CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY
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COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION
45 years

Department of Electrical and Electronics Engineering

No.CBIT/EEE/MoM/Meeting /018/2023-2024   Date: **22.04.2024**

Meeting minutes - External BoS meeting (Virtual Mode) held on 22.04.2024 Monday with Microsoft Teams at 11.30 AM.

Members Present:

S. No.	Name and Designation	Designation
1.	Dr. M Balasubba Reddy, HOD-EEE Dept, CBIT.	Chairperson
2.	Dr. K. Krishnaveni, Professor EEE Dept, CBIT.	Member
3.	Dr. P. V. Prasad, Professor & COE, EEE Dept, CBIT.	Member
4.	Dr. G. Suresh Babu, Professor, EEE Dept, CBIT.	Member
5.	Dr. B. Suresh Kumar, Assoc. Professor, EEE Dept., CBIT	Member
6.	Dr. Ch. Venkata Krishna Reddy, Asst. Professor, EEE Dept, CBIT.	Member
7.	Dr. Pradeep Kumar Yemula, Associate Professor, EEED, IIT Hyderabad.	Member
8	Prof. G. Mallesham,Professor and Board of Studies, UCE, OU, Hyderabad	Member
9	Mr.D.Venkatesh, Sr. Manger (R&D) Medha Servo Drives Pvt.Ltd	Member
10	Mr.Vangara Suresh Babu, Sr.Manager, HBL Power Systems Limited, Hyderabad	Member
11	Dr. Y.V. Pavan Kumar, Associate Professor, School of Electronics Engineering, VIT-AP.	Member

Leave of Absence:

S. no.	Name and Designation	Designation
1.	Prof. Dr V.T.Soma Sekhar, Professor, EEED, NIT Warangal	Subject Expert
2.	Mr. Nikhil Perla, Manager, L&T Tech. Services, Hyderabad	Alumni

The meeting began as Dr. M. Balasubbareddy, Chairman of the Board of Studies (BoS), extended a warm welcome to all BoS members. He expressed gratitude for their invaluable contributions to the ongoing curriculum development. Dr. Balasubbareddy then proceeded to outline the meeting's agenda.

He briefed the members that the syllabus and curriculum development process had incorporated inputs from various sources, including the recently released AICTE model curriculum, syllabi from reputable institutions, and feedback from stakeholders such as industry representatives, employers, alumni, parents, students, and professional societies. Additionally, insights gathered from the Program Exit Survey were taken into consideration for the syllabus and curriculum revisions.

AGENDA
Agenda of the staff meeting:
1. Approval of BoS Minutes from Previous Meeting
2. To approve the revisions in R22 Scheme
3. To approve the V to VIII Semesters syllabus of R22
4. To approve the I to VIII Semesters Scheme/Syllabus of R22(A)
5. To approve amendments to R22 Regulations
6. To approve Open Electives offered to other departments
7. Approval of Value added courses
8. Any other item with the permission of the chair.

The minutes corresponding to the aforementioned agenda were presented in the following table.

Item No.1:	Approval of BoS Minutes from Previous Meeting
Minutes :	The minutes from the previous BoS meeting, convened on April 21, 2023, were distributed to BoS members via email. As no comments were received, the minutes are confirmed as approved. Attached herewith is Annexure-I, containing the minutes of the BoS meeting held on April 21, 2023.

Item No.2:	**To approve the revisions in R22 Scheme**
Minutes:	The Chairperson of the Board of Studies (BoS) proposed modifications to the R22 scheme, aligning with institute-level policies. Approval was sought to extend these changes to the B.E (EEE) scheme. Under the revised scheme, instead of three internships as originally planned, there will be two internship courses, each carrying two credits. In place of the third internship, students will undertake a mini-project worth two credits. Additionally, two upskilling certificate courses, scheduled for the 4th and 6th semesters respectively, will fulfill the remaining credit requirement. This decision, made at the institute level, reflects the emphasis placed by recruiters on providing students with the necessary training and skills for successful placements.
Item No.3:	**To approve the V to VIII Semesters Syllabus of R22**
Minutes:	The Chairperson of the BoS presented the syllabus for V to VIII semesters of the R22 B.E (EEE) program, applicable to batches admitted in the academic years 2022-23 and 2023-24. It was noted that the structure/scheme of R22 for III and IV semesters had been previously presented. However, slight modifications mentioned under item No.2 were considered for the syllabus revision for V to VIII semesters of R22. During the discussion, Prof. G. Suresh Babu addressed a query from Dr. Pradeep Kumar Yemula, Associate Professor at IIT Hyderabad, regarding the inclusion of the doubly fed induction generator in the syllabus. He clarified that it is covered in both theory and lab sessions within the Machines and Special Machines courses respectively. Furthermore, Prof. Pradeep proposed the inclusion of a topic on LEDs in the Utilization of Electrical Energy Course, highlighting its relevance as a current technology. The members unanimously agreed to incorporate this suggestion into the course. Details regarding the modified scheme and changes in syllabi for common courses across R20 and R22 schemes, as well as syllabi for new courses introduced in the R22 scheme, are provided in Annexure-II in tabular format. This item was approved by the members of the BoS committee.
Item No.4:	**To approve the I to VIII Semesters Scheme/Syllabus of R22(A)**

Minutes:	The BoS Chairperson introduced the revised scheme for the first through eighth semesters of the R22A B.E. (EEE) program, effective for students enrolling from the academic year 2024-2025 onwards. Notably, he focused on the modifications made to the I to IV semester courses during the presentation, while confirming that both R22 and R22A regulations maintain the same structure for the V to VIII semesters. Here are the key adjustments highlighted during the presentation: • The Digital Fabrication lab in the I semester is now referred to as the "Digital Fabrication Workshop." • The CAD and Drafting course in the II semester is renamed as "Engineering Graphics." • For the Robotics and Drones Course, tutorial hours are reduced to 1 hour from the previous 2 hours, while lab hours are increased to 3 from the existing 2 hours, resulting in a credit reduction of 0.5 from both theory and lab components. • The Community Engagement course, initially planned for three hours of practice with 1.5 credits, is now scheduled for two hours of practice with 1 credit. • The 0.5 credit from the Community Engagement course is reallocated to Professional Elective labs, increasing practical hours from two to three. • The C and Data structures theory and lab courses offered to EEE students in the III semester by the IT department (previously under the CSE board) are renamed as "Data Structures using C" and "Data Structures using C lab," respectively. These courses are now shifted to the IV semester, while a theory course titled "Signals and Systems," originally in the IV semester as per R22, is moved to the III semester. This adjustment aims to balance workload within the offering department and aligns with guidelines received from the institute level. The same is made available in annexure-III
Item No.5:	**To approve amendments to R22 Regulations**

Minutes:	The Chairperson of the BoS provided an overview of the amendments made to the assessment procedure concerning Continuous Internal Evaluation (CIE), as outlined below:

Changes in CIE (40 Marks)

Earlier Rubrics (R-22)				Proposed Rubrics (R-22 (A)			
Assessment Tools	No. of tests	Description	Max. Marks	Assessment Tools	No. of tests	Description	Max. Marks
Class Tests	2	Average of two tests, each of 20 Marks	20	C-lass Tests	2	Average of two tests, each of 20 Marks	20
Assignments	2	Average of two assignments, each of 10 Marks	10	Case studies	2	Average of two assignments, each of 15 Marks	15
Slip Tests	3	Average of best two slip tests	5	NA			
Attendance	5	5 Marks >=85%; 4 Marks >=80%; 3 Marks >=75%; 2 Marks >=70%; 1 Mark >=65%;	5	Attendance	5	5 Marks >=85%; 4 Marks >=80%; 3 Marks >=75%; 2 Marks >=70%; 1 Mark >=65%;	5

Case Studies

- Problem Solving Exercises
- Design Challenges

- Algorithm Development & Coding

- Simulation Exercises

- Report Writing & Poster Presentation

- Peer Review and Collaboration with debate
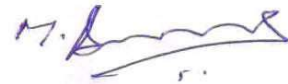
Changes in the Number of Internships

Earlier (R-22)		Proposed (R-22 (A)		Duration (Hours)	Credits
Internship I	MOOCS (after 2nd or during 3rd Semester)	Internship I	MOOCS (after 2nd or during 3rd Sem)	90	02
Internship-II	Industrial Internship /Rural Internship (after 4th or during 5th Semester)	Internship-II	Industrial Internship /Rural Internship (Discretion of HOD)	90	02
Internship-III	Industrial Internship (after 6th or during 7th Semester)				
** Industry Mini Project in place of internship – III for 02 credits					

Item No.6:	To approve Open Electives offered to other departments
Minutes:	The Chairperson of the BoS presented a list of Open Electives, along with their syllabi, offered by the Department of Electrical and Electronics Engineering (EEE) to students from other departments for approval.

S.No	Course	Title of the course
1.	22EEO01	Energy Management System
2.	22EEO02	Energy Conservation
3.	22EEO03	Energy Resources, Economics and Environment
4.	22EEO04	Engineering Materials
5.	22EEO05	Energy Auditing
6	22EEO06	Waste Management
7	22EEO07	Fundamentals of Electric vehicles

The item received approval from the members, and the syllabi for the forementioned Open Electives are enclosed as Annexure-IV.

Item No.7:	Approval of Value added courses
Minutes:	The Chairperson of the BoS presented a list of Value-Added Courses offered by the Department of Electrical and Electronics Engineering (EEE) and sought approval for their implementation.

List of Value added Courses

1. **Advanced Software Tools for Electrical Engineering**
   Module-1: MATLAB
   Module-2: OPENDSS (Open Distribution System Simulator)
   Module-3: PSIM (Power Electronics Simulation)
   Module-4: PSCAD (Power System Computer-Aided Design)
   Module-5: PVSyst (Photovoltaic system)

2. **Application of MATLAB in Electrical Engineering**
   Module-1: MATLAB Programming
   Module-2: Implementation of Teaching Learning-Based Optimization (TLBO) in MATLAB
   Module-3: Implementation of Differential evolution (DE) in MATLAB
   Module-4: Implementation of Cuckoo Search Algorithm (CSA) in MATLAB
   Module-5: Machine Learning for Engineering Applications

	3. **MATLAB and Machine Learning for Engineering Applications** Module-1: Introduction to MATLAB Programming and Optimization Module-2: Teaching Learning-based optimization (TLBO) Module-3: Differential evolution (DE) Module-4: Cuckoo Search Algorithm (CSA) Module-5: Machine Learning for Engineering Applications The committee endorsed the courses presented by the Chairperson and acknowledged the department's endeavor to provide additional valuable courses beyond the curriculum. They suggested renaming courses to avoid using proprietary software names, thereby preventing any potential conflicts with promotion. In response, the Chairperson of the BoS assured that the matter would be discussed further in an internal BoS meeting, and suitable titles would be determined when offering the value-added courses. He also indicated that the presented list was tentative and that any new courses beyond the list would be periodically circulated to BoS committee members via email.
Item No.8:	**Any other item with the permission of the Chair**
Minutes:	The BoS members have put forward the following suggestions: • Mr. Vangara Suresh Babu, an alumnus of EEED, CBIT, currently serving as a Senior Manager at HBL Power Systems Limited, inquired about the introduction of courses on Electric Vehicles (EVs). Professor Krishnaveni responded that there is a course offered under the Professional Elective-V bucket titled "Electric and Hybrid Vehicles (22EEE54)." • Dr. Pradeep Kumar, an Associate Professor at IITH, proposed teaching students how to use the LaTeX software tool, emphasizing its benefits for report preparation and maintaining uniformity. The Chairperson of the BoS acknowledged the rigorous framework but assured that the department would work on offering it as a Value Added course rather than an elective. • Dr. Y.V. Pavan Kumar, an Associate Professor at the School of Electronics Engineering, VIT-AP, suggested introducing a course on modeling concepts in Power Electronic components, particularly focusing on converters used in renewables and PV cells modeling. The Chairperson responded that this would be partly covered in the Power Electronics Systems Elective, but further discussion would occur in the internal BoS meeting for a decision in the next revision. • Dr. Y.V. Pavan Kumar also inquired about the possibility of introducing Project-Based Learning, for instance, immediately after studying a course like Advanced Power Electronics. The HoD mentioned that a mini-project is already introduced at the VI semester level, and Part one of the Major Project

| | will be handled in the VII semester. He also proposed renaming the course "Electric Vehicles" to "Hybrid Electric Vehicles" and reducing some portions of the Electric Vehicles syllabus, which was agreed upon by Professor U.K. Choudary, a course expert in the EEE department. |
| | • Mr. Venkatesh .D, Senior Manager (R&D) from Medha Servo Drives Pvt. Ltd, suggested introducing the topic of PMSM (Permanent Magnet Synchronous Motor) in the curriculum. Professor Suresh Babu clarified that this is already addressed in the Special Electric Machines Course. |

As there were no other items, the meeting ended with a Vote of thanks by the Chairperson.

Prof M.Balasubbareddy
BoS- Chairperson

Copy to:
1. Principal for information
2. Director -Academic for information
3. External BoS Members
4. Faculty, EEE Dept.