



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**CIRCULAR**

Date: 18.03.2024

Department of CSE is planning to conduct Board of Studies (BoS) meeting for the B.Tech. CSE programme on **30.03.2024** from 2.00 PM in the blended mode (Physical meeting: NB - 303, Conference hall, Third floor, Nagarjuna Block, VFSTR and virtual meeting link: <https://us06web.zoom.us/j/88604711537> . All the following members are requested to make it convenient to attend the meeting.

**Members to attend the meeting:**

Dr. K.V. Krishna Kishore	Professor and Head of the Department	Chairperson
Prof. R.B.V.Subramanyam	Professor, Dept. of CSE, NIT Warangal. rbvs66@gmail.com, rbvs66@nitw.ac.in +91 949 134 6969	External member (Academia)
Mr.Bala Prasad Peddigari	Chief Innovation Officer, TCS. bala.peddigari@ieee.org +91 929 508 1188	External member (Industry)
Prof. C.R.Rao	Professor, SCIS, University of Hyderabad. crrcs@uohyd.ernet.in +91 924 746 5125	Invited member (Academia)
Dr.B.Venkata Ramana	Associate Professor, HoD-CSE, IIT, Tirupathi. ramana@iittp.ac.in +91 963 621 3350	Invited member (Academia)
Mr.Sai Kumar Jadam	Quality Engineering Manager, DASSAULT SYSTEMES Solutions Lab, saimtech@yahoo.co.in +91 997 201 9901	Invited member (Industry)
Dr. S. V. Phani Kumar	Professor, Dept. of CSE, VFSTR.	Internal member
Dr. M. Umadevi	Associate Professor Dept. of CSE, VFSTR.	Internal member (R&D nominee)
Dr. P. Siva Prasad	Associate Professor, Dept. of CSE, VFSTR.	Internal member
Dr. D. Yakobu	Assistant Professor Dept. of CSE, VFSTR.	Internal member (School nominee)
Dr. S. Satish Kumar	Assistant Professor, Dept. of CSE, VFSTR.	Internal member
Dr. S. Deva Kumar	Assistant Professor, (BoA) Dept. of CSE, VFSTR.	Member Secretary

**Agenda of the BoS Meeting:**

1. Discussion and approval of R22 curriculum revision for 2024-'25 admitted batch.
2. Approval of NPTEL courses for the first semester of academic year 2024-25.
3. Discussion on results announced in the last six months – FA, SA and Grades.
4. Approval of attainment of CO/PO/PSO and SO values, and PEOs.
5. Any other point with the permission of chair.

  
Chairperson

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**Dept. of Computer Science & Engineering**  
**VFSTR Deemed to be University**  
**VADLAMDI - 522 213**  
**Guntur Dist. A.P. India**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

Date: 01.04.2024

**Minutes of Board of Studies Meeting**

The Board of Studies (BoS) meeting for the B.Tech - CSE programme was conducted in the blended mode from 2.00 PM to 4.00 PM on 30.03.2024. (Physical meeting: NB - 303, Conference Hall, Third floor, Nagarjuna Block, VFSTR and virtual meeting link: <https://us06web.zoom.us/j/88604711537>.)

**Agenda of the BoS Meeting:**

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5. Any other point with the permission of chair.

The following members were present either through offline or online.

S.No	Name and designation of the Member	Position	Signature
1	Dr. K.V. Krishna Kishore Professor and Head of the Department.	Chairperson	
2	Prof. R.B.V.Subramanyam Professor, Dept. of CSE, NIT Warangal. rbvs66@gmail.com, rbvs66@nitw.ac.in +91 949 134 6969	External member (Academia)	Joined through online
3	Mr.Bala Prasad Peddigari Chief Innovation Officer, TCS. bala.peddigari@ieee.org +91 929 508 1188	External member (Industry)	Joined through online
4	Prof. C.R.Rao Professor, SCIS, University of Hyderabad. crrcs@uohyd.ernet.in +91 924 746 5125	Invited member (Academia)	Joined through online
5	Dr.B.Venkata Ramana Associate Professor, HoD-CSE, IIT, Tirupathi. ramana@iittp.ac.in +91 963 621 3350	Invited member (Academia)	Absent
6	Mr.Sai Kumar Jadam Quality Engineering Manager, DASSAULT SYSTEMES Solutions Lab, saimtech@yahoo.co.in +91 997 201 9901	Invited member (Industry)	Joined through online
7	Dr. S. V. Phani Kumar Professor, Dept. of CSE, VFSTR.	Internal member	

8	Dr. M. Umadevi Associate Professor, Dept. of CSE, VFSTR.	Internal member (R&D nominee)	<i>Umadevi</i>
9	Dr. P. Siva Prasad Associate Professor, Dept. of CSE, VFSTR.	Internal member	<i>Siva Prasad</i>
10	Dr. D. Yakobu Assistant Professor, Dept. of CSE, VFSTR.	Internal member (School nominee)	<i>Yakobu</i>
11	Dr. S. Satish Kumar Assistant Professor, Dept. of CSE, VFSTR.	Internal member	<i>Satish Kumar</i>
12	Dr. S. Deva Kumar Assistant Professor, (BoA) Dept. of CSE, VFSTR.	Member Secretary	<i>Deva Kumar</i>

The following members have taken leave of absence:

1. Dr. B. Venkata Ramana Invited Member (Academia)  
Associate Professor, HoD-CSE, IIT, Tirupathi.

#### Minutes of the meeting:

- Dr. K.V. Krishna Kishore, BoS Chairperson, initiated the meeting with his opening remarks, hearty welcomed all the internal and external members of the B.Tech. CSE BoS and presented the glimpses of revised R22 Regulations.
- Prof. R.B.V. Subramanyam's inquired about the choice-based credit system (CBCS) likely pertains to a system of education adopted by many universities worldwide, including in India. He suggested that CBCS allows students to choose from a wide range of elective courses from the department as well as other departments and provides flexibility in the pace of learning. He suggested to compare the AICTE and VFSTR credits.

Prof. K V Krishna Kishore, BoS Chairperson have responded that the Curriculum is in line with AICTE guidelines.

- Mr. Sai Kumar Jadam asked about the contents of IT Tools and Cyber Security and he also suggested to include practical session on assembling and de-assembling the computer components.
- Mr. Bala Prasad Peddigari suggested to conduct a session on story telling as a part of English Proficiency & Communication Skills (PET) course to improve the presentation skills.

Dr. S Deva Kumar, Member Secretary has said that both the suggestions were well taken.

- Prof. R.B.V. Subramanyam has enquired about the reason for inclusion of Engineering Chemistry and also asked what kind of program outcomes are going to be realized through the Chemistry Course for Computer Science and Engineering (CSE)

graduands. If possible, he suggested to include any Math/ Physics course in the place of Chemistry. Further, he suggested to offer Computer Graphics instead of Engineering Graphics, and if needed he suggested to move both Engineering Chemistry and Engineering Graphics courses to Open Elective Pool.

- Prof. R.B.V. Subramanyam has suggested to consider the Course Contents of IIT Guwahati and IIT Kharagpur for the design of Indian Knowledge Systems course. Dr. S Deva Kumar has appreciated the proposal and agreed to revise the course contents as per the suggestion.
- Mr.Sai Kumar Jadam asked about the contents of Front-End Applications and he suggested to deploy the Projects and Workouts in GIT and JIRA. This kind of practices, explore the students learning ability and also useful to demonstrate their skill to the Hiring team during the Employment.
- Prof. C.R.Rao has advised to update the course contents of Optimization Techniques course in-line with SS Rao textbook for inclusion of practice exercises. Dr. P Siva Prasad has given consent to revise the course contents accordingly.
- Prof. C.R.Rao asked us about the department electives and he suggested giving a pool wise department electives so that the students gain a knowledge about a particular area instead of giving a list of courses.  
As per suggestion, stream-wise department electives are formed.
- The curriculum encompasses the courses that enable employability or entrepreneurship or skill development, provided in Appendix- II.
- The significant changes are made in the content of all courses and hence those courses are considered as new courses provided in Appendix- III.
- The total average percentage of syllabus revised was 25%, when compared to previous R22 curriculum.
- Dr. S Deva Kumar, Member secretary presented the list of SWAYAM-NPTEL courses to be floated for III/IV B. Tech CSE students. These courses could be chosen as additional courses under Open Elective/ Department Elective. It was noted that this is a regular practice to encourage students towards self-learning and life-long learning. After discussing the matter, the members approved the list of SWAYAM-NPTEL courses. Detailed list of NPTEL courses is attached in the Annexure-IV.
- The chairperson of the meeting presented the formative and summative results of the previous semester i.e., 2023-24 I Sem. The correlation between formative and summative results was also presented. After the thorough discussions, the members

focused on the actions to be taken for the reducing number of R-grade and I-grade students. The members have proposed various strategies such as extensive usage of effective teaching and learning methods, proper mentoring, frequent attendance monitoring, and strengthening the assessment and evaluation methods.

- Further Chairperson has presented the attainments of CO/PO/PSO and SO values of 2019-23 batch for ratification. Prof. C.R. Rao has enquired about the procedures adopted for the computation. Members have suggested the department to undertake proper actions for non-attained CO/PO/PSO and SO values.
- Based on the feedback from various stakeholders and suggestions given by the members, the Chairperson of BoS told that, those fruitful suggestions would be incorporated appropriately in the curriculum and syllabi of the regulation R22 and this will be submitted to the Academic Council of VFSTR for the approval.

There being no further points for discussion, the Chairperson thanks all the external, internal, invited members and announced that the meeting was adjourned.

**Summary of the Board of Studies meeting: .**

1. Discussion and approval of R22 curriculum revision for 2024-'25 admitted batch.
2. Approval of NPTEL courses for the first semester of academic year 2024-25.
3. Discussion on results announced in the last six months – FA, SA and Grades.
4. Approval of attainment of CO/PO/PSO and SO values, and PEOs.
5. Any other point with the permission of chair.

  
**Member Secretary**

Dr. S. Deva Kumar  
Asst. Professor, Department of CSE,  
VFSTR Deemed to be University.

  
**Chairperson**

Dr. K.V. Krishna Kishore  
Dean, SoCI, Professor & Head, CSE,  
VFSTR Deemed to be University.

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****B.Tech., CSE Programme: Curriculum Structure  
(Applicable to 2024-25 Admitted Batch onwards)****Annexure - I****I Year I Semester**

Sl. No.	Course Title	L	T	P	C
1	Mathematics – I	3	-	2	4
2	Physics	3	2	-	4
3	Basic of Electrical & Electronics Engineering	2	2	-	3
4	Programming in C	2	2	2	4
5	English Proficiency & Communication Skills (PET)	-	-	2	1
6	IT Tools & Cyber security	-	2	2	2
7	Environmental Studies	2	2	-	3
8	Orientation session - 1	-	1	-	1
9	Constitution of India	-	2	-	1
10	Physical fitness	-	2	-	1
	<b>Sub-Total</b>	<b>12</b>	<b>15</b>	<b>8</b>	<b>24</b>
	<b>Total</b>		<b>35</b>		<b>24</b>

**I Year II Semester**

Sl. No.	Course Title	L	T	P	C
1	Mathematics – II	3	2	-	4
2	Chemistry	3	-	2	4
3	Engineering Graphics	2	-	2	3
4	Problem Solving through Python	1	2	2	3
5	Technical English Communication	2	-	2	3
6	Management Studies	2	2	-	3
7	Orientation session -2	-	2	-	1
8	Universal Human Values	-	2	-	1
9	Indian Knowledge Systems – Dept. specific	-	2	-	1
	<b>Sub-Total</b>	<b>13</b>	<b>12</b>	<b>8</b>	<b>23</b>
	<b>Total</b>		<b>33</b>		<b>23</b>

**II Year I Semester**

Sl. No.	Course Title	L	T	P	C
1	Discrete Mathematical Structures	3	2	-	4
2	Data Structures	2	2	2	4
3	Database Management Systems	2	2	2	4
4	Object-Oriented Programming through JAVA	2	2	2	4
5	Computer Architecture	3	2	-	4
6	Front-end Application Development	-	2	2	2
7	Life skills	-	-	1	1
8	Design Thinking & Engineering Orientation	-	-	2	1
	<b>Sub-Total</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>24</b>
	<b>Total</b>		<b>35</b>		<b>24</b>

**II Year II Semester**

Sl. No.	Course Title	L	T	P	C
1	Probability and Statistics	3	2	-	4
2	Design and Analysis of Algorithms	2	2	2	4
3	Operating Systems	2	-	2	3
4	Theory of Computation	2	2	-	3
5	Full Stack Development	-	2	2	2
6	Open Elective – 1 (NPTEL)	2	2	-	3
7	Field projects	-	-	2	1
8	Industry interface course (Modular course)	-	-	2	1
	<b>Sub-Total</b>	<b>11</b>	<b>10</b>	<b>10</b>	<b>21</b>
9	Minor / Honours – 1	3	0	2	4
	<b>Sub-Total</b>	<b>14</b>	<b>10</b>	<b>12</b>	<b>25</b>
	<b>Total</b>		<b>36</b>		<b>25</b>



**III Year I Semester**

Sl. No.	Course Title	L	T	P	C
1	Soft Skills Laboratory	0	0	2	1
2	Optimization Techniques	2	0	2	3
3	Artificial Intelligence	2	2	0	3
4	Computer Networks	2	2	2	4
5	Mobile App Development	0	2	2	2
6	Department Elective – 1	3	0	2	4
7	Open Elective – 2	2	0	2	3
8	BEC Certification	0	0	2	1
	<b>Total</b>	<b>11</b>	<b>6</b>	<b>14</b>	<b>21</b>
9	Minor / Honours – 2	3	0	2	4
	<b>Total</b>	<b>14</b>	<b>6</b>	<b>16</b>	<b>25</b>
	<b>Total</b>		<b>36</b>		<b>25</b>

**III Year II Semester**

Sl. No.	Course Title	L	T	P	C
1	Computing Ethics	1	2	0	2
2	Quantitative aptitude & Logical reasoning	0	2	2	2
3	Machine Learning	2	0	2	3
4	Cryptography and Network Security	2	0	2	3
5	Department Elective – 2	2	0	2	3
6	Department Elective – 3	3	0	2	4
7	Open Elective – 3	2	0	2	3
8	Field projects	0	0	2	1
	<b>Sub-Total</b>	<b>12</b>	<b>4</b>	<b>14</b>	<b>21</b>
9	Minor / Honours – 3	3	0	2	4
	<b>Sub-Total</b>	<b>15</b>	<b>4</b>	<b>16</b>	<b>25</b>
	<b>Total</b>		<b>35</b>		<b>25</b>

**IV Year I Semester**

Sl. No.	Course Title	L	T	P	C
1	Software Project Management	2	2	0	3
2	Parallel & Distributed Computing	2	2	0	3
3	Privacy and Intrusion Detection	2	2	0	3
4	Department Elective – 4	3	0	2	4
5	Department Elective – 5	3	0	2	4
6	Department Elective – 6	3	0	2	4
	<b>Sub-Total</b>	<b>15</b>	<b>6</b>	<b>6</b>	<b>21</b>
7	Minor / Honours – 4	3	0	2	4
	<b>Sub-Total</b>	<b>18</b>	<b>4</b>	<b>10</b>	<b>25</b>
	<b>Total</b>		<b>32</b>		<b>25</b>

**IV Year II Semester**

Sl. No.	Course Title	L	T	P	C
1	Project Work	0	0	24	12
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>12</b>
2	Minor / Honours – 5	0	0	6	4
	<b>Total</b>	<b>0</b>	<b>0</b>	<b>30</b>	<b>16</b>
	<b>Total</b>		<b>30</b>		<b>16</b>

### Department Electives

Sl. No.	Course Code	Course Title	L	T	P	C
1	22CS801	Advanced Data Structures	2	2	2	4
2	22CS802	Advanced JAVA Programming	2	2	2	4
3	22CS803	Computer Graphics	2	2	2	4
4	22CS804	Deep Learning	3	0	2	4
5	22CS805	Digital Image Processing	2	2	2	4
6	22CS807	Mobile Ad-hoc Networks	3	0	2	4
7	22CS809	Text Mining	3	0	2	4
8	22CS810	Numerical Algorithms	3	2	0	4
9	22CS811	Operating System Design	3	0	2	4
10	22CS813	Simulation and Modeling	3	0	2	4

### Honours for CSE

S. No.	Course Code	Course Title	L	T	P	C
1	22CS951	Advanced Graph Algorithms	3	0	2	4
2	22CS952	Biometrics	3	0	2	4
3	22CS953	Parallel and Distributed Computing	3	2	0	4
4	22CS954	Internet of Things	3	0	2	4
5	22CS955	Wireless Sensor Networks	3	0	2	4
6	22CS956	Capstone Project	0	2	6	4

### Open Electives offered to Non-Computing Branches

S.No	Course Code	Course Title	L	T	P	C
1	22CS851	Database Systems	2	0	2	3
2	22CS852	Mobile Application Design and Development	2	0	2	3
3	22CS853	Java Programming	2	0	2	3
4	22CS854	Python Programming	2	0	2	3
5	22CS855	Design and Development of Internet Applications	2	0	2	3

CSE – Minor Courses

Computer Science and Engineering

Sl.No	Course Code	Course Title	L	T	P	C
1	22CS901	Introduction to Python Programming	2	2	2	4
2	22CS902	OOPS through JAVA	2	0	4	4
3	22CS903	Database Management Systems	2	2	2	4
4	22CS904	Web Technologies	2	0	4	4
5	22CS905	Mobile Application Development	2	0	4	4
6	22CS906	Design and Analysis of Algorithms	2	2	2	4
7	22CS907	Operating Systems and Shell Programming	2	2	2	4
8	22CS908	Computer Networks	3	0	2	4
9	22CS909	Capstone Project	0	2	6	4

  
Chairperson

Dr. K.V.Krishna Kishore

Dean, School of Computing and Informatics,  
Professor & Head, Dept. of CSE,  
VFSTR Deemed to be University, Vadlamudi.

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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING****APPENDIX II****List of Courses that Enables Employability or Entrepreneurship or Skill Development**

Year	Sem	Name of the Course	Course Category
I	I	Mathematics – I	Skill Development
I	I	Physics	Skill Development
I	I	Basic of Electrical & Electronics Engineering	Skill Development
I	I	Programming in C	Employability
I	I	English Proficiency & Communication Skills (PET)	Skill Development
I	I	IT Tools & Cyber security	Skill Development
I	I	Environmental Studies	Skill Development
I	I	Orientation session - 1	Skill Development
I	I	Constitution of India	Skill Development
I	I	Physical fitness	Skill Development
I	II	Mathematics – II	Skill Development
I	II	Chemistry	Skill Development
I	II	Engineering Graphics	Skill Development
I	II	Python Programming	Employability
I	II	Technical English Communication	Employability
I	II	Management Studies	Entrepreneurship
I	II	Orientation session -2	Skill Development
I	II	Universal Human Values	Skill Development
I	II	Indian Knowledge Systems – Dept. specific	Skill Development
II	I	Discrete Mathematical Structures	Skill Development
II	I	Data Structures	Employability
II	I	Database Management Systems	Employability
II	I	Object-Oriented Programming through JAVA	Employability
II	I	Computer Architecture	Skill Development
II	I	Front-end Application Development	Employability
II	I	Life skills	Skill Development
II	I	Design Thinking & Engineering Orientation	Skill Development
II	II	Probability and Statistics	Skill Development
II	II	Design and Analysis of Algorithms	Employability
II	II	Operating Systems	Skill Development
II	II	Theory of Computation	Skill Development
II	II	Full Stack Development	Employability
II	II	Field projects	Skill Development
II	II	Industry interface course (Modular course)	Skill Development

Year	Sem	Name of the Course	Course Category
III	I	Soft Skills Laboratory	Employability
III	I	Optimization Techniques	Skill Development
III	I	Artificial Intelligence	Skill Development
III	I	Computer Networks	Skill Development
III	I	Mobile App Development	Employability
III	I	BEC Certification	Employability
III	II	Professional ethics	Skill Development
III	II	Quantitative aptitude & Logical reasoning	Employability
III	II	Machine Learning	Skill Development
III	II	Cryptography and Network Security	Skill Development
III	II	Field projects	Employability
IV	I	Software Project Management	Entrepreneurship
IV	I	Parallel & Distributed Computing	Skill Development
IV	I	Privacy and Intrusion Detection	Skill Development
IV	II	Internship / Project Work	Employability
		Advanced Data Structures	Employability
		Advanced JAVA Programming	Employability
		Computer Graphics	Skill Development
		Deep Learning	Skill Development
		Digital Image Processing	Skill Development
		Mobile Ad-hoc Networks	Skill Development
		Text Mining	Skill Development
		Numerical Algorithms	Skill Development
		Operating System Design	Skill Development
		Simulation and Modeling	Skill Development

Chairperson  
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

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**APPENDIX III**

**List of New Courses in the R22 Curriculum**

Year	Sem	Name of the Course
I	I	IT Tools & Cyber security
I	II	Indian Knowledge Systems – Dept. specific
II	I	Front-end Application Development
II	I	Design Thinking & Engineering Orientation
II	II	Full Stack Development
III	I	Mobile App Development
IV	I	Software Project Management
IV	I	Parallel & Distributed Computing
IV	I	Privacy and Intrusion Detection

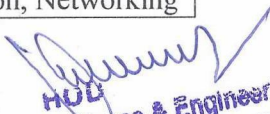
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**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Annexure IV**

S.No.	COURSE TITLE	RESOURCE PERSON	Institute	Duration in Weeks	PRE-REQUISITES
1	Randomized Methods in Complexity	Prof. Nitin Saxena	IITK	12	Theory of Computation, or Algorithms, or Discrete Mathematics
2	Quantum Algorithms and Cryptography	Prof. Shweta Agrawal	IITM	12	Theory of Computation, Design and Analysis of Algorithms, Foundations of Cryptography
3	Privacy and Security in Online Social Media	Prof. Ponnurangam Kumaraguru	IIITH	12	Basic / Intermediate programming course.
4	GPU Architectures And Programming	Prof. Soumyajit Dey	IITKGP	12	Programming and Data Structure, Digital Logic, Computer architecture
5	Foundations of Cyber Physical Systems	Prof. Soumyajit Dey	IITKGP	12	Basic Programming Knowledge, Discrete Mathematics
6	Discrete Structures	Prof. Dipanwita Roy Chowdhury	IITKGP	12	Mathematics and basics Computer Programming
7	Reinforcement Learning	Prof. Balaraman Ravindran	IITM	12	Basic mathematical foundations
8	Information Security - 5 - Secure Systems Engineering	Prof. Chester Robeiro	IITM	8	C programming must be strong. Minimum understanding of digital logic/ operating systems/computer organization
9	Data Science for Engineers	Prof. Rangunathan Rengasamy Prof. Shankar Narasimhan	IITM	8	10 hrs of pre-course material will be provided, learners need to practice this to be ready to take the course
10	Introduction to parallel programming with OpenMP and MPI	Prof. Yogish Sabharwal	IITD	8	Comfortable with programming in C
11	Foundation of Cloud IoT Edge ML	Prof. Rajiv Misra	IITP	8	Basics of Computer Architecture and Organization, Networking

  
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