NANDHA
Engineering College, Erode -638 052

(An Autonomous Institution, Affiliated to Anna University Chennai and Approved by AICTE New Delhi)

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Minutes of 3rdBoard of Studies Meeting (BoS) held on 01.06.2024

The 3rdBoard of Studies (BoS) meeting was held on 01.06.2024 by 02.00 pm at Board room, Nandha Engineering College. The members attended the meeting are given in **Annexure I.**

Dr.SivaC, Chairman IT,AI&DS & MCA andHoD / IT, chaired the meeting, welcomed all the members to the 3rdBoS meeting followed by introduction of the members. After the brief introduction, the agenda items listed below were taken up for discussion and the following resolutions were passed.

AGENDA

Item 3.01	**Welcome address and Introduction of members.**
Item 3.02	**Approval of 2ndBoS Meeting Minutes and Action taken report (ATR)**
Item 3.03	**Review of the PAC and DAB meeting minutes.**
Item 3.04	**Review of Institute Vision & Mission.**
Item 3.05	**Review of Department Vision, Mission, PEOs and PSOs.**
Item 3.06	• **Regulation-17-Curriculum & Syllabus (7& 8th semesters) Review/Approval** • **Regulation-22-Curriculum & Syllabus Review/Approval - Discussion on Curriculum changes, Additions, or Deletions and Approval**
Item 3.07	**Review of Elective verticals for R22**
Item 3.08	**Ratification in R17&R22.**
Item 3.09	**Review of Value added courses.**
Item 3.10	**Review of Panel of Examiners.**
Item 3.11	**Any other matter** • **Teaching Learning pedagogy** • **Effectiveness of Hackathon** • **Department Specific best practices followed and details of best practices followed in the experts institutions** • **Changes in assessment patterns** • **Flexibility provided to fast learners in the experts Institutions.** • **Flexibility in working hours** • **Project Based Learning** • **Industry Collaboration** • **Up skilling and outreach Activities** • **Students Industrial Visits.** • **Inputs for Placement, Higher Studies and Entrepreneurship**

The proceedings of BoS started. The discussions and resolutions are recorded as follows:

Item 3.01	Welcome note and introduction of members
	Dr.Siva C, Chairman BoS introduced the members and welcomed all followed by a brief note on functioning of BoS.
Item- 3.02	Review and approval of the 2nd BoS meeting minutes and ATR
Discussion	The salient decisions taken in the 2nd BoS meeting and action taken on the following point were presented. • Approved the 1st BOS meeting minutes and ATR . • Approved the previous PAC and DAB Meeting minutes • No modifications needed in Institute Vision & Mission. • No modifications needed in Department Vision, Mission, PEOs and PSOs and POs were reviewed. • R17& R22 - Accepted and followed the Suggestions of the BOS members and the changes have been made in new curriculum • R17 and R22 modification and updates made in syllabus as suggested by BoS members. • Approved the inclusion of Honor and Minor courses in R17. The members have appreciated the efforts taken to implement the suggestions.
Resolution	Resolved to approve the Action Taken Report of 2nd BoS meeting.
Item - 3.03	Review and approval of the PAC and DAB meeting minutes.
Discussion	Along with the important suggestions given by the members. ✓ PAC meeting-1 held on 01.08.2023 ✓ PAC meeting-2 held on 05.10.2023 ✓ PAC meeting-3 held on 27.03.2024 ✓ PAC meeting-4 held on 18.04.2024 ✓ DAB meeting-1 held on 26.12.2023 ✓ DAB meeting-2 held on 23.04.2024
Resolution	All members have noted the MoM of PAC and DAB meeting. Resolved to record the proceeding.
Item- 3.04	Presentation of Institute Vision & Mission
Discussion	Dr. Siva C presented the proposed Institute Vision, Mission. **VISION** • To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society. **MISSION** ▪ To provide quality education to produce ethical and competent professionals with social Responsibility ▪ To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real- world problems. ▪ To create a learner centric environment and improve continually to meet the

	changing global needs.
Resolution	Resolved to record.
Item-3.05	Presentation of Department Vision, Mission, PEOs and PSOs.
Discussion	Dr. Siva C presented the proposed Department Vision, Mission, PEOs and PSOs statements. **VISION (UG)** • To emerge as a renowned department in providing quality Artificial Intelligence and Data Science education to meet the ever growing needs of the society. **MISSION (UG)** ▪ To provide quality and value based education to produce Artificial Intelligence professionals with ethical and social responsibility ▪ To excel in the thrust areas of Artificial Intelligence, Machine Learning and Data Science by imparting programming knowledge and Mathematical skill set to solve real world problems ▪ To create a learner centric environment that motivates the students in adopting emerging technologies of the rapidly changing artificial intelligence and data science society. **PROGRAMME EDUCATIONAL OBJECTIVES (PEO) -UG** **PEO1: Core Competency:** To apply mathematical, scientific and engineering concepts for an artificial intelligence and data scientist to remit the various challenges using emerging AI technologies. **PEO2: Research, Innovation and Entrepreneurship:** To work productively in multidisciplinary teams and provide innovative ideas for real time problems through research. **PEO3: Ethics, Human values and Life-long learning:** To embrace lifelong learning with higher ethical standards and be the source for socio economic growth.**PROGRAMME SPECIFIC OUTCOMES (PSO) - UG** **PSO1: Analytical Skill:** Ability to Design and develop innovative automated systems applying mathematical, analytical, programming and operational skills to meet society needs. **PSO2:Knowledge Proficiency:**Provide a tangible foundation and enhance the abilities to qualify for Employment, Higher Studies and Research in Artificial Intelligence and Data science with ethical values
Resolution	Resolved to record.
Item 3.06	• **Regulation-17-Curriculum & Syllabus (7th & 8th semesters) Review/Approval** • **Regulation-22-Curriculum & Syllabus Review/Approval - Discussion on Curriculum changes, Additions, or Deletions and Approval** • **Elective verticals for R22**

Discussion	➢ BoS Chairman presented R17 &R22 curriculum, syllabi of courses developed based on AICTE model curriculum, Parent University and other leading universities / institutions.

UG- B.Tech-Artificial Intelligence and Data Science

Approval of Curriculum (R17)
➢ Syllabus –7th & 8th semesters with CO–PO / PSO Mapping.

Semester -7
➢ Course-1: Cloud Computing
➢ Course-2: Information Retrieval Techniques
➢ Course-3: Design Thinking
➢ Course-4: Elective(PSE)(E6)
➢ Course-5: Elective(PSE/OE)(E7)
➢ Course-6: Project Work-I

Semester -8
➢ Course-1: Elective(PSE)(E8)
➢ Course-2: Elective(OE) (E9)
➢ Course-3: Project Work-II

Approval of Curriculum (R22)
➢ Syllabus –5th to 8th semesters with CO–PO / PSO Mapping.

Semester -5
➢ Course-1: Computer Networks
➢ Course-2: Deep Learning
➢ Course-3: Internet of Things and its Applications
➢ Course-4: Elective (PEC)(E1)
➢ Course-5: Elective (PEC)(E2)
➢ Course-6: Elective (PEC/OEC)(E3)
➢ Course-7: Deep Learning Laboratory
➢ Course-8: Internet of Things and its Applications Laboratory

Semester -6
➢ Course-1: Data and Information security
➢ Course-2: Big Data Analytics
➢ Course-3: Elective (PEC)(E4)
➢ Course-4: Elective (OEC)(E5)
➢ Course-5: Elective (PEC/OEC)(E6)
➢ Course-6: Elective (PEC)(E7)
➢ Course-7: Big Data Analytics Laboratory

Semester -7
➢ Course-1: Universal Human Values
➢ Course-2: Management Elective
➢ Course-3: Elective (PEC)(E8)
➢ Course-4: Elective (OEC)(E9)
➢ Course-5: Elective (OEC)(E10)

➢ Internship/Industrial Training

Semester -8

➢ Project Work

➢ Dr.KarthikaRenuka D& Mr.Santhosh Kumar A Psuggested

   ✓ To have Full Stack Development as core course in sixth semester instead of Data and Information Security.

   ✓ To have Cloud Computing as an elective or core course.

   ✓ To include web contents in reference.

➢ Dr. Jothi K R &Dr.KarthikaRenuka D suggested to include mini project in Sixth semester.

➢ Dr. Jothi K R,Dr.KarthikaRenuka D & Mr.Santhosh Kumar A P suggested to

   ✓ Haverecent edition text books& reference books

   ✓ To include case studies, tools and recent trends in all the courses

   ✓ Give credits for Certification(Non Credit Mandatory) Course.

➢ Dr. Jothi K R suggested that 2 National and 2 international universities should be referred as benchmarks to frame the syllabus.

R17

Semester -7

Course-1: Cloud Computing-No Comments

Course-2: Information Retrieval Techniques- No Comments

Course-3: Design Thinking

➢ Dr.KarthikaRenuka D suggested to have this course in Elective.

Project Work-I-No Comments

Semester -8

Project Work-II-No Comments

R22

Semester -5

Course-1: Computer Networks– No Comments

Course-2: Deep Learning –

➢ Dr.KarthikaRenuka D suggested to include tools and case studies.

Course-3: Internet of Things and its Applications– No Comments

Course-4:Deep Learning Laboratory- No Comments

Course-5:Internet of Things and its Applications Laboratory- No Comments

Semester -6

Course-1:   Data and Information security- Dr.KarthikaRenuka D & Mr.Santhosh Kumar A P suggested to have Full Stack Development as core course instead of Data and Information Security.

 Course-2: Big Data Analytics

➢ Dr. Jothi K R, Dr.KarthikaRenuka D suggested to modify the contents of unit 2 and 3.

	➢ Mr.Santhosh Kumar suggested to include data analytics, multimedia and streaming of data in unit-5. **Course-3: : Big Data Analytics Laboratory– No Comments** **Semester -7** **Course-1: Management Elective** ➢ Dr.E.Umamaheswari suggested to have name as Engineering management in curriculum **Semester -8** **Project Work-No Comments**
Resolution	Resolved to include Full Stack Development as a core course and decided to include Mini project in seventh semester.
Item 3.07	**Review of Elective verticals for R22**
Discussion	

VERTICALS FOR AI&DS		
S.NO	VERTICAL I	VERTICAL II
	Machine Intelligence	**Data Analytics**
1	Knowledge Engineering	Pattern Recognition
2	Recommender Systems	Text and Speech Analytics
3	Soft Computing	Time Series Analysis and Forecasting
4	Optimization Techniques	Health care Analytics
5	Computer vision	Predictive Analytics
6	Ethics of AI	Image and Video Analytics
7	Cognitive Science	Natural Language Processing
8	Robotic Process Automation	Business Intelligence

VERTICAL I -MACHINE INTELLIGENCE

Course-1: Knowledge Engineering- No Comments
Course-2: Recommender Systems-No Comments
Course-3: Soft Computing
➢ Dr.KarthikaRenuka D suggested to modify the syllabus content as follows
- Unit-1 Introduction to soft computing, History of soft computing, Learning models and related topics.
- Unit –II Backpropagation Network
- Unit-III Fuzzy Logic
- Unit-IV Genetic Algorithms
- Unit -V Include modern Optimization Tools.

Course-4: Optimization Techniques- No Comments
Course-5: Computer vision
➢ Mr.Santhosh Kumar A P suggested to include case studies and Generative Adversarial Networks(GAN)

Course-6: Ethics of AI- No Comments
Course-7: Cognitive Science-
➤ Dr.KarthikaRenuka D suggested to include course related to current trends.
Course-8: Robotic Process Automation-
➤ Dr.E.Umamaheswari suggested to include Programming of Robotic Language.
➤ Dr.KarthikaRenuka D suggested to refer syllabus from CMU university.

VERTICAL I -DATA ANALYTICS
Course-1: Pattern Recognition –No Comments
Course-2: Text and Speech Analytics
Dr.KarthikaRenuka and Dr. Jothi K R suggested to reframe syllabus as
➤ Unit -1 Introduction about Speech Analytics
➤ Unit-II Modeling Transformation in text Analytics
➤ Unit-III Introduction about Speech Recognition
➤ Unit-II Modeling Transformation in speech Analytics
➤ Unit-V Applications and Case Studies.
Course-3: Time Series Analysis and Forecasting –No Comments
Course-4: Health care Analytics –No Comments
Course-5: Predictive Analytics
➤ Dr.KarthikaRenuka suggested to include web mining in unit-5.
Course6: Image and Video Analytics –No comments
Course-7: Natural Language Processing –No comments
Course-8: Business Intelligence
➤ Dr.KarthikaRenuka D suggested to modify the title related to our programme .
➤ Mr.Elangovan K P suggested combine Unit-I and II and reduce the contents in unit-5.

Resolution	Resolved to accept and decided to move Business Intelligence from Vertical II to I and added Augmented Reality and Virtual Reality in Vertical II.
Item 3.08	**Ratification in R17 &R22.**
Discussion	BOS Chairman,Dr.Siva C presented the ratification in R17&R22. **R17** Inclusion of PSE 17ITX37- Problem Solving Using JAVA 17ITX38- Product Lifecycle Management **R22** Data Science and Analytics Laboratory credits changed from 1 to 2.
Resolution	Resolved to approve and follow.
Item 3.09	**Review of Value added courses.**
Discussion	The list of one credit courses taught was brought to discussion and approved the same. Moreover the committee members suggested selecting courses based on recent trends.
Resolution	Resolved to accept and follow.
Item 3.10	**Review of Panel of Examiners.**
Discussion	BoS members clarified about minimum eligibility fixed for becoming a panel of examiner. Dr. Siva C, explained the process of preparing panel of examiner for question paper setting, valuation and laboratory examinations based on the examiner

	specialization The minimum experience of 5 years is fixed for being an examiner.
Resolution	Resolved to approve the panel of Examiners for question paper setting, valuation and laboratory examinations
Item 3.11	**Any other matter**
Discussion	**Teaching Learning pedagogy** **Effectiveness of Hackathon** - Dr.KarthikaRenuka suggested that Credit transfer can be made when students participate and won in international Hackathons. **Department Specific best practices followed and details of best practices followed in the experts institutions** **Changes in assessment patterns.** - Dr.KarthikaRenuka and Dr. Jothi K R suggested to include multiple choice question and answers. **Flexibility provided to fast learners in the experts Institutions.** - Dr.E.Umamaheswari ,suggested to give attendance exemption for students having more than 9.0 CGPA and involve them in internship, Projects, Hackathons and for writing Project proposals.(followed in VIT,Chennai). - Moreover Dr.E.Umamaheswari ,Suggested to involve fast learners as Lab assistants and provide them with certificates. **Flexibility in working hours** **Project Based Learning** **Industry Collaboration** **Up skilling and outreach Activities** **Students Industrial Visits**
Resolution	Resolved to accept and follow.

Summary of approvals
- 2nd BoS meeting minutes and ATR are approved
- Approval of PAC and DAB minutes.
- R17 and R22 Curriculum Approval
- R17(7th&8th semester Syllabi approval)
- R22(5th to 8th semester syllabi Approval)
- Approval of R22 Elective Verticals

- Approval of R22 Ratification.
- Panel of Examiners for question paper setting, valuation and laboratory examinations are approved
- Approval of NPTEL courses
  - OCAI001-Fundamentals of Artificial Intelligence.
  - OCEC006-Cloud Computing
  - OCIT012-Artificial Intelligence Primer

Finally, Dr.Siva.C - BoS Chairman thanked all the members for their active participation.

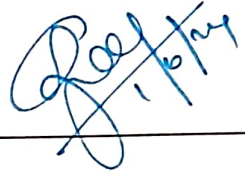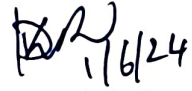Date: 01.06.2024

(Signature)

(Chairman, BoS-IT Board)
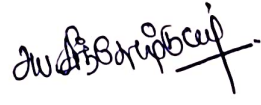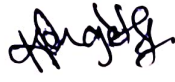
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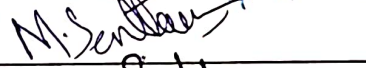
Name of the Board	Meeting No.	Academic year
Information Technology(AI&DS)	3	2023-24

S.No	Meeting Attendance		
	Members	Representation	Signature with date
1	Dr.C.Siva Professor and Head Department of Information Technology, NEC	Chairman	
2	Dr. Karthika Renuka D Professor, Department of Information Technology, PSG College of Technology, Coimbatore- 641 004.	University Nominee	1/6/24
3	Dr. Jothi K R Associate Professor, Senior Department of Computational Intelligence, School of Computer Science and Engineering, Vellore Institute of Technology, Vellore.	Expert Nominee (Nominated by Academic Council)	
4	Dr. Jayanthi G Assistant Professor Faculty of Engineering and Technology Sri Ramachandra Institute of Higher Education and Research University, Chennai.	Expert Nominee (Nominated by Academic Council)	ABSENT
5	Mr. Santhosh Kumar A P Lead - Product Management, ZOHO Corporation Pvt Ltd, Chennai	Member (Expert from Industry)	
6	Mr. Elangovan K P Head of Technology, Hedonova United States.	Alumni	

7	Dr. E.Umamaheswari, Professor (Grade 1), School Of Computer Science and Engineering/Centre for cyber Physical Systems, VIT, Chennai.	Special Invitee	E.U 1/6/24

Meeting Attendance- Internal members			
S.No	Members	Representation	Signature with date
1	Mrs.M.Parvathi, HoD Incharge/AI&DS	Member	
2	Mrs.M.Senthamarai, AP/AI&DS	Member	
3	Mrs.J.Jahina, AP/AI&DS	Member	
4	Mrs. T.Indhumathi, AP/AI&DS	Member	

Chairman BoS