



**5<sup>th</sup> BOARD OF STUDIES MEETING MINUTES**

FXEC\CS&BS\2023-2024\BOS-5

Activity Code: ACT/22-23/01595

Mode: Hybrid

Venue: CSE Lab-3

Google Meet link: <https://meet.google.com/vbe-yisq-yeh>

Date & Time: 12.06.2023 & 10:00 AM

**AGENDA**

BoS/CSBS 5.1: Welcome address and Opening Remarks given by the Chairman, Board of Studies in the Department of Computer Science and Engineering.

BoS/CSBS 5.2: Confirmation of the minutes from the 4<sup>th</sup> Board of Studies meeting in the Department of Computer Science and Engineering, which was held on 25.02.2023 and Action taken report of 4<sup>th</sup> meeting of Board of studies

BoS /CSBS 5.3: Business brought forward by the Chairman, Board of Studies

5.3.1 Curriculum & Syllabus for R2021 B.Tech Computer Science and Business Systems  
(6<sup>th</sup> and 7<sup>th</sup> Semester)

5.3.2 Professional Electives III, IV, V and VI and Open Electives

5.3.3 Value Added Courses and Mandatory Courses

5.3.4 NPTEL Courses

BoS / CSBS 5.4: Suggestions given by the BOS Members

BoS / CSBS 5.5: Any other items for discussion





**DEPARTMENT OF COMPUTER SCIENCE AND BUSINESS SYSTEMS  
MINUTES OF THE MEETING**

The 5<sup>th</sup> Meeting of the Board of studies of the Department of Computer Science and Business Systems was held on 12<sup>th</sup> June, 2023 at 10 a.m.

The following members were present:

1. Head of BOS  
Prof. Dr.G.Aravind Swaminathan, Professor/Head,  
Department of Computer Science and Engineering,  
Francis Xavier Engineering College,  
Tirunelveli
2. University Nominee  
Dr.C. Senthil Kumar,  
Associate Professor,  
Department of Computer Science and Engineering,  
Thiagarajar College of Engineering.
3. Academic Experts  
Dr.E.IIavarasan  
Professor/CSE,  
Pudhucherry Technological University (Formally Pondicherry Engineering College),  
Pondicherry- 605014.
4. Dr.D Murugan  
Professor/CSE,  
Manonmanium Sundaranar University,  
Tirunelveli-627012
5. Industrial Experts  
Mr.Prabagar Ramamurthy  
Head,Information Security Management,  
Tata Consultancy Services,  
1/G1,Sipcot,IT Park,  
Siruchery,  
Chennai -600006
6. Alumni Members  
Mr.Abishek Stephen  
Senior Backend Engineer,  
Turing,  
Palo Alto, California,USA

*S. Aravind*  
13/6/23





## 7. Internal Members

S.No	List of Staff Members	Designation
1.	Dr.S.Gomathi	Professor/ CSBS
2.	Mrs.G.Vijaya Rani	Assistant Professor/ CSBS
3.	Mrs.M.Yasmin	Assistant Professor/ CSBS
4.	Mrs.A.Anitha	Assistant Professor/ CSBS
5.	Mrs.M.Deepa	Assistant Professor/ CSBS
6.	Ms.D.R.Maheswari	Assistant Professor/ CSBS

Board of Studies Meeting started with a prayer by **Dr.G.Aravind Swaminathan**, Professor/Head and, **Mrs. J. Priskilla Angel Rani** Professor/CSE welcomed the gathering.

### **BoS / CSBS 5.1: WELCOME ADDRESS AND OPENING-REMARKS GIVEN BY THE CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

The Chairman, BOS of the Computer Science and Engineering welcomed and introduced the members of 5th Board of Studies and thanked each of them for sparing their valuable time to attend the meeting.

### **BoS /CSBS 5.2: TO CONFIRM THE MINUTES OF FOURTH BOS MEETING HELD ON 25.02.2023**

The minutes of the ~~FOURTH~~ Board of Studies meeting held on 25.02.2023 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 8<sup>th</sup> Academic Council.  
(Action taken report enclosed in Annexure I)

### **BoS / CSBS 5.3: BUSINESS BROUGHT FORWARD BY THE CHAIRMAN, BOARD OF STUDIES**

#### **BoS / CSBS 5.3.1: TO CONFIRM AND APPROVE the Vision, Mission, PEO, PSO Curriculum of 6<sup>th</sup> and 7<sup>th</sup> Semester**

- ✓ Syllabus for R2021 B.Tech Computer Science and Business Systems 8 Semesters Curriculum and 6<sup>th</sup> and 7<sup>th</sup> Semesters Syllabus were framed and it was presented by the HOD/ CSBS
- ✓ RESOLVED TO APPROVE the Curriculum & Syllabus for R2021 B.Tech Computer Science and Business Systems.

#### **BoS / CSBS 5.3.2: TO CONFIRM AND APPROVE the Professional Electives III, IV, V and VI and Open Electives**

- ✓ **The Professional Electives III, IV, V and VI, Open Elective** and their syllabus was presented by the HOD/CSBS (Professional Electives III and IV, Open Elective II list enclosed in Annexure II and III)





- ✓ RESOLVED TO APPROVE the **Professional Electives III, IV, V and VI and Open Elective II**

**BoS / CSBS 5.3.3: TO CONFIRM AND APPROVE the Value Added Courses and Mandatory skill Courses**

- ✓ **The Value Added Courses, Mandatory Skill Courses** and their syllabus was presented by the HOD/CSBS( Value Added Courses, Mandatory Skill Courses list enclosed in Annexure IV)
- ✓ RESOLVED TO APPROVE the **Value Added Courses and Mandatory Skill Courses**

**BoS / CSBS 5.3.4: TO CONFIRM AND APPROVE Mandatory Courses**

- ✓ From the academic year 2023-2024, two new Mandatory courses—Tamil Heritage for the first semester and Technology in Tamil Culture for the second semester—are being added. 166 credits will therefore be added starting with the academic year 2023-2024.

**BoS / CSBS 5.3.4: TO CONFIRM AND APPROVE the NPTEL Courses**

The Expert members suggested providing provision to take NPTEL Online Courses from 4<sup>th</sup> semester onwards. (NPTEL course list enclosed in Annexure V)

- ✓ RESOLVED TO APPROVE the NPTEL Courses

**BoS / CSBS 5.4: Suggestions Given by the Members**

**R2021 B.TECH Computer Science and Business Systems**

- 5.4.1 21CB6703- Marketing Analytics - Course Outcomes for Unit 5 must be revisited. Advised to Change the Unit 5-Title as "ERP Security Issues" and to change the CO's accordingly.
- 5.4.2 21CB6603 - Legal Aspects of Information Security- Unit 2 & 5 Content need to be revisited, asked to mention the tools used in the laboratory experiments.
- 5.4.3 21CB6705- Mobile Application Development- Prerequisite subjects need to be changed and asked to include the tool KOTLIN.
- 5.4.4 21CB7602 - Machine Learning for Finance - Suggested to include Financial Data Handling Process in Unit 1.
- 5.4.5 21CB7702- Financial Analytics- Reference Book 2 version need to be updated.
- 5.4.6 21CB7703- Entrepreneurship Development - Suggested to include Government Policies for startup in Unit IV
- 5.4.7 21CB7704- Text and Media Analytics - Suggested to change the Unit 2 title as Social Media Text, In Unit 4 suggested to add the web Analytics tools.
- 5.4.8 21CB7705 - Predictive Analytics for Business - Suggested to change the title as Healthcare Data Analytics. Advised to revisit the syllabus accordingly.
- 5.4.9 21CB1V01 - IT Software Solutions for Business using Power BI-Prerequisite of the course need to be changed.
- 5.4.10 21CB5V01 - Mobile Application Development using Flutter - Suggested that there is no need for prerequisite.





**BoS / CSBS 5.5: Any other items for discussion**

- 5.5.1 Professional Electives III, IV, V and VI course Syllabus was presented and the expert members approved the same
- 5.5.2 Open Electives Syllabus was presented and the expert members approved the same.
- 5.5.3 Value Added course Syllabus for R2021 was presented and the expert members approved the same.
- 5.5.4 Mandatory Skill Course Syllabus for R2021 was presented and the expert members approved the same.

Dr.G.Aravind Swaminathan, Professor/Board Chairman thanked all the members for their kind cooperation and the meeting came to an end.

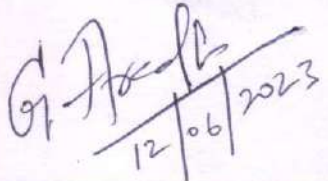

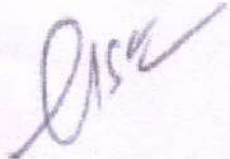
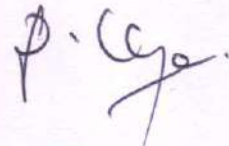
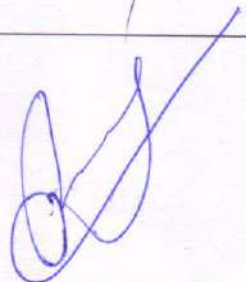

*G. Aravind Swaminathan*  
12/06/2023  
CHAIRMAN  
BOARD OF STUDIES

*S. Aravind Swaminathan*  
13/6/23



FRANCIS XAVIER ENGINEERING COLLEGE  
CSBS  
DEPARTMENT

**Attendance Sheet Table of Members:**

S. No	Members as per UGC Norms	Members Nominated	Signature
1	Head of the Department concerned (Chairman)	<b>Dr.G.Aravind Swaminathan,</b> Professor/Head, Department of Computer Science and Engineering, Francis Xavier Engineering College, Tirunelveli	 12/06/2023
2	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	<b>Dr.C. Senthil Kumar,</b> Associate Professor, Department of Computer Science and Engineering, Thiagarajar College of Engineering.	
3	Two experts in the subject from outside the college nominated by the Academic Council	<b>Dr.E.IIavarasan</b> Professor/CSE, Pudhucherry Technological University(Formerly Pondicherry Engineering College), Pondicherry- 605014.	
		<b>Dr.D Murugan</b> Professor/CSE, Manonmanium Sundaranar University, Tirunelveli-627012	
4	One representative from industry/corporate sector/allied area relating to placement	<b>Mr.Prabagar Ramamurthy</b> Head,Information Security Management, Tata Consultancy Services, 1/G1,Sipcot,IT Park, Siruchery, Chennai -600006	
5	One Post Graduate meritorious aluminous nominated by the Principal	<b>Mr.Abishek Stephen</b> Senior Backend Engineer, Turing,Palo Alto, California, USA	





S.No	List of Staff Members	Designation	Signature
1.	Dr.S.Gomathi	Professor/ CSBS	S. G. Gomathi
2.	Mrs.G.Vijaya Rani	Assistant Professor/ CSBS	G. Vijaya Rani
3.	Mrs.M.Yasmin	Assistant Professor/ CSBS	M. Yasmin
4.	Mrs.A.Anitha	Assistant Professor/ CSBS	A. Anitha
5.	Mrs.M.Deepa	Assistant Professor/ CSBS	M. Deepa
6.	Ms.D.R.Maheshwari	Assistant Professor/ CSBS	D.R. Maheshwari

Members Absent - Nil.

S. G. Gomathi  
13/6/23



**Annexure - I**

**Minutes of 4<sup>th</sup> Board of Studies Meeting - Action Taken Report**

S.No	Suggestions	Action Plan	Reflection in the Curriculum
1.	Suggested regarding the 21CS5602-Computer Networks Course the Course Outcomes and the CO Vs PO Mapping must be revisited	Corrected and Implemented	Curriculum Page 198
2.	21CS5611- Computer Networks Laboratory, Simulation experiments need to be modified.	Corrected and Simulation experiments modified.	Curriculum Page 204
3.	It is recommended to include IOT applications for the Elective course Introduction to IoT.	IOT applications included	Curriculum Page 267
4.	Suggested to check the CO,PO & PSO Mapping on the core Engineering Courses.	Corrected and Implemented	All the Courses
5.	Elective Course- Blockchain and Distributed Technologies title should be changed as Blockchain Technologies.	Corrected	

*S. S. Sanyal*  
13/6/23





**Annexure - II**

**List of Professional Elective Courses**

S.No	Course Code	Course Name	Semester	L	T	P	C	Stream/Domain
<b>Professional Elective III</b>								
1	21AI3602	Data Science Essentials	6	3	0	0	3	Data Analytics
2	21CB6701	Enterprises Systems	6	3	0	0	3	Business Analytics
3	21CB6702	Industrial Psychology	6	3	0	0	3	Business Management
4	21CS5703	IoT and its applications	6	3	0	0	3	Full Stack Development
5	21AI7707	Cognitive Science and Analysis	6	3	0	0	3	Advanced Technology
<b>Professional Elective IV</b>								
1	21CS7711	Data Analytics Using R	6	3	0	0	3	Data Analytics
2	21CB6703	Marketing Analytics	6	3	0	0	3	Business Analytics
3	21CB6704	Human Resource Management for Business	6	3	0	0	3	Business Management
4	21CB6705	Mobile Application Development	6	3	0	0	3	Full Stack Development
5	21CS7709	Deep Learning Essentials	6	3	0	0	3	Advanced Technology
<b>Professional Elective V</b>								
1	21CB7701	Natural Language Processing	7	3	0	0	3	Data Analytics
2	21CB7702	Financial Analytics	7	3	0	0	3	Business Analytics
3	21CB7703	Entrepreneurship Development	7	3	0	0	3	Business Management
4	21IT7706	Agile Methodologies and DEvops	7	3	0	0	3	Full Stack Development
5	21IT6711	Quantum Computing	7	3	0	0	3	Advanced Technology
<b>Professional Elective VI</b>								
1	21CB7704	Text and media analytics	7	3	0	0	3	Data Analytics
2	21CB7705	Predictive Analytics for Business	7	3	0	0	3	Business Analytics





3	21IT6707	Software project management	7	3	0	0	3	Business Management
4	21CS7705	Blockchain Technologies	7	3	0	0	3	Full Stack Development
5	21CS5704	Virtual and Augmented Reality	7	3	0	0	3	Advanced Technology

*S. de Slay*  
13/6/23





**Annexure - III**

**List of Open Elective Courses**

S.No	Course Code	Course Name	Sem	L	T	P	C	Offered By
<b>Open Elective - I</b>								
1	21CB5801	Digital Forensics	5	3	0	0	3	CSBS
2	21CB5802	Big Data Technologies	5	3	0	0	3	CSBS
3	21CB5803	Cloud, Microservices and Applications	5	3	0	0	3	CSBS
4	21CB5804	Network Science and Applications	5	3	0	0	3	CSBS
5	21CB5805	Analytics of Things	5	3	0	0	3	CSBS
<b>Open Elective - II</b>								
6	21CB6801	Data mining and analytics	6	3	0	0	3	CSBS
7	21CB6802	Privacy and Security in IoT	6	3	0	0	3	CSBS
8	21CB6803	Fundamentals of Fog and Edge Computing	6	3	0	0	3	CSBS
9	21CB6804	IoT Architectures and Protocols	6	3	0	0	3	CSBS
10	21CB6805	Business process management	6	3	0	0	3	CSBS
<b>Open Elective - III</b>								
11	21CB7801	Software Design Architecture	7	3	0	0	3	CSBS
12	21CB7802	Human Computer Interaction	7	3	0	0	3	CSBS
13	21CB7803	Game Designing	7	3	0	0	3	CSBS
14	21CB7804	Blockchain and cryptocurrency technologies	7	3	0	0	3	CSBS
15	21CB7805	Cryptology and Analysis	7	3	0	0	3	CSBS

*S. de. Jay*  
13/6/23





**Annexure - IV**

**LIST OF VALUE ADDED COURSES**

S.No	Course Code	Course Name	Category	Contact Periods	L	T	P	C
<b>Value Added Courses</b>								
1	21CB1V01	IT Software Solutions for Business Using Power BI	VAC	2	0	0	4	2
2	21CB2V01	Predictive Analytics in Digital Marketing	VAC	2	0	0	4	2
3	21CB3V01	Web Application Development using React.	VAC	2	0	0	4	2
4	21CB4V01	Software testing using Selenium	VAC	2	0	0	4	2
5	21CB5V01	Mobile Application Development using Flutter	VAC	2	0	0	4	2

**LIST OF MANDATORY COURSES**

S.No	Skill Code	Skill Name	Semester	Contact Periods	C
1.	21CB1SK01	Working with Multimedia Software	01	60	2
2.	21CB2SK01	Front End Web Development	02	60	2
3.	21CB3SK01	Data Visualization Using Tableau	03	60	2
4.	21CB4SK01	Business Analytics with R Studio	04	60	2
5.	21CB5SK01	Data Exploration Using Python	05	60	2

*S. D. Jay*  
13/6/22





**Annexure - V**

**LIST OF NPTEL COURSES - 2023-2024 ODD**

S.NO.	COURSE NAME	REGISTRATION LINK	DURATION
1	Reinforcement Learning	<a href="https://nptel.ac.in/courses/106106143">https://nptel.ac.in/courses/106106143</a>	12 Weeks
2	Deep Learning	<a href="https://nptel.ac.in/courses/106106184">https://nptel.ac.in/courses/106106184</a>	12 Weeks
3	Natural Language Processing	<a href="https://nptel.ac.in/courses/106105158">https://nptel.ac.in/courses/106105158</a>	12 Weeks
4	Introduction To Machine Learning	<a href="https://nptel.ac.in/courses/106106139">https://nptel.ac.in/courses/106106139</a>	12 Weeks
5	Data Science For Engineers	<a href="https://nptel.ac.in/courses/106106179">https://nptel.ac.in/courses/106106179</a>	12 Weeks
6	Introduction To Internet Of Things	<a href="https://nptel.ac.in/courses/106105166">https://nptel.ac.in/courses/106105166</a>	12 Weeks
7	Cloud Computing	<a href="https://nptel.ac.in/courses/106105167">https://nptel.ac.in/courses/106105167</a>	12 Weeks
8	Python For Data Science	<a href="https://nptel.ac.in/courses/106106212">https://nptel.ac.in/courses/106106212</a>	12 Weeks

  
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## Annexure - VI

## Specialization/ Minor Courses

## B.Tech. - Computer Science and Business Systems

## R2021 - Specialization in Big data Analytics

S.No	Course Code	Course Name	L	T	P	C	H
<b>Theory Course</b>							
1	21CB4S01	Big Data Frameworks	3	0	0	3	3
		Elective	3	0	0	3	3
<b>Theory cum Practical Courses</b>							
1	21CB5S01	Mining Massive Data	2	0	4	4	4
3	21CB6S03	Big data computing for Business Analytics	2	0	4	4	4
<b>Practical Course</b>							
1.	21CB8S11	Project work	0	0	8	4	8
<b>Total</b>			<b>10</b>	<b>0</b>	<b>16</b>	<b>18</b>	<b>22</b>
<b>Elective Courses</b>							
1	21CB7S01	Exploratory Data Analysis	3	0	0	3	3
2	21CB7S02	Information Visualization	3	0	0	3	3
3	21CB7S03	Predictive Analytics in Business	3	0	0	3	3

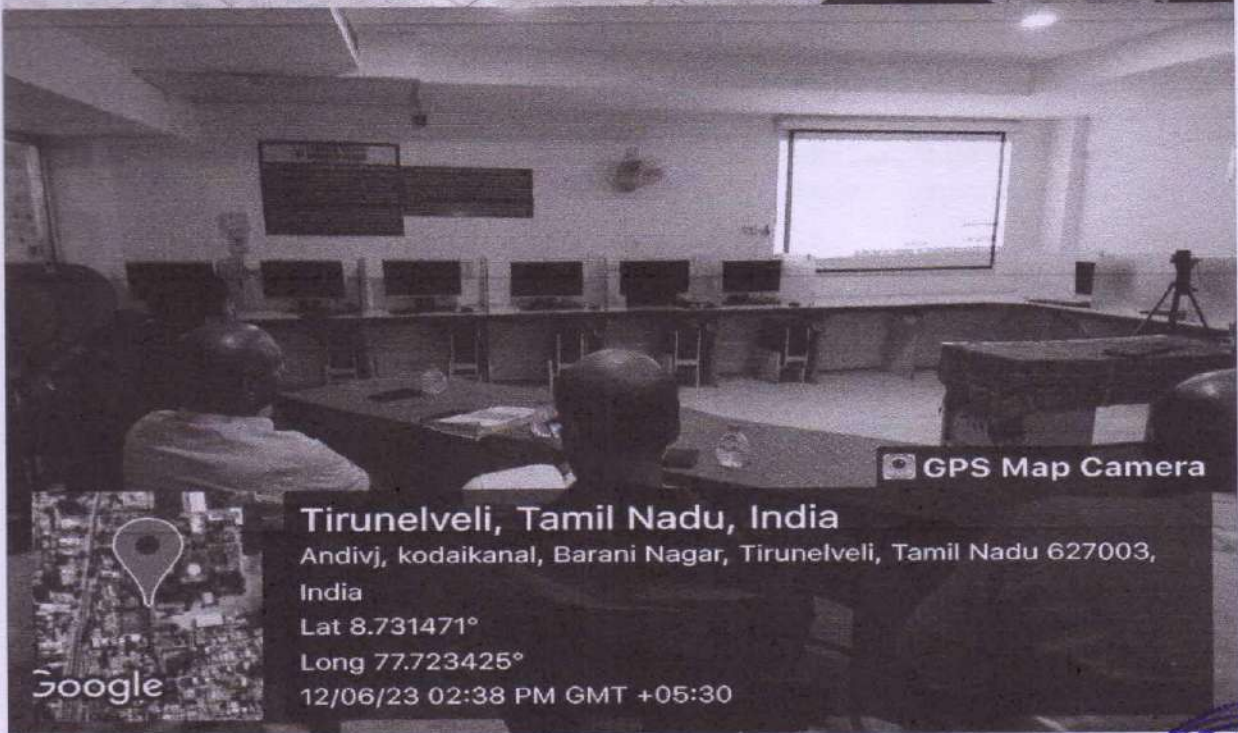


5th BOS Meeting

Department of Computer Science and Business Systems

Venue: CSE Lab-3

Date & Time: 12.06.2023 & 10:00 AM



*S. Le. Jay*  
13/6/23





# FRANCIS XAVIER<sup>®</sup> ENGINEERING COLLEGE AN AUTONOMOUS INSTITUTION

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## Department of Computer Science and Business Systems

### Suggestions Incorporated

- For the subject 21CB6703- Marketing Analytics, in the old curriculum book Page Number 280, In Unit 5 the Title - **CUSTOMER ANALYTICS** has been changed as **ERP SECURITY ISSUES** and it is reflected in the Recent Curriculum book in **page number 278**.
- For the subject 21CB6603 - Legal Aspects of Information Security, in the old curriculum book Page Number 252 -Unit 2 & 5 Contents has been changed and the laboratory tools were added and it is reflected in the Recent Curriculum book in **page number 251**.
- For the subject 21CB6705- Mobile Application Development, in the old curriculum book Page Number 286 - Prerequisite of the subject have been updated and the suggested tool KOTLIN were added and it is reflected in the Recent Curriculum book in **page number 284**.
- For the subject 21CB7601 - Machine Learning for Finance, in the old curriculum book Page Number 302 - The subject name has been changed as Machine Learning in Finance. In Unit 1 Financial Data Handling Process has been added and it is reflected in the Recent Curriculum book in **page number 300**.
- For the subject 21CB7703- Entrepreneurship Development, in the old curriculum book Page Number 318 - In Unit IV Government Policies for startup has been added and it is reflected in the Recent Curriculum book in **page number 315**.
- For the subject 21CB7704- Text and Media Analytics, in the old curriculum book Page Number 329 - In Unit 2 title is modified as Social Media Text, In Unit 4 the web Analytics tools has been added and it is reflected in the Recent Curriculum book in **page number 328**.
- For the subject 21CB7705 - Predictive Analytics for Business, in the old curriculum book Page Number 332 - The subject has been reframed as Computational Finance and Modeling and it is reflected in the Recent Curriculum book in **page number 330**.
- Before the Board of Study Meeting, for the subject 21CB1V01 - IT Software Solutions for Business using Power BI, in the old curriculum book Page Number 346 - Prerequisite of the course has been changed and it is reflected in the Recent Curriculum book in **page number 344**.
- For the subject 21CB5V01 - Mobile Application Development using Flutter, in the old curriculum book Page Number 354 - Prerequisite of the course has been changed and it is reflected in the Recent Curriculum book in **page number 352**.



  
HOD / CSBS