day: 1

DATE: 14/05/2024, (Tuesday)

Basics of Satellite Images:

- Satellite images are captured by satellites orbiting the Earth.

- They provide valuable information about the Earth's surface.

- Used in various fields like cartography, environmental monitoring, and urban planning.

Digital Image Concepts:

- Digital images are composed of pixels, each representing a small portion of the image.

- Image resolution determines the level of detail in an image.

- Color depth refers to the number of colors that can be represented in an image.

Representation of Digital Images:

- Digital images are represented using matrices of numerical values.

- Grayscale images have one matrix representing brightness values.

- Color images have multiple matrices representing color channels (e.g., red, green, blue).

4. Acquiring satellite images using Bhunidhi portal of ISRO

The Bhunidhi portal, developed by the Indian Space Research Organisation (ISRO), provides access to satellite imagery for various applications. This step-by-step guide explains how to download satellite images using the Bhunidhi portal.

Step 1: Accessing the Bhunidhi Portal

Open your web browser and navigate to the Bhunidhi portal website (URL: [insert URL]).

Log in to the portal using your credentials. If you don't have an account, sign up for one to access the features.

Step 2: Searching for Satellite Images

Once logged in, navigate to the search interface or dashboard.

Specify your search criteria, such as location, date range, satellite sensor, and image resolution.

Step 3: Viewing Image Results

After entering your search parameters, click on the "Search" or "Submit" button.

The portal will display a list of satellite images matching your search criteria.

Preview the images to ensure they meet your requirements.

Step 4: Selecting Images for Download

Select the satellite images you wish to download by clicking on them or checking the respective checkboxes.

You can choose multiple images for download if needed.

Step 5: Downloading Images

After selecting the desired images, locate the download option (usually represented by a download icon or button).

Click on the download option to initiate the download process.

Depending on the file size and your internet connection speed, the download may take some time.

Step 6: Post-Download Processing (Optional)

Once the images are downloaded, you can use image processing software to analyze and manipulate them as needed.

Perform tasks such as image enhancement, classification, and georeferencing to extract valuable information from the images.

Day: 2

DATE: 15/05/2024, (Wednesday)

• Introduction to Erdas Imagine Software

Erdas Imagine is a powerful remote sensing and image processing software widely used for analyzing and interpreting satellite and aerial imagery. This brief overview introduces the basic functionalities of Erdas Imagine software and explores the concept of RGB color images commonly used in remote sensing applications.

Erdas Imagine Software:

Erdas Imagine is a comprehensive software suite developed by Hexagon Geospatial for remote sensing, spatial analysis, and image processing.

It offers a wide range of tools and capabilities for handling various types of satellite, aerial, and drone imagery.

Users can perform tasks such as image interpretation, classification, mosaicking, and change detection.

Introduction to RGB Color Images:

RGB (Red, Green, Blue) color images are a common type of digital image representation where each pixel is defined by three color channels: red, green, and blue.

These color channels are combined to create a full-color image where each pixel's color is a mixture of red, green, and blue intensities.

RGB color images closely resemble how the human eye perceives color, making them intuitive and widely used in various applications.

Key Features of Erdas Imagine for RGB Color Images:

Importing and Displaying Images:

Erdas Imagine allows users to import satellite, aerial, and other imagery in various formats such as GeoTIFF, JPEG, and ERDAS IMAGINE (.img) format.

Once imported, users can visualize the images in the software's display window, enabling easy exploration and interpretation.

Color Enhancement and Adjustment:

Users can perform color enhancement and adjustment techniques to improve the visual quality of RGB images.

This includes adjusting brightness, contrast, and color balance to enhance image clarity and highlight specific features.

Image Analysis and Classification:

Erdas Imagine offers tools for image analysis and classification, allowing users to identify and classify objects within RGB images.

Classification techniques can be applied to separate land cover types, vegetation, water bodies, and built-up areas based on their spectral signatures.

Image Fusion and Integration:

Users can fuse or integrate multiple RGB images with other spectral bands or datasets to create composite images with enhanced information content.

Image fusion techniques combine the strengths of different sensors or image sources to generate high-quality, multispectral imagery.

Day: 3

DATE: 16/05/2024, (Thursday)

Basic Concepts of Image Classification:

Image classification is the process of categorizing pixels within an image into thematic classes or categories based on their spectral characteristics.

Key concepts include spectral resolution (the number of bands), spatial resolution (the size of pixel), and thematic resolution (the number of classes).

Image Interpretation Keys/Elements:

Image interpretation involves analysing the visual characteristics of satellite imagery to identify features and land cover types.

Elements of image interpretation include tone/colour, texture, pattern, shape, size, shadow, and association.

Image Classification Methods - Supervised and Unsupervised:

Supervised classification involves training a classifier using a set of known, labelled samples to classify pixels into predefined classes.

Unsupervised classification groups pixels based on their spectral similarity without prior knowledge of class labels, often resulting in clusters of similar spectral signatures.

Analysis and Discussion of Classified Satellite Image:

Once a satellite image is classified, the results are typically analysed and interpreted to extract meaningful information.

Analysis involves assessing the accuracy of the classification, identifying areas of interest, and evaluating changes over time.

Discussion may include insights gained from the classification results, implications for land use planning or environmental monitoring, and recommendations for further analysis or actions.

PHOTOGRAPHS:

CONCLUSION:

The three-day workshop on digital image processing and its applications has been a transformative journey, providing participants with a comprehensive understanding of the fundamental concepts and practical techniques in this dynamic field. Throughout the workshop, attendees delved into a diverse range of topics, including image acquisition, enhancement, classification, and analysis, gaining valuable insights into the potential applications across various domains.

Participants have not only acquired theoretical knowledge but also honed their practical skills through hands-on sessions and real-world case studies. By exploring cutting-edge tools and software platforms, such as Erdas Imagine and ENVI, attendees have developed proficiency in processing and interpreting digital imagery, paving the way for innovative solutions in research, industry, and academia.

Moreover, the workshop fostered a collaborative environment where participants engaged in fruitful discussions, shared experiences, and exchanged ideas.

In essence, the three-day workshop has been a catalyst for professional growth, collaboration, and innovation, empowering participants to unlock the full potential of digital image processing and make meaningful contributions to society. As they return to their endeavors, they carry with them

the tools and inspiration to embark on a transformative journey in the realm of digital imagery and its applications.

Sample Certificate

ATTENDANCE SHEET

Poornima College of Engineering
Department of Civil Engineering
Workshop on Digital Image Processing and Its Applications

Registration No.	Participant Name	Sign 14/05/2024	Sign 15/05/2024	Sign 16/05/2024
PCE21CE605	Astha Jodhani	Astha	Astha	Astha
PCE21CE041	Sudhir			
PCE21CE042	Sujata			
PCE21CE039	Shivani Verma			
PCE21CE043	Tanmay Sanget			
PCE21CE040	Heetesh		Heetesh	Heetesh
PCE21CE045	Tilak Raj Singh			
PCE21CE034	Ravi Kumar Sharma			
PCE21CE046	Vijay Kumar			
PCE21CE504	Rahul Singh			
PCE21CE006	Akash Dhaka			
PCE21CE010	Devanshi Meena			
PCE21CE033	Naveen Singh			
PCE21CE002	Rashmi Chauhan			
PCE21CE705	Kashif nawi			
PCE21CE705	Wasim Ali			
PCE21CE035	Ravi Kumar			
PCE21CE044	Tejas Rathaur			
PCE21CE028	Raghav Kumar Sharma			
PCE21CE503	Priyanka Kumar			
PCE21CE038	Sikha Bansal			
PCE21CE014	Nitin Kumar			
PCE21CE026	Prtham Chauhan			
PCE21CE014	Gaurish Gaud			
PCE21CE005	Aditya Meena			
PCE21CE010	Shreyash Sharma			
PCE21CE033	Narendra Singh			
PCE21CE501	Atish Chauhan			
PIE21CE003	Abhishek			
PCE21CE011	Devanshu			
PCE21CE015	Himanshu			
PCE21CE019	Manish		Manish	
PCE21CE705	Wasim Ali			
PCE21CE012	Farez Khokar	Farez	Farez	Farez
PCE21CE032	Rohit Chaudhary			
PCE21CE035	Ravi Meena		Naveen	Singh

FEEDBACK

FEEDBACK ANALYSIS (2023-24)						
S.No.	Attributes	Total Feed Back				100
1	Did the session meet its objectives?	Outstanding	Excellent	Good	Average	Satisfactory	Remark
		77.21	10.91	8.29	1.20	0.00	
2	Did you find the contents useful?	Outstanding	Excellent	Good	Average	Satisfactory	Remark
		75.88	14.19	7.92	1.11	0.00	
3	Did it help students to enhance their skills or learnings?	Outstanding	Excellent	Good	Average	Satisfactory	Remark
		73.29	16.11	6.49	1.20	0.00	
4	Did you receive uninterrupted Connectivity in case of online sessions?	Outstanding	Excellent	Good	Average	Satisfactory	Remark
		71.20	18.59	5.19	1.32	0.00	
5		Outstanding	Excellent	Good	Average	Satisfactory	Remark

	How do you rate this session overall?	72.29	18.52	6.99	1.00	0.00	

Overall Remark:- These kind of sessions should be conducted in the future for more awareness.

4.1.1 Location wise detail of Classrooms and Laboratories with Infrastructure and ICT Facilities

Poornima College of Engineering, Jaipur																				

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
1	Academic Block-I	Lower Ground	Mechanical	1B01	MATERIAL TESTING & MECHANISM LAB	174.92		6	11	1 Green			1		2				Wi-Fi/LAN	
2	Academic Block-I	Lower Ground	Mechanical	1B01-A	FACULTY ROOM	6.49		1	1	1 Notice			1						Wi-Fi/LAN	
3	Academic Block-I	Lower Ground	Mechanical	1B01-B	FACULTY ROOM	5.88		1	1	1 White			1		1				Wi-Fi/LAN	
4	Academic Block-I	Lower Ground	Mechanical	1B01-C	ASHRAE SPONSERED PROJECT	7.95		1	1						1	1			Wi-Fi/LAN	1 Inverter
5	Academic Block-I	Lower Ground	Mechanical	1B01-D	FACULTY ROOM	11.75	1		1	1 Notice			1		1				Wi-Fi/LAN	
6	Academic Block-I	Lower Ground	Mechanical	1B02	CENTER OF EXCELLENCE ADVANCE MANUFACTURING	72.91		4	5	1 White				1		2	1		Wi-Fi/LAN	
7	Academic Block-I	Lower Ground	Mechanical	1B03	WATING AREA	9.45		1	1	1 Notice			4						Wi-Fi	
8	Academic Block-I	Lower Ground	Mechanical	1B03-A	HOD ROOM	17.37		2	1	2 Notice			1		1				Wi-Fi/LAN	1 Printer
9	Academic Block-I	Lower Ground	Mechanical	1B03-B	BOARD ROOM	26.52		2	2	1 White 1 Notice				1					Wi-Fi/LAN	
10	Academic Block-I	Lower Ground	Mechanical	1B04	LECTURE HALL	76.35		6	6	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	2 Exhaust Fans
11	Academic Block-I	Lower Ground	Mechanical	1B05	SEMINAR HALL	76.87	6		9	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	2 Exhaust Fans 1 Sound System
12	Academic Block-I	Lower Ground	Mechanical	1B06	FACULTY ROOM	11.49		2	1	1 Notice			1		2				Wi-Fi/LAN	
13	Academic Block-I	Lower Ground	Mechanical	1B07	AERO-MODELLING LAB	76.35		4	5	1 Green 7 Notice			1					2	Wi-Fi/LAN	1 Exhaust Fan
14	Academic Block-I	Lower Ground	Mechanical	1B07-A	FACULTY ROOM	11.63		1	1				1	1					Wi-Fi/LAN	
15	Academic Block-I	Lower Ground	Mechanical	1B08	VIBRATION & MECHANICAL ENGINEERING LAB	76.35		4	5	1 Green 6 Notice			1						Wi-Fi	
16	Academic Block-I	Lower Ground	Mechanical	1B08-A	FACULTY ROOM	9.97		1	1	1 Notice			2		2				Wi-Fi/LAN	
17	Academic Block-I	Lower Ground	Mechanical	1B08-B	FACULTY ROOM	7.07		1	1	1 Notice				1	1				Wi-Fi/LAN	
18	Academic Block-I	Lower Ground	Mechanical	1B09	PRODUCTION LAB	229.16		10	14	2 Notice			3	1					Wi-Fi/LAN	2 Exhaust Fans
19	Academic Block-I	Lower Ground	Mechanical	1B09-A	STORE ROOM	7.07		1	1				2	1					Wi-Fi	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
20	Academic Block-I	Lower Ground	Mechanical	1B09-B	FOUNDRY SHOP	16.24		1	1	1 Notice			1						Wi-Fi/LAN	1 Exhaust Fan
21	Academic Block-I	Lower Ground	Mechanical	1B09-C	WELDING SHOP	8.24		1	1	1 Notice			1						Wi-Fi/LAN	
22	Academic Block-I	Lower Ground	Mechanical	1B10	FLUIDS MECHANICS & MACHINES LAB	141.09		11	11	1 Green 1 Notice			2	1					Wi-Fi/LAN	
23	Academic Block-I	Lower Ground	Mechanical	1B10-A	STORE ROOM	18.05		1	1					7					Wi-Fi	
24	Academic Block-I	Lower Ground	Mechanical	1B11	CENTER OF EXCELLENCE AUTOMOBILE AND ELECTRIC VEHICLES	203.27		15	14	1 Green 1 Notice			1	1					Wi-Fi/LAN	2 Exhaust Fans
25	Academic Block-I	Lower Ground	Mechanical	1B12	THERMAL & HEAT TRANSFER LAB	107.05		5	6					1					Wi-Fi/LAN	1 Exhaust Fan
26	Academic Block-I	Lower Ground	Mechanical	1B12-A	FACULTY ROOM	7.95		1	1	2 White 2 Notice			1	2	2				Wi-Fi/LAN	
27	Academic Block-I	Lower Ground	Mechanical	1B12-B	FACULTY ROOM	11.75		1	1	1 Notice			1	1	1				Wi-Fi/LAN	
28	Academic Block-I	Lower Ground	Mechanical	1B13	CAD LAB	56.89		4	4	1 White			1	1	29	2	1		Wi-Fi/LAN	
29	Academic Block-I	Lower Ground	Mechanical		PASSAGE	44.77		2										1	Wi-Fi	
30	Academic Block-I	Lower Ground	Mechanical		PASSAGE	40.69	2												Wi-Fi	
31	Academic Block-I	Lower Ground	Mechanical		ELECTRICAL STORE ROOM	11.8		1											Wi-Fi/LAN	
32	Academic Block-I	Lower Ground	Mechanical		LOBBY	18.86	2			1 Notice									Wi-Fi	
33	Academic Block-I	Lower Ground	Mechanical		LOBBY	57.21	2			2 Notice								1	Wi-Fi	
34	Academic Block-I	Upper Ground	Civil	1001	TUTORIAL ROOM	32.6		4	2	1 Green		30							Wi-Fi	
35	Academic Block-I	Upper Ground	Civil	1001-A	COMPUTER AIDED DESIGN LAB	73.35	2	4	4	1 White				1	38	4		1	Wi-Fi/LAN	
36	Academic Block-I	Upper Ground	Institute	1001-B	PROVISION STORE	23.64		2	2					2	1				Wi-Fi/LAN	1 Printer 1 PhotoCopy Machine
37	Academic Block-I	Upper Ground	Institute	1001-C	LAUNDRY	10.86		1	1					2						
38	Academic Block-I	Upper Ground	Civil	1002	DRAWING HALL	73.25		2	7	1 Green	2	26							Wi-Fi/LAN	
39	Academic Block-I	Upper Ground	Civil	1003	SURVEYING LAB	54.23		3	5	1 Green	1	24	2							
40	Academic Block-I	Upper Ground	Civil	1004	LECTURE HALL	75.17	6		8	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	1 Sound System
41	Academic Block-I	Upper Ground	Civil	1005	LECTURE HALL	77.82		3	5	1 Green 1 White	1	70						2		
42	Academic Block-I	Upper Ground	Civil	1006-A	MALE WASHROOM	24.87		1												1 Exhaust fan

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
43	Academic Block-I	Upper Ground	Civil	1006-B	FEMALE WASHROOM	26.25		1												1 Exhaust fan
44	Academic Block-I	Upper Ground	Institute	1007	EXAM & SECRECY CELL	11.57		2	1	3 Notice			2	15		1		1	Wi-Fi	Emergency Light
45	Academic Block-I	Upper Ground	Institute	1007	REST ROOM	11.57		1	1											1 Exhaust fan
46	Academic Block-I	Upper Ground	Institute	1007	PRINCIPAL ROOM	34.46	3		3	1 Notice 1 White					2	1			Wi-Fi/LAN	1 Printer 1 Scanner 1 LED Screen
47	Academic Block-I	Upper Ground	Institute	1007	PA TO PRINCIPAL	7.72		1	1	1 Notice			1	3	1					1 Printer 1 Scanner
48	Academic Block-I	Upper Ground	Institute	1007	RECEPTION	8.85		1	1					6					Wi-Fi/LAN	
49	Academic Block-I	Upper Ground	Institute	1008	VICE PRINCIPAL ROOM	24.87	4	2	1	1 Notice					1	1				1 Printer
50	Academic Block-I	Upper Ground	Institute	1008-A	VISITOR'S LOUNGE	50.52	4		4							2			Wi-Fi/LAN	1 TV Set
51	Academic Block-I	Upper Ground	Institute		WATING AREA FOR ADMINISTRATION	126.9	18											2	Wi-Fi	3 FRAS
52	Academic Block-I	Upper Ground	Institute	1009	CONFERENCE HALL	101.23	20				1	51							Wi-Fi/LAN	1 TV Set 1 Sound System
53	Academic Block-I	Upper Ground	Institute		REGISTRAR OFFICE	26.55	3			3 Notice			2	15	3				Wi-Fi/LAN	2 Printer
54	Academic Block-I	Upper Ground	Institute		REGISTRAR	14.11	1	1	1	2 Notice				9	1				Wi-Fi/LAN	1 Printer
55	Academic Block-I	Upper Ground	Institute		CASHIER	8.21		1	1	1 Notice			1	1	1				Wi-Fi/LAN	1 Printer
56	Academic Block-I	Upper Ground	Institute	1010	ADMIN OFFICE	48.12	6	2	4	1 Notice			1	85	4				Wi-Fi/LAN	1 Printer
57	Academic Block-I	Upper Ground	Institute	1011-A	PIIC OFFICE	11.41		1	1	2 Notice 1 White			3		1				Wi-Fi/LAN	1 Printer
58	Academic Block-I	Upper Ground	Institute	1011	CHIEF PROCTOR OFFICE	13.14	3		1	3 Notice			1		2	1			Wi-Fi/LAN	1 Printer 1 LED Screen
59	Academic Block-I	Upper Ground	Civil	1011-B	DEPARTMENT LIBRARY	24.75		2	2				2	7					Wi-Fi/LAN	
60	Academic Block-I	Upper Ground	Civil	1011-C	FACULTY ROOM	12.47		1	1	1 Notice 1 White			2						Wi-Fi/LAN	1 Printer
61	Academic Block-I	Upper Ground	Civil	1011-D	HOD ROOM	12.67		1	1										Wi-Fi/LAN	
62	Academic Block-I	Upper Ground	Institute	1012	IQAC OFFICE	35.82		3	2	3 Notice 1 White					1				Wi-Fi/LAN	
63	Academic Block-I	Upper Ground	Institute	1012-A	TRAINING & PLACEMENT OFFICE	34.6	1	2	2	8 Notice 1 White			2			1			Wi-Fi/LAN	
64	Academic Block-I	Upper Ground	Institute	1012-B	POORNIMA COLLEGE ALUMINI SOCIETY	39.78		2	3	2 Notice 1 White			1		1				Wi-Fi/LAN	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
												Existing Area Plan								
65	Academic Block-I	Upper Ground	Civil	1013	FACULTY ROOM	13.95		1	1						2				Wi-Fi/LAN	
66	Academic Block-I	Upper Ground	Civil	1013-A	FACULTY ROOM	15.16		1	1	1 Notice 1 White			1		3				Wi-Fi/LAN	
67	Academic Block-I	Upper Ground	Civil	1013-B	BOARD ROOM	33		1	2				2			1			Wi-Fi/LAN	
68	Academic Block-I	Upper Ground	Civil		STAIRS	26.21		1											Wi-Fi	
69	Academic Block-I	Upper Ground	Civil		PASSAGE	108.39	4											3	Wi-Fi	
70	Academic Block-I	Upper Ground	Civil		PASSAGE	22.86	1		1									1	Wi-Fi	
71	Academic Block-I	Upper Ground	Civil		PASSAGE	22.86		1											Wi-Fi	
72	Academic Block-I	Upper Ground	Civil		ENTRANCE LOBBY	228.17	2	1	3									2	Wi-Fi/LAN	
73	Academic Block-I	Upper Ground	Civil		PASSAGE	19.47		2											Wi-Fi	
74	Academic Block-I	First Floor	Institute	1101	SURVILLANCE ROOM	48.27	2		1				6						Wi-Fi/LAN	4 LED Screen
75	Academic Block-I	First Floor	Computer		LOBBY	19.99		1											Wi-Fi	
76	Academic Block-I	First Floor	Computer	1101-A	PROGRAMMING LAB	90.74	2		4	1 White					48	3	1	2	Wi-Fi/LAN	
77	Academic Block-I	First Floor	Computer	1102	NETWORK PROGRAMMING & SECURITY LAB	90.74	6		4	1 White					48	3	1	2	Wi-Fi/LAN	
78	Academic Block-I	First Floor	Computer	1103	TUTORIAL ROOM	54.23		2	5	1 Green 1White	1	40							Wi-Fi	
79	Academic Block-I	First Floor	Computer	1104	LECTURE HALL	76.35		4	5	1 Green 1White	1	56					1	2	Wi-Fi/LAN	
80	Academic Block-I	First Floor	Computer	1105	LECTURE HALL	77.73		4	5	1 Green 1White	1	56					1	2	Wi-Fi/LAN	
81	Academic Block-I	First Floor	Computer	1106-A	BOYS TOILET	24.87		1												1 Exhaust Fan
82	Academic Block-I	First Floor	Computer	1106-B	GIRLS TOILET	26.25		1												1 Exhaust Fan
83	Academic Block-I	First Floor	Computer	1107	ADVANCE JAVA PROGRAMMING LAB	76.35	3		6	1White			1	1	38	3	1		Wi-Fi/LAN	
84	Academic Block-I	First Floor	Computer	1108	SOFTWARE TESTING & DESIGN LAB	76.16	3		5	1White			1	1	40	3	1	2	Wi-Fi/LAN	
85	Academic Block-I	First Floor	Computer	1109	DIGITAL CIRCUIT & SYSTEM LAB-I	76.35		2	6	1 Green 2 Notice			1	1					Wi-Fi/LAN	
86	Academic Block-I	First Floor	Computer	1109-A	FACULTY ROOM	12.21		1	1	2 Notice 1 White			2		2				Wi-Fi/LAN	
87	Academic Block-I	First Floor	Computer	1109-B	FACULTY ROOM	15.8		2	1	2 Notice 1 White			1	2	1				Wi-Fi/LAN	
88	Academic Block-I	First Floor	Computer	1109-C	FACULTY ROOM	13.33		1	1	1 Notice 2 White			3	4	1				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
89	Academic Block-I	First Floor	Computer	1109-D	FACULTY ROOM	11.67		1	1	1 Notice 1 White			2						Wi-Fi/LAN	
90	Academic Block-I	First Floor	Computer	1110	DIGITAL CIRCUIT & SYSTEM LAB-II	76.35	3	3	6	1 Green 2 Notice			1	2	1				Wi-Fi/LAN	1 Printer
91	Academic Block-I	First Floor	Computer	1110-A	FACULTY ROOM	10.54		1	1	1 Notice 1 White			2		1				Wi-Fi/LAN	
92	Academic Block-I	First Floor	Computer	1110-B	FACULTY ROOM	8.2		1	1	1 Notice 1 White			2		1				Wi-Fi/LAN	1 Printer
93	Academic Block-I	First Floor	Computer	1111	LOBBY	167.42	2	4										1	Wi-Fi	
94	Academic Block-I	First Floor	Computer	1112	TUTORIAL ROOM	35.82		2	2	1 Green	1	34							Wi-Fi	
95	Academic Block-I	First Floor	Computer	1112-A	TUTORIAL ROOM	34.6		2	2	1 Green	1	24							Wi-Fi	
96	Academic Block-I	First Floor	Computer	1113	TUTORIAL ROOM	29.58		2	2	1 Green	1	30							Wi-Fi	
97	Academic Block-I	First Floor	Computer	1113-A	FACULTY ROOM	17.02		2	1	2 Notice 1 White			2		2				Wi-Fi/LAN	
98	Academic Block-I	First Floor	Computer	1113-B	FACULTY ROOM	12.53		1	1	1 Notice 1 White			1		1				Wi-Fi/LAN	
99	Academic Block-I	First Floor	Computer	1113-C	FACULTY ROOM	12.94		1	1	2 Notice 1 White			2		2				Wi-Fi/LAN	
100	Academic Block-I	First Floor	Computer	1113-D	STORE ROOM	8.73		1											Wi-Fi	
101	Academic Block-I	First Floor	Computer		LOBBY	17.56		1											Wi-Fi	
102	Academic Block-I	First Floor	Computer		PASSAGE	39		2										1	Wi-Fi	
103	Academic Block-I	First Floor	Computer		PASSAGE	46.71		4											Wi-Fi	
104	Academic Block-I	First Floor	Computer		PASSAGE	47.56		2		3 Notice									Wi-Fi	
105	Academic Block-I	First Floor	Computer		PASSAGE	19.67	1												Wi-Fi	
106	Academic Block-I	First Floor	Computer		PASSAGE	51.67	7											1	Wi-Fi	
107	Academic Block-I	First Floor	Computer		STAIR	25.53	1											1	Wi-Fi	
108	Academic Block-I	First Floor	Computer		OPEN TERRACE	79.65													Wi-Fi	
109	Academic Block-I	Second Floor	Advance Computing	1201 A	MULTIMEDIA LAB	75.58	3		6	1 white				1	39	3	1	1	Wi-Fi/LAN	
110	Academic Block-I	Second Floor	Advance Computing	1201	WEB DEVELOPMENT LAB	74.98	4		6	1 white				1	40	3	1	2	Wi-Fi/LAN	
111	Academic Block-I	Second Floor	Advance Computing	1202	ADVANCED COMPUTER LAB	75.58	3		6	1 white				1	40	3	1	2	Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
112	Academic Block-I	Second Floor	Advance Computing	1203	PROJECT LAB	50.61		2	3	1 Notice 2 White			1			1			Wi-Fi/LAN	
113	Academic Block-I	Second Floor	Advance Computing	1204	LECTURE HALL	77.65		4	5	1 Green 1 White	1	70						2	Wi-Fi/LAN	
114	Academic Block-I	Second Floor	Advance Computing	1205	LECTURE HALL	77.73		2	5	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	
115	Academic Block-I	Second Floor	Advance Computing	1206-A	MALE WASHROOM	24.87		1												1 Exhaust Fan
116	Academic Block-I	Second Floor	Advance Computing	1206-B	FEMALE WASHROOM	26.25		1												1 Exhaust Fan
117	Academic Block-I	Second Floor	Computer	1207	IOT & BIG DATA LAB	76.35	4		6	1 White					36	3	1	2	Wi-Fi/LAN	
118	Academic Block-I	Second Floor	Computer	1208	ARTIFICIAL INTELLIGENCE LAB	76.16	4		5	1 White					36	3	1	2	Wi-Fi/LAN	
119	Academic Block-I	Second Floor	Advance Computing	1209-A	TUTORIAL ROOM	29.56		1	2	1 Green	1	26							Wi-Fi	
120	Academic Block-I	Second Floor	Advance Computing	1209-B	TUTORIAL ROOM	29.56		1	2	1 Green	1	22							Wi-Fi	
121	Academic Block-I	Second Floor	Computer	1209	COMPILER DESIGN LAB	75.49	4	2	7	1 White			1		40	3	1	2	Wi-Fi/LAN	
122	Academic Block-I	Second Floor	Advance Computing	1210	DIGITAL CIRCUIT & SYSTEMS LAB	48.98		3	4	1 Green 3 Notice									Wi-Fi/LAN	
123	Academic Block-I	Second Floor	Advance Computing	1210-A	FACULTY ROOM	12.86		1	1										Wi-Fi/LAN	2 UPS
124	Academic Block-I	Second Floor	Advance Computing	1210-B	FACULTY ROOM	11.62		1	1	2 Notice			1		2				Wi-Fi/LAN	
125	Academic Block-I	Second Floor	Computer	1210-C	SHELL PROGRAMMING LAB	72.67	4		6	1 White					36	3	1	2	Wi-Fi/LAN	
126	Academic Block-I	Second Floor	Advance Computing	1210-D	FACULTY ROOM	21.46		2	2				1		3				Wi-Fi/LAN	
127	Academic Block-I	Second Floor	Advance Computing	1211	LOBBY	121.03		1										1	Wi-Fi	
128	Academic Block-I	Second Floor	Advance Computing	1212	COMMUNICATION LAB	53.92		4	3	1 Green 4 Notice									Wi-Fi/LAN	
129	Academic Block-I	Second Floor	Advance Computing	1212-A	HOD ROOM	17.25		2	2	1 Notice			1		1				Wi-Fi/LAN	
130	Academic Block-I	Second Floor	Advance Computing	1212-B	FACULTY ROOM	11.87		1	1	2 Notice 2 White			1		1				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
131	Academic Block-I	Second Floor	Advance Computing	1213	FACULTY ROOM	14.32		1	1						1				Wi-Fi/LAN	
132	Academic Block-I	Second Floor	Advance Computing	1213-A	SERVER ROOM	14.79	3		1				1	2	3	2		1	Wi-Fi/LAN	
133	Academic Block-I	Second Floor	Advance Computing	1213-B	FACULTY ROOM	17.58		1	1	1 Notice 2 White									Wi-Fi/LAN	
134	Academic Block-I	Second Floor	Advance Computing	1213-C	FACULTY ROOM	12.94		1	1	1 White 2 Notice			1						Wi-Fi/LAN	
135	Academic Block-I	Second Floor	Advance Computing	1213-D	FACULTY ROOM	12.53		1	1	1 White 2 Notice			2						Wi-Fi/LAN	
136	Academic Block-I	Second Floor	Advance Computing		PASSAGE	39.19	1	2										1	Wi-Fi	
137	Academic Block-I	Second Floor	Advance Computing		PASSAGE	45.23		1										1	Wi-Fi	
138	Academic Block-I	Second Floor	Advance Computing		PASSAGE	22.84		1											Wi-Fi	
139	Academic Block-I	Second Floor	Advance Computing		STAIR	25.53		1											Wi-Fi	
140	Academic Block-I	Second Floor	Advance Computing		PASSAGE	38.36		3											Wi-Fi	
141	Academic Block-I	Second Floor	Advance Computing		PASSAGE	38.36		1											Wi-Fi	
142	Academic Block-I	Second Floor	Advance Computing		STAIR	16.45		1											Wi-Fi	
143	Academic Block-I	Second Floor	Advance Computing		STORE ROOM	2.85		1											Wi-Fi	
144	Academic Block-I	Third Floor	Electrical	1301	MICROPROCESSOR & EMBEDDED SYSTEM LAB	76.59		4	7	2 Notice 1 Green			2	1	5				Wi-Fi/LAN	1 Exhaust Fan
145	Academic Block-I	Third Floor	Electrical	1301-A	COMPUTATIONAL LAB-I	31.12		2	2	1 White 1 Notice				1	24	2			Wi-Fi/LAN	
146	Academic Block-I	Third Floor	Electrical	1301 B	COMPUTATIONAL LAB-II	37.27		2	2	1 White 1 Notice			1		24	1			Wi-Fi/LAN	
147	Academic Block-I	Third Floor	Electrical	1301-C	STORE ROOM	6.38		1					1	1					Wi-Fi	
148	Academic Block-I	Third Floor	Electrical	1301-D	FACULTY ROOM	6.38		1	1				1		1				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
149	Academic Block-I	Third Floor	Electrical	1302	ANALOG & DIGITAL ELECTRONICS LAB	75.32		2	5	2 Notice 1 Green			2						Wi-Fi/LAN	
150	Academic Block-I	Third Floor	Electrical	1302-A	FACULTY ROOM	6.36		1	1				1						Wi-Fi/LAN	
151	Academic Block-I	Third Floor	Electrical	1302-B	STORE ROOM	6.45		1					1	5					Wi-Fi	
152	Academic Block-I	Third Floor	Electrical	1303	TUTORIAL ROOM	54.61		2	5	1 White 1 Green	1	54							Wi-Fi	
153	Academic Block-I	Third Floor	Electrical	1304	LECTURE HALL	77.97		3	5	1 White 1 Green	1	64					1	2	Wi-Fi/LAN	
154	Academic Block-I	Third Floor	Electrical	1305	LECTURE HALL	77.73		3	5	1 White 1 Green	1	64					1	2	Wi-Fi/LAN	
155	Academic Block-I	Third Floor	Electrical	1306-A	MALE WASHROOM	24.87		1												1 Exhaust Fan
156	Academic Block-I	Third Floor	Electrical	1306-B	FEMALE WASHROOM	26.25		1												1 Exhaust Fan
157	Academic Block-I	Third Floor	Electrical	1307	ELECTRICAL MACHINE LAB	158.76		6	11	2 White 1 Green			3	3					Wi-Fi/LAN	
158	Academic Block-I	Third Floor	Electrical	1308																
159	Academic Block-I	Third Floor	Electrical	1309-A	TUTORIAL ROOM	29.56		1	2	1 Green	1	24							Wi-Fi	
160	Academic Block-I	Third Floor	Electrical	1309-B	TUTORIAL ROOM	29.56		2	2	1 Green	1	36							Wi-Fi	
161	Academic Block-I	Third Floor	Electrical	1309	DRIVES & CONTROL LAB	77.72		2	6	1 Green 2 Notice				1					Wi-Fi/LAN	
162	Academic Block-I	Third Floor	Electrical	1309-C	FACULTY ROOM	12.86		1	1	1 Notice 1 White			1		1				Wi-Fi/LAN	
163	Academic Block-I	Third Floor	Electrical	1309-D	STORE ROOM	11.62		1	1	1 White			2	11					Wi-Fi	
164	Academic Block-I	Third Floor	Electrical	1310	DEPARTMENT LIBRARY	48.98		2	4	2 Notice 1 Green			4	2					Wi-Fi/LAN	
165	Academic Block-I	Third Floor	Electrical	1310-A	FACULTY ROOM	10.73		1	1	1 Notice 1 Green			1		1				Wi-Fi/LAN	
166	Academic Block-I	Third Floor	Electrical	1310-C	FACULTY ROOM	10.73		1	1	1 Notice 1 Green			1		1				Wi-Fi/LAN	
167	Academic Block-I	Third Floor	Electrical	1310-B	POWER SYSTEM LAB	72.67		3	6	2 Notice 1 Green			1	1					Wi-Fi/LAN	
168	Academic Block-I	Third Floor	Electrical	1311	LOBBY	121.03		2											Wi-Fi	
169	Academic Block-I	Third Floor	Electrical	1312	ELECTRICAL MEASUREMENT LAB	70.97		4	6	1 Green 1 Notice				1					Wi-Fi/LAN	
170	Academic Block-I	Third Floor	Electrical	1312-A	FACULTY ROOM	11.25		1	1	1 Notice		2	3	2					Wi-Fi/LAN	
171	Academic Block-I	Third Floor	Electrical	1313	HOD ROOM	13.57		2	1	2 Notice 1 White				5	1				Wi-Fi/LAN	1 Printer
172	Academic Block-I	Third Floor	Electrical	1313-A	FACULTY ROOM	15.54		2	1	2 Notice 1 White			2		2				Wi-Fi/LAN	
173	Academic Block-I	Third Floor	Electrical	1313-B	FACULTY ROOM	22.12		2	3	3 Notice 3 White			1		3				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
174	Academic Block-I	Third Floor	Electrical	1313-C	COMPUTATIONAL LAB-III	34.82		2	3	1 Notice 1 White					21	1			Wi-Fi/LAN	
175	Academic Block-I	Third Floor	Electrical		PASSAGE	39.18		2										1	Wi-Fi	
176	Academic Block-I	Third Floor	Electrical		PASSAGE	38.36	1	2											Wi-Fi	
177	Academic Block-I	Third Floor	Electrical		PASSAGE	38.36		1											Wi-Fi	
178	Academic Block-I	Third Floor	Electrical		PASSAGE	45.23		2										1	Wi-Fi	
179	Academic Block-I	Third Floor	Electrical		PASSAGE	22.84		1											Wi-Fi	
180	Academic Block-I	Third Floor	Electrical		STAIR	16.45		1											Wi-Fi	
181	Academic Block-I	Third Floor	Electrical		STAIR	25.53	1												Wi-Fi	
182	Academic Block-II	Lower Ground	Information Technology	2B01	FACULTY WASH ROOM			1												
183	Academic Block-II	Lower Ground	Information Technology	2B01-A	FEMALE WASHROOM	13.4		1												
184	Academic Block-II	Lower Ground	Information Technology	2B01-B	MALE WASHROOM			1												
185	Academic Block-II	Lower Ground	Information Technology	2B02	FACULTY ROOM	9.2		1	1	1 White 1 Notice				1					Wi-Fi/LAN	
					TOILET	2.23	1													
186	Academic Block-II	Lower Ground	Information Technology	2B03	LECTURE HALL	67.82		6	7	1 Green 1 White	1	73						2	Wi-Fi/LAN	
187	Academic Block-II	Lower Ground	Information Technology	2B04	LECTURE HALL	67.82		5	7	1 Green 1 White		69					1	2	Wi-Fi/LAN	
188	Academic Block-II	Lower Ground	Information Technology	2B05	DIGITAL ELECTRONICS LAB	82.59		7	7	1 Green 1 Notice			1	1					Wi-Fi/LAN	
189	Academic Block-II	Lower Ground	Information Technology	2B05A	IOT LAB	90.17		5	9	1 White 1 Notice			1		24			2	Wi-Fi/LAN	
190	Academic Block-II	Lower Ground	Information Technology	2B06	FACULTY ROOM														Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
191	Academic Block-II	Lower Ground	Information Technology	2B06A	FACULTY ROOM	9.3		1	1	1 White 1 Notice			1	2	1				Wi-Fi/LAN	
192	Academic Block-II	Lower Ground	Information Technology	2B06B	FACULTY ROOM	9.77		1	1	1 White 1 Notice				2	1				Wi-Fi/LAN	
193	Academic Block-II	Lower Ground	Information Technology	2B06C	FACULTY ROOM	11.16		1	1	1 Notice			1	1	1				Wi-Fi/LAN	
194	Academic Block-II	Lower Ground	Institute	2B06D	STUDENT COUNCIL OFFICE	37.45		2	3				2		1				Wi-Fi/LAN	1 Printer
195	Academic Block-II	Lower Ground	Information Technology	2B06E	FACULTY ROOM	7.3		1	1	1 Notice			1	1	1				Wi-Fi/LAN	
196	Academic Block-II	Lower Ground	Information Technology	2B06F	FACULTY ROOM	6.38		1	1	1 Notice				1	1				Wi-Fi/LAN	
197	Academic Block-II	Lower Ground	Information Technology	2B06G	FACULTY ROOM	6.07		1	1	1 Notice 1 White				1	1				Wi-Fi/LAN	
198	Academic Block-II	Lower Ground	Information Technology	2B07	LECTURE HALL	74.7		4	8	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	
199	Academic Block-II	Lower Ground	Institute	2B08	BOYS COMMON ROOM	63.59		3	4	1 Green 1 White 1 Notice									Wi-Fi/LAN	1 Exhaust Fan
200	Academic Block-II	Lower Ground	Institute	2B08 A	Girls COMMON ROOM	63.59		3	4	1 Green 1 White 1 Notice									Wi-Fi/LAN	1 Exhaust Fan
201	Academic Block-II	Lower Ground	Information Technology	2B09	TUTORIAL ROOM	34.81		2	2	1 Green									Wi-Fi	
202	Academic Block-II	Lower Ground	Information Technology	2B09A	HOD ROOM	16.26		2	2	1 Notice			1	1					Wi-Fi/LAN	1 Printer
203	Academic Block-II	Lower Ground	Information Technology	2B09B	DEPARTMENT LIBRARY	16.86		2	2				1	2	1				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
204	Academic Block-II	Lower Ground	Information Technology	2B09C	SOFTWARE ENGINEERING & INFORMATION SECURITY LAB	66.27	3		6	1 White	1		1	1	30	2		2	Wi-Fi/LAN	
205	Academic Block-II	Lower Ground	Information Technology	2B09D	BOARD ROOM	24.14		1	2				3						Wi-Fi/LAN	
206	Academic Block-II	Lower Ground	Information Technology	2B09E	COMPUTER NETWORK & PROGRAMMING LAB	60.22	2	1	6	1 White				1	30	2		2	Wi-Fi/LAN	
207	Academic Block-II	Lower Ground	Information Technology	2B09F	AI-ML & MOBILE COMPUTING LAB	63.19	3		6	1 White				1	29	2	1	2	Wi-Fi/LAN	
208	Academic Block-II	Lower Ground	Information Technology	2B09G	WEB DESIGN & DATA SCIENCE LAB	55.01	3		6	1 White			1	1	28	2		2	Wi-Fi/LAN	
209	Academic Block-II	Lower Ground	Information Technology	2B10	FEMALE WASHROOM	39.04		1												
210	Academic Block-II	Lower Ground	Information Technology	2B11	MALE WASHROOM	18.97		1												
211	Academic Block-II	Lower Ground	Information Technology		LOBBY	9.66													Wi-Fi	
212	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	15.5		1											Wi-Fi	
213	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	69.59		5		1 Notice									Wi-Fi	
214	Academic Block-II	Lower Ground	Information Technology		ELECTRICAL ROOM	9.66		1											Wi-Fi/LAN	
215	Academic Block-II	Lower Ground	Information Technology		LIFT	4.83													Wi-Fi	
216	Academic Block-II	Lower Ground	Information Technology		LOBBY	7.84		1											Wi-Fi	
217	Academic Block-II	Lower Ground	Information Technology		STAIR	18.9		1											Wi-Fi	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
218	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	47.98		2										1	Wi-Fi	
219	Academic Block-II	Lower Ground	Information Technology		OPEN TO SKY	33.68													Wi-Fi	
220	Academic Block-II	Lower Ground	Information Technology		OPEN TO SKY	34.85													Wi-Fi	
221	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	57.15		2		1 Notice								1	Wi-Fi	
222	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	43.42		2											Wi-Fi	
223	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	11.35		1										1	Wi-Fi	
224	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	21.84		1											Wi-Fi	
225	Academic Block-II	Lower Ground	Information Technology		STAIR	17.17		1											Wi-Fi	
226	Academic Block-II	Lower Ground	Information Technology		LOBBY	7.6		1											Wi-Fi	
227	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	38.68		2										1	Wi-Fi	
228	Academic Block-II	Lower Ground	Information Technology		STORE ROOM	1.59													Wi-Fi	
229	Academic Block-II	Lower Ground	Information Technology		LIFT	3.39													Wi-Fi	
230	Academic Block-II	Lower Ground	Information Technology		STORE ROOM	4.64		1											Wi-Fi	
231	Academic Block-II	Lower Ground	Information Technology		CORRIDOR	11.35													Wi-Fi	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
232	Academic Block-II	Upper Ground	Civil	2001	FACULTY WASH ROOM															
233	Academic Block-II	Upper Ground	Civil	2001-A	FEMALE WASHROOM	13.4		1												
234	Academic Block-II	Upper Ground	Civil	2001-B	MALE WASHROOM			1												
235	Academic Block-II	Upper Ground	Civil	2002	FACULTY ROOM	9.2		1	1	1 White 1 Notice			1		1				Wi-Fi/LAN	
					TOILET	2.23	1													
236	Academic Block-II	Upper Ground	Civil	2003	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
237	Academic Block-II	Upper Ground	Civil	2004	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
238	Academic Block-II	Upper Ground	Civil	2005	SEMINAR HALL	172.53	19		21	1 White	1	155			1	5	1	2	Wi-Fi/LAN	1 Sound System
239	Academic Block-II	Upper Ground	Civil	2006	FACULTY ROOM														Wi-Fi/LAN	
240	Academic Block-II	Upper Ground	Civil	2006-A	FACULTY ROOM	6.07		1	1	1 White 1 Notice				1	1				Wi-Fi/LAN	
241	Academic Block-II	Upper Ground	Civil	2006-B	FACULTY ROOM	6.38		1	1	1 White 2 Notice				1	1				Wi-Fi/LAN	
242	Academic Block-II	Upper Ground	Civil	2006-C	FACULTY ROOM	7.3		1	1	1 White 1 Notice			1	1	1				Wi-Fi/LAN	
243	Academic Block-II	Upper Ground	Civil	2006-D	FACULTY ROOM	37.45		1	1				1						Wi-Fi/LAN	
244	Academic Block-II	Upper Ground	Civil	2006-E	FACULTY ROOM	11.16		1	1	1 White 2 Notice			1	2	2				Wi-Fi/LAN	
245	Academic Block-II	Upper Ground	Civil	2007	LECTURE HALL	74.7		5	10	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	
246	Academic Block-II	Upper Ground	Civil	2008 A	SOIL MECHANICS LAB	68.3		4	8	1 Green 1 Notice			2						Wi-Fi/LAN	
247	Academic Block-II	Upper Ground	Civil	2008	GEO-MECHANICS & ENVIRONMENTAL ENGINEERING LAB	67.49		4	8	1 Green 1 Notice 1 White			1	1					Wi-Fi/LAN	1 Exhaust Fan
248	Academic Block-II	Upper Ground	Institute	2009	CENTRAL LIBRARY	333.2		22	23	3 Notice			1	24	29			4	Wi-Fi/LAN	1 Exhaust Fan
249	Academic Block-II	Upper Ground	Civil	2010	FEMALE WASHROOM	39.04		1												1 Exhaust Fan
250	Academic Block-II	Upper Ground	Civil	2011	MALE WASHROOM	18.97		1												1 Exhaust Fan
251	Academic Block-II	Upper Ground	Civil		LOBBY	9.66													Wi-Fi	
252	Academic Block-II	Upper Ground	Civil		CORRIDOR	15.5		1										1	Wi-Fi	
253	Academic Block-II	Upper Ground	Civil		STORE ROOM	6.09		1											Wi-Fi	
254	Academic Block-II	Upper Ground	Civil		ELECTRICAL ROOM	2.18		1											Wi-Fi/LAN	

								Existing Area Plan											
S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
255	Academic Block-II	Upper Ground	Civil		LIFT	4.83													Wi-Fi	
256	Academic Block-II	Upper Ground	Civil		LOBBY	7.84													Wi-Fi	
257	Academic Block-II	Upper Ground	Civil		STAIR	13.27		1											Wi-Fi	
258	Academic Block-II	Upper Ground	Civil		STAIR	18.9		1											Wi-Fi	
259	Academic Block-II	Upper Ground	Civil		CORRIDOR	47.98		2										1	Wi-Fi	
260	Academic Block-II	Upper Ground	Civil		STAIR	19.86													Wi-Fi	
261	Academic Block-II	Upper Ground	Civil		CORRIDOR	57.15		2		1 Notice								1	Wi-Fi	
262	Academic Block-II	Upper Ground	Civil		CORRIDOR	71.73		2										1	Wi-Fi	
263	Academic Block-II	Upper Ground	Civil		STAIR	17.17													Wi-Fi	
264	Academic Block-II	Upper Ground	Civil		LOBBY	7.6													Wi-Fi	
265	Academic Block-II	Upper Ground	Civil		STORE ROOM	1.69		1											Wi-Fi	
266	Academic Block-II	Upper Ground	Civil		LIFT	3.38													Wi-Fi	
267	Academic Block-II	Upper Ground	Civil		CORRIDOR	38.65		3		1 Notice									Wi-Fi	
268	Academic Block-II	Upper Ground	Civil		CORRIDOR	11.35		2											Wi-Fi	
269	Academic Block-II	Upper Ground	Civil		LOBBY	19.93		1											Wi-Fi	
270	Academic Block-II	Upper Ground	Civil		CORRIDOR	11.35													Wi-Fi	
271	Academic Block-II	First Floor	Computer	2101	FACULTY WASH ROOM	13.4		1												
272	Academic Block-II	First Floor	Computer	2101-A	FEMALE WASHROOM			1												
273	Academic Block-II	First Floor	Computer	2101-B	MALE WASHROOM			1												
274	Academic Block-II	First Floor	Computer	2102	FACULTY ROOM	9.2		1	1	1 Notice 1 White				1					Wi-Fi/LAN	
					TOILET	2.23		1												
275	Academic Block-II	First Floor	Computer	2103	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
276	Academic Block-II	First Floor	Computer	2104	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
277	Academic Block-II	First Floor	Computer	2105	SEMINAR HALL	172.53	8		14	1 White 1 Green	1	150			1		1	2	Wi-Fi/LAN	1 Sound System
278			Computer	2106	FACULTY ROOM														Wi-Fi/LAN	
279	Academic Block-II	First Floor	Computer	2106A	FACULTY ROOM	9.3		1	1	1 Notice 1 White				2	1				Wi-Fi/LAN	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
										Poornima College of Engineering, Jaipur										
										Existing Area Plan										
280	Academic Block-II	First Floor	Computer	2106B	FACULTY ROOM	9.77		1	1	1 Notice 1 White				2	2				Wi-Fi/LAN	
281	Academic Block-II	First Floor	Computer	2106C	FACULTY ROOM	11.16		1	1	1 Notice 1 White				2	1				Wi-Fi/LAN	
282	Academic Block-II	First Floor	Computer	2106D	BOARD ROOM & DEPARTMENT LIBRARY	37.45		5	5	2 Notice 1 White			1						Wi-Fi/LAN	
283	Academic Block-II	First Floor	Computer	2106E	FACULTY ROOM	7.3		1	1	1 Notice 1 White				1	1				Wi-Fi/LAN	
284	Academic Block-II	First Floor	Computer	2106F	FACULTY ROOM	6.38		1	1	1 Notice 1 White				1	1				Wi-Fi/LAN	
285	Academic Block-II	First Floor	Computer	2106G	FACULTY ROOM	6.07		1	1	1 Notice 1 White				1	1				Wi-Fi/LAN	
286	Academic Block-II	First Floor	Computer	2107	LECTURE HALL	74.7		4	10	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	
287	Academic Block-II	First Floor	Institute	2108	EXAMINATION CELL	137	4	11	10					14	5				Wi-Fi/LAN	2 Printer 1 Photocopy Machine
288	Academic Block-II	First Floor	Institute	2109	CENTRAL LIBRARY	333.2		26	11	3 Notice			1	107	9			9	Wi-Fi/LAN	3 Exhaust Fan 1 Printer
289	Academic Block-II	First Floor	Computer	2110	FEMALE WASHROOM	39.04		1												1 Exhaust Fan
290	Academic Block-II	First Floor	Computer		CORRIDOR	15.5		1											Wi-Fi	
291	Academic Block-II	First Floor	Computer		ELECTRICAL ROOM	2.18		1											Wi-Fi/LAN	
292	Academic Block-II	First Floor	Computer		LIFT	4.83													Wi-Fi	
293	Academic Block-II	First Floor	Computer		STAIR	13.27		1											Wi-Fi	
294	Academic Block-II	First Floor	Computer		STAIR	18.9		1											Wi-Fi	
295	Academic Block-II	First Floor	Computer		LOBBY	7.84		1											Wi-Fi	
296	Academic Block-II	First Floor	Computer		CORRIDOR	86.08		2		3 Notice								1	Wi-Fi	
297	Academic Block-II	First Floor	Computer		CORRIDOR	72.05		3										1	Wi-Fi	
298	Academic Block-II	First Floor	Computer		STAIR	17.17		1											Wi-Fi	
299	Academic Block-II	First Floor	Computer		LOBBY	7.6													Wi-Fi	
300	Academic Block-II	First Floor	Computer		STORE ROOM	1.69		1											Wi-Fi	
301	Academic Block-II	First Floor	Computer		LIFT	3.39													Wi-Fi	
302	Academic Block-II	First Floor	Computer		CORRIDOR	78.52		2										1	Wi-Fi	
303	Academic Block-II	First Floor	Computer		CORRIDOR	11.35		1											Wi-Fi	
304	Academic Block-II	Mezzanine Floor	Institute		CENTRAL LIBRARY MEZZANINE FLOOR	358.03		15	17	1 Notice			3	26	2			2	Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
305	Academic Block-II	Second Floor	Advance Computing	2201	FACULTY WASH ROOM			1												
306	Academic Block-II	Second Floor	Advance Computing	2201-A	FEMALE WASHROOM	13.4		1												
307	Academic Block-II	Second Floor	Advance Computing	2201-B	MALE WASHROOM			1												
308	Academic Block-II	Second Floor	Advance Computing	2202	FACULTY ROOM	9.2		1	1	1 White 1 Notice			1						Wi-Fi/LAN	
					TOILET	2.23		1												
309	Academic Block-II	Second Floor	Advance Computing	2203	LECTURE HALL	67.82		5	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
310	Academic Block-II	Second Floor	Advance Computing	2204	LECTURE HALL	67.82		5	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
311	Academic Block-II	Second Floor	Advance Computing	2205	SEMINAR HALL	172.53	8		14	1 White 1 Green	1	150			1		1	2	Wi-Fi/LAN	1 Sound System
312	Academic Block-II	Second Floor	Advance Computing	2206	FACULTY ROOM														Wi-Fi/LAN	
313	Academic Block-II	Second Floor	Advance Computing	2206A	FACULTY ROOM	9.3		1	1	1 White 1 Notice			1		1				Wi-Fi/LAN	
314	Academic Block-II	Second Floor	Advance Computing	2206B	FACULTY ROOM	9.77		1	1	1 White 1 Notice			1						Wi-Fi/LAN	
315	Academic Block-II	Second Floor	Advance Computing	2206C	FACULTY ROOM	11.16		1	1				1		2				Wi-Fi/LAN	
316	Academic Block-II	Second Floor	Advance Computing	2206D	BOARD ROOM & DEPARTMENT LIBRARY	37.45		3	3	1 White 4 Notice				8					Wi-Fi/LAN	
317	Academic Block-II	Second Floor	Advance Computing	2206E	FACULTY ROOM	7.3		1	1	1 White 1 Notice					1				Wi-Fi/LAN	
318	Academic Block-II	Second Floor	Advance Computing	2206F	FACULTY ROOM	6.38		1	1	1 White 1 Notice			1						Wi-Fi/LAN	
319	Academic Block-II	Second Floor	Advance Computing	2206G	FACULTY ROOM	6.07		1	1	1 White 1 Notice			1						Wi-Fi/LAN	
320	Academic Block-II	Second Floor	Advance Computing	2207	LECTURE HALL	74.7		4	10	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
321	Academic Block-II	Second Floor	Advance Computing	2208	LECTURE HALL	68.3		3	6	1 White 1 Green	1	64							Wi-Fi/LAN	
322	Academic Block-II	Second Floor	Advance Computing	2208A	LECTURE HALL	67.49		5	6	1 White 1 Green	1	70							Wi-Fi/LAN	1 Exhaust Fan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
323	Academic Block-II	Second Floor	Advance Computing	2209	SYSTEM DESIGN LAB	67.52	5		4	1 White					32	2	1	2	Wi-Fi/LAN	
324	Academic Block-II	Second Floor	Advance Computing	2209A	FACULTY ROOM	19.44	3		2				1						Wi-Fi/LAN	
325	Academic Block-II	Second Floor	Advance Computing	2209B	FACULTY ROOM	12.79	2		1						1				Wi-Fi/LAN	
326	Academic Block-II	Second Floor	Advance Computing	2209C	FACULTY ROOM	12.95	2		1				2		1				Wi-Fi/LAN	
327	Academic Block-II	Second Floor	Advance Computing	2209D	DATA SCIENCE LAB	71.53	7		3	1 White				1	35	2	1	2	Wi-Fi/LAN	
328	Academic Block-II	Second Floor	Advance Computing	2209E	CYBER SECURITY & NETWORK FORENSICS LAB	70.07	6		3	1 White				1	35	2	1	2	Wi-Fi/LAN	
329	Academic Block-II	Second Floor	Advance Computing	2209F	AI-ML LAB	73.74	7		3	1 White				1	36	2	1	2	Wi-Fi/LAN	
330	Academic Block-II	Second Floor	Advance Computing		HOD Room	7.94	4		2				1						Wi-Fi/LAN	
331	Academic Block-II	Second Floor	Advance Computing	2210	FEMALE WASHROOM	39.52		1												1 Exhaust Fan
332	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	68.42		3										1	Wi-Fi	
333	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	17.56		1											Wi-Fi	
334	Academic Block-II	Second Floor	Advance Computing		ELECTRICAL ROOM	2.19		1											Wi-Fi/LAN	
335	Academic Block-II	Second Floor	Advance Computing		LIFT	4.83													Wi-Fi	
336	Academic Block-II	Second Floor	Advance Computing		LOBBY	7.84		1											Wi-Fi	
337	Academic Block-II	Second Floor	Advance Computing		STAIR	18.9		1											Wi-Fi	
338	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	86.08		3		2 Notice								1	Wi-Fi	
339	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	72.05		2											Wi-Fi	
340	Academic Block-II	Second Floor	Advance Computing		STAIR	17.17		1											Wi-Fi	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
341	Academic Block-II	Second Floor	Advance Computing		LOBBY	7.6													Wi-Fi	
342	Academic Block-II	Second Floor	Advance Computing		STORE ROOM	1.69		1											Wi-Fi	
343	Academic Block-II	Second Floor	Advance Computing		LIFT	3.39													Wi-Fi	
344	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	78.52		2										1	Wi-Fi	
345	Academic Block-II	Second Floor	Advance Computing		CORRIDOR	11.35		1											Wi-Fi	
346	Academic Block-II	Third Floor	Electronics & Comm.	2301	FACULTY WASH ROOM			1												
347	Academic Block-II	Third Floor	Electronics & Comm.	2301-A	FEMALE WASHROOM	13.4		1												
348	Academic Block-II	Third Floor	Electronics & Comm.	2301-B	MALE WASHROOM			1												
349	Academic Block-II	Third Floor	Institute	2302	R & D OFFICE	9.2		1	1	1 White 1 Notice			1	1	1				Wi-Fi/LAN	
					TOILET	2.23		1												
350	Academic Block-II	Third Floor	Electronics & Comm.	2303	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
351	Academic Block-II	Third Floor	Electronics & Comm.	2304	LECTURE HALL	67.82		6	7	1 White 1 Green	1	70					1	2	Wi-Fi/LAN	
352	Academic Block-II	Third Floor	Electronics & Comm.	2305	SEMINAR HALL	172.53	8		14	1 White 1 Green	1	150			1		1	2	Wi-Fi/LAN	1 Sound System
353			Electronics & Comm.	2306	FACULTY ROOM														Wi-Fi/LAN	
354	Academic Block-II	Third Floor	Electronics & Comm.	2306A	FACULTY ROOM	9.3		1	1	1 White 1 Notice				1	3				Wi-Fi/LAN	
355	Academic Block-II	Third Floor	Electronics & Comm.	2306B	FACULTY ROOM	9.77		1	1	1 Notice 1 White			1	1	2				Wi-Fi/LAN	
356	Academic Block-II	Third Floor	Electronics & Comm.	2306C	FACULTY ROOM	11.16		1	1	1 Notice 1 White				1	1				Wi-Fi/LAN	1 Printer
357	Academic Block-II	Third Floor	Electronics & Comm.	2306D	BOARD ROOM & DEPARTMENT LIBRARY	37.45		4	3	4 Notice 1 White				8					Wi-Fi/LAN	
358	Academic Block-II	Third Floor	Electronics & Comm.	2306E	FACULTY ROOM	7.3		1	1	1 Notice 1 White			1	1	1				Wi-Fi/LAN	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
359	Academic Block-II	Third Floor	Electronics & Comm.	2306F	FACULTY ROOM	6.38		1	1	1 Notice 1 White			1	1	1				Wi-Fi/LAN	
360	Academic Block-II	Third Floor	Electronics & Comm.	2306G	FACULTY ROOM	6.07		1	1	1 Notice 1 White			1	1	1				Wi-Fi/LAN	
361	Academic Block-II	Third Floor	Electronics & Comm.	2307	LECTURE HALL	74.7		5	10	1 Green 1 White	1	70					1	2	Wi-Fi/LAN	
362	Academic Block-II	Third Floor	Electronics & Comm.	2308	DIGITAL SYSTEM DESIGN LAB	63.18		3	6	1 Green 1 Notice			2	2					Wi-Fi/LAN	
363	Academic Block-II	Third Floor	Electronics & Comm.	2308A	ELECTRONICS DEVICES & CIRCUIT LAB	59.28		4	6	1 Green 1 Notice			2	2					Wi-Fi/LAN	
364	Academic Block-II	Third Floor	Electronics & Comm.	2308B	CENTER OF EXCELLENCE ADVANCE WIRLESS COMMUNICATION LAB UNDER AICTE MODROB SPONSORED SCHEME	56.33		3	7	1 Green 1 Notice			1	1	5				Wi-Fi/LAN	
365	Academic Block-II	Third Floor	Electronics & Comm.	2308C	POWER ELECTRONICS & MEASUREMENT LAB	59.03		5	7	1 Green 1 Notice			2	2					Wi-Fi/LAN	
366	Academic Block-II	Third Floor	Electronics & Comm.	2309	PROJECT LAB	60.79		3	6	1 Green 1 Notice			3	2	1				Wi-Fi/LAN	
367	Academic Block-II	Third Floor	Electronics & Comm.	2309A	PCB LAB	34.97		2	2				1						Wi-Fi/LAN	
368	Academic Block-II	Third Floor	Electronics & Comm.	2309B	FACULTY ROOM	6.81		1	1	1 White 1 Notice				1					Wi-Fi/LAN	
369	Academic Block-II	Third Floor	Electronics & Comm.	2309C	FACULTY ROOM	6.67		1	1	1 White 1 Notice				1					Wi-Fi/LAN	
370	Academic Block-II	Third Floor	Electronics & Comm.	2309D	FACULTY ROOM	7.28		1	1	1 White 1 Notice				1					Wi-Fi/LAN	
371	Academic Block-II	Third Floor	Electronics & Comm.	2309E	FACULTY ROOM	7.28		1	1	1 White 1 Notice				1					Wi-Fi/LAN	
372	Academic Block-II	Third Floor	Electronics & Comm.	2309F	COMMUNICATION LAB	46.08		4	4	1 Green 1 Notice			2	2	6				Wi-Fi/LAN	

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
373	Academic Block-II	Third Floor	Electronics & Comm.	2309G	MICROWAVE ENGINEERING LAB	33.4		2	2	1 Green 1 Notice				1					Wi-Fi/LAN	
374	Academic Block-II	Third Floor	Electronics & Comm.	2310	FEMALE WASHROOM	39.52		1												
375	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	17.56		1											Wi-Fi	
376	Academic Block-II	Third Floor	Electronics & Comm.		LIFT	4.83													Wi-Fi	
377	Academic Block-II	Third Floor	Electronics & Comm.		ELECTRICAL ROOM	2.18		1											Wi-Fi/LAN	
378	Academic Block-II	Third Floor	Electronics & Comm.		LOBBY	7.84													Wi-Fi	
379	Academic Block-II	Third Floor	Electronics & Comm.		STAIR	18.9		1											Wi-Fi	
380	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	68.42		3										1	Wi-Fi	
381	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	86.08		2		5 Notice								1	Wi-Fi	
382	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	72.05		2											Wi-Fi	
383	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	11.35		1											Wi-Fi	
384	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	48.57		2											Wi-Fi	
385	Academic Block-II	Third Floor	Electronics & Comm.		STAIR	17.17		1											Wi-Fi	
386	Academic Block-II	Third Floor	Electronics & Comm.		LOBBY	7.6													Wi-Fi	
387	Academic Block-II	Third Floor	Electronics & Comm.		STORE ROOM	1.69		1											Wi-Fi	
388	Academic Block-II	Third Floor	Electronics & Comm.		LIFT	3.39													Wi-Fi	
389	Academic Block-II	Third Floor	Electronics & Comm.		LOBBY	121.03		2										1	Wi-Fi	
390	Academic Block-II	Third Floor	Electronics & Comm.		CORRIDOR	78.52		2										1	Wi-Fi	

Poornima College of Engineering, Jaipur
Existing Area Plan

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
391	Academic Block-III	Lower Ground	First Year	3B01	MANUFACTURING PRACTICES WORKSHOP-I	177.69		8	9	2 Green 2 Notice			4	2					Wi-Fi/LAN	2 Exhaust Fans 6 Unportable Almirah
392	Academic Block-III	Lower Ground	First Year	3B02	FOUNDRY SHOP	74.87		4	4	1 Green 1 Notice				1					Wi-Fi/LAN	1 Exhaust Fan
393	Academic Block-III	Lower Ground	First Year	3B03	MANUFACTURING PRACTICES WORKSHOP-II	134.08		6	8	1 Green 1 Notice			3	2					Wi-Fi/LAN	1 Exhaust Fan
394	Academic Block-III	Lower Ground	First Year	3B05	STORE ROOM	37.16		1	1										Wi-Fi	
395	Academic Block-III	Lower Ground	First Year	3B06	SEMINAR HALL	177.69	6	14	10	1 White	1	200			1		1		Wi-Fi/LAN	4 Exhaust Fan 1 Sound System
396	Academic Block-III	Lower Ground	First Year	3B08	HUMAN VALUES LAB	74.66		4	4	1 Notice 1 Green				1	1		1		Wi-Fi/LAN	1 Exhaust Fan 1 Sound System
397	Academic Block-III	Lower Ground	First Year	3B08-A	FACULTY ROOM	11.03		1	1										Wi-Fi/LAN	
398	Academic Block-III	Lower Ground	First Year	3B08-B	FACULTY ROOM	10.59		1	1	1 White			1						Wi-Fi/LAN	
399	Academic Block-III	Lower Ground	First Year	3B08-C	STORE ROOM	36.95		1											Wi-Fi	
400	Academic Block-III	Lower Ground	First Year	3B10	WELDING & SHEET METAL SHOP	77.83		4	4	1 Black 2 Notice			2	2					Wi-Fi/LAN	2 Exhaust Fan
401	Academic Block-III	Lower Ground	First Year		CORRIDOR	85.65		4										1	Wi-Fi	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
402	Academic Block-III	Upper Ground	Institute	3001	MESS	362.66		20	20										Wi-Fi	8 Insect Killer Machine 2 Exhuast Fan
403	Academic Block-III	Upper Ground	First Year	3002	COMPUTER PROGRAMMING LAB-I	61.2		3	4	1 White 1 Notice			2	1	28	2	1		Wi-Fi/LAN	
404	Academic Block-III	Upper Ground	First Year	3003	COMPUTER PROGRAMMING LAB-II	35.97		3	2	1 White 1 Notice				1	28	2			Wi-Fi/LAN	
405	Academic Block-III	Upper Ground	First Year	3004	MALE WASHROOM	37.73		1												1 Exhaust Fan
406	Academic Block-III	Upper Ground	First Year	3005	FEMALE WASHROOM	38.53		1												1 Exhaust Fan
407	Academic Block-III	Upper Ground	First Year	3006	DRAWING HALL-I	89.21		4	5	1 White 1 Notice 1 Green	1	30							Wi-Fi/LAN	
408	Academic Block-III	Upper Ground	First Year	3007	DRAWING HALL-II	89.21		4	5	1 White 1 Notice 1 Green	1	30							Wi-Fi/LAN	
409	Academic Block-III	Upper Ground	First Year	3008	FACULTY ROOM			1											Wi-Fi/LAN	
410	Academic Block-III	Upper Ground	First Year	3008-A	FACULTY ROOM	19.13	2		1					1					Wi-Fi/LAN	
411	Academic Block-III	Upper Ground	First Year	3008-B	FACULTY ROOM	21.93		1	1				1	3					Wi-Fi/LAN	
412	Academic Block-III	Upper Ground	First Year	3008-C	STORE ROOM	15.58		1	1										Wi-Fi	
413	Academic Block-III	Upper Ground	First Year	3008-D	FACULTY ROOM	13.62		1	1	2 Notice 1 White			2		1				Wi-Fi/LAN	
414	Academic Block-III	Upper Ground	First Year	3009	FACULTY ROOM			1											Wi-Fi/LAN	
415	Academic Block-III	Upper Ground	First Year	3009-A	FACULTY ROOM	12.11		1	1	2 Notice 1 White			1	2	1				Wi-Fi/LAN	
416	Academic Block-III	Upper Ground	First Year	3009-B	FACULTY ROOM	14.91		1	1	2 Notice 1 White			1		2				Wi-Fi/LAN	
417	Academic Block-III	Upper Ground	First Year	3009-C	FACULTY ROOM	14.23		1	1	1 Notice 1 White			1		1				Wi-Fi/LAN	
418	Academic Block-III	Upper Ground	First Year	3009-D	FACULTY ROOM	11.4		1	1	1 Notice 2 White			1	2	1				Wi-Fi/LAN	
419	Academic Block-III	Upper Ground	First Year		STAIR	36.19		1											Wi-Fi	
420	Academic Block-III	Upper Ground	First Year		CORRIDOR	64.84		3										2	Wi-Fi	
421	Academic Block-III	First Floor	First Year	3101	LECTURE THEATRE	88.52		7	9	1 White 1 Green	1	60							Wi-Fi/LAN	
422	Academic Block-III	First Floor	First Year	3102	LANGUAGE LAB	75.67		5	4	1 Notice 1 White	1		2	2	30		1		Wi-Fi/LAN	1 Sound System

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
423	Academic Block-III	First Floor	First Year	3103	BASIC CIVIL ENGINEERING LAB	77.43		3	4	1 Notice 1 Green	1			1					Wi-Fi/LAN	1 Exhaust Fan
424	Academic Block-III	First Floor	First Year	3103-A	STORE ROOM	10.24		1	1				3	1					Wi-Fi	
425	Academic Block-III	First Floor	First Year	3103-B	FACULTY ROOM	10.55		1	1				1		1				Wi-Fi/LAN	
426	Academic Block-III	First Floor	First Year	3104	MALE WASHROOM	37.73		1												1 Exhaust Fan
427	Academic Block-III	First Floor	First Year	3105	FEMALE WASHROOM	38.53		1												1 Exhaust Fan
428	Academic Block-III	First Floor	First Year	3106	LECTURE HALL	89.21		6	9	1 White 1 Green	1	50							Wi-Fi/LAN	
429	Academic Block-III	First Floor	First Year	3107	LECTURE HALL	89.21		6	9	1 White 1 Green	1	50							Wi-Fi/LAN	
430	Academic Block-III	First Floor	First Year	3108	FACULTY ROOM														Wi-Fi/LAN	
431	Academic Block-III	First Floor	First Year	3108-A	FACULTY ROOM	19.13		2	1	2 Notice 1 White			3		2				Wi-Fi/LAN	
432	Academic Block-III	First Floor	Institute	3108-B	ICC OFFICE	21.93		2	1	1 Notice 1 White				6	1				Wi-Fi/LAN	1 Printer
433	Academic Block-III	First Floor	First Year	3108-C	FACULTY ROOM	15.58		1	1	2 Notice			1		2				Wi-Fi/LAN	
434	Academic Block-III	First Floor	Institute	3108-D	SUPW OFFICE	13.62		1	1	2 Notice 1 White			2		2				Wi-Fi/LAN	
435	Academic Block-III	First Floor	First Year	3109	FACULTY ROOM			1											Wi-Fi/LAN	
436	Academic Block-III	First Floor	First Year	3109-A	FACULTY ROOM	12.11		1	1	2 Notice 1 White			1		2				Wi-Fi/LAN	
437	Academic Block-III	First Floor	First Year	3109-B	FACULTY ROOM	14.91		1	1	2 Notice 2 White			2		2				Wi-Fi/LAN	
438	Academic Block-III	First Floor	First Year	3110	FACULTY ROOM														Wi-Fi/LAN	
439	Academic Block-III	First Floor	First Year	3110-A	FACULTY ROOM	13.07		1	1	1 Notice 1 White			2		1				Wi-Fi/LAN	1 Printer
440	Academic Block-III	First Floor	First Year	3110-B	FACULTY ROOM	15.87		1	1	1 Notice 1 White			1		1				Wi-Fi/LAN	
441	Academic Block-III	First Floor	First Year	3110-C	DEPARTMENT LIBRARY	21.26		2	2	1 White			1	3	1				Wi-Fi/LAN	
442	Academic Block-III	First Floor	First Year	3110-D	FACULTY ROOM	18.46		2	2	1 White				3	3				Wi-Fi/LAN	
443	Academic Block-III	First Floor	First Year	3111	LECTURE HALL	88.52		6	9	1 White 1 Green	1	60	1		1				Wi-Fi/LAN	
444	Academic Block-III	First Floor	First Year		CORRIDOR	93.66		4		2 Notice								2	Wi-Fi	
445	Academic Block-III	First Floor	First Year		STAIR	36.19		1											Wi-Fi	
446	Academic Block-III	First Floor	First Year		CORRIDOR	25.46		1											Wi-Fi	
447	Academic Block-III	Second Floor	First Year	3201	LECTURE HALL	88.52		3	5	1 White 1 Green	1	50							Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
448	Academic Block-III	Second Floor	First Year	3202	BASIC ELECTRICAL ENGINEERING LAB	76.55		4	4	1 Green			1	1	1				Wi-Fi/LAN	1 Exhaust Fan
449	Academic Block-III	Second Floor	First Year	3203	PROJECT LAB	61.01		4	4	1 Green				2					Wi-Fi/LAN	1 Exhaust Fan
450	Academic Block-III	Second Floor	Institute	3203-A	ZIRCON CLUB	37.54		3	2	1 Green 1 Notice			1		1				Wi-Fi/LAN	
451	Academic Block-III	Second Floor	First Year	3204	MALE WASHROOM	37.73		1												1 Exhaust Fan
452	Academic Block-III	Second Floor	First Year	3205	FEMALE WASHROOM	38.53		1												1 Exhaust Fan
453	Academic Block-III	Second Floor	First Year	3206	LECTURE HALL	89.21		5	5	1 White 1 Green	1	50							Wi-Fi/LAN	
454	Academic Block-III	Second Floor	First Year	3207	LECTURE HALL	89.21		5	5	1 White 1 Green	1	50							Wi-Fi/LAN	
455	Academic Block-III	Second Floor	First Year	3208	ENGINEERING PHYSICS LAB	74.21		4	4	1 Green 2 Notice			2	1					Wi-Fi/LAN	
456	Academic Block-III	Second Floor	First Year	3208-A	DARK ROOM	38.9	1	2	2				5	1					Wi-Fi/LAN	1 Exhaust Fan
457	Academic Block-III	Second Floor	First Year	3208-B	FACULTY ROOM	11.39		1	1				1	1	1				Wi-Fi/LAN	
458	Academic Block-III	Second Floor	First Year	3209	SERVER ROOM	11.39		1	1										Wi-Fi/LAN	1 UPS
459	Academic Block-III	Second Floor	First Year	3210	FACULTY ROOM														Wi-Fi/LAN	
460	Academic Block-III	Second Floor	First Year	3210-A	FACULTY ROOM	13.07		1	1	1 White 1 Notice			1		1				Wi-Fi/LAN	
461	Academic Block-III	Second Floor	First Year	3210-B	FACULTY ROOM	15.87		1	1	1 White 1 Notice			2		2				Wi-Fi/LAN	
462	Academic Block-III	Second Floor	First Year	3210-C	FACULTY ROOM	21.26		1	2	1 White 1 Notice				3	3				Wi-Fi/LAN	
463	Academic Block-III	Second Floor	First Year	3210-D	FACULTY ROOM	18.46		2	2				3	3					Wi-Fi/LAN	
464	Academic Block-III	Second Floor	First Year	3211	LECTURE HALL	88.52		7	5	1 Green 1 White	1	50							Wi-Fi/LAN	
465	Academic Block-III	Second Floor	First Year		CORRIDOR	93.66		4		1 Notice								2	Wi-Fi	
466	Academic Block-III	Second Floor	First Year		STAIR	36.19		1											Wi-Fi	
467	Academic Block-III	Third Floor	First Year	3301	LECTURE HALL	88.52		7	9	1 Green 1 White	1	66						2	Wi-Fi/LAN	
468	Academic Block-III	Third Floor	First Year	3302	ENGINEERING CHEMISTRY LAB-I	75.67		3	4	1 Notice 1 Green			3	1					Wi-Fi/LAN	1 Exhaust Fan
469	Academic Block-III	Third Floor	First Year	3303	ENGINEERING CHEMISTRY LAB-II	77.43		3	5	2 Notice 1 Green				1					Wi-Fi/LAN	1 Exhaust Fan
470	Academic Block-III	Third Floor	First Year	3303-A	STORE ROOM	10.24		1	1				4						Wi-Fi	
471	Academic Block-III	Third Floor	First Year	3303-B	FACULTY ROOM	10.55		1	1				2		1				Wi-Fi/LAN	

Existing Area Plan

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
472	Academic Block-III	Third Floor	First Year	3304	MALE WASHROOM	37.73		1												1 Exhaust Fan
473	Academic Block-III	Third Floor	First Year	3305	FEMALE WASHROOM	38.53		1												1 Exhaust Fan
474	Academic Block-III	Third Floor	First Year	3306	LECTURE HALL	89.21		7	8	1 White 1 Green	1	66						2	Wi-Fi/LAN	
475	Academic Block-III	Third Floor	First Year	3307	LECTURE HALL	89.21		7	9	1 White 1 Green	1	66						2	Wi-Fi/LAN	
476	Academic Block-III	Third Floor	First Year	3308	DRAWING HALL-III	78.97		4	4	1 Green	1	30		1					Wi-Fi/LAN	
477			First Year	3309	FACULTY ROOM														Wi-Fi/LAN	
478	Academic Block-III	Third Floor	First Year	3309-A	FACULTY ROOM	12.11		1	1	1 Notice			2						Wi-Fi/LAN	
479	Academic Block-III	Third Floor	First Year	3309-B	FACULTY ROOM	14.91		1	1	1 Notice			2						Wi-Fi/LAN	
480	Academic Block-III	Third Floor	First Year	3310	BOY'S COMMON ROOM	38.13		2	2										Wi-Fi/LAN	
481	Academic Block-III	Third Floor	First Year	3310-A	GIRL'S COMMON ROOM	37.54		2	2										Wi-Fi/LAN	
482	Academic Block-III	Third Floor	First Year	3311	LECTURE HALL	88.52		7	9	1 White 1 Green	1	66						2	Wi-Fi/LAN	
483	Academic Block-III	Third Floor	First Year		CORRIDOR	93.66		4										2	Wi-Fi	
484	Academic Block-III	Third Floor	First Year		CORRIDOR	25.46				1 Notice									Wi-Fi	
485	Academic Block-III	Third Floor	First Year		STAIR	36.19		1											Wi-Fi	
486	Academic Block-IV	Ground Floor	Institute	4001	AI & BIG DATA LAB	147.75	10			6 Notice 3 White 1 Green				1	90	3	1	2	Wi-Fi/LAN	
487	Academic Block-IV	Ground Floor	Institute	4002	IOT LAB	71.89	5			1 White				2	42	2	1	2	Wi-Fi/LAN	
488	Academic Block-IV	Ground Floor	Institute	4003	FEMALE WASHROOM	7.98		1												1 Exhaust Fan
489	Academic Block-IV	Ground Floor	Institute	4004	MALE WASHROOM	7.59		1												1 Exhaust Fan
490	Academic Block-IV	Ground Floor	Institute	4005	STORE ROOM	15.99		2											Wi-Fi	
491	Academic Block-IV	Ground Floor	Institute	4006	POORNIMA INNOVATION & INCUBATION CELL	146.56	8		9	1 White 1 Notice					7	4		3	Wi-Fi/LAN	1 Printer
492	Academic Block-IV	Ground Floor	Institute	4007	ADMISSION OFFICE	35.16	2			1 White 1 Notice			2		1	1			Wi-Fi/LAN	1 Printer
493	Academic Block-IV	Ground Floor	Institute		ADMIN OFFICE	35.16		3	2				1	2	8	1		1	Wi-Fi/LAN	1 Printer

S.No.	Block	Floor	Department	Room No.	Room Name	Area Sqm	LED	Tubelight	Fan	Board	Podium	Seating Capacity	Almirah	Rack	Computer	AC	Projector	CCTV	Internet Connectivity	Others
494	Academic Block-IV	Ground Floor	Institute	4008	COMPUTER VISION LAB UNDER AICTE MODROB SCHEME	78.19	4	3		3 Notice			1		2	2	1		Wi-Fi/LAN	2 Exhaust Fan 1 Printer 1 Projector Screen
495	Academic Block-IV	Ground Floor	Institute	4009	RTU CENTER OF EXCELLENCE ARTIFICIAL INTELLIGENCE & BIG DATA	163.61	13	4	4	3 White 1 Notice			1	1	4	2	1		Wi-Fi/LAN	1 Projector Screen
496	Academic Block-IV	Ground Floor	Electrical	4010	HIGH VOLTAGE ENGINEERING LAB	67.59		4	1				1	1					Wi-Fi/LAN	
497	Academic Block-IV	Ground Floor	Civil	4011	CONCRETE & MATERIAL TESTING LAB	202.15		2	2				1	1					Wi-Fi/LAN	
498	Academic Block-IV	Ground Floor	Institute		LOBBY	69.97	9		7				4		2	2		1	Wi-Fi	1 TV Set
499	Academic Block-IV	Ground Floor	Institute		ENTRANCE LOBBY	43.76		2	2									1	Wi-Fi/LAN	
500	Academic Block-IV	Ground Floor	Institute		CORRIDOR	25.69		1						3				1	Wi-Fi	
501	Academic Block-IV	Ground Floor	Institute		CORRIDOR	12.69		2										1	Wi-Fi	

4.1.1 Rainwater Harvesting System

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Rainwater harvesting

Rainwater harvesting is the process of collecting and storing rainwater for later use. This is becoming increasingly popular as a way to conserve water and reduce strain on municipal water supplies. The process involves the collection of rainwater from rooftops, gutters, and other surfaces, which is then stored in tanks or other storage systems.

Rainwater can be used for a variety of purposes, including irrigation, watering plants, washing clothes, and even drinking if it is properly treated. The benefits of rainwater harvesting include reduced water bills, decreased demand on municipal water supplies, and improved water quality.

Advantages of implementing rain-water harvesting:

Reduced Water Bills

Rainwater harvesting systems are cost-effective, provide high-quality water, lessens dependence on wells and are considerably easy to maintain since they are not utilized for drinking, cooking or other sensitive uses. The all-around expenditures used in setting up harvesting methods are much cheaper compared to other purifying or pumping means. The cost of recharge to the subsurface reservoir is also lower than the surface reservoirs.

Ecological Benefits

Storing water underground is environment-friendly. The ecological benefits of rainwater harvesting are immense. It minimizes the impacts of flooding by funneling the off water into large tanks for recycling and helps reduce the load placed upon drainage systems. No land is wasted for storage purpose and no population displacement is implicated therefore, groundwater is not directly exposed to evaporation and pollution. Additionally, it helps minimize the possibility of rivers drying up.

Reduces Erosion and Flooding around the Building

It reduces soil erosion and flood hazards by collecting rainwater and reducing the flow of storm water to prevent urban flooding. Most buildings that utilize rainwater harvesting systems have a built-in catchment area on top of the roof, which has a capacity of collecting large volumes of water in case of rainstorms.

An Adequate Means for Irrigation Purpose

Harvesting rainwater allows the collection of large amounts of water and mitigates the effects of drought. Most rooftops provide the necessary platform for collecting water. Rainwater is mostly free from harmful chemicals, which makes it suitable for irrigation purposes.

Reduces Demand on Ground Water

Another vital benefit is that it increases the productivity of aquifer resulting in the rise of groundwater levels and reduces the need for potable water. It is extremely essential, particularly in areas with low water levels.

There are two major techniques of rainwater harvesting.

1. Surface runoff harvesting

In this method, rainwater flows away as surface runoff and can be stored for future use. Surface water can be stored by diverting the flow of small creeks and streams into reservoirs on the surface or underground. It can provide water for farming, for cattle and also for general domestic use. Surface runoff harvesting is most suitable in urban areas.

Rooftop rainwater/storm runoff can be harvested in urban areas through:

• Recharge Pit

• Recharge Trench

• Tube well

• Recharge Well

2. Groundwater recharge

Groundwater recharge is a hydrologic process where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer. The aquifer also serves as a distribution system. The surplus rainwater can then be used to recharge groundwater aquifer through artificial recharge techniques. Rainwater in rural areas can be harvested through:

• Gully Plug

• Contour Bund

• Dug well Recharge

• Percolation Tank

• Check Dam/Cement Plug/Nala Bund

• Recharge Shaft

There are many different types of rainwater harvesting systems, including simple systems that use barrels to collect rainwater for gardening, and more complex systems that use advanced filtration and storage technology for larger-scale applications.

Rain Water Harvesting System is installed in PCE campus with two tanks of 15000 liters capacity each and two wells of 30 ft. deep each. The collected water is further used for gardening purpose.

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Rain Water Harvesting

Murlipura at Mishra Ka Barh, Rajasthan, India
QV73+WFP, Sitapura, Murlipura at Mishra Ka Barh,
Rajasthan 303905, India
Lat 26.764704°
Long 75.853628°
23/04/22 08:09 AM

Murlipura at Mishra Ka Barh, Rajasthan, India
QV73+WFP, Sitapura, Murlipura at Mishra Ka Barh,
Rajasthan 303905, India
Lat 26.76465°
Long 75.853701°
24/05/23 08:46 AM GMT +05:30

4.1.1 Sewage Treatment Plant

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• Website: www.pce.poornima.org

Sewage Treatment Plant

Sewage treatment, also known as wastewater treatment, is the process of removing contaminants and pollutants from wastewater to produce treated water that can be safely discharged into the environment or reused for various purposes. Wastewater is treated in 3 phases: primary (solid removal), secondary (bacterial decomposition), and tertiary (extra filtration).

- Primary treatment is the first phase of sewage treatment: wastewater is placed in a holding tank and solids settle to the bottom where they are collected and lighter substances like fats and oils are scraped off the top.

- Secondary treatment is where waste is broken down by aerobic bacteria incorporated into the wastewater treatment system.

- Tertiary treatment is designed to filter out nutrients and waste particles that might damage sensitive ecosystems; wastewater is passed through additional filtering lagoons or tanks to remove extra nutrients.

Sewage is generated by residential and industrial establishments. It includes household waste liquid from toilets, baths, showers, kitchens, sinks, and so forth that is disposed of via sewers. In many areas, sewage also includes liquid waste from industry and commerce. The separation and draining of household waste into grey water and black water is becoming more common in the developed world. Grey water is water generated from domestic activities such as laundry, dishwashing, and bathing, and can be reused more readily. Black water comes from toilets and contains human waste.

Sewage treatment is done in three stages: primary, secondary and tertiary treatment.
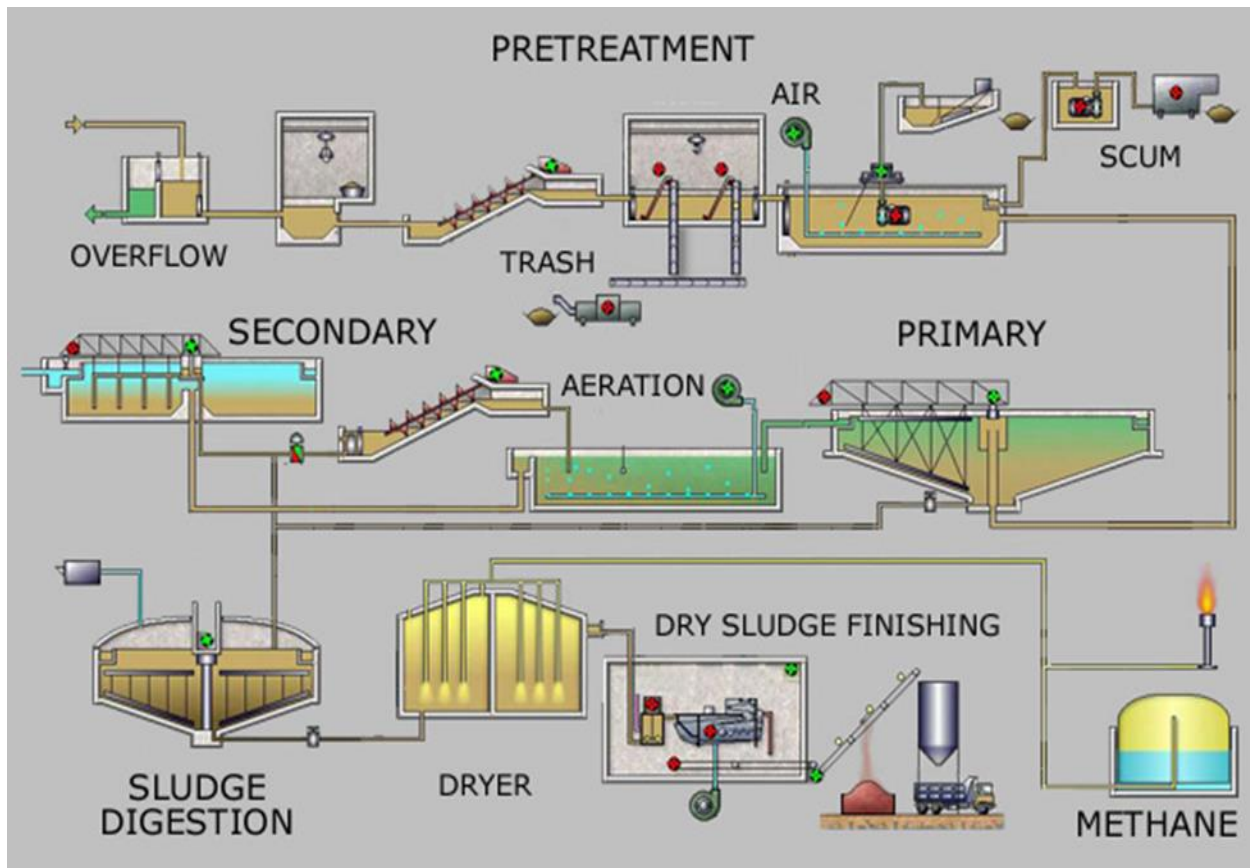
Figure: **Diagram of Sewage Treatment Process**: Sewage passes through primary, secondary, and tertiary treatment.

Collection and Conveyance:

The first step is the collection of wastewater from homes, businesses, and industries through a network of underground pipes called sewer lines. The wastewater is then conveyed to a central treatment facility.

Preliminary Treatment:

Upon reaching the treatment facility, the wastewater undergoes preliminary treatment to remove large debris, such as sticks, stones, and rags. Screens and grit chambers are commonly used to trap and remove these solid materials.

Primary Treatment

In primary treatment, sewage is stored in a basin where solids (sludge) can settle to the bottom and oil and lighter substances can rise to the top. These layers are then removed and then the remaining liquid can be sent to secondary treatment. Sewage sludge is treated in a separate process called sludge digestion.

Secondary Treatment

Secondary treatment removes dissolved and suspended biological matter, often using microorganisms in a controlled environment. Most secondary treatment systems use aerobic bacteria, which consume the organic components of the sewage (sugar, fat, and so on). Some systems use fixed film systems, where the bacteria grow on filters, and the water passes through them. Suspended growth systems use "activated" sludge, where decomposing bacteria are mixed directly into the sewage. Because oxygen is critical to bacterial growth, the sewage is often mixed with air to facilitate decomposition.

Tertiary Treatment

Tertiary treatment (sometimes called "effluent polishing") is used to further clean water when it is being discharged into a sensitive ecosystem. Several methods can be used to further disinfect sewage beyond primary and secondary treatment. Sand filtration, where water is passed through a sand filter, can be used to remove particulate matter. Wastewater may still have high levels of nutrients such as nitrogen and phosphorus. These can disrupt the nutrient balance of aquatic ecosystems and cause algae blooms and excessive weed growth. Phosphorus can be removed biologically in a process called enhanced biological phosphorus removal. In this process, specific bacteria, called polyphosphate accumulate organisms that store phosphate in their tissue. When the biomass accumulated in these bacteria is separated from the treated water, these bio solids have a high fertilizer value. Nitrogen can also be removed using nitrifying bacteria. Lagooning is another method

for removing nutrients and waste from sewage. Water is stored in a lagoon and native plants, bacteria, algae, and small zooplankton filter nutrients and small particles from the water.

Sludge Digestion

Sewage sludge scraped off the bottom of the settling tank during primary treatment is treated separately from wastewater. Sludge can be disposed of in several ways. First, it can be digested using bacteria; bacterial digestion can sometimes produce methane biogas, which can be used to generate electricity. Sludge can also be incinerated, or condensed, heated to disinfect it, and reused as fertilizer.

SEWAGE TREATMENT PLANT

Murlipura at Mishra Ka Barh, Rajasthan, India
QV73+WFP, Sitapura, Murlipura at Mishra Ka Barh, Rajasthan 303905, India
Lat 26.764976°
Long 75.853536°
24/05/23 08:45 AM GMT +05:30

Murlipura at Mishra Ka Barh, Rajasthan, India
QV73+WFP, Sitapura, Murlipura at Mishra Ka Barh, Rajasthan 303905, India
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OF EXCELLENCE

4.1.1 Solar Power Plant

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• Website: www.pce.poornima.org

TITLE: "Installation of Rooftop Photovoltaic System in PCE, Jaipur"

SPONSORS & SUPPORTERS: Not applicable.

INSTALLATION AGENCY: VG Energies

ABOUT THE ROOFTOP PV SYSTEM:

Rooftop solar PV systems are distributed electricity generation options, which help to meet a building's energy needs, or provide electricity within an existing distribution network. The size of the installation can vary dramatically, and is dependent on the size of the building, the amount of electricity required, the funding available for the project, and the grid operator's willingness to accept excess capacity. Core system components include PV modules, their accompanying mounting structure and an inverter.

However, other components can also be incorporated into the system, depending on its size and complexity. These include:

• String boxes;

• Batteries;

• Generators;

• Transformers; and

• Meters

The layout and configuration of systems can differ, depending on the load type and the energy supply requirements. An indicative layout is shown. The number and size of PV installations has increased exponentially since 2000, with Europe, China, the Americas and Asia-Pacific driving this growth.

The increase in the uptake of solar PV installations is influenced by:

• Decreasing PV technology costs;

• Economies of scale achieved;

• The learning curve associated with utility scale installations;

• Increasing grid supplied electricity prices;

• The availability of preferential feed-in-tariffs or other financial incentives for renewable energy technologies (including tax credits);

• Carbon emission reduction targets;

• The availability of alternative financing options;

• Air pollution concerns; and

• Energy security concerns
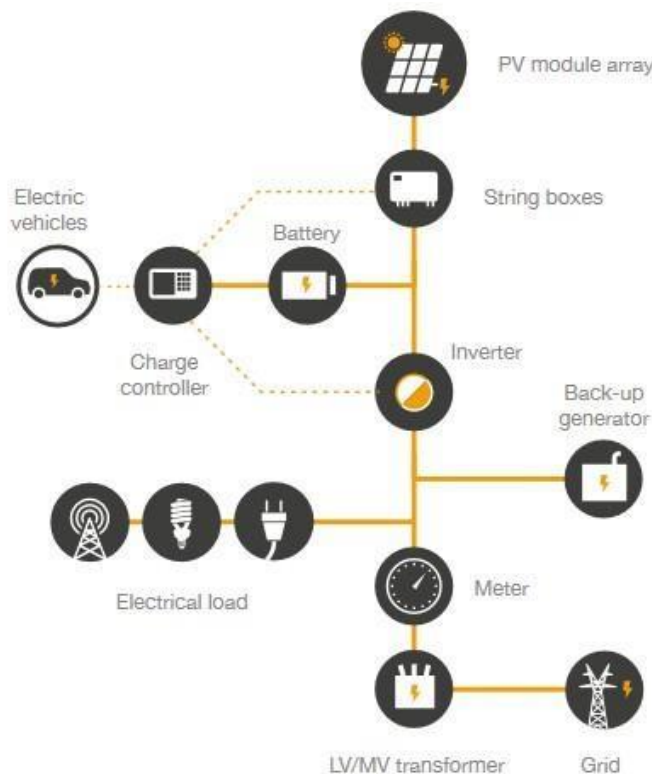
PV systems provide a clean and increasingly affordable option for building owners and occupants to produce their own electricity. Globally, investments in small scale PV installations increased consistently between 2006 and 2012. This trend is expected to continue going forward, and it is estimated that solar PV installations could total 403GW by
2020. The cost of installing a PV system is driven by the cost of the following:

• PV system component costs;

• Project development costs; and

• Installation and commissioning costs

System components make up the majority of the overall capital cost, with modules and inverters accounting for more than 60% of total costs. Balance of system (BOS) costs include the mounting system, electrical equipment (such as transformers and cables), grid connection, installation and planning costs. Overall installation costs for PV technologies have decreased significantly in recent years; the cost of generating electricity from crystalline PV modules, for example, has dropped by approximately 53% since 2009. This does not include any backup supply options, such as batteries or generators. This trend is expected to continue going forward and overall system costs are forecasted to decrease by between 40% and 75% by 2050, compared to 2014 costs.
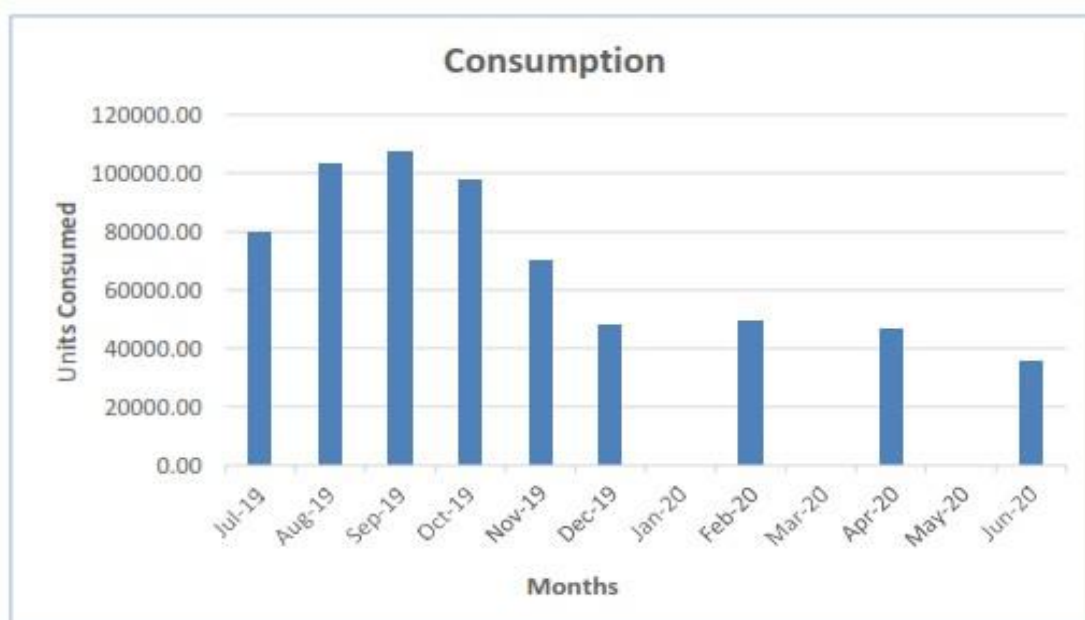
The main areas of energy consumption in PCE as observed are:

1. Motors
2. Air Conditioner
3. Lighting.

ELECTRICITY CONSUMPTION PATTERN

Session 2019-20

Months	Consumption
Jul-19	79850
Aug-19	103010
Sep-19	107530
Oct-19	
Nov-19	70250
Dec-19	47810
Jan-20	-
Feb-20	49380
Mar-20	-
Apr-20	46725
May-20	-
Jun-20	35370

Session 2021-22

Month	KWH	KVAH	Total Amount Payable
Aug-21	28411	28718	405915
Sep-21	14210	15270	291905
Oct-21	20815	14965	358176
Nov-21	11600	18760	264485
Dec-21	11895	12235	261775
Jan-22	23680	23930	368241
Feb-22	22295	22580	352934
Mar-22	21400	21510	369351
Apr-22	28975	29305	425466
May-22	36335	36650	499835
Jun-22	60870	61485	658067

Consumption

Total Amount Payable
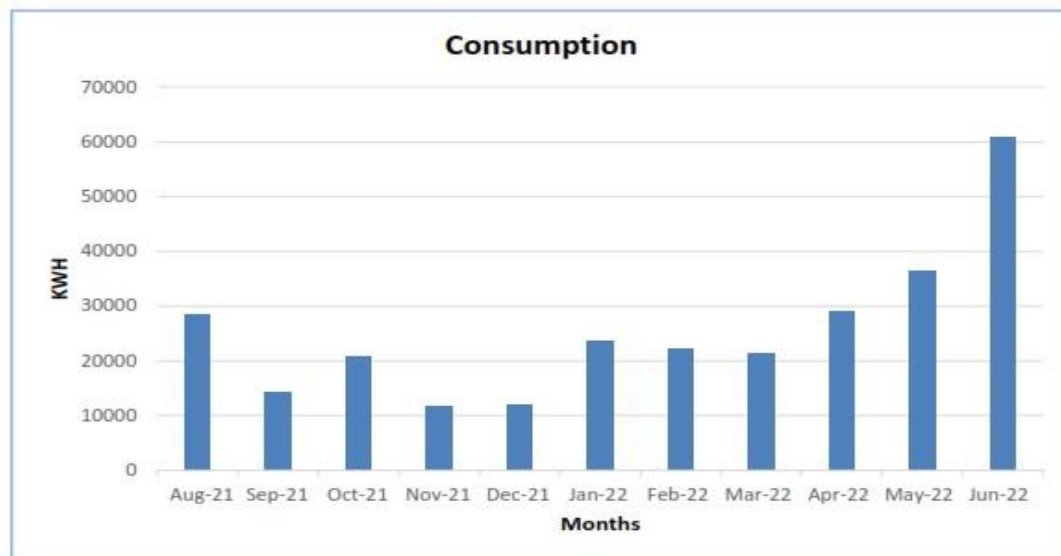
The main sources of energy to meet the required consumptions of PCE campus are as follows:

- Electricity supply from Power Distribution Company.
- DG set of 500KVA.
- Solar Power Plant of 184KW.

DG set of 500KVA

A DG set of 500KVA,Sudhir make is installed in PCE campus to meet the power consumption of PCE campus.
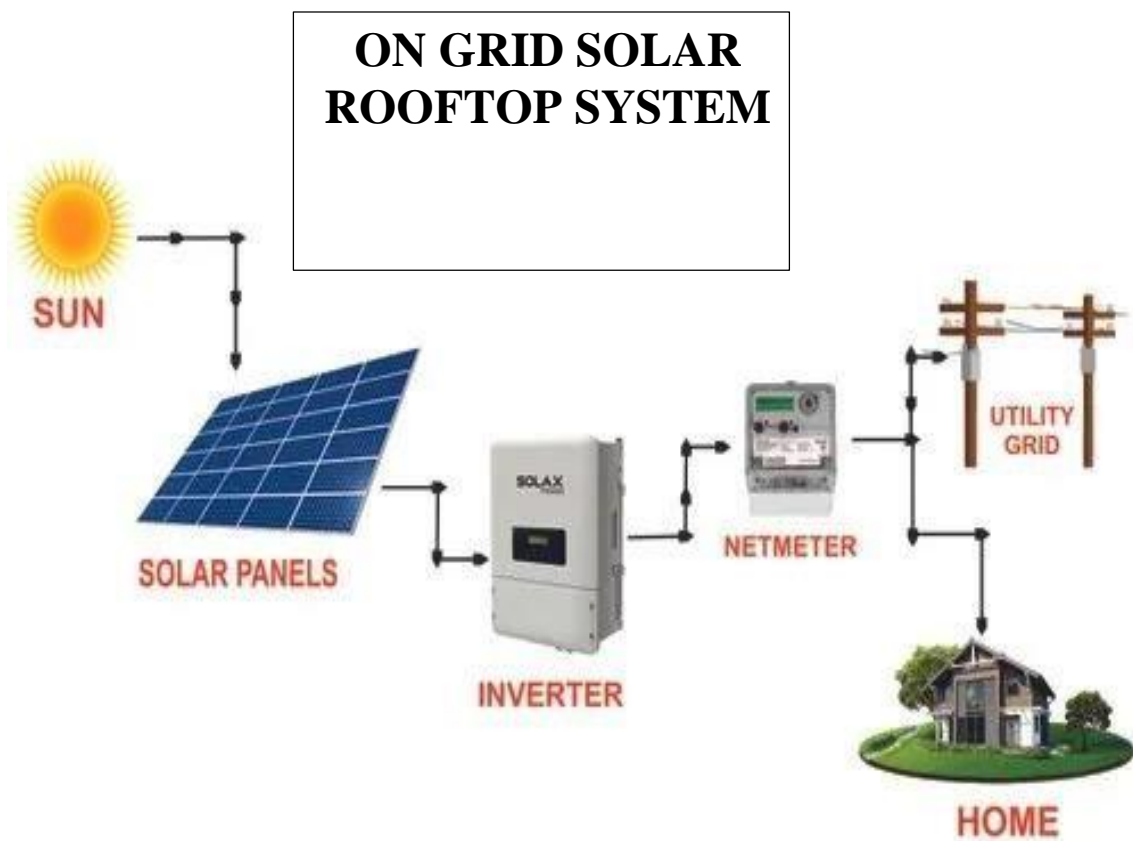
DG Set

Solar Power Plant

Rooftop Photovoltaic System for power generation of **184 KW** was installed on 31/03/21 by VG energies to meet the power consumption of PCE campus. It is an On Grid Solar Power System where any excess or deficiency of power is fed to the grid through net metering. This helps to enjoy credit for the excess power the Plant generates and hence save on the electricity bills. Solar Panels are installed on the roof of college and hostels.
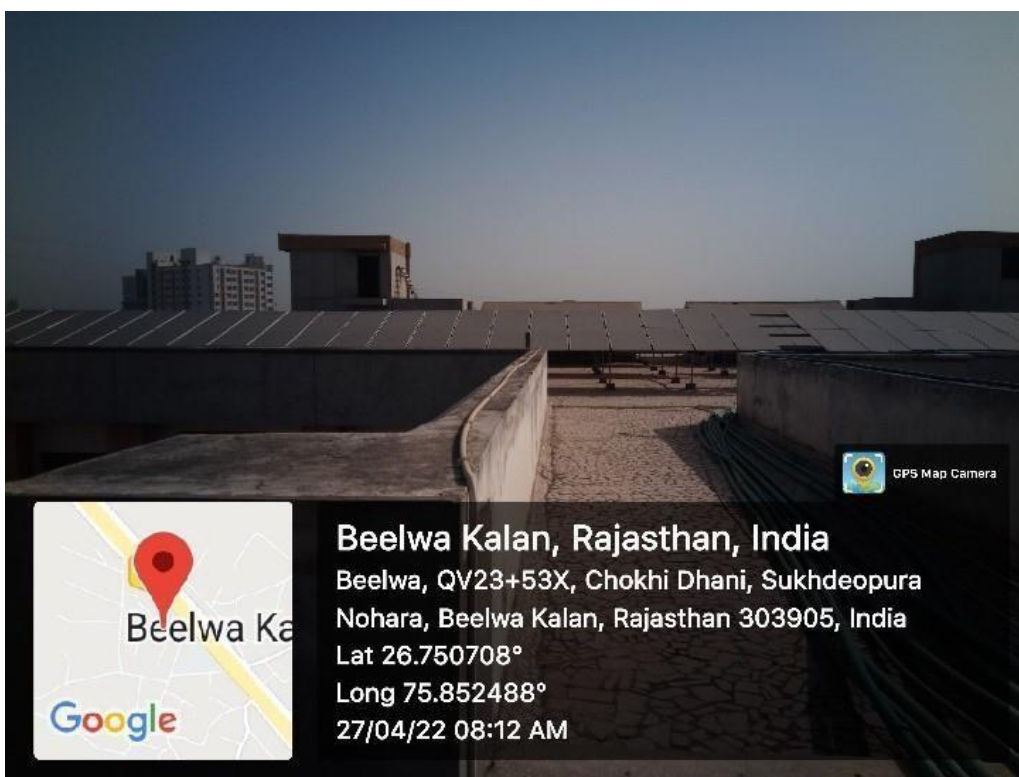
Solar Power Plant

ON GRID SOLAR ROOFTOP SYSTEM

PROJECT PHOTOS:

Murlipura at Mishra Ka Barh, Rajasthan, India
QV73+WFP, Sitapura, Murlipura at Mishra Ka Barh,
Rajasthan 303905, India
Lat 26.765047°
Long 75.853307°
27/04/22 08:14 AM

Jaipur, Rajasthan, India
Poornima College, Poornima Marg, Sitapura, Jaipur,
Rajasthan 303905, India
Lat 26.765242°
Long 75.853192°
27/04/22 08:14 AM

Jaipur, Rajasthan, India
Poornima College, Poornima Marg, Sitapura, Jaipur,
Rajasthan 303905, India
Lat 26.765242°
Long 75.853192°
27/04/22 08:13 AM

Beelwa Kalan, Rajasthan, India
Beelwa, QV23+53X, Chokhi Dhani, Sukhdeopura
Nohara, Beelwa Kalan, Rajasthan 303905, India
Lat 26.750708°
Long 75.852488°
27/04/22 08:12 AM

Wheeling to the grid

BUDGET & ACTUALS

VG ENERGIES

VG ENERGIES

DATE : ....

31-03-21

GST NO.- 08AAKFV8950A1ZY

RETAIL INVOICE

M/s. :			INV NO.	:	67 ·
NAME	SHANTI EDUCATION SOCIETY POORNIMA COLLEGE OF ENGINEERING				
ADDRESS:	ISI-6 RIICO INSTITUTIONAL AREA GONER ROAD SITAPURA, JAIPUR-302022		CH.NO.	:	
			TRANSPORT	:	AUTO
			EXECUTIVE	:	ANURAG
M:					
GSTIN			CUSTOMER CARE	:	0141-4063409
EWAY NO.	7111-8406-9942				

Sr.No	PRODUCT	HSN CODE	Rate..	Qty.	Amount..
	SOLAR POWER PLANT				
	184KW				
1	RENEWSYS SOLAR MODULE -WS-330	85414011	5512.18	544	2998625.92
2	POLYCAB ON GRID INVERTER	85044090	333928.00	2	667856.00
3	BOM WITHOUT MODULE & INVERTER	84	5500.00	180	987250.00
4	WIFI DEVICE	85044090	2500.44	2	5000.88
5	INTALLATION		3147.28	184	579099.52

APPROVED FOR PAYMENT
OF Rs. 5704000/-
Authorised Signatory

Rs. {in words} :	FIFTY SEVEN LAKH FOUR THOUSAND ONLY	Total			5237832.32
		CGST	2.50%		91662.06
		SGST	2.50%		91662.06
		CGST	9.00%		141421.47
		SGST	9.00%		141421.47
PAYMENT :	CASH / CHEQUE NO.:-	**TOTAL**			**5703999.38**
OUR BANK : KOTAK MAHINDRA BANK, JAIPUR		ROUND OF			0.00
A/C NO : 0413772907 IFSC/RTGS/ NEFT/ CODE : KKBK0003537		TOTAL			5704000.00

FIXED ASSETS   EXPENSES
S.No. 1785   S.No.
Amt. 5703999   Amt.

Terms & condition :
1. Goods once Sold will not Be taken back
2. Subject to Jaipur Jurisdiction . E.& O.E.

For. VG ENERGIES

(Authorised signatory)