



KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE

Opp : Yerragattu Gutta, Hasanparthy (Mandal), WARANGAL - 506015, TELANGANA, INDIA

కాకతీయ ప్రौद्योगिकी एवं विज्ञान संस्थान, वरंगल - ५०६०१५, तेलंगाना, भारत

కాకతీయ సాంకేతిక విజ్ఞాన శాస్త్ర విద్యాలయం, వరంగల్ - ౫౦౬ ౦౧౫ తెలంగాణ, భారతదేశము

(An Autonomous Institute under Kakatiya University, Warangal)

(Approved by AICTE, New Delhi; Recognised by UGC under 2(f) & 12(B); Sponsored by EKASILA EDUCATION SOCIETY)

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No.KITS/Acad/Autonomous-BoS (CSD)/2024

Date: 23.07.2024

ORDERS

Sub: KITS, Warangal - UGC Autonomous status - Constitution of Board of Studies (BoS) for B. Tech. Computer Science and Engineering (Data Science) (CSD) Programme - Modified Orders - Issued.

Ref: 1. Letter No. F. 22-1/2014(AC), Dt. 19.6.2014 from the Joint Secretary, UGC, New Delhi.

2. Letter No. 350/CDC/KU/2014, Dt. 18.8.2014. from the Registrar, KU, Warangal.

3. Letter No F. 22-1/2017(AC), Dt. 07.12.2021 from the Additional Secretary, UGC, New Delhi.

4. Letter No. 05/CDC/KU/2022, Dt. 20.04.2022. from the Registrar, KU, Warangal.

5. F No. 1-18/2021 of UGC (Conferment of Autonomous Status) Regulations 2023, Date: 03.04.2023

6. CSMD office Note No. KITS/Acad/Autonomous-BoS (CSM)/2024, Date: 08.05.2024

7. Letter No. 854/B3/KU/2024, Dt. 18.07.2024. from the Registrar, KU, Warangal.

With ref. to note 6 cited above, the Board of Studies (BoS) for B. Tech. Computer Science and Engineering (Data Science) (CSD) Programme has been constituted with the following members for a period of three (3) years with effect from the date of issue of these orders.

S. No.	Name of the Member	Designation	Position in BoS
1.	Prof. S. Narasimha Reddy	Professor & HoD, CSE(AI&ML), KITSW	Chairperson, BoS
2.	Dr. Tausif Diwan	Asst. Professor & HoD, CSE, IIIT, Nagpur	Member (Subject expert from Institute of National Importance)
3.	Dr. Jitendra V. Tembhurne	Asst. Professor, CSE IIIT, Nagpur	Member (Subject expert from Institute of National Importance)
4.	Mrs. Seema Vodithala	Engineering Manager - BMJ, BMA House, Tavistock Square London WC1H 9JR, United Kingdom	Member (Subject expert from outside the country)
5.	Ms. Sravanthi	University College of Engineering, Kothagudem Kakatiya University	Member (University Nominee)
6.	Sri S. Uday Aditya	Senior Consultant, Thoughtworks, Hyderabad	Member (Industry Representative)
7.	Sri M. Deepan Raj	Senior Technical Lead - Data Science, HCL Technologies	Member (Industry Representative)
8.	Mrs. Neeraja Patnala	Engineer-3, JMPC, Hyderabad	Member (Industry Representative)
9.	Sri Sai Krishna Mohan Chitikam	Senior Manager and Principal Consultant, Infosys Pvt. Ltd., Hyderabad	Member (Industry Representative)
10.	Sri Venkat Sai Teja	AI Intern, AssetSense Technologies Private Limited	Member (UG Alumni)
11.	Sri Rahul Veeraganti	Senior Software Engineer, Movate Technologies Pvt. Ltd., Bangalore	Member (PG Alumni)
12.	All Faculty of the Department	-	Members

The Board shall exercise such powers, perform such duties and functions in accordance with the procedure laid down in UGC norms for the Kakatiya Institute of Technology & Science, Warangal.

The meeting of the Board shall ordinarily be convened as and when necessary, at least once in every six months.

However, any member of the Board of Studies shall cease to be a member when he vacates the office, which he was holding at the time of his/her appointment, unless otherwise permitted by the authority.

PRINCIPAL

To
The Persons concerned

Copy to:

1. Chairman
2. Treasurer
3. Registrar
4. Administrative Officer
5. All Heads of Departments
6. Academic Section



**MINUTES OF THE MEETING OF BOARD OF STUDIES (BoS) in
COMPUTER SCIENCE & ENGINEERING (Data Science)
Held at 10.00 AM on 03.08.2024 (Saturday)
Venue: Online through Microsoft teams**

Agenda:

1. Approval of the scheme of instruction of B.Tech. CSE (Data Science) program under URR24
2. Approval of the syllabus of B.Tech. CSE (Data Science) program - I & II semesters under URR24
3. Approval of rules and regulations under URR24
4. Any other item with the permission of the Chair

Members Present:

S. No.	Name of the Member	Position in BoS	Signature
1.	Prof. S. Narasimha Reddy, Professor & HoD, CSE (AI&ML), KITSW	Chairperson, BoS	Present
2.	Dr. Tausif Diwan, Asst. Professor & HoD, CSE, IIT, Nagpur	Member (Subject expert from Institute of National Importance)	Present
3.	Dr. Jithendra V. Tembhurne, Asst. Professor, CSE, IIT, Nagpur	Member (Subject expert from Institute of National Importance)	Present
4.	Mrs. Seema Vodithala, Engineering Manager - BMJ, BMA House, Tavistock Square, London WC1H 9JR, United Kingdom	Member (Subject expert from outside the country)	Present
5.	Mrs. K. Sravanthi, University College of Engineering, Kothagudem, Kakatiya University	Member (University Nominee)	Present
6.	Sri. S. Uday Aditya, Senior Consultant, Thoughtworks, Hyderabad	Member (Industry Representative)	Present
7.	Sri. M. Deepan Raj, Senior Technical Lead - Data Science, HCL Technologies	Member (Industry Representative)	Absent due to another work commitment
8.	Mrs. Neeraja Patnala, Engineer-3, JMPC, Hyderabad	Member (Industry Representative)	Present
9.	Sri Sai Krishna Mohan Chitikam, Senior Manager and Principal Consultant, Infosys Pvt. Ltd., Hyderabad	Member (Industry Representative)	Present
10.	Sri Venkat Sai Teja, AI Intern, AssetSense Technologies Private Limited	Member (UG Alumni)	Present
11.	Sri Rahul Veeraganti, Senior Software Engineer, Movate Technologies Pvt. Ltd., Bangalore	Member (PG Alumni)	Present
12.	Sri. S. Naga Raju, Associate professor	Member	Present

S. No.	Name of the Member	Position in BoS	Signature
13.	Dr. A. Jothi Prabha, Associate professor	Member	Present
14.	Dr. K. Vinay Kumar, Assistant professor	Member	Present
15.	Dr. B. Hanumanthu, Assistant professor	Member	Present
16.	Sri. I. Sai Rama Krishna, Assistant professor	Member	Present
17.	Dr. M. Sujatha, Assistant professor	Member	Present
18.	Mrs. R. Swetha, Assistant professor	Member	Present
19.	Mrs. E. Rajitha, Assistant professor	Member	Present
20.	Ms. M. Hithasri, Assistant professor	Member	Present
21.	Mrs. D. Haritha, Assistant professor	Member	Present
22.	Mrs. V. Prashanthi, Assistant professor	Member	Present
23.	Sri. M. Ramarao, Assistant professor	Member	Present
24.	Dr. S. Raghu, Assistant professor	Member	Present
25.	Sri. B. Ramji, Assistant professor	Member	Present
26.	Dr. M. Rajesh, Assistant professor	Member	Present
27.	Sri. K. shiva kumar, Assistant professor	Member	Present
28.	Sri. V. Ramu, Assistant professor	Member	Present
29.	Sri. B. Kalyan, Assistant professor	Member	Present
30.	Mrs. A. Ramya Kumari, Assistant professor	Member	Present
31.	Mrs. T. Rajitha, Assistant professor	Member	Present
32.	Sri. K. Venkateshwara Rao, Assistant professor	Member	Present

1. BoS meeting of Computer Science and Engineering (Data Science) Department was conducted on 03.08.2024, from 10:00 AM to 12:30 PM online mode through Microsoft Teams.
2. Nine (09) external members and all the Internal BoS members attended the online meeting conducted through MS Teams platform
3. All attended external BoS members offered their valuable suggestions.

Details of the meeting

The meeting commenced at 10:00 AM and was presided over by the Chairman, BoS. At the outset, the Chairman, BoS welcomed the members to the meeting to discuss the pre-notified items on the agenda and sought approval.

- At the outset, the Chairman presented his views that the engineering programmes

are required to impart required Knowledge (K), Skills (S) and Qualities (Q) (values and attitude) and facilitate students to acquire the characteristics of good engineer. The KSQ imparted to the students will make them industry ready and also capable of entering Institutes of National Importance for higher education and research.

- The chairman informed the BoS members that industry experts and alumni have been contacted for inputs in preparing URR24 industry ready curriculum. The expected competencies (both Technical and generic competencies) to be demonstrated **by the graduates of B.Tech. CSE (Data Science) programme** along with the **target industries/research organizations** have been identified. The courses (theory& Labs) for the B.Tech. CSE (Data Science) programme have been identified by mapping the desired competencies with courses and prepared the **blueprint of the scheme.**
- Learning tracks for Placements (core & IT/ITES), higher education and research are identified for the benefit of students
- The members of BoS have been informed about the following new components that are newly introduced in the curriculum under URR24 regulations.

Component introduced	Semester	Total credits	Justification
Multidisciplinary Open Electives Courses (MOPEC)	V, VII & VIII	9	To give exposure on interdisciplinary and cross disciplinary domains.
Practicum	I, II, III & IV	4	For experiential learning to impart problem-solving, critical thinking, and communication skills
Startups & Entrepreneurship (STE) basket	V	3	To inspire and prepare the graduates with startup and entrepreneurial mindset
Social Empowerment Activities (SEA) and Self Accomplishment Activities (SAA)	I, II, III & IV	4	To ensure all dimensional holistic growth of the learner
Expert Talk Series	I, II, III, IV, V & VI	6	To provide graduates with up-to-date industry relevant knowledge and technological trends in their respective fields

- The members of BoS have also been informed that as per NEP 2020 guidelines, Multiple Entry Multiple Exit (MEME) option has been introduced in the programme.

S. No.	Exit Description	Exit Point	Degree/Certificate offered	Goal
1.	First Exit	After completion of First year.	UG Certificate in CSE (Data Science)	The student should be employable as Technical Assistant CSE (Data Science) in any industry / organization.
2.	Second Exit	After completion of Second year.	UG Diploma in CSE (Data Science)	The student should be employable as Technician (CSE (Data Science)) in any industry/organization.
3.	Third Exit	After completion of Third year.	B. Voc. in CSE (Data Science)	The student should be employable as Technical Supervisor (CSE (Data Science)) in any industry/organization.
4.	Normal Exit	After completion of Fourth year.	B.Tech. in CSE (Data Science)	The student should be employable as an Engineer (CSE (Data Science)) in any relevant industry/organization.

- The members of BoS have been informed that the following degrees can be awarded for fast learners (students need to acquire additional credits by completing additional courses/research)
 - B. Tech with “Minor”
 - B. Tech “Honours”
 - B. Tech “Honours with Research”
- The BoS members have been informed that the curriculum is designed to offer **four** baskets of Programme Electives, each basket having identified courses corresponding to the programme specializations called verticals. This enables learners to grow in a domain specialization or domain vertical. The student can opt for courses in the sequel (PEC-1 to PEC-4) in any of the specific verticals or across the verticals. If a student completes the sequel of courses PEC-1 to PEC-4 listed under a specific vertical, that specific vertical will be mentioned in his/her degree certificate, as specialisation.
- Respected external members have given following inputs and suggestions for the curriculum revision under URR24.

Suggestions Received from External BoS Members:

S. No.	Name of the member	Suggetions/Remarks offered
1.	Dr. Tausif Diwan, Asst. Professor & HoD, CSE, IIT, Nagpur	<ol style="list-style-type: none"> Design and Analysis of Algorithms subject to be moved earlier and lab is also required for this subject Suggested adding lab to Operating Systems subject. Case studies and Virtual Labs can be introduced in “Computer Architecture and Organization” subject to engage the students in learning
2.	Dr. Jithendra V. Tembhrne Professor, Dept. of CSE IIT, Nagpur	<ol style="list-style-type: none"> More weightage should be given to Program Core Courses. The subject name Programming for Program Solving using C should be generic. Customize Physics and Chemistry syllabus to benefit CSE students. Chemical bonds and few tools can be added to the chemistry syllabus. Tutorials are not required for every subject especially theory subjects. Suggested to convert tutorials to theory class so the faculty has more time to sharpen the skill of students. Design and Analysis of algorithms subject to be moved to fourth semester or earlier. Suggested to remove “state minimization” topic in Switching Theory and Logic Design and add Analog circuits Suggested GPU Architecture to be added for “Computer Architecture and Organization” subject. Pointed out that it’s always not possible to give a 1 mark question as per the TOC for all subjects. Suggested that the “O” component in the scheme is not tracked by faculty. This shall be marked with an asterisk to differentiate them from L, P and T hours. The difference in AIML and Data Science syllabus should be at-least by 20-25% after 4th semester. Subjects like Data Sensor analytics was suggested for Data Science. Suggested to check scheme of IIIT Nagpur for reference.
3.	Mrs. Seema Vodithala Engineering Manager – BMJ, BMA House, Tavistock Square London WC1H 9JR, United Kingdom	<ol style="list-style-type: none"> Checked for the rules listed for PRACTICUM. Enquired on how the projects for PRACTICUM will be given to students and how is it monitored. Insisted on maintaining clear rules and regulations for assessment of marks for CIE and all exam components.
4.	Mrs. K. Sravanthi, University College of Engineering, Kothagudem, Kakatiya University	No remarks
5.	Sri. S. Uday Aditya, Senior Consultant, Thoughtworks, Hyderabad	<ol style="list-style-type: none"> Suggested adding case studies and giving problem statement to be solved for exit courses. Add smart applications to be part of the syllabus.
6.	Sri. M. Deepan Raj, Senior Technical Lead – Data Science, HCL Technologies	Absent due other work commitment
7.	Mrs. Neeraja Patnala, Engineer-3, JMPC,	No remarks

	<i>Hyderabad</i>	
8.	Sri Sai Krishna Mohan Chitikam, <i>Senior Manager and Principal Consultant, Infosys Pvt. Ltd., Hyderabad</i>	<ol style="list-style-type: none"> 1. C++ and Linux operating system are to be offered in the syllabus. 2. Git version control, Smart applications, Mobile Application Android development should be covered in any mandatory course. 3. Suggested to move NoSQL and Mobile Application Development from Electives to mandatory courses. 4. Constraints for multiple exit to be more stringent by adding more practical courses, adding mini projects, case studies and giving problem statement to be solved 5. Students to be trained to improve their logical skills mainly during programming skill development labs.
9.	Sri Venkat Sai Teja, <i>AI Intern, AssetSense Technologies Private Limited</i>	No remarks
10.	Sri Rahul Veeraganti, <i>Senior Software Engineer, Movate Technologies Pvt. Ltd., Bangalore</i>	No remarks

RESOLUTIONS

After deliberations, the BoS in Computer Science and Engineering (Data Science) has resolved the following

1. **BoS-URR24 -CSE (Data Science)- August 2024 - R1:**

Resolved to approve the Scheme of Instruction (SoI) of B.Tech. CSE (Data Science) programme under URR24

2. **BoS-URR24 - CSE(Data Science)- August 2024 - R2:**

Resolved to approve the syllabus of B.Tech. CSE(Data Science) programme for semesters I & II under URR24

3. **BoS-URR24 - CSE(Data Science)- August 2024 - R3:**

Resolved to approve the rules and regulations of B.Tech. (Data Science) programme under URR24.

At the end, the Chairperson, BoS, thanked all the BoS members for giving their suggestions and approving the B.Tech CSE (Data Science) scheme and syllabus under URR24.

The meeting was adjourned at 12.30 pm.

Prof.S. Narasimha Reddy
Chairperson, BoS of CSE (AIML),KITSW
Professor & Head, CSMD



BoS meeting of B.Tech CSE(Data Science) program (Virtual mode)

Date and time of the meeting: 25.02.2025 @ 9.30 am (through MS teams online)

Agenda:

- Presentation of URR-18_R23 III year scheme and syllabus of CSE(Data Science) to BoS members for approval
- Any other issues with the permission of the chair

The following is the list of BoS members (CSE-Data Science) who attended the meeting :

S.No.	Name	Designation	Position in BoS	Attended/not
1.	Prof. S. Narasimha Reddy	Professor & HoD, CSE (AI&ML), KITSW	Chairperson, BoS	Attended
2.	Dr. Tausif Diwan	Asst. Professor & HoD, CSE, IIT, Nagpur	Member (Subject expert from Institute of National Importance)	Attended
3.	Dr. Damodar Reddy Edla	Associate Professor, Dept. of CSE, NIT, GOA	Member (Subject expert from Institute of National Importance)	Attended
4.	Smt. Vinathi. S	Senior IT QA, LexisNexis Risk Solutions, GA	Member (Subject expert from outside the country)	Attended
5.	Ms. Sravanthi	University College of Engineering, Kothagudem, Kakatiya University	Member (University Nominee)	Attended
6.	Sri. S. UdayAditya	Senior Consultant, Thoughtworks, Hyderabad	Member (Industry Representative)	Attended
7.	Sri M. Deepan Raj	Senior Technical Lead - Data Science, HCL Technologies	Member (Industry Representative)	Not Attended
8.	Mrs. Neeraja Patnala	Engineer-3, JMPC, Hyderabad	Member (Industry Representative)	Attended

9.	Sri Sai Krishna Mohan Chitikam	Senior Manager and Principal Consultant, Infosys Pvt. Ltd., Hyderabad	Member (Industry Representative)	Attended
10.	Sri Venkat Sai Teja	Artificial Intelligence Engineer, AssetSense Technologies Private Limited	Member (UG Alumni)	Attended
11.	Sri Rahul Veeraganti	Senior Software Engineer, Movate Technologies Pot. Ltd., Bangalore	Member (PG Alumni)	Attended
12.	Sri. S.Nagaraju	Assoc. Prof of CSE(AI&ML) Dept , KITSW	Member	Attended
13.	Dr. Jothi Prabha Appadurai	Assoc. Prof. of CSE(AI&ML), KITSW	Member	Attended
14.	Dr.A.Kiranmayee	Assoc. Prof. of CSE(AI&ML), KITSW	Member	Attended
15.	Dr. K.Vinay Kumar	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
16.	Dr.B.Hanumanthu	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
17.	Sri. I. Sai Rama Krishna	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
18.	Dr. M.Sujatha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
19.	Smt. R.Swetha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
20.	Smt. E. Rajitha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
21.	Ms. M. Hithasri	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
22.	Smt. D. Haritha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
23.	Smt. V. Prashanthi	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
24.	Sri. M. Ramarao	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
25.	Dr. S. Raghu	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
26.	Sri. B. Ramji	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended

27.	Dr. M. Rajesh	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
28.	Sri. K. Shiva Kumar	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
29.	Sri. V. Ramu	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
30.	Sri. B. Kalyan	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
31.	Smt. A. Ramya Kumari	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
32.	Smt. T. Rajitha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
33.	Sri. K. Venkateshwara Rao	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended
34.	Smt. N.Haritha	Asst. Prof. of CSE(AI&ML), KITSW	Member	Attended

MINUTES OF MEETING:

1. The chairperson of the BoS Dr. Soora Narasimha Reddy, Professor & Head of Department, CSE(AI&ML) welcomed the internal and External BoS members and further proceedings were taken up by the academic coordinator Dr.Jothi Prabha Appadurai
2. Dr. K. Vinay Kumar presented the URR-18_R23 Scheme and Syllabus of 5th and 6th semesters respectively
3. Firstly, V semester syllabus to be approved was presented to BoS

(i) Data Mining and Data Warehousing course syllabus of V Semester was presented to BoS unit wise and made open for suggestions

Below are the comments/suggestions given by external BoS members

(a) Outlier Detection topic need to added and mentioned clearly in the syllabus

Response: Outlier Detection is added to Unit IV. The updated syllabus is enclosed for reference

(b) Suggested the subject title to be changed to “Data Warehousing and Data Mining”

Response: The subject title is changed to “Data Warehousing and Data Mining” as suggested. The updated syllabus is enclosed for reference.

(ii) Data Mining and Data Warehousing Laboratory course syllabus of V Semester was presented to BoS unit wise and made open for suggestions

Below are the comments/suggestions given by external BoS members

(a) Data Analytics and Visualization tools like Tableau /PowerBI can be added.

Response: Data Analytics and visualization is dealt with in a separate subject called Data Visualization in VII Semester. Tableau/ PowerBI tools will be added to the subject Data Visualization

(b) Time Series Analysis to be added to the laboratory exercise

Response: Time Series Analysis will be added to the subject “Data Visualization Laboratory “in the VII semester

(iii) Big Data Analytics course syllabus of VI Semester was presented to BoS unit wise and made open for suggestions

Below are the comments/suggestions given by external BoS members

(a) Introduction to various databases and PostgreSQL can be added

Response: Introduction to various databases and PostgreSQL are already added in the subject “Database Management Systems”

(b) Data Analytics and visualization tools like Tableau /PowerBI can be added

Response: Data Visualization topic is suggested for both DWDM Lab as well as BDA Lab. It has been incorporated into Data Visualization Lab in VII Semester.

(v) R Programming course syllabus of VI Semester was presented to BoS unit wise and made open for suggestions

Below are the comments/suggestions given by external BoS members

Syllabus is good to go

(vi) R Programming Laboratory course syllabus of VI Semester was presented to BoS unit wise and made open for suggestions

Below are the comments/suggestions given by external BoS members

(a) Deserialization and Serialization shall be added in the Xth experiment of R programming laboratory course

Response: Programs on De-Serialization and Serialization has been added to Xth experiment of R programming laboratory course as suggested. Updated syllabus is attached for your reference.

(b) Cloud based deployment in R programming

Response: Cloud based deployment is added as a course project of Cloud Computing Subject in VII Semester as they don't have knowledge on cloud computing while they study R Programming.

Below are the generic comments regarding the roadmap for AI Engineering

1. The traditional approach of learning fundamentals in detail first and focusing on tools later should be restructured. It should integrate relevant tools within each topic, enabling students to apply concepts immediately through hands-on projects and lab work, ensuring both theoretical understanding and practical expertise.

Response: The design of URR24 syllabus for III- VIII Semester is in progress. The above points will be considered and incorporated during syllabus design and revision.

2. The curriculum should be designed to align with core competencies of the course and the evolving industry demands of a data science engineer.

Response: The design of URR24 syllabus for III- VIII Semester is in progress. The above points will be considered and incorporated during syllabus design and revision.

3. Is Data Security covered as a subject in the curriculum?

Response: Data Security is covered in the subject "Cryptography and Network Security" in the sixth semester

4. Batch Processing and Multithreading concepts need to be added in the curriculum if not added.

Response: Batch Processing and Multithreading concepts covered in the subject "Operating Systems"

5. The roadmap to AI engineer should cover the entire lifecycle of Data from data ingestion, Data Lake, computation, data warehouse and presentation. AWS, Microsoft Azure, Google Cloud to be integrated into syllabus in the laboratory courses or projects can be helpful for students to make them industry ready

Response: The design of URR24 syllabus for III- VIII Semester is in progress. The above workflow and topics will be considered and incorporated during syllabus design and revision

6. The curriculum should have a roadmap with different levels.

Level 1 : Foundation and Data Science

Level 2: Traditional ML, DL and Neural Networks

Level 3: Generative AI, Large Language Models and Retrieval-Augmented Generation

Response: The design of URR24 syllabus for III- VIII Semester is in progress. The above subjects/topics will be added during syllabus design and revision

Level 4: Evaluating and Optimizing LLM's, Fine-tuning Large Language Models, AI Engineering Ethics and Safety

Response: The design of URR24 syllabus for III- VIII Semester is in progress. The above subjects/topics will be added during syllabus design and revision

Presentation of all course syllabus to be approved was completed. The meeting adjourned at 11:05 AM after thanking all the Internal and External BoS members for thie active participation , support and valuable inputs

**Dr. S. Narasimha Reddy
Professor & Head, CSE(AI&ML)**



**MINUTES OF THE MEETING OF BOARD OF STUDIES (BoS) in
COMPUTER SCIENCE & ENGINEERING (Data Science)
Held at 10.00 AM on 10.05.2025 (Saturday)
Venue: Online through Microsoft teams**

Agenda:

1. Approval of the modified scheme of instruction of B.Tech. CSE (Data Science) program under URR24
2. Approval of the syllabus of B.Tech. CSE (Data Science) program - III & IV semesters under URR24
3. Approval of Course Articulation Matrix (CAM) of B.Tech. CSE (Data Science) program - I & II semesters under URR24 as per NBA tier I new format
4. Any other item with the permission of the Chair

Members Present:

S.No.	Name of the Member	Position in BoS	Attendance
1.	Prof. S. Narasimha Reddy, Professor & HoD, CSE (AI&ML), KITSW	Chairperson, BoS	Present
2.	Dr. Tausif Diwan Assistant Professor & HoD, Dept. of CSE IIIT, Nagpur	Member (Subject expert from Institute of National Importance)	Present
3.	Dr. Damodar Reddy Edla Assoc. Prof, Dept. of CSE ,NIT Goa	Member (Subject expert from Institute of National Importance)	Present
4.	Smt. Vinathi Sangepu, Lead Software Engineer, Lexisnexis Risk Solutions, USA	Member (Subject expert from outside the country)	Present
5.	Ms.Sravanthi University College of Engineering, Kothagudem, Kakatiya University	Member (University Nominee)	Present
6.	Sri S.Uday Aditya Senior Consultant, Thoughtworks, Hyderabad	Member (Industry Representative)	Present
7.	Sri M. Deepan Raj Senior Technical Lead, Data Science, HCL Technologies, Chennai	Member (Industry Representative)	Present
8.	Smt. Neeraja Patnala Engineer -3 , JMPC, Hyderabad	Member (Industry Representative)	Present
9.	Sri Sai Krishna Mohan Chitikam Senior Manager and Principal Consultant,	Member (Industry Representative)	Present

	Infosys Pvt. Ltd. , Hyderabad		
10.	Sri Venkat Sai Teja Artificial Intelligence Engineer, AssetSense Technologies Pvt. Ltd. , Hyderabad	Member (UG Alumni)	Present
11.	Sri Rahul Veeraganti Senior Software Engineer, Movate Technologies Pvt. Ltd. , Bangalore	Member (PG Alumni)	Present
12.	Sri. S. Naga Raju, Associate professor	Member	Present
13.	Dr. A. Jothi Prabha, Associate professor	Member	Present
14.	Dr. A. Kiranmayee, Associate professor	Member	Present
15.	Dr. K. Vinay Kumar, Assistant professor	Member	Present
16.	Dr. B. Hanumanthu, Assistant professor	Member	Present
17.	Sri. I. Sai Rama Krishna, Assistant professor	Member	Present
18.	Dr. M. Sujatha, Assistant professor	Member	Present
19.	Mrs. R. Swetha, Assistant professor	Member	Present
20.	Mrs. E. Rajitha, Assistant professor	Member	Present
21.	Ms. M. Hithasri, Assistant professor	Member	Present
22.	Mrs. D. Haritha, Assistant professor	Member	Present
23.	Mrs. V. Prashanthi, Assistant professor	Member	Present
24.	Sri. M. Ramarao, Assistant professor	Member	Present
25.	Sri. B. Ramji, Assistant professor	Member	Present
26.	Dr. M. Rajesh, Assistant professor	Member	Present
27.	Sri. V. Ramu, Assistant professor	Member	Present
28.	Sri. B. Kalyan, Assistant professor	Member	Present
29.	Mrs. A. Ramya Kumari, Assistant professor	Member	Present
30.	Mrs. T. Rajitha, Assistant professor	Member	Present
31.	Sri. K. Venkateshwara Rao, Assistant professor	Member	Present
32.	Mrs.N.Haritha, Assistant professor	Member	Present
33.	Sri.K.Chandar, Assistant professor	Member	Present
34.	Sri. S. Sankeerth , Assistant professor	Member	Present
35.	Ms. M. Akhila, Assistant professor	Member	Present

36.	Smt. T.Swetha, Assistant professor	Member	Present
37.	Sri. P.Sravan, Assistant professor	Member	Present

BoS meeting of Computer Science and Engineering (AI & ML) Department was conducted on 10.05.2025, from 10:00 AM to 11:30 AM online mode through Microsoft Teams. All BoS External members and Internal BoS members attended the online meeting conducted through MS Teams platform

The meeting commenced at 10.00 AM and was presided over by the Chairperson, BoS. At the outset, the Chairperson, BoS welcomed the members to the meeting to discuss the pre notified items on the agenda and sought approval.

The chairperson informed the BoS members that industry experts and alumni have been contacted for inputs in preparing URR24 industry ready curriculum and syllabus.

In the revised scheme, 1 credit out of the 2 credits of “Soft and Interpersonal Skills” course has been transferred to the “Sports and Yoga “course in the I semester.

As per the NBA Tier I revised format, the number of Program Outcomes (POs) in the Course Articulation Matrix (CAM) tables for I and II semesters has been reduced from 12 to 11, and all Course Outcomes (COs) have been appropriately mapped to the revised POs.

Respected external members have given following inputs and suggestions for the III semester & IV semester curriculum revision under URR24.

Suggestions Received from External BoS Members and action taken for the suggestions:

S. No.	Name of the BoS member and details	Suggestions/Remarks offered	Remarks/Action Taken
1.	Dr. Tausif Diwan Assistant Professor & HoD, Dept. of CSE IIIT, Nagpur	CVIP course is not covering any models. It covers only the fundamentals of CVIP OS: Lab for OS can add benefit to the students. Latest scheduling algorithms , google file system, virtualizations and modern operating system needs to be added to the operating system course	CVIP: As it's an exit course, the syllabus is designed to be minimal to be covered in 32 hours. OS: Programs relating to Operating systems will be practiced in PSD III laboratory. Latest scheduling algorithms, Virtualizations and Modern Operating System are added as self learning topics in OS. Virtualization and google file system is covered in cloud computing subject in VI semester.

2.	Dr. Damodar Reddy Edla Assoc. Prof, Dept. of CSE ,NIT Goa	SE: Halstead Software Metrics to be added in Software Engineering course	SE: Halstead software metrics is added to Unit IV of Software Engineering
3.	Smt. Vinathi Sangepu, Lead Software Engineer, Lexisnexis Risk Solutions, USA	WT: API services is to be added to Web Technologies Course	WT: As it's an exit course, the syllabus is designed to be minimal to be covered in 32 hours. API services will be added to the main course in V semester
4.	Ms.Sravanthi University College of Engineering, Kothagudem, Kakatiya University	SE: Add topics relating to how AI is integrated to software development life cycle activities	SE: Case studies relating to AI integration in SE activities are added in corresponding units
5.	Sri S.Uday Aditya Senior Consultant, Thoughtworks, Hyderabad	<p>OS: Operating Systems course covers inter process communication at a low level. Suggested to add DevOps</p> <p>OOP: Multithreading concept is no longer used in Java. Thread Pools are used in industry which can be added in laboratory</p> <p>DBMS: Indexing concepts, NoSQL, Query Planning tools , different types of database management systems needs to be covered in Database Management Systems Course</p> <p>SE: Does Software Engineering course has topics relating to how to test desktop and web application. Unit Test framework and Test driven development tools to be covered in software engineering.</p> <p>OOP: Functional programming with java should also be covered in the Java course. Also OOP using Python and C should be practiced in the laboratory</p>	<p>OS: DevOps is offered as a separate course in Verticals</p> <p>OOP: Thread Pools are added in lab programs of OOP through Java</p> <p>DBMS: Indexing is added in the DBMS laboratory. Various types of database systems , Introduction NoSQL are already covered in Unit I No SQL and Query Planning tools shall be added to advanced databases vertical in VII semester</p> <p>SE: How to test desktop and web application is covered at a basic level in Software Engineering Course. Case studies relating to testing are added to Software Engineering course.</p> <p>OOP: Functional programming with java is covered in Unit 1. OOP using Python and C will be practiced in PSD laboratory 3</p>
6.	Sri M. Deepan Raj Senior Technical Lead, Data Science, HCL Technologies, Chennai	ML exit course: Add Model evaluation techniques and performance metrics. Add a small section on feature selection and scaling techniques For labs it would be better if they use a kaggle problem	<p>ML: Model Evaluation techniques and performance metrics to be added in the ML exit course</p> <p>As it's an exit course, we have given introduction to feature</p>

		and solve it fully . It can be basic also but it will have lot of real time data	selection and PCA is covered ML lab exit course syllabus is compressed as it is an exit course. These topics will be added in the main lab syllabus in VI semester.
		CVIP Exit Course: We could have algorithms like hog, lbph like algorithms Also could add some real time project like face recognition etc for lab	CVIP: The syllabus is compressed as it is an exit course. These topics will be added in the main syllabus in VI semester.
7.	Smt. Neeraja Patnala Engineer -3 , JMPC, Hyderabad	OOP: Suggested to use Java 16 or later versions as older versions are not used in the industry anymore. Add collections and generics DBMS: Indexing concepts, NoSQL, MongoDB needs to be covered in Database Management Systems Course	OOP: It is decided to practice lab programs using java 16 or higher versions. Collections and generics are covered in Advanced Java Programing DBMS: Indexing to be added in the DBMS laboratory. Various types of database systems are already covered in Unit I No SQL and MongoDB is covered in BDA course
8.	Sri Sai Krishna Mohan Chitikam Senior Manager and Principal Consultant, Infosys Pvt. Ltd. , Hyderabad	OS: Is cloud Architecture and cloud infrastructure covered as part of Operating Systems or any other course OOP: Java 12 which is used in the laboratory currently, is not enough to meet industry standards, he suggested to use Java16 or later versions. Inquired about NeoColab tool and its evaluation procedure SE: How to test web applications and desktop applications in software engineering course is a bit complex for students to understand at UG level CN: Include Telecomm related topics like 5G /6G in Computer Networks course. To highlight Networking as a Service(NaaS)	OS: Cloud Architecture and infrastructure is covered in the subject "Cloud Computing" OOP: It is decided to practice lab programs using java 16 or higher versions. SE: Software Engineering course is covered after web programming course and one whole unit is allotted for software testing. The topics are not covered in depth so they will be able to understand the concepts. Computer Networks: It shall be added in Advanced Computer Networks in VI semester. Networking as a Service(NaaS) is covered in cloud computing

		ML Exit course: Inquired whether various models in Machine Learning and NLP concepts are covered in the exit course "Machine Learning"	ML Exit Course: Various paradigms/models in ML are covered in the course. NLP concepts are not covered. It is covered as a separate course
9.	Sri Venkat Sai Teja Artificial Intelligence Engineer, AssetSense Technologies Pvt. Ltd. , Hyderabad	Software Engineering Principles and Object Object Analysis and Design should be added to PSD or Practicum	SE: OOAD concepts and SE principle to be added in Practicum
10.	Sri Rahul Veeraganti Senior Software Engineer, Movate Technologies Pvt. Ltd. , Bangalore	PSD Laboratory: Appreciated the use of software like NeoColab for improving programming skills and also inquired about the evaluation process.	--

RESOLUTIONS

After deliberations, the BoS in Computer Science and Engineering (Data Science) has resolved the following

1. BoS-URR24 -CSE (Data Science)- May 2025 - R1:

Resolved to approve the updated scheme of instruction of B.Tech. CSE (Data Science) programme under URR24

2. BoS-URR24 - CSE (Data Science)- May 2025 - R2:

Resolved to approve the syllabus of B.Tech. CSE (Data Science) programme for III & IV semesters with exit courses under URR24

3. BoS-URR24 - CSE (Data Science)- May 2025 - R3:

Resolved to approve Course Articulation Matrix (CAM) with 11 Program outcomes of I and II semester courses of B.Tech. CSE (Data Science)- programme under URR24

At the end, the Chairperson, BoS, thanked all the BoS members for giving their suggestions and approving the B.Tech CSE (DataScience) scheme and II year syllabus under URR24. The meeting was adjourned at 11.30 am.

Prof.S. Narasimha Reddy
Chairperson, BoS of CSE (DataScience),KITSW
Professor & Head, Department of CSE(AI & ML)