



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

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)

Approved by Government of Tamil Nadu and Accredited by NAAC A++ Grade (3rd Cycle- 3.64 CGPA)

Dr. N.G.P.-Kalapatti Road, Coimbatore-641048, Tamil Nadu, India

Web: www.dngpasc.ac.in | Email: info@dngpasc.ac.in | Phone: +91-422-2369100

BoS

5th

Department of Artificial Intelligence and Machine Learning

Board of Studies Meeting

The minutes of the 5th meeting of Board of Studies held on 04.04.2024 at 10.00 a.m. at C1 Block-401.

Members Present:

S. No.	Name	Category
1	Dr. S. Saranya	Chairman
2	Dr. M. Punithavalli, Professor, Bharathiar University, Coimbatore	University Nominee
3	Dr. C. Kavitha, Assistant Professor, PSG College of Technology, Coimbatore	Subject Expert
4	Dr. J. J. Adri Jovin, Associate Professor, Sri Ramakrishna Institute of Technology, Coimbatore	Subject Expert
5	Dr. N. Sathya	Member
6	Mrs. P. Shanthi	Member
7	Ms. J. Vinitha	Member
8	Mrs. T. Hashni	Member
9	Dr. N. Kuppuchamy, Dept. of Tamil	Co-Opted Member
10	Dr. A. Hazel Verbina, Dept. of English	Co-Opted Member
11	Dr. R. Sowrirajan, Dept. of Mathematics	Co-Opted Member
12	Ms. J. Sandra, II B.Sc. AI&ML	Student Representative

The HoD and Chairman of the Department of Artificial Intelligence and Machine Learning welcomed and introduced all the board members and appreciated them for their continuous support and contribution for the development of academic standard and enrichment of the syllabus.

Further, the Chairman informed the inability of the following members to attend the meeting and requested to grant leave of absence.

1. Mr. K. Anandakumar (Industrial Expert)

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

Item 5.1: To review and approve the minutes of the previous meeting held on 18.10.2023.

The chairman of the Board presented previous meeting held on 18.10.2023 and requested the members to approve. After brief discussion, the following resolution was passed.

Resolution:

Resolved to approve the minutes of the previous meeting held on 18.10.2023.

Item 5.2: To consider and approve the scheme, regulation and syllabi for I Semester for the students admitted during the academic year 2024-2025.

The Chairman presented the detailed Scheme and Regulation for the students admitted during the academic year 2024-2025 and syllabi for the I semester. The members deliberated in detail about the modification required. After discussion it is unanimously decided to adopt the following changes in the scheme.

New Courses Introduced:

Course Code	Course	Changes and Reason
24CYU1CA	Digital Logic Design	To upgrade the syllabus to include design principles and analyzing complex computer architectures

Changes Made:

Course Code	Course	Changes and Reason
-	Nil	-

Courses Removed:

Course Code	Course	Changes and Reason
-	Nil	-

After discussion the following resolution was passed.

Resolution:

Resolved to approve the above modification and adopt the revised scheme and syllabus for students admitted for the academic year 2024-2025.

Item 5.3: To consider and approve the syllabi for III Semester for the students admitted during the academic year 2023-2024.

The Chairman presented the detailed syllabi for III semester to the students admitted for the academic year 2023-2024. The members deliberated in detail and unanimously decided to adopt the existing syllabi of 2022-2023 batch without any changes.

New Courses Introduced:

Course Code	Course	Changes and Reason
-	Nil	-

Changes Made:

Course Code	Course	Changes and Reason
-	Nil	-

Courses Removed:

Course Code	Course	Changes and Reason
-	Nil	-

After discussion the following resolution was passed.

Resolution:

Resolved to approve the existing syllabus of 2022-2023 batch without any modification for the students admitted during the academic year 2023-2024.

Item 5.4: To consider and approve the syllabi for V Semester for the students admitted during the academic year 2022-2023.

The Chairman presented the detailed Scheme and Regulation for the students admitted during the academic year 2022-2023 and syllabus for the V semester. The members deliberated in detail about the modification required. After discussion it is unanimously decided to adopt the following changes.

New Courses Introduced:

Course Code	Course	Changes and Reason
-	Nil	-

Changes Made:

Course Code	Course	Changes and Reason
224AI1A5DB	Cloud Computing Services	Case study on cloud services included in Unit V as per the suggestions of Dr. J. J. Adri Jovin
224AI1A5DC	Software Engineering Principles	Software Testing Tools included in Unit IV as per the suggestions of Dr. M. Punithavalli

Courses Removed: Nil

Course Code	Course	Changes and Reason
-	-	-

After discussion the following resolution was passed.

Resolution:

Resolved to approve the above modification and adopt the revised syllabus for students admitted for the academic year 2022-2023.

Item 5.5: To approve the panel of examiners for question paper setting, question paper scrutiny, conduct of practical and theory examinations, evaluation of answer scripts for the odd semester

of the academic year 2024-25.

The Chairman presented the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester of the academic year 2024-2025.

Resolution:

Resolved to approve the panel of examiners for question paper setting and evaluation of answer scripts for the odd semester of the academic year 2024-2025.

Item 5.6: Any other matter

To consider and approve the Generic Elective Syllabus for the V Semester for the students admitted during the academic year 2022-2023.

The board suggested to provide value added certificate courses on AI applications in Python and Information Visualization.

New Courses Introduced:

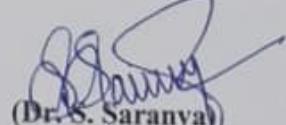
Course Code	Course	Changes and Reason
224AI1A5GA	AI Essentials	To introduce the basic concepts of Artificial Intelligence

Resolution:

Resolved to approve the above Value-added certificate course for students admitted for the academic year 2022-2023.

Finally the Chairman thanked all the members for their cooperation and suggestions 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. N. Sathya.

Date: 04.04.2024



(Dr. S. Saranya)

BoS Chairman / HoD
Department of Artificial Intelligence and Machine Learning
Dr. N.G.P. Arts and Science College
Coimbatore - 641 048.

Syllabus Revision

Faculty: Computer Science

Board: Artificial Intelligence and Machine Learning

Programme: B.Sc. Artificial Intelligence and Machine Learning

Semester: V

Course Code/ Name: 224AI1A5DB – Cloud Computing Services

Unit	Existing	Changes
I	Introduction to Cloud Computing Introduction- Definitions- Properties and Characteristics - Benefits - Cloud Service and Deployment Models - Organization Scenario on Cloud - Cloud Architecture - Challenges in Cloud Computing - Cloud Supporting Services - Management and Administrative Services.	
II	Cloud Service Providers Infrastructure Service Providers: Amazon Web Services - Rackspace Cloud -Google Compute Engine -Microsoft Azure Services - Cloud Platform Setup Procedure- Platform Service Providers: Google App Engine - Microsoft Azure - Cloud Foundry - Salesforce.com- Cloud Platform Setup Procedure.	
III	Software Service Providers and Virtualization Software Service Providers: Free Cloud Panda - iCloud.com - Mint.com – eye OS- Advanced SaaS Products - Cloud Platform Setup Procedure - Virtualization: Overview - x86 Virtualization - Types - Virtualization Products - Virtual LAN – Virtual SAN - Cloud Interoperability Standards.	
IV	Cloud Databases and Security Cloud Database - Operation Model - Types of Cloud Database - Cloud File System- Cloud Programming Model - MapReduce Programming - Cloud Security: Fundamentals - Cloud Risk Division - Cloud Computing Security Architecture – VM Security Challenges - Vulnerability Assessment Tools for Cloud.	
V	Cloud Technologies and Advancements MapReduce Programming model -Open Stack –Apache Hadoop ecosystem- Architecture of Hadoop –Adoption of cloud computing –Factors affecting cloud computing adoption – Applications.	Case Study on Cloud Services

Note: Case study (Examined Internal only)

PERCENTAGE OF SYLLABUS REVISED (New):01.63%

COURSE FOCUSES ON:

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

Syllabus Revision

Faculty: Computer Science

Board: Artificial Intelligence and Machine Learning

Programme: B.Sc. Artificial Intelligence and Machine Learning

Semester: V

Course Code/ Name: 224AI1A5DC – Software Engineering Principles

Unit	Existing	Changes
I	Software Engineering Fundamentals Nature of software- Software Process- Software engineering Practice -Process Pattern- Prescriptive process models: Waterfall Model-Incremental Process Model-Evolutionary Model-Concurrent Models- Specialized process models- Personal and Team process model- Unified Process -Product and Process.	
II	Agile Development Agility - Agile Process: Principles – Politics of Agile development- Extreme Programming: XP Process- Industrial XP- Other Agile process models: Scrum- Dynamic systems Development Method- Agile Modeling- Agile unified process – Agile Teams-Tool set for agile process.	
III	Software Requirement Analysis and Design Requirements engineering- Establishing the groundwork- Eliciting Requirements- Negotiating Requirements -Validating Requirements-Design Process-Design Concepts-Design model: Data Design - Architectural Design-Interface Design - Component level design -Deployment level design.	
IV	Software Testing Strategies Strategic Approach to Software Testing - Test strategies for Conventional software: Unit Testing-Integrated Testing-Validation Testing-System Testing-Internal and External views of testing- Basis path testing- Control Structure Testing- Art of Debugging-Testing for Real-time systems.	Software Testing Tools
V	Quality Assurance and Management Quality- Software Quality- Achieving Software Quality- Software Quality assurance (SQA): Elements- SQA Formal Approaches-SQA Plan- Quality standards: ISO 9000- Plan of SQA- Software Configuration Management: Elements- SCM Features, Process- SPI Approaches- SPI Process – Other SPI Framework- SPI Trends.	

Note: Case study (Examined Internal only)

PERCENTAGE OF SYLLABUS REVISED: 01.35%

COURSE FOCUSES ON:

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

Faculty: Computer Science

Board: Artificial Intelligence and Machine Learning

Programme: B.Sc. Artificial Intelligence and Machine Learning

Semester: V

Course Code/ Name: 224AI1A5GA / AI Essentials

Unit	Contents
I	Artificial Intelligence Introduction - History - Structure of AI- Data- Types of data- Database – Data Process – Intelligent Agents (IA) - Ethics and Governance.
II	Machine Learning Introduction to Machine Learning – Machine Learning Process–Supervised Learning –Unsupervised Learning – Reinforcement Learning - Semi-Supervised Learning - Types of Machine Learning algorithms.
III	Deep Learning Introduction to Deep Learning –Difference between deep learning and machine learning– Artificial Neural Networks (ANN) – Convolutional Neural Networks (CNN) - Deep Learning Applications.
IV	Natural Language Processing Introduction to Natural Language Processing (NLP) - Challenges of NLP - Voice Recognition - NLP in real world - Future of NLP.
V	Advancements and applications of AI Healthcare - Cyber Security - Agriculture - Education - Automobile - Banking and Finance - Manufacturing and Design.

PERCENTAGE OF SYLLABUS REVISED (New): 100%

COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input type="checkbox"/>	Entrepreneurial Development
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovations
<input type="checkbox"/>	Intellectual Property Rights	<input type="checkbox"/>	Gender Sensitization
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5th

ATTENDANCE OF THE FIFTH BOARD OF STUDIES MEETING

Faculty : Computer Science

Board: Artificial Intelligence and Machine Learning

Venue : C1 BLOCK- 401

Date : 04.04.2024

Time : 10:00 a.m.

The following members were present for the board of studies meeting

S. NO.	NAME	DESIGNATION	SIGNATURE
1	Dr. S. Saranya Assistant Professor and Head Department of Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Chairman	
2	Dr. M. Punithavalli Professor Department of Computer Applications Bharathiar University Coimbatore - 641 046	VC Nominee	
3	Dr. C. Kavitha Associate Professor Department of Computer Science and Engineering PSG College of Technology Coimbatore - 641 004	Subject Expert	
4	Dr. J. J. Adri Jovin Associate Professor & COE Department of Information Technology Sri Ramakrishna Institute of Technology Coimbatore - 641 010	Subject Expert	
5	Mr. K. Anandakumar IOT Specialist Robert Bosch and Business Solutions Coimbatore – 641025	Industrial Expert	ABSENT
6	Dr. N. Kuppuchamy Professor and Head - Department of Tamil Dr. N.G.P. Arts and Science College	Co-opted Member	
7	Dr. A. Hazel Verbina Professor and Head - Department of English Dr. N.G.P. Arts and Science College	Co-opted Member	



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5th

8	Dr. R. Sowrirajan Assistant Professor and Head - Department of Mathematics Dr. N.G.P. Arts and Science College	Co-opted Member	
9	Dr. N. Sathyja Associate Professor Department of Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Member	
10	Mrs. P. Shanthi Assistant Professor Department of Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Member	
11	Ms. J. Vinitha Assistant Professor Department of Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Member	
12	Mrs. T. Hashni Assistant Professor Department of Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Member	
13	Ms. J. Sandra II B.Sc. Artificial Intelligence and Machine Learning Dr. N.G.P. Arts and Science College	Student Representative	

Date: 04.04.2024

(Dr. S. Saranya)

BoS Chairman / HoD
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