

**Nineth Board Of Studies Meeting**

**Department of MCA**

**Francis Xavier Engineering College, Vannarpettai,**

**Tirunelveli - 627 003**

**(An Autonomous Institution - Affiliated to Anna University, Chennai)**

**[www.francixavier.ac.in](http://www.francixavier.ac.in)**



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12/16/2022

**9<sup>th</sup> Board of Studies Meeting in the Department of MCA**

**AGENDA**

BoS / MCA 9.1: Welcome address and Opening Remarks by Chairman of Computer Science Department on behalf of Board of studies in the Department of MCA

BoS / MCA 9.2: Confirmation of the Minutes of the 8<sup>th</sup> meeting of Board of studies in the Department of MCA held on 25.02.2023 and Action taken report of 8<sup>th</sup> meeting of Board of studies

BoS / MCA 9.3: Business brought forward by the Chairman, Board of Studies

9.3.1 Refinement of Course outcomes of Laboratory courses

9.3.2 Inclusion of Value Added Courses

9.3.3 MCA Curriculum and Syllabus PG 2021 under R2021

9.3.4 NPTEL Courses

BoS / MCA 9.4: Suggestions given by the BOS Members

BoS / MCA 9.5: Any other items for discussion

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12/16/2023

**Francis Xavier Engineering College, Tirunelveli**

**Department of Computer Applications**

**MINUTES OF THE MEETING**

The 9<sup>th</sup> Meeting of the Board of studies of the MCA Department was held on 12.06.2023@ 9.30 am through blended mode:

Meeting Link: 9th BOS MEETING

Monday, June 12, 2023· 9:45am – 1:15pm

Time zone: Asia/Kolkata

Google Meet joining info

Video call link: <https://meet.google.com/vbe-yisq-ych>

Or dial: (US) +1 510-456-0348 PIN: 648 125 051#



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The following members were present:

1. Mr. G. Aravind Swaminathan, Prof & Head, CSE,BoS Chairman
2. Mrs. D.Angeline Ranjithamani, AP & Head MCA Department
3. Dr. C. Senthil Kumar, Asso. Prof./CSE,TCE,Anna University Nominee
4. Dr. E. Ilavarasan, Prof./CSE,PEC, Other University Nominee
5. Dr. D. Murugan, Prof./CSE, MS University, Other University Nominee
6. Mr.PrabagarRamamurthy,Head,Information Security Management,Tata Consultancy Services, Industry Expert
7. Mr.AbishekStephen,Senior Backend Engineer,Turing,Palo Alto, California,USA,Alumni Expert
8. Mr. A. Arul Amalraj, AP / MCA
9. Mrs. G. Durgaveni, AP/MCA
10. Mr. M. Esakkiraj, AP/MCA
11. Mrs. M.K. Subbulakshmi,AP/MCA
12. Mrs. Annie Rose Nirmala, HOD/MBA
13. Mr. A. Santiago Stephen, AP/MATHS
14. Mrs. Shala F John, AP/ENGLISH

BoS / MCA 9.1: WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES OF COMPUTER SCIENCE DEPARTMENT ON BEHALF OF DEPARTMENT OF MCA

The Chairman, BOS of the MCA Department welcomed and introduced the members of 9<sup>th</sup> Board of Studies and thanked each of them for sparing their valuable time to attend the meeting.

BoS / MCA 9.2: TO CONFIRM THE MINUTES OF EIGHTH BOS MEETING HELD ON 25.02.2023

The minutes of the Eighth 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.

Annexure I: Action Taken Report

BoS / MCA 9.3.1: TO CONFIRM AND APPROVE the Refinement of Course outcomes of Laboratory courses

- ✓ RESOLVED TO APPROVE CO - PO mapping, Course Outcomes, Weightage of syllabus and the course will be handled by the staff members of MCA Department

BoS / MCA 9.3.2: TO CONFIRM AND APPROVE the Inclusion of Value Added Courses

- ✓ RESOLVED TO APPROVE the syllabus for JavaScript for Web Development, Automation Testing tools, Cloud Platforms, MVC Framework, Data Analytic Tools, Intelligent Sys-

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12/16/2023

tems and Data Analysis, Node.js and Express.js Essentials, Angular for Modern Web Development and Cross-Platform Mobile Development with React Native, Credit distribution, CO – PO mapping, Course Outcomes, Weightage of syllabus and the course will be handled by the staff members of MCA department under the guidance of industry experts (Annexure – II)

BoS / MCA 9.3.3: TO CONFIRM AND APPROVE the 2021 MCA Curriculum for Regulation 2021

- ✓ RESOLVED TO APPROVE the syllabus for the 2021 MCA Curriculum for Regulation 2021, Credit distribution, CO – PO mapping, Course Outcomes, Weightage of syllabus

BoS / MCA 9.3.4: TO CONFIRM AND APPROVE the newly added NPTEL Courses

- ✓ RESOLVED TO APPROVE the syllabus Credit distribution, CO – PO mapping, Course Outcomes, Weightage of syllabus (Annexure – III)

BoS / MCA 9.4 : Suggestions Given by the Members

- ✓ Prerequisite for the value added course 21CA1V03 – Cloud platforms can be redefined and the objective for “pay-as-you-go” can be eliminated as it will not work in free subscription in addition AWS can be included in web resources
- ✓ The expert members suggestion incorporating the following amendments in the concerned courses
  - 21MA1258 – Mathematical foundations of Computer Applications, topics like K-Map can be added
  - 21CA1101 – Data Structures, LeetCode can be included in Web resources
  - 21CA1103 – Operating system, case studies like Windows 11, Linux can be incorporated
  - 21CA1105 – Web Front End Essentials, topics like CSS Flexbox (Flexible Box) and jquery deferred and promise need to added
  - 21CA1913 – Communication and soft skill laboratory , Email etiquette can be taught to the students
  - 21CA2101 – Programming with Java, Latest version can be used for laboratories so that the students can learn lambda features in java
  - 21CA2104 – Web Application Development Framework, Latest version can be used in Hibernate, MongoDB not needed
  - 21CA3102 – Mobile Application Development Kotlin can be incorporated to interoperate fully with Java, and the JVM version of Kotlin's standard library depends on the Java Class Library
  - 21CA3913 – Miniproject, Open source software Postman can be used to design, build, test and iterate the APIs

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- 21CA2205 - Real time Embedded System, Heat distribution can be taught to the students effectively
- 21CA2206 - Software Project Management topics like Risk management can be included
- 21CA3201 - Ecommerce and Business Intelligence, include Product Market Fit as an additional topic
- 21CA3204 - Adhoc and sensor networks, Error detection mechanism can be incorporated
- 21CA3210 - Enterprise Resource planning, Financial Management and Logistic management topics can be added
- 21CA2B01 - Database Management Systems, contents for FAT 32, NTFS can be added
- 21CA2B02 - Object Oriented Programming using C++, stopics like Solid Principles can be added

BoS / MCA 9.5: Any other items for discussion

The members had a brainstorming discussion, deliberation and interaction among themselves. After discussion, productive suggestions were incorporated appropriately in the 2021MCA Curriculum and Syllabi.

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

1. Incorporation of NPTEL courses, Credit distribution, CO - PO mapping, Course Outcomes, Weightage of syllabus
2. Incorporation of Value-Added courses, Credit distribution, CO - PO mapping, Course Outcomes; Weightage of syllabus

Mrs. D. Angeline Ranjithamani, AP & HOD thanked all the members for their kind cooperation and the meeting came to an end.

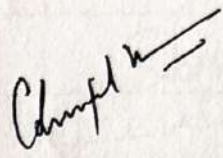
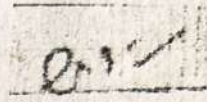
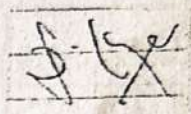

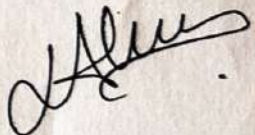
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*Angeline*  
12/16/2023

## Attendance Sheet

## External Members:

S. No.	Name	Signature
1	Dr. C. Senthil Kumar, Asso. Prof/CSE Thiyagarajar College of Engineering, Anna University Nominee	
2	Dr. E. Ilavarasan, Prof./CSE, Pondicherry Engineering College Other University Nominee	
3	Dr. D. Murugan, Prof./CSE Manonmaniam Sundaranar University Other University Nominee	
4	Mr. Prabagar Ramamurthy Head, Information Security Management, Tata Consultancy Services, Industry Expert	
5	Mr. Abishek Stephen Senior Backend Engineer, Turing, Palo Alto, California, USA Alumni Expert	



*Prabagar*  
12/6/2022

## Internal Members Present:

S. No.	Name of the Internal Members	Signature
1	Dr. Aravind Swaminathan, HOD/CSE	<i>[Signature]</i> 12/6/23
2	Mrs. D. Angeline Ranjithamani, AP & HOD/MCA	<i>[Signature]</i> 12/6/23
3	Mr. A. Arul Amalraj, AP / MCA	<i>[Signature]</i> 12/6/23
4	Mrs. G. Durgaveni, AP/MCA	<i>[Signature]</i> 12/6/23
5	Mrs. K. Dhamayanthi, AP/MCA	<i>[Signature]</i> 12/6/23
6	Mr. M. Esakkiraj, AP/MCA	<i>[Signature]</i> 12/6/23
7	Mrs. M. K. Subbulakshmi, AP/MCA	<i>[Signature]</i>
8	Mrs. Annie Rose Nirmala, HOD/MBA	<i>[Signature]</i> 12.6.23
9	Mr. A. Santiago Stephen, AP/MATHS	<i>[Signature]</i> 12/6/23
10	Mrs. Shala F John, AP/ENGLISH	<i>[Signature]</i> 12/6/23

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12/6/23



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12/06/2023  
CHAIRMAN  
BOARD OF STUDIES



## Annexure 1

Eighth Board of Studies Meeting Action Taken Report

The following are the suggestions given by the Members of the Board of Studies to incorporate in the curriculum and syllabi

## Suggestions

- The course outcomes for the laboratory courses can be redefined with higher order knowledge outcome
- Courses on Emerging technologies can be opted for completing NPTEL courses

## Action Taken

- Emerging technologies included in NPTEL

S.No	Recommendations from Expert Members	Amendments incorporated and approved by 8 <sup>th</sup> Academic Council meeting dated on 23.03.2023
1	<p><b>Outcome can be redefined:</b> Page No. 26</p> <p>Able to define the basic concepts of User Interface design HTML 5</p> <p>Able to demonstrate web pages using HTML and CSS.</p> <p>Able to perform the embedded dynamic scripting on client side Internet Programming</p> <p>Able to illustrate JavaScript to access and use web services for dynamic content using AJAX, JSON</p> <p>Able to demonstrate a dynamic web page using JQuery.</p>	<p><b>Updated :</b>Page No.28</p> <p>Summarize the concepts and architecture of the World Wide Web.</p> <p>Develop a basic website using HTML and Cascading StyleSheets.</p> <p>Write functions to embed dynamic scripting on client side Internet Programming</p> <p>Design rich client presentation using Bootstrap</p> <p>Develop jquery in dynamic web page.</p>
2	<p><b>Outcome can be redefined:</b>Page No. 28</p> <p>Able to demonstrate with the various skills of data structures and their applications.</p> <p>Able to perform the linear, nonlinear and tree data structures.</p> <p>Able to illustrate the operations of linear data structures-List, Stack and Queue</p> <p>Able to perform the various sorting techniques using quick and merge sort.</p> <p>Able to report the shortest path using the Djikstra algorithm.</p>	<p><b>Updated :</b>Page No. 31</p> <p>Demonstrate with the various skills of data structures and their applications.</p> <p>Summarize the linear, nonlinear and tree data structures.</p> <p>Identify the operations of linear data-List, Stack and Queue.</p> <p>Develop the sorting techniques.</p> <p>Solve the shortest path using the Djisktra algorithm.</p>
3	<p><b>Outcome can be redefined:</b>Page No.37</p> <p>Able to test server side programming.</p> <p>Able to perform PHP Basic syntax for variable types and calculations and creating conditional structures.</p> <p>Able to demonstrate the storing of data in arrays.</p> <p>Able to perform PHP built-in functions and custom functions.</p> <p>Able to report the creation of an application of their own</p>	<p><b>Updated :</b>Page No.40</p> <p>Write functions for server side programming.</p> <p>Build a solution for complex problem</p> <p>Solve storing of data in arrays.</p> <p>Construct PHP built-in functions and custom functions.</p> <p>Develop a PHP application</p>
4	<p><b>Outcome can be redefined:</b>Able to define programs using basic programming constructs.</p> <p>Able to demonstrate window based GUI applications using applets.</p> <p>Able to perform applications using collection</p>	<p><b>Updated :</b>Page No:59</p> <p>Write a program using basic programming constructs.</p> <p>Develop a java program with Java spring classes.</p> <p>Write a program with collection classes.</p>

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	<p>classes.</p> <p>Able to perform backend and front end technologies in appropriate application.</p> <p>Able to demonstrate features of advanced java in web development.</p>	<p>Build an application which performs CRUD operations.</p> <p>Demonstrate features of advanced java in web development.</p>
5	<p><b>Outcome can be redefined:</b>Page No:67</p> <p>Able to understand various architectures for IoT.</p> <p>Able to understand various protocols for IoT.</p> <p>Able to create a portable IoT using Raspberry Pi.</p> <p>Able to apply case studies in real world applications.</p> <p>Able to present a comparative study of the cloud architectures</p>	<p><b>Updated :</b>Page No:81</p> <p>To design an IoT simple platform with ARDUINO.</p> <p>To create a web server using NODE MCU and ESP Module.</p> <p>To design Web page and control Home Appliances through Wi-Fi.</p> <p>To write a program using Node MCU to read and update sensor data over cloud.</p> <p>To create a twitter app on thingspeak.</p>
6	<p><b>Outcome can be redefined:</b>Page No:83</p> <p>Able to understand the installation and configuration of Android application development tools.</p> <p>Able to design and develop user Interfaces for the Android platform.</p> <p>Able to apply Java programming concepts to Android application development.</p> <p>Able to implement new technologies and business trends impacting mobile applications.</p> <p>Able to differentiate the characterization and architecture of mobile applications.</p>	<p><b>Updated :</b>Page No:84</p> <p>Understand the installation and configuration of Android application development tools.</p> <p>Design and develop user Interfaces for the Android platform.</p> <p>Apply Java programming concepts to Android application development.</p> <p>Implement new technologies and business trends impacting mobile applications.</p> <p>Differentiate the characterization and architecture of mobile applications.</p>



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12/16/2024

S. No	Course Code	List of Value Added Courses						
		Course Name	Category	Contact Periods	L	T	P	C
<b>Practical Courses</b>								
1	21CA1V01	JavaScript for Web Development	VA	2	0	0	2	1
2	21CA1V02	Automation Testing tools	VA	2	0	0	2	1
3	21CA1V03	Cloud Platforms	VA	2	0	0	2	1
4	21CA2V01	MVC Framework	VA	2	0	0	4	2
5	21CA2V02	Data Analytic Tools	VA	2	0	0	4	2
6	21CA2V03	Intelligent Systems and Data Analysis	VA	2	0	0	4	2
7	21CA3V01	Node.js and Express.js Essentials	VA	2	0	0	2	1
8	21CA3V02	Angular for Modern Web Development	VA	2	0	0	2	1
9	21CA3V03	Cross-Platform Mobile Development with React Native	VA	2	0	0	2	1

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*Angela*  
12/16/2024

## Annexure III

## Newly Added NPTEL Courses

S.NO	COURSE CODE	COURSE NAME	NO. OF WEEKS
1	noc23-cs117	Introduction To Game Theory And Mechanism Design	12 weeks
2	noc23-cs127	Cyber Security and Privacy	12 weeks
3	noc23-cs99	Python For Data Science	12 weeks

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*Angela*  
12/16/2024