



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

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
(Approved by Government of Tamil Nadu & Accredited by NAAC with A++ Grade (3rd Cycle - 3.64 CGPA)
Dr. N.G.P. - Kalapatti Road, Coimbatore - 641 048, Tamil Nadu, India
Web : www.drngpsc.ac.in | Email : info@drngpsc.ac.in | Phone : +91-422-2369100

BoS

14th

MINUTES OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

Board: Computer Applications

The Meeting of Board of Studies (BoS) was held as given below:

Name of the Body	Board of Studies (BoS)
Department	Computer Applications
Meeting No.	14
Date and Time	02.12.2022 @ 10.00 a.m.
Venue	Hall No: C1 – Block 417
Members Attended	The details are given in the ANNEXURE -I

AGENDA

1	Discussion on syllabi for Part III- Core Courses for II semester UG 2022-23 Batch and onwards.
2	Discussion on syllabus for Part III - Inter disciplinary Course (IDC) offered by Mathematics department.
3	Discussion on syllabus for Part III - Inter disciplinary Course (IDC) offered to Commerce- Accounting and Taxation department.
4	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for II Semester UG for 2022-23 Batch and onwards.
5	Discussion on Part II (English) offered by English department for II Semester UG for 2022-23 Batch and onwards.
6	Discussion on Part IV (AECC) Basic Tamil/Advance Tamil/Human Rights and Women's Rights for II Semester UG for 2022-23 Batch and onwards.
7	Discussion on credits to Part V Extension Activity for II Semester UG 2022-23 Batch and onwards.
8	Discussion on Value Added Certificate Courses (VACC) for UG 2021-22 batch and onwards.
9	Any other matters





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BoS

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MINUTES OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

Board: Computer Applications

The Chairman of BoS welcomed all the Panel members for the meeting. The items listed in the agenda were taken for discussion.

The following are the minutes of the meeting:

Item-01	Discussion on syllabi for Part III- Core Courses for II semester UG 2022-23 Batch and onwards.
Discussion	224CA1A2CA -Core: Data Structures <ul style="list-style-type: none">• Dr. Amudha suggested to include application for Trees and Graph in unit-4. 224CS1A2CA- Core: Object oriented Programming with C++ <ul style="list-style-type: none">• The unified syllabus approved by Board of Studies in Computer Science was placed for endorsement. 224CA1A2CP- Core Practical: Data Structures and C++ <ul style="list-style-type: none">• Dr.Kalpana suggested to include Trees and Graph Traversal in Data Structures.
Resolution	The Board approved the syllabi for the above courses.
Item - 02	Discussion on syllabus for Part III - Inter disciplinary Course (IDC) offered by Mathematics department.
Discussion	222MT1A2IC-IDC:Discrete Mathematics <ul style="list-style-type: none">• The unified syllabus approved by Board of Studies in Mathematics was placed for endorsement.
Resolution	The Board approved the syllabus.
Item - 03	Discussion on syllabus for Part III - Inter disciplinary Course (IDC) offered to Commerce - Accounting and Taxation department.
Discussion	224CA1A2IA:Enterprise Resource Planning <ul style="list-style-type: none">• Dr. Amudha suggested to include domain specific case studies in unit 3, 4 and 5.
Resolution	The Board approved the syllabus.
Item -04	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for II Semester UG for 2022-23 Batch and onwards.

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Discussion	<p>221TL1A2TA - Tamil-II: Arallakkiyam</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. <p>221TL1A2HA - Hindi-II -Modern Literature</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. <p>221TL1A2FA-French-II-Grammar, Translation And Civilization</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. <p>221TL1A2MA - Malayalam – II -Modern Literature respectively</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement.
Resolution	The Board unanimously approved the syllabi
Item -05	Discussion on Part II (English) offered by English Department for II Semester UG for 2022-23 Batch and onwards
Discussion	<p>221EL1A2EA : Professional English II</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in English was placed for endorsement.
Resolution	The Board approved the same.
Item -06	Discussion on Part IV (AECC:II)Basic Tamil/Advanced Tamil/Human Rights and Women's Rights for 2022-23 Batch and onwards
Discussion	<p>221TLIA2AA :Basic Tamil</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. <p>221TLIA2AB: Advanced Tamil</p> <ul style="list-style-type: none">The unified syllabus approved by the Board of Studies in Languages was placed for endorsement. <p>225CR1A2AA:Human Rights and Women's Rights</p> <ul style="list-style-type: none">The unified syllabus was approved by the Board of Studies in Commerce with Corporate Secretaryship was placed for endorsement.
Resolution	The Board approved the syllabi of above courses

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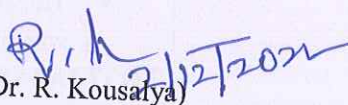
BoS

14th

Item-07	Discussion on credits to Part V Extension Activity for II Semester UG 2022-23 Batch and onwards.
Discussion	<ul style="list-style-type: none">One credit to be awarded for participation in Extension Activity like NSS/NCC/YRC/RRC/ Yoga/Sports/Clubs.
Resolution	The Board approved awarding one credit for extension activity.
Item-08	Discussion on Value Added Certificate Courses (VACC) for 2021-22 batch and onwards.
Discussion	<ul style="list-style-type: none">The course titled "Software Testing" to be offered by Department of Computer Applications for 2021-22 batch was discussed.
Resolution	The Board approved the same.
Item -09	Any other matters
Discussion	<ul style="list-style-type: none">The board members discussed and recommended the Panel of Examiners
Resolution	The Board approved the same

The Chairman of Board of Studies (BoS) thanked all the members for their active participation and providing their valuable suggestions.

Date: 02.12.2022


(Dr. R. Kousalya)

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





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BoS

14th

Syllabus Revision

Faculty: Computer Science

Board: Computer Applications

Semester: II

Course Code / Name: 224CA1A2CA/ Data Structures

Unit	Course Content
I	Introduction: Basic Terminology -Classification of Data Structures -Operations on Data Structures- Abstract Data Type-Algorithms-Time and Space Complexity -Big O Notation-Omega Notation (Ω) -Theta Notation (Θ). Arrays: Declaration of Arrays-Accessing the elements of an array-Storing values in Arrays- Operations on Arrays. Applications of Arrays: Sparse Matrices
II	Stacks: Array Representation of Stacks- Operations on a Stack-Linked Representation of Stacks - Applications of Stacks: Evaluation of Arithmetic Expression -Recursion. Queues: Array Representation of Queues - Operations on Queues -Linked Representation of Queues - Circular Queues -Applications of Queues: JOB Scheduling
III	Singly Linked Lists: Inserting a node in a Linked List- Deleting a node from a Linked List. Circular Linked Lists: Inserting a node in a Circular Linked List - Deleting a node from a Circular Linked List. Doubly Linked Lists: Inserting a node in a Doubly Linked List - Deleting a node from a Doubly Linked List. Applications of Linked Lists: Polynomial Addition
IV	Trees: Binary Trees – Representation of Binary Trees -Creating a Binary Tree - Traversing a Binary Tree- Binary Search Tree and its Operations - Threaded Binary Trees. Applications of Tree: Expression Trees. Graphs: Graph Terminology - Representation of Graphs - Graph Traversal Algorithms -Applications of Graphs: Shortest Path Algorithm - Dijkstra's Algorithm -Minimum Spanning Trees - Prim's Algorithm
V	Searching: Linear search -Binary Search. Sorting: Bubble Sort - Insertion Sort - Selection Sort – Quick Sort-Merge Sort -Heap Sort. Hashing and Collision: Hash Tables - Hash Functions - Collision. Applications of Hashing: Keyword Table in a Compiler

PERCENTAGE OF SYLLABUS REVISED: 36%

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
<input type="checkbox"/>	Social Awareness/ Environment	<input type="checkbox"/>	Constitutional Rights/ Human Values/ Ethics





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Syllabus Revision

Faculty: Computer Science

Board: Computer Applications

Semester: II

Course Code / Name: 224CS1A2CA / Object Oriented Programming with C++

Unit	Course Content
I	Introduction - Programming Paradigms - Key concepts of Object-Oriented Programming - Applications of Object-Oriented Programming - Variable, Value and Constant - Components of a C++ Program - Data Types - Expressions - Type Conversion - Order of Evaluation - Formatting Data: Manipulators in Input/Output- Branching and Looping
II	User-Defined Types: Classes-Class Definition-Member function- Access Modifiers- Inline function- Constructors and Destructors- Instance Members: Instance Data Members-Instance Member Functions - Static Members - Arrays: One-Dimensional Arrays - Multidimensional Arrays. Case Study: Wave Array
III	References - Pointers - Pointer Types and Pointer variables - Constant Modifiers - Pointer to Pointer- Arrays and Pointers - Strings: C ++ String Class -C++ String Library - Inheritance: Private, Public and Protected Inheritance - Association - Dependency
IV	Polymorphism- Binding- Abstract Class : Pure Virtual Functions - Multiple Inheritance - Overloading Principles - Overloading as Member- Nonmember: Friend function-Exception Handling : Approach- Exceptions in Classes - Standard Exception Classes - Templates: Function Template - Class Template
V	Input and Output stream - Stream Classes - Console Streams - Console Objects - Stream State - File Streams - File I/O - Opening Modes - Sequential Vs Random Access - String Streams - Formatting Data: Direct use of Flags, Fields and Variables - Predefined Manipulators-Standard Template Library: Iterators, Sequence Containers, Container Adapters.

PERCENTAGE OF SYLLABUS REVISED: 100 %

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
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Syllabus Revision

Faculty: Computer Science

Board: Computer Applications

Semester: II

Course Code / Name: 224CA1A2CP / Core Practical-II: Data Structures and C++

S. No.	List of Programs
1	Program to demonstrate the operations of Stack
2	Program to implement the operations of Queue.
3	Program to illustrate Linear and Binary Search
4	Program to implement Bubble sort and Quick sort
5	Program to design Singly Linked List
6	Program to illustrate Trees and Graph Traversal
7	Program to implement Classes and Objects
8	Program to demonstrate Method overloading
9	Program to analyze Constructors and Destructors
10	Program to implement Inheritance
11	Program to apply Virtual functions
12	Program to demonstrate Exception Handling

PERCENTAGE OF SYLLABUS REVISED: 100%

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input type="checkbox"/>	Innovations
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Syllabus Revision

Faculty: Computer Science

Board: Computer Applications

Semester: II

Course Code/ Name: 222MT1A2IC / Discrete Mathematics

Unit	Course Content
I	Introduction - set and its elements - set description - types - Venn-Euler Diagrams - set operations and laws of set theory - fundamental products - index and indexed sets - partitions of sets - minsets - countable and uncountable sets - Algebra of sets and duality - computer representation - the inclusion and exclusion principle- Fuzzy sets
II	Relations: Introduction - cartesian product of sets - binary relations – set operations on relations - types– partial order relations – equivalence relation and classes-Functions: Introduction - types – invertible functions - composition of functions.
III	Introduction - propositional calculus – basic logical operations - statements generated by a set - conditional statements -converse, inverse and contrapositive statements - biconditional - tautologies - contradiction - contingency - argument - methods of proof - equivalence and implication - predicate calculus-quantifiers
IV	Introduction - paths, cycles and connectivity - subgraphs - types - isomorphic and homeomorphic graphs - representation of graphs in computer memory- Eulerian and Hamiltonion graphs-cartesian product- shortest path. Trees: Introduction - binary trees - complete binary tree - tree of an Algebraic expression - traversing binary trees.
V	Introduction - language: the set theory of strings - languages – regular expressions and regular languages – grammar – finite state machine – finite state automata.

PERCENTAGE OF SYLLABUS REVISED: 20%

COURSE FOCUSES ON:

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Syllabus Revision

Faculty: Computer Science

Board : Computer Applications

Semester: II

Course Code / Name: 224CA1A2IA - Enterprise Resource Planning

Unit	Course Content
I	Introduction- History and Evolution of ERP – Meaning – Need of ERP – Characteristics of ERP – Scope of ERP – ERP System and Software – Reasons for Growth of ERP- Advantages of ERP – Importance- Business value of ERP – Functions of ERP.
II	ERP related Technologies to business: Introduction - Business Process Reengineering (BPR) - Data warehousing – Data mining - Product Life Cycle Management (PLCM).
III	ERP Modules: Functional modules of ERP software- Financial Module- Manufacturing (Production) module - Human Resource Management Module -Materials Management Module - Production Planning Module - Plant Maintenance Module - Purchasing Module - Marketing Module- Sales, Distribution and Service Module. Case Study: ERP are indexed by Vendor and Industry.
IV	ERP Implementation life cycle: Introduction - Objectives of ERP Implementation -Different Phases of ERP Implementation life cycle - Success and Failure factors of ERP implementation - Operations and maintenance of ERP. Case Study: Factors for Success in ERP System Implementations.
V	SAP –Evolution of SAP - Introduction To ERP - Modules - Architecture - GUI Installation-Net Weaver- Logging onto SAP System- GUI Customization - End-User Customization- GUI Navigation- Programming Language (ABAP) - SAP Security - SAP Basis - Transaction Codes – SAP Project Life cycle- Career In SAP. Case Study: SAP ERP.

PERCENTAGE OF SYLLABUS REVISED: 100%

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
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ATTENDANCE OF THE FOURTEENTH BOARD OF STUDIES MEETING

Faculty: Computer Science

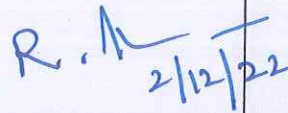
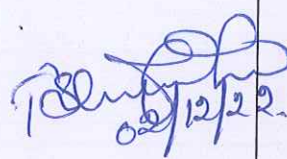
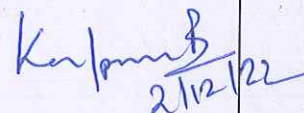

Board: Computer Applications

Date : 02.12.2022

Time: 10.00 a.m.

Venue: C1 – Block 417

The following members were present for the meeting

S.No	Name	Designation	Signature *
1	Dr.R.Kousalya Head/ Professor Department of Computer Applications Dr.N.G.P Arts and Science College Coimbatore - 48.	Chairman	 2/12/22
2	Dr.T.Amudha Associate Professor Department of Computer Applications Bharathiar University Coimbatore-641046.	VC Nominee	 02/12/22
3	Dr.B.Kalpana, Professor, Department of Computer Science School of Physical Sciences and Computational Sciences Avinashilingam Institute for Home Science and Higher Education for Women Coimbatore- 641043	Subject Expert	 2/12/22
4	Mr.Vignesh Kumar Senior Software Engineer Bosch Global Software Technologies Coimbatore	Industry Expert	ABSENT
5	Mr.S.Eswaran Implementation Consultant in Aosta Control-m Scheduler and Administration Coimbatore	Alumni Expert	ABSENT
6	Dr.R. Sowrirajan Head and Assistant Professor Department of Mathematics Dr.N.G.P. Arts and science college	Co-opted member	

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7	Dr.C.Kumuthini Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>C. Kumuthini</i> 2/12/22
8	Dr D.DeviAruna Associate Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>D. Devi Aruna</i> 2/12/22
9	Mrs.K. Gomathy Assistant Professor(SG) Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>K. Gomathy</i> 2/12/22
10	Mr P.Dinesh Kumar Assistant Professor(SG) Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>P. Dinesh Kumar</i> 2/12/22
11	Dr B.Ramya Assistant Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>B. Ramya</i> 2/12/22
12	Mr.S.PooranaSenthilkumar Assistant Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>S. Poorana Senthilkumar</i> 2/12/2022
13	Dr K.Kavitha Assistant Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>K. Kavitha</i> 2/12/2022
14	Mr V.Yuvaraj Assistant Professor Department of Computer Applications Dr.N.G.P. Arts and science college	Internal Member	<i>V. Yuvaraj</i> 2/12/22
15	R. Monisha III BCA Department of Computer Applications Dr.N.G.P. Arts and science college	Student Representative	<i>R. Monisha</i> 02/12/22

DATE: 02.12.2022



R. Kousalya
2/12/2022
(Dr. R. KOUSALYA)
BoS Chairman/HoD
Department of Computer Applications
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