Board of Studies Meeting

Department of Computer Science

The minutes of the 16th meeting of Board of Studies held on 16.10.2023 at 10.30 a.m. at A1 - 402.

Members Present:

S. No.	Name	Category
1	Dr. B. Rosiline Jeetha	Chairman
2	Dr. D. Ramya Chitra,	Subject Expert
3	Dr. Chandra Blessie E	Subject Expert
4	Dr. Radhika N	Subject Expert
5	Ms. P. Dhanya, III B.Sc. CS 'A'	Student Member
6	Dr. N. Kuppusamy, Dept. of Tamil	Co-Opted Member
7	Dr. R. Vidhya Prabha, Dept. of English	Co-Opted Member
8	Dr. R. Sowrirajan, Dept. of Mathematics	Co-Opted Member
9	Dr. V. Shobana, HoD, Dept of CS with Cyber Security	Member
10	Dr. Angeline Prasanna G, Professor	Member
11	Dr. M. Sangeetha, Professor	Member
12	Mr. V.S. Jagadeeswarn, Assistant Professor (SG)	Member
13	Mr. N. Kumar, Assistant Professor (SG)	Member
14	Mrs. S. Revahi, Assistant Professor (SG)	Member
15	Dr. P. Usha, Assistant Professor (SG)	Member
16	Dr. R. Kalaivani, Assistant Professor	Member
17	Dr. S. Saranya, Assistant Professor	Member
18	Ms. V. Bakyalakshmi, Assistant Professor	Member
19	Mrs. S. R. Kalaiselvi, Assistant Professor	Member
20	Dr. R. Kavitha, Assistant Professor	Member
21	Mrs. V. Revathi, Assistant Professor	Member
22	Mrs. A. Vinitha, Assistant Professor	Member

The HoD and Chairman of the department of Computer Science welcomed and introduced all the members and appreciated them for their continuous support, contribution for the development of academic standard and enrichment of the syllabus.

Further Chairman informed the inability of the following member/s to attend the meeting and requested to grant leave of absence.

1. Mr. Kousik Rajendran (Industrial Expert)
2. Ms. V. Divya Bharathi (Alumni)
3. Ms. S. Leena Sylviya II M.Sc. CS (Student Member)

The items of the agenda were taken one by one for discussion and the following resolutions were passed.

Item 16.1

To review and approve the minutes of the previous meeting held on 10.06.2023.

The chairman of the Board presented the minutes of the previous meeting held on 10.06.2023 and requested the members to approve. After brief discussion the following resolution was passed

Resolution:

Resolved to approve the minutes of the 15th BoS Meeting held on 10.06.2023.

Item 16.2:

To consider and approve the curriculum and syllabi for Part III - Core Courses for IV semester for the UG students admitted during the academic year 2022-2023.

The Chairman presented the detailed syllabus for the IV semester for the students admitted from the academic year 2022-2023 onwards. The details of changes made also presented as follows.

Changes Made:

Course	Code	Reason
-	-	-

New Courses Introduced:

Course	Code	Reason
Linux	224CS2A4SP	To get practical knowledge in open source operating system.
Theory of Computation	224CS1A4CB	To know the logic of computation with respect to simple machines.
Computer Network	224CT1A4CA	To enhance the knowledge about Networking
Python Programming	224CA1A4EP	To enhance knowledge according to the current requirement in companies

Courses Removed

Course	Code	Reason
-	-	-

Resolution:

Resolved to approve the curriculum and syllabi for Part III - Core Courses for IV semester for the UG students admitted during the academic year 2022-2023

Item 16.3:

To consider and approve the syllabus for Inter Disciplinary Course (IDC) offered to other departments

IDC Offered

Course	Code	Department
Python for Biologists	234CS1A4EB	Biochemistry
Python for Biologists	234CS1A2IB	Biotechnology
Smart Banking Technologies	224CS1A2IC	Commerce CA

Resolution:

Resolved to approve the syllabus for Part III- Inter Disciplinary Course (IDC) offered to other departments

Item 16.4:

To consider and approve the curriculum and syllabi for Part III - Core Courses for II semester for the changes made in the course code, CIA and ESE Mark for UG students admitted during the academic year 2023-2024.

Resolution:

Resolved to approve the curriculum and syllabi for Part III - Core Courses for II semester for the changes made in the course code, CIA and ESE Mark for UG students admitted during the academic year 2023-2024.

Item 16.5:

To consider and approve the curriculum and syllabi for the Project work for IV semester for the PG students admitted during the academic year 2022-2023.

Resolution:

Resolved to approve the curriculum and syllabi for the Project work for IV semester for the PG students admitted during the academic year 2022-2023.

Item 16.6:

To consider and approve the curriculum and syllabi for Part III - Core Courses for II semester for the changes made in the course code, CIA and ESE Mark for PG students admitted during the academic year 2023-2024.

Resolution:

Resolved to the curriculum and syllabi for Part III - Core Courses for II semester for the changes made in the course code, CIA and ESE Mark for PG students admitted during the academic year 2023-2024.

Item 16.7:

To consider and approve the curriculum and syllabi of B. Sc. Computer Science with Cyber Security for Part III - Core Courses for second semester UG - 2023-2026 Batch.

Resolution:

Resolved to approve the curriculum and syllabi of B. Sc. Computer Science with Cyber Security for Part III - Core Courses for second semester UG - 2023-2026 Batch

Item 16.8:

To consider and approve the panel of examiners for question paper setting and evaluation of answer scripts for the even semester of the academic year 2023-2024.

The Chairman presented the panel of examiners for question paper setting and evaluation of answer scripts for the even semester of the academic year 2023-2024.

Resolution:

Resolved to approve the panel of examiners for question paper setting and evaluation of answer scripts for the even semester of the academic year 2023-2024

Item 16.9:

To consider and approve any other item brought forward by the Chairman and the members of the board.

No other item was brought forward.

Finally the Chairman thanked all the members for their cooperation and contribution in enriching the syllabus with active participation in the meeting and sought the same spirit in the future also. The meeting was closed with formal vote of thanks proposed by Dr. G. Angeline Prasanna.

Date: 16.10.2023

(Dr. B. Rosiline Jeetha)

BoS Chairman/HoD
Department of Computer Science
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048

Syllabus Revision-New Course

Faculty: Computer Science **Board: Computer Science** **Semester: IV**

Course Code / Name: 224CS1A4CB – THEORY OF COMPUTATION

Unit	Course Content
I	Mathematical Notation and Techniques Basic Mathematical Notation and Techniques : Formal Proofs – Deductive Proof -If-Then statements – Additional Forms of Proof – Inductive Proof – Problem in Induction– Basic Definitions – Equivalence of NDFA and DFA – Equivalence of NDFAs with and without E-moves
II	Regular Expression and Languages Regular Languages – Regular Expressions- Equivalence of Finite Automaton and Regular Expressions: Conversion of Finite Automata (DFA) to Regular Expressions - Conversion of Conversion of Finite Automata (DFA) to Regular Expressions to Finite Automata (DFA) - Regular Expressions – Pumping Lemma for Regular Sets – Problems based on Pumping Lemme – Closure Properties of Regular Languages – Minimization of DFA
III	Context Free Grammar and Languages Types of Grammar – Context-Free Grammars and Languages : Context Free Grammar – Derivations and Languages – Ambiguity : Ambiguity in Grammars and Languages – Unambiguous Grammar – Relationship between Derivation and Derivation Trees – Normal Forms : Chomsky Normal Form – Greibach Normal Form – Problems Related to CNF and GNF .
IV	Pushdown Automata Introduction : Definition of Pushdown Automata – Graphical Notation of Pushdown Automata – Moves – Instantaneous Descriptions of Pushdown Automata – Languages of Pushdown Automata – Equivalence of Pushdown Automata and CFGs – Types of Pushdown Automata :Deterministic Pushdown Automata (DPDA) – Non Deterministic Pushdown Automata (NDPDA).
V	Turing Machine Introduction – Computable Languages and Functions – Techniques for Turing Machine Construction – Multi Head and Multi-Tape Turing Machines - Non Deterministic Turing Machine – The Halting Problem – Partial Solvability – Problems about Turing Machines – Chomskian Hierarchy of Languages- Recursive and Recursively Enumerable Languages – Universal Turing Machine.

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FOCUSES ON:

☑	Skill Development	☑	Entrepreneurial Development
☑	Employability	☑	Innovations
☑	Intellectual Property Rights	☐	Gender Sensitization
☐	Social Awareness/ Environment	☐	Constitutional Rights/ Human Values/ Ethics

Syllabus Revision-New Course

Faculty: Computer Science **Board: Computer Science** **Semester: IV**

Course Code / Name: 224CS2A4SP– Linux

P. No.	List
1	Perform Directory Operations
2	Perform File Operations
3	Create a file and to append data using cat command.
4	Create a directory and changing the timestamp of a file or directory.
5	Create nested directories and multiple directories.
6	Perform various operations such as copying file, directory, moving a file, moving a directory and deleting directory.
7	Create user with default and customized properties.
8	Create a new partitions and delete partitions.
9	Create a label with swap partition and Visualize it.
10	Package management system using Redhat package manager.
11	Make a script file.
12	Update the partition information in the kernel.

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FOCUSES ON:

✓	Skill Development	✓	Entrepreneurial Development
✓	Employability	✓	Innovations
✓	Intellectual Property Rights		Gender Sensitization
	Social Awareness/ Environment		Constitutional Rights/ Human Values/ Ethics

Syllabus Revision-New Course

Faculty: Computer Science **Board: Computer Science** **Semester: IV**

Course Code / Name: 224CS1A4EP – PYTHON FOR BIOLOGIST

Unit	Course Content
I	Introduction to Digital Computer, Introduction to Python Introduction to Digital Computer: Von Neumann concept - Storage - Programming Languages - Translators - Problem Solving Strategies: Problem Analysis - Algorithms - Flow Charts - Introduction to Python: Introduction- Python overview– Comments – Python Identifiers – Reserved keywords – Variables – Standard data types – Operators - Statements and Expressions - String Operations -Boolean Expressions- 1. Create a python program to implement the different Operators. 2. Write a python program to implement Branching and Looping
II	Control Statements, Functions Control Statements: Iteration - The for loop – While statement – if elif else statement – Input from keyboard Functions: Introduction – Built-in functions –Composition of Functions - Type conversion – Type coercion – Date and time – dir() function – help() function – User defined functions – Parameters & arguments – Function calls – The return statement – Python recursive function - Writing Python Scripts 3. Create a python program to find the Perfect Number. 4. Create a python program for User Defined functions.
III	Strings and Lists Types of Grammar – Context-Free Grammars and Languages : Context Free Grammar – Derivations and Strings: Compound data type – len function – String slices – String traversal – Escape characters – String formatting operator – String formatting functions. Lists – Values and accessing elements – Traversing a list – Deletingelements from list – Built-in list operators – Built-in list methods. 5. Write a Python program to implement String Operations. 6. Create a python program to implement various String Functions
IV	Tuples and Dictionaries Tuples: Creating tuples–Accessing values in tuples-Tuple assignment–Tuples as return values–Basic tuple operations–Built-in tuple functions-Dictionaries: Creating dictionary–Accessing values in a dictionary – Updating dictionary – Deleting elements from dictionary – Operations in dictionary – Built-in dictionary methods. 7. Create a python program to implement various operations on Tuples. 8. Create a python program to print Employee details using Dictionaries.
V	Introduction to Biopython Biopython Installation-Biopython Components: Alphabet-Seq-MutableSeq-SeqRecord-Align-AlignIO-ClustalW-SeqIO-AlignIO-BLAST-Biological Related Data-Entrez-PDB-PROSITE-SeqUtils-Sequencing. 9. Write a python program to implement Biopython components 10.Write a python program to implement shape

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FOCUSES ON:

☑	Skill Development	☑	Entrepreneurial Development
☑	Employability	☑	Innovations
☑	Intellectual Property Rights	☐	Gender Sensitization
☐	Social Awareness/ Environment	☐	Constitutional Rights/ Human Values/ Ethics

Dr. N.G.P. ARTS AND SCIENCE COLLEGE

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DEPARTMENT OF COMPUTER SCIENCE
SIXTEENTH BOARD OF STUDIES MEETING

VENUE: A1 - 402 **DATE: 16.10.2023** **TIME: 10.30 a.m.**

The following members were present for the Board of Studies Meeting

S. NO.	NAME	POSITION	SIGNATURE
1	Dr. B. Rosiline Jeetha	Chairman	
2	Dr. D. Ramya Chitra, Associate Professor, Dept. of Computer Science, Bharathiar University, Coimbatore-641046.	Member (Subject Expert) (Nominated by Vice Chancellor)	16/10/23
3	Dr. Chandra Blessie E, Assistant Professor, Department of Artificial Intelligence and Machine Learning, Coimbatore Institute of Technology, Coimbatore - 641046.	Member (Subject Expert) (Nominated by Academic Council)	16/10/23
4	Dr. Radhika N Professor School of Computing Amrita Vishwa Vidyapeetham Coimbatore – 641112.	Member (Subject Expert) (Nominated by Academic Council)	16/10/23 (Dr. N. Radhika)
5	Mr. Kousik Rajendran, 1D, Mist Block, Mount Raindrop Apartment, Nehru Nagar West, Kalapatti, Coimbatore-641048.	Member (Industrial Expert)	ABSENT
6	Ms. V. Divya Bharathi Transaction Risk Investigator, Amazon, Bangalore	Alumni	ABSENT

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7	Ms. P. Dhanya, III B.Sc. CS 'A'	Student Member	
8	Ms. S. Leena Sylviya, II M.Sc. CS	Student Member	ABSENT
9	**Part I (Two Semester Language)** Dr. N. Kuppusamy, Dept. of Tamil	Co-Opted Member	
	Part II (Two Semester Language) Dr. R. Vidhya Prabha, Dept. of English		
	IDC Dr. R. Sowrirajan, Dept. of Mathematics		
10	Dr. V. Shobana, HoD, Dept. of CS with cyber Security	Member	
11	Dr. Angeline Prasanna G, Professor	Member	
12	Dr. M. Sangeetha, Professor	Member	
13	Mr. V.S. Jagadeeswarn, Assistant Professor (SG)	Member	
14	Mr. N. Kumar, Assistant Professor (SG)	Member	
15	Mrs. S. Revahi, Assistant Professor (SG)	Member	
16	Dr. P. Usha, Assistant Professor (SG)	Member	
17	Dr. R. Kalaivani, Assistant Professor	Member	
18	Dr. S. Saranya, Assistant Professor	Member	
19	Ms. V. Bakyalakshmi, Assistant Professor	Member	
20	Mrs. S. R. Kalaiselvi, Assistant Professor	Member	
21	Dr. R. Kavitha, Assistant Professor	Member	
22	Mrs. V. Revathi, Assistant Professor	Member	
23	Mrs. A. Vinitha, Assistant Professor, Dept. of CS with cyber Security	Member	

BoS Chairman/HoD
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Academic Council
CHAIRMAN
Dr.N.G.P. Arts and Science College