Part B

Back To Content Page

1 Vision, Mission and Programme Educational Objectives (100) **Total Marks : 100.00**

1.1 Vision and Mission (5) Total Marks : 5.00

1.1.1 State the Vision and Mission of the institute and department (1) Institute Marks : 1.00

(List and articulate the vision and mission statements of the institute and department)

Vision of University

To become a Centre of Excellence in the field of IT and related emerging areas in education, training and research comparable to the best in the world for producing professionals who shall be leaders in innovation, entrepreneurship, creativity and management.

Mission of University

- To develop as a benchmark University in emerging technologies;
- To provide state of the art teaching-learning process and a stimulating R&D environment; and
- To harness human capital for sustainable competitive edge and social relevance.

Vision of Department

To become a centre of excellence and to produce high quality, self motivated, creative and ethical engineers and technologists, contributing effectively to universal science and contemporary education.

Mission of Department

- To impart high quality engineering education and ethics to its students.
- To adopt the best pedagogical methods in order to maximize knowledge transfer.
- To have adequate mechanisms to enhance understanding of implementation of theoretical concepts in practical scenarios.
- To carry out high quality research leading to the creation and commercialization of Intellectual Property.
- To provide the best facilities, infrastructure, and environment to its students, researchers and faculty members, creating an ambience conducive for excellence in technical education and research.

1.1.2 Indicate how and where the Vision and Mission are published and disseminated (2) Institute Marks : 2.00

(Describe in which media (e.g. websites, curricula books) the vision and mission are published and how these are disseminated among stakeholders)

- Website,
- Student Orientation programmes

1.1.3 Mention the process for defining Vision and Mission of the department (2) Institute Marks : 2.00

Articulate the process involved in defining the vision and mission of the department from the vision and mission of the institute.)

Key steps in drawing up a Vision and Mission Statements are

- Drawing up of a draft statement in a Departmental meeting as a basis for further discussions.
- Preparing the final draft in a Board of Studies meeting.
- Sent for approval from the University Academic Council and Governing Body.

1.2 Programme Educational Objectives (15) Total Marks : 15.00

1.2.1 Describe the Programme Educational Objectives (PEOs) (2) Institute Marks : 2.00

(List and articulate the programme educational objectives of the programme under accreditation)

The Program Educational Objectives (PEOs) are as follows:

1. To produce graduates who would have developed a strong background in basic science and mathematics and ability to use these tools in their chosen fields of specialization.

2. To produce graduates who have the ability to demonstrate technical competence in the fields of electronics and communication engineering and develop solutions to the problems.

3. To produce graduates who would attain professional competence through life-long learning such as advanced degrees, professional registration, and other professional activities.
4. To produce graduates who function effectively in a multi-disciplinary environment and individually, within a global, societal, and environmental context.

5. To produce graduates who would be able to take individual responsibility and to work as a part of a team towards the fulfilment of both individual and organizational goals.

1.2.2 State how and where the PEOs are published and disseminated (2) Institute Marks : 2.00

(Describe in which media (e.g. websites, curricula books) the PEOs are published and how these are disseminated among stakeholders)

- Website,

- Student Orientation programmes

1.2.3 List the stakeholders of the programme (1) Institute Marks : 1.00

(List stakeholders of the programme under consideration for accreditation and articulate their relevance)

- Students
- Faculty
- Industry
- Research organisations
- Staff Members
- Parents
- Alumni
- Foundation members
- Advisory committees
- Community

1.2.4 State the process for establishing the PEOs (5) Institute Marks : 5.00

(Describe the process that periodically documents and demonstrates that the PEOs are based on the needs of the programme's various stakeholders.)

PEOs are documented and reviewed continually to keep in pace with the changes occurring globally in the field of Engineering and Technology.

Opinion of the stake holders is sought regarding the PEOs which are compiled and discussed in Department meeting analytically. The changes, if any are recommended for the consideration and approval of the various University bodies

1.2.5 Establish consistency of the PEOs with the Mission of the institute (5) Institute Marks : 5.00

(Describe how the Programme Educational Objectives are consistent with the Mission of the department.)

The Program Educational Objectives of ECE Program are consistent with the mission of the ECE department of JUIT, in contributing to the society through innovative and quality education; research and community service, and be responsive to global development and local challenges. The PEOs flow naturally from the missions of JUIT.

The consistency is realized through producing graduates with strong capability to comprehend the broad engineering context in physical phenomena as stated in the first objective. This capability enables the graduates to take a leading role in providing engineering solution required as stated in second objective. The capability also enables graduates to perform satisfactorily in pursuing graduate degrees in international level as stated in the third objective. These capabilities are also supported by professional and ethical character, and willingness and capability to pursue further knowledge, as indicated by the fourth and fifth objective.

Mission	PEO 1	PEO 2	PEO 3	PEO 4	PEO 5

Component					
Holistic development of students	x	x	x	x	x
Valued-centered teaching in professional specialization	x	x			x
Preparation or leadership roles			x	x	x
Environment of inclusiveness and cultural diversity		x	x	x	

1.3 Achievement of Programme Educational Objectives (30)

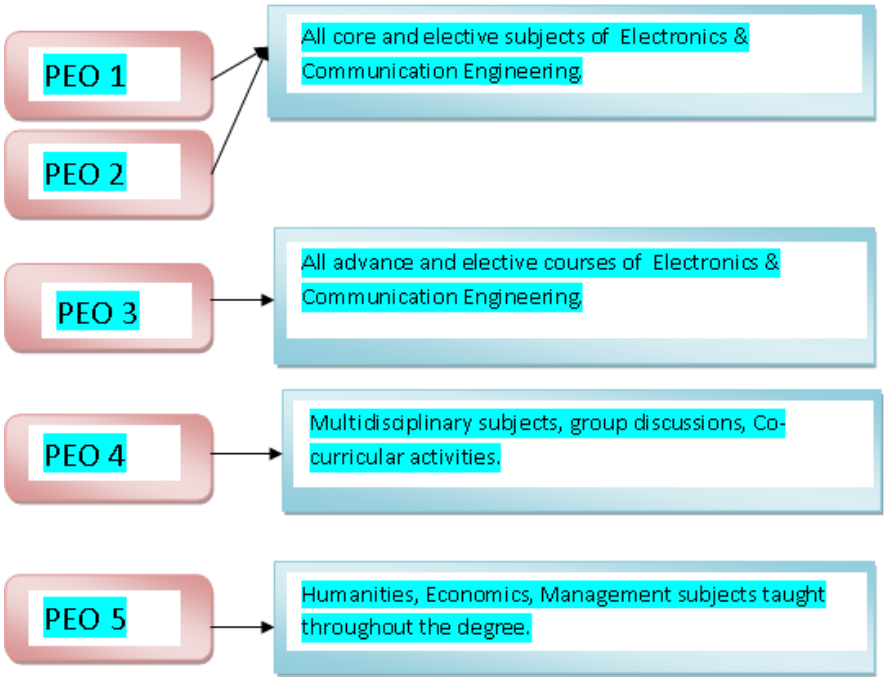
Total Marks : 30.00

1.3.1 Justify the academic factors involved in achievement of the PEOs (15)

Institute Marks : 15.00

(Describe the broad curricular components that contribute towards the attainment of the Programme Educational Objectives.)

The scheme developed for the programme and the curriculum laid down for every subject is designed in a way to achieve academic excellence and meet the requirements of stakeholders and all-in–all move towards the attainment of department as well as University Mission.



Curricular Components	PEO's
Core Engineering or Elective Subjects	1,2,3,4,5
Humanities and Social Sciences	4,5
Inter disciplinary subjects	1,2,4

1.3.2 Explain how administrative system helps in ensuring the Achievement of the PEOs (15) Institute Marks : 15.00

(Describe the committees and their functions, working process and related regulations.)

- Regular departmental meetings are held which is presided by HOD and all agenda of improvement of academics are discussed to achieve the PEOs.
- The **Student mentors** and **Project evaluation** committees are formed at the department level.
- Concerned faculty keep a check on the students not only in academic matters but also in their personal and emotional affairs.
- Committees are also formed at the University level to carry out important task and keep a check for the proper functioning of the University at all levels.
- **Board of Studies meets regularly and keep a vigilant eye on** course structure and incorporates the changes as and when required.

1.4 Assessment of the Achievement of Programme Educational Objectives (40) Total Marks : 40.00

1.4.1 Indicate tools and processes used in assessment of the attainment of the PEOs (10) Institute Marks : 10.00

Describe the assessment process that periodically documents and demonstrates the degree to which the Programme Educational Objectives are attained. Also include information on:

a) A listing and description of the assessment processes used to gather the data upon which the evaluation of each programme educational objective is based. Examples of data collection processes may include, but are not limited to, employer surveys, graduate surveys, focus groups, industrial advisory committee meetings, or other processes that are relevant and appropriate to the programme;

b) The frequency with which these assessment processes are carried out.

- Placement of the students
- Feedback from the employers
- Alumni Feedback
- In-house Assessments

The ECE Program Educational Objectives are determined and evaluated through a regular consultation and examination process that involves four core constituents: Students, Alumni, Industry, and Faculty.

- Student input is obtained through student feedback, interaction with Student Senate, exit interviews with graduating students, student evaluation forms, and individual faculty-student advisee interaction.
- Alumni input is obtained through regular meetings with alumni representatives, surveys with ECE department alumni, and exit surveys with graduating students.
- Faculty input is obtained through departmental committees, regular faculty meetings, and departmental retreats.

Student input and faculty input is taken on regular basis at the end of each semester and alumni input annually.

1.4.2 Give evidences for the attainment of the PEOs (30) Institute Marks : 30.00

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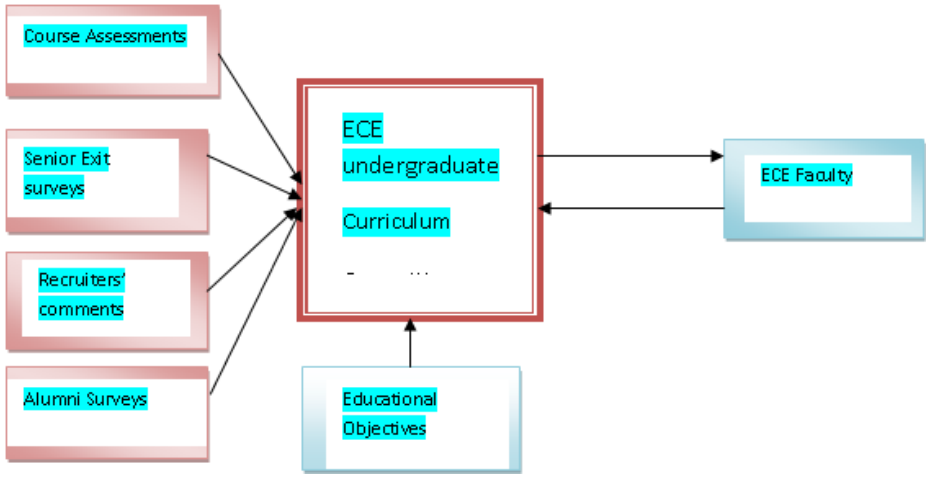
Attainment of each of the PEOs can be judged from the following:

1. Increase in pass percentage of students.
2. Percentage of students qualifying GRE, GATE, TOEFEL and other competitive exams is increasing.
3. Rise in the number of students going for PG programmes in reputed institutions in India and abroad.
4. Increase in number of placement per student and in better industries after the completion of the degree programme.
5. AIEEE (**JEE** (Mains))ranking for admissions going better.
6. Percentage of failures in different courses is reducing every year.



The performance of students during every semester is recorded by the coordinator and the University. The successive performance(semester by semester) in terms of CGP and SGP is worked out for each student and recorded by the University.

Information is also compiled each year by the University for number of placements as well as number of students taking admission to higher studies.

The result is maintained centrally in the main server as well as by the concerned course coordinator

1.5 Indicate how the PEOs have been redefining in the past (10) — Total Marks : 10.00

Institute Marks : 10.00

(Articulate with rationale how the results of the evaluation of PEOs have been used to review/redefine the PEOs)

Program Educational Objectives are established through the consultation process with stake holders of the program keeping the Graduate Attributes defined by NBA as basis. While framing the PEO's, Department Vision, Mission and University mission and vision are also kept in view. The PEO's are discussed in Department level meetings which are sent to BOS for discussion, which meet periodically. The BOS sends them further to The Academic Council with recommended changes. After amendments, they are sent to Governing Council for approval.

PEOs have not been revised yet.

2 Programme Outcomes (225) — Total Marks : 225.00

2.1 Definition and Validation of Course Outcomes and Programme Outcomes (30) — Total Marks : 30.00

2.1.1 List the Course Outcomes(COs) and Programme Outcomes (POs) (2) — Institute Marks : 2.00

(List the course outcomes of the courses in programme curriculum and programme outcomes of the programme under accreditation)

Programme Outcomes

Upon successful completion of the programme, the students would have the following attributes.

a. An ability to apply knowledge of mathematics, science, and engineering
b. Shall be able to employ necessary techniques, hardware and software tools for modern engineering applications.
c. Shall be able to solve problems through analytical thinking.
d. Shall be able to follow and contribute to the developments in their own field, within realistic constraints such as economic, social, ethical, environmental and sustainability.
e. Shall be able to communicate effectively.
f. Would have strong ethical and professional responsibility and adherence to quality.
g. Should recognize the need for and an ability to engage in life-long learning
h. Should have a knowledge of contemporary issues

Course Outcomes

The courses conducted in the programme are structured to satisfy the programme outcomes. The course outcomes are therefore specified as follows.

- Have a thorough understanding of the fundamental concepts and techniques in the various topics related to electronics and communication engineering.
- WHerever the course requires, the students should be having ability to use, software and hardware tools to solve engineering problems.
- The students should have indepth knowledge of the subject and should be able to apply the knowledge analytically.

10B11EC111	**ELECTRICAL CIRCUIT ANALYSIS**
Course Outcomes: After studying this course the students would gain enough knowledge to solve electrical circuits and network problems. The student shall be able to analyze simple electrical circuits using network analysis techniques, apply network theorems on DC and AC networks, determine the different parameters using two port network approaches and State the application of filter circuits and differentiate between filter circuits.	
10B11EC211	**BASIC ELECTRONIC DEVICES AND CIRCUITS**
Course Outcomes: Draw the V-I characteristics of electronic devices, such as PN-junction diode, Zener diode and BJT. Design simple rectifier circuits, voltage regulator circuits, clippers and clampers, amplifier. Use concept of feedback in amplifier to improve its performance. Use positive feedback to get a sinusoidal oscillator. Convert a number from one system to another. Use	

digital gates to realize a digital function.

10B11EC301	SIGNALS AND SYSTEMS

Course Outcomes:

Students should be able to identify signals and systems. Students should be able to solve various signals and systems related problems.

10B31EC311	ELECTRICAL MACHINE AND INSTRUMENTS

Course Outcomes:

Explain the principles and construction of D.C. machines, transformers, induction machines and synchronous machines. Analyze the equivalent circuit model of machines and transformers. Choose the type and size of an electrical machine depending on the nature of the load. Calculate the speed, torque, power, current and voltage in different parts of an electrical motor drive (consisting of mechanical load, electric machine and drive). Select and use suitable measurement instruments for an electric circuit.

10B11EC312	ANALOG ELECTRONICS

Course Outcomes:

After studying this course the students would gain enough knowledge to design and analyze single stage and multistage amplifiers using BJTs, FETs and OPAMPs. The objectives are to study the design and analysis of bias circuits for BJTs and FETs. Students will learn about application of BJT in Feedback amplifiers and Power amplifiers. They will be able to design oscillator circuits, multistage amplifiers, to study ‘r’ parameter and hybrid model for the analysis of amplifiers, cascade and cascode amplifiers. Study and detailed analysis of differential amplifiers, OPAMP, 555 Timer, Schmitt trigger, Analog to Digital converters is also a part of this course.

10B11EC401	DIGITAL ELECTRONICS

Course Outcomes:

After studying this course the students would gain enough knowledge to work with digital part. Digital techniques are useful because it is easier to get an electronic device to switch into one of a number of known states than to accurately reproduce a continuous range of values.

10B11EC411	SEMICONDUCTOR DEVICES

Course Outcomes:

The course will apply fundamental solid-state physics concepts to a specific material class, namely semiconductors. The course will focus on aspects of semiconductors such as silicon germanium and gallium arsenide; all of them have commercial relevance. Therefore, fundamental properties of semiconductors will be explored, as well as their device applications. After the completion of this course, student would gain enough knowledge of most fundamental aspects of semiconductor materials and mathematical formulation for understanding how advanced devices work.

10B11EC413	ANALOGUE COMMUNICATIONS

Course Outcomes: After studying this course the students would know how to represent various signals and transmit them, both at the baseband level and with modulation. They will be able to calculate the various powers, bandwidths and distortions in these processes.	
10B11EC511	**DIGITAL COMMUNICATIONS**
Course Outcomes: After studying this course the students would know how to represent various digital signals and transmit them, line coding and digital modulation. They will be able to calculate the various powers, bandwidths in these processes as well as multiplexing them and error control.	
10B11EC512	**DIGITAL SIGNAL PROCESSING**
Course Outcomes: After studying this course the students would gain enough knowledge about the Digital system. Analyze minimum phase, linear phase, and all-pass discrete-time systems, Program digital signal processors to perform DSP in real-time, Design filters using Matlab and exploit more sophisticated design tools in Matlab, Design linear phase FIR filters using windows and equiripple technique and design IIR filters from continuous-time filters.	
10B11EC513	**ELECTROMAGNETIC ENGINEERING**
Course Outcomes: The aim of this course is to familiarize the student to the concepts, calculations and pertaining to electric, magnetic and electromagnetic fields so that an in depth understanding of antennas, electronic devices, Waveguides is possible. By the end of the semester Students will be able to apply vector calculus to understand the behavior of static electric fields in standard configurations, they can apply vector calculus to understand the behavior of static magnetic fields in standard configurations. They will be able to describe and analyze electromagnetic wave propagation in free-space. They can also be able to describe and analyze transmission lines	
10B11EC514	**COMMUNICATION SYSTEMS**
Course Outcomes: After studying this subject, students will have basic knowledge of Analog and Digital Communication. Various analog techniques including their transmission and reception are analysed. Sampling and pulse code modulation, speech coding and line coding techniques are also included. At the end an overview of mobile communication is also introduced so that students become aware of the recent trends going in the field of communication.	
10B11WEC515	**THEORY AND APPLICATION OF CONTROL SYSTEMS**
Course Outcomes: After studying this course the students would able to evaluate the time and frequency response of a system. They can apply basic controllers to design a system.	
10B11EC611	**TELECOMMUNICATION NETWORKS**
Course Outcomes:	

Student should be able differentiate the requirement of various networks. They should be able to use different protocols for different networks.

10B11EC612	VLSI TECHNOLOGY AND APPLICATIONS

Course Outcomes:

With the help of this course, students will learn about the VLSI fundamentals, system design with HDL. They will also have the knowledge of design of various MOS circuits.

10B1WEC613	POWER ELECTRONICS

Course Outcomes:

With the help of this course the student will have an ability to understand basic operation of various power semiconductor devices. An ability to understand the behavior of semiconductor devices operated as power switches, understand, analyze and design thyristor-based rectifier circuits, thyristor-based DC/AC inverter circuit, thyristor-based AC/AC converter circuit.

10M11EC211	ADVANCED DIGITAL SIGNAL PROCESSING

Course Outcomes:

Review of transforms, Filter Structures and other concepts of DSP; Decimation, Interpolation, sampling rate conversion, Poly-phase Filter , application of Multi-rate. Review of random processes. Innovation representation of a stationary random process, Linear prediction, L-D Algorithm, Weiner Filters for Filtering and prediction. Spectrum estimation from finite-Duration Observation of Signals, Non-parametric and Parametric Methods of Spectrum Estimation, Filter bank methods, Eigen analysis algorithm for spectrum estimation. Fixed and Floating point DSPs , Need for DSP Processors, Architecture of DSP processor.

10M11EC212	ADVANCED WIRELESS AND MOBILE COMMUNICATIONS

Course Outcomes:

Upon completion of this course, the students would have developed

- An understanding of the requirements of modern wireless systems
- An understanding of key enabling technologies such as spread spectrum, Orthogonal Frequency Division Multiplexing (OFDM), MIMO and Adaptive Modulation and Coding
- An understanding of implementation of the key enabling techniques in commercial wireless systems such as UMTS, HSPA and LTE.
- An appreciation of evolving trends leading to a vision of future heterogeneous wireless communication systems

10MI1EC111	ADVANCED COMMUNICATION SYSTEMS

Course Outcomes:

This subject reviews the concept of probability and stochastic processes. Students will learn how to design and represent band pass signal. It also covers analytical concepts of digital communication. By reading this subject students are able to analyze digital modulation techniques and their reception. They would learn how to derive BER and PEP expressions. This

subject also focuses on deriving conditions for interference free communication.

10M11EC113	ADVANCED TELECOMMUNICATION NETWORKS

Course Outcomes: Upon completion of the course, the students would have developed

- An understanding of important communication protocols
- An understanding of core network communications
- An understanding of the transition towards an all IP network
- An understanding of the merger of telephony and computer networks and hence their protocols.

13B11WEC833	BIO ELECTRONICS SENSOR

Course Outcomes:

After studying this course the students would gain enough knowledge how to convert any biological components to electrical signal, how to read ECG signals, how to implement Fuzzy logic.

10M21EC224	CMOS DIGITAL DESIGN TECHNIQUES

Course Outcomes:

- Modeling and estimation of R, C, and L parasitics, effect of technology scaling, sheet resistance, techniques to cope with ohmic drop and capacitive cross talk, estimating RC delay, and inductive effects.
- Several lab team assignments to design actual VLSI subsystems from high level specifications, culminating in a course project involving the software design of a modest complexity chip.
- Several homework assignments based on core concepts and reinforcing analytical skills learned in class.

13B1WEC731	CMOS ANALOG CIRCUIT DESIGN

Course Outcomes:

After studying this course the students would gain enough knowledge to work with operational amplifiers. As now a day’s operational amplifiers are used everywhere. Furthermore in spite of voltage feedback they will study for current feedback. How op-amps be formed with the help of CMOS. What are the advantages of using current feedback (CMOS) instead of voltage feedback(BJT).

12B1WEC732	DIGITAL SYSTEM DESIGN

Course Outcomes:

After studying this course the students would an in-depth knowledge of the design of digital circuits and the use of Hardware Description Language in digital system design. This course introduces programmable implementation technologies, electronic design automation design flows, design considerations and constraints, digital system design examples and applications. Students should be able to learn the benefits and drawbacks of the various design methods for solving a problem. Through practical assignments, experience will be achieved from both using tools as well as designing their own system

10B1WEC734	FUNDAMENTALS OF DIGITAL IMAGE PROCESSING

Course Outcomes:

The main objective of this course is to give an idea about the fundamentals of digital image processing. Other objectives are to study various image processing techniques and their applications, various image enhancement and image restoration algorithms in spatial and frequency domain, various lossless and lossy image compression algorithms. After studying this course the students would gain enough knowledge of various image processing techniques and image compression algorithms.

11B1WEC731	**INTELLIGENT CONTROL SYSTEMS**

Course Outcomes:

After studying this course the students can apply the control theoretical approach to the complex system.

10M11EC213	**INFORMATION & CODING THEORY**

Course Outcomes:

Upon completion of the course, the students will be able to

- Define and apply the basic concepts of information theory (entropy, etc.).
- Differentiate between lossy and lossless data compression methods, and describe the most common such methods.
- Design an efficient data compression scheme for a given information source.
- Calculate the capacity of communication channels;
- Explain the impact of feedback and/or many senders or receivers on the communication problem.

10B13EC839	**LINUX AND ITS APPLICATIONS**

Course Outcomes:

After studying this course the students would gain enough knowledge to program in UNIX and work in Latex.

10B1WEC731	**MOBILE COMMUNICATION**

Course Outcomes:

- To distinguish 1G, 2G, 2.5G, 3G system and 4G for speed, multiplexing, quality.
- Student should learn GSM concepts e.g. architecture, handoff, channels etc.
- Understand 2.5G systems e.g. GPRS, HSCSD and EDGE
- To understand CDMA cellular communication concepts

13B1WEC832	**MODERN ANTENNAS**

Course Outcomes:

After study of this course, students will be able to understand the mechanism of antenna radiation and will be having the knowledge of antenna and array design and analysis of various antennas for specific application**.**

10B1WEC836	**NETWORK SYNTHESIS**

Course Outcomes: After studying this course the students would gain enough knowledge to synthesize the one port and two port network with the help of passive component, analyze minimum phase, liner phase, and all-pass systems and Synthesize using Foster and Cauer form.	
11B11WEC834	**OPTICAL COMMUNICATION SYSTEM**
Course Outcomes: To describe the working principle of optical fiber as well wireless optical communication systems.	
13B1WEC834	**QUANTUM EFFECTS IN SEMICONDUCTOR PHYSICS**
Course Outcomes: Students who complete the course will learn about the physics of semiconductors and their devices, including aspects of growth, transport and application of heterostructure and novel quantum phenomena. Importantly, the students will learn how to distill information from research articles and give scientific presentations. After completion of this course students would gain enough knowledge about Semiconductor heterostructures and quantum confinement, Electron transport in low dimensional structures and various growth and fabrication techniques of nanostructures.	
11B1WEC232	**SOFTWARE DEFINED RADIO**
Course Outcomes: After completion of this course the student would assimilate the concepts of different candidate architectures for SDRRF front ends and its implementation techniques along with the intricacies of the relevant concepts of communication techniques embedded with this core idea.	
13B1WEC831	**SOFT COMPUTING TECHNIQUES**
Course Outcomes: After studying this course the students will be able to describe, argue for and critique the Soft Computing discipline. Students will be able to use at least two of the Soft Computing techniques. Given an artificial intelligence project, a student will be able to: identify and select a suitable Soft Computing technology to solve the problem; and construct a solution and implement a Soft Computing solution.	
10M11EC114	**VLSI CIRCUITS AND SYSTEM DESIGN**
Course Outcomes: To gain enough knowledge to design any circuit using CMOS and write HDL code for any circuit. Synthesis of digital VLSI systems from register-transfer or higher level descriptions in hardware design languages. To be aware about the trends in semiconductor technology, and how it impacts scaling and performance.	

2.1.2 State how and where the POs are published and disseminated (3) Institute Marks : 3.00

(Describe in which media (e.g. websites, curricula books) the POs are published and how these are disseminated among stakeholders)

The PO's are published and disseminated through the University's website www.juit.ac.in

Apart from this, Program outcomes are made reachable to all the stakeholders of the program through education, student awareness workshops, student induction programs and faculty meetings.

2.1.3 Indicate processes employed for defining of the POs (5) Institute Marks : 5.00

(Describe the process that periodically documents and demonstrates that the POs are defined in alignment with the graduate attributes prescribed by the NBA.)

Program Outcomes are established through the consultation amongst the coordinators of the subjects. Then it is discussed in the faculty meeting keeping Department Vision, Mission and Program Educational Objectives as the prime basis. While setting Pos, Graduate Attributes defined by NBA are also kept in view.

The discussed and defined PO's are sent to BOS, further to the Academic Council which meets periodically. Further Governing Council approves them.

2.1.4 Indicate how the defined POs are aligned to the Graduate Attributes prescribed by the NBA (10) Institute Marks : 10.00

(Indicate how the POs defined for the programme are aligned with the Graduate Attributes of NBA as articulated in accreditation manual.)

- The POs are constrained so that they satisfy the requirements of undergraduate students.
- Graduates will be able to demonstrate knowledge of sufficient depth, The PO's are defined in such a way so that it demonstrate the following:
  - *Graduates will be able to communicate effectively*
  - *Graduates will be able to demonstrate a global perspective and intercultural competence in their professional lives.*
  - *Graduates will have developed competencies in Computer literacy*
  - *Graduates will be prepared for lifelong learning in pursuit of personal and professional development.*
  - *Graduates will be effective problem-solvers, capable of applying logical, critical and creative thinking to a range of problems.*
  - *Graduates will be encouraged to ethical action and social responsibility*

Sr. No.	Graduate Attributes of NBA	POs
1	Engineering Knowledge	a, b, c, d
2	Problem analysis	b,c
3	Design/development of solutions	b, c, g
4	Conduct investigations of complex problems	a, b, c, g
5	Modern tool usage	b,d,g
6	The engineer and Society	b,d,h
7	Environment and sustainability	f, h
8	Ethics	f,d,g
9	Individual and team work	e,f
10	Communication	e,f
11	Life-long learning	g,h

2.1.5 Establish the correlation between the POs and the PEOs (10) Institute Marks : 10.00

(Explain how the defined POs of the program correlate with the PEOs)

There is a strong correlation between the PO's and PEO's. Each PO contributes to the attainment of the PEO's. The POs defined take into consideration the educational objectives in terms of overall development of student.

PEO s	***PEO s***	**PROGRAM OUTCOMES(PO s)**
PEO-1	To produce graduates who would have developed a strong background in basic science and mathematics and ability to use these tools in their chosen fields of specialization.	a. An ability to apply knowledge of mathematics, science, and engineering
		b. Shall be able to employ necessary techniques, hardware and software tools for modern engineering applications
		c. Shall be able to solve problems through analytical thinking
PEO-2	To produce graduates who have the ability to demonstrate technical competence in the fields of electronics and communication engineering and develop solutions to the problems.	b. Shall be able to employ necessary techniques, hardware and software tools for modern engineering applications.
		c. Shall be able to solve problems through analytical thinking.
		d. Shall be able to follow and contribute to the developments in their own field, appreciating and recognizing the significance of lifelong learning
		e. Shall be able to follow and contribute to the developments in their own field, appreciating

		and recognizing the significance of lifelong learning.
PEO-3	To produce graduates who would attain professional competence through life-long learning such as advanced degrees, professional registration, and other professional activities.	g. Should recognize the need for and an ability to engage in life-long learning
		f. Would have strong ethical and professional responsibility and adherence to quality.
PEO-4	To produce graduates who function effectively in a multi-disciplinary environment and individually, within a global, societal, and environmental context.	d. Shall be able to follow and contribute to the developments in their own field, appreciating and recognizing the significance of lifelong learning.
		f. Shall be able to communicate effectively.
		h. Should have a knowledge of contemporary issues
PEO-5	To produce graduates who would be able to take individual responsibility and to work as a part of a team towards the fulfillment of both individual and organizational	g. Would have strong ethical and professional responsibility and adherence to quality.
		e. Shall be able to communicate effectively
		d) Shall be able to follow and contribute to the developments in their own field, appreciating and recognizing the significance of lifelong learning

POs	PEOs
a, b, c	1
b, c, d	2
e, g, f	3
d, f, h	4
d,e,g	5

2.2 Attainment of Programme Outcomes (40)

Total Marks : 40.00

2.2.1 Illustrate how course outcomes contribute to the POs (10)

Institute Marks : 10.00

(Provide the correlation between the course outcomes and the programme outcomes. The strength of the correlation may also be indicated)

The syllabus for each course is designed so that course outcome contributes to the attainment of PO's. Different courses emphasize on contribution to different PO's leading to eventual attainment of PO's upon successful completion of all courses and hence the programme. Each course has sufficient weightage to fundamental concepts, tools and techniques and emphasis on practical implementations. This provides a strong correlation between the course outcomes and programme outcomes, developing necessary skills in students, making them proficient engineers.

The linkage among program outcomes and course outcomes is shown in Table below, '*' indicates linkage. The course outcomes are thus directly and quantitatively assessed, and are tied to the program outcomes as shown in the course syllabi. Therefore if the course outcomes are met, the program outcomes are met.

S.No	Course Code	Course	a	b	c	d	e	f	g	h
1.	10B11PD111	Presentation and Communication Skills				*	*		*	
2.	10B11MA111	Mathematics-I	*							
3.	10B11PH111	Physics-I	*							
4.	10B11EC111	Electrical Circuit Analysis	*							

5.	10B11CI111	Introduction to Computers and Programming		*		*				
6.	10B11PD199	English (Audit course)					*			
7.	10B11PD211	Group and Cooperative Processes					*	*	*	
8.	10B11MA211	Discrete Mathematics	*							
9.	10B11PH211	Physics-II	*							
10.	10B11EC211	Basic Electronic Devices and Circuits	*							
11.	10B11CI211	Data Structures		*					*	
12.	10B11PD311	Managerial Economics						*		
13.	10B11MA201	Mathematics-II	*							
14.	10B11EC311	Electrical Machines and Instruments	*	*						
15.	10B11EC301	Signals and Systems	*	*	*					
16.	10B11EC312	Analogue Electronics	*	*						
17.	10B11PD411	Financial Management							*	*
18.	10B11MA411	Probability Theory and Random Processes			*	*				
19.	10B11EC411	Semiconductor Devices	*		*					
20.	10B11EC401	Digital Electronics	*	*	*					
21.	10B11EC412	Analogue Communications	*	*	*					
22.	10B11GE411	Environmental Studies							*	*
23.	10B11PD511	Social and Legal Issues					*	*	*	
24.	10B11EC511	Digital Communications	*	*	*	*				
25.	10B11EC512	Digital Signal Processing	*	*	*					
26.	10B11CI401	Microprocessors and Controllers	*	*	*	*				
27.	10B11EC513	Electromagnetic Engineering	*	*						

28.	10B11PD611	Project Management				*	*		*	
29.	10B11EC611	Telecommunication Networks	*	*		*				
30.	10B11EC612	VLSI Technology and Applications	*	*	*	*				
31.	10B11PH611	Material Sciences	*							
32.	10B11CI614	Object Oriented Systems and Programming	*	*		*				
33.	10M11EC211	Advanced Digital Signal Processing		*	*	*				
34.	10M11EC212	Advanced Wireless and Mobile Communications		*	*	*				
35.	13B11WEC833	Bio Electronics Sensor		*	*	*				
36.	10M21EC224	CMOS Digital Design Techniques		*	*	*				
37.	10M11EC213	Information & Coding Theory			*	*				
38.	10B1WEC836	Network Synthesis	*		*					
39.	13B1WEC832	Modern Antenna		*	*	*				
40.	13B1WEC834	Quantum Effects in Semiconductor Physics	*			*				
41.	10MI1EC111	Advanced Communication Systems			*	*				
42.	10M11EC113	Advanced Telecommunication Networks		*	*	*				
43.	12B1WEC732	Digital System Design	*		*					
44.	10B1WEC734	Fundamentals of Digital Image Processing	*							
45.	11B1WEC731	Intelligent Control Systems		*	*	*				
46.	10B13EC839	Linux and Its Applications		*	*	*			*	*
47.	10B1WEC731	Mobile Communication		*	*	*				
48.	11B11WEC834	Optical Communication System		*	*	*				
49.	11B1WEC232	Software defined radio		*	*					
50.	13B1WEC831	Soft computing techniques		*	*	*			*	
51.										

	10M11EC114	VLSI circuits and system design		*	*	*				
52.	11B1WHS835	Academic Writing				*	*		*	
53.	13 B1WHS833	Industrial Sociology						*	*	
54.	13 B1WHS832	International Business Management			*	*				*
55.	13B1WHS834	Internet Marketing	*					*		
56.	10B1WPD831	Leadership in Organizations				*	*		*	
57.	11B1WPD832	Strategic Management				*		*	*	
58.	07B81PD402	CONSUMER BEHAVIOR					*		*	
59.	10B1WPD732	Entrepreneurial Development					*		*	
60.	10B1WPD737	Financial Planning	*		*	*				*
61.	10B1WPD735	Human Resource Management				*			*	
62.	13B1WPD731	Intercultural Communication						*		
63.	07B81PD109	Total Quality Management				*		*	*	
64.	13B1WPD732	Business Environment				*		*	*	
65.	10B1WPD736	Contemporary Marketing Trends And Practices				*		*	*	*
66.	10B1WPD734	Principles of Management						*	*	

Strength of the correlation

S - Strongly correlated

C- Correlated

W- Weakly Correlated

S.No	Courses	Course Outcome	a	b	c	d	e	f	g	h
1	All Core courses, All basic Science Courses	Have a thorough understanding of the fundamental concepts and techniques in the various topics related to electronics and communication engineering	S	C	C	C	W			
2	Core and elective courses	Wherever the course requires, the students should be having ability to use software and hardware tools to solve engineering problems	S	S		W	W			
3	All core courses and elective courses	The students should have in depth knowledge of the subject and should be able to apply the knowledge analytically	S	C	S	W	W			
4	Advance Courses	Through practical assignments, experience will be achieved by the students and they will be able to learn the various design methods for solving a problem.	S	C	C	W	W	C		
5	Humanities Courses	Student should have strong ethical and professional responsibility.	W	W	C			S	S	S

2.2.2 Explain how modes of delivery of courses help in attainment of the POs (10) Institute Marks : 10.00

(Describe the different course delivery methods/modes (e.g. lecture interspersed with discussion, asynchronous mode of interaction, group discussion, project etc.) used to deliver the courses and justify the effectiveness of these methods for the attainment of the POs. This may be further justified using the indirect assessment methods such as course-end surveys.)

The courses are delivered as

- Lectures,
- Lecture with a quiz
- Tutorials,
- Assignments Group Discussion
- Presentations
- laboratory exercises
- Situational simulations
- eLearning: online materials : In addition to the syllabus mentioned in the curriculum, the students are exposed themselves as they are provided with the e-content through national and international portals such as:

· **NPTEL** http://nptel.iitm.ac.in

· **Stanford Engineering Everywhere (SEE)** http://see.stanford.edu/

· **MIT Open Courseware** http://ocw.mit.edu/index.htm

This ensures that students have hands on exercises to practice and substantiate the topics covered in the lectures. The tutorials emphasize on the use of mathematical and analytical tools to solve the problems related to the course. The laboratory exercises help the students understand and appreciate the challenges involved in practical implementations and also understand the engineering trade-offs to made while making practical implementations.

2.2.3 Indicate how assessment tools used to assess the impact of delivery of course/course content contribute towards the attainment of course outcomes/programme outcomes (10)

Institute Marks : 10.00

(Describe different types of course assessment and evaluation methods (both direct and indirect) in practice and their relevance towards the attainment of POs.)

Direct Assessment Tools

Assignment-The assignment is a qualitative performance assessment tool

designed to assess students knowledge of engineering practices, framework, and

problem solving.

Quiz - Multiple Choice Questions (MCQ) based examination system that provides an easy to use environment for both Test Conductors and Students appearing for Examination.

The *tutorial sessions* for the students provide a clear assessment of the delivery of course content. This is used by the faculty members to adapt their teaching methods and *adopt new pedagogy* which would best suit the needs of each batch of students. This ensures maximum knowledge transfer and hence maximizes the impact of the delivery of course content.

*Sessiona*l-This type of performance assessment is carried out during the examination sessions which are held once a semester. Each and every sessional is focused in attaining the course outcomes

Small research projects are given to students and evaluated, keeping them updated with the latest technical know-how.

The *examinations* further ensure that students attain the course outcomes and hence the program outcomes. Additionally, the examinations ensure that only those students who have attained the programme outcomes are actually awarded the programme certificate.

Indirect Assessment Tools

Program level statistics- At the end of every academic year annual report is developed where the statistics of students who have participated in professional bodies/student chapters/workshops/seminars/conferences/paper presentations /internships/industry visit etc.. is prepared. This statement is considered to indirectly assess the Pos.

Graduate/Exit Survey: during the program

Alumni Survey: after one year of graduation

Employer Survey: after one year of graduation

2.2.4 Indicate the extent to which the laboratory and project course work are contributing towards attainment of the POs (10) Institute Marks : 10.00

(Justify the balance between theory and practical for the attainment of the POs . Justify how the various project works (a sample of 20% best and average projects from total projects) carried as part of the programme curriculum contribute towards the attainment of the POs.)

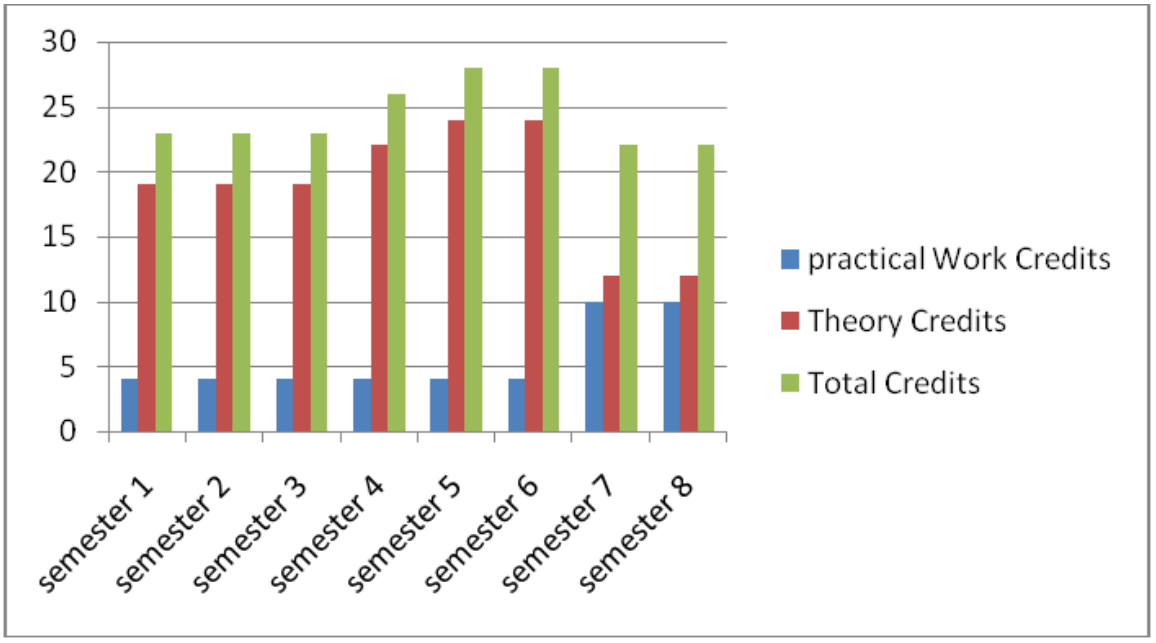
Some of the main programme outcomes are to develop the abilities to solve engineering problems and implement practical solutions.

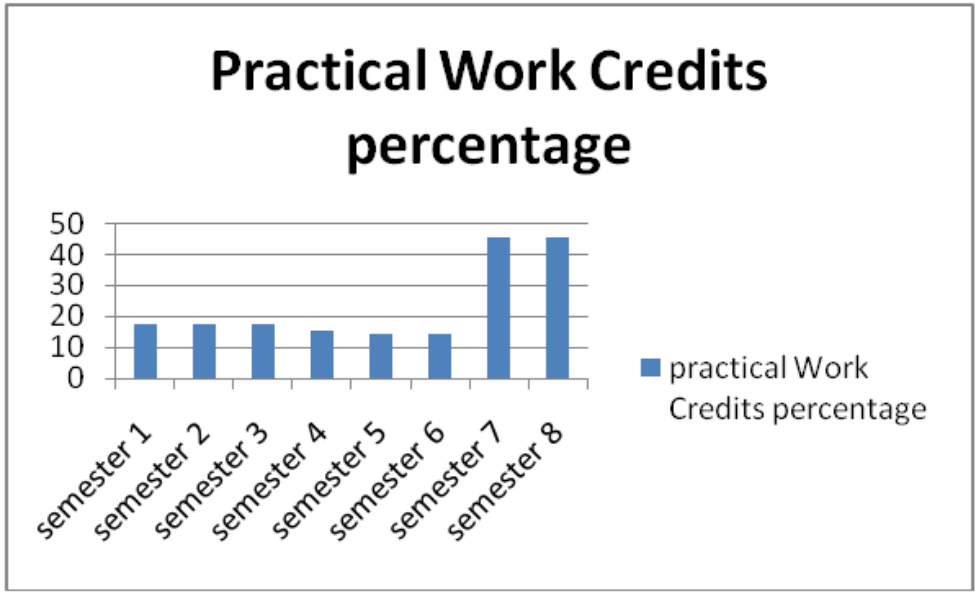
The laboratory course work provides students with the opportunity to apply their fundamental concepts learnt in theory classes, skills, tools, techniques and use various components and equipments for practical purposes.

This also develops their team-working skills and the ability to meet targets within strict deadlines.

The project course works allows the students to choose a specific area of their interest and develop a deep understanding of that topic, its implementation and application.

Further, the periodic presentations enhance their presentation and communication skills.


30
25
20
15
10
5
0
semester 1
semester 2
semester 3
semester 4
semester 5
semester 6
semester 7
semester 8
practical Work Credits
Theory Credits
Total Credits


Practical Work Credits percentage
50
40
30
20
10
0
semester 1
semester 2
semester 3
semester 4
semester 5
semester 6
semester 7
semester 8
practical Work Credits percentage

2.3 Assessment of the attainment of the Programme Outcomes (125) **Total Marks : 125.00**

2.3.1 Describe assessment tools and processes used for assessing the attainment of each PO (25) Institute Marks : 25.00

Describe the assessment process that periodically documents and demonstrates the degree to which the Programme Outcomes are attained. Also include information on:
a) A listing and description of the assessment processes used to gather the data upon which the evaluation of each the programme educational objective is based. Examples of data collection processes may include, but are not limited to, specific exam questions, student portfolios, internally developed assessment exams, senior project presentations, nationally-normed exams, oral exams, focus groups, industrial advisory committee;
b) The frequency with which these assessment processes are carried out.

The various tools for assessing the students

- Assignments,
- mini-projects,
- quizzes,
- examinations,
- presentations,
- reports and
- viva-voce are used for assessing the attainment of each PO.

Assignments, quizzes and examinations contribute to assessing the students' ability to use fundamental concepts, quantitative, numerical and analytical skills.

Laboratory exams, mini projects and projects contribute to the assessment of practical skills which reflect the ability of students to implement ideas and techniques.

Reports, oral presentation and viva-voce contribute to the assessment of overall communication skills and dissemination of ideas.

These assessments are carried out periodically and hence allow the faculty members to monitor and provide attention to the students who may not be attaining the PO's to the required level. This ensures that all students attain the minimum level of each programme outcomes

(a)

Tutorial questions ranging from basic to challenging problems are used to assess the fundamental concepts, numerical and analytical skills.

Assignments on specific topics which involve application of concepts to solve a wide range of problems are given frequently to the students.

Mini projects/practical assignments/ power point presentations are used to evaluate the students' ability to use various tools, equipments, components and software.

Participation and involvement in different clubs/societies such as IEEE Student Branch, Youth club, Lions club, technical fest and cultural fest to evaluate the curricular, co-curricular and extra-curricular activities and the abilities to work as a team in a professional environment.

Assessment of project work to ensure proficiency in the students' chosen field of interest and the tools necessary to practice that field.

Students are encouraged to appear for GATE, GRE, CAT etc. and scores of such exams are also used as secondary tools to evaluate attainment of PO's

(b) Tutorials are assessed weekly,

At least 5 assignments are taken each semester

One mini-project associated with each course.

Project presentation is taken thrice per semester in the presence of a project panel as well as weekly/bi-weekly meetings and discussion with the concerned project supervisor.

Every club/society has certain activity every month and annual technical and cultural fests are organised and actively participated.

Tool	**Frequency**	**PO**
Evaluation of theory subjects	Twice per semester	a,b,c,g
Quizzes	5-6 times per semester	a,b,c,g
Project Work	Presentations &Viva-voce: 2 times	a,b,c,d,h

Evaluation of Lab practices	Thrice per semester	a,b,c,d
Seminars	Twice	b,c,g
Assignments	5 assignments	a,b,c,e
Participation in various conferences, workshops and technical symposiums	Once a year	d,e,g,h
Industrial Visits	Once a year	d,f,g

2.3.2 Indicate results of Evaluation of each PO (100) Institute Marks : 100.00

c) The expected level of attainment for each of the program outcomes;
d) Summaries of the results of the evaluation processes and an analysis illustrating the extent to which each of the programme outcomes are attained; and
e) How the results are documented and maintained.

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The students expected to be reasonably proficient with each of the program outcomes

The achievement of program outcomes are assessed with the help of course outcomes of the relevant courses through different methods.

The final grading is based on mid-semester and final-semester and internal assessment.

The results are documented and maintained by the administrative office.

The results are displayed on web server so that the students and teir parents have an easy and all time access to the progress of the students.

2.4 Use of Evaluation results towards improvement of the programme (30) Total Marks : 30.00

2.4.1 Indicate how results of assessment used for curricular improvements (5) Institute Marks : 5.00

(Articulate with rationale the curricular improvements brought in after the review of the attainment of the POs)

The feedback obtained from interviewers and industry delegates who had either hired or interviewed our students was used to emphasize the importance of fundamental concepts, analytical thinking and practical scenarios in the curriculum.

The results of the evaluation are communicated to the entire department and a departmental meeting ensues to propose changes in the curriculum so that the attainments of PO’s are

maximized.

BOS reviews all the proposals put forward in the departmental meeting and finalizes and puts forward its recommendations to the Academic Council of the University.

The Academic Council then deliberates on the proposals put forward to Governing Council which gives approval and communicates the approved proposal back to the department for implementation.

2.4.2 Indicate how results of assessment used for improvement of course delivery and assessment (10) Institute Marks : 10.00

(Articulate with rationale the curricular delivery and assessment improvements brought in after the review of the attainment of the POs)

The results of evaluation are discussed in departmental meetings to develop new pedagogy and course delivery methods, assignment collection and evaluation.

Same is discussed in meetings of HoDs and Vice-Chancellor.

Different courses necessitate different course delivery/assessment methods and hence different methods are adopted for different courses.

2.4.3 State the process used for revising/redefining the POs (15) Institute Marks : 15.00

(Articulate with rationale how the results of the evaluation of the POs have been used to review/redefine the POs in line with the Graduate Attributes of the NBA.)

The Academic Council meets to review the results of the evaluation of PO's. Thereafter, the Academic council meets the staff and faculty members to discuss how the attainment of PO's can be improved and also how the PO's may be revised or redefined. This information is further used by the Governing Council to propose a final revised set of PO's

Some input is taken from external sources which include:

- Attendance at national and international conference permits interaction with colleagues and ample opportunity for discussions of trends in the discipline
- A regular seminar series in which speakers from academic and fields visit the department and spend the day in discussion with the faculty on wide range of topics.
- Library and individual subscription to journals and magazines that report on current events of relevance to the educational programme.
- Perusal and adaption of new text book in courses taught, and the consequent introduction of new topics to the courses.
- All faculty are actively engaged in research activity and gain awareness of trend.

3 Programme Curriculum (125) **Total Marks : 125.00**

3.1 Curriculum (20) Total Marks : 20.00

3.1.1 Describe the Structure of the Curriculum (5) Institute Marks : 5.00

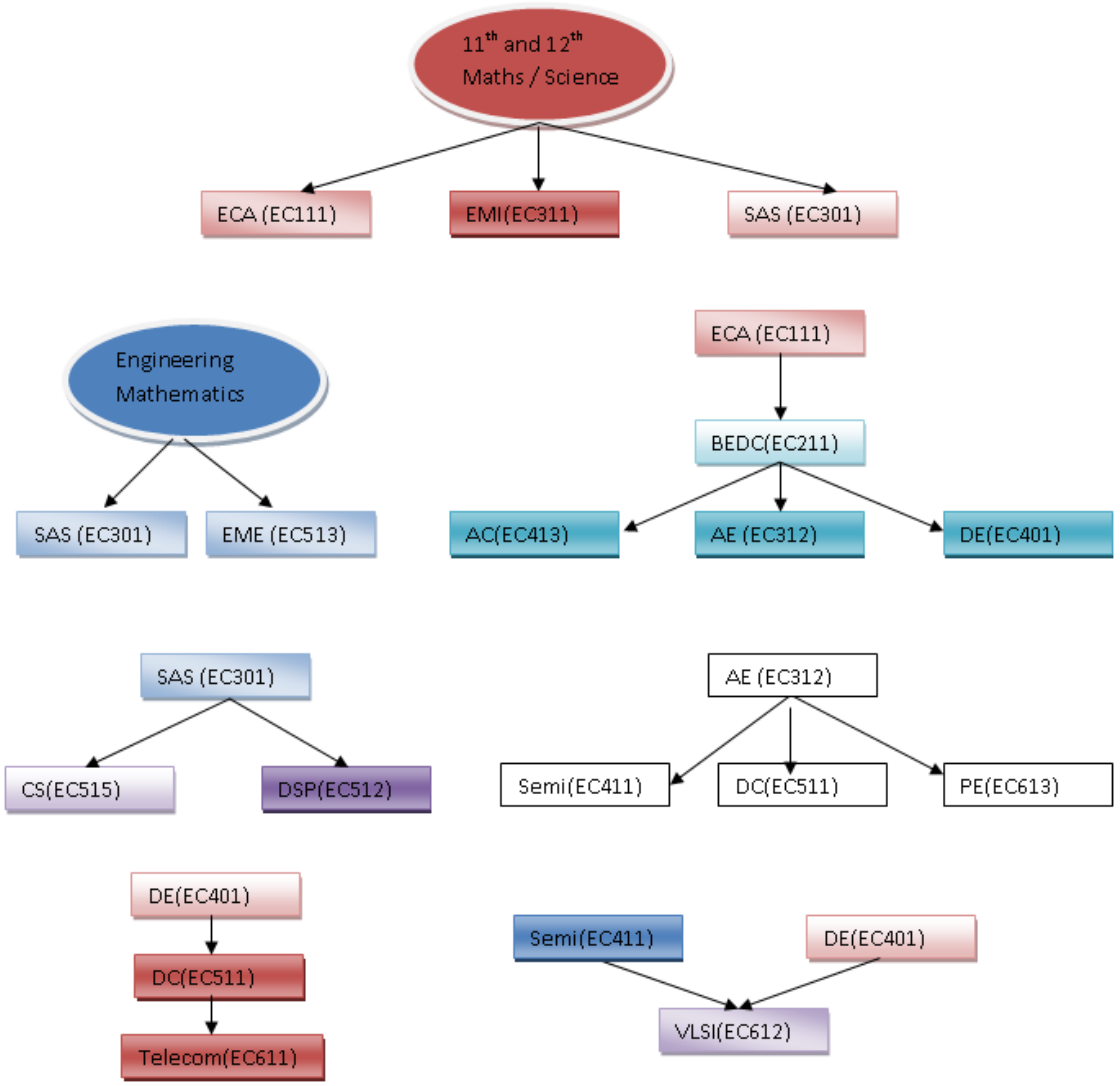
Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
10B11PD111	Presentation and Communication skill	3.00	0.00	0.00	3.00	3.00
10B11MA111	Mathematics-I	3.00	1.00	0.00	4.00	4.00
10B11PH111	Physics-I	3.00	1.00	0.00	4.00	4.00
10B11EC111	Electrical Circuit Analysis	3.00	1.00	0.00	4.00	4.00
10B11CI111	Introduction to Computers and Programming	3.00	1.00	0.00	4.00	4.00
10B17PH171	Physics Lab-I	0.00	0.00	2.00	2.00	1.00
10B17EC171	Electrical Circuits Lab	0.00	0.00	2.00	2.00	1.00
10B17CI171	Computer programming Lab	0.00	0.00	4.00	4.00	2.00
10B11PD211	Group and Cooperative Processes	3.00	0.00	0.00	3.00	3.00
10B11MA201	Discrete Mathematics	3.00	1.00	0.00	4.00	4.00
10B11PH212	Physics - II	3.00	1.00	0.00	4.00	4.00
10B11EC211	Basic electronics Devices and Circuits	3.00	1.00	0.00	4.00	4.00
10B11CI211	Data Structures	3.00	1.00	0.00	4.00	4.00
10B17EC271	Basic Electronics Lab	0.00	0.00	2.00	2.00	1.00
10B17CI271	Data Structures and Computer programming Lab	0.00	0.00	4.00	4.00	2.00
10B17PH1271	Physics Lab - II	0.00	0.00	1.00	1.00	1.00
10B11GE411	Environmental Studies	3.00	0.00	0.00	3.00	3.00
10B11PD311	Managerial Economics	3.00	0.00	0.00	3.00	3.00
10B11MA201	Mathematics-II	3.00	1.00	0.00	4.00	4.00
10B11EC313	Analog Electronics	3.00	1.00	0.00	4.00	4.00
10B17EC373	Analog Electronics Lab	0.00	0.00	2.00	2.00	1.00
10B11EC301	Signals and Systems	3.00	1.00	0.00	4.00	4.00
10B17EC372	Signals and Systems Lab	0.00	0.00	2.00	2.00	1.00
10B17EC311	Electrical Machines & Inst	3.00	1.00	0.00	4.00	4.00
10B17EC371	Electrical Machines & Inst Lab	0.00	0.00	2.00	2.00	1.00
10B28CI408	Multimedia Development Lab-I	0.00	0.00	2.00	2.00	1.00
10B11PD411	Financial Management	3.00	0.00	0.00	3.00	3.00
10B11MA411	Probability Theory and Random Processes	3.00	1.00	0.00	4.00	4.00
10B11EC411	Semiconductor Device	3.00	1.00	0.00	4.00	4.00

10B11EC401	Digital Electronics	3.00	1.00	0.00	4.00	4.00
10B11EC412	Analog Communication	3.00	1.00	0.00	4.00	4.00
10B17EC471	Devices and Circuit simulation Lab	0.00	0.00	2.00	2.00	1.00
10B17EC407	Digital Electronics Lab	0.00	0.00	2.00	2.00	1.00
10B17EC472	Analogue Communications Lab	0.00	0.00	2.00	2.00	1.00
10B17CI307	Unix Programming Lab	0.00	0.00	2.00	2.00	1.00
10B11PD511	Social and Legal Issues	3.00	0.00	0.00	3.00	3.00
10B11EC511	Digital Communications	3.00	1.00	0.00	4.00	4.00
10B11EC512	Digital Signal Processing	3.00	1.00	0.00	4.00	4.00
10B11CI401	Microprocessors and Controllers	3.00	1.00	0.00	4.00	4.00
10B11EC513	Electromagnetic Engineering	3.00	1.00	0.00	4.00	4.00
10B17EC571	Digital Communications Lab	0.00	0.00	2.00	2.00	1.00
10B17EC572	Digital Signal Processing Lab	0.00	0.00	2.00	2.00	1.00
10B17CI407	Microprocessors and Controllers Lab	0.00	0.00	2.00	2.00	1.00
10B17EC573	Electromagnetics Lab	0.00	0.00	2.00	2.00	1.00
10B1WEC515	Theory and Application of Control systems	3.00	1.00	0.00	4.00	4.00
10B1WEC575	Theory and Application of Control systems Lab	0.00	0.00	2.00	2.00	1.00
10B11PD611	Project Management	3.00	0.00	0.00	3.00	3.00
10B11EC611	Telecommunication Networks3	3.00	1.00	0.00	4.00	4.00
10B11EC612	VLSI Technology and Applications	3.00	1.00	0.00	4.00	4.00
10B11PH611	Material Sciences	3.00	1.00	0.00	4.00	4.00
10B11CI614	Object Oriented Systems and Programming	3.00	1.00	0.00	4.00	4.00
10B17EC671	Telecommunication Networks Lab	0.00	0.00	2.00	2.00	1.00
10B17EC672	VLSI Lab	0.00	0.00	2.00	2.00	1.00
10B17CI674	Object Oriented Systems and Programming Lab	0.00	0.00	4.00	4.00	2.00
10B17CI674	Power Electronics	3.00	1.00	0.00	4.00	4.00
11B1WEC671	Power Electronics Lab	0.00	0.00	2.00	2.00	1.00
###	HSS Elective-I	3.00	0.00	0.00	3.00	3.00
###	Elective - I	3.00	0.00	0.00	3.00	3.00
###	Elective - II	3.00	0.00	0.00	3.00	3.00
###	Elective - III	3.00	0.00	0.00	3.00	3.00
10B11EC791	Project Part I	0.00	0.00	20.00	20.00	10.00

###	HSS Elective-II	3.00	0.00	0.00	3.00	3.00
###	Elective - IV	3.00	0.00	0.00	3.00	3.00
###	Elective - V	3.00	0.00	0.00	3.00	3.00
###	Elective - VI	3.00	0.00	0.00	3.00	3.00
10B19EC891	Project Part II	0.00	0.00	20.00	20.00	10.00
Total		123.00	26.00	91.00	240.00	195.00

3.1.2 Give the Prerequisite flow chart of courses (5) Institute Marks : 5.00

(Draw the schematic of the prerequisites of the courses in the curriculum)



Bachlor of Technology in Electronics & Communicatin Engineering

FIRST SEMESTER			SECOND SEMESTER		
Course Code	**Course Title**	**Credits**	**Course Code**	**Course Title**	**Credits**
Group and					

10B11PD111	Presentation and Communication Skills	3	10B11PD211	Cooperative Processes	3
10B11MA111	Mathematics-I	4	10B11MA211	Discrete Mathematics	4
10B11PH111	Physics-I	4	10B11PH211	Physics-II	4
10B11EC111	Electrical Circuit Analysis	4	10B11EC211	Basic Electronic Devices and Circuits	4
10B11CI111	Introduction to Computers and Programming	4	10B11CI211	Data Structures	4
10B17PH171	Physics Lab-I	1	10B17PH271	Physics Lab-II	1
10B17EC171	Electrical Circuits Lab	1	10B17EC271	Basic Electronics Lab	1
10B17CI171	Computer Programming Lab	2	10B17CI271	Data Structures and Computer Programming Lab	2
		23			23

THIRD SEMESTER

Course Code	Course Title	Credits
10B11PD311	Managerial Economics	3
10B11MA201	Mathematics-II	4
10B11EC311	Electrical Machines and Instruments	4
10B11EC301	Signals and Systems	4
10B11EC312	Analogue Electronics	4
10B17EC371	Electrical Machines and Instruments Lab	1
10B17EC307	Signals and Systems Lab	1
10B17EC372	Analogue Electronics Lab	1
10B28CI408	Multimedia Development Lab I	1

FOURTH SEMESTER

Course Code	Course Title	Credits
10B11PD411	Financial Management	3
10B11MA411	Probability Theory and Random Processes	4
10B11EC411	Semiconductor Devices	4
10B11EC401	Digital Electronics	4
10B11EC412	Analogue Communications	4
10B11GE411	Environmental Studies	3
10B17EC471	Devices and Circuit simulation Lab	1
10B17EC407	Digital Electronics Lab	1
10B17EC472	Analogue Communications Lab	1
10B17CI307	Unix Programming Lab	1
		26

FIFTH SEMESTER

Course Code	Course Title	Credits
10B11PD511	Social and Legal Issues	3
10B11EC511	Digital Communications	4
10B11EC512	Digital Signal Processing	4
10B11CI401	Microprocessors and Controllers	4
10B11EC513	Electromagnetic Engineering	4
10B17EC571	Digital Communications Lab	1
10B17EC572	Digital Signal Processing Lab	1
10B17CI407	Microprocessors and Controllers Lab	1
10B17EC573	Electromagnetics Lab	1
10B1WEC515	Theory And Application of Control Systems	4
10B1WEC575	Theory And Application of Control Systems	1
		28

SIXTH SEMESTER

Course Code	Course Title	Credits
10B11PD611	Project Management	3
10B11EC611	Telecommunication Networks	4
10B11EC612	VLSI Technology and Applications	4
10B11PH611	Material Sciences	4
10B11CI614	Object Oriented Systems and Programming	4
10B17EC671	Telecommunication Networks Lab	1
10B17EC672	VLSI Lab	1
10B17CI674	Object Oriented Systems and Programming Lab	2
10B19GE698	Industrial Training	0
11B1WEC611	Power Electronics	4
11B1WEC611	Power Electronics Lab	1
		28

SEVENTH SEMESTER

Course Code	Course Title	Credits
	PD Elective-I	3
	DE-I	3
	DE-II	3
	DE-III	3
10B11EC791	Project Part I	10
		22

EIGHTH SEMESTER

Course Code	Course Title	Credits
	PD Elective-II	3
	DE-IV	3
	DE-V	3
	DE-VI	3
10B19EC891	Project Part II	10
		22

Elective Subjects For 7th SEMESTER

Elective Subjects For 8th SEMESTER

10M11EC211	Advanced Digital Signal Processing	10MI1EC111	Advanced Communication Systems
10M11EC212	Advanced Wireless and Mobile Communications	10M11EC113	Advanced Telecommunication Networks
13B11WEC833	Bio Electronics Sensor	12B1WEC732	Digital System Design
10M21EC224	CMOS Digital Design Techniques	10B1WEC734	Fundamentals of Digital Image Processing
10M11EC213	Information & Coding Theory	11B1WEC731	Intelligent Control Systems
10B1WEC836	Network Synthesis	10B13EC839	Linux and Its Applications
13B1WEC832	Modern Antenna	10B1WEC731	Mobile Communication
13B1WEC834	Quantum Effects in Semiconductor Physics	11B11WEC834	Optical Communication System
12M1WEC232	Real Time Embedded Systems	13B1WEC831	Soft Computing Techniques
11B1WEC232	Software Defined Radio	10M11EC114	VLSI Circuits and System Design
		13B1WEC731	CMOS Analog Circuit Design

Elective Subjects For PD

11B1WHS835	Academic Writing
13 B1WHS833	Industrial Sociology
13 B1WHS832	International Business Management
13B1WHS834	Internet Marketing
10B1WPD831	Leadership in Organizations
11B1WPD832	Strategic Management
07B81PD402	Consumer behavior

Total Credit 195

(Justify how the programme curriculum satisfies the program specific criteria specified by the American professional societies relevant to the programme under accreditation)

The scheme, number of courses, contents of the courses are all designed to cater the requirement of the students. Besides imparting the basics of the engineering and developing a strong base, the in depth knowledge of every subject is imparted to them.

The curriculum is designed keeping PEO s and POs of the degree program as the basis. Starting from basic sciences, moving to engineering fundamentals and reaching the advance courses is the framework of the curriculum. The curriculum comprise of many advance courses as electives, state of art subjects and based on the demand of industry. The educational tours to the projects' sites and practical training in the Industry form an essential component of the curriculum.

The main objective is not only educational upliftment but the overall development of the students in whole.

Faculty is recruited from all the fields of Electronics & Communication and teir expertise is utilized to the fullest for the students benefit. Every faculty keeps oneself updated to the latest technology and is involved in modifying the syllabus of the subject as per requirement. All this becomes feasible with the full support of University management.

3.2 State the components of the curriculum and their relevance to the POs and the PEOs (15)

Total Marks : 15.00

Institute Marks : 15.00

Programme curriculum grouping based on different components

Course Component	Curriculum Content (% of total number of credits of the programme)	Total number of contact hours	Total Number of credits	POs	PEOs
Mathematics	8.24	16.00	16.00	a, b, c	1. 2
Science	7.18	16.00	14.00	a, b, c	1. 2
Computing	12.82	34.00	25.00	b, c, g	2, 3
Humanities	12.37	24.00	24.00	d, e, g, h	4, 5
Professional core	51.79	120.00	101.00	a, b, c, d, g	1, 2, 3
Advance & Electives	7.7	15.00	15.00	b, c, f, g	1, 2, 3

3.3 State core engineering subjects and their relevance to Programme Outcomes including design experience (60)

Total Marks : 60.00

Institute Marks : 60.00

Course Code	Course	a	b	c	d	e	f	g	h
10B11EC111	Electrical Circuit Analysis	*							
10B11EC211	Basic Electronic Devices and Circuits	*							
10B11EC311	Electrical Machines and Instruments	*	*						
10B11EC301	Signals and Systems	*	*	*					
10B11EC312	Analogue Electronics	*	*						
10B11EC411	Semiconductor Devices	*		*					
10B11EC401	Digital Electronics	*	*	*					
10B11EC412	Analogue Communications	*	*	*					
10B11EC511	Digital Communications	*	*	*	*				
10B11EC512	Digital Signal Processing	*	*	*					
10B11CI401	Microprocessors and Controllers	*	*	*	*				
10B11EC513	Electromagnetic Engineering	*	*						
10B11EC611	Telecommunication Networks	*	*		*				
10B11EC612	VLSI Technology and Applications	*	*	*	*				
10B11CI614	Object Oriented Systems and Programming	*	*		*			*	
10M11EC211	Advanced Digital Signal Processing		*	*	*				*
10M11EC212	Advanced Wireless and Mobile Communications		*	*	*				*
13B11WEC833	Bio Electronics Sensor		*	*	*				*
10M21EC224	CMOS Digital Design Techniques		*	*	*				
10M11EC213	Information & Coding Theory			*	*				
10B1WEC836	Network Synthesis	*		*					
13B1WEC832	Modern Antenna		*	*	*				
13B1WEC834	Quantum Effects in Semiconductor Physics	*			*				
10MI1EC111	Advanced Communication Systems			*	*				
10M11EC113	Advanced Telecommunication Networks		*	*	*				

3.4 Industry interaction/internship (10)

Total Marks : 10.00

Institute Marks : 10.00

(Give the details of industry involvement in the programme such as industry-attached laboratories and partial delivery of courses and internship opportunities for students)

University provides minimum of 6 weeks of industrial training in the form of summer internship after their sixth semester during its 4 year curriculum. Students have to pursue a detailed project in the specific company in his field of interest.

The project enables the student to understand the business process and makes them ready for the corporate careers ahead. This project work is supplemented by literature survey and library research. Students are also encouraged to participate in industrial orientation programme from time to time. Students are trained in such a environment that they don't face any problem of

adaptation during their internship or training period.

The elective subjects floated to the students in the seventh and eighth semester of final year are designed keeping in mind the requirements from the industry. The curriculum of these subjects is prepared after consulting with the various industries and organizations, so that students and industry can be benefitted.

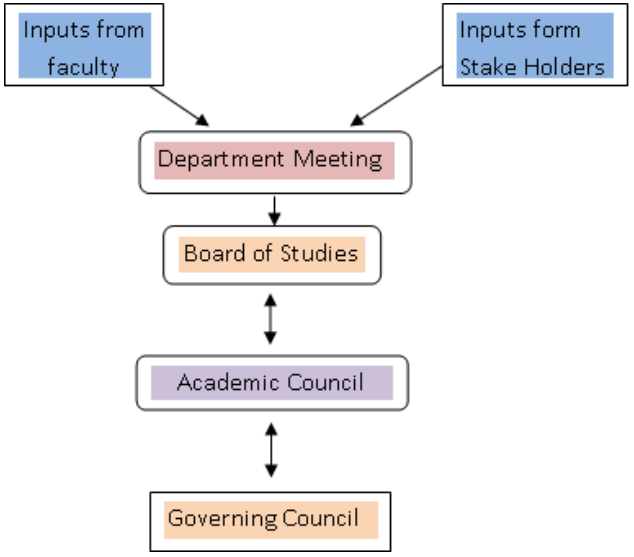
University has signed a memorandum of understanding (MOUs) with various major organizations like Infosys, Accenture, Wipro, HCL, and IBM etc. for the summer and winter internship to the students.

3.5 Curriculum Development (15) **Total Marks : 15.00**

3.5.1 State the process for designing the programme curriculum (5) Institute Marks : 5.00

(Describe the process that periodically documents and demonstrates how the programme curriculum is evolved considering the PEOs and the POs)

The curriculum in Electronics and Communication Engineering lays great emphasis on deep understanding of fundamental principles and state-of-the-art knowledge of electronic. The curriculum is updated and changes are incorporated on the recommendation of the faculty teaching the courses. Several new electives courses are introduced in B Tech and M Tech Programmes based on the current technology evolution.



The procedure involves the meeting of the BOS where the proposed structure and changes are discussed considering the Programme Objectives. Once finalized, curriculum and scheme is sent to Academic Council for the recommendations and then to Governing Council for approval.

3.5.2 Illustrate the measures and processes used to improve courses and curriculum (10) Institute Marks : 10.00

(Articulate the process involved in identifying the requirements for improvements in courses and curriculum and provide the evidence of continuous improvement of courses and curriculum)

Following is the process in identifying the requirements for improvements in the Curriculum:

- At the end of the semester, the feedback is taken from the students regarding the course contents along with the teaching of the course.
- Certain focus groups are formed within the class to get the continuous feedback.
- Based on these feedback and discussion amongst the department and faculty's own viewpoint, certain changes in the curriculum are proposed.
- These are put forth to the high level committees at the departmental and university level.
- Changes - are forwarded to BOS for discussion and recommendations

Based on identified changes in terms of courses, data on future, current industry need, program outcomes, program educational objectives, the administrative bodies like BOS and Academic Council take appropriate action to revise the curriculum.

3.6 Course Syllabi (5)

Total Marks : 5.00

Institute Marks : 5.00

(Include, in appendix, a syllabus for each course used. Syllabi format should be consistent and shouldn't exceed two pages.)
The syllabi format may include:

- Department, course number, and title of course
- Designation as a required or elective course
- Pre-requisites
- Contact hours and type of course (lecture, tutorial, seminar, project etc.,.)
- Course Assessment methods(both continuous and semester-end assessment)
- Course outcomes
- Topics covered
- Text books, and/or reference material

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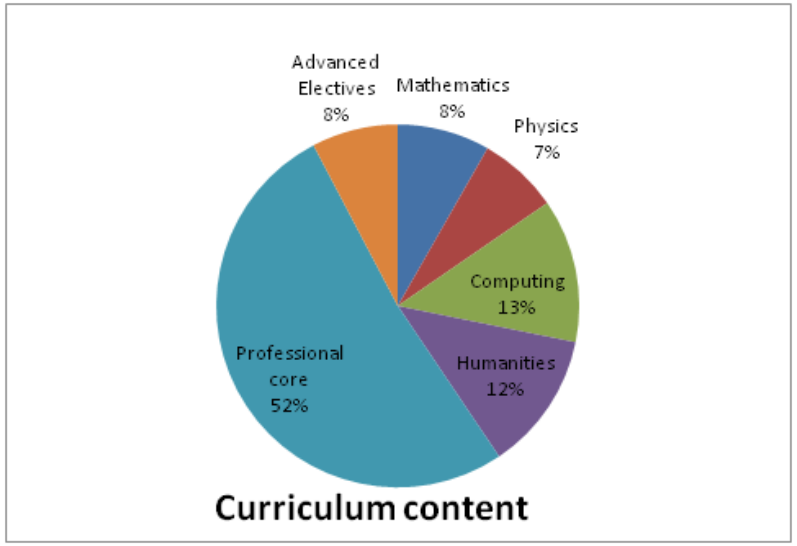
Student admitted to the 4 year Under graduate degree (B. Tech) program in Electronics & Communication Engineering stream has to earn 195 credits to get the degree at the end of four years.

The scheme and the curriculum designed for the course incorporates the basic courses, advance courses, interdisciplinary courses, management courses and few contemporary courses. The contents of the courses cater to the needs of present day technology and industry. All the courses are conducted in the form of Lecture classes and some of them are complemented with tutorial classes and lab classes.

Every course has been allotted credits, for lectures, tutorial and labs and every student registered for that subject has to earn all the credits exclusively.



4 Students' Performance (75) **Total Marks : 62.85**

Admission intake in the programme

Item	2013-2014	2012-2013	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008
Sanctioned intake strength in the programme	120	120	120	120	120	150	150
Total number of admitted students in first year minus number of students migrated to other programmes at the end of 1st year (N1)	104	115	113	127	112	128	148
Number of admitted students in 2nd year in the same batch via lateral entry (N2)	0	0	0	0	0	0	0
Total number of admitted students in the programme N = (N1 + N2)	104	115	113	127	112	128	148

4.1 Success Rate (20) **Total Marks : 18.20**

Institute Marks : 18.20

Provide data for the past seven batches of students

Year of entry (in reverse chronological order)	Number of Students admitted in 1st year + admitted via lateral entry in 2nd year (N1 + N2)	Number of students who have successfully completed			
		1st year	2nd year	3rd year	4th year
2013-2014	104	0	0	0	0
2012-2013	115	106	0	0	0

2011-2012	113	78	99	0	0
2010-2011	127	102	96	109	0
2009-2010 (LYG)	112	101	90	91	99
2008-2009 (LYGm1)	128	106	116	115	117
2007-2008 (LYGm2)	148	129	122	135	139

Success rate = 20 × mean of success index (SI) for past three batches
SI = (Number of students who graduated from the programme in the stipulated period of

course duration)/(Number of students admitted in the first year of that batch

and admitted in 2nd year via lateral entry)

Item	LYG (2009-2010)	LYGm1 (2008-2009)	LYGm2 (2007-2008)
Number of students admitted in the corresponding First Year + admitted via lateral entry in 2nd year	112.00	128.00	148.00
Number of students who have graduated in the stipulated period	99.00	117.00	139.00
Success index (SI)	0.88	0.91	0.94

Average SI 0.91
Success rate 18.20

4.2 Academic Performance (20)

Total Marks : 13.70

Institute Marks : 13.70

Academic Performance = 2 * API
Where API = Academic Performance Index
= Mean of Cumulative Grade Point Average of all successful
Students on a 10 point CGPA System
OR
= Mean of the percentage of marks of all successful students / 10

Item Approximating the API by the following mid-point analysis	2009-2010	2008-2009	2007-2008
9 < Number of students with CGPA < 10	5.00	2.00	1.00
8 < Number of students with CGPA < 9	7.00	12.00	16.00
7 <= 8	29.00	43.00	40.00
6 <= 7	31.00	40.00	48.00
5 <= 6	27.00	20.00	34.00
Total	99.00	117.00	139.00
Approximating API By Mid-CGPA	0.00	0.00	0.00
Mean of CGPA/Percentage of all the students API	6.81	6.95	6.79
Assessment	13.62	13.90	13.58

Average assessment points 13.70

4.3 Placement and Higher Studies (20)

Total Marks : 15.95

Institute Marks : 15.95

Item	LYG 2009-2010	LYGm1 2008-2009	LYGm2 2007-2008
Number of admitted students corresponding to LYG including lateral entry (N)	112.00	128.00	148.00
Number of students who obtained jobs as per the record of placement office (x1)	40.00	101.00	120.00
Number of students who found employment otherwise at the end of the final year (x2)	5.00	2.00	1.00
Number of students who opted for higher studies with valid qualifying scores/ranks (y)	15.00	12.00	10.00
x=x1+x2	45.00	103.00	121.00
Assessment points	11.38	18.44	18.04

Average assessment points 15.95

4.4 Professional Activities (15)

Total Marks : 15.00

4.4.1 Professional societies / chapters and organising engineering events (3)

Institute Marks : 3.00

(Instruction: The institution may provide data for past three years).

1. Student Members of IEEE (ANNEXURE_ LIST OF IEEE MEMBERS)

2. **Techno-Cultural Fest("Konkurrenz") 2010:** A three day techno-cultural fest was organized by the branch with participations from different colleges. The focused on robotics, web and technical events along with management and cultural events, totalling to 22 events in all. No. of Registrations- 200

3. Four teams participated in IEEE Xtreme, an online international programming competition organized by IEEE annually - 2010.

4. Organizing member of PDGC 2010 at JUIT Waknaghat during Oct 28-30, 2010

5. Organizing member of ICIIP 2011 at JUIT Waknaghat during Nov 3-5, 2011

6. Organizing member of IUCEE workshop on Wireless Sensor Networks from 5th to 9th July, 2011 at JUIT Waknaghat

7. Proctor, IEEE Xtreme (24-Hour Programming Competition) – 2011

a. Nishit Sadhwani
b. Pranjal Aggarwal

8. **Robotics Workshop organized by IEEE students (2011):** A three day workshop starting from the basics of robotics and guiding the students towards the working and making their own Mobile Controlled robots with hands on experience with soldering and drilling also. No. of Participants- 80
9. **Technical Quiz organized by IEEE students (2011) :** TechiQ a technical quiz was organized with a very good response and participation by the students of the University. No. of Registrations- 85
10. **Maze of Stratos organized by IEEE students (2011) :** An Online Quiz Style event which was aimed at intriguing the logical side of Participants mind. No. of Participants- 120
11. **Koderz organized by IEEE students (2011) :** Online portal for excelling programming skills was started with brainstorming series of problem statements, tutorials for better learning of programming for students. No. of Participants- 20
12. Organizing member of 2012 IEEE ISPCC held at JUIT Waknaghat during March 15-17, 2012

13. **Photoshop Workshop organized by IEEE students (2012):** The student branch co-organized a 3 day Photoshop, wherein students were taught basics and various tools of Photoshop. No. of participants: 90
14. **Technical Sessions organized by IEEE students (2012):** Sessions on LINUX, networking, cloud computing and other topics of interests of students have been taken up to give them a gist of different areas.
15. Two days workshop on Wireless Networks and Network Simulator (NS-2) WNNS 2012 from 9th to 10th July, 2012 at JUIT Waknaghat.

16. Organizing member of PDGC 2012 at JUIT Waknaghat during Dec 6-8, 2012

17. Proctor, IEEE Xtreme (24-Hour Programming Competition) – 2012 : Nishit Sadhwani

18. IET Around the World (PATW) Competition Feb 25- 26, 2013

4.4.2 Organisation of paper contests, design contests, etc. and achievements (3) Institute Marks : 3.00

(Instruction: The institution may provide data for past three years).

Students organize and participate in various technical and cultural activities during the following student events:

1. Murious 2010

2. Murious 2011

3. Le'Fietus

4.4.3 Publication of technical magazines, newsletters, etc (3) Institute Marks : 3.00

(Instruction: The institution may list the publications mentioned earlier along with the names of the editors, publishers, etc.).

The students publish magazines and news letters such as "Alvida", and "Reverie". They contain articals written by students.

4.4.4 Entrepreneurship initiatives, product designs, and innovations (3) Institute Marks : 3.00

(Instruction: The institution may specify the efforts and achievements.)

1. Apoorv Gupta, Ajit Singh, Subham Nikhil, Sandeep Rajoriya, "Build Homemade GPS(Global Positioning System)" (CMT ID - 1413), September 16, 2013 selection of the project in Phase 1 of TIIC-IADC 2014
   Mentor - Tapan Kumar Jain

2. AmitBir Singh Chadha, Abhishek Goyal, Davisha Verma, "Automated Railways Collision Avoidance System Using Wireless Networks".
   Mentor: Meenakshi Sood

3. Gagandeep Singh, Priya Kukreja,Sakhshi Kukreja, " JUIT Navigation System". Mentor: Dr D S Saini

4.4.5 Publications and awards in inter-institute events by students of the programme of study (3) Institute Marks : 3.00

(Instruction: The institution may provide a table indicating those publications, which fetched awards to students in the events/conferences organised by other institutes. A tabulated list of all other student publications may be included in the appendix.)

1. JIIT Noida to participate in JIVE during Feb 2-7, 2011

2. IIT Roorkee in Sports meet during Feb 24-28, 2011

3. Four students of theIEEE branch attended the All India Student organized by IEEE Jamia Millia Islamia.

4. IEEE Students participated in robotics events in IIT Bombay's annual fest.

5. The branch has also participated for IEEE R10 Website contest.

6. The IEEE branch has been awarded with Excellence in Branch Counseling Certificate for having a membership count of 120 in 2012.

7. Two students attended IEEE Delhi section Quarterly meet in 2013.

STUDENTS PUBLICATIONS

S.No	NAME OF STUDENTS	FACULTY	TITLE	JOURNAL/CONFERENCE
1.	AmitBir Singh Chadha, Abhishek Goyal, Davisha Verma,	Meenakshi Sood	Automated Railways Collision Avoidance System Using Wireless Networks	UACEE International Journal of Advances in Computer Networks and its Security – IJCNS, Vol. 3, no. 2, pp. 68-71, June 2013
2.	Vasundhara Anand, Pranav Bhasin, Ankit Sharma	Meenakshi Sood	Wirelessly Controlled Voice Operated Robot	Second Intl. Conf. on Advances in Electronics, Electrical and Computer Engineering -- EEC 2013, doi:10.3850/ 978-981-07-6935-2_49, 22 - 23 June, 2013 Dehradun, pp 244-24
3.	**Hemank Mehta, Naina Aggarwal, Kunal Dutt**	Shruti Jain	**Effect of Current Feedback Operational Amplifiers using BJT and CMOS**	International Journal of Advanced Research in Computer Science and Software Engineering, vol 3, no 4, 1081-1087, April 2013
4.	**Arpit Kuthiala, Abhimanyu Gupta, Ankur Aggarwal**	Shruti Jain	Voltage feedback v/s Current feedback Operational Amplifier Using BJT and CMOS	International Journal of Advances in Computing and Information Technology vol 2, no 2, 9-16, April 2013
5.	Shivam Rastogi, Anshika Chaudhry, Shweta Tiwari	Shruti Jain	Current Mode Comparators Using SPICE Simulation	International Multi Conference on Intelligent Systems & Nanotechnology (IISN-2010), Institute Of Science and Technology, KLAWAD (ISTK), Ambala- Jagadhri Road, Distt. Yamuna Nagar, Haryana, India, February 26-28,

				2010, pp 36-40.
6	Avinash Chaudhary, Arjun Agarwal	Pardeep Garg	Using Rotation Method for Removal of Misalignment of Scanned Braille Pattern	UACEE 2nd International Conference on Advances in Computing, Control and Communication, June 17,2012, New Delhi, pp. 71-75, Digital Object Identifier: 10.3850/978-981-07-2579-2 CCN-465, ISBN : 978-981-07-2579-2. Indexed in ISI Thomson.
7.	Mayank Sachan, Shilpa Gupta, Anjali Kansal	Tapan Jain	Spectrum Sensing of Cognitive Radio	National Conference on New Technologies and Their Applications To Engineering, Jabalpur, MP, India, NTAE 2013, pp. 115-121.
8.	Kapil Sachdev, Akshun Bharat, Anchal Pundir	Tapan Jain	To Design a Wireless Hand Held Biometric Fingerprint Attendance System	National Conference on New Technologies and Their Applications To Engineering, Jabalpur, MP, India, NTAE 2013, pp. 122-129.
9	Ankita Sood, Rahul Shahi, Shashank Mendiratta, ,	Vinay Kumar, Sunil Bhooshan	"A Novel Technique for Automated Red Eye Detection and Correction"	22nd International Symposium on Information, Communication and Automation Technologies, October 29-31, 2009.
10	Gaurav Gayawar, Sah Geetansh Krishna, Kapil Sachdeva,	Sunil Bhooshan, Vinay Kumar	A New Suggestion for data Clustering",	8th IEEE/ACIS International Conference on Computer and Information Science, June 1-3, 2009.
11	Ateendra K.Singh, Tanupriya Negi and Jyoti Miglani	Sunil Bhooshan, Vinay Kumar	Character Recognition using Geometrical Features of Alphabet: A Novel Technique	IEEE International Conference on Communication Software and Networks, February 27-28, 2009.
12	A.Raghavendra Kumar, Rohini Mukhopadhyay,P.Varun Choudary, Meenu Jain and S.Bharat Kumar	Sunil Bhooshan, Vinay Kumar	Design of Linear Phase 2 Dimensional FIRFilter: A New Approach	IEEE IET International Conference on Audio, Language and Image Processing, July 7-9, 2008.

5 Faculty Contributions (175) **Total Marks : 109.22**

List of Faculty Members:

Exclusively for the Programme / Shared with other Programmes (20)

(Instruction: The institution may complete this table for the calculation of the student-teacher ratio (STR). Teaching loads of the faculty member contributing to only undergraduate programme (2nd, 3rd, and 4th year) are considered to calculate the STR.)

For CAYm2 2011-2012

Name of the faculty member	Highest Qualification	University	Year of graduation	Designation	date of joining the institution	Distribution of teaching load (%)			Number of research publications in journals and conferences	IPRs	R&D and consultancy work with amount		Holding an incubation unit	Interaction with outside world
						1st Year	UG	PG			Funding Agency	Amount		
T. S. Lamba	PhD	IIT Kharagpur	1980	Professor	05/07/2006	0.00	70.00	30.00	2	None	None	0.00	NO	None
Sunil Bhooshan	PhD	UIUC, USA	1984	Professor	06/08/2002	0.00	100.00	0.00	45	None	None	0.00	NO	None
D. C. Kulshreshtha	ME/ M Tech	DCE	1980	Professor	14/07/2003	40.70	59.30	0.00	3	None	None	0.00	NO	None
D. S. Saini	PhD	JUIT	2008	Associate Professor	20/06/2002	0.00	87.00	13.00	76	None	None	0.00	NO	None
G. Singh	PhD	IT-BHU	2000	Professor	24/03/2006	0.00	85.00	15.00	152	None	national agency	1596000.00	NO	None
Mohammad Usman	PhD	University of Strathclyde, UK,	2008	Assistant Professor	01/08/2011	13.80	75.50	10.70	1	None	None	0.00	NO	None
Pradeep Kumar	PhD	JUIT	2009	Assistant Professor	28/06/2006	66.60	33.30	0.00	54	None	None	0.00	NO	Reputed institution abroad
Rajiv Kumar	PhD	NIT Kurushetra	2009	Assistant Professor	10/01/2005	28.60	57.10	14.30	16	None	None	0.00	no	None
Shruti Jain	PhD	JUIT	2012	Assistant Professor	15/04/2008	0.00	93.20	6.80	7	None	None	0.00	no	None
V. M. Srivastava	ME/ M Tech	VLSI, CDAC, Noida	2008	Assistant Professor	08/07/2008	0.00	100.00	0.00	20	None	None	0.00	NO	None
Bhasker Gupta	ME/ M Tech	Panjab University	2007	Assistant Professor	04/07/2009	0.00	85.00	15.00	10	None	None	0.00	NO	None
Bhupendra Kumar	ME/ M Tech	IIT Madras	2006	Assistant Professor	04/07/2011	0.00	77.00	23.00	0	None	None	0.00	NO	None
Komal Janghel	ME/ M Tech	IIT Guwhati	2008	Assistant Professor	09/07/2011	0.00	75.00	25.00	0	None	None	0.00	NO	None
Meenakshi Sood	ME/ M Tech	Panjab University	2009	Assistant Professor	01/01/2011	60.00	40.00	0.00	3	None	None	0.00	NO	None

Neeru Sharma	ME/ M Tech	Jai Narain Vyas University, Jodhpur	2005	Assistant Professor	14/08/2007	0.00 100.00 0.00	0	None	None 0.00	NO	None
Pardeep Garg	ME/ M Tech	JIIT, Noida	2009	Assistant Professor	10/07/2010	0.00 100.00 0.00	1	None	None 0.00	NO	None
Pragya Gupta	ME/ M Tech	Allahabad University	2004	Assistant Professor	27/07/2007	0.00 100.00 0.00	1	None	None 0.00	NO	None
S. V. R. K.Rao	ME/ M Tech	J.N.T. University, Hyderabad	1996	Assistant Professor	04/08/2008	0.00 100.00 0.00	1	None	None 0.00	NO	None
S. R. Talluri	ME/ M Tech	IIT Kanpur	2009	Assistant Professor	10/07/2010	0.00 80.00 20.00	0	None	None 0.00	NO	None
Tapan Jain	ME/ M Tech	College of Engg, Pune	2005	Assistant Professor	17/08/2009	0.00 100.00 0.00	0	None	None 0.00	NO	None
Vanita Rana	ME/ M Tech	PEC, Chandigarh	2006	Assistant Professor	11/08/2008	0.00 100.00 0.00	0	None	None 0.00	NO	None
Munish Sood	ME/ M Tech	JUIT	2011	Assistant Professor	24/08/2006	0.00 100.00 0.00	3	None	None 0.00	NO	None
Vikas Hastir	ME/ M Tech	JUIT	2011	Assistant Professor	20/03/2006	0.00 100.00 0.00	0	None	None 0.00	NO	None
Neel Kanth	PhD	IIT Roorkee	2009	Assistant Professor	01/07/2010	0.00 100.00 0.00	0	None	None 0.00	NO	None
Pankaj Sharma	PhD	JUIT	2008	Assistant Professor	01/08/2007	50.00 50.00 0.00	5	None	None 0.00	NO	None
Nirupama Prakash	PhD	Banaras Hindu University	1985	Professor	19/07/2010	0.00 100.00 0.00	3	None	state agency/ private sector, 640000.00	NO	None
Amit Srivastava	PhD	JUIT	2011	Assistant Professor	01/07/2003	0.00 100.00 0.00	1	None	None 0.00	NO	None
Harinder Singh	PhD	Punjabi University, Patiala	1974	Professor	29/07/2003	0.00 100.00 0.00	0	None	None 0.00	NO	None

For CAYm1 2012-2013

Name of the faculty member	**Highest Qualification**	**University**	**Year of graduation**	**Designation**	**date of joining the institution**	Distribution of teaching load (%)			**Number of research publications in journals and conferences**	**IPRs**	R&D and consultancy work with amount		**Holding an incubation unit**	**Interaction with outside world**
						1st Year	UG	PG			Funding Agency	Amount		
T. S. Lamba	PhD	IIT Kharagpur	1980	Professor	05/07/2006	0.00	66.70	33.30	2	None	None	0.00	NO	None
Sunil Bhooshan	PhD	UIUC, USA	1984	Professor	06/08/2002	0.00	100.00	0.00	45	None	None	0.00	NO	None
D. C. Kulshreshtha	ME/ M Tech	DCE	1980	Professor	14/07/2003	40.70	59.30	0.00	3	None	None	0.00	NO	None

D. S. Saini	PhD	JUIT	2008	Associate Professor	20/06/2002	0.00	87.00	13.00	76	None	None 0.00	NO	None
G. Singh	PhD	IT-BHU	2000	Professor	24/03/2006	0.00	85.00	15.00	152	None	national agency 1596000.00	NO	None
Mohammad Usman	PhD	University of Strathclyde, UK,	2008	Assistant Professor	01/08/2011	13.80	65.50	20.70	1	None	None 0.00	NO	None
Pradeep Kumar	PhD	JUIT	2009	Assistant Professor	28/06/2006	66.60	33.30	0.00	54	None	None 0.00	NO	Reputed institution abroad
Rajiv Kumar	PhD	NIT Kurushetra	2009	Assistant Professor	10/01/2005	25.00	60.00	15.00	16	None	None 0.00	NO	None
Shruti Jain	PhD	JUIT	2012	Assistant Professor	15/04/2008	0.00	93.20	6.80	5	None	national agency 980000.00	NO	None
V. M. Srivastava	PhD	JUIT	2012	Assistant Professor	08/07/2008	40.00	60.00	0.00	2	None	None 0.00	NO	None
Bhasker Gupta	ME/ M Tech	Panjab University	2007	Assistant Professor	14/07/2009	44.40	22.20	33.30	7	None	None 0.00	NO	None
Bhupendra Kumar	ME/ M Tech	IIT Madras	2006	Assistant Professor	04/07/2011	0.00	93.50	6.50	0	None	None 0.00	NO	None
Meenakshi Sood	ME/ M Tech	Panjab University	2009	Assistant Professor	10/01/2011	71.40	28.60	0.00	3	None	None 0.00	NO	None
Mohammad Wazid	ME/ M Tech	IIIT Hyderabad	2009	Assistant Professor	11/08/2009	0.00	80.00	20.00	1	None	None 0.00	NO	None
Neeru Sharma	ME/ M Tech	Jai Narain Vyas University, Jodhpur	2005	Assistant Professor	14/08/2008	28.60	71.40	0.00	2	None	None 0.00	NO	None
Pardeep Garg	ME/ M Tech	JIIT, Noida	2009	Assistant Professor	10/07/2010	0.00	100.00	0.00	0	None	None 0.00	NO	None
Pragya Gupta	ME/ M Tech	Allahabad University	2004	Assistant Professor	27/07/2009	0.00	100.00	0.00	0	None	None 0.00	NO	None
S. V. R. K.Rao	ME/ M Tech	J.N.T. University, Hyderabad	1996	Assistant Professor	04/08/2008	0.00	100.00	0.00	1	None	None 0.00	NO	None
S. R. Talluri	ME/ M Tech	IIT Kanpur	2009	Assistant Professor	10/07/2010	0.00	75.00	25.00	0	None	None 0.00	NO	None
Tapan Jain	ME/ M Tech	College of Engg, Pune	2005	Assistant Professor	17/08/2009	0.00	88.90	11.10	1	None	None 0.00	NO	None
Vanita Rana	ME/ M Tech	PEC, Chandigarh	2006	Assistant Professor	11/07/2008	0.00	100.00	0.00	0	None	None 0.00	NO	None
Akhil Ranjan	ME/ M Tech	National Univ. Of Singapore	2009	Assistant Professor	09/07/2012	0.00	88.90	11.10	0	None	None 0.00	NO	None
Dheeraj Kr. Sharma	ME/ M Tech	IIT Roorkee	2009	Assistant Professor	05/07/2012	26.10	73.90	0.00	0	None	None 0.00	NO	None
Munish Sood	ME/ M Tech	JUIT	2011	Assistant	24/08/2006	36.10	63.90	0.00	1	None	None 0.00	NO	None

				Professor								
Vikas Hastir	ME/ M Tech	JUIT	2011	Assistant Professor	20/03/2006	18.20 81.80 0.00	0	None	None	0.00	NO	None
Neel Kanth	PhD	IIT Roorkee	2009	Assistant Professor	01/07/2010	0.00 100.00 0.00	0	None	None	0.00	NO	None
Pankaj Sharma	PhD	JUIT	2008	Assistant Professor	01/08/2007	0.00 100.00 0.00	10	None	None	0.00	NO	None
Nirupama Prakash	PhD	Banaras Hindu University	1985	Professor	19/07/2010	0.00 100.00 0.00	4	None	state agency/ private sector,	3700000.00	NO	Reputed institution abroad
Amit Srivastava	PhD	JUIT	2011	Assistant Professor	01/07/2003	0.00 100.00 0.00	1	None	None	0.00	NO	None
Harinder Singh	PhD	Punjabi University, Patiala	1974	Professor	29/07/2003	20.00 80.00 0.00	0	None	None	0.00	NO	None

For CAY 2013-2014

Name of the faculty member	Highest Qualification	University	Year of graduation	Designation	date of joining the institution	Distribution of teaching load (%)			Number of research publications in journals and conferences	IPRs	R&D and consultancy work with amount		Holding an incubation unit	Interaction with outside world
						1st Year	UG	PG			Funding Agency	Amount		
T. S. Lamba	PhD	IIT Kharagpur	1980	Professor	05/07/2006	0.00	66.70	33.30	2	None	None	0.00	NO	None
Sunil Bhooshan	PhD	UIUC, USA	1984	Professor	06/08/2002	0.00	100.00	0.00	45	None	None	0.00	NO	None
D. C. Kulshreshtha	ME/ M Tech	DCE, Delhi	1980	Professor	14/07/2003	40.70	59.30	0.00	3	None	None	0.00	NO	None
D. S. Saini	PhD	JUIT	2008	Associate Professor	20/06/2002	0.00	87.00	13.00	76	None	None	0.00	NO	None
G. Singh	PhD	IT-BHU	2000	Professor	24/03/2006	0.00	85.00	15.00	152	None	national agency	1596000.00	NO	None
Mohammad Usman	PhD	University of Strathclyde, UK,	2008	Assistant Professor	01/08/2011	0.00	80.00	20.00	1	None	None	0.00	NO	None
Pradeep Kumar	PhD	JUIT	2009	Associate Professor	28/06/2006	66.60	33.30	0.00	54	None	None	0.00	NO	Reputed institution abroad
Rajiv Kumar	PhD	NIT Kurukshetra	2009	Assistant Professor	10/01/2005	28.60	57.10	14.30	16	None	None	0.00	no	None
Bhasker Gupta	PhD	JUIT, Solan	2013	Assistant Professor	04/07/2009	36.30	36.30	27.20	0	None	None	0.00	NO	None
Neeru Sharma	PhD	JUIT, Solan	2013	Assistant Professor	14/08/2007	0.00	100.00	0.00	0	None	None	0.00	NO	None
Meenakshi				Assistant										

Sood	ME/ M Tech	Panjab University	2009	Professor	10/01/2011	0.00 100.00 0.00	0	None	None	0.00	NO	None
Mohammad Wazid	ME/ M Tech	IIIT Hyderabad	2009	Assistant Professor	11/08/2009	0.00 85.00 15.00	0	None	None	0.00	NO	None
Pardeep Garg	ME/ M Tech	JIIT, Noida	2009	Assistant Professor	10/07/2010	0.00 100.00 0.00	0	None	None	0.00	NO	None
Pragya Gupta	ME/ M Tech	Allahabad University	2004	Assistant Professor	27/07/2009	0.00 100.00 0.00	0	None	None	0.00	NO	None
S. V. R. K.Rao	ME/ M Tech	J.N.T. University, Hyderabad	1996	Assistant Professor	04/08/2008	0.00 100.00 0.00	0	None	None	0.00	NO	None
S. R. Talluri	ME/ M Tech	IIT Kanpur	2009	Assistant Professor	10/07/2010	0.00 100.00 0.00	0	None	None	0.00	NO	None
Tapan Jain	ME/ M Tech	Electronic Computer, College of Engg, Pune	2005	Assistant Professor	17/08/2009	0.00 80.00 20.00	0	None	None	0.00	NO	None
Vanita Rana	ME/ M Tech	PEC, Chandigarh	2006	Assistant Professor	11/07/2008	58.30 41.70 0.00	0	None	None	0.00	NO	None
Akhil Ranjan	ME/ M Tech	National Univ. Of Singapore	2009	Assistant Professor	09/07/2012	57.20 42.80 0.00	0	None	None	0.00	NO	None
Dheeraj Kr. Sharma	ME/ M Tech	IIT Roorkee	2009	Assistant Professor	05/07/2012	0.00 100.00 0.00	0	None	None	0.00	NO	None
Munish Sood	ME/ M Tech	JUIT, Solan	2011	Assistant Professor	24/08/2006	46.20 53.80 0.00	0	None	None	0.00	NO	None
Vikas Hastir	ME/ M Tech	JUIT, Solan	2011	Assistant Professor	20/03/2006	0.00 100.00 0.00	0	None	None	0.00	NO	None
Jitendra Virmani	ME/ M Tech	SLIET Longowal	1999	Assistant Professor	19/07/2013	53.80 46.20 0.00	0	None	None	0.00	NO	None
Kaushlendra Pandey	ME/ M Tech	UPTU	2010	Assistant Professor	05/07/2013	28.60 71.40 0.00	0	None	None	0.00	NO	None
Ajay Kumar Aggarwal	ME/ M Tech	UPTU	2011	Assistant Professor	05/07/2013	0.00 100.00 0.00	0	None	None	0.00	NO	None
Amit Ranjan	ME/ M Tech	WBTU, West Bengal	2010	Assistant Professor	01/07/2013	0.00 100.00 0.00	0	None	None	0.00	NO	None
Neel Kanth	PhD	IIT Roorkee	2009	Assistant Professor	01/07/2010	0.00 100.00 0.00	0	None	None	0.00	NO	None
Ragini Raj Singh	PhD	Barkatullah University Bhopal	2006	Assistant Professor	01/01/2012	60.00 40.00 0.00	2	None	None	0.00	NO	None
Amit Srivastava	PhD	JUIT	2011	Assistant Professor	01/07/2003	0.00 100.00 0.00	0	None	None	0.00	NO	None
Harinder Singh	PhD	Punjabi University, Patiala	1974	Professor	29/07/2003	100.00 0.00 0.00	0	None	None	0.00	NO	None
Rashmi Sud	Other	HPU, Shimla	2000	Assistant Professor	01/07/2004	0.00 100.00 0.00	0	None	None	0.00	NO	None

5.1 Student-Teacher Ratio (STR) (20) **Total Marks : 19.86**

Institute Marks : 19.86

Assessment = 20 × 15/STR; subject to maximum assessment of 20
STR = (x + y + z)/N1
where, x = Number of students in 2nd year of the programme
y = Number of students in 3rd year of the programme
z = Number of students in 4th year of the programme
N1 = Total number of faculty members in the programme (by considering fractional load)

Year	X	Y	Z	N1	X+Y+Z	STR	Assessment
2011-2012	127	116	125	24	368	15.33	19.57
2012-2013	113	127	116	24	356	14.83	20.00
2013-2014	111	113	133	24	357	14.88	20.00

Average assessment 19.86

N = Maximum {N1, N2}
N1 = Total number of faculty members in the programme (considering the fractional load)
N2 = Number of faculty positions needed for student-teacher ratio of 15

Year	Sanctioned Intake	Actual Admitted	N1	N2	N=Max.(N1,N2)
2011-2012	390	368	24	26	26
2012-2013	360	356	24	24	24
2013-2014	360	357	24	24	24

5.2 Faculty Cadre Ratio (20)

Total Marks : 20.00

Institute Marks : 20.00

Assessment = 20 × CRI
where, CRI = Cadre ratio index
= 2.25 × (2A + B)/N; subject to max. CRI = 1.0
where, A = Number of professors in the programme
B = Number of associate professors in the programme programme

Year	A	B	N	CRI	Assessment
2011-2012	6	1	26.00	1.00	20.00
2012-2013	6	1	24.00	1.00	20.00
2013-2014	5	2	24.00	1.00	20.00

Average assessment 20.00

5.3 Faculty Qualifications (30)

Total Marks : 26.81

Institute Marks : 26.81

Assessment = 3 × FQI
where, FQI = Faculty qualification index
= (10x + 6y + 2z0)/N2
where, x = Number of faculty members with PhD
y = Number of faculty members with ME/ M Tech
Z = Number of faculty members with B.E/B.Tech

	X	Y	Z	N	FQI	Assessment
2011-2012	13	15	0	26.00	8.31	24.92
2012-2013	14	16	0	24.00	9.33	28.00
2013-2014	13	17	0	24.00	9.17	27.50

Average assessment 26.81

5.4 Faculty Competencies correlation to Programme Specific Criteria (15) Total Marks : 15.00

Institute Marks : 15.00

(Provide evidence that program curriculum satisfies the applicable programme criteria specified by the appropriate American professional associations such as ASME, IEEE and ACM. You may list the programme specific criteria and the competencies (specialisation, research publication, course developments etc.,) of faculty to correlate the programme specific criteria and competencies)

Faculty members are specialized in diversified areas of Electronic & Communication Engineering — Mobile Communications, Signal Processing, Image Processing, Antenna Design and Theory, Wireless Communication, Biomedical Signal processing, VLSI etc.

Faculty members have good research exposure and have published research papers in journals of repute (Springer, Elesevier, Taylor and Francis, IEEE, etc.) and presented several papers in national and international conferences in India as well as abroad. Faculty has got the provision for going for PDF and higher studies sponsored by the University. The faculty also participates in FDPs to upgrade their knowledge in latest field of research:

Faculty is also actively involved in developing web site of the department, individual google pages, student feedback, autonomous activities and technical events.

Faculty also takes keen interest in developing central library facility by recommending latest books for the benefit of students and faculty.

Recruitment of faculty is made as per the prescribed norms for the university and is recruited from all fields of specialization, very well suited to the programme of studies.

5.5 Faculty as participants/resource persons in faculty development/training activities (15) Total Marks : 1.91

Institute Marks : 1.91

(Instruction: A faculty member scores maximum five points for a participation/resource person.)

File Name
\\172.16.73.6\nba 2013\SAR\NBA ECE 2013
\\172.16.73.6\nba 2013\SAR\NBA ECE 2013
\\172.16.73.6\nba 2013\SAR\NBA ECE 2013

	max. 5 per faculty

Name of the faculty	2011-2012	2012-2013	2013-2014
Ajay Kumar Aggarwal	0.00	0.00	0.00
Akhil Ranjan	0.00	0.00	0.00
Amit Ranjan	0.00	0.00	0.00
Amit Srivastava	0.00	0.00	0.00
Bhasker Gupta	3.00	0.00	0.00
Bhupendra Kumar	0.00	0.00	0.00
D. C. Kulshreshtha	0.00	0.00	0.00
D. S. Saini	0.00	0.00	0.00
Dheeraj Kr. Sharma	0.00	0.00	0.00
G. Singh	0.00	3.00	0.00
Jitendra Virmani	0.00	0.00	3.00
Kaushlendra Pandey	0.00	0.00	0.00
Komal Janghel	0.00	0.00	0.00
Meenakshi Sood	3.00	3.00	0.00
Mohammad Usman	3.00	0.00	0.00
Mohammad Wazid	3.00	0.00	0.00
Munish Sood	0.00	0.00	0.00
Neel Kanth	5.00	5.00	0.00
Neeru Sharma	0.00	0.00	0.00
Nirupama Prakash	0.00	0.00	0.00
Pankaj Sharma	0.00	0.00	0.00
Pardeep Garg	0.00	0.00	0.00
Pradeep Kumar	0.00	0.00	0.00
Pragya Gupta	0.00	0.00	0.00
Ragini Raj Singh	0.00	0.00	0.00
Rajiv Kumar	3.00	3.00	0.00
Rashmi Sud	0.00	0.00	0.00
S. R. Talluri	0.00	0.00	0.00
S. V. R. K.Rao	0.00	0.00	0.00
Shruti Jain	0.00	0.00	0.00
Sunil Bhooshan	0.00	0.00	0.00

T. S. Lamba	0.00	0.00	0.00
Tapan Jain	3.00	0.00	3.00
V. M. Srivastava	0.00	0.00	0.00
Vanita Rana	0.00	0.00	0.00
Vikas Hastir	0.00	0.00	0.00
Harinder Singh	5.00	0.00	0.00
Sum	28.00	14.00	6.00
N	26.00	24.00	24.00
Assessment = 3 × Sum/N	3.23	1.75	0.75

Average assessment 1.91

5.6 Faculty Retention (15)

Total Marks : 14.00

Institute Marks : 14.00

Assessment = 3 × RPI/N
where RPI = Retention point index
= Points assigned to all faculty members
where points assigned to a faculty member = 1 point for each year of experience at the institute but not exceeding 5.

Item	2011-2012	2012-2013	2013-2014
Number of faculty members with experience of less than l year (x0)	0.00	0.00	4.00
Number of faculty members with 1 to 2 years experience (x1)	0.00	2.00	3.00
Number of faculty members with 2 to 3 years experience (x2)	4.00	3.00	2.00
Number of faculty members with 3 to 4 years experience (x3)	4.00	4.00	3.00
Number of faculty members with 4 to 5 years experience (x4)	2.00	4.00	4.00
Number of faculty members with more than 5 years experience (x5)	18.00	17.00	15.00
N	26.00	24.00	24.00
RPI = x1 + 2x2 + 3x3 + 4x4 + 5x5	118.00	121.00	107.00
Assessment	13.62	15.00	13.38

Average assessment 14.00

5.7 Faculty Research Publications (FRP) (20)

Total Marks : 8.26

Institute Marks : 8.26

(Instruction: A faculty member scores maximum five research publication points depending upon the quality of the research papers and books published in the past three years.)

Assessment of FRP = 4 × (Sum of the research publication points scored by each faculty member)/N

File Name
\\172.16.73.6\nba 2013\SAR\NBA ECE 2013

Name of the Faculty (contributing to FRP)	FRP points (max. 5 per faculty)		
	2011-2012	2012-2013	2013-2014
Ajay Kumar Aggarwal	0.00	0.00	0.00
Akhil Ranjan	0.00	0.00	0.00
Amit Ranjan	0.00	0.00	0.00
Amit Srivastava	0.00	0.00	0.00
Bhasker Gupta	3.00	5.00	0.00
Bhupendra Kumar	0.00	0.00	0.00
D. C. Kulshreshtha	5.00	3.00	0.00
D. S. Saini	5.00	5.00	3.00
Dheeraj Kr. Sharma	0.00	0.00	0.00
G. Singh	5.00	5.00	3.00
Jitendra Virmani	0.00	0.00	0.00
Kaushlendra Pandey	0.00	0.00	0.00
Komal Janghel	0.00	0.00	0.00
Meenakshi Sood	3.00	5.00	3.00
Mohammad Usman	0.00	3.00	0.00
Mohammad Wazid	3.00	3.00	0.00
Munish Sood	2.00	2.00	0.00
Neel Kanth	0.00	0.00	0.00
Neeru Sharma	5.00	4.00	0.00
Nirupama Prakash	0.00	0.00	0.00
Pankaj Sharma	5.00	5.00	0.00
Pardeep Garg	2.00	2.00	0.00
Pradeep Kumar	5.00	5.00	0.00
Pragya Gupta	3.00	3.00	0.00
Ragini Raj Singh	0.00	0.00	0.00
Rajiv Kumar	3.00	5.00	0.00
Rashmi Sud	0.00	0.00	0.00

S. R. Talluri	0.00	0.00	0.00
S. V. R. K.Rao	2.00	2.00	0.00
Shruti Jain	5.00	5.00	0.00
Sunil Bhooshan	5.00	5.00	0.00
T. S. Lamba	0.00	0.00	0.00
Tapan Jain	3.00	4.00	0.00
V. M. Srivastava	5.00	5.00	0.00
Vanita Rana	0.00	0.00	0.00
Vikas Hastir	0.00	0.00	0.00
Harinder Singh	0.00	0.00	0.00
Sum	69.00	76.00	9.00
N	26.00	24.00	24.00
Assessment of FRP = 4 × Sum/N	10.62	12.67	1.50

Average assessment 8.26

5.8 Faculty Intellectual Property Rights (FIPR) (10)

Institute Marks :

Assessment of FIPR = 2 × (Sum of the FIPR points scored by each faculty member)/N
(Instruction: A faculty member scores maximum five FIPR points each year??. FIPR includes awarded national/international patents, design, and copyrights.)

Name of faculty member (contributing to FIPR)	FIPR points (max. 5 per faculty member)		
	2011-2012	2012-2013	2013-2014

Average assessment

5.9 Funded R&D Projects and Consultancy (FRDC) Work (20)

Total Marks : 2.18

Institute Marks : 2.18

(Instruction: A faculty member scores maximum 5 points, depending upon the amount.) A suggested scheme is given below for a minimum amount of Rs. 1 lakh:)

Assessment of R&D and consultancy projects = 4 × (Sum of FRDC by each faculty member)//N
Five points for funding by national agency,
Four points for funding by state agency,
Four points for funding by private sector, and
Two points for funding by the sponsoring trust/society.

Name of faculty member (contributing to FRDC)	FRDC points (max. 5 per faculty member)		
	2011-2012	2012-2013	2013-2014
Ajay Kumar Aggarwal	0.00	0.00	0.00
Akhil Ranjan	0.00	0.00	0.00
Amit Ranjan	0.00	0.00	0.00
Amit Srivastava	0.00	0.00	0.00
Bhasker Gupta	0.00	0.00	0.00
Bhupendra Kumar	0.00	0.00	0.00
D. C. Kulshreshtha	0.00	0.00	0.00
D. S. Saini	0.00	0.00	0.00
Dheeraj Kr. Sharma	0.00	0.00	0.00
G. Singh	5.00	5.00	5.00
Jitendra Virmani	0.00	0.00	0.00
Kaushlendra Pandey	0.00	0.00	0.00
Komal Janghel	0.00	0.00	0.00
Meenakshi Sood	0.00	0.00	0.00
Mohammad Usman	0.00	0.00	0.00
Mohammad Wazid	0.00	0.00	0.00
Munish Sood	0.00	0.00	0.00
Neel Kanth	0.00	0.00	0.00
Neeru Sharma	0.00	0.00	0.00
Nirupama Prakash	5.00	5.00	0.00
Pankaj Sharma	0.00	0.00	0.00
Pardeep Garg	0.00	0.00	0.00
Pradeep Kumar	0.00	0.00	5.00
Pragya Gupta	0.00	0.00	0.00
Ragini Raj Singh	0.00	0.00	0.00
Rajiv Kumar	0.00	0.00	0.00
Rashmi Sud	0.00	0.00	0.00
S. R. Talluri	0.00	0.00	0.00
S. V. R. K.Rao	0.00	0.00	0.00

Shruti Jain	0.00	5.00	5.00
Sunil Bhooshan	0.00	0.00	0.00
T. S. Lamba	0.00	0.00	0.00
Tapan Jain	0.00	0.00	0.00
V. M. Srivastava	0.00	0.00	0.00
Vanita Rana	0.00	0.00	0.00
Vikas Hastir	0.00	0.00	0.00
Harinder Singh	0.00	0.00	0.00
Sum	10.00	15.00	15.00
N	26.00	24.00	24.00
Assessment of FRDC = 4 × Sum/N	1.54	2.50	2.50

Average assessment 2.18

5.10 Faculty Interaction with Outside World (10)

Total Marks : 1.20

Institute Marks : 1.20

(Instruction: A faculty member gets maximum five interaction points, depending upon the type of institution or R&D laboratory or industry, as follows)

FIP = Faculty interaction points
Assessment = 2 × (Sum of FIP by each faculty member)/N
Five points for interaction with a reputed institution abroad, institution of eminence in India,
or national research laboratories,
Three points for interaction with institution/industry (not covered earlier).

Name of faculty member (contributing to FIP)	FIP		
	2011-2012	2012-2013	2013-2014
Ajay Kumar Aggarwal	0.00	0.00	0.00
Akhil Ranjan	0.00	0.00	0.00
Amit Ranjan	0.00	0.00	0.00
Amit Srivastava	0.00	0.00	0.00
Bhasker Gupta	0.00	0.00	0.00
Bhupendra Kumar	0.00	0.00	0.00
D. C. Kulshreshtha	5.00	3.00	0.00
D. S. Saini	0.00	0.00	0.00
Dheeraj Kr. Sharma	0.00	0.00	0.00
G. Singh	5.00	3.00	0.00

Jitendra Virmani	0.00	0.00	0.00
Kaushlendra Pandey	0.00	0.00	0.00
Komal Janghel	0.00	0.00	0.00
Meenakshi Sood	0.00	3.00	0.00
Mohammad Usman	0.00	3.00	0.00
Mohammad Wazid	0.00	0.00	0.00
Munish Sood	0.00	0.00	0.00
Neel Kanth	0.00	0.00	0.00
Neeru Sharma	0.00	0.00	0.00
Nirupama Prakash	5.00	5.00	0.00
Pankaj Sharma	0.00	0.00	0.00
Pardeep Garg	0.00	0.00	0.00
Pradeep Kumar	5.00	5.00	0.00
Pragya Gupta	0.00	0.00	0.00
Ragini Raj Singh	0.00	0.00	0.00
Rajiv Kumar	0.00	0.00	0.00
Rashmi Sud	0.00	0.00	0.00
S. R. Talluri	0.00	0.00	0.00
S. V. R. K.Rao	0.00	0.00	0.00
Shruti Jain	0.00	0.00	0.00
Sunil Bhooshan	3.00	0.00	0.00
T. S. Lamba	0.00	0.00	0.00
Tapan Jain	0.00	0.00	0.00
V. M. Srivastava	0.00	0.00	0.00
Vanita Rana	0.00	0.00	0.00
Vikas Hastir	0.00	0.00	0.00
Harinder Singh	0.00	0.00	0.00
Sum	23.00	22.00	0.00
N	26.00	24.00	24.00
Assessment of FIP = 2 × Sum/N	1.77	1.83	0.00

Average assessment 1.20

6 Facilities and Technical Support (75) **Total Marks : 75.00**

Description of classrooms, faculty rooms, seminar, and conference halls:

Description of classrooms, faculty rooms, seminar, and conference halls:

Room description	No. of Rooms	Usage	Shared/ Exclusive	Capacity	Rooms Equipped with PC, Internet, etc.
Lecture Theatre	1	Classes, Seminars, Workshops, Conferences	Shared	240	Yes
Lecture Theatres	2	Classes, Seminars, Workshops, Conferences	Shared	260 each	Yes
Classrooms	2	Classes, Seminars, Workshops	Shared	95 each	Yes
Classrooms	6	Classes, Seminars, Workshops	Shared	84each	Yes
Tutorial rooms	7	Classes, Tutorials	Shared	35 each	Yes
Seminar/GD rooms	1	Seminars, Group Discussions	Shared	30	Yes
Board Room	1	Meetings	Shared	30	Yes
Auditorium	1	Conferences etc	Shared	1500	Yes
Faculty Room/Cabins	8 Rooms + 17 cabins	Faculty Offices	Exclusive	1	PC and Internet

6.1 Classrooms in the Department (20) **Total Marks : 20.00**

6.1.1 Adequate number of rooms for lectures (core/electives), seminars, tutorials, etc., for the program (10) Institute Marks : 10.00

(Instruction: Assessment based on the information provided in the preceding table.)

Yes.

6.1.2 Teaching aids---multimedia projectors, etc (5) Institute Marks : 5.00

(Instruction: List the various teaching aids available)

Every classroom and Tutorial room are equipped with the following teaching aids

- PC with Internet connection,
- LCD Projector with screen,
- Visualizer,
- Overhead Projector,
- Mike and audio system(speakers installed)
- White boards.

6.1.3 Acoustics, classroom size, conditions of chairs/benches, air circulation, lighting, exits, ambience, and such other amenities/facilities (5) Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table and the inspection thereof.)

- Acoustics- Sound absorber is installed to maintain quality of sound from mike for effective teaching.
- Classroom size is optimum for the proper sitting of the students comfortably.
- Separate classrooms for Tutorial classes.
- Conditions of chairs/benches are in good condition. Chair with desk are provided for individual students.
- Sufficient number of windows is available for ventilation and natural light.
- Every big classroom has two exits.
- Lighting system is very effective, along with the natural light in every corner of the rooms.
- Emergency light connections available in every room in case of power failure.

6.2 Faculty Rooms in the Department (15)

Total Marks : 15.00

6.2.1 Availability of individual faculty rooms (5)

Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table.)

- 8 Rooms Independent cubicles to Professors and Asso. Professors
- 17 cabins:- Individual cabins with all facilities are provided to all faculties

6.2.2 Room equipped with white/black board, computer, Internet, and such other amenities/facilities (5)

Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table)

Each and every faculty cubicle provided with Computers, High speed LAN connection and Wi-Fi..

6.2.3 Usage of room for counselling/discussion with students (5)

Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table and the inspection thereof.)

- One group discussion room and Seven tutorial rooms are available for discussion.
- Every faculty member has individual cabin to interact with students personally as and when required.

The following table is required for the subsequent criteria.

Laboratory description in the curriculum	Exclusive use / shared	Space, number of students	Number of experiments	Quality of instruments	Laboratory manuals
BEL (Basic Electronics Lab)	Exclusive	91 m2, 30	10-12	Excellent	Available
ESL (Electrical Science Lab)	Shared	91 m2, 30	10	Excellent	Available
MPL (Micro-processor Lab)	Shared	98 m2, 30	10-11	Excellent	Available
CSL (Communication System Lab)	Shared	98 m2, 30	10	Excellent	Available
ACL (Advanced Communication Lab)	Exclusive	98 m2, 30	9	Excellent	Available
RL (Research Lab)	Shared	Size? 30	10-12	Excellent	Available
CL1 (Computer Lab 1)	Shared	98 m2, 30	12	Excellent	Available

CL3 (Computer Lab 3)	Shared	30	10-12	Excellent	Available
CL4 (Computer Lab 4)	Shared	30	10	Excellent	Available
CL5 (Computer Lab 5)	Shared	30	12	Excellent	Available

6.3 Laboratories in the Department to meet the Curriculum Requirements and the POs (25) **Total Marks : 25.00**

6.3.1 Adequate, well-equipped laboratories to meet the curriculum requirements and the POs (10) Institute Marks : 10.00

(Instruction: Assessment based on the information provided in the preceding table.)

- Department has enough labs which are used for all the years on timetable basis to meet the curriculum requirements.
- The courses which have practical work will be provided labs every week.
- Labs are equipped with sufficient hardware and licensed software to run program specific curriculum and off program curriculum.
- Research laboratory is available 24X7 for all faculties and students to carry research work and projects.
- Exclusively a project lab has been provided for the students to carry out their mini and major project work.

6.3.2 Availability of computing facilities in the department (5) Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table.)

- Internet facility has been provided without limitation by the department to the students and faculty 24/7.
- All systems are well equipped with the software required to facilitate students to carry their course work, projects and research work.
- Research lab is also provided with adequate no of computers to carry research works and projects.
- All labs are provided with Un-interruptible power supply (UPS).

6.3.3 Availability of laboratories with technical support within and beyond working hours (5) Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table.)

Technical support is available during working hours (8:30 am- 5:30 pm). If the faculty or students require, technical staff is retained beyond the working hours.

6.3.4 Equipment to run experiments and their maintenance, number of students per experimental setup, size of the laboratories, overall ambience, etc (5) Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table.)

Sr. no.	Laboratory	Equipments	Maintainance	Number of Students per experiment setup	Area in Sq. ft.	Overall Ambience
	ECE Lab 1 (Basic	CROs Power Supplies Multimeters,				

1	**Electronics lab)**	Signal Generators. Bread board. ICs, Discrete Components	Excellent	1-2	91sq m	Excellent
2	**ECE Lab 2** **(Electrical Science lab)**	Volt-Meter Ammeter watt meter, DC supplies DC motor, Digital storage oscilloscope (DSO), Power Supplies Multimeters, Signal Generators. Bread board. Discrete Components	Excellent	1-2	91sq m	Excellent
3	**ECE Lab 3**	CROs Power Supplies Multimeters, Signal Generators. Bread board. ICs Discrete Components Micrprocessor Kits	Excellent	1-2	98sq m	Excellent
		Klystron Benches Gunn Diodes				

4	**ECE Lab4**	Transmission Line Kits Antenna Software Antenna Kit	Excellent	1-2	81sq m	Excellent
5	**ECE Lab 5**	Digital storage oscilloscope (DSO), Power Supplies Multimeters, Signal Generators. Bread board. ICs Analog Communication Kits Digital Communication Kits Discrete Components	Excellent	1-2	81sq m	Excellent
6	**ECE Lab 6**	PSPICE ORCAD MS OFFICE ORACLE Control System kits Power Electronics lab Telecommunication kit	Excellent	1-2	108sq m	Excellent
7	**CL Lab 1**	MATLAB LABVIEW LABVIEW H/W MS OFFICE XILINX PSPICE	Excellent	1-2	98sq m	Excellent

		JAVA ORACLE				

6.4 Technical Manpower Support in the Department (15)

Total Marks : 15.00

Name of the technical staff	Designation	pay-scale	Exclusive / shared work	Date of joining	Qualification At Joining	Qualification Now	Other technical skills gained	Responsibility
Jyotsna Bajaj	Sr. Lab Engineer	15000-1000-35000	Exclusive	01/10/2003	Three Year Diploma in ECE	M. Tech	2 Yr Diploma in Computer Applications	ECE Lab 2 - managing Electronics Lab and its Maintenance, Operations and servicing of the lab equipment.
Pramod Kumar	Sr. Lab Technician	11000-700-25000	Exclusive	23/02/2004	Three Year Diploma in (ECE)	B. Tech (Result Awaited)	Diploma in Computer Application & Diploma in Computer Programming	ECE Lab 3 - managing Digital and Micro-Processor Lab and its Maintenance, Operations and servicing of the lab equipment.
Dhirendra Kumar Singh	Sr. Lab Technician	11000-700-25000	Exclusive	19/11/2004	Three Year Diploma (ECE)	B. Tech (Result Awaited)	--	ECE Lab 5- managing Communication Lab and its Maintenance, Operations and servicing of the lab equipments
Manoj Kumar Pandey	Sr. Lab Technician	11000-700-25000	Exclusive	01/10/2003	Three Year Diploma (ECE)	Pursuing B. Tech	--	ECE Lab 1- managing Electronics Lab and its Maintenance, Operations and servicing of the lab equipments
Ajay Kumar Singh	Sr. Lab Technician	11000-700-25000	Exclusive	01/10/2003	M. Sc. (ECE)	Pursuing Ph.D.	--	ECE Lab 4 - managing Antennae and EMFT Lab and its Maintenance, Operations and servicing of the lab equipments
Kamlesh Kumar Srivastava	Sr. Lab Technician	11000-700-25000	Exclusive	29/12/2006	B.Sc.(Electronics), 3 Yr Diploma in Electronics Engineering	B. Tech (CSE)	Short Term Course On Microprocessors, Linear Integrated Circuits Maintenance & Repair of Electronics Test Instruments	ECE Lab 6- managing Electrical Instrumentation and research Lab and its Maintenance, Operations and servicing of the lab equipment
Shambhoo Nath	Lab Technician	8000-500-18000	Shared	01/09/2007	2 Year I.T.I (ECE), 2 Year Diploma (ECE)	Pursuing B. Tech	--	Servicing and maintenance of Audio Video Systems; Servicing and maintenance of UPS.
Abhishek Ray	Lab Assistant	5200-375-12000	Shared	09/09/2013	Three Year Diploma (ECE)	Three Year Diploma (ECE)	--	Managing Communication Lab and its Maintenance, Operations and servicing of the lab equipment
Mohan Lal	Lab Assistant	5200-375-12000	Shared	02/03/2009	3 Year Diploma (CSE)	B.Com CCNA	--	Managing Computer Lab/ Project Lab and its Maintenance, Managing all the installed software.

6.4.1 Availability of adequate and qualified technical supporting staff for programme-specific laboratories (10)

Institute Marks : 10.00

(Instruction: Assessment based on the information provided in the preceding table.)

- All laboratories are having individual technical staff specialized in different field of electronics as per the above listed table.
- Sufficient technical staff is available to run the course laboratories.

6.4.2 Incentives, skill-upgrade, and professional advancement (5) Institute Marks : 5.00

(Instruction: Assessment based on the information provided in the preceding table.)

The technical staff is always motivated and encouraged to upgrade their technical skill and qualifications.

Special incentives in the form of increments and promotions to higher grade are provided.

7 Academic Support Units and Teaching-Learning Process (75) **Total Marks : 71.16**

Students' Admission

Admission intake (for information only)

(Instruction: The intake of the students during the last three years against the sanctioned capacity may be reported here.)

Item	2013-2014	2012-2013	2011-2012	2010-2011
Sanctioned intake strength in the institute (N)	510	510	480	450
Number of students admitted on merit basis (N1)	403	419	382	380
Number of students admitted on management quota/otherwise (N2)	28	44	75	80
Total number of admitted students in the institute (N1 + N2))	431	463	457	460

Admission quality (for information only)

(Instruction: The admission quality of the students in terms of their ranks in the entrance examination may be presented here.)
Tabular data for estimating student-teacher ratio and faculty qualification for first year common courses)

Rank Range	2013-2014	2012-2013	2011-2012	2010-2011
More than 98 percentile or %	5	3	2	3
95 - - 98 percentile or %	40	52	135	165
90 - - 95 percentile or %	219	296	221	182
85 - - 90 percentile or %	64	47	21	18
75 - - 85 percentile or %	47	18	3	12
60 - - 75 percentile or %	28	3	0	0
Total	403	419	382	380

List of faculty members teaching first year courses:

(Instruction: The institution may list here the faculty members engaged in first year teaching along with other relevant data.)

Name of faculty member	Qualification	Designation	Date of joining the institution	Department with which associated	Distribution of teaching load(%)		
					1st year	UG	PG
Aklank Jain	Ph D	Associate Professor	17/08/2012	Biotechnology and Bioinformatics	50	0	50
Dipankar Sengupta	B Tech	Assistant Professor	08/05/2010	Biotechnology and Bioinformatics	100	0	0
Harish Changotra	Ph D	Assistant Professor	04/07/2011	Biotechnology and Bioinformatics	18	68	14
Jata Shankar	Ph D	Assistant Professor	05/07/2013	Biotechnology and Bioinformatics	50	0	50
Jitendraa Vashistt	Ph D	Assistant Professor	25/07/2011	Biotechnology and Bioinformatics	60	0	40
Manju Jain	Ph D	Assistant Professor	27/08/2012	Biotechnology and Bioinformatics	100	0	0
Rahul Shrivastava	Ph D	Assistant Professor	18/01/2010	Biotechnology and Bioinformatics	12.5	68.75	18.75
Simran Tandon	Ph D	Associate Professor	01/01/2008	Biotechnology and Bioinformatics	20	80	
Tiratha Raj Singh	Ph D	Assistant Professor	29/09/2010	Biotechnology and Bioinformatics	16	46	38
Abhilash Shukla	M.E	Assistant Professor	11/07/2011	Civil Engineering	10	70	20
Anil Kumar	M.Tech	Assistant Professor	29/06/2006	Civil Engineering	10	75	15
Chandra Pal Gautam	M. Tech	Assistant Professor	15/07/2011	Civil Engineering	20	60	20
Mani Mohan	M.Tech	Assistant Professor	05/07/2013	Civil Engineering	10	70	20
Mudit Mishra	M.Tech	Assistant Professor	04/04/2012	Civil Engineering	10	90	
Poonam	M.Tech	Assistant Professor	29/06/2006	Civil Engineering	15	50	35
S.K. Jain	Ph D	Associate Professor	15/04/2005	Civil Engineering	10	70	20
Gaurav Raj	M. Tech	Assistant Professor	05/07/2013	Computer Science & Engineering and Information & Communication Technology	78	22	
Hemraj Saini	Ph D.	Assistant Professor	17/08/2012	Computer Science & Engineering and Information & Communication Technology	100		
Kapil Dev	M.Tech	Assistant Professor	04/01/2010	Computer Science & Engineering and Information & Communication Technology	25	75	

Pooja Jain	Ph D.	Assistant Professor	17/08/2009	Computer Science & Engineering and Information & Communication Technology	100		
Sanjana Singh	M. Tech	Assistant Professor	01/07/2013	Computer Science & Engineering and Information & Communication Technology	27	73	
Shailesh Tiwari	M. Tech	Assistant Professor	01/07/2013	Computer Science & Engineering and Information & Communication Technology	27	73	
Akhil Ranjan	M.S.	Assistant Professor	09/07/2012	Electronics & Communication Technology	57.2	21.4	21.4
Bhasker Gupta	Ph.D	Assistant Professor	04/07/2009	Electronics & Communication Technology	36.4	36.	27.2
D. C. Kulshreshtha	M.E.	Professor	14/07/2003	Electronics & Communication Technology	66.6	33.3	
Jitendra Virmani	M.Tech	Assistant Professor	19/07/2013	Electronics & Communication Technology	53.8	46.2	
Kaushlendra Pandey	M.TECH	Assistant Professor	05/07/2013	Electronics & Communication Technology	28.6	57.2	14.2
Munish Sood	M.Tech	Assistant Professor	24/08/2006	Electronics & Communication Technology	46.2	53.8	
Vanita Rana	M.E.	Assistant Professor	11/07/2008	Electronics & Communication Technology	58.3	41.7	
Anil Sehrawat	Ph D	Associate Professor	01/02/2005	Humanities and Social Sciences	66.6	33.3	
Anupriya Kaur	Ph D	Assistant Professor	02/07/2004	Humanities and Social Sciences	69.9	30.1	
Deler Singh	M. Phil	Assistant Professor	01/08/2012	Humanities and Social Sciences	30.77	69.23	
Neha Aggarwal	MBA	Assistant Professor	22/07/2010	Humanities and Social Sciences	69.23	3.0.77	
Harinder Singh	Ph D	Professor	29/07/2003	Mathematics	100	0	0
Karanjeet Singh	Ph D	Professor	01/09/2002	Mathematics	70	0	30
PK Pandey	Ph D	Assistant Professor	17/01/2011	Mathematics	70	30	0
RS Raja Durai	Ph D	Associate Professor	14/07/2008	Mathematics	100	0	0
Dheeraj Sharma	Ph D	Assistant Professor	01/07/2005	Physics and Materials Science	100	0	0
Pankaj Sharma	Ph D	Assistant Professor	01/08/2007	Physics and Materials Science	100	0	0
Ragini Raj Singh	Ph D	Assistant Professor	01/01/2012	Physics and Materials Science	60	40	0
		Assistant					

Sanjiv Tiwary	Ph D	Professor	03/07/2012	Physics and Materials Science	100	0	0
Sunil Kumar Khah	Ph D	Professor	01/08/2002	Physics and Materials Science	100	0	0
Surajit Kumar Hazra	Ph D	Assistant Professor	09/12/2010	Physics and Materials Science	70	30	0
Vineet Sharma	Ph D	Assistant Professor	24/06/2005	Physics and Materials Science	100	0	0

7.1 Academic Support Units (35)

Total Marks : 31.16

7.1.1 Assessment of First Year Student Teacher Ratio (FYSTR) (10)

Institute Marks : 6.16

Year	No. of students(approved intake strength)	No. of faculty members(considering fractional load)	FYSTR	Assessment=(10 x 15)/FYSTR(Max. is 10))
2011-2012	480	14	34.29	4.37
2012-2013	510	23	22.17	6.77
2013-2014	510	25	20.4	7.35

Average assessment 6.16

7.1.2 Assessment of Faculty Qualification Teaching First Year Common Courses (15)

Institute Marks : 15.00

Assessment of qualification = $3 \times (5x + 3y + 2z0)/N$, where $x + y + z0 \leq N$ and $z0 \leq Z$
x = Number of faculty members with PhD
y = Number of faculty members with ME/MTech/NET-Qualified/MPhil
z = Number of faculty members with BE/BTech/MSc/MCA/MA
N = Number of faculty members needed for FYSTR of 25

Year	X	Y	Z	N	Assessment of faculty qualification
2011-2012	20	8	0	19	15
2012-2013	28	15	0	20	15
2013-2014	26	18	1	20	15

Average assessment 15

7.1.3 Basic science/engineering laboratories (adequacy of space, number of students per batch, quality and availability of measuring instruments, laboratory manuals, list of experiments) (8)

Institute Marks : 8.00

(Instruction: The institution needs to mention the details for the basic science/engineering laboratories for the first year courses. The descriptors as listed here are suggestive in nature.)

Laboratory description	Space, number of students	Software Used	Type of experiments	Quality of instruments	Laboratory manuals
Physics Lab	84 m2, 30 per batch	--	As per Experiment List supplementing theory course	Excellent	Available
ECE Lab 1 -	91 m2, 30 per batch	--	Basic Electrical Circuits and Excellent Quality Standard & Branded instruments, ISI certified	Excellent Quality Standard & Branded instruments, ISI certified Instruments.	Available

			Instruments.		
Chemistry Laboratory	77 m2 , 30 per batch	--	As per Experiment List supplementing theory course	Excellent	Available
Workshop Practices Lab	61 m2 , 30 per batch	--	As per Experiment List supplementing theory course	Excellent	Available
Introduction to Computer Programming Lab.	30 Students per batch	Turbo C	C programming from basic to Complex problems	Excellent	Available
Data Structure and Computer Programming Lab.	30 Students per batch	Turbo C	Implementation of Data Structures like Array, Linked List, Stack, Queues, Tree and graphs using C.	Excellent	Available
Object Oriented Programming Lab.	30 Students per batch	Turbo C++	Implementation of Object oriented Concepts like Inheritance, Polymorphism, virtual function and friend function.	Excellent	Available
Basic Telecommunication and Circuit Lab.	30 Students per batch	Components and Kit	Implementation of basic communication circuits like Modulator	Excellent	Available

7.1.4 Language laboratory (2) Institute Marks : 2.00

(Instruction: The institution may provide the details of the language laboratory. The descriptors as listed here are not exhaustive).

Language Laboratory	Space, number of students	Software Used	Type of experiments	Quality of instruments	Guidance
Language Lab 1	30	Sky Pro	Pronunciation Practices	Excellent	Provided by Faculty
		Tense Buster	Grammar Practices	Very Good	Provided by Faculty
		Connected Speech	Connected Speech Practices	Very Good	Provided by Faculty

7.2 Teaching – Learning Process (40) Total Marks : 40.00

7.2.1 Tutorial classes to address student questions: size of tutorial classes, hours per subject given in the timetable (5) Institute Marks : 5.00

(Instruction: Here the institution may report the details of the tutorial classes that are being conducted on various subjects and also state the impact of such tutorial classes).

- Provision of tutorial classes in timetable(Yes/No) Yes
- Tutorial sheets provided(Yes/No) Yes
- Tutorial classes taken by: Faculty
- Number of tutorial classes per subject per week: 1
- Number of students per tutorial class: 30
- Number of subjects with tutorials: 1st year..... 2nd year..... 3rd year..... 4th year.....

1st year: 1st Sem-5 2nd Sem-5; 2nd year: 3rd Sem-5, 4th Sem-5; 3rd year: 5th Sem-5, 6th Sem-5; 4th year: Nil

A class is divided in to 30 sized batches and each batch is handled by a single faculty member in separate tutorial rooms. Different exercises related to the topics were given and are solved by the students during the tutorial hours with the guidance of faculty. Students are divided into groups based on their understanding levels and group activity is assigned to them.

7.2.2 Mentoring system to help at individual levels (5) Institute Marks : 5.00

(Instruction: Here the institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system).

• Mentoring System	Yes
• Type of Mentoring	Total Development
• Number of faculty mentors	5
• Number of students per mentor	30
• Frequency of meeting	Bi-weekly

Department Mentors

Prof. D C Kulshreshtha	Chief Mentor.
Dr. Ghanshyam Singh	Mentor of Batch-A1
Dr. Devender Singh	Mentor of Batch-A2
Dr. Mohd. Usman	Mentor of Batch-A3
Dr. Rajiv Kumar	Mentor of Batch-A4

Each mentor meets his students in an informal environment over a cup of tea about twice a month, to involve the students for a free discussion about

i. Living in the campus.
ii. Meals served in Annapurna
iii. Teaching of different subjects
iv. Teaching Human Values
v. Peer Cooperation And Peer Pressure handling
vi. Motivation
vii. Time Management

In case, any improvement is needed in any aspect, the same is reported to the Chief Mentor, who takes up the matter with the concerned person. The system works quite well, as the students are given an opportunity to express the difficulties faced by them.

Efficiency of the System:

- The mentoring system developed by the University has been proved to be effective considering different parameters.
- The involvement of students in the academics has been increased, like class work attendance, participation in cultural activities etc.
- Because the number of students allocated to each of the mentor is limited to 30, personal interaction on regular basis has been taken up.
- Teachers are also becoming more responsive to the learner needs day by day.

7.2.3 Feedback analysis and reward / corrective measures taken, if any (5) Institute Marks : 5.00

(Instruction: The institution needs to design an effective feedback questionnaire. It needs to justify that the feedback mechanism it has developed really helps in evaluating teaching and finally contributing to the quality of teaching).

- Feedback collected for all courses(Yes/No) Yes
- Specify the feedback collection process
- Feed back is collected at end of each semester in the format attached for lecture,/Tutorial and Lab • It is collected by the teacher who is not teaching the course for which feedback is obtained.
- Percentage of students participating 90%
- Specify the feedback analysis process

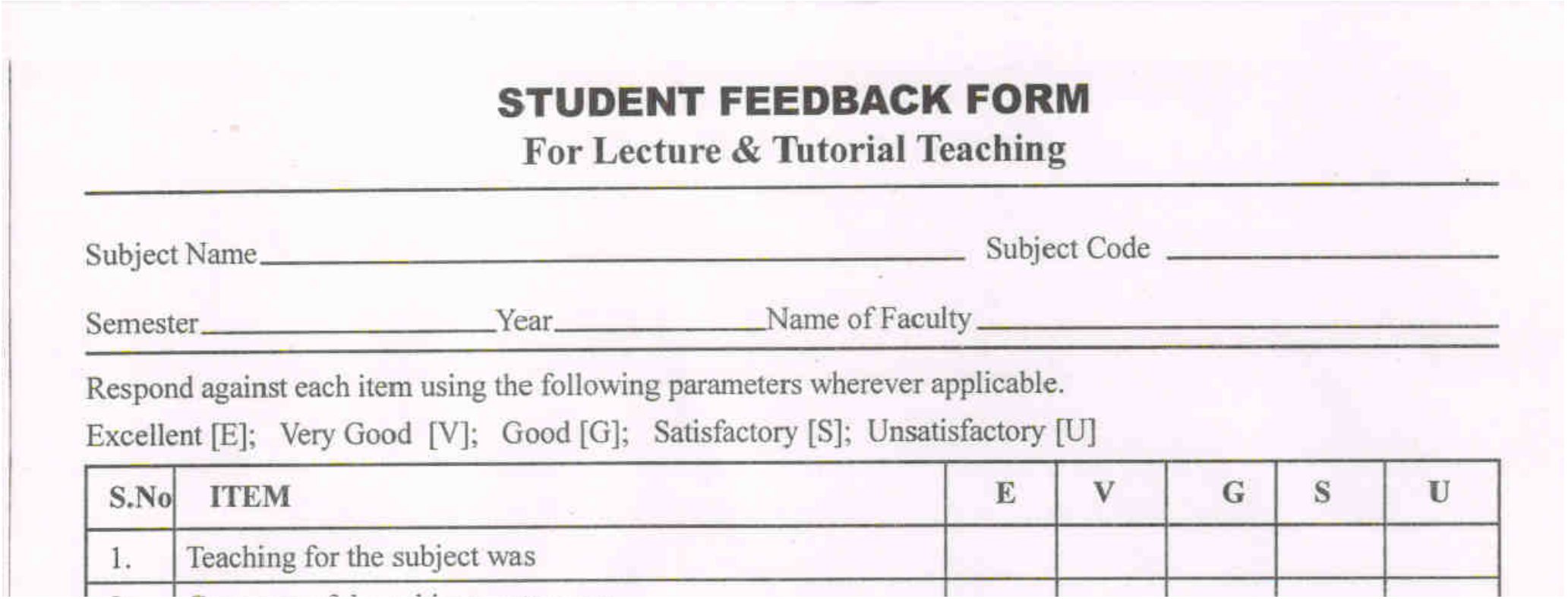
The University has developed software to analyse the feedback. The data entry is done by the administrative office. The reports are given to the Vice Chancellor for further action.

- Basis of reward / corrective measures, if any

The Vice-Chancellor and the Head of Department discusses the feedback report with each faculty member and appreciate /counsel to improve on teaching. The feedback obtained is also entered in the appraisal report of teacher concerned, and is taken as one of the factors at the time of promotion. The feedback report is also one of the factors for revising the course contents.

- Number of corrective actions taken in the last three years

Feed back Forms and some specimens of Feed back anlysis are given under.



STUDENT FEEDBACK FORM

For Lecture & Tutorial Teaching

Subject Name _____ Subject Code _____

Semester _____ Year _____ Name of Faculty _____

Respond against each item using the following parameters wherever applicable.

Excellent [E]; Very Good [V]; Good [G]; Satisfactory [S]; Unsatisfactory [U]

S.No	ITEM	E	V	G	S	U
1.	Teaching for the subject was					

2.	Coverage of the subject matter was					
3.	Opportunity provided for asking questions in the class was					
4.	Delivery of lectures/tutorials was					
5.	Standard of the subject matter covered was					
6.	Emphasis on concepts and fundamentals was					
7.	Your learning of the subject has been					
8.	Usefulness of the subject to your career is					

9 Name three topics of this subject you learnt the best:

A] B]

C]

10. Name three topics of this subject you could not learn to your satisfaction.

A] B] C]

11. Specific suggestions and comments on the subject and its teaching:

S.No.	SUBJECT	TEACHING
A		
B		
C		

12. Any Other Comments:

[Use reverse side for more space. Please do not indicate your identity anywhere]

STUDENT FEEDBACK FORM

For Laboratory Classes

Lab Course Name_____ Lab Code_____

Semester_____ Year_____ Name of Faculty _____

Respond against each item using the following parameters wherever applicable.

Excellent [E]; Very Good [V]; Good [G]; Satisfactory [S]; Unsatisfactory [U]

S.No.	ITEM	E	V	G	S	U

1.	Level & Standard of experiments/design given					
2.	Usefulness of this Laboratory towards your understanding of theory					
3.	Usefulness of this Laboratory to your career					
4.	Status of the equipments in the lab					

5. Number of experiments you could complete successfully:

6. Name the best experiment you performed:

7. Name the experiment you could not complete to your satisfaction:

8. Specific suggestions and comments:

S.No.	LABORATORY/EXPERIMENT
A	
B	
C	

9. Any Other Comments:

[Use reverse side for more space. Please do not indicate your identity anywhere]

Student Feedback Analysis

Subject Code: 10B17EC473 Subject Name: ANALOGUE COMMUNICATIONS LAB

Faculty Name: S V R K RAO

Number of Registered Students in class: 84

Exam code EVEN SEMESTER 2013 Maximum Number of Respondents: 84

ITEM	E	V	G	S	U	Total	W	ItemRating
Level & Standard of Experiments/Designs Given	41	29	14	0	0	84	740	8.81
Status of the Equipments in the Lab	18	34	23	7	2	84	654	7.79
Usefulness of this Laboratory to your Career	37	34	11	2	0	84	729	8.68
Usefulness of this Laboratory towards your understanding o:	34	36	13	1	0	84	724	8.62
TOTAL	130	133	61	10	2	336	2847	33.89

Overall Average Rating: 8.47

i = Responses
j = Items
W = Weighted Count of the item
Weightage(wi): E = 10
V = 8
G = 7
S = 5
U = 3
Cij = Count of Respondents
Item Rating,Ij = Sum(Cij * Wij)/Sum(Cij)

Overall Average Rating = Sum(ItemRating)/4

7.2.4 Scope for self-learning (5) Institute Marks : 5.00

(Instruction: The institution needs to specify the scope for self-learning / learning beyond syllabus and creation of facilities for self-learning / learning beyond syllabus.)

Students are given assignments, practical projects, to promote self learning. Learning Resource Centre, University LAN and internet resources help in self learning. The B Tech projects given to the students in final year also provide a good tool of self learning where students gain practical knowledge to achieve objectives of the project.

7.2.5 Generation of self-learning facilities, and availability of materials for learning beyond syllabus (5) Institute Marks : 5.00

(Instruction: The institution needs to specify the facilities for self-learning / learning beyond syllabus.)

Self-learning is promoted in the University by generating self-learning facilities under various modes. Students are encouraged for self-learning by personal counseling and organizing various contests and events. Following are the various modes of self-learning and facilities created therein.

Web-based Learning:

The internet is an open information system from where the students can obtain various kinds of information, media and materials such as texts, images, video sequences which can help them in a diverse way for generating self-learning environments. Due to its interactivity, learners (students) can gather information which is important in learning and helpful in accomplishing their learning objectives. Hence, the potential of the Internet self-learning mode is considered to be very high. Therefore, the University provides internet facility in both the academic and hostel campuses for 24 hours to promote and motivate students to self-learning. The availability of internet facility allows them to learn and to gather the information from worldwide network without any interruptions.

Learning with Multi-media:

- Providing the information related to various web-based learning sites: NPTEL, MITOPENCOURSEWARE, SCHOOL OF OPEN LEARNING, etc.
- Availability of course material on intra-net
- Digital Library facility
- LCD projectors for presentation

Learning Resource Centre:

Learning Resource Centre, the University Library is open upto midnight on all working days and has online search and reprographic facilties.

Classroom Presentations:

- Every course allows students to prepare and present any topic from the curriculum.
- Arranging presentation on non-technical topics.

Technical Symposiums:

- Organizing annual events like, MURIOUS, and various contests.
- Organizing various events like poster presentation, debate, awareness, etc.
- Motivating students to participate in inter-college events for paper presentation and project exhibitions

Provision for teaching of French and German.

Provision for Audit Course in English language for improving English speaking and writing.

7.2.6 Career Guidance, Training, Placement, and Entrepreneurship Cell (5) Institute Marks : 5.00

(Instruction: The institution may specify the facility and management to facilitate career guidance including counselling for higher studies, industry interaction for training/internship/placement, Entrepreneurship cell and incubation facility and impact of such systems)

The University has created the following facilities for career guidance:

- Full time Placement Officer.
- On campus training for placements.
- Companies are invited for campus placements.
- Guidance for preparing for GRE and GATE
- Faculty members also guide and counsel the final year students by holding the meeting on regular intervals related to the electives, preparation of competitive exams, and admission in higher education.

7.2.7 Co-curricular and Extra-curricular Activities (5) Institute Marks : 5.00

(Instruction: The institution may specify the Co-curricular and extra-curricular activities, e.g., NCC/NSS, cultural activities, etc)

Jaypee Youth Club

For they believe in the presence of knowledge even in the silence of the hills, the JYC (JUIT Youth Club) is a student body of the Jaypee University of Information Technology which works for the holistic development of the students of the university and is an overall complete structure in itself that educates, entertains and supplements the growth of the students This is achieved through annual cultural, technical fests, various events, parties, treks, outings and other spontaneous activities to maintain high levels of enthusiasm and team integration. Focusing on technical, literary, sports, and cultural competitive activities, apart from serving as a retreat from intense academic loads, these extracurricular activities present with an opportunity that builds confidence, encourages teamwork and gives a strong sense of achievement and belonging to the students. Various activities are organized by the sub-bodies called Clubs that cater to the needs of each aspect of the society and life.

JYC also organizes the participation of JUIT students in the cultural and sports activities of other institutes.

Cultural Club: The Cultural Club, as the very name suggests, works in the backdrop of fun, frolic, dance and music. Had it not been for this club, the very famous and awaited, ramps and cultural nights would never have been a reality in JUIT. The club even this year has continued on its soulful march to making people smile.

Environment Club: When we were kids, they did not talk much about the rising need to protect the environment but times have changed. The focus is on the greener side of life and JYC is not leaving a stone unturned to do the same. Environment protection takes the form of a very beautiful and fun filled arena where rallies and marathons are organized; people participate in fun filled events which somehow also drive them closer to nature.

Event Management Club: The Event Management Club is the wing of JYC without which let alone the success, even the inception of an event is not possible. The event management checks the needs of all the clubs, their requirements and sweats hard so that every show on the bloc is a success. It is the hard work of this club we need in order to let any event shine like a star.

Literary Club: The Literary Club, for starters is the hub of poets, writers, debaters and all those who took the idiom, The pen is mightier than the sword, seriously. Truly, the club has had people involved in the past with appreciable talents and continues to strive for talent and enjoyment. It is good to imagine the normally thought boring literary personnel involved with events that make you laugh and have fun.

Sports Club organizes the sports on campus, prepares teams for outside participation.

Tech Club: An Engineering institute that we are, how we can ever forget the importance of coding and technical skills required to run and solve the most complicated of problems. The Tech Club is a unique blend of people striving to use their computers and producing some of the most uniquely designed events that we have ever seen in JUIT.

Movie Club: Who does not like a supply of popcorn and some good movie on the screen which makes up for some great entertainment? Well, the people in the movie club knew the needs and come to our rescue as and when required. While screening a movie in the auditorium is just one part of their usefulness, their ingenious minds produce and bring forth events that interest all years and people of all kinds. Also cannot be forgotten that certain events have always been directed to bring lonely hearts together.

PRESIDENT	Rachit Singhal
SECRETARY	Shruti Srivastava
TREASURER	Madhav Dhingra

CLUB COORDINATORS: (S)

CLUB	**COORDINATOR(S)**
CULTURAL CLUB	Mudit Singhal

ENVIRONMENT CLUB	Surabhi Taluja and Dhawal Keshwani
EVENT MANAGEMENT CLUB	Vishwendra Atri
LITERARY CLUB	Tanya Singhania
MOVIE CLUB	Kripi Aggarwal
SPORTS CLUB	Ali Saud Khan and Deepika Lohani
TECHNICAL CLUB	Nukul Sehgal and Puneet
FACULTY INCHARGE	Prof. (Dr.) Karanjeet Singh

Activity during 2009-10

The events organized by JYC

Diksha, 09 - 1st Cultural Night, 2009 - (5th September, 2009)

Jaypee University of Information Technology Waknaghat, though, different, unique and an edge above the other universities colleges and institutions, in almost all aspects of competition, is not so different when it comes to celebrating and having fun.

The first cultural night of the new session, aptly termed as Diksha 2009 because of it being celebrated on the 5th of September 2009, the Teacher's Day, was a day of revelry and excitement for all wings of JUIT along with being a day of sumptuous presentation of talent, culture and happiness by all alike.

There were various events like Solo & Group dance and the much awaited Mr and Miss Personality contest. The evening ended with an awesome DJ night.

Robotics Workshop

The TRI workshop on manual robotics held on 30-31st October, 2009 in JUIT was a great success. The students displayed great interest and participated in huge number. A total of 188 students participated in the workshop and were benefited from the workshop.

Due to efforts of Tech club of the college the students are showing keen interest in technical activities like robotics and participating in big numbers.

Lohri celebrations in JUIT - (13th January, 2010)

The 13th of January descended like a boon for JUIT as apart from bringing with it the festivities of Lohri, it brought the rather unprecedented and of course, the first snowfall of the season. JUIT celebrated as the students were welcomed with a blazing bonfire in the basketball court area along with the usual Lohri eatables and the tunes of the traditional 'Dhol'. People marveled as the efforts the JYC had put in to make students enjoy came to the surface. All danced and rejoiced.

Sanrachna, 2010 - (29th January, 2010)

The college tech fest “Murious 4.0” was inaugurated along the civil engineering consortium celebrating the launch of their first ever technical magazine with a very exuberant cultural night.

The magazine -“Sanrachna”, was launched which was lauded by all. It was also a matter of great pride and joy for all of us to witness the launch of the book “Pinkscapes” authored by a fellow JUITian, Jay Purandare (President, Civil Engineering Consortium).

JUIT MUN (Model United Nations) - (February, 2010)

Youth are the future of this country and this world. An enlightened and well- informed generation can bring about the changes that are required to make this world a better place. Keeping this in mind, a two-day Model United Nations session was organized which educated the students about world affairs and widened their horizon of knowledge.

Le- Fiestus, 2010 - (21-23rd March, 2010)

Le Fiestus’10, the three-day annual cultural fest, was a psychedelic gala time filled with a lot of fun, frolic, and enjoyment to the fullest. It churned out great events, making you listen to the truly stirring symphony of the spring that said “It’s up to you”.

Le Fiestus’10 had S Tel as the title sponsor in association with Visa Power, Pepsi, McDonald’s and Godrej. The fest was co-sponsored by Emerge and Wrangler.

Events Day1:

Love Actually, Amazing Race, Rangoli, Sandwich making, Tech Tadka, Dodge Ball, Wheel of Fortune, Perfect Mismatch, Theme Photography, Creative Writing, Dice Game, Las Vegas, Perfect Mismatch, Kite Flying, Street Calico (Near Café), Price is Right, Be the Beckams, Robo Olympics, Game Quiz, Dare to Date, Point Counter Point, Tug of war, JUIT Idol, Tell a Tale, Escapade Inquizitive, Clay Modelling, Musical Chair, Get Gorgeous, Desi Adda, Water Games, JAM, Roomy Compatibility, Ad Mad, Junkyard Wars. Performance by the band GROOVE ADDA

Events Day2:

QuizMoz, Movie Quiz, Chakkow, Hack Dhun, Codez, Sack Race, Matrix Reloaded, Battle Ground, Open Forum, Rehash ur Trash, Nail Art, Route –O- Hop, EcoDoku, Amazing Race, English Debate, Robo Olympics, Las Vegas, Bottoms Up, Miss Mess the Mister, Golf, Brain Drain, Virtual Robotics, Innova, Kidnap, Ich Liebe, Get Gorgeous, Tambola, Soap Modeling, Water Games, Jam Finals (Tuck), Aisles n Curtains, Street Dancing, Two blind Mice, Egg Astronaut, Performance by the band BANDISH and DJ WARS.

Events Day 3:

Hack, Lord of the Clubs, Fuse Ball, Jungle Razz, ToonDoo, Mock CAT, Twin Jinx, Las Vegas, Thermo Balls, Bucket game, Equilibrium, Gym Events, Couch your Imagery, Pentathlon, Theme Photography, Symbology, Tower of Greed, Robo Olympics, Documentary Making, Theme Collage, Game Quiz, Guns n Roses, Ich Liebe, JUIT LoopHoles, Designer Quest, Ikebana, Water Games, Roadies, Bluff Master, Quiz (Total Recall) Flash, Tug of War, Monopoly. These events were followed by the presentation ceremony in which the President, Secretary, Treasurer and all the club coordinators and deputies received laurels for their remarkable work during the fest followed up with the event Mr. & Miss Personality . Finally the fest ended with a lively performance by renowned singer, Mohit Chauhan.

JUIT MUN- II (Model United Nations)- (February, 2010)

After the very successful first MUN, JUITians showed their commitment towards making a positive change by though and positive global ideas in the second Model United Nations. It raised the benchmark even higher and proved again how good and informed JUITians actually are.

JUIT Scribbling day - (5th May, 2010)

Jaypee University of Information Technology celebrated the passing out of one more batch with great zeal and enthusiasm. To seizure all the happy moments, JUIT celebrated scribbling day on 5th May, 2010 when all the 4th year buddies scribbled each other’s’ college shirts with a lot of happy-sad yet sweet memories. All the 4th year students were given a title each by the Literary club (JYC).

Participation in Events Organized by Other Institutes

JUIT students participated in the following events and won prizes.

BOSM, BITS Pilani - (16th-20th September, 2009)

1. **Silver Medal**: TABLE TENNIS GIRLS TEAM (Deepika Aggarwal, Kusum Lata, Aditi Sharma and Sunali Magotra).
2. **Silver Medal (Shot-put Boys):** Jaideep Brar
3. **Silver Medal (Shot-put Girls):** Shalini Sharma
4. **Bronze medal (Shot-put Girls):** Anchal Pundir
5. **Silver Medal (Discus Boys):** Jaideep Brar
6. **Bronze medal (Discus Girls):** Muskan Jain
7. **Bronze medal (Javelin Girls):** Muskan Jain
8. **Bronze medal(1500m):** Chandan Raj
9. **Consolation Prize (Marathon):** Chandan Raj

SERENDIPITY-2009 - (4-5th October, 2009)

EVENT	PARTICIPANTS	Prize
Wordsmith	Pranav Hoondo	1st Prize
On Air	Pranav Hoondo, Zen Taha.	2nd Prize
Folk Dance	Bhupinder	2nd Prize
Street Play	Puru and group	2nd Prize

THOMSO, IIT Roorkee - (28th - 31st October, 2009)

Group Dance 1st prize

Techfest, IIT Mumbai

Team Event: Elixir 3.0 **Position:** 4th

(Mohit Sain, Nitin Agarwal, Shruti Sharma, Supriya Rai and Utkarsh)

Techniti, NIT Jalandhar

EVENT	PARTICIPANTS	Position
Robo roadies	Anubhav and Puneet	1st
A.I. Design	Amit Singh and Mayank Chandak	1st
Overnight	Amit Singh,	1st

Activity during 2010-11

DIKSHA(11th September,2010)

Jaypee University of Information Technology organized the much awaited cultural night on the 11th of September. The evening gained momentum by the freshers showcasing their talent and at the same time creating awareness regarding drugs through the play "DRUGS". The play was followed by the scintillating SACCADAS by Shashank and group, which was a blend of western dance SALSA,TANGO and JIVE. When speaking of dance how can one forget our very own NATI, the essence of Himachal Pradesh being its regional dance, which left everyone glued to the stage. The dance was followed by the power packed singing performance by Arpit Tripathi , Neha Joshi and Sahana with Suraj on the guitar. But the show stealer with no doubt was the solo dance performance by shashank, which made everyone go down memory lane and reminded of the legendary Michael Jakson. Another folk dance of the evening was the BHANGARA known for energy and masti truly stood out. Then came the solo contemporary dance by Mansi Sharma ,which was followed by the electrifying group dance by INEXOBERALS by Rachit and group. Then came the classical dance performance by YASHA and group.

After the glittery night with all the young stars shining away to glory, the secretary of the JYC club Shruti Shrivastav extended a warm thank you to the guest of honor.

PDGC 2010

On the second day of the PDGC 2010 conference, a cultural night was organized by the Cultural Club**,** JYC**.** It was filled with immense exuberance and fervour. The whole cultural night portrayed the various cultures of INDIA and presented the country as one with the most diverse yet unified people. So many religions, castes, states and differences yet INDIA stands united and makes each citizen proud to be an Indian. This was the theme of the night.

SPORTS-WEEK (14th November to 21st November)

There was a sports week organized by the sports club of JYC from 14th November to 21st November. There were various sports and it gave an opportunity to the students to showcase their talents.

CANVAS REINVENTED (21st January)

The days of painting on canvas are gone. JYC Environment Club presented an event on 21st January,2011 which provided with the opportunity to exhibit your creativity on some of the most beautiful canvasses provided by our wonderful nature. Display your imagination and create a harmony with colours, pebbles and your own self through *Stone Painting* and *Tattoo Making* at Canvas Redefined.

AVSAR

Happiness is not so much in having as sharing. There is nothing one would like to see so much as the gleam of pleasure in a persons eye when he feels that we have sympathized with him and understood him. This exactly is the motive behind Avsar organized by Environment Club.

It is a donation campaign organized in the spirit of caring and sharing in which the members of Environment Club go door to door collecting stuff which is considered waste by the students but can make huge difference in the lives of less privileged people. The collected material, which includes old newspapers, notebooks, clothes, blankets, shoes etc. is then distributed among the people who need it.

This event happens almost in every two months. It has been exceptionally successful arousing enthusiasm amongst students and reaching out to the threshold common man. After all, we make a living by what we get, but we make a life by what we give.

MURIOUS 5.0 (28th January – 30th January)

Murious$^{5.0}$,the technical fest of JUIT ,was held from 28th – 30th January 2011. The festival organized by the JYC had a cultural night on the first day. The cultural night was named **Synchrotron**. The event was a huge success with various dance and singing performances. It was also the last event for the students placed in Infosys and they participated in various dances also.

The online events such as HACK, Maze of Lethe, KBC, Codez, Android based application development and web designing had started on the first night itself.

Hack-consisted of a 5 level hacking contest in which you had to apply real time hacking exploits to get to the next level. The event was developed single handedly by a second year student Varun Mittal. The event though had large participation but only around three students reached level 2.

Maze of Lethe-It was an online riddle based game in which you had to find hints in the browser window and find the answer to the next level. This event also had a participation of around 150.

KBC- It was a time bound technical quiz with objective answers.

Codez- An online coding event for which the participants had to submit the solution.

Android based application development consisted of development of an application to display the news in a list in real time.

Web designing was also an online submission event with the participants deciding the topic on which they wanted to design.

Then there were the on-campus events the details of which are as follows

Cliffhanger- A time bound technical quiz with questions based on both the studies and the general knowledge.

Capture the flag- A C/Java coding event in which the participants had to solve several different levels of problems.

Junkyard Wars- It was a competition to make an elastic mechanism which is able to hit ball into the bowling pins. The mechanism was to be built from scrap such as wooden planks, bottles, thermocol, etc. Only an elastic band was provided to the participants other than the scrap.

Circuitrix-It was an electronic quiz which consisted of a written round followed by a visual round and then the rapid fire round.

Tech add- It was a fun event with the ads or taglines of various brands being displayed on the projector and the participants had to jot down the answers.

Virtual Robotics- It was a competition in which the participants were given a complicated problem statement and the participants were asked how they would develop their robot. But everything was on paper.

Mock placement- It was an event for the students who wanted to check there aptitude and personal interview facing skills.

Matlab – It was a Matlab coding event.

Windows tweaking- The participants were asked to tweak the windows desktop or performance using software such as rain meter and mainly the command prompt.

Crack the software – participants were given unknown software and had to try to use it.

El Dorado Expedition- The participants had to make a manual robot which was able to move on land as well as the water.

Autodozer- The participants had to build an autonomous robot which was able to negotiate right angle and all types of turns in the line which they followed. Also the robot had to pick an iron piece and take till the end of the track.

Death race- It was an obstacle avoider manual robotics event in which the participants had to avoid all the obstacles such as the rotating wheel, rollers, see saw, etc.

The overall participation in the events was not encouraging in the core technical events but it was above the expectations in other fields.

UPCOMING EVENT

Le Fiestus, 2011(8^{th} April-10^{th} April)

Another festive season beckons as JUIT gears up for Le Fiestus 2011 this spring. Happens every year, but each year brings new excitement, more attraction and the usual exuberance associated with the fest that is such an integral part of our lives. Le Fiestus is basically a three day arrangement with lots of events occurring of all clubs pertaining to all interests people can have. While the days are colored with the hues of the events taking place in every nook and corner of the campus, with students moving around full of energy, the nights are grand, glorified by the performances of famous bands and celebrities. Music rules and all one can see is happy faces and bodies grooving to the mesmerizing tunes. It is not just a FEST, it is a celebration of youth, of splendor, of ardour.

Le Fiestus is the JUIT's Fest that occurs every year and attracts a huge crowd along with an astonishing number of sponsors. Held in the months of March or April, the event is the epitome of celebration in JUIT, a time when all differences are forgotten, all hands are joined.

LeFiestus 2010 was marked by the performance of Mohit Chauhan, DJ Nasha ,DJ Puru and DJ Barkha. This fest was a benchmark and we are working to make LeFiestus 2011 at least upto that level and even more. An expecting performance is of **Vishal and Shekhar.** Rest is yet to be decided.

Who would thus want to miss this gala event where various thoughts take the shape of reality. A picture painted by many hands, it is the result of the hard work poured by the hands of JUITians, a voice that, in one note speaks of our unity and friendship.

JUIT Student Branch of IEEE

IEEE the world's largest technical professional society is designed to serve professionals involved in the fields of electrical ,electronics, computer engineering and science and other related areas of science and technology viz. biomedical technology, information technology, technical communications, micro and nanotechnology, aerospace systems etc.

A Student Branch of was established in (year?) and has been active throughout this period. During the Annual General Meeting of the IEEE Delhi section held on 19th April, 09 in Delhi, the Branch was awarded

- Outstanding Branch Counsellor Award : Mr Rohit Sharma, Sr. Lecturer, Department of Electronics and Communication Engineering
- J.K Pal Memorial Award: Esha Gupta (Enrolment No. 051247)
- Outstanding Volunteer Award: Aditya Patel (Enrolment No. 061204)

The Branch sponsored the following two conferences

1. International Conference on Parallel, Distributed and Grid Computing (PDGC-2010) October 28 to 30, 2010.
2. International Conference on Image Information Processing (ICIIP -2011) November 3 - 5, 2011

Annual General meeting of IEEE Region 10 for the year 2009 was held at Jaypee University of Information Technology.

IEEE technical festival was organized in November 2010 at JUIT for the IEEE student members of Region 10.

7.2.8 Games and Sports facilities, and qualified sports instructors (5) Institute Marks : 5.00

(Instruction: The institution may specify the facilities available and their usage in brief)

A full time sports instructor is in position.

Facilities for the following sports exist:

- Basketball
- Volleyball
- Badminton
- Table tennis
- Gymnasium: Well equipped Gyms are provided in Boys and Girls Hostels
- Cricket (net practice only)

8 Governance, Institutional Support and Financial Resources (75) **Total Marks : 75.00**

8.1 Campus Infrastructure and Facility (10) Total Marks : 10.00

8.1.1 Maintenance of academic infrastructure and facilities (4) Institute Marks : 4.00

(Instruction: Specify distinct features)

Campus

The University is spread over 25 acres of lush green picturesque slopes of Waknaghat, in District Solan of Himachal Pradesh, creating a tranquil environment that can heighten the spirit and energy level of all learners and inspire them to optimize their learning efforts. The architectural design of the campus has been provided by M/s Arcop Associates Pvt. Ltd., an eminent Canada based architect firm, with the construction being undertaken by the Jaypee Group itself. Functionally and aesthetically spread out, the architectural plan builds on providing an intellectual ambience in clusters in an exciting landscape that is easy flowing and community-friendly.

A phased construction plan over the years a total built up area of about 800,000 Sq. Ft. (73150 Sq. m) comprising the Academic Block (with lecture theatres, classrooms, tutorial rooms, laboratories, administrative and faculty offices, and the library), Hostel accommodation for boys and girls, faculty residences (76), Guest House, Annapurna, Auditorium, Sports facilities, and other associated services have been developed.

Utility wise the built up area is as under:

S. No.	Particular	Area in Sq. Mtr.	Area in Sq. Ft.
1	**Academic Block - Vivekanad Bhawan**	**13,033.91**	**140,244.90**
2	**Hostels (Boys), Shastri Bhawan, Azad Bhawan and Parmar Bhawan**	**26,523.53**	**294,393.19**
3	**Hostel (Girls)-Geeta Bhawan**	**7,023.21**	**75,569.81**
4	**Faculty Residences - Malviya Bhawan A – E**	**13,946.73**	**150,066.50**
5	**Facilities**		
	Annapurna	1,041.81	11,209.87
	Auditorium, C. Link & C. Porch	1,755.76	18,891.99
	Mandir	281.66	3,030.61
	Dispensary	253.52	2,727.86
	Basket Ball Field & Volley Ball Field	1,200.00	12,912.00
	Badminton Court Area	170.00	299.20
	Total Facilities Area	**4,702.75**	**49,071.53**
6	**Miscellaneous**		

Guest House	1,592.73	17,137.73
Telephone Exchange	897.54	9,657.51
ESS	2,226.99	23,962.46
Plant Room/Green Room	593.80	6,389.31
Workers Dormitory-1	1,570.39	16,897.45
Workers Dormitory-2	850.00	9,146.00
Uploading Bay	189.14	2,035.14
Total Miscellaneous Area	**7,920.59**	**85,225.60**
Total Construction Area (1-6)	**73,150.72**	**794,571.53**

Lecture Theaters and Class Rooms

For holding theory classes (Lectures and Tutorials) following provision has been made in the Academic Block. Seating capacity for each is given. This space is also used for conducting the theory examinations.

All lecture theaters and class rooms are net connected and equipped with projection facility. In lecture theaters audio facility has also been provided. In Lecture Theater 3 provision of video conferencing also exists.

S. No.	Description	Level -1		Level 0		Level 1		Level 2		Total Seating Capacity
		Nos.	Capacity	Nos.	Capacity	Nos.	Capacity	Nos.	Capacity	
1	Class Rooms	2	95	2	84	4	84			694
2	Lecturer Theatre			1	240	1	260			500
3	Lecturer Theatre			1	260					260
4	Tutorial					2	35	5	35	245
	Total Seating Capacity									**1699**

Teaching Labs

Department of Electronics and Communication

The Department has the following Laboratories to support our B Tech M Tech and Research programmes:

1. Advance Communication System Laboratory.
2. Basic Electronics Laboratory.
3. Communication Laboratory.
4. Digital Electronics and Signal Processing Laboratory.
5. Device and Circuit Simulation Laboratory.(Shared with the Computer Science Engineering Department)
6. Electrical science Laboratory.

7. Embedded System Laboratory.
8. Microprocessor Laboratory
9. Microwave Laboratory.
10. Research/Project Laboratory.

All the labs are well equipped with state-of-art instruments and software tools to enable the students to perform design oriented experiments and test their designs by computer simulations tools like ORCAD, MATLAB etc. There are 83 numbers of computers in ECE department and each computer connected with the LAN and Internet connectivity.

Department of Computer Science & Engineering and Information Technology

The department has 6 computer labs equipped with 415 computers with LAN and internet connectivity. All software's are licensed. One Computer Lab (CL-6) is dedicated to project work of final year B Tech and M Tech students.

Department of Biotechnology and Bioinformatics

The Department has 7 state-of-the-art modern biotech laboratories such as Proteomics Technology Lab., Genomic Technologies Lab, Plant Biotechnology Lab., Microbial Biotechnology Lab., Animal & Plant Cell Culture Labs., Environmental, Biotech Lab., and Industrial Biotechnology Lab. The department is also equipped with 2 Bioinformatics Labs with high end Servers, Sun Workstations and IBM PCs with installed several bioinformatics software packages such as Schrodinger, AMBER, GROMACS, DOCK, VMD, DNASTAR, and other software related to Chemoinformatics, Docking, Simulation, Visualization, etc. These labs are also used for educating students in algorithm design, bioprogramming & scripting languages, computational drug designing, development of biological databases, advanced chemoinformatics, etc.

Department of Civil Engineering

Laboratory support to programmes of the Department is provided by the following well-equipped laboratories of the department:

1. Geotechnical Engg. Lab
2. Highway Engineering Lab
3. Concrete Lab
4. Fluid Mechanics Lab
5. Workshop Practice Lab
6. Civil Engineering Software Lab (with Projector)
7. Environmental Engineering and Chemistry Lab
8. Engineering Drawing Hall (with Projector)
9. Project Laboratory

All the laboratories are equipped with state-of-art instruments and software tools to enable the students to perform design oriented experiments. Major equipments include Computerized 100-ton UTM, TOTAL Station, Spectrophotometer, Humidity Chamber for controlled curing of concrete, Benkelman's beam etc. The software packages with the CE Soft. Lab, are STAAD.pro, AutoCAD, Estimator, Primavera, SAP2000, ETABS, and MATLAB. A number of major projects have been completed using above software.

Department of Pharmacy

The Department has 5 state-of-the-art modern labs

1. Pharmaceutical Chemistry,
2. Pharmaceutics,
3. Pharmacognosy,

4. Pharmacology and
5. Pharmaceutical Biotechnology

Department also has an animal house for research purpose.

Department of Physics

A well equipped laboratory has been established for teaching B Tech courses.

The Department also has three research laboratories namely (i) Nanotechnology lab. (ii) Microwave antenna lab. (iii) Spectroscopy lab. All the laboratories are well equipped with relevant and advanced experimental facilities along with necessary software.

Department of Professional Development

The Department has Language Communication Lab **(Clarity Digital Multimedia Language Lab)** which is presently being used for training the students to communicate in English.

Research and Development (R & D) Labs

The University has spent about Rs **338.00 Lakh** for setting up R&D labs in various departments. Details are as under.

S. No.	Lab Name	Department	Investment in Rs Lakh
1.	Instrumentation Lab-1	BT & BI	38.8
2.	Instrumentation Lab-2	BT & BI	22.4
3.	Proteomics Lab	BT & BI	26.05
4.	Fermentation Lab	BT & BI	24.54
5.	Green House	BT & BI	42.5
6.	Genomics Technologies Lab	BT & BI	90.10
7.	Bioinformatics Research Lab (Hardware)	BT & BI	4.05
	Bioinformatics Research Lab (Software)	BT & BI	14.73
	Total	**BT & BI**	**263.17**
8.	Spectroscopy Lab	Physics	30.00
9.	Nanotechnology Lab	Physics	20.00
10.	Electromagnetic Analysis Lab	Physics	25.00
	Total	**Physics**	**75.00**
	Total (BT & BI + Physics)		**338.75**

8.1.2 Hostel (boys and girls), transportation facility, and canteen (2) Institute Marks : 2.00

Hostels	No. of rooms	No. of students accommodated
Hostel for Boys:	Double 515 Single 173	1200
Hostel for Girls:	Double 184 Dormitories 75 Single 28	619

BANK: The University campus has a branch and an ATM of Punjab National Bank.

CONVENIENCE SHOP: There is a reasonably stocked Convenience Shop, **A to Z**, in the Academic Block wherein items of daily use, Bakery items and ready-to-eat snacks are available.

CAFÉ: The Café serves freshly prepared snacks, tea, coffee, soft drinks, juices and Bakery items. It remains open upto 11:00 PM.

Reprographic Facility: The facility of photocopy and scanning is available in the LRC against payment.

LAUNDRY: The University is also having laundry facility for the students and the staff. The students can give their clothes for laundering twice a week. The laundry charges for students are inclusive in the Hostel charges.

TRANSPORT: The University has the following transport facility

Cars (4) Scorpio (1) Omni Van (1) Ambulance (1)

Buses (2) Pick Up Van (1) Tata 407 (1)

8.1.3 Electricity, power backup, telecom facility, drinking water, and security (4) Institute Marks : 4.00

(Instruction: Specify the details of installed capacity, quality, availability, etc.)

- UPS for computers in Academic block assured
- 2 x 1250 KVA DG sets with 2x 40,000 lts bulk oil tanks for power backup.
- Drinking water points, with water purifiers, in every building as per need
- 24 hour water supply
- EPBX with 30 lines and 400 Connections. All Faculty members have been connected with intercom. They can also receive calls from outside directly. A BSNL Exchange is also located on Campus.
- Round the clock security for whole campus.

8.2 Organisation, Governance, and Transparency (10) Total Marks : 10.00

8.2.1 Governing body, administrative setup, and functions of various bodies (2) Institute Marks : 2.00

(Instruction: List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action taken reports should be annexed.)

Administrative Setup

Chancellor	The Governor of Himachal Pradesh shall be the Chancellor of the University. The Chancellor, in consultation with the Pro-Chancellor, shall have the right to cause an inspection to be made by such person or persons as he may direct, of the University, its buildings, libraries and equipments and of any institution run by the University, and also of the examinations, teaching and other work conducted or done by the University and to cause an enquiry to be made in the like manner in respect of any matter connected with the administration and finances of the University.
Pro-Chancellor	The Managing Trustee of the Trust shall by the virtue of the office be the Pro-Chancellor of the University and in the absence of the Chancellor, the Pro-Chancellor shall preside over the Convocation of the University.
Vice Chancellor	Head and the Chief Operating and Academic Officer of the University
Dean	Head of all academic and research programs in the faculty and shall be responsible for the conduct and maintenance of the standards of teaching and research in the faculty.
Registrar	Non-Member Secretary of the Governing Council, Executive Council and Academic Council and he shall be appointed in such manner and with such powers and duties, as may be prescribed by the Statutes.
Finance Officer	Finance Officer who shall be the non-Member Secretary of the Finance Committee and exercise such powers and perform such duties, as may be prescribed by the Statutes.
CoE	Examination related work
HoD	Academic and Administrative of the Department and other duties assigned by the authorities.

Statutory Bodies

Sr. No	**Name of Body**	
1	**Governing Council**	**Membership**
		The Governing Council shall be the supreme body of the University and its powers and functions shall be such as may be prescribed by the Statutes. The Governing Council shall have the following members, namely:- (a) The Pro-Chancellor *Chairman* (b) Two members of the Trust to be nominated by the Pro-Chancellor *Members* (c) Two representatives of the collaborating Universities *Members* (d) Three distinguished academicians/professionals

		to be nominated by the Chancellor in consultation with the Pro-Chancellor *Members* (e) Two experts representing other disciplines such as finance, law and management etc. to be nominated by the Pro-Chancellor *Members* (f) Vice-Chancellor of the University *Member* (g) One Head of another University/Institute of the Trust *Member* (h) Two Deans of the University by rotation *Members* g. Secretary (Information Technology), Secretary (Education) and Secretary (Technical Education) to the Govt. of Himachal Pradesh *Members* (j) Three representatives of the industry to be nominated by the Pro-Chancellor *Members* (3) The Registrar shall be the Non-Member Secretary of the Governing Council.
		Functions and Responsibility
		Subject to the provisions of the Act, the Statutes and the Ordinances, the Governing Council shall, in addition to any other powers vested in it, have the following powers, namely – i. to approve the annual accounts and financial estimates of the University; ii. to appoint such Professors, Associate/Assistant Professors, Lecturers and other members of the teaching staff as may be necessary, on the recommendations of the Selection Committees constituted for the purpose, and to provide for filling temporary vacancies therein, provided that no appointment of the rank of Associate Professor and above shall be made without the prior approval of the Pro-Chancellor; iii. to fix the emoluments and define the duties and functions and conditions of service of Professors, Associate/Assistant Professors, Lecturers and other members of the teaching staff: Provided that no action shall be taken by the Governing Council in respect of the member, the qualifications and the emoluments of teachers without the consideration of the recommendations of the Academic Council; iv. to create administrative , ministerial and other necessary posts and to make

		appointment thereto; v. to accept on behalf of the University any other trust, bequest, donation or transfer of any movable or immovable property to the University; vi. to provide for the buildings, premises, furniture, apparatus and other means needed for carrying on the work of the university; vii. to approve entering into, vary, carrying out and cancel contracts on behalf of the University and to make such regulations as may be required towards this objective; viii. to entertain, adjudicate upon, and if it thinks fit, to redress, any grievances of the salaried officers, the teaching staff and other employees of the University whio may for any reason feel aggrieved. ix. to make rules/regulations to govern the appointment of examiners and moderators and, if necessary, to remove them, to fix their fees, emoluments and travelling and other allowances after consulting the Executive/Academic Council; x. to select a common seal for the University and provide for the custody and use of the seal; xi. to frame rules for institution and grant of University fellowships, studentships, medals and prizes; and xii. to delegate any of its powers to the Executive Council, the Vice-Chancellor, Registrar or such other officer of the University or to a Committee appointed by it may deem fit.
		Frequency of meetings : Once a year
		Attendance : 75 % and above
2	**Executive Council**	**Membership**
		The Executive Council shall be the executive body of the University and its powers and functions, the constitution and the terms of the office of its members, other than ex-officio members, shall be such as it may be prescribed by the Statutes. (1) The Executive Council shall consist of the following members, namely. – *(i)* The Vice-Chancellor of the University; Chairman. *(ii)* Two members of Governing Council nominated by the Pro-Chancellor; Members *(iii)* One Dean of the University; and Member. *(iv)* One Academician of repute nominated by the Pro-Chancellor Member. (2) The Registrar shall be non-Member Secretary of the Executive Council.
		Functions and Responsibility

		The Executive Council shall be at executive body who shall implement the decisions taken by the governing Council and report the action taken thereof to the Governing council from time to time The Executive Council shall be responsible for the general management and administration of the University.
		Frequency of meetings : at least Twice a year
		Attendance : 80 % and above
3	**Academic Council**	**Membership**
		1. The Academic Council shall consist of the following members, namely. – *(i)* The Vice-Chancellor of the University; Chairman. *(ii)* Two Professors other than Heads of Departments by rotation and by seniority Members *(iii)* Two distinguished academicians to be nominated by the Pro-Chancellor Members. *(iv)* Two Industry Professionals to be nominated by the Pro-Chancellor Members. *(v)* One member from amongst the Heads of other institutions of the Trust Member. (vi) The Deans of all faculty of the University; and Members. (vii) Heads of Departments/Centres of the University; Members. (2) The Registrar shall be non-Member Secretary of the Executive Council.
		Functions and Responsibility
		(1) The Academic Council shall be the academic body of the University and its constitution and the term of office of its members, other than ex-officio members, shall be such as may be prescribed by the Statutes. (2) The Academic Council shall, subject to the provisions of this Act, the Statutes and the Ordinances, have the power of control and general regulation or, and be responsible for the maintenance of standards of instruction, education and examination within the University and shall exercise such other powers and

perform such other duties as may be conferred or imposed upon it by this Act or the Statutes and it shall have the right to advise the Executive Council on all academic matters.

(3) Subject to the provisions of the Act and the Statutes, the Academic Council shall, in addition to all other powers vested in it, have the following powers, duties and functions, namely. –

i. to report on any matter referred to it by the Chancellor or Pro-Chancellor or the Governing Council or Executive Council, as the case may be;

(ii) to make proposals to the Governing/Executive Council for the establishment of Department, Special Centers, Specialized Laboratories and Libraries;

(iii) to formulate, modify or revise schemes for the organization of, and assignment of subjects;

(iv) to consider proposals submitted by the Departments of the University;

(v) to promote research within the University and to requisition from time to time reports on such research;

(vi) to make recommendations to the Governing /Executive Council with regard to the creation and abolition of teaching posts and the emoluments and duties attached thereto;

(vii) to recommend to the Governing Council the recognition of diplomas and degrees of other Universities and institutions and to determine their equivalent diplomas and degrees of the University;

(viii) to appoint committees for admission to the University;

(ix) to publish lists of prescribed or recommended text books and to publish the syllabi of prescribed courses of study;

(x) to make such arrangements for the instruction and examination of persons, not being members of the University and the conditions on which students should be admitted to such examinations;

(xi) to recommend to the Governing /Executive Council draft Ordinances regarding examinations of the University and the conditions on which students should be admitted to such examinations;

(xii) to make recommendations to the Governing/ Executive Council in regard to the appointment of examiners and , if necessary, removal and the fixation of the fees, emoluments and travelling and other expenses;

		(xiii) to make arrangements for the conduct of examinations and to fix dates for holding them; (xiv) to declare the results of various University examinations, or to appointment of committees or officers to do so; (xv) to make recommendations for the conferment of honorary degrees and to confer or grant degrees, academic distinctions, honors, diplomas, licenses, title and marks of honour; (xvi) to make proposals to the Governing/Executive Council for the institution of fellowships, scholarships, studentships, medals and prizes and to award the same; (xvii) to perform in relation to academic matters, all such duties and to do all such acts as may be necessary for the proper carrying out of the provisions of the Act, these Statutes and the Ordinances; and (xviii) to promote the health and welfare of students and to constitute a Council of students Affairs consisting of such number of teachers and students as may be prescribed by the Ordinances to advise the Academic Council on matters relating to the welfare of the students.
		Frequency of meetings : Twice a year
		Attendance : 80 % and above
4	**Finance Committee**	**Membership**
		(1) The Finance Committee shall consist of the following members, namely: - i. The Vice-Chancellor of the University ……Chairman ii. One nominee of the Pro-Chancellor ……Member. iii. One nominee of the Governing Council ……..Member. iv. One Dean (by rotation) on the basis of seniority …….Member (2) The Finance Officer of the University shall be non-member Secretary. (3) Three members of the Finance Committee shall form the quorum. (4) All members of the finance Committee other than ex-officio members, shall hold office for a term of three years.
		Functions and Responsibility
		The Finance Committee shall meet at least twice every year to examine account and scrutinize proposals for expenditure provided that a period not exceeding 180 days shall elapse between two consecutive meetings. The annual accounts and financial estimates of the University prepared by the Finance Officer shall be laid before the Finance Committee for consideration and

		comments and thereafter submitted to the Governing Council for approval with or without amendments.
		Frequency of meetings : Once a year
		Attendance : 100 %
5	**Council of Institution-Industry linkage**	**Membership**
		There shall be a Council of Institution-Industry Linkages consisting of the following members, namely:- (a) A person to be nominated by the Pro-Chancellor *Chairman* (b) Two persons to be nominated by the Trust *Members* (c) Vice-Chancellor of the University *Member* d. Two persons from the Industry to be nominated by the Pro-Chancellor *Members* (2) The Registrar shall be the Non-Member Secretary of the Council of Institution-Industry Linkages.
		Functions and Responsibility
		The powers and functions of the Council of Institution-Industry Linkages shall be – (i) to establish participation of laboratories of leading prestigious Information Technology/Computer companies with the University; (ii) to source business for faculty/students of the University; iii. to advise on the potential of the University in national and international markets; and iv. to prepare and initiate Bio-informatics initiative by the University.
		Frequency of meetings : Once a year
		Attendance : 80 % and above

8.2.2 Defined rules, procedures, recruitment, and promotional policies, etc (2) Institute Marks : 2.00

(Instruction: List the published rules, policies, and procedures; year of publications; and state the extent of awareness among the employees/students. Also comment on its availability on Internet, etc.)

Defined rules, procedures, recruitment, and promotional policies, etc. are available in booklet –

Policies and Procedures, Revised version published in 2012.

A copy of the relevant portions is provided to employees.

8.2.3 Decentralisation in working including delegation of financial power and grievance redressal system (3) Institute Marks : 3.00

(Instruction: List the names of the faculty members who are administrators/decision makers for various responsibilities. Specify the mechanism and composition of grievance redressal system, including faculty association, staff-union, if any.)

Sexual Harassment Grievance Standing Committee

A full time Lady Warden for Girls Hostel.

Anti-ragging Committee

Administrative Duties to Faculty

Name of Faculty	Designation	Financial Powers
Prof. T. S. Lamba	Dean Academic & Research	
Prof. Sunil Kumar Khah	Controller of Examinations	Examination Related Payments
Prof. Harinder Singh	Chairman Library Committee	Literature Purchases
Dr. Simran Tandon	Faculty Adviser JYC	JYC Financial Issues
Dr. Nitin	Warden	
Dr. Rakesh K Bajaj	Warden	
Dr. Amit Srivastava	Warden	
Dr. P. K. Naik	Warden	
Dr. Sudhir Kumar	Warden	
Dr. Bhaskar Gupta	Warden	
Dr. Anil Sehrawat	Warden	
Ms. Neena Jindal	Warden	
Prof. P. B. Barman	Secretary and Treasurer, JUIT Club	Club Funds

8.2.4 Transparency and availability of correct/unambiguous information (3) Institute Marks : 3.00

(Instruction: Availability and dissemination of information through the Internet. Information provisioning in accordance with the Right to Information Act, 2005).

All the staff and student records are available WebKiosk and can be assessed form anywhere by the person concerned.

Information in accordance with following is provided on university website.

1. AICTE mandatory disclosures

2. Right to Information (RTI) Act 2005

8.3 Budget Allocation, Utilisation, and Public Accounting (10) — Total Marks : 10.00

Summary of current financial year's budget and the actual expenditure incurred (exclusively for the institution) for three previous financial years.
(Instruction: The preceding list of items is not exhaustive. One may add other relevant items if applicable.)

Item	Budgeted in 2013-2014	Expenses in 2013-2014	Expenses in 2012-2013	Expenses in 2011-2012
Infrastructure built-up	0	0	0	0
Library	10000000	4378281	7346120	39602819
Laboratory equipment	20000000	5912367	28823222	23720182
Laboratory consumables	5000000	776947	4411470	4472509
Teaching and non-teaching staff salary	200000000	93662551	195731839	176560726
R&D	10000000	0	3199333	7755801
Training and Travel	5000000	1934274	870619	1958098
Miscellaneous (Hostels, Power & Water Bills, Infrastructure Maintenance etc.)	150000000	62754211	252272576	220323775
Total	400000000	169418631	492655179	474393910

8.3.1 Adequacy of budget allocation (4) — Institute Marks : 4.00
(Instruction: Here the institution needs to justify that the budget allocated over the years was adequate.)

Budget allocation under various heads was adequate for meeting the demands of institute. There was almost nil overspending.

8.3.2 Utilisation of allocated funds (5) — Institute Marks : 5.00
(Instruction: Here the institution needs to state how the budget was utilised during the last three years.)

The fund provided was almost fully utilised.

8.3.3 Availability of the audited statements on the institute's website (1) — Institute Marks : 1.00
(Instruction: Here the institution needs to state whether the audited statements are available on its website.)

Yes, available.

8.4 Programme Specific Budget Allocation, Utilisation (10)

Total Marks : 10.00

Summary of budget for the CFY and the actual expenditure incurred in the CFYm1 and CFYm2 (exclusively for this programme in the department):

Items	Budgeted in 2013-2014	Actual Expenses in 2013-2014	Budgeted in 2012-2013	Actual Expenses in 2012-2013	Budgeted in 2011-2012	Actual Expenses in 2011-2012
Laboratory equipment	735000	996159	700000	807438	2000000	2207572
Software	300000	0	0	0	0	0
R&D	0	0	0	0	0	0
Laboratory consumables	1050000	30599	1000000	116868	100000	101120
Maintenance and spares	0	0	0	0	0	0
Training and Travel	1050000	488457	1000000	1017488	2500000	2428475
Miscellaneous expenses for academic activities	0	0	0	0	0	0
Total	3135000	1515215	2700000	1941794	4600000	4737167

8.4.1 Adequacy of budget allocation (5)

Institute Marks : 5.00

(Instruction: Here the institution needs to justify that the budget allocated over the years was adequate.)

Budget allocation is adequate.

Budget allocation is for the Department and not program specific.

Budget under head “Laboratory consumables” includes maintenance and spares also.

Budget allocations for “R&D” and “Miscellaneous expenses for academic activities” are in central University budget in 8.3.

8.4.2 Utilisation of allocated funds (5)

Institute Marks : 5.00

(Instruction: Here the institution needs to state how the budget was utilised during the last three years.)

Budget utilization is justified and as per allocation.

8.5 Library (20)

Total Marks : 20.00

8.5.1 Library space and ambience, timings and usage, availability of a qualified librarian and other staff, library automation, online access, networking, etc (5)

Institute Marks : 5.00

(Instruction: Provide information on the following items).

- Library Services — Yes

• Carpet area of library (in m2)	1231 M Sq
• Reading space (in m2)	939 M Sq.
• Number of seats in reading space	325
• Number of users (issue book) per day	50 - 60
• Number of users (reading space) per day	70 - 80
• Timings: During working day, weekend, and vacation	working day : 08:00 AM to 12:00 Midnight weekend : 08:00 AM to 05:00 PM Vacation : 09:00 AM to 01
• Number of library staff	12
• Number of library staff with degree in Library	12

• Management Computerisation for search, indexing, issue/return records Bar coding used
• Fully Automated for search, indexing, issue/return records • Software Used :Web Based Library Aut
• Library services on Internet/Intranet INDEST or other similar membership Archives
• INDEST • INFLIBNET • DELNET • PROWESS • SPRINGER • SIAM • IEEE • ACM • EMERALD

Online access	:	**Provided**
Web Searching	:	**Provided**
Computers in Library for users	:	**52**
Open Self Facility	:	**Available**
Reprographic facility Including Scanning etc.	:	**Available**
Security	:	**3M Electromagnetic Security System**

8.5.2 Titles and volumes per title (4) Institute Marks : 4.00

Year	Number Of New Titles Added	Number Of New Editions Added	Number Of New Volumes Added
2011-2012	1087	1066	1907
2012-2013	786	762	1134
2013-2014	185	178	421

8.5.3 Scholarly journal subscription (3) Institute Marks : 3.00

Year	No. of Technical Magazines/Periodicals	No. of Total Technical Journals subscribed		Scholarly Journal Titles(in originals, reprints)
		In Hardcopy	In Softcopy	
2013-2014	12	55	748	339
2012-2013	12	57	748	341
2011-2012	12	59	748	342
2010-2011	10	46	748	234

8.5.4 Digital Library (3) Institute Marks : 3.00

• Digital Library Services	Yes
• Availability of digital library contents (If available, then mention number of courses, number of e-books, etc. Availability of an exclusive server)	Available
• Availability of an exclusive server	Available
• Availability over Intranet/Internet	Available
• Availability of exclusive space/room	No
• Number of users per day	50-60

- There are 357 e-Books.
- Exclusive server for Digital Library is Provided.
- Digital library is available on Intranet and Internet.

8.5.5 Library expenditure on books, magazines/journals, and miscellaneous contents (5) Institute Marks : 5.00

Year	Expenditure (in Rs.)				Comments, If Any
	Book	Magazines/Journals (for hard copy subscription)	Magazines/Journals (for soft copy subscription)	Misc. Contents	
2011-2012	36,43,758	27,90,093	20,39,636	1,27,160	
2012-2013	34,90,282	38,85,919	27,92,043	2,05,746	
2013-2014	4,11,734	37,87,667	0	45,711	Subscription for soft copy Journals will paid in January 2014.

8.6 Internet (5) Total Marks : 5.00

Institute Marks : 5.00

(Instruction: The institute may report the availability of Internet in the campus and its quality of service.)

• Internet Services	Yes
• Name of the Internet provider	BSNL & Railtel (Leased Line)
• Available bandwidth	1 GB (BSNL) & 4MB (Railtel)
• Access speed	1 Gbps (BSNL) & 4Mbps (Railtel)
• Availability of Internet in an exclusive lab	Available in all Labs
• Availability in most computing labs	Available in all Computing Labs
• Availability in departments and other units	Lecture theatres, Class and Tutorial Rooms, Labs, Departments, Library, Administrative Office, Hoste
• Availability in faculty rooms	Yes

• Institute’s own e-mail facility to faculty/students	Faculty and Employees
• Security/privacy to e-mail/Internet users	Cyberoam firewall 1000ia

Internet Facility is

- provided through fiber and Wi-Fi.
- available at all hours.

8.7 Safety Norms and Checks (5) **Total Marks : 5.00**

8.7.1 Checks for wiring and electrical installations for leakage and earthing (1) Institute Marks : 1.00

- Proper earthing of all the buildings and equipment
- Circuit Breakers

8.7.2 Fire-fighting measurements: Effective safety arrangements with emergency / multiple exits and ventilation/exhausts in auditoriums and large classrooms/laboratories, fire-fighting equipment and training, availability of water, and such other facilities (1) Institute Marks : 1.00

- Smoke detectors provided
- Multiple and emergency exits provided
- Lecture Theatres and auditorium have multiple exits.
- Water sprinkler fire extinguishers provided in venerable areas.
- 24 hour availability of water with high pressure assured.

8.7.3 Safety of civil structure (1) Institute Marks : 1.00

- Earthquake proof design.
- Lightning conductors provided.

8.7.4 Handling of hazardous chemicals and such other activities (2) Institute Marks : 2.00

(Instruction: The institution may provide evidence that it is taking enough measures for the safety of the civil structures, fire, electrical installations, wiring, and safety of handling and disposal of hazardous substances. Moreover, the institution needs to show the effectiveness of the measures that it has developed to accomplish these tasks.)

S. N.	Details of Check	Frequency
1	All electrical equipments and installations are checked at start of semester	Half Yearly
2	All electrical & mechanical machines are inspected at start & mid	Quarterly

	semester	
3	Fire extinguishers are recharged after expiry date of constituents.	As per need
4	Discharge of waste chemicals is done only after pH neutralization	Weekly
5	Earthings are checked for conductivity.	Annually
6	Sewerage: Treated by the University owned and operated Sewerage Treatment Plant. Water is used for irrigation purposes.	Continuous process

8.8 Counselling and Emergency Medical Care and First-aid (5)

Total Marks : 5.00

8.8.1 Availability of counselling facility (1)

Institute Marks : 1.00

(Instruction: The institution needs to report the availability of the facilities discussed here.)

- Qualified Counsellor employed.
- Doctors are available in the University Heath Centre from 9:00 to 17:00 hours.
- Lady Doctor visits Girls hostel daily between 9:00 – 10:00

8.8.2 Arrangement for emergency medical care (2)

Institute Marks : 2.00

(Instruction: The institution needs to report the availability of the facilities discussed here.)

- Doctors (1 lady) are available at all times on campus.
- Well equipped ambulance is available in case of emergencies
- Liaison with Hospitals at Shimla and Solan for serious cases.

8.8.3 Availability of first-aid unit (2)

Institute Marks : 2.00

(Instruction: The institution needs to report the availability of the facilities discussed here.)

- Paramedical staff resides on campus.
- Staff nurse in girl’s hostel at night.

9 Continuous Improvement (75)

Total Marks : 63.63

This criterion essentially evaluates the improvement of the different indices that have already been discussed in earlier sections.

9.1 Improvement in Success Index of Students (5)

Total Marks : 4.49

Institute Marks : 4.49

From 4.1
a, b and c are the success indices which correspond to LYGm2, LYGm1 and LYG respectively
Assessment = (b-a) + (c-b) + (a+b+c)x(5/3)

Items	2009-2010(c)	2008-2009(b)	2007-2008(a)	Assessment
Success Index	0.88	0.91	0.94	4.49

9.2 Improvement in Academic Performance Index of Students (5)

Total Marks : 3.43

Institute Marks : 3.43

From 4.2
a, b and c are calculated respectively for LYGm2, LYGm1 and LYG by dividing the API values, obtained from the criterion 4.2 by 10 . The maximum value of a, b, and c should not exceed one.
Assessment = (b-a) + (c-b) + (a+b+c)x(5/3)

Items	2009-2010(c)	2008-2009(b)	2007-2008(a)	Assessment
API	0.68	0.70	0.68	3.43

9.3 Improvement in Student-Teacher Ratio (5)

Total Marks : 3.72

Institute Marks : 3.72

From 5.1
a, b and c are calculated respectively for CAYm2, CAYm1 and CAY by dividing the STR values, obtained from the criterion 5.1 by 20. The maximum value of a, b, and c should not exceed one.
Assessment = (b-a) + (c-b) + (a+b+c)x(5/3)

Items	2013-2014 (c)	2012-2013 (b)	2011-2012 (a)	Assessment
STR	0.74	0.74	0.77	3.72

9.4 Enhancement of Faculty Qualification Index (5)

Total Marks : 4.56

Institute Marks : 4.56

From 5.3
a, b and c are calculated respectively for CAYm2, CAYm1 and CAY by dividing the FQI values, obtained from the criterion 5.3 by 10. The maximum value of a, b, and c should not exceed one.
Assessment = (b-a) + (c-b) + (a+b+c)x(5/3)

Items	2013-2014 (c)	2012-2013 (b)	2011-2012 (a)	Assessment

FQI	0.92	0.93	0.83	4.56

9.5 Improvement in Faculty Research Publications, R&D Work and Consultancy Work (10)

Total Marks : 2.43

Institute Marks : 2.43

From 5.7 & 5.9
a, b and c are calculated respectively for CAYm2, CAYm1 and CAY by dividing the
FRP and FRDC values, obtained from the criterion 5.7 and 5.9 by 20 . The maximum value of a, b, and c should not exceed one.
Assessment = (b-a) + (c-b) + (a+b+c)x(10/3)

Items	2013-2014 (c)	2012-2013 (b)	2011-2012 (a)	Assessment
FRP	0.53	0.63	0.08	3.68
FRDC	0.08	0.13	0.13	1.18

9.6 Continuing Education (10)

Total Marks : 10.00

Institute Marks : 10.00

Module Description	Any Other Contributory Institute/Industry	Developed/Organized By	Duration	Resource Persons	Target Audience	Usage and Citation,etc
Workshop on LABVIEW		JUIT	2-days (17-18,Feb2011)	Experts from NI	Faculty, Students of several institutes & JUIT. 60 participants	
Summer School on Wireless Sensor Networks	IUCEE	JUIT	5th – 9th July2011	Dr Subhalakshmi Kher Arkansas State University	Faculty and students of ECED.	
Workshop, Lecture Series		JUIT, Fulbright	September 23 to October 5.	Dr. Veena B. Mendiratta Bell Labs, Alcatel-Lucent , Naperville, USA	Faculty, Researchers Students of several institutes.	

9.7 New Facility Created (15)

Total Marks : 15.00

Institute Marks : 15.00

1. Purchase of 40 license of latest version of LAB VIEW software.
2. Curriculum of few subjects modified and new subjects introduced in the curriculum
3. New elective subjects introduced for seventh and eighth semester.
4. Microwave benches procured in Advance Communication lab.

9.8 Overall Improvements since last accreditation, if any, otherwise, since the commencement of the programme (20)

Total Marks : 20.00

Institute Marks : 20.00

Specify the overall improvement:

ECE department has been effortlessly working to strengthen the programme since its inception. Some steps are taken by the department since last accreditation.

1. IEEE International Conference (2012 and 2013 IEEE ISPCC) organised in 2012 and 2013
2. Workshops/ Summer Schools/ Hands on Training Organised by the department.
3. New electives introduced in the curriculum
4. Lab facilities were improved by purchasing new software.

Specify the Strenghths/Weakness	Improvement Brought In	Contributed By	List the PO(s), which are strengthened	Comments, if any
2013-2014	Curriculum	Faculty	a,b,c	Syllabi of some core courses revised. New elective subjects introduced
2012-2013	Lab Facility	Department	a, b,c, g	
2011-2012	Lab Facility	University	a, b,c, g	
2010-2011	Curriculum	Faculty	a,b,c	Syllabi revised