Ref: RRCE/RA/2024-25/01 Date: 14.02.2025

Minutes of 2nd BOS meeting

AGENDA

Date of meeting: 14/02/2025
Time: 10.30 a.m to 1.00 p.m
Venue: Board Room, Rajarajeswari College of Engineering.

Agenda 1: Welcome address by the Chairman of the Board of Studies (BOS)

Agenda 2: Discussion on 3rd and 4th semester scheme and Syllabus proposed for UG- Department of Robotics and Automation for academic year 2025-26.

Agenda 3: Discussion on 5th to 8th semester scheme of 2024 scheme proposed for UG- Department of Robotics and Automation.

Agenda 4: CIE and SEE evaluation process for UG programmes

Agenda 5: Forum would be open for further discussion and advices.

Agenda 6: Vote of Thanks.

MEMBERS OF THE BOARD OF STUDIES

Sl. No.	Members	Designation	Category
1.	Dr. Satheesha V	Associate Professor & HOD, Dept. of Robotics & Automation, RajaRajeswari College of Engineering, Bengaluru.	Chairman
2.	Dr. K. V. Suresh	Professor, Dept. of Electronics & Communication Engineering, Siddaganga Institute of Technology, Tumakuru.	VTU Nominee
3.	Dr. Adarsha H	Professor, Dept. of Mechanical Engineering, Jain University, Bengaluru.	Academic Expert
4.	Dr. Pramodkumar. S.	Associate Professor, School of Mechanical Engineering, Reva University, Bengaluru.	Academic Expert
5.	Mr. Santhosh M. S	Manager, WIPRO 3D, Peenya, Bengaluru.	Industry Expert
6.	Mr. K. Chetan	IT Business Consultant, Assistant Manager, BSH, Whitefield, Bengaluru.	Alumni
7.	Dr. Venkat Reddy P. S	SAP Labs Whitefield Road, KIADB Export Promotion Industrial Area, Brooke field, Bengaluru.	Industry Expert
8.	Dr. M. Karthikeyan	Professor, Dept. of R&A, RRCE	Member
9.	Dr. C. Ramesh	Professor, Dept. of R&A, RRCE	Member
10.	Dr. Vishwanath K. C	Associate Professor, Dept. of R&A, RRCE	Member
11.	Dr.N.Sreenivasalu Reddy	Associate Professor, Dept. of R&A, RRCE	Member
12.	Dr. Thanuj Kumar M	Associate Professor, Dept. of R&A, RRCE	Member
13.	Dr. Radhakrishna R K	Associate Professor, Dept. of R&A, RRCE	Member
14.	Mr. Dhananjay B S	Assistant Professor, Dept. of R&A, RRCE	Member
15.	Mrs. G. Manasa	Assistant Professor, Dept. of R&A, RRCE	Member

MINUTES OF THE MEETING

Agenda 1: Welcome address by the Chairman of the Board of Studies (BOS).

The Chairman of the Board of Studies (BOS) formally welcomed all the members and invited them to begin the proceedings.

Agenda 2. Discussion on 3rd and 4th semester scheme and Syllabus proposed for UG-Department of Robotics and Automation for academic year 2025-26.

The BOS-Chairman presented the 2nd year scheme and syllabus of the above programmes as per the VTU guidelines and the same was discussed by the members of the BOS.

- Dr. K V Suresh, VTU Nominee pointed out that Integrated Professional Core Course (IPCC) at Visvesvaraya Technological University (VTU) is to integrate professional theory with practical application of the same course. The theory part of IPCC is evaluated by both Continuous Internal Evaluation (CIE) and Semester End Examination (SEE). The practical part of IPCC is evaluated by CIE only. Questions from the practical part of IPCC may be included in the SEE question paper.
- Dr. K. V. Suresh also sought clarification on whether students must achieve a minimum of 40% in the combined CIE and SEE for both IPCC theory and IPCC lab to pass the IPCC course. This implies that a student must score at least 40 out of 100 in both components, which could make the assessment process more complex.
- Dr. K. V. Suresh also clarified that Curriculum Optimization refers to reducing syllabus content while incorporating more experiential and self-learning components.
- Dr. K. V. Suresh suggested to design the curriculum in accordance with the latest NBA accreditation standards.
- All Members suggested incorporating Ability Enhancement Courses (AEC) focusing on placement and skill development, including: Aptitude, Technical skills, Communication skills, etc.
- Dr. K. V. Suresh also recommended restructuring the curriculum by introducing Microprocessors in the lower semesters and Microcontrollers in the higher semesters. This approach ensures that students first develop a strong foundational understanding of microprocessor architecture, programming, and applications before advancing to microcontrollers.

- Dr. Venkat Reddy P. S proposed integrating Robot Programming with AI/ML into the curriculum to align with emerging industry trends and technological advancements. This addition would provide students with hands-on experience in programming robots using Artificial Intelligence (AI) and Machine Learning (ML) techniques.
- Dr. Adarsha H suggested integrating the Finite Element Analysis (FEA) Lab alongside the FEA theory course as part of the curriculum. This addition would provide students with a comprehensive understanding of numerical simulation techniques used in engineering analysis and design.
- Dr. Adarsha H suggested Analog and Digital Electronics course to be taught by EEE (Electrical and Electronics Engineering) and ECE (Electronics and Communication Engineering) departments to ensure better alignment with the expertise of these disciplines.
- Mr. K. Chetan proposed integrating Material Science and Material Testing Lab as a core course to strengthen students understanding of materials, their properties, and their applications in robotics design and manufacturing..

Agenda 3: Discussion on 5th to 8th semester scheme of 2024 scheme proposed for UG-Department of Robotics and Automation.

- Dr. K. V. Suresh, Insisted to follow revised National Board of Accreditation (NBA) guidelines, the number of Program Outcomes (POs) has been streamlined to 11, ensuring a more focused on industry-relevant approach in engineering education. Aligns with global accreditation standards (e.g., Washington Accord)**.**
- Dr. Pramodkumar. S insisted to follow typically, for 3 credit course 3 hours per week for a 15-week semester → 45 hours. Similarly, for 4 credit course, 4 hours per week for a 15-week semester → 60 hours. Ensuring a comprehensive learning experience that balances theoretical knowledge, practical applications, and self-study.
- Dr. Venkat Reddy P. S emphasized that the Basic Control System course should be made compulsory in the curriculum. This requirement ensures that all students gain a fundamental understanding of control systems, which are pivotal in various engineering applications.
- Dr. Adarsha H suggested replacing Robot Operating System (ROS) with Robotic Process Automation (RPA) in the curriculum to align with industry trends and automation advancements**.**

- Mr. Santhosh M. S proposed adding a mini-project as a mandatory component in the curriculum to provide students with practical exposure and hands-on learning experience**.**
- Mr. Santhosh M. S suggested that the Technical Seminar should not carry 4 credits and should not be scheduled in the 8th semester to optimize the curriculum structure.

Agenda 4: CIE and SEE evaluation process for UG programmes

- Dr. K. V. Suresh suggested w.r.t the subject Social Connect and Responsibility course is evaluated without a Semester-End Examination (SEE)**.** Instead, the assessment is likely based on Continuous Internal Evaluation (CIE) based on activity based presentation.
- All BOS member's suggested integrating Activity-Based Learning (ABL) to make education more interactive, engaging, and skill-oriented**,** moving beyond traditional lecture-based methods.
- All BOS member's suggested to limit each semester to Two Labs (One Core Lab + One Interdisciplinary/Industry Lab) reduce repetitive theory courses and merge similar subjects for better efficiency, encourage Self-Learning through internships, and research projects. Develop some labs with simulation-based learning (MATLAB, ANSYS, IoT platforms, etc.)
- Dr. Pramodkumar. S proposed to incorporate Massive Open Online Courses (MOOCs), NPTEL etc**.** into the 2nd and 3rd years of the curriculum to enhance students' learning experience and exposure to emerging technologies.
- All BOS member's suggested making interdisciplinary projects a mandatory part of the curriculum to encourage collaboration across different engineering and science disciplines, fostering innovation and problem-solving**.**
- All BOS member's suggested to maintain consistency with national and university-level academic requirements while minimizing deviations that could lead to approval challenges or difficulties in execution.

Agenda 5: Forum would be open for further discussion and advices.

- All member of the Board of Studies (BOS) suggested revising and refining the rubrics for Course Outcomes (COs) to ensure clear, measurable, and outcome-driven assessment criteria**.**
- All member of the Board of Studies (BOS) recommended following the AICTE model curriculum and the VTU curriculum closely, without introducing major modifications. The suggestion implies aligning the syllabus with the guidelines and frameworks set by these regulatory bodies to

ensure standardization, compliance, and ease of implementation. This approach may help maintain consistency with national and university-level academic requirements while minimizing deviations that could lead to approval challenges or difficulties in execution.

- All BOS member suggested including the latest editions of textbooks as prescribed texts in the curriculum. By incorporating the newest editions, the curriculum can stay relevant, reflecting the latest research, technological developments, and best practices in the field.
- All BOS member suggested ensuring interconnectedness in subject selection across different verticals. This recommendation emphasizes the need for a well-structured curriculum where subjects from various domains complement and build upon each other.
- All BOS member suggested that general subjects should be assessed using Multiple-Choice Questions (MCQs), while practical subjects should not follow this assessment method.
- All BOS member suggested incorporating industry-driven courses into the curriculum. Such courses may include emerging technologies, industry best practices, and case studies that bridge the gap between academic learning and professional expectations.
- All BOS member suggested including courses on personal healthcare and financial management in the curriculum. This recommendation aims to equip students with essential life skills that contribute to their overall well-being and future stability.
- All BOS member suggested that all internal BOS members should be present for meetings. Full attendance can enhance the effectiveness of curriculum planning, policy formulation, and implementation of academic improvements, leading to well-informed and balanced decisions that benefit both faculty and students.
- All BOS Members expressed overall satisfaction and appreciated the work at the curriculum development process.

Agenda 6: Vote of Thanks.

The BOS Chairman expressed his sincere thanks towards all the members for attending the meeting and also for their valuable inputs and formally concluded the meeting.

Dr.Satheesha V, BOS Chairman presenting infront of BOS members

Group photo of members present for 2nd BOS meeting

Group photo of BOS members present for 2nd BOS meeting

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