

Department of Electronics and Communication Engineering

JUIT Waknaghat

A meeting of Board of Studies of the Department of Electronics and Communication Engineering was held on 12-12-2020 at 10:00 AM via 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. Salman Raju | Member |
| 8. | Dr. Sunil Datt Sharma | Member |
| 9. | Dr. Vikas Baghel | Member |
| 10. | Dr. Naveen Jaglan | Co-opted Member |
| 11. | Dr. Nafis uddin Khan | ECE Department |
| 12. | Dr. Emjee P | ECE Department |
| 13. | Dr. Alok Kumar | ECE Department |
| 14. | Mr. Munish Sood | ECE Department |
| 15. | Mr. Pankaj Kumar | ECE Department |
| 16. | Mr. Anuj Maurya | ECE Department |
| 17. | Prof. P. B. Barman | HOD, PMS Department |
| 18. | Dr. Pradeep Kumar Gupta | Representative CSE & IT Department |
| 19. | Dr. Anil Kant | Representative BT & BI Department |
| 20. | Mr. Pramod Kumar | Co-opted Member for online issue |

Leave of absence

Leave of absence was granted to the Dr. Shweta Pandit by the Chairman Board of Studies.

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

Item No. 1 : Confirmation of minutes of Last Meeting of the Board of Studies held on 17.09.2019.

Prof. C. C. Tripathi was in the opinion of changing the name of Proficiency to Specialization. But, Prof. Samir Dev has explained him all the details.

Rest approved

Item No. 2: To consider the addition of new B.Tech. branch : Electronics and Computer Engineering

All the members have given the consent of the new B.Tech. branch and its courses. There is same suggestion from Prof. C.C. Tripathi and Dr. Balwinder that Cyber Security, Data Science course should be added in the scheme.

Later, after discussion it has been approved that Proficiency with Cyber Security and Data Science will be added.

Item No. 3 : Regarding approval of the changes in the existing M.Tech. Course structure.

Dr. Balwinder was in the opinion that the courses of M.Tech. are too many and can be reduced. Also, he has given a suggestion to rename Project I and Project II to Dissertation I and Dissertation II respectively.

Prof. C.C. Tripathi has given a suggestion that there should be one Industrial Internship after 2nd semester.

New modified course structure is attached as *Annexure I*.

Item No. 4 : To consider the approval in scheme of M.Tech. in ECE with specialization in *Internet of Things* .

As per the suggestion of Board the changes has been incorporated and added as *Annexure II*.

Item No. 5 : To consider the approval of syllabi of Proficiency for B.Tech. ECE.

As recommended was approved

Item No 6: To approve the MOOC course to be introduced during the Academic Session 2020-21 for all batches of ECE.

As recommended was approved

Item No.7: To approve the titles and syllabi of New Electives for Academic Session 2017-18 for all batches of ECE (2017 onwards)


As recommended was approved

Item No 8: To approve the newly floated Ph.D. course and its syllabus.

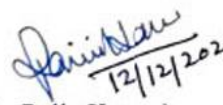
As recommended was approved

The meeting concluded at 1210hrs with a vote of thanks by **Dr. Rajiv Kumar**, Chairman Board of Studies.

Minutes of BoS held on 12-12-2020


(Prof. D. Ghosh)

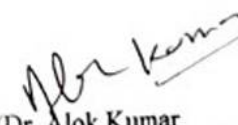

(Dr. Balwinder Singh)

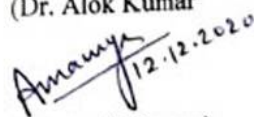

(Dr. Rajiv Kumar)


(Dr. Vikas Dahiya)

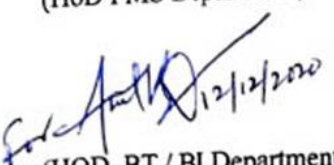

(Dr. Salman Raju)


(Dr. Emjee P)



(Dr. Alok Kumar)


(Mr. Anuj Maurya)


(HoD PMS Department)


(HOD, BT / BI Department)


(Prof. C.C. Tripathi)



(Prof. Samir DevGupta)
12/12/2020


(Dr. Shruti Jain)
12/12/2020


(Dr. Sunil Datt Sharma)
12/12/2020

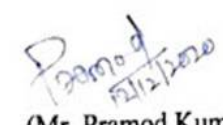

(Dr. Nafis Udin Khan)
12/12/2020

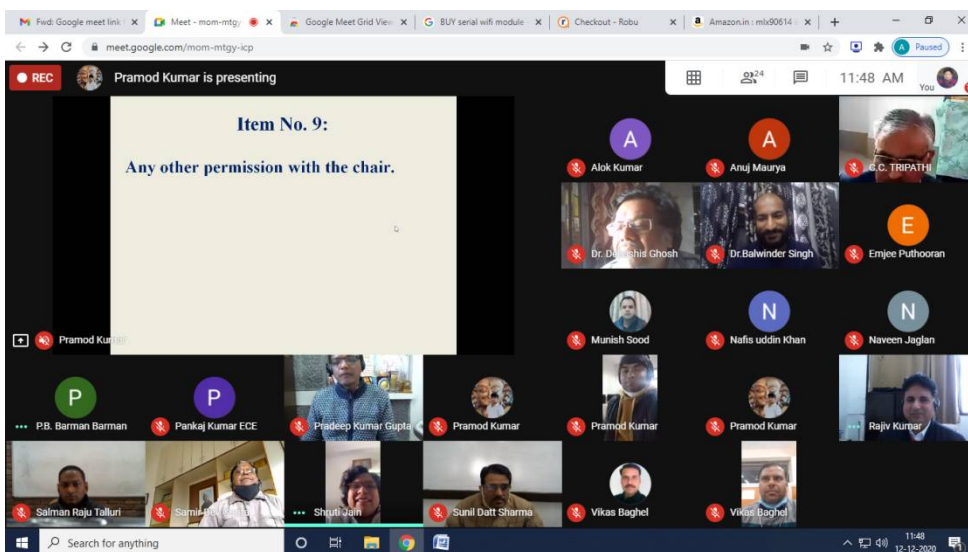
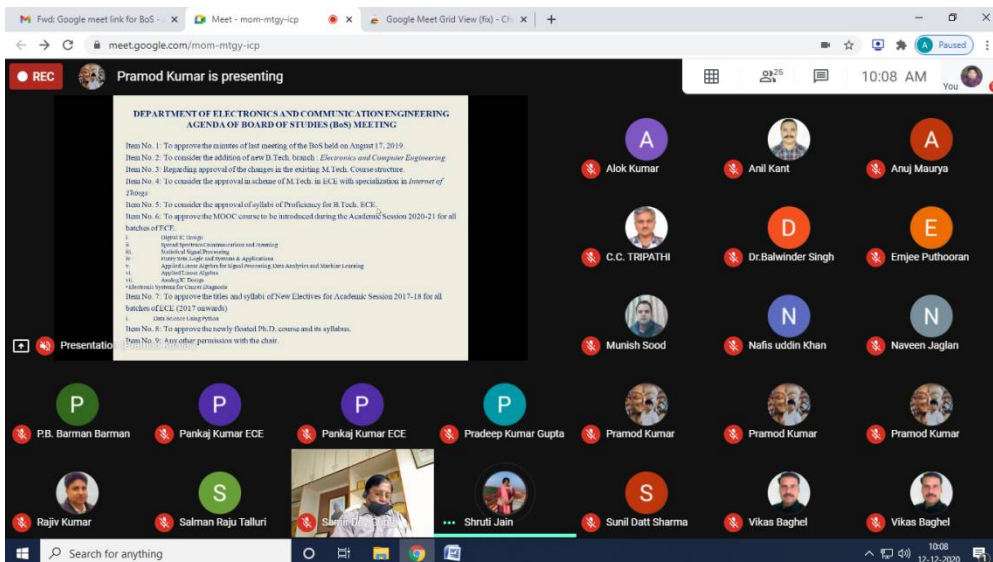
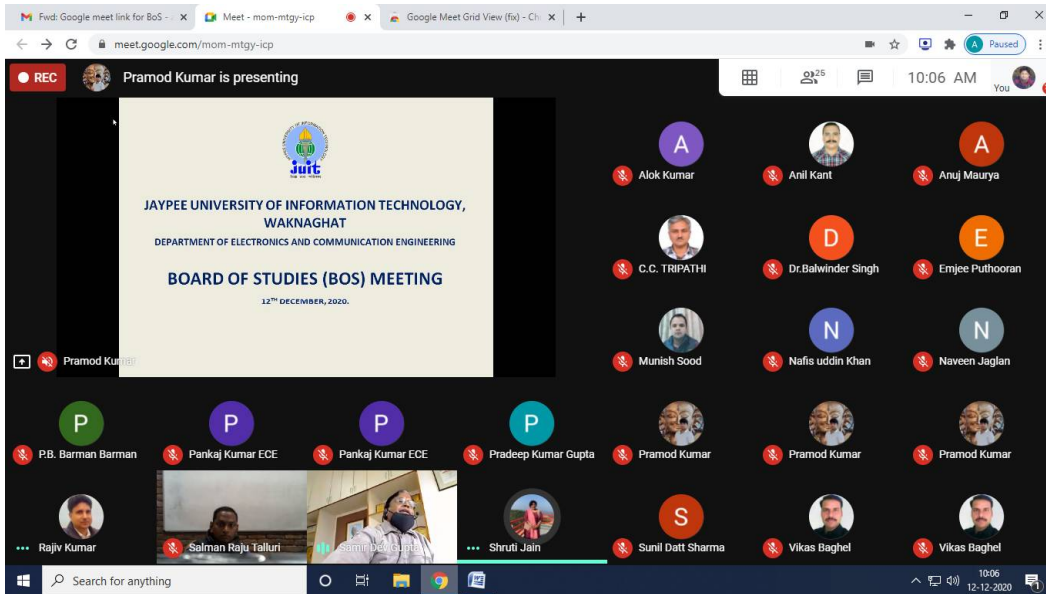

(Dr. Naveen Jaglan)
12/12/2020


(Mr. Munsih Sood)
12/12/2020


(Mr. Pankaj Kumar)
12/12/2020


(HOD, CSE/ IT Department)
12/12/2020


(Mr. Pramod Kumar)
12/12/2020



Annexure I

M-Tech in Electronics and Communication Engineering (Without specialization)							
SEMESTER - I							
S. No.	Name of the Subjects		Course Hours			Total	Credits
		C/E	L	T	P		
1	Embedded Systems and Applications	C	3	0	0	3	3
2	Sensor and Smart Instrumentation	C	3	0	0	3	3
3	Object Oriented Programming	C	3	0	0	3	3
4	DEPARTMENTAL ELECTIVE - I	E	3	0	0	3	3
5	DEPARTMENTAL ELECTIVE - II	E	3	0	0	3	3
6	DEPARTMENTAL ELECTIVE - III	E	3	0	0	3	3
7	LAB - I	C	0	0	6	3	3
					Total	21	21
					1		
SEMESTER - II							
S.No.	Subject Names		Course Hours			Total	Credits
		C/E	L	T	P		
1	Digital System design using verilog HDL	C	3	0	0	3	3
2	Artificial Intelligence and Expert Systems	C	3	0	0	3	3
3	Network Security Protocols	C	3	0	0	3	3
4	DEPARTMENTAL ELECTIVE - IV	E	3	0	0	3	3
5	DEPARTMENTAL ELECTIVE - V	E	3	0	0	3	3
6	DEPARTMENTAL ELECTIVE - VI	E	3	0	0	3	3
7	LAB - II	C	0	0	6	3	3
					Total	21	21
					1		
SEMESTER - III							
S. No.	Name of the Subjects		Course Hours			Total	Credits
		C/E	L	T	P		
1	Literature Review / Seminar	C	0	0	6	6	3
2	Dissertation Part - I	C	0	0	28	28	14
					Total	34	17
					1		
SEMESTER - IV							
S.No.	Subject Names		Course Hours			Total	Credits
		C/E	L	T	P		
1	Seminar	C	0	0	6	6	3

2	Dissertation Part - II	C	0	0	28	28	14
					Tota 1	34	17

LIST OF ELECTIVES FOR MTECH ECE	
Elective - I	
Advanced Cognitive Radio	
Advanced Software Defined Radio	
Fault Tolerant Communication Networks	
Advanced Next Generation Communication	
Elective - II	
Advanced Control Systems	
Networked Distributed Control	
Fundamentals of MIMO Systems	
Mobile Adhoc and Sensor Network	
Elective - III	
Architecture and Algorithms for DSP Systems	
Statistical & Adaptive Signal Processing	
Statistical Signal Processing	
Radar and Sonar Signal Processing	
Elective - IV	
Biomedical signal and Image Processing	
Advanced Digital Image Processing	
CMOS Digital Design Techniques	
Real Time Embedded System	
Elective - V	
Anteena and Radio Wave Propagation	
Antenna Theory and Techniques	
RF IC Design	
Elective - VI	
Computational Intelligence and Applications	
VLSI in Biomedical Processing System	
Analog IC Design	

Annexure II

M-Tech in Electronics and Communication Engineering With Specialization in Internet of Things (IoT)

SEMESTER - I

S. No.	Name of the Subjects		Course Hours			Total	Credits
		C/E	L	T	P		
1	Embedded Systems and Applications	C	3	0	0	3	3
2	Sensor and Smart Instrumentation	C	3	0	0	3	3
3	Object Oriented Programming	C	3	0	0	3	3
4	DEPARTMENTAL ELECTIVE - I	E	3	0	0	3	3
5	DEPARTMENTAL ELECTIVE - II	E	3	0	0	3	3
6	DEPARTMENTAL ELECTIVE - III	E	3	0	0	3	3
7	LAB - I	C	0	0	6	3	3
					Total	21	21

SEMESTER - II

S.No.	Subject Names		Course Hours			Total	Credits
		C/E	L	T	P		
1	Digital System design using verilog HDL	C	3	0	0	3	3
2	Artificial Intelligence and Expert Systems	C	3	0	0	3	3
3	Network Security Protocols	C	3	0	0	3	3
4	DEPARTMENTAL ELECTIVE - IV	E	3	0	0	3	3
5	DEPARTMENTAL ELECTIVE - V	E	3	0	0	3	3
6	DEPARTMENTAL ELECTIVE - VI	E	3	0	0	3	3
7	LAB - II	C	0	0	6	3	3
					Total	21	21

SEMESTER - III

S. No.	Name of the Subjects		Course Hours			Total	Credits
		C/E	L	T	P		
1	Literature Review / Seminar	C	0	0	6	6	3
2	Dissertation Part - I	C	0	0	28	28	14
					Total	34	17

SEMESTER - IV

S.No.	Subject Names		Course Hours			Total	Credits
		C/E	L	T	P		
1	Seminar	C	0	0	6	6	3
2	Dissertation Part - II	C	0	0	28	28	14
					Total	34	17

LIST OF DEPARTMENTAL ELECTIVES FOR SPECIALIZATION IN IOT
Elective - I
IoT Architecture and Protocols
Wireless Technologies for IoT
Elective - II
Industrial Automation and IIoT
Intelligent Robotics and Shared Autonomy
Elective - III
IoT Signal Processing
Data Acquisition and Intelligent signal Processing
Elective - IV
Image Sensing and Realtime Processing
Medical Image Processing and Applications
Elective - V
Antennas for IoT
RF technology for 5G and IoT
Elective - VI
Applied Machine Learning for IoT
Smart Internet of Things