

Coimbatore Institute of Technology
Department of Artificial Intelligence and Data Science
Program: BTech. AI and DS

Board of Studies Meeting Minutes

Date: 21/01/2023

Venue: IT214

Chairperson: Dr. Valliappan Raman, Head of Department, Artificial Intelligence and Data Science
Presentation: Dr. Valliappan Raman, Head of Department, Artificial Intelligence and Data Science

Dr. Valliappan Raman welcome the panel members and presented the previous meeting minutes followed by main agenda of subject of study and curriculum for BTech AI and DS program.

The agenda for the department of AI and DS is to seek board approval for Syllabus (Semester V to Semester VIII, Professional Electives, Majors and Minors Verticals) of Regulation R2021- For students admitted on 2021 onwards) and Regulation 2023 (For students admitted from 2023 onwards] which includes Subject of Study , Syllabus, Profession Electives, Major, Minor Verticals.

Agenda No 1 : Regulation R2021- For students admitted on 2021 onwards) Syllabus for subjects from Semester V - Semester VIII, Professional Electives, Majors and Minors.

Key points:

- In Semester V, for the subject “Cloud Architecture”, panel suggested to reduce the content of MAPREDUCE and to include SCALA in the programming model module. As per panels, SCALA is required in cloud due to its leading, end-to-end platform for running HPC simulations which is secure, scalable, and cost-effective. Panel emphasize to maintain a uniformity in assigning 9 hours for each module.
- In Semester V, for the subject “ Mobile Application Development”, in addition to FLUTTER , panel suggested to introduce basics of android studio, designing user interfaces and testing tools. The panel highlight the reasons of including android which has structured code modules allows the student to divide the project into units of functionality which can independently build, test, and debug. Panel also recommend to think KOTLIN programming which is widely used in industry.
- In Semester V, for the subject “Data Mining and Analysis, panels recommended to reduce the content in each module , which can fit into assigned time duration for each module.
- In Semester V, for the subject “ Big Data Architecture: Tools and Techniques”, panels recommended to introduce popular tools like SPARK and suggested to remove PIG, HIVE which is slowly saturating in the market. Panels recommended to add new big data tools for learning as per industry needs. Faculty suggested, as per the framed syllabus, most of industry required data analytics tools are covered which allows to provide more space for the students to learn the concepts and features as per industry needs.
- In Semester V, for the Mobile Application Laboratory , panels recommend to add android studio if it is not covered in the theory sessions.
- In Semester V, for the mini project, title is named as “Product analysis and design”. Panels suggested to rename the title “ Analysis and Design” or “Prototype Analysis and Design”. As per panels, the term product sounds complex “ deliverables will be like a service, application or system”, but project is unique in that it is not a routine operation, but a specific set of operations

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designed to accomplish a singular goal. In this project-based course, students are allowed to analyse the problem, design the architecture and develop simple prototype as the outcome of this course.

- In Semester VI, for the subject “Deep Learning Techniques”, panel checked whether “reinforcement learning is covered” in the syllabus. As per faculty, reinforcement learning is covered already in the subject “Principles of AI” as one module. Apart from these, all the major deep learning concepts and algorithms are included in each module. Panels agreed with the current framed syllabus.
- In Semester VI, for the subject “Data visualization”, panel suggested to check on the possibilities of including “Power BI” and costing, licensing issues while offered in the subject. Panel also emphasize on “Teaching Tableau”, it is a modern intelligence business intelligence software and allows the organizations to be more data driven, so if the course is taught with tableau, it allows students to gain the concept of data visualization, reporting, and business intelligence techniques as per market needs. Panels agreed with the current syllabus of data visualization with the tableau.
- In Semester VI, panel has suggested to rename “Mini Project -Product Testing and Deployment to Mini Project: Prototype Development or Application Development” which has the pre-requisite subject “Prototype Analysis and Design. As per the panel, outcome of this course is to build and deploy the software prototype.
- In Semester VII, for the subject “IoT and its application”, panel has recommended to change the title of first module from “Introduction” to “IoT architecture”. Panels recommended to add a topic on enterprise IoT which allows the students gain knowledge on how IoT helps in business sector.
- In Semester VII, for the subject “Applied Natural Language Processing”. Panels suggested to change the title to “Natural Language Processing” or maintain the same subject title and add applications in majority of the modules, so the students have clarity on learning NLP concepts and relate it to the real-world applications. Panels recommend to add the applications like text filtering, chatbots can be added in the modules.
- For Professional electives, panels suggested to keep updating the elective subjects as per industry requirements.
- In the major vertical “Robotics”, for the subject Robot Research Project”, panels suggested to verify with anna university for including “project-based course” into verticals. Panel recommended to replace “Robot Research Project subject with “Autonomous System” as a 3-credit course.
- In general, panels have emphasized on maintaining 9 hours per module for all the courses. Panels have highlighted the title for first module in majority the course is “Introduction”, suggested to change as concepts, overview, basics, fundamentals or foundations.

Resolution: Resolved by agreeing to anna university nominee and panel feedbacks.

Agenda 2: Regulation 2023 (Students admitted from 2023 onwards) Subject of Study, Syllabus for Subjects from Sem I to Sem VIII, Professional Electives, Majors and Minors.

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Key points:

- In Semester I, for the subject “ Introduction to programming paradigms”, panels felt the title is complex due to term “paradigm” which covers multiple concepts, Panels recommends to cover problem solving techniques, computational thinking and concepts of c program rather covering programming paradigms like functional, procedural, imperative which can be taught in later stages. The panel has also suggested to introduce Object Oriented Programming Concepts in Python Programming rather than with Introduction to Programming. Finally, panel recommends to keep the title as “ Introduction to Programming “ due to course is offered at foundation stage.
- In Semester I, for the subject “ Applied Physics” and “Applied Chemistry”, the science and humanities faculties briefed the syllabus which is designed in the form of significance of basic science in computer science industry.
- In Semester II, for the subject “ Programming with Python”, panels suggested to include the first module as “ Object Oriented Programming” followed by the concepts of python and its packages.
- In Semester III, for the subject the “ Principles of AI”, panel recommended to change the title to “ Artificial Intelligence”.
- In Semester III, for the subject “ Data structure and algorithms”, panels recommended to increase the number of teaching hours of sorting, tree, graphs which are very important for placement technical test and interview sessions.
- In Semester III, “Database Management Systems” panels suggested to introduce NOSQL in theory, but it is covered in the Database Management System Laboratory. Panels agreed to maintain the framed syllabus.
- In Semester IV, for internship, panel recommended to check the possibility of moving the internship to SEM VII, which allows the students gain industry experience and helpful for placement.
- In Semester VIII, for the project-based subject “ Industry Project and Viva Voice”, the panel suggested to rename Industry Project and Viva – Voice to Final Year Project Work and Viva – Voice.
- In generic, there is no major changes in Regulation 2023, minor changes include latest topics in the subjects, assigned teaching hours per modules and title of the subjects.

Chairperson request for the approval of changes and thank the panel members for valuable time and constructive feedbacks

The Board has approved the syllabus for Sem V to Sem VIII for R2021- Student admitted on 2021 onwards , subject of study and syllabus for Sem I to Sem VIII for R2023 (Students admitted from 2023 onwards) , Professional Electives, Majors in Robotics, Majors in Advanced Machine Learning and Minors in Business Data Analytics for R2021 and R2023.



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