

MGM University

Vision

- To ensure sustainable human development which encourages self-reliant and self-content society.
- To promote activities related to community services, social welfare and also Indian heritage and culture.
- To inculcate the culture of non-violence and truthfulness through vipassanna meditation and Gandhian Philosophy.
- To develop the culture of simple living and high thinking

Mission

- To impart state of art education and technical expertise to students and give necessary training to teachers to create self-reliant society for future.
- To encourage students to participate in Indian and International activities in sports, literature, etc. so that future generation becomes base for free and liberal society
- To educate students in areas like Management, Finance, Human relations to inculcate philosophy of simple living and high thinking value of simple economic society.
- To inculcate culture of non-violence and truthfulness through Vipassana.

To sustain activities of Indian culture (viz. classical dance, music and fine arts) through establishing institutes like Mahagami, Naturopathy, etc.

विद्यापीठगीत

अत्तदिपभवभवप्रदिपभव,
 स्वरूपरूपभवहो
 ज्ञानसब्बविज्ञानसब्बभव ,
 सब्बदिपभवहो
 अत्ताहिअत्तनोनाथो ,
 अत्ताहिअत्तनोगति
 अत्तमार्गपरअप्रमादसेहैतुझेचलना
 सब्बकाकल्याणहो ,
 वोकार्यकुशलकरना
 सब्बकाउत्तममंगल , पथप्रदर्शकहो
 अत्तदिपभवभवप्रदिपभव ,
 स्वरूपरूपभवहो
 ज्ञानसब्बविज्ञानसब्बभव ,
 सब्बदिपभवहो
 बुद्धमंशरनंगच्छामि :
 धम्मंशरनंगच्छामि :

संघंशरनंगच्छामि :

Jawaharlal Nehru Engineering College (JNEC) at a Glance

Jawaharlal Nehru Engineering College is a premier institute of engineering that has carved a niche for itself in the field of technical education in a very short span of time. The college has made its presence felt in the world of technical education. JNEC is a conducted college of MGM University, Chhatrapati Sambhajnagar from the academic year 2020-21.

Unique in its structure, methods and goals, the college is strongly rooted in the philosophy of training and research that enhances the relationship between knowledge and its application and seeks to promote the creation of an ideal society. The college also provides facilities for research leading to Ph. D. through its Research Center. JNEC provides a congenial atmosphere for diligent academic pursuits. This has been reflected through the results. Most of our students are among the toppers in various engineering disciplines.

Vision

To create self-reliant, continuous learner & competent technocrats imbued with human values.

Mission

- Imparting quality technical education to the students through participative teaching –learning process.
- Developing competence amongst the students through academic learning and practical experimentation.
- Inculcating social mindset and human values amongst the students.

Programs offered at JNEC

Undergraduate Programmes	Postgraduate Programmes	PhD Programmes	PG Diploma Programmes	Certificate Programmes
B. Arch. - Architecture	M. Arch. - General Architecture	PhD Architecture		
B. Tech. Artificial Intelligence & Data Science	M. Arch. - Environmental Architecture	PhD Chemical Engineering		
B. Tech. Chemical Engineering	M. Tech. Digital Transformation	PhD Civil Engineering		
B. Tech. Civil Engineering	M. Tech. Electrical Power Systems	PhD Electrical Engineering		
B. Tech. Civil Engineering with Computer Applications	M. Tech. Mechanical Engineering	PhD Electronics Engineering		
B. Tech. Civil Engineering (Construction Technology)	M. Tech. Structural Engineering	PhD Mechanical Engineering		
B. Tech. Computer Science & Engineering	M. Tech. VLSI & Embedded Systems	PhD Computer Science & Engineering		
B. Tech. Electrical & Computer Engineering	Master of Computer Applications - MCA	PhD Computer Applications		
B. Tech.				

Electronics & Computer Engineering				
B. Tech. Mechanical Engineering				
B. Tech. Mechanical & Mechatronics Engineering (Additive Manufacturing)				
B. Tech. Robotics & Artificial Intelligence				

Department of Master of Computer Applications

Postgraduate program of Masters of Computer Applications (MCA) Engineering is approved by All India Council for Technical Education (AICTE). This is a 2 years full time Postgraduate degree program and offers choice based credit system education.

MCA program is uniquely designed to increase the employability and to prepare students to work in a multi-disciplinary work environment. In addition to core courses, student can opt for track based courses, open electives courses from different institutes of the MGMUniversity.

Along with theoretical knowledge, the more emphasis is on hands-on industry oriented training and overall development of the individual personality of student. Laboratories maintain adequate number of computers and peripherals of latest configurations for teaching and research work. As IT and software industry are dynamic and fast-growing, MCA program is designed keeping in view, the requirements of the industry.

Name of Program – Master of Computer Applications

Duration – Two Years

Eligibility –

(1) For Maharashtra Candidate:

(i) The Candidate should be an Indian National and having domicile of Maharashtra

state and/or born in Maharashtra state.

(ii) Candidate should have Passed B.C.A or B.Sc. (Computer Science) or B.Sc (IT) or B.E. (CSE) or B.Tech (CSE) or B.E. (IT) or B.Tech. (IT) or equivalent Degree and obtained at least 50% marks in aggregate (at least 45% in case of candidates of Backward Class categories and Persons with Disability category belonging to Maharashtra State

or

B.Sc./ B.Com./ B.A. /B.Voc with Mathematics as one of the subjects at 10+2 level or at Graduation level examination (with additional bridge Courses as per the norms of the University) and obtained at least 50% marks in aggregate (at least 45% in case of candidates of backward class categories and Persons with Disability belonging to Maharashtra State only).

(iii) Obtained non zero positive score in MGMU - CET 2023 (MCA)/ MAH-MCA-CET 2023/PERA CET 2023.

(2) For All India Candidate-

(i) The Candidate should be an Indian National.

(ii) Passed BCA /Bachelor degree in computer science engineering or equivalent degree

or

B.Sc./B.Com./ B.A. with Mathematics as one of the subjects (at 10+2 level or at Graduation level examination) and obtained at least 50% marks in aggregate (at least 45% in case of candidates of backward class categories and Persons with Disability belonging to Maharashtra State only).

(iii) Obtained non zero positive score in MGMU - CET 2023 (MCA) or MAH-MCA-CET 2023 or PERA CET 2023.

(3) NRI Candidate –

Passed BCA/B.Sc./B.Com/ B.A. or equivalent degree with Mathematics as one of the subjects (at 10+2 level or at Graduation Level examination) and obtained at least 50% marks in aggregate.

Name of Faculty: Engineering & Technology

Name of the College/Institute/Department/School: Jawaharlal Nehru Engineering College

Name of the Programme: Master of Computer Applications

Programme Type (UG/PG): PG

Duration: 02 Years

First Year : Semester I																			
CourseCode	CourseTitle	Type	Teaching Scheme			EvaluationScheme(Marks)						MinimumPassing(Marks)						Credit	
						Internal			External			Internal			External				
			L	T	P	CA	MS E	TW	ES E	PR	Total	C A	M SE	TW	ESE	P R	Total		
20PMC101D	Statistics & Probability	Theory	3	1	--	20	20	--	60	--	100	-	-	-	24	-	40	4	
20PMC102D	Data Structures & Algorithms	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3	
20PMC103D	Operating Systems	Theory	2	1	--	20	20	--	60	--	100	-	-	-	24	-	40	3	
20PMC104D	Accounts & Financial Management	Theory	2	--	--	--	--	--	50	--	50	-	-	-	20	-	20	2	
20PMC105D	Advanced Computer Networks	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3	

20PMC106D	Object Oriented Programming using Java	Theory	2	--	--	--	--	--	50	--	50	-	-	-	20	-	20	2
20PMC107D	Essentials of DBMS	Theory	1	--	--	50	--	--	--	--	50	20	-	-	-	-	20	1
20PMC108L	OOP using Java Lab	Practical	--	--	4	--	--	--	--	50	50	-	-	-	-	20	20	2
20PMC109L	Data Structures & Algorithms Lab	Practical	--	--	2	--	--	50	--	--	50	-	-	20	-	-	20	1
20PMC110L	RDBMS Lab	Practical	--	--	4	--	--	--	50	--	50	-	-	-	-	20	20	2
20PMC111P	Web Technology Project	Practical	--	--	4	--	--	50	--	50	100	-	-	20	-	20	40	2
	Total		16	2	14	130	80	100	340	150	800	-	-	-	-	-	320	25

First Year : Semester II

Course Code	Course Title	Type	Teaching Scheme			Evaluation Scheme (Marks)						Minimum Passing (Marks)					Credit		
						Internal			External			Total	Internal			External		Total	
						C	M	T	ES	PR	CA		MS	T	ES	PR			
L	T	P	A	SE	W	E	PR	CA	MS	T	ES	PR	Total						
20PMC201D	Data Warehousing & Data Mining	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3	
20PMC202D	Agile Software Development	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3	
20PMC221D	Software Testing	Theory	2	--	--	--	--	--	50	-	50	-	-	-	20	-	20	2	
20PMC203E 20PMC204E 20PMC206E	Track1-Cyber Security·Data Encryption Track2-Data Science·Machine Learning using Python Track3-Cloud Computing·	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3	

	BasicCloud computing essentials																	
20PMC207E	Track1- CyberSecurity-DigitalForensics	Theory	3	--	--	20	20	--	60	--	100	-	-	-	24	-	40	3
20PMC208E	Track2- DataScience - - DataScience &Visualization																	
20PMC210E	,Track3 – CloudComputing -Cloud Security&Migration																	
22PMC201L	Lab- SoftwareTesting	Practical	--	--	2	--	--	-	--	50	50	-	-	-	-	20	20	1
20PMC212L	DWDMLab	Practical	--	--	2	--	--	--	--	50	50	-	-	-	-	20	20	1
20PMC213L	Track1- CyberSecurity - DataEncryption Lab	Practical	--	--	2	--	--	--	--	50	50	-	-	-	-	20	20	1
20PMC214L	Track2- DataScience -Machine																	
20PMC216L	LearningTrack 3- CloudComputing -CloudComputing																	
20PMC217L	AdvanceJava	Practical	--	--	4	--	--	50	--	50	100	-	-	20	-	20	40	2
20PMC218P	AndroidProject	Practical	--	--	4	--	--	50	--	50	100	-	-	20	-	20	40	2
20PMC219L	PersonalityDevelopment &Communication skills	Practical	--	--	4	--	--	50	--	--	50	-	-	20	-	-	20	2
20PMC220H	AuditCourse- Basic HumanRights	Humanities	--	--	2	--	--	50	--	--	50	-	-	20	-	-	20	Audit
		Total	14	--	20	80	80	200	290	250	900	-	-	-	-	-	360	23

Name of Program – Master of Computer Applications

Second Year : Semester III																			
Course Code	Course Title	Type	Teaching Scheme			Evaluation Scheme (Marks)						Minimum Passing (Marks)						Credit	
						Internal			External			Total	Internal			External			Total
			L	T	P	CA	MS	TW	ESE	PR	CA		MS	TW	ESE	PR	Total		
20PMC301D	Internet of Things (IOT)	Theory	3	--	--	20	20	--	60	-	100	-	-	-	24	-	40	3	
20PMC302D	Artificial Intelligence	Theory	2	--	--	--	--	--	50	-	50	-	-	-	20	-	20	2	
20PMC303E 20PMC304E 20PMC306E	Track1- Cyber Security · Ethical Hacking Track2- Data Science · Big Data Analytics Track3 – Cloud Computing · Cloud Services	Theory	3	--	--	20	20	--	60	-	100	-	-	-	24	-	40	3	
20PMC307E 20PMC308E 20PMC310E	Track 1- Cyber Security · Intrusion Detection Track 2- Data Science · Natural Language Processing Track 3 – Cloud Computing · DevOps	Theory	3	--	--	20	20	--	60	-	100	-	-	-	24	-	40	3	
20PMC311D	Cyber Security	Theory	2	--	--	--	--	--	50	-	50	-	-	-	20	-	20	2	
20PMC313D	Aptitude Training	Theory	2	--	--	--	--	50	--	-	50	-	-	20	-	-	20	2	
20PMC314L	Research Methodology Lab	Practical	--	--	2	--	--	50	--	-	50	-	-	20	-	-	20	1	

20PMC315L	Track 1- Cyber Security · Ethical Hacking Lab																		
20PMC316L	Track 2- Data Science · Big Data Analytics	Practical	--	--	2	--	--	--	--	50	50	-	-	-	-	20	20	1	
20PMC318L	Track 3 –Cloud Computing · Cloud Services and DevOps Lab																		
20PMC319L	IOT Lab		Practical	--	--	2	--	--	--	--	50	50	-	-	-	-	20	20	1
20PMC320P	Project based learning- Track based	Practical	--	--	4	--	--	--	--	50	50	-	-	-	-	20	20	2	
20PMC321M	Online Certification Course	Practical	-	--	2	--	--	50	--	--	50	-	-	20	-	--	20	1	
	Total		15	0	12	60	60	150	280	150	700	-	-	-	-	-	280	21	

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Program Name-MCA Structure(Semester IV)

Course Code	Course Title	Type	Teaching Scheme			Evaluation Scheme (Marks)						Minimum Passing (Marks)					Credit	
						Internal			External			Total	Internal			External		Total
			L	T	P	CA	MSE	TW	ESE	PR	CA		MSE	TW	ESE	PR		
20PMC401I	Dissertation	Practical (16 weeks - 5 days per week - 6 hours per day)	-	-	30	-	-	50	-	150	200	-	-	20	-	60	80	15
20PMC402S	Seminar	Practical	-	-	10	-	-	50	-	-	50	-	-	20	-	-	20	5
	Total		-	-	40	-	-	100	-	150	250	-	-	-	-	-	100	20

L-Lecture, T-Tutorial, P-Practical, CA-Continuous Assessment, MSE-Mid Semester Exam, ESE-End Semester Exam, TW-Term Work, PR-Practical Exam

Total Credits of the Programme-25+23+21+20=89