

Departmental Profile

NAME OF THE DEPARTMENT: Electronics and Communication Engineering.

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YEAR OF ESTABLISHMENT: Electronics and Communication Engineering course was started in 1983 under the Electrical Engineering Department. In 1990 Board of Governors, R. E. College, Durgapur approved the formation of a separate department of Electronics and Communication Engineering in its 87th meeting.

The Electronics and Communication Engineering course was initiated in 1983. In the early years the aim was in the development of a good infrastructural facility for teaching the B. E. course.

After the formation of the new department in 1990 the development took a new turn. In the initial years there was space and fund shortage. After shifting of the department to the present location the space problem reduced. Funds granted for development of the infrastructural facilities were inadequate. Moreover in Electronics and Communication Engineering the technology is progressing in such a brisk pace that to keep abreast new equipments need to be procured every three to five years. Regular inflow of funds were necessary to keep the labs equipped with, state of art technology, instruments.

The main obstacle in the steady growth of the department throughout its existence for the last seventeen years — is shortage of faculty. This has hindered the growth of the department.

Under all these constraints the department has developed facilities, which is imparting good training to the undergraduate students.

In the year September 2005, the AICTE has approved the Full Time Post Graduate Course (M. Tech. in Telecommunication Engineering) for an intake of 18 students. Tremendous advancement in Communication creating a shortage of trained personnel in this field. We having the basic infrastructural facility which can develop into a good postgraduate teaching department. After continuing this course for three to five years we aim at more specialized courses such as “VLSI Systems”, “Digital Communication”, “Microwave Communication” and “Fibre Optic Communication”.

The PC lab of the department has been upgraded with Pentium III Computers and PCB- fabrication lab has been developed.

For the development of DSP Lab an amount of Rs. 5.00 lakhs has been sanctioned. Utilizing this fund Four TMS320C5416 DSK kit, four TMS320C6711 DSK kit with code composer studio and four Pentium-IV based desktop PC has been procured for DSP lab. This would enable the students to get a practical understanding about digital signal processing. Faculty members, who desire to do research and development work in the specific fields can pursue with their endeavour. The B. E./B. Tech. and M. Tech. students uses these facilities for doing their final year project/thesis.

Number of faculty sanctioned for the department is fifteen. At present there are only eleven. Number of technical supporting staff sanctioned for the department is four but at present there are only two. Number of non-technical supporting staff sanctioned for the department is five out of which at present there are only two. Inadequacy of faculty strength as well as technical and non-technical supporting staff in the department is one of the major reasons for the growth of the department being stunted.

At present strength of technical staff is quite inadequate and all the technical staff members are overloaded.

The principal strength of the department is its well qualified faculty, technical staff and non-technical staff. They work together for the progress of the department.

The principal weakness of the department is in the lack of adequate number of faculty, supporting technical and non-technical staff.

ACADEMIC PROGRAMMES:

Title of Programme	Field of Specialization	Full time or part-time	Duration	Sanctioned strength	Year of starting	Date of Approval by AICTE
Under-graduate Programme	Electronics and Communication Engineering	Full Time	Four Year	33	1983-1984	
Post-graduate Programme	Telecommunication Engineering	Full Time	Two Year	18	2005-2006	19-09-2005
Research Programme	Nil					

**** Approval Letter No: 750-80 (GOVT)/Fast/ET/2000, dt 3/7/2000**

***** Approval Letter No: 750-80-105(E)/ET/95, September 19, 2005**

During the last two session 2004-2005 and 2005-2006 funds available under TEQIP was utilized to procure equipments and software for different laboratories of the department.

Major equipments that were purchased under TEQIP are:

Equipments Purchased under National Shopping – TEQIP PHASE-I

Sl. No.	Item	Supplier	No. Purchased	Make	Price per unit	Total Price in Rs.
1.	CRO – 25 MHz	M/S Aplab Ltd.	06	APLAB	15558.00	93348.00
2.	Digital Multimeter	M/S H. P. Industries	08	Rishabh Instruments	4290.00	34320.00
3.	Multi Output Power Supply	M/S Beta Engineers	10	ADROIT	5720.00	57200.00
4.	Frequency Counter	M/S Toshniwal Enterprises	02	APLAB	11918.40	23836.80
5.	Function Generator	M/S Aplab Ltd.	08	APLAB	33280.00	266240.00
6.	Component Development System	M/S H. P. Industries	11	PACIFIC	8580.00	94380.00
7.	Digital IC Tester	M/S Techno Scientific Co.	01	Mechatronics	26000.00	26000.00
8.	Analog IC Tester	M/S Techno Scientific Co.	01	Mechatronics	49920.00	49920.00
9.	Digital Storage Oscilloscope – 100 MHZ	M/S Aplab Ltd.	03	Aplab	74256.00	222768.00
10.	Digital Storage Oscilloscope – 150 MHZ	M/S Beta Engineers	02	Instek	53404.00	106808.00
11.	Arbitrary Function Generator	M/S Beta Engineers	02	Instek	60580.00	121160.00
12.	Spectrum Analyser	M/S Beta Engineers	01	Instek	389688.00	389688.00
13.	Universal Programmer	M/S Toshniwal Enterprises	01	B. K. Precision	51553.84	51553.84
Total:						1537222.64

Total price involved in all the above purchase is Rs. 1537222.64 (Rupees fifteen lakhs thirty seven thousand two hundred twenty two and paise sixty four only)

Equipments Purchased under National Shopping – TEQIP PHASE-II(a)

Sl. No.	Item	No. Purchased	Supplier	Make	Price per unit	Total Price in Rs.
1.	Curve Tracer	02	M/s. Scientific Mes-technik Pvt. Ltd.		69,160.00	138320.00
2.	Power Meter	02	M/s.Chopra Enterprise		12,150.00	24300.00
3.	Strain Gauge Trainer Kit	02	M/s. National Industrial Corpn.		6,739.00	13478.00
4.	LVDT Trainer Kit	02	M/s. Anshuman	Anshuman	7,207.00	14414.00
5.	RTD Trainer Kit	02	M/s. Mars Edpal Instruments Pvt. Ltd.	Mars Edpal	3,328.00	6656.00
6.	Thermocouple Trainer Kit	02	M/s. Mars Edpal Instruments Pvt. Ltd.	Mars Edpal	3,328.00	6656.00
7.	Water Level Measurement set up	02	M/s. Mars Edpal Instruments Pvt. Ltd.	Mars Edpal	7,488.00	14976.00
8.	Speed Measurement Module	02	M/s. Anshuman	Anshuman	7,207.00	14414.00
9.	Inductive Trainer Pick up	02	M/s. Anshuman	Anshuman	7,207.00	14414.00
10.	Capacitive Pick up	02	M/s. Bedare Electronics Pvt. Ltd.		3,848.00	7696.00
11.	Piezo Electric Module	02	M/s. Bedare Electronics Pvt. Ltd.		3,848.00	7696.00
12.	Hall Effect Sensor Module	02	M/s. Anshuman	Anshuman	7,203.00	14414.00
13.	Pressure Measurement Module using Strain Gauge	02	M/s. Anshuman	Anshuman	7,488.00	14976.00
14.	Torque Measurement Module	02	M/s. Anshuman	Anshuman	14,086.00	28172.00
15.	Temperature Sensor Module	02	M/s. Bedare Electronics Pvt. Ltd.		6,656.00	13312.00
16.	Displacement Measurement Module using Linear Potentiometer	02	M/s. Bedare Electronics Pvt. Ltd.		4,888.00	9776.00
17.	Set up for study of error analysis	02	M/s. Bedare Electronics Pvt. Ltd		4,888.00	9776.00
18.	Set up for Study of Noise	02	M/s. Anshuman	Anshuman	13,560.00	27120.00
19	PLC and its Software	02	M/s. Vi Microsystems Pvt. Ltd.		88,700.00	177400.00
Total:						557966.00

Total price involved in all the above purchase is Rs. 557966.00 (Rupees five lakhs fifty seven thousand nine hundred and sixty six only)

Equipments Purchased under National Shopping – TEQIP PHASE-II (b) - Retender

Sl. No.	Item	No. Purchased	Supplier	Make	Price per unit	Total Price in Rs.
1.	Digital Multimeter.	10	M/S Elmax Projects & Services	Rishabh Instruments	4472.00	44720.00
2.	R. F. Power Meter	01	M/S Agilent Technologies	Agilent	232112.40	232112.40
3 and	Universal VLSI Trainer/Proto Board. and	05 universal Kit and	M/S Trident Techlabs Pvt. Ltd.	Trident Techlabs	380000.00	380000.00
4.	VLSI Design Entry and Simulation Tool.	15 user Network License for Verilog simulation	M/S Trident Techlabs Pvt. Ltd.	ALDEC Inc. , USA		
5.	Kits for Advance Fiber Optic Communication Lab.	08	M/S Falcon Enterprises.	Falcon	130000.00	130000.00
6.	Fixed Frequency Antenna Training System.	11	M/S Falcon Enterprises.	Falcon	72800.00	72800.00
7.	Satellite Communication Training System.	01	M/S Falcon Enterprises.	Falcon	187200.00	187200.00
Total:						1046832.40

Total price involved in all the above purchase is Rs. 1046832.40 (Rupees ten lakhs forty six thousand eight hundred and thirty two only)

Note: Bundled offer for item no 3 and 4 is Rs. 380000.00 /- (Rupees three lakh eighty thousand only)