DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Minutes of 12th Board of Studies (BoS) Meeting (ECE) held on 30/04/2024

10/05/2024

Members Present:

S. no.	Name	Organization
1.	Prof. Shiv Govind Singh	Professor, Electrical Engineering, IIT Hyderabad
2.	Prof. S. Anuradha	Professor, ECE Dept. NIT Warangal
3.	Prof. P. Naveen Kumar	Professor and Chairman BoS, ECE, Dept. UCE, OU, Hyderabad
4.	Dr. Jyoti Mansukhani	Scientist F, DRDL, Kanchanbagh, Hyderabad.
5.	Mr. Deepak Raya	Ph.D Scholor (PRMF), Neuroscience, IISC Bangolore
6.	Ms. R Hari Chandana	Sr.Engineer, Mistral Solutions Pvt. Ltd., Bangolore
7.	Ms. Kilaru Susrutha Reddy	Silicon Design Engineer, AMD, Hyderabad
8.	Dr. M. A. Mushahid Majeed	CAD Software Developer and Application Manager, NXP Semiconductors Ltd., Hyderabad.
9.	Dr. N. V. Koteswara Rao	Internal BoS Member
10.	Dr. D. Krishna Reddy	Internal BoS Member
11.	Dr. P. Narahari Sastry	Internal BoS Member
12.	Dr. C.V.Narasimhulu	Internal BoS Member
13.	Dr. M.Sushanth Babu	Internal BoS Member
14.	Dr.Vivek Singh Kushwah	Internal BoS Member
15.	Dr. A.D. Sarma	Internal BoS Member
16.	Dr. A.Supraja Reddy	Internal BoS Member
17.	Dr. D. Bhasker	Internal BoS Member
18.	Dr. KSR, Dr. VKM, Dr. BKR, Dr. PS, Dr. AV and Dr. KS	CEG chairmen
19.	Faculty	ECE Dept. Faculty
20.	Dr. K. Vasanth	Chairman BoS

Chairman, BoS warmly welcomed the reconstituted Board of Studies (BoS) members. Acknowledged and expressed the gratitude for the contributions made by the former BoS members in curriculum development so far. The Chairman, BoS informed that the curriculum is developed considering the recently released AICTE model curriculum, syllabus of standard institutions and suggestions/feedback of the stake holders (Industry, Employer, Alumni, Parents, Students and Professional Societies) along with the Program Exit Survey.

Minutes:

I	To approve the minutes of 11th BoS meeting held on 13-05-2023
	The minutes of 11th BoS meeting have already been circulated among members in May 2023 and no suggestions were received. The minutes of 11th BoS meeting are approved.
II	**To discuss the syllabus of V to VIII semesters of BE (ECE) under R-22 & R-22(A) Regulations.**
	This is approved with the following recommendations:
	1. Chairman, BoS presented the structure of R22 (A) regulation and informed that the following are the changes compared to R22 Regulation (i) The following courses have been renamed for clarity and alignment with their content: **In the I semester:** "Problem Solving and Programming" is now "Problem Solving and Programming using Python (22CSC01)." "Problem Solving and Programming Lab" is now "Problem Solving and Programming using Python Lab (22CSC02)." "Community Engagement" (22MBC02) Course is allotted one credit instead of 1.5 credits. Further, Robotics and Drones lab (22MEC37) is allotted 2.5 credits instead of 3 credits. Hence, now the total credits for the I semester are 20.5 **In the II semester:** "CAD and Drafting" is now renamed as "Engineering Graphics (22MEC01)." "Digital Fabrication Lab" is now renamed as "Digital Fabrication Workshop (22MEC38)". *In the III semester:* Based on the faculty request and BoS member's suggestion, a tutorial hour is added in the course "Network Analysis and Synthesis (22ECC03)". This course becomes 4 credit course and leading to total credits in the semester are 24 credits. *In the IV semester:* Up-skill Certification Course-I (22ECU01) of 60 hours is brought in to the curriculum with 0.5 credits. (ii) As far as the curriculum of V to VIII semesters is concerned, the structure, curriculum components, the courses and their contents are in toto same for both regulations R22 and R22(A).

In the V semester:
Two courses Analog communications and Digital Communications of R20 curriculum are now combined and renamed as Analog and Digital Communication (22ECC15). Similarly corresponding labs are combined as Analog and Digital Communication Lab (22ECC19).
The titles of few Professional Electives Courses are modified. Open Elective -I is included.

In the VI semester:
Up-skill Certification Course-II (22ECU02) of 60 hours is brought in to the curriculum with 0.5 credits.
Two professional electives and one Open elective -II is accommodated.
The titles of few Professional Electives Courses are modified.

In the VII semester:
The titles of few Professional Electives Courses are modified.

In the VIII semester:
Project Part-2 is now allotted eight hours per week.

The above modifications are approved by the members.

2. A detailed discussion was carried out about all courses being offered in V to VIII semesters of R-22/R-22(A) regulation as below:

    (i)   Prof.S.Anuradha suggested to include additional topics on receivers in the course "Analog and Digital Communication".
Action Taken: As per the suggestion, additional topics are included.

    (ii)   Additionally, the idea of incorporating link budget concept was proposed by Dr.M.Jyothi. The Chair responded that the topic of link budget is already addressed in the "Radar and Satellite Communication" course.

    (iii)   In the "Analog and Digital Communication Lab" course, Prof. S. Anuradha advised integrating simulations into laboratory experiments using MATLAB/Simulink/LabVIEW. Additionally, Ms. Hari Chandana emphasized the significance of including MATLAB Modular simulations from an industry standpoint.
Action Taken: The provision of carrying out the experiments through simulation is now included.

    (iv)   Dr. Shiv recommended designing laboratory experiments in a manner that encourages thought processes rather than relying solely on direct question types.
Action Taken: In all the lab courses. Structured inquiry and open -ended inquiry based experiments exist for encouraging the thought process of learners.

    (v)   Prof. S. Anuradha proposed the integration of Equalization techniques into the "Microwave Engineering and Mobile Communication course".
Action Taken: Included Equalization techniques.

    (vi)   Prof. S. Anuradha suggested inclusion of LDPC codes in "Coding Theory and Techniques". Additionally, she recommended two reference textbooks, one authored by Ranjan Bose and another by Todd K. Moon.

		Action Taken: As per the suggestion, the topic is now included. Also, the suggested reference books are included
		(vii) Dr. Jyoti suggested to add Extended Kalman Filter in the course Adaptive Signal Processing. **Action Taken:** The topic on Extended Kalman Filter is now included.
		(viii) Dr.Jyothi advised to avoid content repetition in Unit V of the course "CAD for VLSI Verification" **Action Taken:** As per the suggestion, the course contents are modified.
		(ix) ,Dr.Jyothi suggested to include a separate course on "Design for Testability". **Action Taken:** Chairman informed that the course already exists.
		(x) Prof. N.V.Koteswara Rao recommended restricting the number of textbooks to three in the course "5G Communications". **Action Taken:** As per the suggestion, number of textbooks is restricted to three.
		(xi) Dr. M. A. Mushahid Majeed proposed rearranging the contents of "Linux and Scripting languages". **Action Taken:** The course contents are rearranged accordingly.
III	**PG ME(CE) & PG ME(ES&VLSID) syllabus.**	
	Chairman, BoS conveyed that R-23 curriculum for PG programs is already in place. The Course code bearing 23ECA101 with course title "Value Education" will be offered to M.Tech IT (AI and Robotics) as part of Audit course.	
IV	**To discuss the syllabi of Open electives offered to other depts.**	
	The syllabi of the seven open elective courses is approved.	

V	**To present the list of courses under "BE Degree with Additional Minor Engineering" in**
	    i. Communications and Networking
	    ii. Embedded Systems & IOT
	    iii. Signal Processing
	    iv. VLSI	

	Dr.D.Sony presented the list of courses under "BE Degree with Additional Minor Engineering". Chairman, BoS informed that this list is based on the courses offered by NPTEL during last year. The list will be updated based on the courses to be released this year. The same is approved.	
VI	**To present the list of courses under "BE (ECE) with Honors Degree".**	
	Dr.D.Sony presented the list of courses under "BE (ECE) with Honors Degree". Chairman, BoS informed that this list is based on the courses offered by NPTEL during last year. The list will be updated based on the courses to be released this year. Prof. S. Anuradha raised a query regarding the eligibility of students with backlogs to register for minor engineering or Honors. • The Chairman, BoS responded that the minimum CGPA requirement to register for Additional Engineering is 7, while for Honors, it is 7.5.	

VII	To present the list and syllabi of "Value added courses".
	Dr.Khaleel Rehman presented the list and syllabi of "Value added courses". This is approved.
VIII	Any other item with the permission of chair
	The Chairman, BoS sought the suggestions from the members regarding the number of hours and number of credits allocated to the Mini Project. The members suggested to reduce the number of hours from 4 to 2 and the credits from 2 to 1. Also, the members suggested to allot the released one credit to the course "Network Analysis and Synthesis (22ECC03)" We would like to seek the approval through E-mail from the members of BoS for any further modifications in the curriculum if required.

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.

Copy to:
1. Members of BoS
2. Principal for BoS

Head and Chairman, BoS

Dept. of ECE

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