MINUTES OF THE MEETING OF 5th BOARD OF STUDIES MEETING HELD ON 24-09-2022 AT - 09.30 AM TOWARDS CONSIDERING THE CURRICULUM R2021-UG AND SYLLABI (VII SEMESTER TO VIII SEMESTER) OF R2020-UG PROGRAMME & SECOND YEAR CURRICULUM AND SYLLABI (III SEMESTER TO IV SEMESTER) OF R2021.

Mode of Meeting: Hybrid Mode (Both Physical and online) Venue: CSE Conference Hall – I

Recording Link: https://kcetvnrorg-my.sharepoint.com/:v:/g/personal/anandhcse_kamarajengg_edu_in/EY_SZfhaq_hCmu9ZfEliikkB1jn5RslhtwAd2pBH6MoQ3A?e=s6Yu2u

Dr. A. Meenakshi, HoD (Department of Computer Science and Engineering) welcomed all the members of the Board of Studies and Faculty members of CSE Department to the 5th BOS meeting. The following members were present:

Sl. No.	Name of the Expert	Designation	Capacity	Mode of presence
1.	Dr. P. Chitra	Professor & Head/Computer Applications and Computer Science and Business Systems,Thiagarajar College of Engineering, Madurai, pccse@tce.edu Phone No:9944976549	Anna University Nominee	Physical
2.	Dr.R.B.V.Subramaanyan	Professor and Head, Department of ComputerScience and Engineering,National Institute of Technology, Warangal E-mail ID: rbvs66@nitw.ac.inPhone No: 9491346969	Academic Councilnominated BoS Expert Member	Online

3.	Dr.Sabu M.Thampi	Professor, School of Computer Science & Engineering (SoCSE), Technocity Campus, Trivandrum-695317, Kerala State, India. E-mail ID: sabu.thampi@iiitmk.ac.in Phone No: 9447103005	Academic Councilnominated BoS Expert Member	Physical
4.	Mr.G.S.Raman	Director, Training Division, Sri Moogambikai Infotech Solutions, Madurai raman.g@mookambikainfo.com ramansriranga@gmail.com Phone No: 8870324388	Industrialist	Physical
5.	Dr.R.Venkatesan	Associate Professor, CSE, Karunya University, Coimbatore rlvenkei2000@karunya.edu Phone No: 98948 80563	Alumni	Physical

Internal Members of BoS – Faculty members of CSE & AI & DS

S. No.	Name	Designation	
1.	DR.A.Meenakshi	Professor and Head	
2.	Dr.R.Ramya	Associate Professor / CSE UG (B. E. CSE) Programme Co-ordinator	
3.	Dr.A.Anandh	Associate Professor / CSE UG (B. Tech. AI &DS) Programme Co-ordinator	
4.	Mrs.S.Athilakshmi	Assistant Professor / CSE	
5.	Mr.B.Muthukrishnavinayagam	Assistant Professor / CSE	
6.	Mrs.K.Muthulakshmi	Assistant Professor / CSE	
7.	Dr.G.Nirmala	Assistant Professor / CSE	
8.	Ms.S.Janani	Assistant Professor / CSE	
9.	Mrs.K.Leelarani	Assistant Professor / CSE	
10.	Ms.G.Vijayalalitha	Assistant Professor / CSE	
11.	Mr.M.Rajasekaran	Assistant Professor / CSE	
12.	Mrs.P.Kavitha	Assistant Professor / CSE	
13.	Dr.G.Mahalakshmi	Assistant Professor / CSE	
14.	Dr.G.Uma Maheshwari	Assistant Professor / CSE	
15.	Mr.V.Rajesh Kannan	Assistant Professor / CSE	
16.	Mrs.X.Ignatius Selvarani	Assistant Professor / CSE	
17.	Mrs.S.Soundariya	Assistant Professor / CSE	
18.	Mrs.Sangeetha	Assistant Professor / CSE	

19.	Ms.S.Hemaswathi	Assistant Professor / CSE	
20.	Mrs.B.Santhi Priya	Assistant Professor / CSE	
21.	Mr.D. Asir	Assistant Professor / CSE	
22.	Ms.Jothi Lakshmi.S	Assistant Professor / CSE	
23.	Dr P Praveen Kumar	Assistant Professor / AI & DS	
24.	Mrs K Indumathi	Assistant Professor / AI & DS	
25.	Ms T.Rajashree	Assistant Professor / AI & DS	
26.	Mrs J Lavanya	Assistant Professor / AI & DS	
27.	Ms S Shopika	Assistant Professor / AI & DS	

After the brief introduction by Dr.A.Meenakshi, HoD (Department of Computer Science and Engineering) about the expert members, industrialist, alumni, faculty from the Department of Computer Science and Engineering, and the agenda items were taken up for discussion. The discussion started with R2021 UG Programme curriculum and syllabi of B. E. Computer Science and Engineering, Verticals and list of courses, Open Electives (offered to other departments), R2020 UG Programme curriculum and syllabi of IV Year (7th and 8th Semester) B.E. Computer Science and Engineering, updation in syllabus – M.E. Computer Science and Engineering and then continued with the suggestions and recommendations received from all BOS members.

Discussions:

BOS 005.01
HoD / CSE gave a brief presentation about overview of the Department.

BOS 005.02
Dr.A.Meenakshi presented the proposed R2021 curriculum of B.E(CSE)

S. No.	Course Title	Category	PERIODS PER WEEK			Credits
			L	T	P	
THEORY						
1	Technical English	HS	3	0	0	3
2	Matrices and Differential Calculus	BS	3	1	0	4
3	Engineering Physics	BS	3	0	0	3
4	Engineering Chemistry	BS	3	0	0	3
5	Principles of Engineering	BS	3	0	0	3
6	Coding Techniques - I	EEC	3	0	0	3
	Scientific Thoughts in Tamil	AUD	1	0	0	1*
PRACTICALS						

7	Physics Laboratory	BS	0	0	3	1
8	Mathematics Laboratory	BS	0	0	2	1
9	Coding Techniques - ILaboratory	EEC	0	0	3	1
	Total Credits		17	1	13	23

SEMESTER II

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Professional English	HS	3	0	0	3
2	Vector Calculus, Complex Integration and Laplace Transforms	BS	3	1	0	4
3	Renewable Energy Sources	BS	3	0	0	3
4	Engineering Graphics	ES	2	0	3	3
5	Environmental Science and Engineering	BS	3	0	0	3
6	Coding Techniques – II	EEC	3	0	0	3
PRACTICALS						
7	Chemistry Laboratory	BS	0	0	3	1
8	Coding Techniques - II Laboratory	EEC	0	0	3	1
9	Engineering Practices Laboratory	ES	0	0	4	2
Total Credits			17	1	13	23

SEMESTER III

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Linear Algebra and Boundary Value Problems	BS	3	1	0	4
2	Computer Organization and Architecture	PC	3	0	0	3
3	Data Structures using Python	PC	3	0	0	3
4	Object Oriented Programming using Java	PC	2	0	2	3
5	System Software and Operating Systems	PC	3	0	0	3
6	Digital System Design and Microprocessors	ES	3	1	0	4
7	Audit Course	AUD	3	0	0	3*
PRACTICALS						
8	Data Structures using Python Laboratory	PC	0	0	3	1
9	Digital System Design and Microprocessors Laboratory	ES	0	0	4	2
Total Credits			19	2	9	23

SEMESTER IV

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Discrete Mathematics and Probability	BS	3	1	0	4
2	Database Management Systems	PC	3	0	0	3
3	Design and Analysis of Algorithms	PC	3	0	0	3
4	Artificial Intelligence	PC	3	0	0	3
5	Software Engineering with UML Design	PC	3	0	0	3
6	Design Thinking	ES	3	0	0	3
7	Scientific Thoughts in Tamil ***	AUD	1	0	0	1*
8	Aptitude	EEC	1	1	0	1
PRACTICALS						
9	Mobile Application Development Laboratory	PC	0	0	4	2
10	Database Management Systems Laboratory	PC	0	0	4	2
11	Advanced reading and writing	EEC	0	0	2	1
Total Credits			19	2	9	23

SEMESTER V

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Computer Networks	PC	3	0	0	3
2	Internet Programming	PC	3	0	0	3
3	Introduction to Internet of Things	PC	3	0	0	3
4	Foundations of Data Science and Machine Learning	PC	3	0	2	4
5	Professional Elective – I	PE	-	-	-	3
6	Professional Elective – II	PE	-	-	-	3
PRACTICALS						
7	Internet of Things Laboratory	PC	0	0	4	2
8	Computer Networks Laboratory	PC	0	0	4	2
9	Internet Programming Lab	PC	0	0	4	2
10	Summer Internship /Mini project	EEC	0	0	0	1
Total Credits			12	0	12	26

SEMESTER VI

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Cryptography and Network Security	PC	3	0	0	3
2	Theory of Computation and Compiler Design	PC	3	0	2	4
3	Professional Elective III	PE	-	-	-	3
4	Professional Elective IV	PE	-	-	-	3
5	Professional Elective V	PE	-	-	-	3
6	Professional Elective VI	PE	-	-	-	3
7	Open Elective I	OE	3	0	0	3
PRACTICALS						
8	Security Laboratory	PC	0	0	2	1
9	Professional Communication	EEC	0	0	2	1
Total Credits			9	0	6	24

SEMESTER VII

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
THEORY						
1	Human Values and Professional Ethics	HS	2	0	0	2
2	Management Elective	HS	3	0	0	3
3	Open Elective – II	OE	3	0	0	3
4	Open Elective – III	OE	3	0	0	3
5	Open Elective – IV	OE	3	0	0	3
PRACTICALS						
6	Summer Internship / Mini project	EEC	0	0	0	1
Total Credits			14	0	0	15

SEMESTER VIII

S.NO.	COURSE TITLE	CATEGORY	PERIODS PER WEEK			CREDITS
			L	T	P	
1	Project work	EEC	0	0	20	10
Total Credits			0	0	20	10

BOS 005.03

Dr.A.Meenakshi discussed in detail about list of verticals offered for R2021 Regulation

Sl. No.	Vertical 1	Vertical 2	Vertical 3	Vertical 4
	Data Science (Option for Minor)	Application Development	Cloud Computing and Data Centre Technologies	Cyber Security
1	Data Analysis and Decision Making	Principles of programming Languages	Cloud Computing	Ethical Hacking
2	Data Warehousing and Mining	Software Testing and Automation	Virtualization	Cyber Forensics
3	Data Science using R	Web Application Development using Django	Cloud Services Management	Information Security
4	Big Data Analytics	Full Stack Development	Data Center Management	Cryptocurrency and Block Chain Technologies
5	Social Network Analysis	Multi Platform Application Development using Flutter	Devops	Intrusion Detection Systems
6	Information Retrieval Techniques	Agile Methodologies	Security and Privacy in Cloud	Modern Cryptography
7	Data visualization using Tableau	C # and .Net Fundamentals	Principles of Fog Computing	Security Governance and Risk Compliance

Highlight by yellow if the offered course is Theory based Laboratory.

NPTEL Font color by Red if the offered course is in line with NPTEL/Swayam

Sl. No.	Vertical 5	Vertical 6	Vertical 7	Vertical 8
	Creative Media	Emerging Technologies	Artificial Intelligence (Option for Minor)	Networking
1	Computer Graphics	Software Industrialization	Neural Networks	Wireless Ad hoc & Sensor Networks
2	Multimedia Data Compression and Storage	Robotic Process Automation	Deep Learning	Fundamentals of network Communication
3	UI/UX Design	2D/3D Technologies	Computer Vision	5G Communication Networks
4	Digital Marketing	Business Analytics	Natural Language Processing	Peer to Peer networks
5	Game Design and Development	Recommender systems	Human Computer Interaction	Parallel and Distributed Computing
6	Visual Effects	Augmented Reality and Virtual Reality	Reinforcement learning	Mobile and Pervasive computing
7	Multimedia and Animation	Quantum Computing	Knowledge Engineering	Wireless security

Highlight by yellow if the offered course is Theory based Laboratory.

NPTEL Font color by Red if the offered course is in line with NPTEL/Swayam

BOS 005.04

Dr.A.Meenakshi discussed in detail about honours and minor degree in R2021 Regulation

Honours Degree	Minor Degree
The student should select **6 courses Offered in** same Department verticals and earn **18 credits**	The student should select **6 courses Offered** from other department verticals offered for minor degree or institute level courses offered as minor degree and earn **18 credits**

Eligibility : upto 4th Semester, the CGPA >7.5 without any backlog	Eligibility : upto 4th Semester, the CGPA >7.5 without any backlog
Offered from 5th semester onwards	Offered from 5th semester onwards
The student may or may not select the course from same verticals	The student should undergo 6 courses from same verticals offered as minor either from Institute level common minor verticals or other Department minor verticals.

BOS 005.05

Open Electives (Offered to Other Department Students)
Dr.A.Meenakshi discussed in detail about open elective courses offered to other department students.

Sl. No.	Open Elective	Course Name	L	T	P	Credits
1	I & II	Data Science Fundamentals	3	0	0	3
2	III	Fundamentals of Software Engineering	3	0	0	3
3		Fundamentals of Data Structures	3	0	0	3
4	IV	Fundamentals of Computer Networks	3	0	0	3
5		Software Testing	3	0	0	3

BOS 005.06
Dr.A.Meenakshi presented R2020 IV year (7th and 8th Semester) UG Curriculum and detailed syllabus of B.E (Computer Science and Engineering).

SEMESTER VII

S. No	Course Code	Course Title	Category	L	T	P	Contact Periods	C
THEORY								
1.	CS1771	Cloud Computing	PC	3	0	0	3	3
2.	IT1671	Cryptography and Network Security	PC	3	0	0	3	3
3.	GE1671	Total Quality Management	HS	3	0	0	3	3
4.	PE5	Professional Elective V	PE	3	0	0	3	3
5.	PE6	Professional Elective VI	PE	3	0	0	3	3
6.	OE2	Open Elective – II	OE	3	0	0	3	3
PRATICALS								

7.	IT1681	Cryptography and Network Security Laboratory	PC	0	0	4	4	2
8.	CS1781	Cloud Computing laboratory	PC	0	0	4	4	2
9.	CS1721	Mini Project	EEC	0	0	4	4	2
			TOTAL	18	0	12	30	24

SEMESTER VIII

S. No	Course Code	Course Title	Category	L	T	P	Contact Periods	C
			THEORY					
1.	OL2	Online Course – II	OL	0	2	0	2	2
			PRATICALS					
2.	CS1821	Project work	EEC	0	0	16	16	8
			TOTAL	0	2	16	18	10

List of Professional Elective Courses

Professional Elective Courses (Elective – V, Semester VII)

S. No	Course Code	Course Name	L	T	P	Contact Periods	C
1.	IT1631	Blockchain Technologies	3	0	0	3	3
2.	AD1601	Computer Vision	3	0	0	3	3
3.	AD1602	Deep Learning	3	0	0	3	3
4.	AD1535	Human Computer interaction	3	0	0	3	3
5.	CS1731	Software Project Management	3	0	0	3	3

Professional Elective Courses (Elective – VI, Semester VII)

S. No	Course Code	Course Name	L	T	P	Contact Periods	C
1.	CS1732	2D & 3D Techniques for Graphics Modeling and Simulation	3	0	0	3	3
2.	AD1702	Natural Language Processing	3	0	0	3	3
3.	CS1733	Principles of Cyber Security	3	0	0	3	3
4.	CS1734	Risk Modeling and Assessment	3	0	0	3	3
5.	AD1633	Robotics and Intelligent Systems	3	0	0	3	3

Open Elective – II (Semester VII)

S. No	Course Code	Course Name	Category	L	T	P	C
1.	OCS171	Software Engineering Fundamentals	OE	3	0	0	3

BOS 005.07

Approval of Value Added courses:
HoD / CSE gave a brief presentation about students achievements, department facilities and technical support, number of events organized by the department, students internship details, value added courses conducted for the academic year 2021-2022 and 2022-2023 and finally students graduation and placement details.

- Dr.A.Meenakshi discussed about the process that we followed for conducting Value Added Courses.
- She also discussed about the role of three member's committee and presented the list of value added courses offered for the second year and third year students forthis academic year.

Value Added Courses Conducted 2021 - 2022

Name of the VAC course	Name of Company	Name of the Trainer(s)	No. of Students
Redhat Linux	School of Linux, Madurai	Mr.S.Suresh Kannan & K.Muthukumar	40
Machine Learning with Scikit-Learn, Keras and Tensorflow	Quantanics TechServ Pvt. Ltd., Madurai.	Mr.Farhadh Manaz and Mr.K.Vasanth Junior AI Developer, Quantanics TechServ Pvt. Ltd., Madurai.	29
Spring Boot	Silicon Software Services, Chennai	Mr.S.Rajendran Ms.Domini Neya	55
Django Framework	Lamdatech Softics, Virudhunagar	Mr.S.Balaji Ms.V.Rajeshwari	27

VALUE ADDED COURSES CONDUCTED FOR III YEAR STUDENTS

S. No	Course Name	Name of Company	No. of Students
1.	AWS cloud	School of Linux, Madurai	35
2.	Flutter	Networkz Systems, Madurai	35
3.	Fundamentals of Block Chain and Crypto currency	Incrix Techlutions LLP, Chennai	35

VALUE ADDED COURSES CONDUCTED – 2022-23

Name of the VAC course	Name of Company	Name of the Trainer(s)	No. of Students
MEAN Stack	VEI Technologies Pvt. Ltd, Chennai.	Dr.B.Ezhilavan, Managing Director Ms.Shobana, Software Developer	35
MERN Stack	Lamdatech Softics, Virudhunagar	Mr.S.Balaji, Trainer Mr.M.Prakash, Trainer	40
Data Visualization using Tableau	Brainswig Edutech Pvt., Ltd, Chennai	Dr.R.Dinesh Babu Managing Director	40
Devops	SMI Infotech Solutions. Pvt Ltd	Mr.G.S.Raman, Director, Training and upskilling Mr.Sanjay, Trainer	36

BOS 004.08

Dr.A.Meenakshi seek the approval for the updation in Syllabus R2020 - M.E - Computer Science and Engineering

MC1204 – Network Design and Technologies – Deviations

S. No.	Existing syllabus	Updated syllabus	Justification
1	Advanced multiplexing – Code Division Multiplexing, DWDM and OFDM – Shared media networks – Switched networks – End to end semantics – Connectionless, Connection oriented, Wireless Scenarios – Applications, Quality of Service – End to end level and network level solutions. LAN cabling topologies – Ethernet Switches, Routers, Firewalls and L3 switches – Remote Access Technologies and Devices – Modems and DSLs – SLIP and PPP – Core networks, and distribution networks.	Advanced multiplexing – Code Division Multiplexing, DWDM and OFDM – Shared media networks – Switched networks – End to end semantics – Connectionless, Connection oriented, Wireless Scenarios – Applications, Quality of Service – End to end level and network level solutions. Remote Access Technologies and Devices – Modems and DSLs – SLIP and PPP – Core networks, and distribution networks.	LAN cabling topologies – Ethernet Switches, Routers, Firewalls and L3 switches. The above mentioned topics are there in their UG core paper. So there is no need to study the same again and that can be removed.
2	GSM – Mobility Management and call control – GPRS –	GSM – Mobility Management and call control – GPRS –	Small Screen Web Browsing over GPRS

	Network Elements – Radio Resource Management – Mobility Management and Session Management – Small Screen Web Browsing over GPRS and EDGE – MMS over GPRS – UMTS – Channel Structure on the Air Interface – UTRAN –Core and Radio Network Mobility Management – UMTS Security.	Network Elements – Radio Resource Management – Mobility Management and Session Management ,Channel Structure on the Air Interface – UTRAN –Core and Radio Network Mobility Management – UMTS Security.	and EDGE – MMS over GPRS – UMTS. The above mentioned topics are concentrating in specific application. As the syllabus is vast, the students need to concentrate more on core concepts rather than specific application. So that topics can be removed from the syllabus
3	LTE – Network Architecture and Interfaces – FDD Air Interface and Radio Networks – Scheduling – Mobility Management and Power Optimization – LTE Security Architecture – Interconnection with UMTS and GSM – LTE Advanced (3GPPP Release 10) - 4G Networks and Composite Radio Environment – Protocol Boosters – Hybrid 4G Wireless Networks Protocols –Green Wireless Networks – Physical Layer and Multiple Access – Channel Modelling for 4G – Introduction to 5G	LTE – Network Architecture and Interfaces – FDD Air Interface and Radio Networks – Scheduling – Mobility Management and Power Optimization – LTE Security Architecture – Interconnection with UMTS and GSM –Hybrid 4G Wireless Networks Protocols –Green Wireless Networks – Physical Layer and Multiple Access – Channel Modelling for 4G – Introduction to 5G	As the syllabus is vast, the students need to concentrate more on core concepts rather than specific application. So the below mentioned topics can be removed from the syllabus. LTE Advanced (3GPPP Release 10) - 4G Networks and Composite Radio Environment – Protocol Boosters.

MC1238 – Information Retrieval Techniques- Deviations

S. No.	Existing syllabus	Updated syllabus	Justification
1	Searching the web – Structure of the web – IR and web search – Static and Dynamic Ranking – Web crawling and indexing – Link Analysis – XML Retrieval Multimedia IR : Models and Languages – Indexing and Searching Parallel and Distributed IR – Digital Libraries	Searching the web – Structure of the web – IR and web search – Static and Dynamic Ranking – Web crawling and indexing – Link Analysis – XML Retrieval Multimedia IR : Models and Languages – Indexing and Searching–Recommender System Functions – Recommendation Techniques	As Recommender System is the main topic in Information Retrieval, we can exclude the Parallel and Distributed IR and include the Recommender Functions and Techniques

The following suggestions were given by the BOS Members

1. They have suggested to give Internet Programming paper in previous semester.
2. All the BoS members have appreciated for more practical sessions assigned in 5th semester.
3. Dr. Chithra suggested to once again check the blooms taxonomy level for CO PO attainment.
4. They have suggested to provide more Industry related new technologies.
5. All the BoS members appreciated for providing more new technology related papers as Professional Electives.

RESOLVED TO APPROVE the R2020 curriculum and detailed syllabi for VII & VIII Semester of B.E(CSE), Detailed syllabus of R2021 curriculum and detailed syllabi for I to VIII Semester of B.E(CSE).

The meeting ended with the Vote of Thanks by Dr. A. Anandh, Associate Professor, Department of CSE, Kamaraj College of Engineering and Technology, Virudhunagar.

(Dr. A. Meenakshi)
BoS Chairman & HoD - CSE

BoS Co-ordinator