R.M.D. ENGINEERING COLLEGE
(*An Autonomous Institution*)
RSM Nagar, Kavaraipettai – 601 206

CRITERION 4

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

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

Additional information:

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1.	Campus map	2
2.	Class room details	2
3.	Tutorial hall details	2
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1. Campus map

2. Class room details

Number of Classrooms and size of each.

| Sl.No.	Name of the Block	Area (Length * Width) in sq.m.	Number of Rooms	Type of roof	Capacity
1	EEE BLOCK	66	05	Permanent	330
2	NM BLOCK	66	12	Permanent	792
3	ECE BLOCK	66	13	Permanent	858
4	CSE BLOCK	66	20	Permanent	1320
5	MAIN BLOCK	66	07	Permanent	462

3. Tutorial halls details

Number of Tutorial Rooms and size.
- 16 Rooms each with size of 33 sq.mtr

4. Seminar Hall details

Number Available	Area of each drawing hall required (sq.m.)	Area of the seminar hall available (sq.m.)
6	132	1092
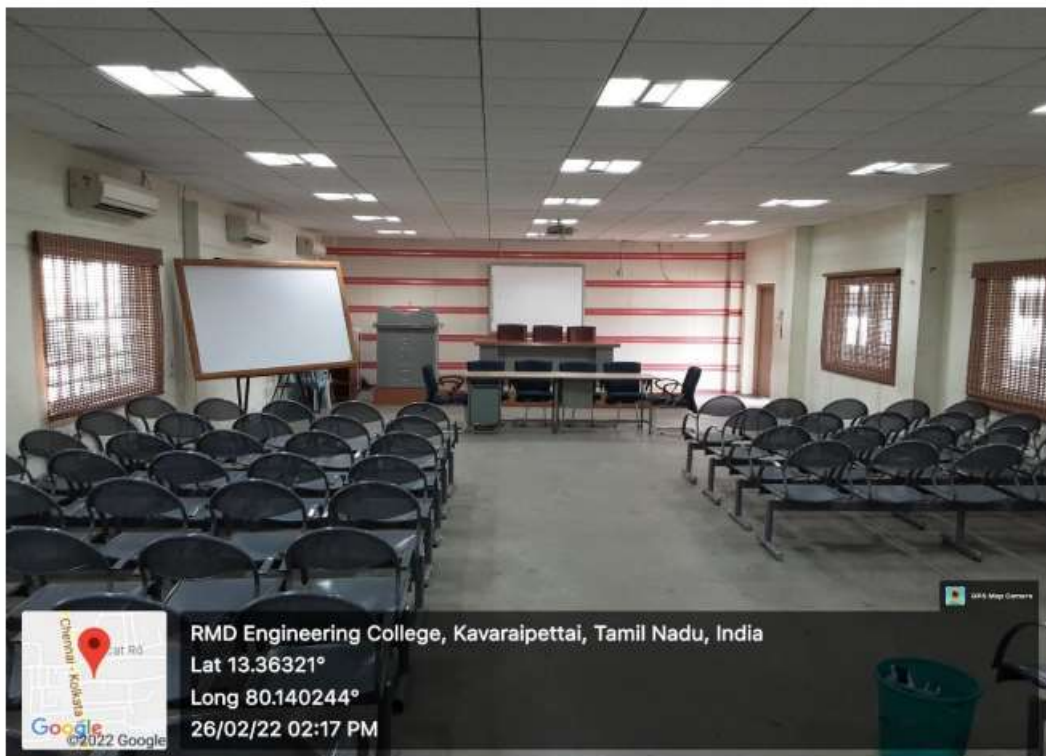
MAIN BLOCK SEMINAR HALL

EEE SEMINAR HALL

ECE SEMINAR HALL

EIE SEMINAR HALL

5. Laboratory details

Number of Laboratories and size of each.

Department	Link for List of laboratories
CSE	https://rmd.ac.in/dept/cse/lab.html
EEE	https://rmd.ac.in/dept/eee/lab.html
ECE	https://rmd.ac.in/dept/ece/lab.html
EIE	https://rmd.ac.in/dept/eie/lab.html
IT	https://rmd.ac.in/dept/it/lab.html
S&H	https://rmd.ac.in/dept/snh/lab.html

Laboratory and Workshops

List of Major Equipment/Facilities in each Laboratory/Workshop
Requirements for a batch of 30 students

Computer Science and Engineering:

SI. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
1	CS8261 C PROGRAMMING LABORATORY	Systems with Linux Operating System with gnu compiler	30	30
2	CS8381 DATA STRUCTURES LABORATORY	Systems with Linux Operating System with gnu compiler	30	30
3	CS8382 DIGITAL SYSTEM LABORATORY	Digital trainer kits	30	30
		Digital ICs	30	30
		Software: HDL simulator	30	30
4	CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY	Systems with either Netbeans or Eclipse	30	30
5	CS8481 DATABASE MANAGEMENT SYSTEMS LABORATORY	Systems with MySql	30	30
		Visual Studio	30	30
		Server	1	1
6	CS8461 OPERATING SYSTEMS LABORATORY	Systems with Linux OS and GNU Computer	30	30
7	CS8581 NETWORKS LABORATORY	Standalone Desktops	30	30
		C / C++ / Java / Python / Equivalent Compiler Network Simulator like NS2 / Glomosim / OPNEt / Packet Tracer / Equivalent	30	30
8	EC8681 MICROPROCESSOR	8086 Microprocessor trainer kit with power supply	15	15

		8051 Microcontroller trainer kit	15	15
	AND MICROCONTROLLER LABORATORY	Traffic light control interfacing card compatible with 8086 & 8051 kits	5	5
		Stepper motor control interfacing compatible with 8086 & 8051kits	5	5
		Digital clock interfacing board compatible with 8086 & 8051 kits	5	5
		Keyboard & Display interface board compatible with 8086 & 8051 kits	5	5
		Printer interfacing card compatible with 8086 & 8051 kits	5	5
		A/D and D/A interfacing card compatible with 8086 & 8051 kits	5	5
		Serial and Parallel interfacing card compatible with 8086 & 8051 kits	5	5
9	CS8582 OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY	Rational Suite (User License)	30	30
		Open Source Alternatives: ArgoUML,StarUML, Visual Paradigm (or) Equivalent Eclipse IDE and Junit	30	30
		PCs	30	30
10	CS8661 INTERNET PROGRAMMING LABORATORY	Systems	30	30
		Server (Web Server)	1	1
		Java/JSP/ISP Webserver/Apache Tomcat / MySQL / Dreamweaver or Equivalent, WAMP/XAMP	30	30
11	CS8662 MOBILE APPLICATION DEVELOPMENT LABORATORY	Standalone desktops with Windows or Android or iOS or Equivalent Mobile Application	30	30

SI. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
		Development Tools with appropriate emulators and debuggers Tools with appropriate emulators and debuggers		
12	IT8761 SECURITY LABORATORY	C / C++ / Java or equivalent compiler GnuPG, Snort, N-Stalker or Equivalent	30	30
		PCs	30	30
13	CS8711 CLOUD COMPUTING LABORATORY	Virtual box, Vmware Workstation, Cloud Environment Creation, Openstack, Hadoop, Coludism, GAE Launcher	30	30

Electrical and Electronics Engineering:

SI. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
1	EE8261 ELECTRIC CIRCUITS LABORATORY	Regulated Power Supply: 0 – 15 V D.C	10	10
		Function Generator (1 MHz)	10	10
		Single Phase Energy Meter	1	1
		Oscilloscope (20 MHz).	10	10
		Digital Storage Oscilloscope (20 MHz)	1	1
		PC With Circuit Simulation Software (10 Users)	10	10
		e-Sim/Scilab/Pspice / Matlab /otherEquivalent software Package)	10	10
		Printer	1	1
		AC/DC – Voltmeters	10	10
		Ammeters	10	10

		Multi-meters	10	10
		Single Phase Wattmeter	3	3
		Decade Resistance Box, Decade InductanceBox, Decade Capacitance Box (Each)	6	6
		Circuit Connection Boards	10	10
2	EC8311 ELECTRONICS LABORATORY	Semiconductor devices like Diode, ZenerDiode, NPN Transistors, JFET, UJT, Photodiode, Photo Transistor	10	10
		Resistors, Capacitors and inductors	10	10
		Necessary digital IC 8	10	10
		Function Generators	10	10
		Regulated 3 output Power Supply 5 +_ 15V	10	10
		CRO	10	10
		Storage Oscilloscope	1	1
		Bread boards	10	10
3	EE8461 LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY	DC Shunt Motor with Loading Arrangement	3	3
		DC Shunt Motor Coupled With Three phase Alternator	1	1
		Single Phase Transformer	4	4
		DC Series Motor with Loading Arrangement	1	1
		DC Compound motor with loading arrangement	1	1
		Three Phase Induction Motor with Loading Arrangement	2	2
		Single Phase Induction Motor with Loading Arrangement	1	1
		DC Shunt Motor Coupled With DCCompound Generator	2	2

		DC Shunt Motor Coupled With DC ShuntGenerator	1	1
		Tachometer -Digital/Analog	8	8
		Single Phase Auto Transformer	2	2
		Three Phase Auto Transformer	1	1
		Single Phase Resistive Loading Bank	2	2
		Three Phase Resistive Loading Bank	2	2
4	EE8461 LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY	Dual ,(0-30V) variable Power Supply	10	10
		CRO (30MHz)	9	9
		Digital Multimeter	10	10
		Function Generator (1 MHz)	8	8
		IC Tester (Analog)	2	2
		Bread board	10	10
		Computer (PSPICE installed)	1	1
		IC 741/ IC NE555/566/565	10	10
		Digital IC types	10	10
		LED	10	10
		LM317	10	10
		LM723	10	10
		ICSG3524 / SG3525	10	10
		Transistor – 2N3391	10	10
		Diodes, IN4001, BY126	10	10
		Zener diodes	10	10
		Potentiometer	10	10
		Step-down transformer 230V/12-0-12V	10	10
		Capacitor	10	10
		Resistors ¼ Watt Assorted	10	10
		Single Strand Wire	10	10
5	EE8411 ELECTRICAL	Synchronous Induction motor 3HP	1	1

	MACHINES LABORATORY II	DC Shunt Motor Coupled With Three phase Alternator	4	4
		DC Shunt Motor Coupled With Three phase Slip ring Induction motor	1	1
		Three Phase Induction Motor with Loading Arrangement	2	2
		Single Phase Induction Motor with Loading Arrangement	2	2
		Tachometer -Digital/Analog	8	8
		Single Phase Auto Transformer	2	2
		Three Phase Auto Transformer	3	3
		Single Phase Resistive Loading Bank	2	2
		Three Phase Resistive Loading Bank	2	2
		Capacitor Bank	1	1
6	CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY	Systems with either Netbeans or Eclipse	30	30
7	EE8511 CONTROL AND INSTRUMENTATION LABORATORY	PID controller simulation and learner kit	1	1
		DSO for capturing transience	1	1
		Personal computers with control system simulation packages	10	10
		DC motor – Generator test set-up for evaluation of motor parameters	1	1
		CRO 30MHz	1	1
		2MHz Function Generator	1	1
		Position Control Systems Kit (with manual)	1	1
		Tacho Generator Coupling set	1	1

		AC Synchro transmitter& receiver	1	1
		Digital multi meters, speed and torque

sensors | 10 | 10 |
		R, L, C Bridge kit (with manual)	1	1
		Electric heater	1	1
		Thermometer	1	1
		Thermistor (silicon type) RTD nickel type	1	1
		30 psi Pressure chamber (complete set)	1	1
		Current generator (0-20mA)	1	1
		Air foot pump (with necessary connecting

tubes) | 1 | 1 |
		LVDT20mm core length movable type	1	1
		CRO 30MHz	1	1
		Optical sensor	1	1
		Strain Gauge Kit with Handy lever beam	1	1
		100gm weights	10	10
		Flow measurement Trainer kit (1/2 HP Motor, Water tank, Digital Milliammeter, complete set)	1	1
		Single phase Auto transformer	1	1
		Watthour meter (energy meter)	1	1
		Voltmeter Rheostat Stop watch Connecting

wires | 20 | 20 |
		IC trainer kit	1	1
		Instrumentation Amplifier kit	1	1
		Analog – Digital and Digital – Analogconverters (ADC and DACs)	1	1
8	EE8661 POWER	Device characteristics(for SCR, MOSFET,	2	2

ELECTRONICS AND DRIVES LABORATORY	TRIAC,GTO,IGCT and IGBT kit with built in / discrete power supply and meters)			
	Single phase SCR based half controlled on verter and fullycontrolled converter along with built-in/separate/firing circuit/module and meter		2	2
	MOSFET based step up and step down choppers(Built in/ Discrete)		1	1
	IGBT based single phase PWM inverter module/Discrete Component		2	2
	IGBT based three phase PWM inverter module/Discrete Component		2	2
	Switched mode power converter module/Discrete Component		2	2
	SCR &TRIAC based 1 phase AC controller along with lamp or rheostat load		2	2
	Cyclo converter kit with firing module		1	1
	Dual regulated Dc power supply with common ground		5	5
	Cathode ray Oscilloscope		10	10
	Isolation Transformer		5	5
	Single phase Auto transformer		3	3
	Components (Inductance, Capacitance)		3	3
	Multimeter		5	5
	LCR meter		3	3
	Rheostats of various ranges		2	2
	Work tables		10	10

		DC and AC meters of required ranges	20	20
9	EE8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY	8085 Microprocessor Trainer with PowerSupply	15	15
		8051 Micro Controller Trainer Kit withpower supply	15	15
		8255 Interface board	5	5
		8251 Interface board	5	5
		8259 Interface board	5	5
		8279 Keyboard / Display Interface board	5	5
		8254 timer counter	5	5
		ADC and DAC card	5	5
		AC & DC motor with Controller	5	5
		Traffic Light Control System	5	5
10	EE8711 POWER SYSTEM SIMULATION LABORATORY	Personal computers (Intel i3, 80GB,2GBRAM)	30	30
		Printer laser	1	1
		Dot matrix	1	1
		Server (Intel i5, 80GB, 2GBRAM) (HighSpeed Processor)	1	1
		power system simulation software	5	5
		Compliers: C, C++, VB, VC++	30	30
11	EE8712 RENEWABLE ENERGY SYSTEMS LABORATORY	Personal computers (Intel i3, 80GB,2GBRAM)	15	15
		CRO 30MHz	9	9
		Digital Multimeter	10	10
		PV panels – 100W, 24V	1	1
		Battery storage system with charge and discharge control 40Ah	1	1
		PV Emulator	1	1
		Micro Wind Energy Generator module	1	1
		Potentiometer	5	5

		Step-down transformer 230V/12-0-12V	5	5

Electronics and Communication Engineering:

Sl. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
1	EC8261 CIRCUITS AND DEVICES LABORATORY	BC107,BC148,2N2646,BFW10	25	25
		IN4007,Zener diodes	25	25
		Resistors, Capacitors, Inductors-	100	100
		Bread Boards	15	15
		CRO(30MHz)	15	15
		Function Generators(3MHz)	10	10
		Dual Regulated power Supplies(0-30V)	10	10
2	EC8361 ANALOG AND DIGITAL CIRCUITS LABORATORY	CRO (30MHz)	15	15
		Signal Generator /Function Generators(3 MHz)	15	15
		Dual Regulated Power Supplies (0 –30V)	15	15
		Standalone desktop PCs with SPICEsoftware	15	15
		Transistor/FET (BJT-NPN-PNP andNMOS/PMOS)	50	50
		Dual power supply/single mode powersupply	15	15
		Resistors, Capacitors, Inductors	50	50
		Diodes, Zener diode	10	10
		IC Trainer Kit	15	15
		Bread Boards	15	15
		Computer with HDL software	15	15
		Seven segment display	15	15

		Multimeter	15	15
		Ics 7400/ 7402 / 7404 / 7486 / 7408 / 7432 / 7483 / 74150 / 74151 / 74147 / 7445 / 7476/7491/ 555 / 7494 / 7447 / 74180 / 7485 / 7473 / 74138 / 7411 / 7474	50	50
3	EC8381 FUNDAMENTALS OF DATA STRUCTURES IN C LABORATORY	Standalone desktops (or) Server supporting with C compiler	30	**30**
4	EC8461 CIRCUITS DESIGN AND SIMULATION LABORATORY	CRO (Min 30MHz)	15	15
		Signal Generator /Function Generators(2 MHz)	15	15
		Dual Regulated Power Supplies (0 –30V)	15	15
		Digital Multimeter	15	15
		Digital LCR Meter	2	2
		Standalone desktops PC	15	15
		Transistor/FET (BJT-NPN-PNP andNMOS/PMOS)	50	50
		Transistors, Resistors, Capacitors, Inductors, diodes, Zener Diodes, BreadBoards, Transformers	50	50
		SPICE Circuit Simulation Software (anypublic domain or commercial software)	15	15
5	EC8462 LINEAR	CRO /DSO (Min 30MHz)	15	15

	INTEGRATED CIRCUITS LABORATORY	Signal Generator /Function Generators(2 MHz)	15	15
		Dual Regulated Power Supplies (0 –30V)	15	15
		Digital Multimeter	15	15
		IC tester	5	5
		Standalone desktops PC	15	15
		Transistors, Resistors, Capacitors, diodes, Zener diodes, Bread Boards, Transformers, wires, Power transistors, Potentiometer, A/D and D/A convertors,LEDs	50	50
6	EC8562 DIGITAL SIGNAL PROCESSING LABORATORY	PCs with Fixed / Floating point DSPProcessors (Kit / Add-on Cards)	15	15
		MATLAB with Simulink and SignalProcessing Tool Box or EquivalentSoftware in desktop systems	15	15
		Signal Generators (1MHz)	20	20
		CRO (20MHz)	20	20
7	EC8561 COMMUNICATION SYSTEMS LABORATORY	Kits for Signal Sampling, TDM, AM, FM,PCM, DM and Line Coding Schemes, Error control code	14	14
		CROs	15	15
		MATLAB/SCILAB or equivalent softwarepackage for simulation experiments	20	20
		PCs	20	20
		Probes(CRO)	30	30

		Patch cords	100	100
		MSO	4	4
		DSO	4	4
8	EC8563 COMMUNICATION NETWORKS LABORATORY	C / Python / Java / Equivalent Compiler	30	30
		Standard LAN Trainer Kits	4	4
		Qualnet /Optisim /Matlab /NS2/ Netsim	30	30
		PCs	30	30
9	EC8681 MICROPROCESSOR AND MICROCONTROLLER LABORATORY	8086 Microprocessor trainer kit withpower supply	15	15
		8051 Microcontroller trainer kit	15	15
		Traffic light control interfacing cardcompatible with 8086 & 8051 kits	5	5
		Stepper motor control interfacing compatible with 8086 & 8051kits	5	5
		Digital clock interfacing board compatible with 8086 & 8051 kits	5	5
		Keyboard & Display interface boardcompatible with 8086 & 8051 kits	5	5
		Printer interfacing card compatible with8086 & 8051 kits	5	5
		A/D and D/A interfacing card compatiblewith 8086 & 8051 kits	5	5
		Serial and Parallel interfacing card compatible with 8086 & 8051 kits	5	5
10	EC8661 VLSI	Xilinx ISE/Altera Quartus/	10	10

		DESIGN LABORATORY	equivalentEDA Tools		
			Xilinx/Altera/equivalent FPGA Boards	10	10
			Cadence/Synopsis/ Mentor Graphics/Tanner/equivalent EDA Tools	10	10
			Personal Computer	30	30
12		EC8711 EMBEDDED LABORATORY	Embedded trainer kits with ARM board	10	10
			Embedded trainer kits suitable for wireless communication	10	10
			Adequate quantities of Hardware, software and consumables	10	10
		EC8761 ADVANCED COMMUNICATION LABORATORY	Trainer kit for carrying out LED and PIN diode characteristics, Digital multimeter, optical power meter	2	2
			Trainer kit for determining the mode characteristics, losses in optical fiber	2	2
			Trainer kit for analyzing Analog and Digital link performance, 2 Mbps PRBSData source, 10 MHz signal generator, 20 MHz Digital storage Oscilloscope	2	2
			Kit for measuring Numerical apertureand Attenuation of fiber	2	2
			Advanced Optical fiber trainer kit for PC to PC communication, BER Measurement, Pulse broadening	2	2
			MM/SM Glass and plastic fiber patch chords with ST/SC/E2000 connectors	2	2

		LEDs with ST / SC / E2000 receptacles – 650 / 850 nm	2	2
		PIN PDs with ST / SC / E2000 receptacles – 650 / 850 nm	2	2
		Digital Communications Teaching Bundle (LabVIEW/MATLAB/Equivale nt software tools)	10	10
		Software Define Radio Transceiver Platform with antennas and accessories	2	2

Electronics and Instrumentation Engineering:

SI. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
1	EE8261 ELECTRIC CIRCUITS LABORATORY	Regulated Power Supply: 0 – 15 V D.C	10	10
		Function Generator (1 MHz)	10	10
		Single Phase Energy Meter	1	1
		Oscilloscope (20 MHz).	10	10
		Digital Storage Oscilloscope (20 MHz)	1	1
		PC with Circuit Simulation Software	10	10
		e-Sim / Scilab/ Pspice / Matlab /other Equivalent software Package)	10	10
		Printer	1	1
		AC/DC – Voltmeters	10	10
		Ammeters	10	10

		Multi-meters	10	10
		Single Phase Wattmeter	3	3
		Decade Resistance Box, Decade Inductance Box, Decade Capacitance Box (Each).	6	6
		Circuit Connection Boards	10	10
2	CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY	Systems with either Net beans or Eclipse	30	30
3	EI8361 MEASUREMENTS AND TRANSDUCERS LABORATORY	Measurement of Linear displacement using Potentiometer	1	1
		Strain gauge and Load cell Characterisation and application	1	1
		LVDT Characterisation and application	1	1
		Hall effect Characterisation and application	1	1
		Measurement of Angular displacement	1	1
		Muffle furnace	1	1
		Thermistor Characterisation and application	1	1
		Various types Thermocouple and RTDCharacterisation and application	1	1
		Measurement of power and energy	1	1
		Sufficient number power supply, Galvanometer, Bread board, Multimeter,Resistors, Decade	15	15
		Sufficient number Capacitance box, Decade resistance box, Decade Inductance box, CRO	15	15
4	EE8461 LINEAR AND DIGITAL INTEGRATED CIRCUITS LABORATORY	Dual ,(0-30V) variable Power Supply	10	10
		CRO (30MHz)	9	9
		Digital Multimeter	10	10
		Function Generator (1MHz)	8	8

		IC Tester (Analog)	2	2
		Bread board	10	10
		Computer (PSPICE installed)	1	1
		IC 741/ IC NE555/566/565	10	10
		Digital IC types	10	10
		LED	10	10
		LM317	10	10
		LM723	10	10
		ICSG3524 / SG3525	10	10
		Transistor 2N3391	10	10
		Diodes (IN4001, BY126)	10	10
		Zener diodes	10	10
		Potentiometer	10	10
		Step-down transformer(230v/12-0-12v)	10	10
		Capacitor	10	10
		Resistors ¼ Watt Assorted	10	10
		Single Strand Wire	10	10
5	EI8461 DEVICES AND MACHINES LABORATORY	Circuit Simulation Software (5 Users)	5	5
		(Pspice / Matlab /other Equivalent software Package) with PC	30	30
		Sufficient number of power supply, Galvanometer, Bread board, Multimeter,	10	10
		Semiconductor devices like Diode, ZenerDiode, NPN Transistors, JFET, and UJT	10	10
		DC Shunt Motor with Loading Arrangement	3	3
		Single Phase Transformer	3	3
		Single Phase Induction Motor with Loading Arrangement	1	1

		Single Phase Auto Transformer	3	3
		Single Phase Resistive Loading Bank	2	2
		Ammeters	2	2
		Voltmeters or multimeters	2	2
		Switches	2	2
		Tachometers	2	2
		Wattmeters	2	2
6	EE8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY	8085 Microprocessor Trainer with PowerSupply	15	15
		8051 Micro Controller Trainer Kit with power supply	15	15
		8255 Interface board	5	5
		8251 Interface board	5	5
		8259 Interface board	5	5
		8279 Keyboard / Display Interface board	5	5
		8254 timer counter	5	5
		ADC and DAC card	5	5
		AC & DC motor with Controller	5	5
		Traffic Light Control System	5	5
7	EI8561 INDUSTRIAL INSTRUMENTATION LABORATORY	Orifice plate	1	1
		Dead weight tester with pressure gauge	1	1
		Torque trainer	1	1
		Saybolt Viscometer	1	1
		Vacuum gauge	1	1
		DP transmitter	1	1
		UV Visible spectrophotometer	1	1
		pH meter	1	1
		Conductivity meter	1	1
		ECG trainer	1	1

		Pulse rate trainer	1	1
		tacho meter	1	1
8	CS8381 DATA STRUCTURES LABORATORY	Systems with Linux Operating System withgnu compiler	30	30
9	EI8661 PROCESS CONTROL LABORATORY	Flow process station with all accessories	1	1
		Analog / Digital PID controller	2	2
		Control valve trainer (with position for varying P across the valve)	1	1
		Flow meter	1	1
		Level process station with all accessories	1	1
		Temperature process station with all accessories	1	1
		Pressure process station with all accessories	1	1
		MATLAB software	minimum 10 user license	10 user license
		Personal computer	15	15
10	EI8761 INDUSTRIAL AUTOMATION LABORATORY	Programmable Logic controller	5	5
		Programmable Logic controller Software	10	10
		DAQ card	2	2
		Filling /Draining System	1	1
		Traffic Light Controller	2	2
		DC Motor	5	5
		Personal computer	10	10
		DCS along with Interface modules	1	1
		Thermal Process	1	1
		Level Process	1	1

		Flow Process stations	1	1
		Smart Transmitter	1	1
11	EI8762 INSTRUMENTATIO N SYSTEM DESIGN LABORATORY	Sufficient number of Monolithic Instrumentation amplifier, Operational amplifiers, IC7805 and resistors, diodes, Capacitors	15	15
		Linear control valve, ON/OFF control valve, Air regulator, Rotameter, Pump	1 each	1
		Sufficient number of IC 741, CRO, Breadboard, Signal generator (PID) Microprocessor kit with ADC and DAC section	15	15
		Any Process station (Temperature or Level) with Corresponding sensors, Data acquisition card, and Storage device (microcontroller/microprocess or)	1	1
		Flow process station with DP transmitter	1	1
		Loop analyzer	1	1
		Thermocouple & RTD	Minimum 1	1
		Bonded strain gauge, Loads	Minimum 1	1
		orifice plate	Minimum 1	1

Information Technology:

SI. No	Name of the Laboratory	Description of Equipment	Quantity Required	Quantity Available
1	IT8211 Information Technology Essentials Laboratory	PC with Linux/Windows/Solaris/Mac OSX operating system	30	30
		XAMPP Webserver	1	1
		Mobile App Development tool (Like appInventor)	1	1

2	CS8261 C Programming Laboratory	Systems with Linux Operating System with gnu compiler	30	30
3	CS8382 DIGITAL SYSTEMS LABORATORY	Digital trainer kits	30	30
		Digital Ics	30	30
		Software: HDL simulator	30	30
4	CS8381 DATA STRUCTURES LABORATORY	Systems with Linux Operating System with gnu compiler	30	30
5	CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY	Systems with either Netbeans or Eclipse	30	30
6	CS8481 DATABASE MANAGEMENT SYSTEMS LABORATORY	Systems with MySql	30	30
		Visual Studio	30	30
		Server	1	1
7	CS8461 OPERATING SYSTEMS LABORATORY	Systems with Linux OS and GNU Computer	30	30
8	EC8681 MICROPROCESSOR AND MICROCONTROLLER LABORATORY	8086 Microprocessor trainer kit withpower supply	15	15
		8051 Microcontroller trainer kit	15	15
		Traffic light control interfacing cardcompatible with 8086 & 8051 kits	5	5
		Stepper motor control interfacingcompatible with 8086 & 8051kits	5	5
		Digital clock interfacing board compatible with 8086 & 8051 kits	5	5
		Keyboard & Display interface boardcompatible with 8086 & 8051 kits	5	5
		Printer interfacing card compatible with8086 & 8051 kits	5	5
		A/D and D/A interfacing card compatiblewith 8086 & 8051 kits	5	5
		Serial and Parallel interfacing cardcompatible with 8086 &	5	5

		8051 kits		
9	CS8581 NETWORKS LABORATORY	Standalone Desktops	30	30
		C / C++ / Java / Python / Equivalent Compiler Network Simulator like NS2 / Glomosim / OPNEt / Packet Tracer / Equivalent	30	30
10	IT8511 WEB TECHNOLOGY LABORATORY	Dream Weaver or Equivalent, MySQL orEquivalent, Apache Server, WAMP/XAMPP	30	**30**
		Standalone desktops	30	**30**
11	CS8582 OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY	Rational Suite (User License)	30	30
		ArgoUML,StarUML, Visual Paradigm(Or) Equivalent Eclipse IDE and Junit	30	30
		PCs	30	30
12	CS8662 MOBILE APPLICATION DEVELOPMENT LABORATORY	Standalone desktops with Windows orAndroid or iOS or Equivalent Mobile ApplicationDevelopment Tools with appropriate emulators anddebuggers	30	30
13	IT8761 SECURITY LABORATORY	C / C++ / Java or equivalent compiler GnuPG, Snort, N-Stalker or Equivalent	30	30
		Standalone desktops	30	30
14	IT8711 FOSS AND CLOUD COMPUTING LABORATORY	PC with latest version	30	30
		Cloud tools from free of open sourcelike open nebula, open stack, Eucalyptus software	30	30

6. Computing Facilities

Number of Computer Centre with capacity of each.

SI.No	Name of the Computer Centre	No. of Systems
1	BAY-1	66
2	BAY-2	66
3	BAY-3	66
4	BAY-4	66
5	BAY-5	66
6	BAY-6	66
7	BAY-7	30
8	BAY-8	66
9	BAY-9	68
10	BAY-10	80
TOTAL		**640**

Internet Bandwidth

   The Computer Centre has a 1000 Mbps internet speed such as 500 Mbps leased line internet connection from TATA Tele services and 500 Mbps leased line from Airtel. The Computer Centre provides free Wi-Fi facility to all the departments & their respective seminar hall and to hostel.

Number and Configuration of Systems

Particulars	No. of Systems
Dell Power Edge T620 Server	**1**
Dell Power Edge T420 Server	**2**

Desktops with i7 Processor	**457**
Desktops with i3 and i5 Processors	**183**
Apple imac Quad-Core-i5 Systems	**30**
iPad	**4**

Total number of systems connected by LAN / WAN

All the Systems in the Computer Centre are connected by LAN and WAN

Sl.No.	Course Type	Total Student	Number of Terminals On LAN / WAN
1	B.E.	1680	490
2	B.Tech.	360	170
3	M.E.	36	10

Major software packages available

Software required	Name of the software available
System software –(Three)	1. Windows Server 2016 2008 SQL Server 2016 Standard Edition 2. UBUNDU OS FEDORA OS Cyberroam Firewall 3. Windows 10 Windows 8 Windows 7 and Windows XP

Application Software – (Twenty)	1. Office 2016 Professional Plus with Core CAL
	2. Visual Studio Pro 2016
	3. SQL Client Access Dvc Client Access License
	4. Rational Rose Software
	5. Java Development Kit JDK 1.5
	6. Turbo C and C Plus Plus Gcc and G Plus Plus for Ubuntu
	7. My SQL
	8. iOS X Code
	9. Android for Mobile App Development
	10. Netbeans or Eclipse
	11. Hi Class software Ver 4.2 Business Management Skill Manage Stess Focus
	12. OPNET NS 2 Simulator Packet Tracer
	13. LEX YACC Tool
	14. KF Sensor Tool Net Stumbler Open Nebula Tool Open stack
	15. Phython
	16. Apache Tomcatserver
	17. WAMP XAMP
	18. GnuPG Snort N Stalker
	19. Virtual box Openstack Hadoop Coludism GAE launcher
	20. ArgoUML Eclipse IDE

7. Special purpose facilities available

(Conduct of online Meetings/Webinar/Workshop, etc.)

The following tools are adopted for conducting online Meeting, Webinars & Training programmes.

- ❖ Google Meet
- ❖ Zoom
- ❖ WebEx Meetings

❖ GoToMeeting

❖ Free Conference Call

Facilities for conduct of classes/courses in online mode (Theory & Practical)

In the wake of the COVID-19 Pandemic, extraordinary decisions have been taken by both the Union & State Governments; Statutory Authorities and the Affiliating University with regard to Teaching & Learning; Examination & Evaluation in the Higher Educational Institutions adopting online mode / online proctored mode using Technology based tools. Online learning was adopted in place of Campus learning.

Online education has been extended using electronically supported learning tools that relies on the Internet for teacher/student using computer interface for interaction and the distribution of class materials.

Our Institution having been affiliated to Anna University, Chennai. Complying with the instructions given by Anna University the Syllabus were completed as per schedule & on time by using the following tools for both theory & practical.

❖ **Google Classroom** - the Learning Management System (LMS) that aims to simplify creating, distributing, and grading assignments has been used to engage students in online learning / remotely.

❖ **Zoom app**. Zoom, the cloud-based video communications app also has been used that allows to set up virtual video and audio conferencing, webinars, live chats, screen-sharing, and other collaborative capabilities.

❖ **Skillrack.com** It's a platform used to learn and practice the computer programming in various programming languages.

❖ **Edwisely –** AI Powered learning platform is adopted & its assessments tools are used to assess and train the students accordingly.

❖ **Virtual Labs –** As suggested by AICTE, Virtual Labs privided by IITs are adopted to provide remote-access to Labs in various disciplines of Science and Engineering

Innovation Cell

RMDEC IIC objective is to create a vibrant innovation ecosystem and Start-up supporting Mechanism and inculcate Ideas and Pre-incubation of Ideas. Develop better Cognitive Ability for RMDEC Engineering Students. To Prepare RMDEC for better for Atal Ranking

RMDEC IIC is headed by Principal as President and council of Staff members and student members in the areas of Startup ,IPR,NIRF,ARIIA,Innovation,Incubation

Functions of RMDEC IICs

- *To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.*

- *Identify and reward innovations and share success stories.*

- *Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.*

- *Network with peers and national entrepreneurship development organizations.*

- *Organize Hackathons, idea competition, mini-challenges etc. with the involvement of industries.*

Social Media Cell

R.M.D. Engineering College has established an official presence on Facebook, Instagram, LinkedIn and Twitter. These social media accounts are all maintained by the Social Media Committee of the college.

With majority of student crowd present on Social Media, it provides us a platform to promote activities, receive feedback and start conversations. It provides a better way to connect with parents and community and keep them up to date. This is a very effective tool for Alumni Engagement. Thus, Connecting Students, Teachers, Parents, Alumni and other stakeholders, social media plays an important medium of communication.

Below is the link for the social media accounts.
Facebook:

https://www.facebook.com/rmdecprincipal

Instagram:

https://www.instagram.com/rmdecprincipal

LinkedIn:

https://www.linkedin.com/in/rmdecprincipal

Twitter:

https://twitter.com/rmdecprincipal

YouTube:

https://www.youtube.com/RMDEnggCollege

8. Examination Infrastructure Details

Central Examination Facility, Number of rooms and Capacity of each

Adequate number of rooms with required capacity is available in the institution for the smooth conduct of Examinations.

Online Examination Facility

Google Classroom, the Learning Management System (LMS) that aims to simplify creating, distributing, and grading assignments has been used to engage students in online learning / remotely.

The Assessment Questions papers can be sent to the students through Email & Google Classroom , and the students can submit the Answer scripts in the Google classroom which will be stored in google drive for evaluation.