



Minutes of Board of Studies Meeting

27.06.2021

Department of Computer Science & Engineering has conducted the Board of Studies (BOS) Meeting on 27/06/2021 in online mode from 10.00 AM to 12.00 Noon.

Agenda of the BOS Meeting:

1. Discussions and approval of R-21 B.Tech. CSE Program Structure.
2. Discussion on revision of R-21 B.Tech. CSE course contents.
3. Approval of PO, PSO and SO attainments of 2017 and 2018 Batch Students
4. Any other point with the permission of Chair.

Members attended the Meeting:

S.No.	Name	Designation & Affiliation	Details
1	Dr. Venkatesulu Dondeti	Professor & Head, Department of CSE, VFSTR Deemed to be University	BoS Chairman
2	Sri. K Lakshmi Kumaran	Senior Manager, Symantec Software & Services India, Chennai, Tamil Nadu	External Member
3	Dr. V Radha	Associate Professor IDRB, Masab Tank, Hyderabad	External Member
4	Dr. Nagesh Bhattu Sristy	Assistant Professor NIT Tadepalli gudem, AP.	External Member
5	Dr. K Hemantha Kumar	Professor, Department of CSE, VFSTR Deemed to be University	Internal Member
6	Dr. Nirupama Bhat	Professor, Department of CSE, VFSTR Deemed to be University	Internal Member
7	Dr. M Shanmugam	Assoc. Professor, Department of CSE, VFSTR Deemed to be University	Internal Member
8	Dr. S V Phani Kumar	Assoc. Professor, Department of CSE, VFSTR Deemed to be University	Internal Member & Coordinator
9	Mr. S V Rama Krishna	Asst. Professor, Department of CSE, VFSTR Deemed to be University	Internal Member
10	Mr. D S Bhupal Naik	Asst. Professor, Department of CSE, VFSTR Deemed to be University	Internal Member
11	Mrs. B Jyostna Devi	Asst. Professor, Department of CSE, VFSTR Deemed to be University	Internal Member

Members unable to attend the meeting:

S. No.	Name of the Member	Affiliation & Designation	Details
1	Dr. M V N K Prasad	Associate Professor IDRBT, Masab Tank, Hyderabad	External Member
2	Sri. Rama Krishnan Krishnan	Senior Director, Cognizant Technologies, Chennai, Tamil Nadu	External Member
3	Dr. Rajeev Wankar	Professor, SCIS University of Hyderabad,	External Member

Following points were discussed in the meeting:

1. Dr. D Venkatesulu, HoD, CSE has invited all the external and internal members and presented the glimpses of R-21 Curriculum.

He explained the process followed in the preparation of R-21 Course Contents, CBCS has followed in this R 21 Programme Curriculum also. R 21 Course Structure is attached as Annexure I.

Thereafter, he shared the minutes of Curriculum Design and Monitoring Committee meeting minutes with External members. He also shared feedback of various stakeholders (including Faculty, Alumni, Students, Industry and Students) to the members of the meeting.

HoD, CSE also quoted that the percentage of revision in this regulation is about 26%. List of new courses included as Annexure II.

He also mentioned that the Curriculum is encompassing the courses that enable employability or entrepreneurship or skill development. List is included as Annexure III.

2. Dr. S V Phani Kumar has initiated the presentation on changes introduced in the R 21 Curriculum. Firstly, he mentioned that Engineering Chemistry has been moved to I Year II Sem and then Digital Logic Design has moved to the II Year I sem.

All the BoS members have approved the change and further Mr. Lakshmi Kumaran has asked rationale behind the inclusion of Engineering Physics as the Curriculum already include BEEE Course.

3. BoS members appreciated the inclusion of Advanced Data Structures in the II Year II Semester and then Dr. Venkatesulu has suggested to remove Basic Hashing topic from Data Structures as those are going to be covered in ADS. Sri Lakshmi Kumaran convinced the need of those basics in the Data Structures and its need in the DBMS. Mrs. B Jyostna Devi described the topics of DAA and Data Structures and then mentioned the comparisons among those courses with ADS.

Dr. Radha has enquired whether Distributed File Systems and Google File systems are there in the curriculum of Advanced Data Structures.

Dr. K Hemantha Kumar mentioned that these topics will be covered in Bigdata & Analytics and also mentioned that we are having a Distributed Systems as an elective course.

Dr. Nagesh Bhat has suggested to include locality sensitive hashing in the Advanced Data structures course.

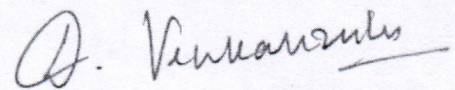
4. Dr. Nagesh Bhat also mentioned to remove B trees and B+ trees from the DBMS as those are going to be covered in ADS, he suggested to include lab exercises related to query optimization and query planning.
5. Further, BoS members have discussed about removal of lab component of OS and SE courses for the credit shortage raised regarding introduction of ADS course. Then Dr. Nagesh Bhat has recommended to remove lab component of Artificial Intelligence and suggested to integrate Machine Learning Course.
6. Further, discussion was held on the Computer Networks Course and then Mr. D S Bhupal Naik has explained the topics and then Lakshmi Kumaran has suggested to include some experiments related to load balancing and congestion of Distributed systems. Then, Dr. Venkatesulu mentioned that these topics were getting covered in Distributed Computing. After discussions, committee have approved the course contents of Computer Networks and started discussion on Cloud Computing.
7. Dr. Shanmugam has explained the topics and coverage of Cloud Computing as IAAS and SAAS. Further, Lakshmi Kumaran has got convinced with the theory coverage on Distributed Computing course. He suggested to include Azure services in addition to AWS. Dr. Shanmugam has told that various cloud platforms are covered in a separate unit in Cloud Computing. Dr. Radha has pointed about inclusion of topics related to Wireless Sensor Networks, then Dr. Venkatesulu told that Wireless Sensor Networks is offered as an Elective.
8. To increase the quality of project work, Dr. Nagesh Bhat has suggested to move the Machine Learning course to III Year II Semester. After thorough discussion, team suggested to move Cryptography Network Security course to IV Year and Artificial Intelligence Course to III Year I Sem.
9. Finally, Dr. Venkatesulu summarized the revision of course contents as follows:
 - Theory Component of Engineering Graphics and Design and Workshop is removed and increased practical hours without affecting the credits.
 - Engineering Chemistry course has been removed and moved the Digital Logic Design Course (DLD) to I year.
 - As DLD course is moved to I Year, Computer Organization and Architecture is moved to II-I from II-II.
 - Tutorial hour of Probability and Statistics course is removed.
 - Advanced Data Structures course is introduced in II-II to cover more topics related to searching, sorting and pattern matching.
 - In III-II, Cloud Computing elective course is moved to Professional Core in the place of Mobile Computing and it is moved to Elective Stream

10. After the brain storming session, all the external and internal members have approved the programme structure and course contents.

11. At the end of the session, Dr. Venkatesulu has discussed the PO, PSO and SO attainment of 2017 and 2018 batch students and meeting adjourned with the following closing remarks.

- Sri Lakshmi Kumaran mentioned that all the basic building blocks required for the algorithmic design are covered exhaustively. In addition, all the current buzzwords like Bigdata Analytics, AI, and ML have been covered well in the curriculum. So, he said that the curriculum will ensure the student with job guarantee.
- Dr. Radha has suggested to associate with Free Open Source Software community based projects to enhance the visibility of the organization.
- Dr. Nagesh Bhat has suggested to motivate the students to be part in forum based activities and challenges.

After the discussions, Dr. Venkatesulu HoD, CSE thank all the internal and External members and meeting is adjourned. The approved Course Structure and Course contents were attached as Annexure.



BoS, Chairman



R21 Course Structure

B.Tech. Computer Science and Engineering

I Year I Semester

Sl. No.	Course Title	L	T	P	C
1	Engineering Mathematics I (C)	3	2	-	4
2	Numerical Methods	3	2	-	4
3	Engineering Physics (A)	3	-	2	4
4	Programming for Problem Solving - I	2	2	2	4
5	Basics of Computer & Internet	1	-	2	2
6	English Proficiency and Communication Skills	-	-	2	1
7	Constitution of India	-	2	-	1
8	Workshop Practice Lab	-	-	2	1
9	Physical Fitness, Sports & Games – I	-	-	3	1
	Total	12	8	13	22

I Year II Semester

Sl. No.	Course Title	L	T	P	C
1	Engineering Mathematics II (C)	3	2	-	4
2	Discrete Mathematical Structures	3	2	-	4
3	Engineering Graphics	2	-	2	3
4	Basic of Electrical and Electronics Engineering	2	-	2	3
5	Engineering Chemistry (A)	3	-	2	4
6	Programming for Problem Solving - II	1	2	2	3
7	Technical English Communication	2	-	2	3
8	Physical Fitness, Sports & Games – II	-	-	3	1
	Total	16	6	13	25

II Year I Semester

Course Title	L	T	P	C
Digital Logic Design	2	2	-	3
Probability & Statistics	3	1	-	4
OOPs through JAVA	2	-	2	3
Data Structures	3	-	2	4
Database Management Systems	3	-	2	4
Environmental Studies	2	-	-	2
Life Skills – I	-	-	2	-
Technical Seminar-I	-	-	2	1
Intra-disciplinary Projects-I	-	-	2	1
Physical Fitness, Sports & Games-III	-	-	2	1
Total	15	3	14	23

II Year II Semester

Course Title	L	T	P	C
Design & Analysis of Algorithms	3	-	2	4
Computer Organization & Architecture	3	-	-	3
Formal Languages & Automata Theory	3	-	-	3
Advanced Data Structures	3	-	2	4
Web Technologies	2	-	2	3
Principles of Management & Organizational Behaviour	3	-	-	3
Life Skills – II	-	-	2	1
Technical Seminar-II	-	-	2	1
Intra-disciplinary Projects-II	-	-	2	1
Total	17	-	12	23

III Year I Semester

Course Title	L	T	P	C
Operating Systems	2	-	2	3
Data Mining Techniques	2	-	2	3
Artificial Intelligence	3	-	-	3
Computer Networks	2	-	2	3
Soft-skills Laboratory	1	-	-	1
Mobile App Development	-	-	2	1

Department Elective-I	3	-	2	4
Open Elective-I	3	-	-	3
Employability skills-I	-	-	2	-
Inter-departmental Projects-I	-	-	4	2
Modular Course	-	-	-	1
Total	16	-	16	24

III Year II Semester

Course Title	L	T	P	C
Machine Learning	3	-	2	4
Cloud Computing	3	-	2	4
Software Engineering	2	-	2	3
Competitive Coding	-	-	4	2
Professional Communication Laboratory	-	-	2	1
Human Values, Professional Ethics & Gender Equity	2	-	-	2
Department Elective-II	3	-	-	3
Open Elective-II	3	-	-	3
Employability skills-II	-	-	2	1
Inter-departmental Projects-II	-	-	4	2
Total	16	-	18	25

IV Year I Semester

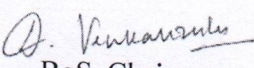
Course Title	L	T	P	C
Cryptography & Network Security	3	-	-	3
Department Elective III	3	-	2	4
Department Elective IV	3	-	-	3
Open Elective III	3	-	-	3
Societal-Centric and Industry Related Projects	-	-	6	3
Total	12	-	8	16

IV Year II Semester

Course Title	L	T	P	C
Project work	-	-	24	12
Total	-	-	24	12

DEPARTMENT ELECTIVE COURSES

Course Title	L	T	P	C
Embedded Systems	3	-	2	4
Open Source Web Technologies	3	-	2	4
Fundamentals of Image Processing	3	-	2	4
R Programming	3	-	2	4
Network Programming	3	-	2	4
Mobile Computing	3	-	2	4
Advanced Data Mining	3	-	2	4
Internet of Things	2	-	2	3
Mobile Ad-hoc Networks	3	-	2	4
Big Data & Analytics	3	-	2	4
Deep Learning	3	-	-	3
Parallel Processing	3	-	-	3
Game Theory	3	-	-	3
High Performance Computing	3	-	-	3
Artificial Neural Networks	3	-	-	3
Distributed Systems	3	-	-	3
Wireless Sensor Networks	3	-	-	3
Cloud Security	3	-	-	3
Web and database security	3	-	-	3
Optimization techniques	3	-	-	3
Cyber security laws	3	-	-	3
Block chain technologies	3	-	-	3
Natural language processing	3	-	-	3
Biometrics	3	-	-	3
Wireless Communication Networks	3	-	-	3
Wireless Computer Networks	3	-	-	3


BoS, Chairman



VIGNAN'S

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(Deemed to be UNIVERSITY)

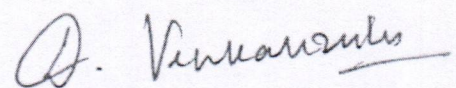
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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

R21 B.Tech. Computer Science and Engineering List of New Courses

- Engineering Mathematics I(C)
- Engineering Physics (A)
- Basics of Electrical & Electronics Engineering
- Engineering Graphics
- Numerical Methods
- Programming for Problem Solving -I
- Engineering Chemistry
- Physical fitness, Sports & Games-I
- Constitution of India
- Engineering Mathematics II(C)
- Discrete Mathematical Structures
- Programming for Problem Solving-II
- English Proficiency and Communication Skills
- Digital Logic Design
- Workshop
- Technical English Communication
- Physical Fitness, Sports & Games-II
- Computer Organization & Architecture
- Probability & Statistics
- OOPs through JAVA
- Data Structures
- Database Systems
- Environmental Science
- Life Skills – I
- Technical Seminar-I
- Intra-disciplinary Projects-I
- Physical Fitness, Sports & Games-III
- Design & Analysis of Algorithms
- Python Programming
- Formal Languages & Automata Theory
- Advanced Data Structures*
- Web Technologies
- Principles of Management & Organizational Behaviour
- Life Skills – II
- Technical Seminar-II
- Intra-disciplinary Projects-II
- Operating Systems
- Data Mining Techniques
- Artificial Intelligence
- Computer Networks
- Soft-skills Laboratory

- Mobile App Development
- Employability skills-I
- Inter-departmental Projects-I
- Modular Course
- Machine Learning
- Cloud Computing
- Software Engineering
- Competitive Coding
- Professional Communication Laboratory
- Human Values, Professional Ethics & Gender Equity
- Employability skills-II
- Inter-departmental Projects-II
- Cryptography & Network Security
- Internship / Project work
- Embedded Systems
- Open Source Web Technologies
- Fundamentals of Image Processing
- R Programming
- Network Programming
- Mobile Computing
- Advanced Data Mining
- Internet of Things
- Mobile Ad- hoc Networks
- Big Data & Analytics
- Deep Learning
- Parallel Processing
- Game Theory
- High Performance Computing
- Artificial Neural Networks
- Distributed Systems
- Wireless Sensor Networks
- Cloud Security*
- Web and database security*
- Optimization techniques*
- Cyber security laws*
- Block chain technologies*
- Natural language processing*
- Biometrics*
- Wireless Communication Networks*
- Wireless Computer Networks*



BoS, Chairman

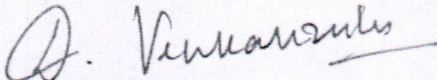


DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
R21 B.Tech. Computer Science and Engineering Course Categorization

Course Title	Course Category
Engineering Mathematics I(C)	Skill Development
Engineering Physics (A)	Skill Development
Basics of Electrical & Electronics Engineering	Skill Development
Engineering Graphics	Skill Development
Programming for Problem Solving -I	Employability
Engineering Chemistry	Skill Development
Physical fitness, Sports & Games-I	Skill Development
Constitution of India	Skill Development
Engineering Mathematics II(C)	Skill Development
Discrete Mathematical Structures	Skill Development
Numerical Methods	Skill Development
Programming for Problem Solving-II	Employability
English Proficiency and Communication Skills	Skill Development
Digital Logic Design	Skill Development
Workshop	Skill Development
Technical English Communication	Skill Development
Physical Fitness, Sports & Games-II	Skill Development
Computer Organization & Architecture	Skill Development
Probability & Statistics	Skill Development
OOPs through JAVA	Employability
Data Structures	Skill Development
Database Systems	Skill Development
Environmental Science	Skill Development
Life Skills – I	Skill Development
Technical Seminar-I	Skill Development
Intra-disciplinary Projects-I	Skill Development
Physical Fitness, Sports & Games-III	Skill Development
Design & Analysis of Algorithms	Employability
Python Programming	Employability
Formal Languages & Automata Theory	Skill Development
Advanced Data Structures*	Employability
Web Technologies	Employability
Principles of Management & Organizational Behaviour	Entrepreneurship
Life Skills – II	Skill Development
Technical Seminar-II	Skill Development

Intra-disciplinary Projects-II	Skill Development
Operating Systems	Skill Development
Data Mining Techniques	Skill Development
Artificial Intelligence	Skill Development
Computer Networks	Skill Development
Soft-skills Laboratory	Skill Development
Mobile App Development	Employability
Employability skills-I	Skill Development
Inter-departmental Projects-I	Skill Development
Modular Course	Skill Development
Machine Learning	Employability
Cloud Computing	Employability
Software Engineering	Skill Development
Competitive Coding	Employability
Professional Communication Laboratory	Skill Development
Human Values, Professional Ethics & Gender Equity	Entrepreneurship
Employability skills-II	Skill Development
Inter-departmental Projects-II	Skill Development
Cryptography & Network Security	Skill Development
Societal-Centric and Industry Related Projects	Employability
Internship / Project work	Employability
Embedded Systems	Skill Development
Open Source Web Technologies	Employability
Fundamentals of Image Processing	Skill Development
R Programming	Employability
Network Programming	Skill Development
Mobile Computing	Skill Development
Advanced Data Mining	Skill Development
Internet of Things	Employability
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Cyber security laws*	Skill Development
Block chain technologies*	Skill Development

Natural language processing*	Skill Development
Biometrics*	Skill Development
Wireless Communication Networks*	Skill Development
Wireless Computer Networks*	Skill Development


BoS, Chairman