SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution | Accredited 'A' Grade by NAAC)

PULLOOR, KARIAPATTI – 626 115

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BOARD OF STUDIES

MINUTES OF THE MEETIING

The seventh meeting of the Board of Studies of Department of Computer Science and Engineering was held on 13.09.2019 in the CSE Seminar Hall, Sethu Institute of Technology, Pulloor, Kariapatti at 10.00 A.M.

The following members were present,

S.No	Members	Name	Designation	Signature
1.	Chairman	Dr. C. Callins Christiyana	Professor & Head, Department of CSE, Sethu Institute of Technology, Pulloor.	
2.	University Nominee	Dr.D. Manjula	Professor, Department of CSE, CEG Campus, Anna University, Chennai	
3.	Academic Expert	Dr.P. Deepalakshmi	Dean, School of Computing, Kalasalingam University, Krishnankoil	
4.	Academic Expert	Dr. P. Subathra	Professor & Head, Department of Information Technology, Kamaraj College of Engineering and Technology, SPGC Nagar, Virdhunagar	

5.	Industry Nominee	Mr.C.Rajkumar	Director (Chief Architect), Cognizant Technology Solutions, Chennai, India	
6.	Alumni Nominee	Mr.V.Muneeswaran	Associate Professor, Department of Computer Science and Engineering, Sri Krishna College of Engineering & Technology, Coimbatore.	
7.	Faculty Members	Dr.S.Subashini	Professor	13/9/19
8.		Dr.M.Parvathy	Professor	13/9/19
9.		Dr.M.M.Gowthul Alam	Professor	13/9/19
10.		Mr.P.Suresh	Associate Professor	13/9/19
11.		Mr.N.AlangudiBalaji	Associate Professor	
12.		Mr.K.Sathish Kumar	Associate Professor	
13.		Ms.D.Abithakumari	Associate Professor	13/9/19
14.		Mr.R.Rajaguru	Associate Professor	13/9/19
15.		Dr.M.Malathi	Associate Professor	13/9/19
16.		Dr.T.Sampradeepraj	Associate Professor	
17.		Dr.C.Yesubai Rubavathi	Associate Professor	13/9/19
18.		Dr.P.Ithayarani	Associate Professor	
19.		Dr.P.Senthil Pandian	Associate Professor	13/9/19
20.		Dr.R.Rubesh Selvakumar	Associate Professor	
21.		Dr.A.R.Rajeswari	Associate Professor	13/9/19
22.		Dr.E.Sivajothi	Associate Professor	13/9/19

23.		Ms.M.Mathinakani	Asst. Professor (S.G)	
24.		Ms.B.Pandeeswari	Asst. Professor (S.G)	
25.		Ms.G.Vairasuganthi	Asst. Professor (S.G)	
26.		Ms.M.Poomani@Punitha	Asst. Professor (S.G)	
27.		Ms.C.Jeyalakshmi	Asst. Professor (S.G)	
28.		Ms.S.Meenakshi	Asst. Professor (S.G)	
29.		Ms.S.Selvi	Asst. Professor (S.G)	
30.		Mr.B.Guruprakash	Asst. Professor (S.G)	
31.		Ms.K.Nagalakshmi	Asst. Professor (S.G)	
32.		Mr.R.Umesh	Asst. Professor (S.G)	
33.		Ms.B.Lalitha	Asst. Professor (S.G)	
34.		Mr.G.Karpaga Kannan	Asst. Professor (S.G)	
35.		Mr.T.Siva	Asst. Professor	
36.		Ms.S.Priyadharsini	Asst. Professor	
37.		Mrs.S.Gospeline Christiana	Asst. Professor	
38.		Ms.S.Sangeetha	Asst. Professor	
39.		Mr.K.Peer Mohamed	Asst. Professor	
40.		Mr.H.Mathew Joel Arulanandhan	Asst. Professor	
41.		Mr.K.A. Mohammed Faiz	Asst. Professor	
42.		Mr.S.Sathish Kumar	Asst. Professor	
43.		Ms.K.Nithya	Asst. Professor	
44.		Ms.V.VijayaPriya	Asst. Professor	

45.		Mr.I.Noor Mohamed	Asst. Professor	
46.		Mr.S.DuraiPandi	Asst. Professor	
47.		Mr.B.Sivananthan	Asst. Professor	
48.		Ms.M.Sanmugapriya	Asst. Professor	
49.		Ms.C.Abinaya Devi	Asst. Professor	
50.		Ms.S.Madhu Sangeetha	Asst. Professor	

The BoS meeting was started with the warm welcome from the Chairman of the Board.

The Chairman gave a brief presentation on autonomous status conferred to the Institution and NAAC accreditation with 'A' grade. She then highlighted the University ranks, programs organized, performance of students and faculty in NPTEL online courses, grants received and SITWARE, the student association of the Department of Computer Science and Engineering.

1.0 B.E Computer Science and Engineering

Agenda 1: Revision of Department Vision, Mission, PEOs, POs and PSOs

Vision and Mission statements of the Institution and the Department were presented to the members of the Board. The Chairman demonstrated the alignment of vision and mission statements of the Department to the Institutional vision and mission statements.

Dr.D.Manjula, suggested to modify the Mission statement 3 into **"Cultivating interpersonal traits, problem solving skills, critical and rationale thinking capabilities for the development of students leading to innovators, leaders and entrepreneurs"** since the term "comprehensive personality development" in the early statement was more general. The BoS resolved to accept the Vision and Mission statements of the Department with the changes proposed by Dr.D.Manjula.

The Programme Educational Objectives (PEO), Programme Outcome (PO) aligned with Graduate Attributes, and Programme Specific Outcome (PSO) were presented by the Chairman of the Board.

Dr.D.Manjula, suggested to implement slight modification to the PEO 3 on Lifelong Learning by changing the terms "by engaged" into "engaging" since the early term gave a meaning in past tense. The updated PEO 3 on Lifelong Learning is ,

PEO 3: Graduates will hone their professional expertise engaging in research and sustained learning activities.

The BoS resolved to accept modification in PEO 3. The modified statements are given in Annexure.I.

Agenda 2: Analysis of the stakeholders' feedback on curriculum and syllabi

The Chairman put forth draft curriculum for the regulation R-2019. She pointed out that the AICTE model curriculum, NASSCOM technology forecast, CII technology forecast, Programme Specific Criteria by ABET, SIT CSE R-2015 curriculum and stake holders feedback were utilized as the design references for drafting the R-2019 curriculum.

The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding resolutions made in the Programme Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The same has been given in Annexure II. After a brief discussion on the feedback and PAC resolutions, the BoS resolved to accept the PAC resolutions.

- Either one of C++ and Java can be given as a programming course in object oriented programming principles.
- Mobile Applications Development can be conducted as Lab course.

Agenda 3: Approval of improvements made in the syllabi under R-2015

The Chairman sought for the improvements to be made in the syllabi under the regulation R-2015. The BoS resolved to revise the syllabus for the course **15UCS927 - Machine Learning Algorithms** since the current syllabus does not have sequence in the topics.

Agenda 4: Mapping of curriculum and syllabi with PSC

Mapping of the curriculum and syllabus of the proposed regulation R-2019 with the Programme Specific Criteria (PSC) was presented to the Board of members by the Chairman and the Board resolved to accept the mapping.

Agenda 5: Classification of courses

The classification of the courses under regulation R-2019 based on having focus to one or more of the categories of employability, entrepreneurship and skill development was presented to the Board by the Chairman. The BoS resolved to accept the classification. The Classification of courses is given in annexure III.

Agenda 6: Approval of value added courses

The Chairman requested the BoS members to suggest suitable courses that will impart transferable and life skills to the students.

Dr. Subathra P, Academic Expert, suggested Personal Finance Management and Mr. Rajkumar Chandrasekar, Industry Nominee, suggested Robot Process Automation as suitable value added courses imparting transferable and life skills. The BoS resolved to include them as value added courses with 30 contact hours. The BoS resolved to accept the courses Ethical Hacking and Server Installation and Configuration which were suggested by the students as the value added courses.

Agenda 7: Approval of list of examiners from other colleges

A list of faculty from other colleges to act as examiners for practical and project viva-voce, question paper setters, external evaluators of answer scripts, and invigilators for end semester examinations was submitted to the BoS by the Chairman. The BoS resolved to approve the list of examiners.

Agenda 8: Approval of curriculum and syllabi under R-2019

The Board members reviewed and recommended the Program Articulation Matrix of R2019 and Course Articulation Matrices framed for first year course of R2019. The Board members conducted discussions on the proposed curriculum under regulation R—2019 and syllabi of the first two semesters.

The Board members suggested the following:

- Dr.Manjula D, University Nominee,suggested to:
  - Introduce C language as a first programming language instead of Python. *BoS resolved to have Python as introductory programming language course.*
  - Reduce the number of programming language courses. *BoS resolved to offer one or two programming language courses with comprehensive coverage core principles of programming languages.*
  - Include a course on security in the core. *BoS resolved to include a course on Cryptography and Network Security in the core.*
- Dr. Deepalakshmi P, Academic Expert, suggested to:
  - Offer the course Mobile Applications Developmentas pure lab component with full stack programming. *BoS resolved to offer the course as a 1.5 credit laboratory course.*
  - Introduce Cloud Virtualization as an elective that will help to enhance placement opportunities in network engineering domain to the students. *BoS resolved to update the syllabus of the course Cloud Computing.*
  - Include a course on basic electrical and electronics in the first year. *BoS resolved to include basics electrical and electronics as units of study in Digital Electronics course.*
- Dr. Subathra P, Academic Expert, suggested to:
  - Introduce object oriented programming through Java programming language rather than having both C++ and Java as separate courses. *BoS resolved to exclude C++ and have Java as a programming language for Object Oriented Programming concepts.*
  - Increase the lecture hours allocated to the course Operating Systems. *BoS resolved to increase the contact hours for the course.*

- Mr.Rajkumar Chandrasekar, Industry Nominee, suggested to:
  - Change the title of the course Agile Software Methodologies in to Software Engineering Principles and to include the topics of standard Agile and devops. *BoS resolved to modify the title and include topics of standard Agile and devops.*
  - Enforce the students to implement the concepts of data structures in any one of the programming languages. *BoS resolved to implement data structures either in C or Python.*

Based on the suggestions by the members, BoS resolved to include the following new courses for **B.E(CSE) under regulation R-2019.**

- Problem Solving and Python Programming
- Problem solving and Python Programming Laboratory
- Introduction to Computer Science and Engineering
- Software Engineering Practices
- Creative Thinking and Innovation
- Internet of Things Laboratory
- Graph Theory
- Parallel and Distributed Algorithms
- Information theory and Coding
- Embedded Systems
- Fault Tolerant Computing
- Ad Hoc and Sensor Networks
- Expert Systems
- Image Processing
- Digital Signal Processing
- Blockchain Technology
- Cyber Security
- Mobile and Pervasive Computing
- Mixed Reality
- Advanced Java Programming
- XML and Webservices
- Distributed Systems

- Robotics and Applications

Agenda 9: Percentage of changes in the Syllabi of R2019 of B.E(CSE):

The BoS resolved to accept the changes in the following courses:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19UCS112 – Engineering Fundamentals Laboratory	Installation of Linux operating system and Installation of software in Linux	33%
2	19UCS206 – Programming using C	File concepts are included in the syllabi at the weightage of one unit	20%

The Board of Department of Computer Science and Engineering approves and recommends the Curriculum and Syllabi of B.E. Computer Science and Engineering under autonomous regulations 2019 with the above modifications. The B.E(CSE) curriculum is given in Annexure IV.

Agenda 10: Review of CO and PO attainment:

- The direct and indirect tools for the assessment of COs and POs are reviewed and recommended.
- The target of CO attainment of theory and Lab courses for R2015 courses are reviewed and recommended.
- The target of PO attainment for each PO is reviewed and recommended.
- Course Outcome attainment of the courses and corresponding PO attainment in the academic year 2018-2019 Even and the corresponding resolutions in the PAC meeting dated 04.09.2019 are reviewed by the members. The members recommended the suggestions in PAC.
- PO/PSO attainment of the batch 2015-2019 is analyzed. The observations on the attainment and the corresponding action taken to improve the attainment are reviewed and recommended.

2.0 M.E Computer Science and Engineering

The members thoroughly discussed the curriculum and Syllabi for **M.E. Computer Science and Engineering** followed under autonomous regulations 2019 and suggested the following

- Dr. Deepalakshmi P, Academic Expert, suggested to
  - Combine Advanced Data Structures and Advanced Algorithms into a single course and include one more core course in place of the vacant. The BOS resolved to include Advanced Database Technology as the theory and Lab by combining Advanced Data structures and Advanced Algorithms.
- Dr.Manjula D, University Nominee, suggested to:
  - Shift the Soft computing course from core to elective and to include Cloud computing course as theory and lab. The BOS resolved to accept the changes.
- Mr. Rajkumar Chandrasekar, Industry Nominee, suggested to:
  - Include graph concepts in Advanced Data Structures and Advanced Algorithms
  - Give "Blockchain" course as value added courses.

The classification of the courses under Regulation-2019 focused on the following categories of employability, entrepreneurship and skill development courses were presented to the Board by the Chairman. The BoS resolved to accept the classification. The Classification of courses is given in annexure III.

Based on the suggestions by the members, BoS resolved to include the following new courses for **M.E(CSE) under regulation R-2019.**

- Research Methodology and IPR
- Advanced Data base Technologies
- Advanced Data base Technologies Laboratory
- Image Processing and Analysis Laboratory
- Big Data Analytics
- Data Storage Technologies and Networks
- Web Analytics and Development
- Digital Forensics
- Biometrics

- Soft Computing
- Security in Computing
- Deep Learning Techniques
- Introduction to Intelligent Systems
- Essential of HCI
- Optimization Techniques
- Compiler for HPC
- Cluster and Grid Computing
- Parallel Algorithms
- Wireless Access Technologies
- Embedded Software Development
- Business Analytics

The BoS resolved to accept the changes in the following courses in M.E(CSE) Syllabus:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19PCS101- Advanced Data Structures and Algorithms	Fundamentals, Geometric Algorithms are removed. Advanced Concurrent Structures, Graph Algorithms, Advanced Algorithms are added	50%
2	19UCS201- Image processing and Analysis	Edge Detection, Morphology are removed. Basic Relationship between Pixels, Feature Extraction, Texture Pattern and Classes are added	35%
3	19PCS103-Advanced Data Structures Laboratory	Convex Hull , Implementation of segment Trees , Parallel Algorithm for Array Max ,Parallel Algorithm for Matrix Multiplication are removed. hashing and concurrent hashing Flow-network algorithms	80%

		Approximation algorithms / randomized algorithms. Parallel sorting algorithms are added.	

- The Chairman thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Computer Science and Engineering and M.E Computer Science and Engineering under Autonomous regulations. She thanked the members of the Board on behalf of the Department of Computer Science and Engineering for their wonderful suggestions and contribution to frame the curriculum and syllabi.

Chairman
Board of Studies
Computer Science and Engineering

Chairperson
Board of Studies
Computer Science & Engineering
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BOARD OF STUDIES

MINUTES OF THE MEETIING

The Eighth meeting of the Board of Studies (BoS) of Department of Computer Science and Engineering was held on 28.08.2020 through google meet online mode. The meeting has been proposed to get the approval of Third and Fourth Semester Syllabus of R-2019.

The following members were present,

Sl.No.	Members	Position	Signature
1.	Dr.C.CallinsChristiyana, Professor and Head, Department of CSE, Sethu Institute of Technology, Kariapatti	Chairperson	
2.	Dr.D. Manjula, Professor, CSE, Anna University, Chennai.	University Nominee	Attended through Online Mode
3.	Dr.P. Deepalakshmi, Dean, School of Computing, Kalasalingam Academy of Research and Education, Krishnankovil.	Academic Expert	Attended through Online Mode
4.	Dr. P. Subathra, Professor and Head, Department of IT, Kamaraj College of Engineering and Technology, Virdhunagar.	Academic Expert	Attended through Online Mode
5.	Mr.C.Rajkumar, Director (Chief Architect), Cognizant Technology Solutions, Chennai.	Industry Nominee	Attended through Online Mode
6.	Ms.D.ThamaraiSelvi, Assistant professor,CSE, National Engineering College, Kovilpatti.	Alumni Nominee	Attended through Online Mode
7.	Dr.N.Balaji	Faculty Member	Attended through Online Mode
8.	Dr.M.Parvathy	Faculty Member	Attended through Online Mode

9.	Dr.M.M.GowthulAlam	Faculty Member	Attended through Online Mode
10.	Dr.K.Sathish Kumar	Faculty Member	Attended through Online Mode
11.	Mr.P.Suresh	Faculty Member	Attended through Online Mode
12.	Dr.N.AlangudiBalaji	Faculty Member	Attended through Online Mode
13.	Dr.D.AbithaKumari	Faculty Member	Attended through Online Mode
14.	Mr.R.Rajaguru	Faculty Member	Attended through Online Mode
15.	Dr.M.Malathi	Faculty Member	Attended through Online Mode
16.	Dr.C.YesubaiRubavathi	Faculty Member	Attended through Online Mode
17.	Dr.P.Ithayarani	Faculty Member	Attended through Online Mode
18.	Dr.R.RubeshSelvakumar	Faculty Member	Attended through Online Mode
19.	Dr.A.R.Rajeswari	Faculty Member	Attended through Online Mode
20.	Dr.E.Sivajothi	Faculty Member	Attended through Online Mode
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30.	Mr.R.Umesh	Faculty Member	Attended through Online Mode
31.	Ms.B.Lalitha	Faculty Member	Attended through Online Mode
32.	Mr.G.KarpagaKannan	Faculty Member	Attended through Online Mode
33.	Mr.T.Siva	Faculty Member	Attended through Online Mode
34.	Ms.S.Priyadharsini	Faculty Member	Attended through Online Mode
35.	Ms.S. Gospeline Christiana	Faculty Member	Attended through Online Mode
36.	Ms.S.Sangeetha	Faculty Member	Attended through Online Mode
37.	Mr. K. Peer mohamed	Faculty Member	Attended through Online Mode
38.	Mr. K.A. Mohammed Faiz	Faculty Member	Attended through Online Mode
39.	Ms.K.Nithya	Faculty Member	Attended through Online Mode
40.	Ms.T.Punitha	Faculty Member	Attended through Online Mode

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45.	Ms.C.Abinaya Devi	Faculty Member	Attended through Online Mode
46.	Ms.S.MadhuSangeetha	Faculty Member	Attended through Online Mode

The BoS meeting was started with the warm welcome from the Chairman of the Board. The Chairman gave a brief presentation on autonomous status conferred to the Institution and NAAC accreditation with 'A' grade. She then highlighted the University ranks, programs organized, performance of students and faculty in NPTEL online courses, grants received and SITWARE, the student association of the Department of Computer Science and Engineering.

1.0 B.E Computer Science and Engineering

Agenda 1: Analysis of the stakeholders' feedback on curriculum and syllabi

The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding resolutions made in the Program Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The PAC resolutions with respect to the syllabus of the courses offered in third and fourth semester were discussed thoroughly. After the discussions, the BoS resolved to accept the PAC resolutions with the following modifications.

- The basic communication Technology in Computer Communications and Networks course can be given under Data Communication.
- The NoSQL concepts can be studied in MangoDB as MangoDB is offered as 1-Credit course.

Agenda2:Approval of Third and Fourth semester syllabi under R-2019

The Board members conducted discussions on the proposed syllabi of the third and fourth semesters under R-2019.

The Board members suggested the following:

- Dr.Manjula D, University Nominee,suggested to:
  - Allocate extra hour for the practical classes with the current distribution of credits for both theory and lab courses without affecting the Minimum Credits of 175 for the Program.

- Include the advanced topics like parallel database, Distributed database, temporal database and spatial database in the course 19UCS404 - Database System Concepts.

- .Dr. Deepalakshmi P, Academic Expert, suggested to:
  - Change the evaluation pattern for integrated course as to give more weightage to practical component than the theory component and give autonomy to faculty to decide the evaluation pattern.
  - Include latest edition books as the text books and reference books for all the courses.
  - Include Theory hours for the course Mobile applications Design and Development and suggested to offer the course as integrated course
- Dr. Subathra P, Academic Expert, suggested to:
  - Allocate 4periods for the lab courses and also suggested to round off the credits allocated to the courses.
  - Include the lab course for cryptography and Network security course.
- Mr.RajkumarChandrasekar, Industry Nominee, suggested to:
  - Include decentralization concept since this is the basics for Block chain, crypto currency like courses.
  - Remove the concepts swings from the course 19UCS304 - Object Oriented Programming using Java since the concepts were outdated from the Industry and also suggested to include the concepts JavaFx inplace of swings. He further suggested including Lambda, anonymous functions and some functional scripts in Object Oriented Programming in Java.

Based on the suggestions, the BOS resolved the following in the approval of third and fourth semester syllabus of R-2019.

- It is resolved to include the topics parallel database, Distributed database, temporal database and spatial database in UNIT-V of 19UCS404-Database Systems Concepts as UNIT-V addresses the advanced concepts.
- It is resolved to consider the 19UCS503-Mobile applications Design and Development course as integrated course with the LTPC distribution of 2+0+3+3.5.
- It is resolved to consider the course credits and semester credits in decimals as AICTE recommendation.

- It is resolved to have Cryptography and Network Security course as a theory course.
- It is resolved to include decentralization concepts in 19UCS919-Blockchain Technology.
- It is resolved to include JavaFX in place of swings in the course 19UCS304-Object Oriented Programming using Java. The topics Lambda, anonymous functions and some functional scripts can be included in the course 19UCS931-Advanced Java Programming as 19UCS304-Object Oriented Programming using Java is offered in third semester level.

Agenda 3: Percentage of changes in the Syllabi:

The BoS resolved to accept the changes in the following courses:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19UCS302-Data Structures	Special Tree Structures removed from the syllabus. Sorting and searching concepts are included. Red Black Tree from search Tree structures and Network Flow problem from Graph structures are removed.	40%
2	19UCS303-Digital Electronics	Digital integrated Circuits are included	10%
3	19UCS304-Object Oriented Programming using Java	JavaFX concepts are included	10%

4	19UCS305-Operating Systems	Disk management and Swap space management topics are removed.	5%
5	19UCS306-Computer Organization	Data path, Control Unit, Parallel Processors concepts ,interface circuits and USB concepts are included	20%
6	19UCS308-Data Structures Laboratory	Implementations of sorting and searching concepts are included.	5%
	19UCS309-Java Programming Laboratory	Implementation of design a Forms using FX and Dialogs are included	10%
7	19UCS310-Operating Systems laboratory	Working with File commands, Process creation and management are removed. Implementation of segmentation techniques of memory management is included.	10%
8	19UCS402-Computer Communications and Networks	Remote procedure call, basic concepts of cryptography and Digital Signatures and Firewalls are included.	10%
	19UCS403- Design and Analysis of Algorithms	Find maximum and minimum element Optimal Binary Search, Minimum Spanning Trees , Huffman Trees Polynomial Time Reductions, Cook's Theorem and Graph Coloring concepts are included . Algorithms for Generating Combinatorial Objects Optimal storage on tapes are removed.	25%
9	19UCS404-Database	Fourth and Fifth normal forms	25%

	System Concepts	concepts and Advanced Database concepts are included.	
10	19UCS406-Computer Communications and Networks Laboratory	Implementation of RPC, and Performance Evaluation of Routing Protocols using Simulation tools are included. The implementation of leaky Bucket algorithm for congestion control is removed.	10%
11	19UCS407- Database System Concepts Laboratory	Implementation of Normalization concept is included.	5%

Agenda 4: Introduction of New Courses:

The following new courses to be introduced in the Academic Year 2020-2021 and the curricula are presented before the board of studies.

- B.Tech. Artificial Intelligence and Data Science
- B.E. Computer Science and Engineering(IOT, Cyber Security including Block Chain Technology)

The Board resolved to approve the courses and the curricula.

2.0 M.E Computer Science and Engineering

The members reviewed the curriculum and syllabi of M.E. Computer Science andEngineering followed under autonomous regulations 2019 and resolved to accept the changes in the following courses

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19PCS513 - Deep Learning Techniques	Monte Carlo models is renamed as Monte Carlo Methods. Boltzmann Machines for Structured or Sequential Outputs is included. Performance Metrics - Default	40%

		Baseline Models - Determining whether to Gather More Data - Selecting Hyper parameters - Debugging Strategies - Example: Multi-Digit Number Recognition	
2	19PCS525- Smart Sensors and Internet of Things	In Unit IV the topic "Photolithography and Electroplating" are excluded. The topic "Usefulness of Silicon Technology in Smart Sensor "is excluded.	20%
3.	19PCS505-Machine Learning Techniques	In Unit II the topic Beyond Binary Classification: Multi-class/Structured Outputs, Ranking is excluded. The topic Deep Learning and Feature Representation Learning is excluded from the Unit III. In Unit III, the topics such as Independent Component Analysis, Apriori algorithm, Singular value decomposition are included. In Unit V the topic " Applications of Machine Learning in the Real world Environments is included	40%

The Chairperson thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Computer Science and Engineering and M.E Computer Science and Engineering under Autonomous regulations. She thanked the members of the Board on behalf of the Department of Computer Science and Engineering for their wonderful suggestions and contribution to frame the curriculum and syllabi.

Chairperson
Board of Studies
Computer Science and Engineering

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BOARD OF STUDIES

MINUTES OF THE MEETIING

The nineth meeting of the Board of Studies (BoS) of Department of Computer Science and Engineering was held on 29.07.2021 through google meet online mode. The meeting has been proposed to get the approval from Fifth semester Syllabus onwards of R-2019.

The following members were present,

Sl.No.	Members	Position	Signature
1.	Dr.N.Balaji , Dean and Head, Department of CSE, Sethu Institute of Technology, Kariapatti.	Chairperson	
2.	Dr.D. Manjula, Professor, CSE, Anna University, Chennai.	University Nominee	Attended through Online Mode
3.	Dr. E. Sivasankar, Assistant Professor, Dept of Computer Science and Engineering, National Institute of Technology, Tiruchirapalli .	Academic Expert	Attended through Online Mode
4.	Dr.G.Manikandan, Senior Assistant Professor, Information and communication technology,School of computing, SASTRA Deemed to be University. Thanjavur.	Academic Expert	Attended through Online Mode

Sl.No.	Members	Position	Signature
5.	Mr.C.Rajkumar, Director (Chief Architect), Cognizant Technology Solutions, Chennai.	Industry Nominee	Attended through Online Mode
6.	Ms.D.ThamaraiSelvi, Assistant Professor,CSE, National Engineering College, Kovilpatti.	Alumni Nominee	Attended through Online Mode
7.	Dr.M.Parvathy	Faculty Member	Attended through Online Mode
8.	Dr.M.M.GowthulAlam	Faculty Member	Attended through Online Mode
9.	Dr.P.Suresh	Faculty Member	Attended through Online Mode
10.	Dr.D.AbithaKumari	Faculty Member	Attended through Online Mode
11.	Mr.R.Rajaguru	Faculty Member	Attended through Online Mode
12.	Dr.M.Malathi	Faculty Member	Attended through Online Mode
13.	Dr.R.RubeshSelvakumar	Faculty Member	Attended through Online Mode
14.	Dr.E.Sivajothi	Faculty Member	Attended through Online Mode
15.	Ms.M.Mathinakani	Faculty Member	Attended through Online Mode
16.	Dr.B.Pandeeswari	Faculty Member	Attended through Online Mode
17.	Ms.G.VairaSuganthi	Faculty Member	Attended through Online Mode
18.	Dr.M.Poomani@Punitha	Faculty Member	Attended through Online Mode
19.	Ms.S.Meenakshi	Faculty Member	Attended through Online Mode
20.	Ms.K.Priyadharsini	Faculty Member	Attended through Online Mode
21.	Ms.S.Selvi	Faculty Member	Attended through Online Mode
22.	Dr.B.Guruprakash	Faculty Member	Attended through Online Mode
23.	Ms.K.Nagalakshmi	Faculty Member	Attended through Online Mode
24.	Mr.R.Umesh	Faculty Member	Attended through Online Mode
25.	Mr.G.KarpagaKannan	Faculty Member	Attended through Online Mode
26.	Mr.T.Siva	Faculty Member	Attended through Online Mode
27.	Ms.S.Priyadharsini	Faculty Member	Attended through Online Mode
28.	Mrs.S. Gospeline Christiana	Faculty Member	Attended through Online Mode
29.	Ms.S.Sangeetha	Faculty Member	Attended through Online Mode
30.	Mr. K. Peer mohamed	Faculty Member	Attended through Online Mode

Sl.No.	Members	Position	Signature
31.	Mr. K.A. Mohammed Faiz	Faculty Member	Attended through Online Mode
32.	Ms.T.Punitha	Faculty Member	Attended through Online Mode
33.	Mr.I.Noor Mohamed	Faculty Member	Attended through Online Mode
34.	Mr.S.DuraiPandi	Faculty Member	Attended through Online Mode
35.	Mr.B.Sivananthan	Faculty Member	Attended through Online Mode
36.	Ms.M.Sanmugapriya	Faculty Member	Attended through Online Mode
37.	Ms.C.Abinaya Devi	Faculty Member	Attended through Online Mode
38.	Ms.S.MadhuSangeetha	Faculty Member	Attended through Online Mode
39.	Ms.UmaMaheswari	Faculty Member	Attended through Online Mode

The BoS meeting was started with the warm welcome from the Chairman of the Board.

The Chairman gave a brief presentation on autonomous status conferred to the Institution and National Board of Accreditation (NBA) under Tier -1 Washington Accord.

He highlighted the University ranks, programs organized, performance of students and faculty in NPTEL online courses, grants received and SITWARE, the student association of the Department of Computer Science and Engineering.

1.0 B.E Computer Science and Engineering

Agenda 1: Analysis of the stakeholders' feedback on curriculum and syllabi

The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding resolutions made in the Program Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The PAC resolutions with respect to the syllabus of the courses offered from fifth semester were discussed thoroughly. After the discussions, the BoS resolved to accept the PAC resolutions.

Agenda2: Approval from fifth semester syllabi onwards under R-2019

The Board members conducted discussions on the proposed syllabi from fifth semesters under R-2019.

The Board members suggested the following:

- Dr.Manjula D, University Nominee, suggested to:
  - Modify the lab exercise in the integrated course 19UCS501-internet and web technology.

- Implement programs based on real world problem like healthcare, agriculture and industry application for the course 19UCS709- Internet of Things Laboratory.

- Dr.Sivasankar E, Academic Expert, Suggested to:
  - The course 19UCS601-Artificial Intelligence and Machine Learning Unit V-Deep Learning should be removed and add topics in machine learning.
  - Include reinforcement learning and semi supervised learning in machine learning concepts.

- Dr.Manikandan G , Academic Expert, Suggested to:
  - Implement program with real time data in the course 19UCS709- Internet of Things Laboratory.
  - The earlier version used in applets Concepts forthe course19UCS929- Advanced java Programming.

- Mr.RajkumarChandrasekar, Industry Nominee, suggested to:
  - Use python 3 version for the lab exercises done by the python language
  - Consider the real time data from Google data sets for the course 19UCS608- Artificial Intelligence and Machine Learning laboratory.

Based on the suggestions, the BOS resolved the following in the approval from fifth semester syllabus of R-2019.

- It is resolved to implement the exercise related to modify the lab exercise in the integrated course 19UCS501-internet and web technology.
- It is resolved to implement programs based on real world problem like healthcare, agriculture and industry application in 19UCS709- Internet of Things Laboratory.
- It is resolved to remove the Unit V-Deep learning in 19UCS601-Artificial Intelligence and Machine Learning add more topics in machine learning.
- It is resolved to include reinforcement learning and semi supervised learning in machine learning concepts.

- It is resolved to use the real time data for doing lab exercises in 19UCS709-Internet of Things Laboratory.
- It is resolved to use earlier version in applets Concepts in 19UCS929-Advanced java Programming.
- It is resolved to Use python 3 version for the lab exercises done by the python language
- It is resolved to consider the real time data from Google data sets for the course 19UCS608-Artificial Intelligence and Machine Learning laboratory.

Agenda 3: Percentage of changes in the Syllabi:

The BoS resolved to accept the changes in the following courses:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1.	19UCS501-Internet and Web Technology	TCP/IP removed from the syllabus. DTD and XML schemes, XML SOAP Protocol, XSL concepts are included.	15%
2.	19UCS503-Mobile Applications Design and Development	Log,Material design,Sensors,firebase concepts are included	20%
3.	19UCS504-Theory of Computation	Regular grammar, Context Sensitive Language, Linear Bounded automata concepts are included	25%
4.	19UCS601-Principles of Compiler Design	Runtime Environments concepts are included	10%
5.	19UCS601-Cryptography and Network Security	UNIT I, UNIT IV and UNIT V are completely changed	60%
6.	19UCS601-Artificial Intelligence and Machine Learning	UNIT IV and UNIT V are completely changed	40%

7.	19UCS702-Cloud Computing	Classic data centers, Platform as a service / Software as a service unit is included	40%
8.	19UCS703-Building Internet of Things	UNIT II, UNIT III and UNIT IV are completely changed	60%
9.	19UCS708- Cloud Computing Laboratory	Open Stack exercises are removed.	20%
10.	19UCS908-Computer Graphics	UNIT IV and UNIT V are completely changed. Transformations and color model concepts are included.	60%
11.	19UCS909-Data Mining	Generalization concepts are removed. Advanced mining and its applications are included	30%
12.	19UCS910-Neural Networks and Deep Learning	UNIT IV and UNIT V are completely changed	40%
13.	19UCS911-Speech and Natural Language Processing	UNIT I and UNIT II are completely changed	40%
14.	19UCS917-Human Computer Interaction	Task analysis, Dialog notations and design, Model of system concepts and case studies are included.	20%
15.	19UCS921-Information Storage Management	EMC Symmetric and VNX,EMC VNX Gateway concepts are included.	20%
16.	19UCS922-C# and .NET Framework	UNIT I, UNIT III,UNIT IV and UNIT V are completely changed	80%
17.	19UCS923-Game Programming	Game AI concepts are removed. Introduction to game programming and game design and project management units are included	60%

18.	19UCS924-Fuzzy logic	Fuzzy arithmetic and membership function and fuzzy rule based system & pattern recognition units are included.	40%
19.	19UCS926-Business Intelligence and its applications	UNIT I,UNIT II are completely changed	40%
20.	19UCS928-Green Computing	Green compliance unit is removed. Greening process unit is included . Topics are included in green modeling.	60%
21.	19UCS933-E-Learning Concepts	All the units are completely changed.	100%

2.0 M.E Computer Science and Engineering

- The members reviewed the approved curriculum and syllabi of M.E. Computer Science and Engineering followed under autonomous regulations 2019 and suggested to have the same in the forth coming Academic year.

The Chairperson thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Computer Science and Engineering and M.E Computer Science and Engineering under Autonomous regulations. She thanked the members of the Board on behalf of the Department of Computer Science and Engineering for their wonderful suggestions and contribution to frame the curriculum and syllabi.

N. Baji

Chairperson
Board of Studies
Computer Science and Engineering

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