CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Minutes of Seventh BoS (ECE) Meeting held on 26/03/2019

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10/04/2019

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Members present:

Sri. S V Rao	Dr.P.Chandra Sekhar
Dr. N. V. Koteswara Rao	Dr. A V Narasimha Rao
Dr. P. Narahari Sastry	Dr. K Subba Rao
Dr. A D Sarma	Sri.K.Sudershan Reddy
Sri M V Nagabhushanam	Dr N Alivelu Manga
Dr.A.Vani	Smt K S R S Jyothsna
Sri E. Chandra Sekhar	Md.Ziauddin Jahangir
Dr. D. Krishna Reddy, Chairman BoS	

The meeting has commenced with welcoming the members by the Chairman, Board of Studies.

Minutes:

I.   **To approve the minutes of 6ᵗʰ BoS meeting**

The minutes of 6ᵗʰ BoS meeting are approved.

II. **To approve the syllabi of VII and VIII Semesters of B.E (ECE) under CBCS for the Academic Year 2019-20.**

This is approved with the following recommendations:

1. Dennis Roddy, "Satellite Communication" to be included in suggested reading for the course "Radar and Satellite Communication" (16ECC34).

2. Add Morris Mano as reference in VLSI Design (16ECC35).

3. In Speech Processing (16ECE10) Core elective:

   - Details of vocal track and physiology details to be added in UNIT-I.

   - Add Rabiner and Bernard Gold, "Theory and Application of Digital Signal Processing" book in suggested reading.

   - Emphasize 'analytical treatment' of DM, DPCM etc. for speech in UNIT-III.

4. Minimize and redraft Unit-I and Unit-V of "Spread Spectrum Communication" (16ECE11) keeping in view of three periods per week.

5. Review and redraft "Applications of IoT in ECE" (16ECE12) and minimize the contents in view of three periods per week.

6. Redraft COs of "Digital Image Processing" (16ECE13).

7. Elaborate Unit-V in "Optimization Techniques" (16ECE14).

8. Redraft objectives for in "Principles of Wireless Sensor Networks" (16ECE15).

9. Add LabVIEW based voltmeter/Ammeter sweep automation experiment in "Advanced Simulation Lab"   (16ECE36).

10. In "Electronic Design and Automation Lab" (16ECC37),

    - Replace 'Cadence tool' with 'Simulation Tool' in 5th, 6th and 7th experiments of part B.

    - In mini project, give a problem and ask the students to design and simulate the complete cycle.

11. In elective –VII, use 'Machine Learning' instead of 'Artificial Intelligence'. Request IT/CSE departments to include 'Introduction to Python' in Unit-I. Also verify the syllabus of IIIT Hyderabad and Talent Spring Organization for the contents of this course.

12. Verify core / open nomenclature in elective courses and modify suitably.

13. COs to be reviewed and redrafted for "VLSI Technology" (16ECE17).

14. Add print copy instead of e-book for "Software Defined Radio" (16ECE19).

15. Redraft 2nd CO for "Remote Sensing & GIS" (16ECO01).

16. Syllabus content for "Intellectual Property Rights" and "Technical Report Writing Skills" should be planned with mutual coordination.

17. In "Technical Report Writing Skills" the syllabus should be included with how to write the report to get the patent.

III. **To approve the Syllabi of III to VIII semesters of B.E (ECE) in line with AICTE Model Curriculum from the Academic Years 2019-20 to 2021-22.**

This is approved with the following recommendations:

1. Redraft and reduce "Electronic Devices" (18ECC01) based on intermediate and CBSE syllabus.

2. Trim the whole syllabus of "Network Theory" (18ECC03) based on course "Basic Electrical Engineering" (18EEC01) in Semester I and redraft in order to elaborate on synthesis part.

3. Modify 4th and 5th experiments in "Electronic Devices Lab" (18ECC05).

4. Add one more period in the time table for "Analog Circuits" (18ECC07) to cover the syllabus satisfactorily without any change in the credits of that course.

5. In "Digital System Design" (18ECC11) add topics on differences between latch and flip flop, edge and level triggering, set up time and hold time etc. and also modify the course outcomes.

6. In "Analog Circuits Lab" (18ECC12), keep only14 experiments. Remove the second point in 'Note'.

7. Modify pre-requisite for "Analog Communication Lab" (18ECC13).

8. In "Digital System Design Lab" (18ECC14), mention the terms like 'Data flow', 'Gate level' and 'Behavioral' in the experiments.

9. For the course "Computer Architecture and Micro Processors" (18ECC15)

    - Redraft contents of by referring to "Computer Architecture and Organization" by JP Hayes. Add this book as text book and make "Advanced Microprocessor and peripherals" by A.K.Ray and K M Bhurchandi as suggest readings.
    - If needed, add one more period in the time table.
    - Also, topics on control unit to be included.

10. For the course "Digital Communication" (18ECC16)

    - Modify pre-requisite and 5th CO
    - Remove synchronization and tracking of FH and DSSS systems from unit V.
    - Redraft the syllabus keeping in view of three periods per week.

11. For the course "Linear and Digital Integrated Circuits" (18ECC17)

    - Include IC 7805 regulators in unit-III
    - Modify the title of Unit-V as 'Semiconductor Memories'.
    - Include single port and dual port memories, FIFO memory and FIFO depth calculations.
    - Remove repetitions of decoder, multiplexer and adders.

12. For the course "Industrial Electronics" (18ECE01), redraft whole syllabus

13. Modify pre-requisite and COs and redraft the whole syllabus for "Optical Communication" (18ECE02).

14. For the course "Semiconductor Memory Design and Testing" (18ECE03).

    - Modify pre-requisite.
    - Swap this elective with "Electronic Measurement and Instrumentation" (18ECE14).

15. "Introduction to MEMS" (18ECO04) can't be a core elective. Replace this with 'Quantum Computing'/ other course with an emerging field if possible.

16. Redraft syllabus for "Digital Communication lab" (18ECC18).

17. Review and redraft digital IC based experiments in "Linear and Digital Integrated Circuits Lab" (18ECC19).

18. Trim the syllabus of "Microwave and Radar Engineering" (18ECC22). Add one more period in the time table if needed without change in the credits of that course.

19. Reduce the contents of "Analog and Mixed Signal Design" (18ECE05) keeping in view of three periods per week.

20. Redraft prerequisite and COs of "System Automation and Control" (18ECE08).

21. Redraft the contents of "Coding Theory and Techniques" (18ECE09).

22. In "CPLD and FPGA Architectures" (18ECE10), replace Unit-IV with detailed treatment of Xilinx FPGA.

23. For the course "Microwave Engineering Lab" (18ECC25),
    - redraft the syllabus
    - add an experiment on transmission line trainer kit.
    - And also modify the wordings in mini projects.

24. Review Unit-I in "VLSI Design" (18ECC27).

25. Review and Modify the contents of "DSP Processors and Architectures" (18ECE13).

26. Review and redraft the syllabus of "CMOS RF IC Design" (18ECE17).

27. Review the contents of Unit-III in "Embedded Systems" (18ECE19) as it seems lengthy.

28. Redraft the experiments in "Computer Networks Lab" (18ECC28).

29. In "Electronic Design and Automation Lab" (18ECC29), the name of the tool need not be mentioned in the experiments.

30. In "Electronic Measurements and Simulation Lab" (18ECC30), keep only one book in suggested reading.

PG Courses:

31. For PG students, it is better to avoid class work in III semester and send them to industry to carry out live/real time projects for one complete year, if possible.

32. Add some experiments related GNSS in lab course "Wireless and Mobile Communication Lab" (19ECC108) for M.E (CE).

IV. **Any other item with the permission of chair**

   The following suggestions are recommended:

1. To cover large syllabus, use animations and demo techniques in teaching methodology.

2. Arrange special seminars/special workshops to address the requirements of missing Program Outcomes.

3. Provide the scope for reviewing the contents of V to VIII semester subjects in the next BoS meetings, if needed.

4. In PG, Core / Elective of one specialization can be elective for other specialization, provided the condition for prerequisite is satisfied. However, a prior permission from the Chairman, BoS is to be obtained.

5. If possible, categorize the electives as per the following domains:

- Communications
- Signal Processing
- VLSI Design and Embedded Systems
- Computer oriented courses and
- Any other related domain.

6. Suggest the students to choose electives according to their domain of interest, starting from the V semester itself.

7. Open electives, which require special attention may be supplemented by arranging expert lectures with the possible extent.

8. Formulate the "Industrial Advisory Committees" department wise to get into MoUs with industries and arrange internships for an un-interrupted period of 5 to 6 months for the benefit of students to complete their project.

9. The students who are undergoing internship during the VIII semester have to complete an equivalent course offered by NPTEL/MOOCS/SWAYAM for each and every course offered in that particular semester in order to earn the required number of credits. However a prior permission should be obtained from the Chairman, BoS.

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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