Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women (Autonomous)

Owned and Managed by Cork Industries Charities Trust
Affiliated to University of Madras - Re-Accredited with 'A+' Grade by NAAC
Chromepet Chennai-600044

57 YEARS

PG DEPARTMENT OF COMPUTER SCIENCE

MSc COMPUTER SCIENCE

CHOICE BASED CREDIT SYSTEM (CBCS)

&

LEARNING OUTCOMES BASED CURRICULUM FRAMEWORK (LOCF)

Batch 2023-2025

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PROGRAMME OUTCOMES (PO)

After completion of the programme, the student will be able to

PO1	Identify and analyze the complex problems reaching substantiated conclusions using domain knowledge
PO2	Apply investigative research, specialize in problem identification, formulate research design, utilise analytical tools, draw valid inferences and provide suggestions leading to nation building initiatives.
PO3	Strengthen professional ethics and career planning with systematic building of intrapersonal and interpersonal skills to participate in the intellectual diasporas.
PO4	Establish oneself as a self-reliant, empowered individual to have an inclusive, healthy and compassionate understanding towards life and society.
PO5	Equipped with technical / managerial expertise to innovate and critically analyze various attributes which constitute pivotal issues in a multidisciplinary scenario.
PO6	Emerge as innovators and pioneers to create new avenues of employment catering to the global trends as well as demands.

PROGRAMME SPECIFIC OUTCOMES (PSO)

The students at the time of graduation will

PSO1	Acquire the fundamental knowledge for professional software development
PSO2	Develop the skills necessary to support their career in software development, web development, databases and entrepreneurship in recent trends like data analytics, artificial intelligence, Image processing, Networking, Embedded systems
PSO3	Integrate Computing skills and soft skills to meet the current demand of IT Industry and pursue research in computer science

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57 YEARS

MSc Computer Science

CURRICULUM FRAMEWORK 2024 – 2026 Batch

SEM	PART	COURSE TYPE	COURSE CODE	COURSE TITLE	CREDITS	LECTURE HOURS		CIA	ESE	TOTAL
						TH	P			
I Year I Semester	I	Core Paper-I	23PCSCT1001	Theory of Computation	4	6		40	60	100
	I	Core Paper-II	23PCSCT1002	Advanced Java Programming	4	6		40	60	100
	I	Core Paper-III	23PCSCT1003	Full Stack Web Development	3	6		40	60	100
	I	Core Practical-I	23PCSCP1001	Practical-I: Advanced Java Programming Lab	2		4	40	60	100
	I	Core Practical-II	23PCSCP1002	Practical-II: Full Stack Web Development	2		4	40	60	100
	I	Elective Theory-I	24PCSET1A01	Any one from the list of Electives (Theory)	3	4		40	60	100
	II	Skill Based Electives	22PSSCS1001	CyberSecurity	3			50		100
				TOTAL	**21**					**700**
I Year II Semester	I	Core Paper-IV	23PCSCT2004	Design and Analysis of Algorithm	4	5		40	60	100
	I	Core Paper-V	23PCSCT2005	Digital Image Processing	4	5		40	60	100
	I	Core Paper-VI	23PCSCT2006	Data Science using Python	3	4		40	60	100
	I	Core Practical-III	23PCSCP2003	Practical-III: Digital Image Processing Lab	2		4	40	60	100
	I	Core Practical-IV	23PCSCP2004	Practical-IV: Data Science using Python Lab	2		4	40	60	100
	I	Elective Practical - I	23PCSEP2001	Any one from the list of Electives (Practical)	3		4	40	60	100
	I	Elective Theory-II	20PCSET2SA2	Any one from the list of Electives (Theory)	3	4		40	60	100
	II	Soft Skill	18MOOC2002	Swayam- Mooc	4			50		100

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				TOTAL	**25**					**800**
II year III Semester	I	Core Paper-VII	23PCSCT3007	Cloud Computing	4	5		40	60	100
	I	Core Paper-VIII	23PCSCT3008	Big Data Analytics	4	5		40	60	100
	I	Core Paper-IX	23PCSCT3009	Deep Learning Techniques	3	4		40	60	100
	I	Core Practical-V	23PCSCP3005	Practical-V: Big Data Analytics Lab	2		4	40	60	100
	I	Core Practical-VI	23PCSCP3006	Practical-VI: Deep Learning Techniques	2		4	40	60	100
	I	Elective Theory-III	23PCSET3A03	Any one from the list of Electives (Theory)	3	3		40	60	100
	I	Elective Practical - II	23PCSEP3A02	Any one from the list of Electives (Practicals)	3		4	40	60	100
	II	Skill Based Electives	18PSSRS3003	Research Skills	3			50		100
	II	Internship	17PCSIP3001		2			50		100
				TOTAL	**26**					**900**
II Year IV Semester	I	Core Practical-VII	20PCSCP4NL7	Case Study Practical-1	3		5	40	60	100
		Core Practical-VIII	24PCSCP4BI8	Case Study Practical-2	3		5	40	60	100
		Core Project	20PCSPR4001	Project & Viva-Voce	9		20	50	150	200
		Soft Skill	23PSECR4004	Coursera	4			40	60	100
				TOTAL	**19**					**500**
				GRAND TOTAL	**91**					**2900**

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Core Electives

List of Electives: Group – I (Theory)	List of Electives: Group – II (Practical)
1. Artificial Intelligence 2. Soft Computing 3. Quantum Computing 4. Cryptography and Cyber Security 5. Ethical Hacking 6. Social Network Analysis 7. Bio-Inspired Computing 8. Linguistics Computing 9. Augmented Reality and Virtual Reality 10. Crypto currency and Block Chain Technology	1. "R" Programming 2. Weka Tool 3. Natural Language Processing Tool Kit 4. Mobile Application Development 5. Testing and Automation 6. Devops 7. Embedded Systems and IOT 8. Robotics 9. Microsoft Azure Fundamentals 10. Business Intelligence