

Department of Electronics and Communication Engineering

JUIT Wajnaghat

A meeting of Board of Studies of the Department of Electronics and Communication Engineering was held on 18-11-2021 at 10:00 AM in online mode.

The following members were present

- | | | |
|-----|-----------------------|-----------------------------------|
| 1. | Prof. Samir Dev Gupta | Dean Academics |
| 2. | Dr. Rajiv Kumar | Chairman |
| 3. | Prof. D. Ghosh | External Member |
| 4. | Prof. C.C. Tripathi | External Member |
| 5. | Dr. Balwinder Singh | External Member |
| 6. | Dr. Shruti Jain | Member Secretary |
| 7. | Dr. Shweta Pandit | Member |
| 8. | Dr. Salman Raju | Member |
| 9. | Dr. Sunil Datt Sharma | Member |
| 10. | Dr. Vikas Baghel | Member |
| 11. | Dr. Naveen Jaglan | ECE Department |
| 12. | Dr. Alok Kumar | ECE Department |
| 13. | Mr. Pardeep Garg | ECE Department |
| 14. | Mr. Munish Sood | ECE Department |
| 15. | Mr. Anuj Maurya | ECE Department |
| 16. | Mr. Pankaj Kumar | ECE Department |
| 17. | Prof. Karanjeet Singh | HoD, Mathematics Department |
| 18. | Prof. Ashish Kumar | HoD, Civil Engineering Department |
| 19. | Prof. Vivek Sehgal | HoD, CSE & IT Department |
| 20. | Dr. Anil Kant | Representative BT& BI Department |
| 21. | Mr. Abhishek Kumar | Co-opted Member for online issue |

Leave of absence:

Leave of absence was granted to the Prof. Ashok Gupta, Dean Academics and Research by the Chairman Board of Studies.

The Chairman welcomed all the members who were present for the meeting. The meeting was thereafter deliberated by Dr. Shruti Jain on agenda items as had been approved by the Chairman.

Item No. 1 : To approve the minutes of last meeting of the BoS held on July 23, 2021.

Dr. Shruti Jain has presented the last minutes of meeting which was approved in the last BoS.

The minutes of the last BoS meeting were approved by the BoS members.

Item No. 2 : To consider the revision in the course scheme of ECE Minor Program.

In the existing ECE minor programme, Modern analogue and Digital Communication, Advanced Communication Lab, Wireless and Data Communication and Internet of Things are proposed as compulsory courses along with Digital Electronics and Logic Design, Digital Electronics and Logic Design Lab, and Microprocessor and Interfacing. In the new revised structure, Modern analogue and Digital Communication, Advanced Communication Lab, Wireless and Data Communication and Internet of Things are dropped as compulsory courses and in their place, electives have been introduced. These electives have been categorized in to four buckets. This modification has been done by considering the feedback from the students and faculty members.

To this modification, Prof. C.C Tripathi sir has suggested to keep a documentary record for the reason to modify the existing curriculum as these documents can be asked / required by the rating agencies like NBA and NAAC. Also, Dr. Tripathi has suggested going for SWAYAM / MooCs courses. Dr. Shruti said that our university also emphasises on MooC's courses. Students can opt elective from the university or any MooC's course.

All the changes in the minor courses were added as *Annexure I*.

Approved.

Item No. 3 : To consider the addition of new Open Electives in 8th semester in ECE curriculum for 2018 batch.

In order to improve the skill/knowledge of students depending on the market scenario, six open electives have been introduced. They are namely, Python for Data Science and Machine Learning, Digital Image Processing using Python, Renewable Energy Systems, Biomedical Imaging System, Introduction to Graph Theory, Machine learning with its applications. To this, Dean Academics suggested to introduce the courses that are not offered by other departments. Apart from this Prof. C. C. Tripathi has suggested to look into the terminology of Honours and Proficiency degree from the perspective of AICTE. Prof. Samir Dev Gupta reminded that in the ordinances of JUIT, Honours degree is awarded to students based on CGPA and Proficiency degree is different from the Honours course. Prof. C.C Tripathi suggested following the guidelines set by AICTE concerning Proficiency and Honours degrees.

After discussion three courses were removed from the list namely Python for Data Science and Machine Learning, Introduction to Graph Theory, Machine learning with its applications.

The final lists of electives are appended as *Annexure II*.

Approved

Item No. 4 : To consider the change of credits of two professional electives from 3-0-0 as :

- | | | |
|-------------|---|--------------|
| i. | Optical Communication system | 2-0-0 |
| ii. | Optical Communication system Lab | 0-0-2 |
| iii. | Optical Networks | 2-0-0 |
| iv. | Optical Networks Lab | 0-0-2 |

Prof. Samir Dev Gupta suggested having a correlation between the theory and lab with sufficient provision of hardware equipment. Prof. Tripathi suggested having more hardware oriented approach to labs than experiments based on simulations and software. In view of this, Dr. Rajiv Kumar has explained that the list of experiments of Optical Communication system Lab comprises Hardware experiments and Optical Networks Lab consists hardware + simulation experiments.

Item No. 5 : To consider the change in the course contents of Advance Communication Lab running in 6th sem from 2019 batch onwards.

This lab has been fine tuned with introduction of new experiments.

A syllabus of lab course has been approved by BoS members.

Item No. 6 : Any other permission with the chair.

Dr. Shruti Jain requested the external members to give some suggestions to improve the admissions in ECE department. To this request, Prof. C.C Tripathi has suggested to have conversations with the parents to convince their ward to choose ECE.

The meeting concluded at 11:15 AM with a vote of thanks by **Dr. Shruti Jain**, Secretary Board of Studies.

Annexure I

The slight modifications in **MINOR degree in ECE** have been made. The revised scheme is as follows:

S. No.	Semester	Course/Course Code	Course Hours			Credits	Total Hours
			L	T	P		
		Mandatory					
1	3	Digital Electronics & Logic Design (18B11EC312)	3	1	0	4	4
2	3	Digital Electronics & Logic Design Lab (18B17EC372)	0	0	2	1	2
3	4	Modern Analog and Digital Communication Lab (18B17EC473)	0	0	2	1	2
4	5	Microprocessors & Interfacing (18B11EC512)	3	0	0	3	3
5	5	Microprocessors & Interfacing Lab (18B17EC572)	0	0	2	1	2
6	6	Wireless and Data Communication (18B11EC611)	3	0	0	3	3
7	6	Advance Communication Lab (18B17EC673)	0	0	2	1	2
						14	18

		Non-Mandatory					
8	7	Pattern Analysis in Machine Intelligence (19B1WEC732)	3	0	0	3	3
9	7	Robotic Systems and Control (18B1WEC737)	3	0	0	3	3
10	8	Forensic Image Processing (19B1WEC735)	3	0	0	3	3
11	8	Applied Medical Signal Processing (19B1WEC736)	3	0	0	3	3
						3 + 3 = 6	
Total						20	24

Annexure II

List of Open Electives

S.No	Course Name	L-T-P
1	Digital Image Processing using Python	3-0-0
2	Renewable Energy Systems	3-0-0
3	Biomedical Imaging System	3-0-0



REC | Abhishek Ray is presenting

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
AGENDA OF BOARD OF STUDIES (BoS) MEETING**

1. To approve the minutes of last meeting of the BoS held on 23.07.2021 (Friday).
2. To consider the revision in the course scheme of ECE Minor Program.
3. To consider the addition of new Open Electives in 8th semester in ECE curriculum for 2018 batch.
4. To consider the change of credits of two professional electives from 3-0-0 as :
 - > Optical Communication system 2-0-0
 - > Optical Communication system Lab 0-0-2
 - > Optical Networks 2-0-0
 - > Optical Networks Lab 0-0-2
5. To consider the change in the course contents of Advance Communication Lab running in 6th sem from 2019 batch onwards.
6. Any other permission with the chair

10:12 | BoS,18 November,@10:30 Am

REC | Pardeep Garg is presenting

Following is the course curriculum outline for proposed Minor programme in Electronics and Communication Engineering, from which subjects worth 20 credits may be chosen by the student:

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, SOLAN						
COURSE CURRICULUM FOR MINOR PROGRAMME(160 +20 CREDITS)						
MINOR IN ELECTRONICS AND COMMUNICATION ENGINEERING						
S. No.	Semester	Name of the Subjects	L	T	P	Total Hours
1	3	Digital Electronics & Logic Design	3	1	0	4
2	3	Digital Electronics & Logic Design Lab	0	0	2	2
3	4	Modern Analog and Digital Communication	3	1	0	4
4	5	Microprocessor and Interfacing	3	0	0	3
5	5	Microprocessor and Interfacing Lab	0	0	2	2
6	6	Advance Communication Lab	0	0	2	2
7	6	Wireless and Data communication	3	0	0	3
8	7	Internet of Things	3	0	0	3
Total			20	2	2	23

* Elective courses from MOOC or NPTEL may be chosen by student (maximum 6 credits) in case

10:30 | BoS,18 November,@10:30 Am

REC | Salman Raju Talluri is presenting

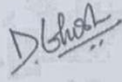
Lab Course Objective

To understand the constituents of the fiber optics communication system and optoelectronics and know their functionality

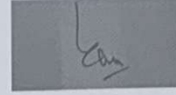
1. Fundamentals of fiber optics and components in a fiber optic system
2. Measurement of connector, bending and fiber attenuation losses.
3. Measurement of Numerical Aperture and Mode Characteristics of Fibers.
4. Investigate the DC Characteristics of LED and PIN Photo diode.
5. Fiber optic Analog and Digital Link Characterization - frequency response (analog), eye diagram and BER (digital)
6. Study on the Variable optical attenuator (VOA)
7. Study on Optical fibre isolator
8. Study on Fiber-based optical switch
9. Wavelength division multiplexing (WDM) principle
10. Study on Principle of EDFA (Erbium-doped Fibre Amplifier)
11. Project work implementation

10:54 | BoS,18 November,@10:30 Am

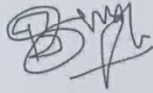
Attendance sheet of BoS held on 18-11-2021



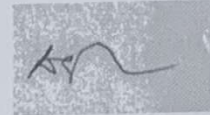
(Prof. D. Ghosh)



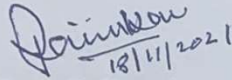
(Prof. C. C. Tripathi)



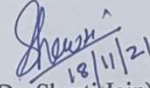
(Dr. Balwinder Singh)



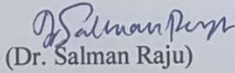
(Prof. Samir Dev Gupta)



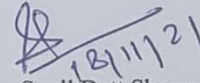
(Dr. Rajiv Kumar)



(Dr. Shruti Jain)



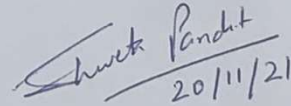
(Dr. Salman Raju)



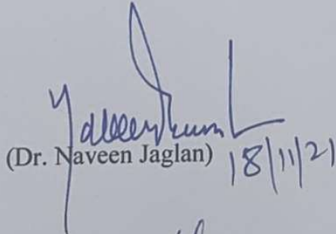
(Dr. Sunil Datt Sharma)



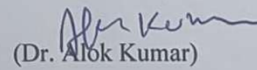
(Dr. Vikas Baghel)



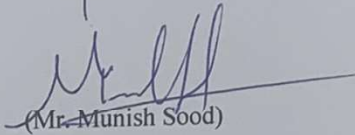
(Dr. Shweta Pandit)



(Dr. Naveen Jaglan)



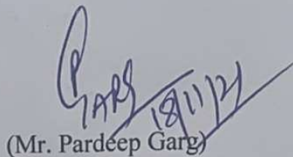
(Dr. Alok Kumar)



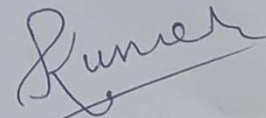
(Mr. Munish Sood)



(Mr. Anuj Maurya)

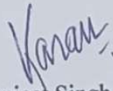



(Mr. Pardeep Garg)

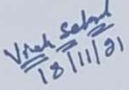


(Mr. Pankaj Kumar)

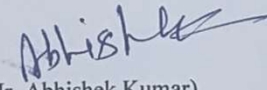
Attendance sheet of BoS held on 18-11-2021


18.11.21
(Prof. Karanjeet Singh, Mathematics Deptt.)


18/11/21
(Dr. Ashish Kumar, CE Deptt.)


18/11/21
(Dr. Vivek Sehgal, CSE & IT Deptt..)


18/11/2021
(Dr. Anil Kant, BT & BI Deptt.)


(Mr. Abhishek Kumar)