# Santosh N Darade Polytechnic

### **Department of Computer Engineering**

		Semester – 1 (CO1I)
Course	CO's	Course Outcomes
	C101.1	Formulate grammatically correct sentences.
(22101)	C101.2	Summarize comprehensive passages.
English	C101.3	Composes dialogues & paragraphs for different situations.
C101	C101.4	Use relevant words as per contexts.
	C101.5	Deliver; prepare speeches to express ideas, thoughts, and emotions.
	C102.1	Estimate error in the measurement of physical quantities.
(22102)	C102.2	Apply the principle of electricity and magnetism to solve Engg. problems
Basic Science	C102.3	Use the basic principles of heat & optics in related Engg. Applications.
(PHY & CHY)	C102.4	Apply the catalysis process in industries.
C102	C102.5	Use corrosion prevention measures in industries.
	C102.6	Use relevant Engg. Materials in industries.
	C103.1	Apply the concept of algebra to solve Engg. related problems
(22103)	C103.2	Utilize basic concepts of trigonometry to solve elementary Engg. Problems.
Basic	C103.3	Solve basic Engg. Problems under given conditions of straight lines.
Mathematics	C103.4	Solve the problems based on measurement of regular closed figures & regular
C103		solids.
	C103.5	Use basic concepts of statistics to solve Engg. related problems
	C104.1	Use computer systems & its peripherals.
(22001)	C104.2	Prepare business documents using word processing tools.
Fundamentals	C104.3	Interpret data & represents it graphically using spread sheets.
of ICT	C104.4	Prepare professional presentations
C104	C104.5	Use different types of web browsers.
(22002)	C105.1	
(22002)	C105.1	Draw geometric figures & engineering curves.
Engineering	C105.2	Draw a view of given object using principles of orthographic projection.
Graphics	C105.3	Draw isometric view of given components or from orthographic projection.
C105	C105.4	Use drawing codes conventions & symbols as per IS SP/46 in Engg. Drawing.
	C105.5	Draw free hand sketches of given engineering components.
I	C106.1	Select tools & machineries according to jobs.
(22004)	C106.1	E 3
(22004) Workshop		Sue hand tools in different shops for performing different operations.  Operate equipment & machinery in different shops.
Practice	C106.3	
	C106.4	Prepare job according to drawing.
C106	C106.5	Maintain workshop related tools equipments & machinery.

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# **Department of Computer Engineering**

		Semester – 2 (CO2I)
Course	CO's	Course Outcomes
	C107.1	Use principle of magnetic circuit
(22215)	C107.2	Use of single phase AC supply for electrical and electronics equipment
EEC	C107.3	Use of three phase AC supply for industry equipment and machines
	C107.4	Connect the transformer and DC motors
C107	C107.5	Use relevant protective device/ switch gear for different requirement
	C108.1	Calculate the equation of tangent maxima, minima, radius of curvature of differentiation
	C108.2	Solve given problem of integration using suitable methods
(22224)	C108.3	Apply the concepts of integration to find area and volume
Applied	C108.4	Solve differential equation of first order and first degree using suitable method
Mathematics	C108.5	Apply the concepts of numerical method in computer programing language
C108		
(22225)	C109.1	Identify electronic component in electric circuit
Basic	C109.2	Use diode in different application
Electronics	C109.3	Interpret working of junction transistor in electronic circuit
C109	C109.4	Use sensor and transducer
	C109.5	Identify electronic component in electric circuit
	C110.1	Develop flowchart and algorithm to solve problems logically.
(22226)	C110.2	Write simple 'C' program using arithmetic expressions.
<b>Programming</b>	C110.3	Develop 'C' programs using control structure.
in 'C'	C110.4	Develop 'C' programs using arrays and structures.
C110	C110.5	Develop/Use functions in C programs for modular programming approach.
	C110.6	Develop 'C 'programs using pointers.
(22022)	C111 1	
(22009) BCC	C111.1	Communication effectively by avoiding batteries in various formal and informal
ВСС	C111.2 C111.3	Communicate skillfully ability using non verbal methods of communication
C111	C111.3	Give presentation by using audio visual aids  Write reports using correct guidelines
_	C111.4	Write reports using correct guidelines  Compose emails and business letters
-	C111.6	Compose emails and pusiness letters
	C111.0	

(22013)	C112.1	Identify different types of computer system.
Computer Peripherals	C112.2	Troubleshoot common motherboard problem.
And	C112.3	Select processor for required for relevant system.
Haraware	C112.4	Partition or format hard disk drive.
Maintanance <i>C112</i>	C112.5	Troubleshoot peripherals and network.
CHZ	C112.6	Test power supply
(22014)	C113.1	Use block level formatting tags to present content on web page.
Web Page	C113.2	Use text level formatting tags to present content on web page.
Designing with	C113.3	Apply hyper linking on web page.
HTML	C113.4	Organize the content using table and frames.
C113	C113.5	Apply presentation schemes on content using css.
	C113.6	Publish website on Internet or Intranet.

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## **Department of Computer Engineering**

		C4 2 (CO2D)
		Semester – 3 (CO3I)
	C201.1	Develop C++ programs to solve problems using Procedure Oriented Approach.
(5.5.5	C201.2	Develop C++ programs using classes and objects.
(22316)	C201.3	Implements Inheritance in C++ program.
Object Oriented	C201.4	Use Polymorphism in C++ program.
Programming .		
language	C201.5	Develop C++ programs to perform file operations.
C201	C201.6	
(22317)	C202.1	Perform the basics operation on array
Data	C202.2	Applied different searching / sorting techniques
Structure	C202.3	Implement basic operation on stack and queue
Using 'C'	C202.4	Implement basic operation on linked list
C202	C202.5	Implement the program to create and travers tree to solve problem
	C202.6	
	C202.1	
(22210)	C203.1	Manipulate visual and geometric information of image
(22318)	C203.2	Implement the standard algorithm to draw various graphics object using c program
Computer	C203.3	Develop program for 2D and 3D transformation
Graphics	C203.4	Use a projection to visualize object on view plane
C202	C203.5	Implement varies clipping algorithm
C203	C203.6	Develop a program to create curve using algorithm
(22319)	C204.1	Design Normalized Database on given data.
Database	C204.2	Create and manage database using SQL command.
Management	C204.3	Write PL/SQL code for given database.
System	C204.4	Apply trigger on database also create procedure and function according to condition.
C204	C204.5	Apply security and confidentiality on given database.
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(22320)	C205.1	Use the number system and codes for interpreting working of digital system
Digital	C205.2	Use of Boolean expression to realize logic circuit
Techniques	C205.3	Build simple combinational circuits
	C205.4	Build simple sequential circuits
C205		
	C205.5	Test data converts and PLD's in digital electronics system
	C205.6	

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### **Department of Computer Engineering**

		Semester – Semester – 4 (CO4I)
	C207.1	Develop programs using Object Oriented methodology in Java.
(22412)	C207.2	Apply concept of inheritance for code reusability.
Java	C207.3	Develop Programs Using Multithreading.
Programming		
	C207.4	Implement Exception Handling.
C207	C207.5	Develop programs for graphics and applets
	C207.6	Develop programs for handling I/O and file streams.
(22.412)	G200.1	
(22413)	C208.1	Select the suitable software process for software development
Software	C208.2	Prepaid software requirement specification
Engineering	C208.3	Use software modeling to create data design
C200	C208.4	Estimate size and cost of software product
C208	C208.5	Apply project management and quality assurance principle software development
	C208.6	
	C209.1	Analyze the functioning of data communication and computer network.
(22414)		,
(22414)	C209.2	Select relevant transmission media and switching technique as per need.
Data	C209.3	Analyze the transmission errors with respect to IEEE standards.
Communication & Computer		
Network		
rectwork	C209.4	Configure various networking devices.
	C209.5	Configure different TCP/IP Services.
C209	C209.6	Analyze the functioning of data communication and computer network.
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(22415)	C210.1	Analyze the functional block of 8086 microprocessor.
Microprocessor	C210.2	Write assembly language program for the given program.
	C210.3	Use instruction for different addressing mode.
C210	C210.4	Develop an assembly language program using assembler.
	C210.5	Develop Assembly language program using procedure, macro, and modular
		programming.
(22034)	C211.1	Use visual studio ide to design application
GAD	C211.2	Develop GUI application using form control and its events
	C211.3	Apply OOP concepts In GUI Application
C211	C211.4	Use data Access controls to store data database and retrieve it
	C211.5	Use data binding in GUI application

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## **Department of Computer Engineering**

		Semester – 5 (CO5I)
		Semester – 5 (COSI)
(22447)	C302.1	Develop Public awareness about environment .
(22117)	C302.2	Select alternative energy resource for engineering practice
Environmental	C302.3	Apply technique to reduce environmental pollution
Studies	C302.4	Develop Public awareness about environment .
C302	C302.5	Convert ecosystem and biodiversity
		Convert ecosystem and broanversity
	C303.1	Install operating system and configure it.
(22516)		Use operating system tools to perform various functions.
Operating System	C303.2	Execute process commands for performing project management operations.
	C303.3	Apply scheduling algorithm to calculate turn around time and average waiting time
	C303.4	Apply efficiency of different memory management techniques.
C303	C303.5	Install operating system and configure it.
	C303.6	Use operating system tools to perform various functions.
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	C304.1	Develop programs using GUI Framework(AWT & Swing).
(22517)	C304.2	Handle events of AWT & SwingdComponets.
Advanced Java	C304.3	Develop programs to handles events in Java Programming.
Programming	C304.4	Develop programs using networking concepts.
G20.4	C304.5	Develop programs using Database.
C304	C304.6	Develop programs using GUI Framework(AWT & Swing).
		Handle events of AWT & SwingdComponets.
(22510)	C205 1	A multi-viguia va aefti vigua taeti na maethaed
(22518) Software	C305.1 C305.2	Apply various software testing method
Testing		Prepare test case for different type and level testing
	C305.3	Prepare test plan for an application
C305	C305.4	Identify bugs to create defect report of given application
	C305.5	Test software for performance measures using automated testing tool
	C305.6	
	(207.1	
(22510)	C306.1	Create interactive web pages using program flow control structure
(22519)	C306.2	Implement Arrays and function in Javascript

Cascading Style Sheets	C306.3	Create event based web forms using Javascript
(Elective I) <b>C306</b>	C306.4	Use JavaScript for handling cookies
	C306.5	Create interactive webpage using regular expressions for validations
	C306.6	Create Menus and navigation in web pages
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	C308.1	Write problem specification in existing system related to occupation Select collect and use required information to solve identify problem
(22058) Capstone	C308.2	Logically choose relevant possible solution Consider ethical issue related project
Project-	C308.3	Assess impact of project on society
Planning	C308.4	Write problem specification in existing system related to occupation
C308	C308.5	Select collect and use required information to solve identify problem
	C308.6	

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	C210.1	Semester – 6 (CO6I)
(22500)	C310.1	Use basic management principle to execute daily activities
(22509)	C310.2	Use principle of planning and organizing for accomplishment of task
Management-	C310.3	Use planning of directing controlling for implementing a plan
Management	C310.4	Apply principle of safety management in all activities
C310	C310.5	Understand various provision of industrial acts
	C311.1	Write and execute simple python program.
(22616)	C311.2	Write python program using arithmetic expression and control structure.
Python	C311.3	Develop python program using list, tuple, dictionary.
Programming	C311.4	Develop/use function in python programs for modular programming approach.
C311	C311.5	Develop python program using file input/output operation.
	C311.6	Write python code using Classes and Objects.
I	C312.1	Interpret features of Android operating systems
(22617)		Interpret features of Android operating system
(22617) Mobile	C312.2	Configure Android environment and development tools
Application	C312.3	Develop rich user Interfaces by using layouts and controls
And	C312.4	Use User Interface components for android application development
Development C312	C312.5	Create Android application using database
C312	C312.6	Publish Android applications
-	C313.1	Describe the artificial intelligence , machine learning and deep learning
(22618)	C313.2	Interpret the IoT concepts
Emerging	C313.3	Compare model of digital forensic investigation
Trends in IOT C313	C313.4	Describe evidence handling procedure
C313	C313.5	Describe ethical hacking process
	C314.1	Identify the risk related to computer security and information hazards in various
(22620)		situation
Network	C314.2	Apply user identification and authentication method
Information	C314.3	Apply cryptography algorithm and protocol maintain computer security
& Security	C314.4	Apply measure to prevent attacks on network using firewall
(Elective- I)	C314.5	Maintain secure network and describe information security compliance standards
C314	C314.6	
(22032)	C315.1	Identify your entrepreneur traits
Enterpreneurship	C315.2	Identify the business opportunity that suits you
Development	C315.3	Use the support systems to zero down to business idea
		Land a symbolic March 2011 and

C315	C315.4	Develop comprehensive business plan
	C315.5	Prepare plan to manage enterprise effectively
	C315.6	
	C318.1	Implement planed activity individually and or team
	C318.2	Select collect and use required information to solve identify problem
(22060)		Take appropriate decision on Collected and information
Capstone	C318.3	Ensure quality in product
Project-	C318.4	Incorporate energy and environment conservation principle
Execution &		
Report Writing	C318.5	Consider ethical issue related project
C318	C318.6	Assess impact of project on society
		Implement planed activity individually and or team