



CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY (A)

Kokapet (Village), Gandipet, Hyderabad, Telangana-500075. www.cbti.ac.in



COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

42
years

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 16-04-2021

To
The Member of BoS

Sir,

Sub: 9th BoS Meeting Autonomous – Dept. of ECE –CBIT-Request-Reg.

GREETINGS FROM CBIT...

We wish to inform you that the ninth (9th) Board of Studies meeting is convened on **17-04-2021 at 10:30 AM** through **online mode** to discuss the following agenda:

1. To approve the minutes of 8thBoS meeting held on 25-07-2020.
2. To present the syllabus for III to IV semesters of B.E (ECE) under R-20 Regulation for the approval.
3. To present the structure of V to VIII Semesters of B.E.(ECE) program under R-20 Regulation.
4. To present the list of courses under “B.E (ECE) Degree with Honors”.
5. To present the list of courses under “B.E Degree with Additional Minor Engineering” in
 - i. Communications and Networking
 - ii. Embedded Systems
 - iii. Signal Processing
 - iv. VLSI
6. To discuss and approve the syllabus for service courses offered to IT Department [B.E(IT) & B.E (AI & DS)] and CSE Department [B.E (CSE), B.E (CSE with AI & ML) & B.E (CSE with IoT & Cyber Securities including BCT)].
7. To Approve the syllabus for M.E.(C.E.) and M.E.(ES & VLSID) for the III & IV semesters under R-20 Regulations.
8. Any other item with the permission of chair.

Request you to kindly make it convenient to attend the meeting. **Meeting link will be shared.**

Best Regards

Yours Sincerely,

Dr. D. Krishna Reddy
Head and Chairman BoS
Dept. of ECE

Mobile: 9866502428, 8466997205



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Minutes of Ninth (9th) BoS (ECE) Meeting held on 17/04/2021

17/04/2021

Members present:

S. No.	Name	Organization
1.	Prof Mohammed Zafar Ali Khan	Professor, IIT Hyderabad
2.	Dr. Venkata Mani	Asso. Professor, NIT, Warangal
3.	Dr. L.Nirmala Devi	Asso. Professor, OU, Hyderabad
4.	Sri. S.Venkateswara Rao	Director, AMD, Hyderabad
5.	Sri Komma Siva Prakash Reddy	Senior Member Technical Staff, Oracle India Pvt Ltd Bangalore
6.	Sri. M. Kannan	Scientist –G, RCI, Hyderabad
7.	Dr. Chandana Viswanadham	AGM, BEL, Bangalore
8.	Dr. S. M. Ahmed	Head, Principal Scientific Officer, Central Instrumentation Laboratory, HCU, Hyderabad
9.	Dr. Sachin Chaudhari	Professor, IIIT Hyderabad
10.	Dr. N. V. Koteswara Rao	Internal BoS Member
11.	Dr. P. Narahari Sastry	Internal BoS Member
12.	Dr. A D Sarma	Internal BoS Member
13.	Dr N Alivelu Manga	Internal BoS Member
14.	Dr.A.Vani	Internal BoS Member
15.	Dr. A.Supraja Reddy	Internal BoS Member
16.	Sri M V Nagabhushanam	Internal BoS Member

17.	Dr. M. Ramana Reddy	Internal BoS Member
18.	Mrs. N.Dhana Lakshmi	Internal BoS Member
19.	Sri. T.Aravinda Babu	Internal BoS Member
20.	Dr. K.Suman	Internal BoS Member
21.	Sri. G.V.Pradeep Kumar	Internal BoS Member
22.	Faculty	ECE Dept. faculty
23.	Dr. D. Krishna Reddy	Chairman BoS

The meeting has commenced with welcoming the BoS members by the Chairman, Board of Studies. He thanked the contributions made by members of the previous BoS Committee members in the curriculum development so far and welcomed the members of newly re-constituted BoS. He requested the members to introduce themselves and they did so. Started the meeting with reading the agenda of the meeting.

Minutes:

I	To approve the minutes of 8th BoS meeting
	The minutes of 8 th BoS meeting are approved.
II	To present the syllabus for III and IV semesters of B.E (ECE) under R-20 Regulation for the approval.
	<p>This is approved with the following recommendations:</p> <ol style="list-style-type: none"> 1. Dr Kannan enquired about whether the GATE and ESE syllabus are considered in drafting the contents in the R-20 Curriculum and in addition to this Dr Nirmala Devi asked about the inclusion of latest topics in the curriculum. Clarification: Chairman BoS has given clarification for above two aspects as they are well considered while drafting the syllabus. 2. Detailed discussion was carried about all the IIIrd and IVth semester subjects of R-20 regulation as below: <ol style="list-style-type: none"> (i) In “EMTL (18EC C01)” – Dr Nirmala Devi suggested to mark the titles for each unit Action Taken: Marked the titles for all five Units. (ii) Electronic Workshop and Networks Lab – Dr Sachin Chaudhari and Dr Nirmala Devi suggested for simple IOT and sensors related experiment to be included.

	<p>Action Taken: The experiment on “Temperature sensor Pmod TMP3 with My RIO kit” is added to sense and measure the ambient temperature</p> <p>(iii) As, an experiment on soldering and de-soldering is included in the Electronic Workshop and Networks Lab, the importance of the same was emphasized by Dr Sachin Chaudhari.</p> <p>(iv) Dr. Viswanadham, advised to add experiment on soldering and de soldering of multi-layer printed circuit boards (PCB) Clarification: Experiment on Soldering and de soldering of multi-layer printed circuit boards (PCB) is included along with existing single layer PCB</p> <p>(v) Sri Siva Prakash Reddy added to this by saying that during his college days in CBIT they could do some experiments on their own under faculty guidance as part of mini-project.</p> <p>(vi) In “Analog Communications 20EC C08” course Dr Sachin asked about inclusion of topics on equivalence analysis of pass band data transmissions. Clarification: It is clarified that these topics are included in Digital Communication course</p> <p>(vii) Dr Nirmala Devi and others pointed out that UNIT-5 was lengthy and suggested to reduce the contents in UNIT-3 (Transmitters and Receivers), compress noise and elaborate Pulse modulation schemes. Action Taken: As suggested Sampling is removed as it is being covered in Signals and Systems course. Generation and demodulation methods of pulse modulation schemes are added. Further Unit III cannot be reduced as the student must be exposed to these concepts</p> <p>(viii) Dr. Venkata Mani and all others external BoS members suggested to include “Probability Theory and Stochastic Process” as a separate course with an orientation towards communication in the curriculum in the ECE Board of Studies Action Taken: It is obliged, as core credits limited to 64 in R-20 Regulation. Instead of single unit (Unit IV in Analog Communication) it will be included as separate course for next revision as suggested by all the members.</p> <p>(ix) In “AWP (18EC C09)” – Dr Nirmala Devi suggested to mark the titles for each unit Action Taken: Marked the titles for all five Units.</p> <p>(x) Dr.Ahmed, suggested to give autonomy to students to pick the components and design their own experiments. Clarification: In all labs, students will design and develop their own experiment as part of their mini-Project. Further, in each lab experiments on structured inquiry and open ended inquiry are included as per AICTE Examination Reforms Policy.</p>
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III	<p>To present the structure of V to VIII Semesters of B.E. (ECE) program under R-20 Regulation.</p>
	<p>1. Six Professional Electives (PE) are structured. In each PE six courses are listed to accommodate six tracks namely Microelectronics &VLSI, Communication Engineering, Signal Processing, Embedded Systems, RF& Microwave and Software Related Courses, to facilitate the students to choose their field/track of interest course in each PE</p> <p>(i) In PE II the course title “Digital image processing” is suggested to rename as “Image and Video Processing” by Dr Nirmala Devi Action Plan: Suggestion is incorporated</p> <p>(ii) In PE VI the course title “Principles of Wireless Sensor Networks” is suggested to rename as “Mobile Adhoc and Sensor Networks” by Dr Nirmala Devi Action Plan: Suggestion is incorporated</p> <p>2. Three Open Elective (OE) are structured. In each OE five courses are listed</p> <p>(i) In OE II the course “Research Methodology” can be replaced with other course as it may not be suitable for UG. Action Plan: Suggestion will be taken while listing courses in OE II.</p> <p>(ii) In OE III , inclusion of course “Industry 4.0” is well appreciate</p> <p>(iii) Dr. Ahmed advised to run an introductory session on these six tracks of Pes and courses in them, so that the students will get awareness on what these courses will take them to build the carrier path and accordingly electives will be opted by students. Clarification: Already, such practice of conducting introductory session on various elective courses is in place</p>
IV	<p>To present the list of courses under “B.E (ECE) Degree with Honors”.</p> <p>This is approved with the following Recommendations: Members suggested to update the list of courses under B.E (ECE) Degree with Honors at the beginning of every semester by exploring the MOOCs platforms such as SWAYAM, Coursera, Udemy, Edx and Open Course Ware (ocw.mit.edu).</p> <p>I. Dr Ahmed appreciated about having the Honors degree. II. Dr SV Rao enquired about the advantage of getting Honors degree w.r.t employability. Clarification: Dr. Aivelu Manga clarified that with this Honours degree the prospects of employability in core sector is expected to improve</p>
V	<p>To present the list of courses under “B.E Degree with Additional Minor Engineering”</p>
	<p>This is approved with the following Recommendations: Members suggested to update the list of courses under B.E (ECE) Degree with Additional Minor Engineering at the beginning of every semester by exploring the MOOCs platforms</p>

	such as SWAYAM, Coursera, Udacity, and Open Course Ware.
VI	To discuss and approve the syllabus for service courses offered to IT Department [B.E(IT) & B.E (AI& DS)] and CSE Department [B.E (CSE), B.E (CSE with AI & ML) & B.E (CSE with IoT & Cyber Security including BCT)].
	Dr. Viswanadham, suggested to add topics like Fundamentals of FPGA and Introduction to VHDL in the Sensors and Transducers Course offered to CSE Dept. programs Action taken: These topics are included
VII	To Approve the syllabus for M.E.(C.E.) and M.E.(ES & VLSID) for the III & IV semesters under R-20 Regulations.
	This is approved with the following recommendations: <ol style="list-style-type: none"> 1. Sri M.V. Nagabhushanam coordinator ME(CE) presented the courses 2. Dr. M. Ramana Reddy coordinator ME(ES&VLSID) presented the courses <p>As on date, no single batch has passed out under R-19 Regulation. So the R-20 is brought with only changes in weightages of CIE for 40 and SEE for 60 as approved in 9th academic Counsel meeting held on 12.09.2020 as compared to CIE for 30 and SEE for 70 in R-19 regulation. The same is already communicated to previous BoS members through email and got acceptance. Hence, no changes in curriculum structure and contents of the courses except for making the provision/option for internship is brought during project/Dissertation period (III&IV Semesters). The same were accepted in toto as there is no provision for identifying curriculum gaps. Provision made for Internship is appreciated.</p>
VIII	Any other item with the permission of chair
	<ol style="list-style-type: none"> (i) Dr Kannan suggested few text books that can be included in the syllabus EMTL and Signals & Systems courses Clarification: They were included (Sunil Bhooshan, “Fundamentals of Engineering Electromagnetics”, Oxford University Press Publication, 2012 and V. Krishnaveni and A. Rajeswari, “Signals and Systems”, Wiley India Pvt. Ltd, Publications 2021.. (ii) Dr Ahmed emphasize the inclusion of courses on “Environmental science” and “Universal Human Values 2: Understanding Harmony” as they will educate the students about social responsibilities. If possible students can take projects/Field works for getting better exposure (iii) Dr. Viswanadham, suggested to tie up with PSU through long term MOUs for project works (Mini, Final project works and Internships). Clarification: Along with existing seven MoUs, the dept. striving to have more MoUs (iv) External members advised to encourage R&D type projects for PG students, in order to ignite minds of students for carrying research work or to pursue Ph.D. Clarification: Presently, students are encouraged to take R&D nature projects.

	<p>Many Students use to take projects in research organization such as RCI, DLRL, BDL and etc. They also do projects in established Navigation and Communication Research Centre in the Dept. supported by SAC, ISRO.</p> <p>(v) Dr. Nirmala Devi suggested to give common coding for all the courses including mandatory and service courses for easy identification. Clarification: For all other courses a common coding format is being followed, except for Mandatory courses and Service Courses. Now it is submitted to have common coding format for these courses also as follows: Mandatory Course – 20EC MXX, Service Courses – 20EC SXX</p> <p>(vi) Dr. Viswanadham appreciated the inclusion of latest reference books in all subjects. He also suggested replacing old version text books with latest versions of the same author where ever possible. Clarification: Old version are replaced with new versions books where ever applicable</p> <p>(vii) Dr. Kannan appreciated the amount of work done by internal BoS team on the inputs provided by the previous BoS meeting.</p> <p>(viii) Dr. L. Nirmala Devi and other members opinioned that the cap of 160 credit for UG may be relaxed with ± 10 credits depends on requirement from department to department</p> <p>I would like to seek the approval from the members of BoS for any further minor modifications in the curriculum through Email if required</p>

The members are requested to offer the comments, if any, within a week from the date of receipt of this communication. If no comments are received, the minutes will be taken as confirmed.



Prof D. Krishna Reddy
Head and Chairman BoS

Dept. of ECE

Copy to:

1. Members of BoS
2. Principal for information

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