

DEPARTMENT OF COMPUTER TECHNOLOGY

**NALLAMUTHU GOUNDER MAHALINGAM COLLEGE
POLLACHI - 642001**

**13th Board of Studies Meeting in the Department of
Computer Technology**

Date: 24.06.2023 Time: 10.00 A.M to 2.00 P.M

Agenda

BoS / CT11.1	:	Welcome address and Opening Remarks by Chairman, Board of studies in offline mode
BoS / CT11.2	:	Confirmation of the Minutes of the 13 th / Previous meeting of Board of studies in offline mode held on 24.06.2023 and Action taken report of 12 th meeting of Board of studies
BoS / CT11.3	:	11.3.1 Syllabus of I B.Sc., COMPUTER TECHNOLOGY for semester I to VI under Regulation 2023-2026 Batch.
		11.3.2 Syllabus of Value added course
BoS / CT11.4	:	Suggestion given by BOS Members

NALLAMUTHU GOUNDER MAHALINGAM COLLEGE

POLLACHI

DEPARTMENT OF COMPUTER TECHNOLOGY

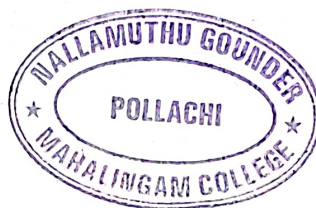
MINUTES OF BOS MEETING

The 13th Meeting of the Board of studies of the Department of Computer Technology was held on 24.06.2023 at 10.00 a.m. in Offline mode

1. The following members were present:

Dr.M.RAJASENATHIPATHI Head of the Department Department of computer technology NGMCollege,Pollachi	Chairman
MS. C. KEERTHANA Assistant Professor Department of computer technology NGM College, Pollachi	Internal Members
MS. K.S. LEELAVATHI Assistant Professor Department of computer technology NGM College, Pollachi	
Dr. R. JAYAPRAKASH Department of computer technology NGM College, Pollachi	
MS. A. KALAIVANI Assistant Professor Department of computer technology NGM College, Pollachi	
Dr. C.R Sakthivel Associate professor & Head Department of of Computer Science Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore	University Nominee
Dr. P.Tamilselvan Associate Professor Department of Computer Science Karpagam Academy of Higher Education Coimbatore 641021	Academic Experts & Academic Auditor
M. Sowndharya Associate, Mechlin Software Technology Pvt. Ltd.,	Industrial Expert

	Pune	
	M. Sunmathi Process executive, Infosys BPM, Chennai.	Alumnus nominated by Principal / HoD
	Dr. P.Velmurugan Assistant Professor Department of Computer Science Government Arts and Science College, Valparai - 642127	Subject Expert
	K. Jayaprakash III- CT NGM College Pollachi	Student Members
	R. Revathy III- CT NGM College Pollachi	



HoD

CDC Co-ordinator

K. SRINIVASAN, M.C.A.,

Co-ordinator

Curriculum Development Cell (CDC)
NGM College (Autonomous)
Pollachi - 642 001.

BoS/CT 11.3

BoS/CT 11.3.1

COE

Dr. P. NAGARAJAN,
M.A., M.Phil., B.Ed., Ph.D.,
PRINCIPAL

Prof. P. NAGARAJAN
Deputy Controller of Examinations
N.G.M. College (AUTONOMOUS)
POLLACHI - 642 001.

Dr. M. RAJASENATHIPATHI M.A.M.C.A.M.Phil.Ph.D.
Head of the Department
Department of Computer Technology
Nallamuthu Gounder Mahalingam College (Autonomous)
POLLACHI - 642 001.

I B.Sc. COMPUTER TECHNOLOGY (I to VI SEMESTER)

- Core Papers are renamed as CC (Course Code)
- Elective Courses are renamed as DSE (Discipline Specific Elective)
- All Allied Courses rename as GE (Generic Elective): Allied.
- SEC (Skill Enhancement Course) were Introduced in Semester II, IV, V and VI.
- AECC (Ability Enhancement Compulsory Course) were introduced in Semester I and II.

SEMESTER I

The following papers from B.Sc., Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT101 – Core Course I – Programming in C
- 23UCT102 – Core Course II – Digital Fundamentals and Computer Organization
- 23UCT1A1/23UCT1A2 – Generic Elective I - Allied I – Mathematics I – Mathematical structures for Computer Science / Discrete Mathematics
- 23UCT103 – Core Course Lab- I – Programming in C
- 23EVS201- AECC-I: Environmental Studies.

SEMESTER II

The following papers from B.Sc., Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT204 – Core Course III – JAVA Programming
- 23UCT205 – Core Course IV – Data Structures
- 23UCT206 – Core Course Lab II – JAVA Programming Lab
- 23UCT2A1/ 23UCT2A2- Generic Elective II - Allied II – Mathematics II-Operations Research / Statistics
- 23EVS201 – Ability Enhancement Compulsory Course AECC I: Environmental Studies
- 23UCT2S1/23UEL2S1 - Skill Enhancement Course SEC I – Naan Mudhalvan:
Advanced Excel / Professional Skills - This new paper was introduced as per suggestions

of CDC and Subject Expert. (Additionally added this SEC paper in new Scheme Format, given by CDC Department.)

SEMESTER III

Language Papers Tamil and English were introduced in III and IV Semester. (3 +3 Hours)

The following papers from B.Sc., Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT307 – Core Course V – Advanced Java Programming
- 23UCT309 – Core Course Lab III – Advanced Java Programming Lab
- 23UCT310- Core Course LAB IV – Database Management Systems Lab
- 23UCT308 –Core Course VI – Database Management Systems

The presented syllabus was accepted by the experts and a few suggestions were given as follows:

- The topic “Action on Explicit cursors” is to be removed in UNIT V of the same syllabus.
- Core Course Paper – 22UCT309 Core VII: Operating Systems - Paper was removed from previous BoS scheme 2022-25 Batch (III Semester) due to inclusion on Language Papers (Tamil and English) as per direction of CDC.
- 23UCT3A1/ 23UCT3A2 – Generic Elective III - Allied III – Software Engineering / Operating Systems, these papers are introduced , instead of 22UCT3A3: Allied III: Software Engineering , as per the direction of CDC.

The presented Software Engineering syllabus was accepted by the experts and a few suggestions were given as follows:

- The few topics “A Process Framework, A Bridge to Design and Construction, Object-Oriented Analysis” is to be removed in UNIT I, II and III of the same syllabus.
- 23UCT3N1/ 23UCT3N2– Non Major Elective paper I: Office Automation Lab / Multimedia Lab. The Course Office Automation Lab is shifted from IV Semester to III

Semester in-order to removed course HTML in Semester III as Board of Study Members suggested.

SEMESTER IV

The following papers from B.Sc., Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT411 – Core Course VII – Python Programming
- 23UCT413 – Core Course Lab V – Python Programming Lab
- 23UCT412- Core Course VIII – R Programming is introduced, instead of LINUX Programming Paper as industry Expert suggested.
- 23UCT414 – Core Course Lab VI: R Programming Lab was introduced were introduced, instead of LINUX Programming Lab Paper as industry Expert suggested.
(Both 23UCT412 & 23UCT414 Paper were introduced as per Industry demand based on suggestion of industry expert.)
- 23UCT4N1/4N2 –Non Major Elective paper II: Scripting Language Lab / Corel Draw Lab

- Scripting Language Lab is moved, from Skill Based Major Elective course in Semester V as industry Expert suggested

- 23UCT4A1/23UCT4A2 – GE: IV- Allied IV: Data Communication Networks / Software Testing were introduced, instead of 22UCT4A4: Allied IV: Big Data Analytics.

The presented Data Communication Networks syllabus was accepted by the experts and a few suggestions were given as follows:

- The few topics “Internetworking Concepts, Internetworking Devices, Spam in E-Mail and Phishing” is to be removed in UNIT IV, and V of the same syllabus.
- 23UCT4S1/23UCT4S2 - Skill Enhancement Course SEC II – Naan Mudhalvan: Desktop Publishing LAB/ PC Hardware –
- The new paper PC Hardware was introduced as per suggestions of CDC and Subject Expert, and Desktop Publishing Lab Course is shifted from VI Semester (Skill Based Major Elective) to IV Semester in-order to introduced new SEC: Naan Mudhalvan course in Semester IV as Board of Study Members suggested.
(Additionally added this SEC paper in new Scheme Format, given by CDC Department.)

- One Core paper 22UCT414 : Core X: Data Communication Networks was removed from previous BoS scheme 2022 Batch (IV Semester) due to inclusion on Language Papers (Tamil and English – (3+3 Hours) as Per direction of CDC.

SEMESTER V

The following papers from B.Sc. Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT515 – Core Course IX– Open source Technologies
- 22UCT518 Core Course X– Information Security is renamed as 23UCT516 – Core X: Information and Cyber Security as per Suggestions of Academic Expert.
- 23UCT517- Core Course Lab VII: – Open source Technologies Lab
- 23UCT518- Core Course Lab VIII- Web Designing Lab
- 23UCT5E1/5E2/ 5E3- DSE I – Cloud Computing / Embedded Systems / Fundamental of Block Chain Technology.
- 23UCT5S1/23UCT5S2 – SEC_III: Framework Technologies Lab / Unix Programming Lab were newly introduced instead of SBME: I – R- Programming and Scripting languages.

SEMESTER VI

The following papers from B.Sc. Computer Technology were accepted by the experts fully without further suggestions:

- 23UCT619- Core XI: Mobile Application Development and 23UCT620 Core Lab IX: Mobile Application Development were introduced as per guidance of University Nominee.
- 23UCT620 – Core Course Lab – X : Google Workspace Lab
- 23UCT6E4/6E5/6E6 – Discipline Specific Elective II – Machine Learning Techniques / Software Project management / Grid Computing were included as per expert suggestions. (23UCT6E7/6E8/6E9- Discipline Specific Elective III: AI/ Ethical Hacking/ Mobile Computing were included.
(22UCT6E4 and 22UCT6E9 were interchanged as per Subject expert suggested in BoS)

- The following papers from B.Sc., Computer Technology were accepted by the experts fully without further suggestions:
- 23UCT621 – Project
- 22UCT6S3 / 22UCT6S4 Skill Based Elective II – Desktop Publishing Lab / Animation Lab course were removed and 23UCT6S1/6S2 SEC - IV- Naan Mudhalvan: Big Data Analytics Lab / Animation Lab were introduced as per the suggestion of Academic expert.

These changes have been made effect for the students admitted in 2023-2026 with SEMESTER NO. I TO VI accordingly.

BoS/CT 12.4 SUGGESTIONS GIVEN BY THE BoS MEMBERS

12.4.1: Introduce papers related to research and methodologies

12.4.2: Introduce papers related to Management problem solving task

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

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

- a) The syllabus of First Year Computer Technology under Regulation 2023.

Members Present:

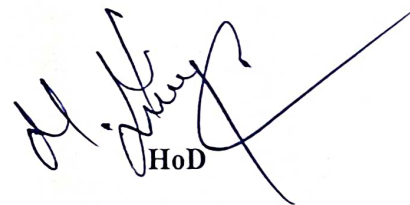
Chairman	
Dr.M.RAJASENATHIPATHI Head of the Department Department of Computer Technology NGM College,Pollachi	M. Rajaseenathipathi 24/6/23
Internal Members	
MS. C. KEERTHANA Assistant Professor Department of Computer Technology NGM College,Pollachi	C. Keerthana 24/6/23
MS. K.S. LEELAVATHI Assistant Professor Department of computer technology NGM College,Pollachi	
Dr. R. JAYAPRAKASH Department of Computer Technology NGM College,Pollachi	R. Jayaprakash 24/6/23
MS. A. KALAIVANI Assistant Professor Department of Computer Technology NGM College, Pollachi	A. Kalavani 24/6/23
University Nominee	
Dr. C.R Sakthivel Associate professor & Head Department of of Computer Science Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore	C. R. Sakthivel 24/06/23
Academic Experts	
Dr. P.Tamilselvan Associate Professor Department of Computer Science Karpagam Academy of Higher Education Coimbatore 641021	P. Tamilselvan 24/6/23 Dr. P. TAMILSELVAN, Ph.D. Assistant Professor Department of CS, CA & IT Karpagam Academy of Higher Education Coimbatore - 641 021.

Industrial Experts	
M. Sowndharya Associate, Mechlin Software Technology Pvt. Ltd., Pune.	<i>Sowndharya M</i> 24/06/23
Alumnus nominated by Principal / HoD	
M. Sunmathi Process executive, Infosys BPM, Chennai.	<i>M. Sunmathi</i> 24/06/23
Subject Expert	
Dr. P. Velmurugan Assistant Professor Department of Computer Science Government Arts and Science College, Valparai - 642127	<i>P. Velmurugan</i> 24/06/23
Student Members	
K. Jayaprakash III- CT NGM College Pollachi	<i>K. Jayaprakash</i> 24/06/23
R. Revathy III- CT NGM College Pollachi	<i>R. Revathy</i> 24/06/23

ANNEXURE I

Minutes of the 12th/ Previous Meeting – Action Taken Report

S.No	Suggestion given by expert members	Action taken
1.	Industry Demand papers were introduced	Reviewed and Implemented
2.	Concept based and real time lab exercises is introduced in all practical papers	Implemented
3.	Advanced learning course papers were introduced	Implemented
4.	Guide lines for project is designed	Implemented



HoD

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**List of Courses having focus on local, national, regional and global developmental needs
offered by the Department of Computer Technology**

DEPARTMENT OF COMPUTER TECHNOLOGY						
Programme: Computer Technology						Year:2023
Course Code	Course Title	Need				Rationale
		Local	National	Regional	Global	
23 UCT 101	Core Course - I : Programming in C				✓	In order to enable the students use the computers effectively in problem solving, this course offers the modern programming Language C along with exposition to various applications of computers.
23 UCT 102	Core Course - II: Digital Fundamentals and Computer Organization			✓		This course has been designed to make the students know about the fundamental principles of digital electronics and gain familiarity with the available IC chips and the broad field of digital systems design. Computer architecture forms the bridge between application needs and the capabilities of the

						underlying technologies. As application demands change and technologies across various thresholds. computer architects must continue innovating to produce systems that can deliver needed performance and costeffectiveness.
23UCT1A1	Generic Elective I - Allied I – Mathematics I – Mathematical structures for Computer Science				✓	Mathematics is the foundation upon which Computer Science is built. It depicts how to use abstract language, work with algorithms, self-analyse the computational thinking, and represent real-world solutions accurately. Apply matrices in the study of electrical circuits, and optics and to conduct seismic surveys and perform encryption in economics, business, 3D games, animation etc
23UCT1A2	Generic Elective I - Allied I – Discrete Mathematics	✓		✓		Discrete mathematics is the mathematical language of computer science. Concepts and notations from discrete mathematics are useful in

						studying and describing objects and problems in all branches of computer science, such as computer algorithms, programming languages, cryptography, automated theorem proving, and software development.
23UCT204	Core Course III: Java Programming				✓	This course develop necessary skills in students to apply object oriented programming techniques in java so that the students will be able to develop complete applications using core java.
23UCT205	Core Course IV – Data Structures			✓	✓	Students understand the way of organizing data in a computer, and how effectively it can be used. Students will be able to solve the issues related to data organization and help to solve real time issues. Data structures has a wide and diverse scope of usage across the fields of Computer Science and Software Engineering Understanding and identification of appropriate data structures to solve real

						time problems based on various design strategies.
23UCT2A1	Allied II : Mathematics II – Operations Research				✓	Optimization techniques and to solve many practical problems in inventory control and capital budgeting problem and Queuing theory update the knowledge for all the three needs . Use as an analytical method of problem-solving and decision making in the management of organizations
23UCT2A2	Generic Elective II - Allied II – Statistics				✓	Draw statistical inference in the field of data analysis. Statistics is used in monitoring and improving the quality of products and processes within a business organization. Statistical analysis is essential for the development of social science theories, being used to test their validity through a robust analysis of real-world data.
23UCT2S1	Skill Enhancement Course SEC I: Advanced Excel	✓				MS Excel is an international business management tool that is used for performance

						review and decision making. Students get a hands-on training experience for what is now considered a mandatory employability skill
23EVS101	Ability Enhancement Compulsory Course AECC I: Environmental Studies		✓		✓	Appreciate the ethical, cross cultural and historical context of environmental issues and the links between human and natural systems.
23UCT307	Core Course V – Advanced Java Programming				✓	This course is designed to teach the student how to write, test, and debug advanced-level Object-Oriented programs and emphasis toward network and web programming. The J2SE and J2EE implement global trends in software design and development. This comprises of reactive development, serverless architecture, and data science. Java is the most popular programming language among embedded software developers for IoT

						devices all around the world.
23UCT308	Core Course VI – Database Management Systems		✓		✓	This course will acquaint the student with knowledge of fundamentals concepts of DBMS and its applications of data using query languages.
23UCT3A1	Generic Elective III - Allied III – Software Engineering		✓			Expertise in various categories of software Development methods.
23UCT3A2	Generic Elective III - Allied III – Operating Systems				✓	Students will get familiarize to the OS services that assist system users, OS design, memory management, Secondary Management and File System Implementation .
23UCT3VA	VAC I: Web Based Scripting Languages				✓	Web technology has diffused globally as it is an umbrella of ogies such as HTML,Scripting to create websites and applications. It can range from developing a simple single static page of plain text to complex web applications, electronic businesses, and social network services.. Web Technologies are widely used in business applications that are for

						specific execution of tasks on a network. Web Applications have become more powerful and can fully replace desktop applications in all the situations.
23UCT309	Core Course Lab III – Advanced Java Programming Lab		✓			Understanding the fundamental concept of the J2EE technologies and the principles of J2EE Programming.
23UCT411	Core Course VII – Python Programming		✓			Programming Skill is very significant since there is an upsurge in the need for programmers and software developers owing to the automation in all fields.
23UCT412	Core Course VIII – R Programming				✓	The purpose of this subject is to cover the concepts, Installation Process, Hardware Requirements and features of Programming. Statistical analysis using R is one of the most widely used application in the world today and is used in almost every industry, ranging from finance, banking to medicine and manufacturing, Banking, Healthcare, Social Media,

						ECommerce and Manufacturing. . It is also used in analyzing and interpreting various Indian Government projects, schemes and laws by extracting the data from social networks.
23UCT4A1	GE: IV- Allied IV: Data Communication Networks		✓			Teaching the students , the layered approach of the network in transferring information. Learns all the basic network related components, Trained for framing different networks. Understanding the working principles of different protocols in the network and identify the flaws in it and rectify within a short span of time.
23UCT4A2	GE: IV- Allied IV: Software Testing		✓			Programming Skill is very significant since there is an upsurge in the need for programmers and software developers owing to the automation in all fields. increase in the importance of software quality and enterprise needs testers. The need for training students to

						become qualified testers is an arduous task all over the world. The goal is to enable students to understand the important role of software testing in the software development process practical sessions and training
23UCT413	Core Course Lab V – Python Programming Lab		✓	✓		To keep pace with the latest technologies pertaining to their chosen field of object programming, Modules, Packages, String and List Methods, and Exceptions. This course is designed to offer the student to programming in Python, including practical application such that after completing the course, the student will have a sound Understanding of the basics of programming in Python.
23UCT4N1/ 23UCT4N2	Skill Based Non-Major Elective II – Scripting languages Lab / CorelDraw Lab			✓		This subject helps the users with a sophisticated set of commands to format, edit, and print text documents. It is used as valuable and important tools in the creation of applications.

						This course is making the students to graphic designers, web designers, and all other work with images and designs.
23UCT4S1	Skill Enhancement Course SEC II – Desktop Publishing LAB			✓		Microsoft Publisher is a desktop publishing program that can be used to create a wide range of publications. The features are drag and drop, mail merge features and can adopt to the organizations printing media.
23UCT4S2	Skill Enhancement Course SEC II – PC Hardware			✓		This course is designed to offer the students to equip in knowledge in the computer's tangible components or delivery systems that store and run the written instructions provided by the software.
23UCT4VA	VAC II: Basics of Internet of Things	✓			✓	The course is prepared to provide the students for detailed understating of IOT for manufacture. This course will enable the students to understand the basics of internet and Various applications of internet like e-mail, FTP,

						Telnet, Newsgroups and video conferencing. Students can relate global market perspectives on creating applications in different domains using Internet of Things.
23UCT515	Core Course IX– Open source Technologies		✓		✓	The students of this Programme can be web developers would be able to write dynamic interactive web based applications using PHP and MYSQL database. After mastering this course they may work as self-employed web page developer.
23UCT516	Core X: Information and Cyber Security		✓		✓	The concepts needed to read through the ripe in the market place and understanding risks and how to deal with them. The student will have a Perspective on security in general and better understanding to reduce and manage the security risks.
23UCT5E1	DSE I – Cloud Computing				✓	The course curriculum has been designed keeping in view the emerging trends in advanced computing as well

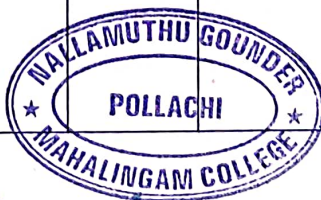
						as contemporary and futuristic human resource requirements of the IT industry. Cloud infrastructures support environmental proactive, powering virtual services rather than physical products and hardware, and cutting down on paper waste, improving energy efficiency, and (access from anywhere with an internet connection) reducing commuter-related emissions. Hosting on cloud is more environmentally friendly and results in less a carbon footprint.
23UCT5E3	DSE I — Fundamentals of Block Chain Technology and Digital Currency				✓	The latest security issues and network related concepts can be learnt.
23UCT5E2	DSE I – Embedded Systems			✓	✓	In the rapidly growing digital world, role of embedded systems is increasingly vital in various domains such as industrial, home automation,

						entertainment systems and Medical equipment.
23UCT518	Core Course Lab VIII- Web Designing Lab			✓		This course develops competency amongst the students to learn design principles to meet current requirements in the highly competitive job market using HTML5 and CSS3. Equip the students to learn about Internet and its application and to develop web pages for business.
23UCT5S1	SEC_III: Framework Technologies Lab			✓		The course curriculum has been designed view Framework is the combination of common language runtime and a set of class libraries. The implementation of Common Language
23UCT5S2	SEC_III: Unix Programming Lab			✓		Student will learn and basic understanding of UNIX OS, UNIX commands and File system and to familiarize students with the Linux environment for doing shell programming on UNIX OS and handle UNIX system calls.
23UCT619	Core XI: Mobile Application Development			✓		Student will learn Cryptography and basic security techniques, security principles and architecture in mobile networks, E-mail security and web security, Develop SSL or Firewall based solutions and analyze the Security and privacy in current Wireless & Mobile Systems in global scenario. To learn about how to design and apply logic gates

						in the design of combinational circuits and analyse the design of synchronous and asynchronous sequential circuits based on global needs.
23UCT620	Core Lab IX: Mobile Application Development		✓			The Mobile Application Development course will focus on fundamental mobile computer programming. If student have a passion for coding, computers and phones, and its helps them ready to specialize your skills to land your dream job as a computer programmer in the mobile space.
23UCT621	Core Course Lab – X : Google Workspace Lab		✓			Students learn different google products included in Google Workspace, such as business email, online file storage, shared calendars, and video meetings, whether you're a Workspace developer, administrator, or end user.
23UCT6E4	Discipline Specific Elective II – Machine Learning Techniques		✓			Students learn different algorithms in machine learning and will be capable to build machine learning based systems for real time problems
23UCT6E5	Discipline Specific Elective II – Software Project Management			✓	✓	Students will apply the principles of agile software development, use CASE tools for software development . Software quality assurance is important as it defines and measures the adequacy of the software (SW) process, providing evidence that establishes confidence to produce SW products of suitable quality for their

						intended purposes.
23UCT6E6 –	Discipline Specific Elective II - Grid Computing			✓	✓	To study the basic concept of Data grid computing allows several users to simultaneously access, change, or transfer distributed data. For instance, a data grid can be used as a large data store where each website stores its own data on the grid.
23UCT6E7	Discipline Specific Elective III: AI				✓	To study the basic concept of Artificial Intelligence. To have an idea about the various representation techniques used. To study the concept of expert systems. Students will be able to understand the requirement and provide an intelligent based system to solve the problem. Artificial intelligence is an effective tool used to automate manual and repetitive tasks.
23UCT6E8	Discipline Specific Elective III: Ethical Hacking				✓	Students will be able to understand the concept of learning ethical hacking; you can play a vital role in securing the systems and data from threats and attacks. Understand the concept of conduct investigations and analyses of the target systems to identify any security or system vulnerabilities from the hacker's point of view and suggest a remedy.

23UCT6E9	Discipline Specific Elective III: Mobile Computing				✓	Students will be able to understand the concept of access all the important documents and files over a secure channel or portal and work as if they were on their computer. It has enhanced telecommuting in many companies.
23UCT621	Project				✓	Experience the project program that affords them the opportunity to match classroom learning with on the-job reality. Adapt to developments in the field and be enriched by active involvement in the field of project. Students are encouraged to take up projects in association with local and regional industries or carry out research projects based on issues in the immediate community
23UCT6S3	SEC - IV – Big Data Analytics Lab				✓	Acquires the knowledge in handling big data prevailing currently in various fields like social networking, census, etc in accordance to global community.
23UCT6S4	SEC - IV – Animation Lab				✓	Acquires the knowledge to motion in art and displayed animated images that can be developed and soft capabilities
23UCT6AL	Advanced Learner Course(ALC) - II :Data Mining and Warehousing				✓	Motivate the students in knowing how the raw facts are preprocessed, transformed, classified and evaluate the performance of the global model.



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POLLACHI - 642 001.

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Curriculum Development
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Curriculum Development Cell (C.D.C.)
NGM College (Autonomous)
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PRINCIPAL
Dr. R. MUTHUKUMARAN,
M.A., M.Phil., B.Ed., Ph.D.,
PRINCIPAL
N.G.M. College, Pollachi - 642 001
Coimbatore District

**List of Courses having focus on Employability/ Entrepreneurship/ Skill development
offered by the Computer Technology**

Computer Technology						
Programme: B.Sc Computer Technology					Year:2022 – 2023	
Course Code	Course Title	Employability (EM) / Entrepreneurship (EN) / Skill Development (SD)			Focus	Year of Introduction
		EM	EN	SD		
23UCT101	CC I: Programming in C	✓			Focusing on expanding programming Knowledge	2011
23UCT102	CC II: Digital Fundamentals and Computer Organization			✓	Focusing on giving knowledge about logic gates and hardware	2011
23UCT1A1	GE I – Allied I: Mathematics - I: Mathematical Structures For Computer Science				Focusing on Mathematics is the foundation upon which Computer Science is built.	2011
23UCT1A2	GE I – Allied I: Mathematics - I: Discrete Mathematics				Focusing on Discrete mathematics is the mathematical language of computer science.	2012
23UCT205	CC IV: DataStructures	✓		✓	Students shall have ability to apply the fundamental knowledge of various Data structures for designing and implementing real time problem.	2012

23UCT204	CCIII: Java programming			✓	Focus on foundation about basic and core Java	2011
23UCT2A1	GE II – Allied II: Mathematics II – Operations Research			✓	Focusing on solve many practical problems in inventory control and capital budgeting problem.	2021
23UCT2A2	GE II – Allied II: Mathematics II – Operations Research / Statistics			✓	Focusing on Optimization techniques and to solve many practical problems in inventory control and capital budgeting problem.	2022
23UCT307	CCV: Advanced Java Programming			✓	To keep pace with the latest technologies pertaining to their chosen field of studies	2011
23UCT308	CC VI: Database Management Systems	✓			Focus on Query techniques and to acquire knowledge on core database methodology	2011
23UCT3A1	GE III – Allied III: Software Engineering	✓			Focus on various categories of software Development methods.	2011
23UCT3A2	GE III – Allied III: Operating Systems	✓			Focus on OS services that assist system users, OS design, memory management, Secondary Management.	2011

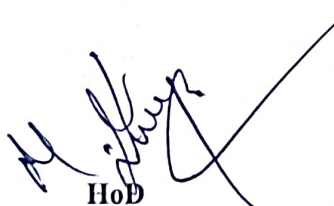
23UCT411	CC VIII: Python Programming	✓		✓	Focus on designed to offer the student to programming in Python, including practical application	2022
23UCT412	CC IX: R Programming			✓	Interface R with C/C++ and Python for increased speed or functionality and find new packages for text analysis, image manipulation, and perform statistical analysis of the same.	2022
23UCT4A1	GE IV – Allied IV: Data Communication Network	✓		✓	Focus on approach of the network in transferring information	2012
23UCT4A2	GE IV – Allied IV: Software Testing	✓		✓	Students can get exposure on various software testing tools used in the Industries.	2021
23UCT413	CC Lab V: Python Programming Lab	✓		✓	Development of Python application for increased functionality and find new packages for text analysis, image Manipulation, and perform statistical analysis of the same.	2018
23UCT3N1/ 23UCT3N2	Skill Based Non-Major Elective II - Office Automation Lab / Multimedia Lab		✓		Focused to learn about office automation Tools for digital update	2017
23UCT4N1/	Non-Major Elective		✓		Focused to Web	2012

23UCT4N2	Paper -II : Scripting Languages Lab / CorelDraw Lab				technology has diffused globally as it is an umbrella such as HTML, Scripting to create websites and applications.	
23UCT4VA	VAC II- IoT (Internet of Things)	✓			Focus on to get Employability, help a particular individual to develop their own skills in their chosen field of the study	2020
23UCT515	CC X: Open Source Technologies	✓		✓	Imports knowledge in developing Applications using PHP with MySQL and Examine the concept of data reading in web pages.	2013
23UCT516	CCXI: Information and Cyber Security	✓		✓	Explore the different types of security systems, different levels of security and security policies and algorithms.	2021
23UCT5E1	DSE-I#:Cloud Computing	✓		✓	Design cloud infrastructure management services and security policies and integrate the Next generation Data center technologies and Cloud API's .	2013
23UCT5E2	DSE-I#: Embedded Systems	✓	✓	✓	Embedded system design and programming skills for different commercial and industrial applications are enhanced	2012
23UCT5E3	DSE-I#:- Fundamentals of Block Chain Technology	✓		✓	Focus on network related concepts can be learnt.	2022

	and Digital Currency					
23UCT518	CC Lab VIII: Web Designing Lab	✓		✓	Development of Websites for small companies using VB.NET, XML, Scripting languages	2013
23UCT619	Core XII : Mobile Application Development	✓		✓	Focus on Cryptography and basic security techniques, security principles and architecture in mobile networks, E-mail security and web security, Develop SSL or Firewall based solutions and analyze the Security and privacy in current Wireless & Mobile Systems in global scenario.	2023
23UCS6E4	Discipline Specific Elective (DSE) – II Machine Learning	✓		✓	Students can able to understand the concepts behind different types of learning and their appropriateness apply different learning techniques for different kinds of data and applications	2022
23UCS6E5	Discipline Specific Elective (DSE) – II Software Project Management	✓	✓	✓	Focus on principles of agile software development, use CASE tools for software development	2012
23UCS6E6	Discipline Specific Elective (DSE) – II Grid Computing	✓	✓	✓	Focus on Data grid computing allows several users to simultaneously access, change, or transfer distributed data.	2013

		✓	✓	✓		
23UCS6E	Discipline Specific Elective (DSE) – III Artificial Intelligence				Focus on concept of Artificial Intelligence. To have an idea about the various representation techniques used. To study the concept of expert systems.	2021
23UCS6E8	Discipline Specific Elective (DSE) – III – Ethical Hacking	✓		✓	Focus on latest security issues and network related concepts can be learnt.	2022
23UCS6E9	Discipline Specific Elective (DSE) – III : Mobile Computing	✓		✓	Focus on the concept of access all the important documents and files over a secure channel or portal and work as if they were on their computer.	2020
23UCT6S1	SEC IV: Naan Mudhalvan: Big Data Analytics Lab	✓		✓	Students will have knowledge on sources of Big data, data analytics life cycle, Hadoop Ecosystem, etc.	2020




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Percentage of Revision of B.Sc., Computer Technology Syllabus under Regulation 2023

COMPUTER TECHNOLOGY							
S.No	Course Code	Course Title	Change Details	% of Changes	Content Deleted	Content Updated	Reason for Change
							Subject Expert / Course Teacher / Alumini Opinion
1.	22UCT2A2	Generic Elective II - Allied II – Mathematics II- Statistics	New Paper	100%	Contents not Deleted	New Syllabus introduced in Semester II as CDC directed	As Subject Expert suggested
2.	23UCT2S1	Skill Enhancement Course SEC I – Naan Mudhalvan: Advanced Excel	New Paper	100%	Contents not Deleted	New Syllabus introduced in Semester II as CDC directed	As Board members suggested
3.	23UCT308	Core Course VI – Database Management Systems	Few suggestions were made in one Unit of this syllabus	20 %	Action on Explicit cursors	Contents not Added	As Board members suggested
4.	23UCT3A1	Generic Elective III - Allied III – Software Engineering	Few suggestions were made in Three Unit of this syllabus	60%	A Process Framework, A Bridge to Design and Construction, Object-Oriented Analysis	Contents not Added	As Alumni members suggested
5.	23UCT411	Core Course VII – Python	Few suggestions	40%	Additional File Methods-Using	Contents not Added	As Student members

		Programming	were made in two Unit of this syllabus		Pipes as Data Streams-Handling IO Exceptions-Working With Directories. <i>Special Characters-Character Classes-Quantifiers-Dot Character-Greedy Matches-Grouping-Matching at Beginning or End-Match Objects-Substituting-Splitting a String-Compiling Regular Expressions.</i>		suggested
6.	23UCT412	Core Course VIII – R Programming	New Paper	100%	New Syllabus introduced in Semester IV instead of subject Linux Programming	New Syllabus R Programming introduced	As Industry Expert suggested
7.	23UCT414	Core Course Lab VI: R Programming Lab	New Paper	100%	New Syllabus introduced in Semester IV instead of subject Linux Programming Lab	New Syllabus R Programming Lab introduced	As Industry Expert suggested
8.	23UCT4A1	GE: IV- Allied IV: Data Communication Networks	Few suggestions were made in Two Unit of this syllabus	40%	Internetworking Concepts, Internetworking Devices, Spam in E-Mail and	Contents not Added	As Alumni members suggested

					Phishing		
9	23UCT4A2	GE: IV- Allied IV: Software Testing	New Paper	100%	"	"	As Industry Expert suggested
10	23UCT4S2	Skill Enhancement Course SEC II - Naan Mudhalvan: PC Hardware	New Paper	100%	"	"	As Subject Expert suggested
11	23UCT5S1	SEC_III: Framework Technologies Lab	New Paper	100%	"	"	As Industry Expert suggested
12	23UCT5S2	SEC_III: Unix Programming Lab	New Paper	100%	"	"	As Subject Expert suggested
13	23UCT619	Core XI: Mobile Application Development	New Paper	100%	New Syllabus introduced in Semester VI instead of subject Framework Technology	New Mobile Application Development introduced	As University Nominee suggested
14	23UCT620	Core Lab IX: Mobile Application Development	New Paper	100%	New Syllabus introduced in Semester VI instead of subject Framework Technology Lab	New Mobile Application Development Lab introduced	AS University Nominee suggested
15	23UCT6S2	SEC - IV- Naan Mudhalvan: Big Data Analytics Lab	New Paper	100%	"	"	As Industry Expert suggested

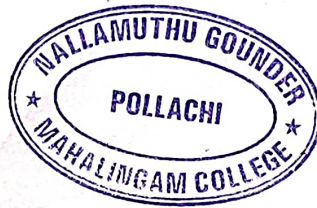
Total No. of Papers = 52

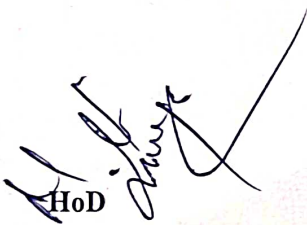
Weightage for each paper = 100

No. of Paper Newly Introduced / Revised = 11 +1.6

PERCENTAGE OF SYLLABUS REVISED = $(1260/5200)*100$

=24.23%




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