	<p align="center">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.dnrgpasc.ac.in Email : info@dnrgpasc.ac.in Phone : +91-422-2369100</p>	<p align="center">BoS</p> <hr/> <p align="center">18th</p>
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Board of Studies Meeting
Department of Information Technology

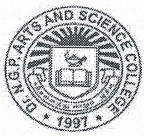
The minutes of the 18th meeting of Board of Studies held on 06.11.2024 at 10.00 am at IQAC Board Room.

Members Present:

S. No.	Name	Category
1.	Dr. A. Adhiselvam, Professor and HoD	Chairman
2.	Dr.R.Vadivel, Associate Professor, Department of IT, Bharathiar University, Coimbatore	University Nominee
3.	Dr. Prashant R. Nair, Associate Professor Department of CSE, Amrita Vishwa Vidyapeetham, Coimbatore	Subject Expert
4.	Mr.R.J. Senthil Kumar, Founder-Director, Sprout Solutions private Limited, Coimbatore	Industrial Expert
5.	Mr.K.Karthik, Project Lead, KGISL, Coimbatore	Alumni
6.	Dr. N.Kuppuchamy, Associate Professor and Head, Department of Tamil	Co-opted Member
7.	Dr.A.Hazel Verbina, Professor and Head i/c, Department of English	Co-opted Member
8.	Dr.R.Sowrirajan, Assistant Professor and Head, Department of Mathematics	Co-opted Member
9.	Dr.D.Parasakthi, Professor and Head, Department of Commerce	Co-opted Member
10.	Dr. K.Santhi, Professor	Member
11.	Dr.J.Savitha, Professor	Member
12.	Dr.K.Thenmozhi, Professor	Member
13.	Dr.R.Praba, Associate Professor	Member
14.	Mrs.P.Menaka, Assistant Professor (SG)	Member
15.	Dr.B.M.Rajesh, Associate Professor	Member
16.	Dr.K.Banuroopa, Assistant Professor	Member
17.	Ms.A.Sathiya Priya, Assistant Professor	Member
18.	Dr.S.Shanthini, Assistant Professor	Member
19.	Ms.S.Keerthana, III B.Sc IT 'A'	Student Representative

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The HoD and Chairman of the department of Information Technology 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 to attend the meeting and requested to grant leave of absence.

1. Dr.T.S. Pradeep Kumar, Professor, VIT, Chennai – Subject Expert
2. Ms.N.Vaishnavi, Assistant Professor – Member

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

Item 18.1: *To review and approve the minutes of the previous meeting held on 02.04.2024.*

The chairman of the Board presented the minutes of the previous meeting held on 02.04.2024 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 02.04.2024.

Item 18.2: *To consider and approve the syllabi for II semester for the students admitted during the academic year 2024-2025.*

The chairman of the board presented the detailed scheme and syllabi for the II semester for the students admitted during the academic year 2024-2025.

IDC Offered:


Course Code	Course	Department
24ITU2IM	IDC: Computer Applications in Clinical laboratory	Clinical Laboratory Technology

After discussion the following resolution was passed.

Resolution:

Resolved to retain the existing syllabus of 2023-2024 Batch without any modification for the students admitted during the academic year 2024-2025.

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Item 18.3: *To consider and approve syllabi for IV semester for the students admitted during the academic year 2023-2024.*

The Chairman presented the detailed scheme and syllabi for the IV semester for the students admitted during the academic year 2023-2024.

After discussion the following resolution was passed.

Resolution:

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

Item 18.4: *To consider and approve the syllabi for VI semester for the students admitted during the academic year 2022-2023.*

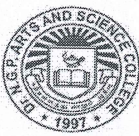
The Chairman presented the detailed scheme and syllabi for the VI semester for the students admitted during the academic year 2022-2023. The members deliberated in detail and approved the syllabi with following changes.

Changes Made:

Course Code	Course	Changes and Reason
224IT1A6CB	Core: Big Data Analytics	Mr. K.Karthik suggested to add “Replication and Sharding in MongoDB” in Unit V to gain knowledge about scalable, reliable and high performance database system.
224IT1A6DA	DSE: Blockchain Technology and Applications	Dr.R.Vadivel recommended to include “Real-time Applications” in unit V to equip the current practices across various industries providing secure, transparent and efficient solutions.
224IT1A6DB	DSE: Artificial Intelligence and Machine Learning	Dr.Prashant R. Nair suggested to add topics “Semi-supervised Learning”, “Reinforcement Learning” and “Basics of Robotics” in Unit V to model and solve complex decision-making problems.
224IT1A6DD	DSE: Augmented Reality and Virtual Reality	Mr.R.J.Senthil Kumar recommended to append “Case Study” in Unit V to provide real-world examples and connect theory to practice. The board suggested to change course title as “Fundamentals of Augmented Reality and Virtual Reality”.

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New Courses Introduced:

Course Code	Course	Reason
224IT1A6CA	Core: Internet of Things	To impart skills required to design and develop IoT systems and to provide opportunities for innovation and startup.
224IT1A6DC	DSE: Software Project Management	To provide the comprehensive understanding of plan, execute, monitor and deliver successful software projects and to gain the knowledge to handle multifaceted nature of modern software development.
224IT1A6DE	DSE: Human Computer Interaction Design	To impart the concepts usability, design process, evaluation and Human and Command Languages needed to design effective, user-friendly systems and applications.
224IT1A6DF	DSE: DevOps	To provide a broader understanding of the complete software development life cycle, a wide range of roles in software development and operations align with current industry expectations.

Courses Removed:

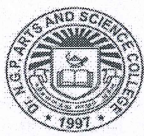
Course Code	Course	Reason
194IT1A6DA	DSE: Software Testing	The core concept of software testing has been incorporated in Software Engineering course offered in the Semester IV.
194IT1A6DC	DSE: Robotics	Artificial Intelligence and Machine Learning course has been enriched with basic concepts of Robotics
194IT1A6DD	DSE: Routing and Switching	The core concept of Routing and Switching has been incorporated in Computer Networks course offered in Semester IV.
194IT1A6DF	DSE: Data Visualization	A data visualization concept has been included in Data Analysis using R course.

After discussion, the following resolution was passed with the above changes and modifications.

Resolution:

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

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Item 18.5: *To consider and approve the courses offered by NPTEL that are equivalent to courses offered in the curriculum in the III and V Semesters.*

The board discussed the courses offered by NPTEL that are equivalent to the courses offered in the curriculum in the III semester for the students admitted for the academic year 2024-25 and V semester for the students admitted for the academic year 2023-24.

Resolution:

Resolved to approve the courses that are equivalent to courses offered by NPTEL in the curriculum.

Item 18.6: *To consider and approve the self-study course offered in III semester for the students admitted in UG from academic year 2024-25.*

The board discussed and approved the existing self-study courses offered in III semester for the students admitted in UG from academic year 2024-25.

Resolution:

Resolved to approve the self-study course offered in III semester for the students admitted in UG from academic year 2024-25.

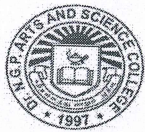
Item 18.7: *To approve the panel of examiners for question paper setting and evaluation of answer scripts for the even semester during the academic year 2024-2025.*

The Chairman presented the panel of examiners for question paper setting, question paper scrutiny and conduct of practical and theory of examination are submitted to CoE for exam related work.

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 2024-2025.

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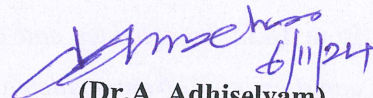
18th

Item 18.8: *To consider and approve any other item brought forward by the Chairman and the members of the board.*

No other item was brought forward.

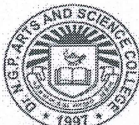
Finally, the Chairman thanked all the members for their cooperation and contribution in enriching the syllabus with active participation in the meeting and sought the same spirit in the future also. The meeting was closed with formal vote of thanks proposed by **Mrs. P. Menaka**, Assistant Professor (SG).

Date: 06.11.2024


(Dr.A. Adhiselvam)

BoS Chairman/HOD
Department of Information Technology
Dr. N.G.P. Arts And Science College
Coimbatore - 641 048



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Syllabus Revision

Faculty: Computer Science

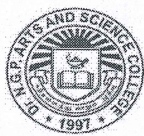
Board: Information Technology

Course Code / Name: 224IT1A6CB/ BIG DATA ANALYTICS Semester: VI

Unit	Existing	Changes
I	Introduction to Big Data: Characteristics – Evolution - Definition – Challenges - 3V's - Traditional Business Intelligence (BI) versus Big Data - Hadoop Environment. Big Data Analytics: Introduction – Classification – Challenges – Need – Terminologies - Top Tools for Big Data Analytics.	
II	Introduction to R-R Graphical User Interfaces- Data Import and Export Attribute and Data Types Descriptive Statistics. Exploratory Data Analysis Visualization Before Analysis Visualizing a Single Variable Examining Multiple Variables. Statistical Methods for Evaluation Hypothesis Testing Difference of Means.	Introducing Hadoop-Need of Hadoop - RDBMS versus Hadoop-History of Hadoop-Hadoop Overview-Use Case of Hadoop-Hadoop Distributors-HDFS (Hadoop Distributed File System)-Processing Data with Hadoop-Interacting with Hadoop Ecosystem-Introduction to MAPREDUCE- Mapper-Reducer- Combiner- Partitioner- Searching-Sorting- Compression.
III	Introducing Hadoop Need of Hadoop RDBMS versus Hadoop History of Hadoop Hadoop Overview Use Case of Hadoop Hadoop Distributors HDFS (Hadoop Distributed File System) Processing Data with Hadoop Interacting with Hadoop Ecosystem Introduction to MAPREDUCE Mapper Reducer Combiner Partitioner Searching Sorting Compression.	Hive- Hive Architecture- Hive Data Types- Hive File Format- Hive Query Language (HQL). Introduction to Pig- The Anatomy of Pig- Pig on Hadoop- Pig Philosophy- Use Case for Pig: ETL Processing- Data Types in Pig- Running Pig- Execution Modes of Pig
IV	MongoDB - Data Types in MongoDB- MongoDB Query Language-NoSQL- Introduction-Types of NoSQL Databases- Advantages of NoSQL- SQL Vs NoSQL.	Storage Engines: Introduction – Types - Locks.
V	Hive- Hive Architecture- Hive Data Types- Hive File Format- Hive Query Language (HQL). Introduction to Pig- The Anatomy of Pig- Pig on Hadoop- Pig Philosophy- Use Case for Pig: ETL Processing- Data Types in Pig- Running Pig- Execution Modes of Pig	Replication and Sharding in MongoDB Atomicity - Distributed Operations and Queries - Replication in MongoDB: Introduction – Heartbeats – Automatic Election of the new primary member - Pre-Configuration Steps – Replication on Windows Machine - MongoDB Replication using Data - Sharding: Introduction - Shared Clusters - Shared Key - Pre-Configuration Steps.

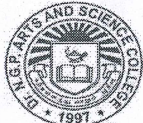
PERCENTAGE OF SYLLABUS REVISED: 28%



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COURSE FOCUSES ON:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Skill Development | <input checked="" 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: Information Technology

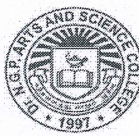
Course Code / Name: 224IT1A6DB/ DSE: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Semester: VI

Unit	Existing	Changes
I	Introduction to Artificial Intelligence Introduction – Definition – History of Artificial Intelligence – Characteristics of Intelligent Agents – How Agents should Act - Structure of Intelligent Agents	Problems: Tower of Hanoi, Missionaries and Cannibals.
II	Problem Solving Methods Problem Solving Methods – Search Strategies – Breadth first search – Uniform cost search – Depth first Search – Depth limited Search – Iterative deepening Search – Bidirectional Search – Constraint Satisfaction Problems	Generate-and-Test Method - Hill Climbing Method, - Best First, A* Search - Knowledge Representation: Ontologies, Objects, Events, Representations and Mappings, Approaches, forward versus Backward Chaining, Slot and Filler Structures, Issues, Developments.
III	Fundamental of Machine Learning History and Evolution - Different forms - Statistics - Data mining - Data Analytics -Data Science - Machine Learning Categories - Supervised Learning – Unsupervised Learning - Reinforcement Learning	Human Learning, Types, Applications, Tools, Issues - Model: Activities, Structure of Data, Data Quality.
IV	Supervised Learning Supervised Learning - Regression - Polynomial Regression – Multivariate Regression - Supervised Learning - Classification - Logistic Regression – Evaluating a classification model performance - Decision Tree - Support Vector Machine – k Nearest Neighbour(kNN)	
V	Unsupervised Learning, Unsupervised Learning: Clustering - K- means - Finding value of k – Hierarchical clustering - Principal component Analysis	Density-based Methods– Semi-Supervised Learning – Basics of Robotics.

PERCENTAGE OF SYLLABUS REVISED: 48%



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COURSE FOCUSES ON:



Skill Development



Entrepreneurial Development



Employability



Innovations



Intellectual Property Rights



Gender Sensitization

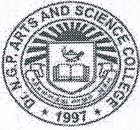


Social Awareness/ Environment



Constitutional Rights/ Human Values/ Ethics



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		18th

Syllabus Revision

Faculty: Computer Science

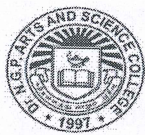
Board: Information Technology Course

Code / Name: 224IT1A6DA / DSE: Blockchain Technology and Applications

Semester: VI

Unit	Existing	Changes
I	Blockchain: An Information Technology-Satoshi Nakamoto's Blockchain Breakthrough-Types of Blockchain-Blockchain Implementations-Blockchain Collaborative Implementations-Blockchain in Practical Use Today	
II	Currency and Tokens Financial Services Use Cases Smart Contracts on the Blockchain Web Versions 1 and 2 Web 3.0 Distributed Storage Systems Distributed Computation Golem-Decentralized Communications	Consensus Algorithms: Introduction, Analysis and Design, Classification, Crash Fault Tolerance and Byzantine Fault Tolerance Algorithms.
III	Ethereum Accounts-Ether the Cryptocurrency-Obtaining Ether-Mining in Ethereum-Ethereum Work-Decentralized Applications Profile of a Dapp-Decentralized Autonomous Organizations	Bitcoin - Cryptographic Keys - Addresses -Transactions: Lifecycle, Data Structure - Blockchain for Bitcoin - Miners: Proof-of-Work (PoW), Mining Systems, Mining Pools - Network - Wallets.
IV	Introducing Solidity-Run Ethereum Dapps in Your Browser-Develop a Simple Smart Contract-Ethereum Blockchain Development-Ethereum Blockchain Development-Best Practices Smart Contract Design-Life Cycle-Smart Contract Debugging and Validation	Transactions and Messages
V	Categories of Blockchain Private Blockchain Use Cases Private Blockchain Technology-Chain Core-Corda-Blockchain Governance Challenges-Blockchain Technical Challenges- Deploying Full Contact Seeding Data Case Study: Scoring Games	IoT Architecture - Applications: Government, Health, Media, Blockchain and AI, Emerging Trends

PERCENTAGE OF SYLLABUS REVISED: 46%



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BoS

18th

COURSE FOCUSES ON:



Skill Development



Employability



Intellectual Property Rights



Social Awareness/ Environment



Entrepreneurial Development



Innovations

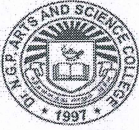


Gender Sensitization



Constitutional Rights/ Human Values/ Ethics



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		18th

Syllabus Revision

Faculty: Computer Science

Board: Information Technology

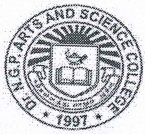
Course Code / Name: 224IT1A6DD / DSE: Fundamentals of Augmented Reality and Virtual Reality

Semester: VI

Unit	Existing	Changes
I	VR-Modern experiences - History. Bird's Eye View: Hardware- displays- Software-game engines- human senses. The Geometry of Virtual Worlds: Geometric models-yaw, pitch, roll, axis-angle representation- quaternions- 3D rotation inverses and conversions-canonical view and perspective transforms.	Pose Estimation and Tracking: Classification - Pose Tracking in AR, Stationary - Mobile Sensor Hybrid Tracking.
II	Basic Behavior of Lights: lenses and images - diopters - spherical aberrations - optical distortion - more lens aberrations - spectral properties - the eye as an optical system- cameras - visual displays. The Physiology of Human Vision: Parts of the human eye—photoreceptors and densities—display resolution requirements—eye movements—Implications of VR.	Image Processing: Spatial Mapping
III	Velocities and Acceleration—vestibular system—virtual world physics—simulation—collision detection—motion and action. Interaction: Remapping—locomotion—manipulation—social interaction. Audio: Sound propagation Human Hearing	Design Principles: AR Interaction - Design Patterns, Interfaces - Introduction to Mobile AR: Types of Mobile Apps, AR Browsers, POIs, AR Applications for Android. Developing Mobile AR Apps: Mobile Applications - Development Platforms, Smartphones.
IV	Introduction: Augmented Reality - The Relationship Between Augmented Reality and Other Technologies - Augmented Reality Concepts - Ingredients of an Augmented Reality Experience - Augmented Reality Hardware—Augmented Reality Software.	Virtual Reality- Changing Position-Orientation
V	Introduction- Interaction in the Real World- Mobile Augmented Reality- Advantages and Disadvantages of Mobile Augmented Reality- Augmented Reality Applications- Application Areas- Evaluating Augmented Reality Applications- Example Augmented Reality Applications.	Perception of Depth: Monocular Depth Cues - Stereo Depth -Implications for VR - Perception of Motion: Detection - Implications for VR.

PERCENTAGE OF SYLLABUS REVISED: 42 %





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BoS

18th

COURSE FOCUSES ON:



Skill Development



Employability



Intellectual Property Rights



Social Awareness/ Environment



Entrepreneurial Development



Innovations




Gender Sensitization



Constitutional Rights/ Human Values/ Ethics



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Syllabus Revision – New Course

Faculty: Computer Science

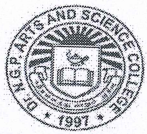
Board: Information Technology

Semester: VI

Course Code / Name: 224IT1A6CA/ Internet of Things

Unit	Course Content
I	Internet of Things (IoT) Internet of Things: Introduction, Definition, Characteristics - Physical Design: Things, Protocols - Logical Design: Functional Blocks - Communication Models - Communication APIs - Technologies: Wireless Sensor Networks - Cloud Computing - Big Data Analytics - Communication Protocols - Embedded Systems.
II	IoT and M2M Levels and Deployment Templates - IoT and M2M: M2M - Difference between IoT and M2M - Software Defined Networking - Network Function Virtualization - IoT System Management: Simple Network Management Protocol - Network Operator Requirements – Network Configuration Protocol (NETCONF) – Yet Another Next Generation (YANG).
III	Design of IoT Design Methodology: Purpose and Requirements Specification - Process Specification - Domain Model Specification - Information Model Specification - Service Specification - Level Specification - Functional View Specification - Operational View Specification - Device and Component Integration - Application Development - Home Automation - Case Study.
IV	Physical Device IoT Device: Building Blocks - Linux on Raspberry Pi - Interfaces: Serial, SPI, I2C - Programming Raspberry Pi with Python: Controlling LED - Interfacing an LED and Switch - Interfacing Light Sensor - pcDuino, BeagleBone Black, Cubieboard - WAMP - Xively Cloud - Django.
V	Network Architecture Drivers in Network Architecture: Scale, Security, Devices, Networks, Device Support – IoT Architectures: Physical Devices and Control Layer - Connectivity Layer - Edge Computing Layer - Upper Layers – Core Functional Stack: Things, Sensors and Actuators Layer - Communication Network Layer - Access Network Sublayer - Gateway Sublayer - Network Transport Sublayer.

PERCENTAGE OF SYLLABUS REVISED: 100%



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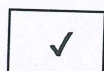
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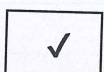
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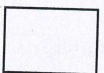
COURSE FOCUSES ON:



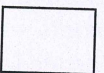
Skill Development



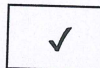
Employability



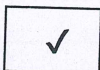
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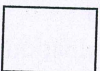
Social Awareness/ Environment



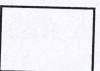
Entrepreneurial Development



Innovations

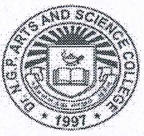


Gender Sensitization



Constitutional Rights/ Human Values/ Ethics



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Syllabus Revision – New Course

Faculty: Computer Science

Board: Information Technology

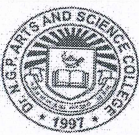
Semester: VI

Course Code / Name: 224IT1A6DC/ Software Project Management

Unit	Course Content
I	Software Project Management and Project Evaluation Software Project Management: Introduction – Activities – Plans – Methods – Categorizing Software Projects – Project Charter – Stakeholders – Objectives – Management Control – Project Management Life Cycle – Project Evaluation and Programme Management: Project Portfolio Management – Evaluation – Cost-benefit Evaluation Techniques – Risk Evaluation – Programme Management.
II	Project Planning and Process Models Project Planning: Introduction – Project Selection – Project Scope – Objectives – Project Infrastructure – Project Characteristics – Products – Activities – Effort Estimation – Activity Risks – Resource Allocation – Review Plan – Execute Plan – Software Process Models: Waterfall Model – Spiral Model – Agile Methods – Scrum – Lean Software Development.
III	Software Effort Estimation and Activity Planning Software Estimation: Introduction – Over and under Estimates – Effort Estimation Techniques – Bottom-up estimation – Top-down Approach – Parametric Model – COCOMO II – Function Points Analysis – Activity Planning: Project Schedules – Projects – Activities – Sequencing – Scheduling Activities – Network Planning Models – Time Dimension – Forward Pass – Backward Pass – Critical Path.
IV	Risk Management and Resource Allocation Risk Management: Risk – Categories – Approaches – Identification – Assessment – Planning – Management – Evaluating Risks – Counter Measures – PERT Technique – Resource Allocation: Introduction – Nature of Resources – Requirements – Scheduling – Critical Paths – Publishing Schedule – Cost Schedule – Sequence Schedule.
V	Monitoring, Control and Software Quality Monitoring and Control: Visualizing Progress – Earned Value Analysis – Change Control – Software Configuration Management – Software Quality: Project Planning – Importance – Definition – Quality Models – ISO 9126 – Product vs Process Metrics – Product vs Process Quality Management – Quality Management Systems – Techniques to Enhance Software Quality – Testing – Software Reliability – Quality Plans.

PERCENTAGE OF SYLLABUS REVISED: 100%

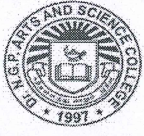


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COURSE FOCUSES ON:

<input checked="" type="checkbox"/>	Skill Development	<input checked="" 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 – New Course

Faculty: Computer Science

Board: Information Technology

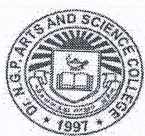
Course Code / Name: 224IT1A6DE/ Human Computer Interaction Design

Semester: VI

Unit	Course Content
I	Usability and Guidelines Usability: Goals and Measures, Motivations – Universal Usability: Variation in Physical Abilities and Workplaces - Diverse Cognitive and Perceptual Abilities - Personality Difference - Cultural and International Diversity - Users with Disabilities – Guidelines and Principles.
II	Design Process and Evaluation Design Process: Organizational support - Design Process - Design Frameworks - Design methods - Design tools - practices and patterns –Evaluating Interface Design: Expert Reviews and Heuristic - Usability Testing and Laboratories - Survey Instruments - Acceptance Test - Evaluation During Active Use - Controlled Psychologically Oriented Experiments.
III	Manipulation and Navigation Manipulation: Direct Manipulation, Examples of Direct Manipulation Systems - 2D and 3D Interface – Teleoperation - Augmented and Virtual Reality – Fluid Navigation: Navigation by Selection - Small display - Content organization - Form Fill-in and Dialog Boxes.
IV	Human and Command Languages Introduction to Human and Command Languages - Speech Recognition - Speech Production - Human Language Technology - Traditional Command Languages – Devices: Keyboards, Keypads, Pointing Devices, Displays.
V	Search and Visualization Information Search - Five-stage search frameworks - Dynamic Queries - Command languages and natural language queries - multimedia document search –Data Visualization - Tasks in Data Visualization - Visualization by Data Type - Challenges – Case Study.

PERCENTAGE OF SYLLABUS REVISED: 100%

COURSE FOCUSES ON:



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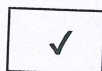
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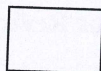
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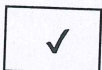
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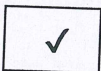
Skill Development



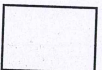
Entrepreneurial Development



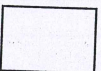
Employability



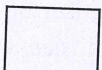
Innovations



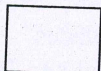
Intellectual Property Rights



Gender Sensitization

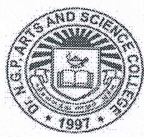


Social Awareness/ Environment



Constitutional Rights/ Human Values/ Ethics





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Syllabus Revision – New Course

Faculty: Computer Science

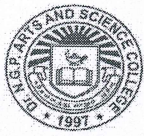
Course Code / Name: 224IT1A6DF/ DevOps

Board: Information Technology

Semester: VI

Unit	Course Content
I	DevOps and Cloud as a Platform DevOps: Introduction, Need, Perspective - DevOps and Agile - Team Structure - Coordination - Barriers - Cloud as a Platform - Introduction - Features - Consequences of Cloud Features - On-Premise Infrastructure.
II	Operations and Deployment Pipeline Operations: Operations as a Service - Service Operation Functions - Continual Service Improvement - Disaster Recovery - Operations and DevOps - Deployment Pipeline: Architecture Structure - Microservice Architecture - Amazon's Rule - Microservice Adoption - Building: Introduction, Moving a System through the Deployment Pipeline - Crosscutting Aspects.
III	Testing, Deployment and Monitoring Testing: Development and Pre-commit Testing - Build and Integration Testing - Performance Testing - Production - Deployment: Introduction - Strategies - Logical Consistency - Packaging - Deploying to Multiple Environments - Partial Deployment - Rollback - Tools - Monitoring: Introduction, Monitor - Monitoring Configuration - Challenges.
IV	Security Audits Security Audits: Security - Threats - Resources - Roles and Activities - Identity Management - Access Control, Development - Llitie: Repeatability - Performance - Reliability - Recoverability - Interoperability- Testability - Modifiability - Business Considerations: Business Case - Measurements and Compliance - Interaction Between Dev and Ops.
V	Container Platform Container Platform: Docker, Features - Architecture - Engine - Registry, Container Orchestration - Compose - Kubernetes - Installation and Key Terms - Kubernetes Cloud Solutions - Docker Swarm - OpenShift Container Platform - OpenShift as Platform as a Service - DevOps with OpenShift - Core Items, Learning Scenarios.

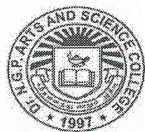


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PERCENTAGE OF SYLLABUS REVISED: 100%

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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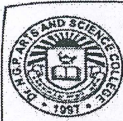
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ATTENDANCE OF THE EIGHTEENTH BOARD OF STUDIES MEETING

Faculty: Faculty of Computer Science

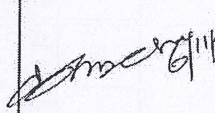
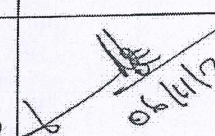
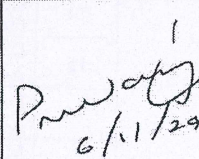
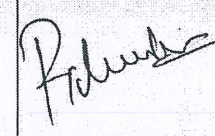
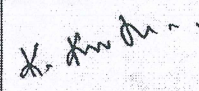
Board: Information Technology

VENUE : IQAC BOARD ROOM

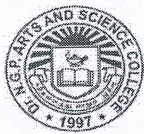
DATE : 06.11.2024

TIME : 10.00 AM

The following members were present for the Board of Studies Meeting

S.NO.	NAME	DESIGNATION	SIGNATURE
1.	Dr.A.Adhiselvam Professor & Head Department of Information Technology Dr.N.G.P. Arts and Science College Coimbatore-641048	Chairman	
2.	Dr. R. Vadivel Associate Professor Department of Information Technology Bharathiar University Coimbatore - 641 046.	Member (Subject Expert) (Nominated by Vice Chancellor)	
3.	Dr. Prashant R. Nair Associate Professor Computer Science Engineering School of Engineering Amrita Vishwa Vidyapeetham Amritanagar, Ettimadai Coimbatore-641 112.	Member (Subject Expert) (Nominated by Academic Council)	
4.	Dr.T.S. PradeepKumar Professor School of Computing Science and Engineering Vellore Institute of Technology Vandalur Kelambakkam Road, Chennai 600 048.	Member (Subject Expert) (Nominated by Academic Council)	- ABSENT -
5.	Mr.R. J. Senthil Kumar Founder Director - Sprout Solutions Private Limited 14, Light House Road R.S. Puram, Coimbatore -641 001.	Member (Industrial expert)	
6.	Mr.K.Karthik Project Lead KGISL Saravanampatti, Coimbatore-641 035	Alumni	





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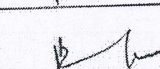
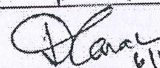
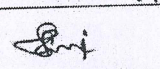
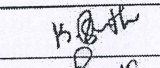
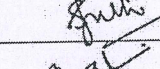
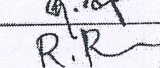
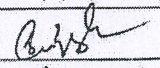
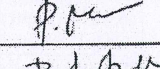
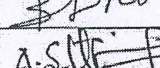
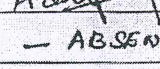
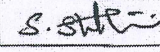
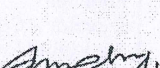
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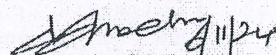


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S.NO.	NAME	DESIGNATION	SIGNATURE
7	Dr. N. Kuppuchamy Professor & Head	Co-opted Member (Tamil)	
8	Dr.A.Hazel Verbinaha Professor & Head (i/c)	Co-opted Member (English)	
9	Dr. R. Sowrirajan Assistant Professor & Head	Co-opted Member (Mathematics)	
10	Dr.D.Parasakthi Professor & Head	Co-opted Member (Commerce)	
11	Ms. S.Keerthana III B.Sc. IT	Student Representative	
12	Dr.K.Santhi Professor	Member	
13	Dr.J.Savitha Professor	Member	
14	Dr.K.Thenmozhi Professor	Member	
15	Dr.R.Praba Associate Professor	Member	
16	Dr.B.M.Rajesh Assistant Professor	Member	
17	Mrs.P.Menaka Assistant Professor(SG)	Member	
18	Dr.K.Banuroopa Associate Professor	Member	
19	Mrs. A.Sathiya Priya Assistant Professor	Member	
20	Mrs. N.Vaishnavi Assistant Professor	Member	- ABSENT -
21	Dr.S.Shanthini Assistant Professor	Member	

Date : 06.11.2024


(Dr. A. Adhiselvan)

BoS Chairman/HOD
Department of Information Technology
Dr. N.G.P. Arts And Science College
Coimbatore - 641 048



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Coimbatore - India