JAIDEV EDUCATION SOCIETY'S
J D COLLEGE OF ENGINEERING AND MANAGEMENT
KATOL ROAD, NAGPUR
Affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere
Website: **www.jdcoem.ac.in** E-mail: **info@jdcoem.ac.in**
An Autonomous Institute, with NAAC "A" Grade
Affiliated to DBATU, RTMNU, MSBTE, Mumbai
Department of Civil Engineering
"Building Better Development"
Session 2022-23

VISION	MISSION
❖ **To shape professional Leaders of Global Standards in Civil Engineering.**	❖ **To provide quality Education and Excellent Learning Environment for the overall development of students.** ❖ **Making sustainable efforts for integrating academics with industry.**

1.1.1

B. Tech. Civil Engineering		
Program Specific Outcomes		
PSO	Statement	Relevance to Development Need
PSO1	Represent and relate the basic engineering knowledge with proficiency in competent problem-solving ability through analysis, investigation and design of diverse area of civil engineering.	National
PSO2	Inculcate the professionalism in communication with application of modern civil engineering tools along with ethical and societal responsibilities to have a successful career.	National
PSO3	Assemble the concept of civil engineering for higher education, research or entrepreneurship and also evaluates the information for maintaining the specifications in quality work.	National

Category	Course Category	Relevant Courses
I Semester		
Global	HU1T001	Communication Skills
Global	MA1T002	Vector Calculus & Probability
Global	CE1T002	Engineering Chemistry
National	CE1T003	Engineering Graphics
Global	HU1L001	Communication Skills Lab.
Global	CE1L002	Engineering Chemistry Lab
National	CE1L003	Engineering Graphics Lab
Regional		Induction Programme
National	CE1T004	Basic Civil and Mechanical Engineering
II Semester		
Global	HU2T002	Introduction to Computer programming
Global	MA2T003	Statistics & Difference Calculus

Global	CE2T005	Engineering Physics
National	CE2T006	Energy and Environment Engineering
Global	HU2L002	Introduction to Computer programming Lab
Regional	WS2L001	Workshop Practices
Global	CE2L005	Engineering Physics Lab
Regional	FY2P001	Societal Internship/ Field Training
National	CE2T007	Basic Electrical and Electronics Engineering
III Semester		
Global	HSMC	Civil Engineering - Societal & Global Impact
National	BSC	Engineering Mathematics-III
National	ESC	Building Drawing and Drafting
Global	ESC	Mechanics of Rigid bodies
National	ESC	Energy Science and Engineering
National	PCC	Basic Geology and Geotechnical Engineering
National	ESC	Building Drawing and Drafting Lab
Global	ESC	Mechanics of Rigid Bodies Lab
National	PCC	Basic Geology and Geotechnical Engineering Lab
Regional	PROJECT	Internship/Field Visit
National	MC	Innovation and Entrepreneurship Development
VI Semester		
Global	BSC	Life Science
National	PCC	Hydrology & Water Resource Engineering
National	PCC	Concrete Technology & Design of RCC Building Elements
Global	PCC	Solid Mechanics
Global	PCC	Surveying and Geomatics
National	PCC	Materials, Testing & Evaluation
National	PCC	Concrete Technology & Design of RCC Building Elements Lab
Global	PCC	Solid Mechanics Lab
Global	PCC	Surveying and Geomatics Lab
Regional	PROJECT	Internship/Field Visit II
Global	MC	Universal Human Values
V Semester		
National	HSMC	Professional Practice, Law & Ethics
Global	PCC	Fluid Mechanics
Global	PCC	Structural Analysis
National	PCC	Transportation Engineering
Global/National	OEC	Open Elective-I
National	PCC	Fluid Mechanics Lab
Global	PCC	Structural Analysis Lab
National	PCC	Transportation Engineering Lab
Regional	PROJECT	Mini Project & Seminar
Regional	PROJECT	Field Visit III
National	MC	Consumer Affair
VI Semester		
National	PCC	Design of Steel Structures
Global	PCC	Environmental Engineering
Global/National	PEC	Professional Elective I

Global/National	PEC	Professional Elective-II
Global/National	OEC	Open Elective-II
National	PCC	Design of Steel Structures Lab
Global	PCC	Environmental Engineering Lab
Regional	PROJECT	Mini Project & Seminar
Global		Campus Recruitment Training (CRT)
Global		Skill Development
Global	MC	Research Methodology
VII Semester		
National	PCC	Engineering Economics, Estimating and Costing
Global/National	PEC	Professional Elective III
Global/National	PEC	Professional Elective IV
Global/National	PEC	Professional Elective V
Global/National	OEC	Open Elective-III
National	PCC	Engineering Economics, Estimation and Costing Lab
Regional	PROJECT	Project-1
National	MC	IPR (Intellectual Property Rights)
VIII Semester		
Global/National	PEC	Professional Elective VI
Global/National	OEC	Open Elective-IV
Regional	PROJECT	Project-2
		OR
Regional	PROJECT	Internship (Full Semester)

BOS, Chairman,
Assistant Professor,
Department of Civil Engineering,
JDCOEM, Nagpur

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Department Of CSE
"A Place to Learn ; A Chance to Grow"
Session 2022-23

VISION	MISSION
To be a recognized as an Excellent Innovative Engineering Department through Academic Programme which develops leaders in Education and Research in Computer Science."	1. To create self-learning environment by facilitating leadership qualities, team-spirit and ethical responsibilities. 2. To Strengthen department-industry collaboration and interaction with professional society through technical knowledge and internship program. 3. To promote research and development with current techniques through well qualified resources in the area of computer science and wireless engineering.

PSO Relevance to Development Need (B.Tech)

PSO	Statement	Relevance to Development Need
PSO1	The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexity	Local
PSO2	The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.	National
PSO3	The ability of employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur, lifelong learning & a zest for higher studies and also acts as good citizen by inculcating in them moral values & ethics.	National / Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	CRT(Campus Recruitment Training), Skill Development
Relevance to the Regional Needs	Digital Electronics and Microprocessor, , Internet Of Things.
Relevance to the National Needs	Organization Behaviour, Universal Human Values, Consumer Affairs, Ethics in IT, , CRT(Campus Recruitment Training), Skill Development, Intellectual Property Rights, Innovation and Entrepreneurship Development
Relevance to the Global Needs	Programming for Problem Solving, Digital Electronics and Microprocessor, Data structure & Algorithms, Operating System, Computer Architecture Organization, Java Programming, FLAT, Computer Network, Database Management Systems, Discrete Mathematics & Graph Structures Internet Of Things, TCP/IP, Design and Analysis of Algorithm, OSOS (Open Source Operating System), Augmented Reality(ELective 1), Block Chain(ELective 1), Artificial Intelligence & Robotics, Neural Networks and Machine Learning, Cloud Computing, Human Computing, Digital Forensic,

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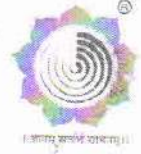Website: www.jdcoem.ac.in   E-mail: info@jdcoem.ac.in

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	Deep Learning, Software Engineering, Data Science, Big Data Analytic Technique, Digital Image Processing, Natural Language Processsing, AI In Wireless Communication, Research Methodology, Full Stack Development, Advanced Database System, Ethical Hacking, Innovation and Entrepreneurship Development

Dr. Supriya S. Sawwashere

HOD, CSE, JDCOEM

Computer Science & Engineering

JDCOEM, Nagpur

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PSO Relevance to Development Need (M.Tech)

PSO	Statement	Relevance to Development Need (Select Suitable)
PSO1	Understand the basic engineering principles and achieve the hardware and software aspects of computer engineering.	National / Global
PSO2	Analyze the real world applications using algorithmic models and acquire the knowledge of computer architecture.	National / Global
PSO3	Ability to design and develop applications using various software tools.	Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	-
Relevance to the Regional Needs	-
Relevance to the National Needs	Game Theory , Social Network Analysis, Communication Skills
Relevance to the Global Needs	Computer Algorithm, Advanced Operating System, Advanced computer Network, Mobile Communication and Computing, Game Theory, Social Network Analysis, Intrusion Detection System, Artificial Intelligent and knowledge Reasoning , High Performance Computing, Communication Skills, Data Science, Software Architecture, Algorithm for Big Data, Real Time System, Cryptography and Network Security

Dr. Supriya S. Sawwashere

HOD, CSE, JDCOEM
Computer Science & Engineering
JDCOEM, Nagpur

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Department Of AI
"A Place to Learn ; A Chance to Grow"
Session 2022-23

VISION	MISSION
To be a recognized as an Excellent Innovative Engineering Department through Academic Programme which develops leaders in Education and Research in Computer Science."	1. To create self-learning environment by facilitating leadership qualities, team-spirit and ethical responsibilities. 2. To Strengthen department-industry collaboration and interaction with professional society through technical knowledge and internship program. 3. To promote research and development with current techniques through well qualified resources in the area of computer science and wireless engineering.

PSO Relevance to Development Need

PSO	Statement	Relevance to Development Need (Select Suitable)
PSO1	Understand the basic engineering principles and achieve the hardware and software aspects of computer engineering.	National / Global
PSO2	Analyze the real world applications using algorithmic models and acquire the knowledge of computer architecture.	National / Global
PSO3	Ability to design and develop applications using various software tools.	Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	-
Relevance to the Regional Needs	Internet of Things, Statistical Data Analysis, AI in Business Intelligence, AI & Cognitive Robotics, AI In satellite and Radar System,
Relevance to the National Needs	Organization Behaviour, Universal Human Values, Consumer Affairs, Ethics in IT, CRT(Campus Recruitment Training), Skill Development, Intellectual Property Rights, Innovation and Entrepreneurship Development
Relevance to the Global Needs	Mathematics-III, Statistical Data Analysis, Computer Architecture and Organisation, Internet of Things, Data Structure & Algorithms, Theory of Computation, Design & Analysis of Algorithm, Operating System & Virtualization, Neural Networks & Fuzzy System, Discrete Mathematics & Graph Structures, Database Management Systems, AI & Cognitive Robotics, Digital Image Techniques and Analysis, Machine Learning & Deep Learning, AI in Business Intelligence, Innovation and Entrepreneurship Development, Advanced Computer Vision, Data Science, Ml with Big Data - Tools & Techniques, Machine Learning with Large data Sets, AI In satellite and Radar System, Object Oriented Methodology

Dr. Supriya S. Sawwashere
HOD
HOD, AI, JDCOEM
JDCOEM, Nagpur

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Department of Electrical Engineering
"Igniting minds to illuminate the world"
AY-2022-23

VISION	MISSION
"To develop competent and committed Electrical Engineers to serve the society"	1. To impart quality education in the field of Electrical Engineering. 2. To be excellent learning center through research and industry interaction.

1.1.1

B. Tech. Electrical Engineering		
Program Specific Outcomes		
PSO	Statement	Relevance to Development Need (Select Suitable)
PSO1	Interpret, identify and analyze problems in electrical domain and demonstrate this knowledge to develop, control and assess electrical systems.	Local,Regional
PSO2	Solve ethically and professionally various Electrical Engineering problems in societal and environmental context and communicate effectively.	Local,Regional.National
PSO3	Apply modern software tools for design, simulation and analysis of electrical systems to engage in life-long learning and to successfully adapt in multi disciplinary environments	Local,Regional.National,Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	Consumer Affairs, Engineering Economics, Electrical Machine I, ,Universal Human Values
Relevance to the Regional Needs	Engineering Economics, Electrical Machine I, Innovation and entrepreneurship Development, Consumer Affairs, Power Systems, Power Station Practice
Relevance to the National Needs	Engineering Economics, Electrical Machine I, Power station Practice, Innovation and entrepreneurship Development, Intellectual Property Rights, Consumer Affairs, Power Systems,

Relevance to the Global Needs	Universal Human Values –II, Electrical Machine I, Control System I , Power Systems

1.1.2

Year	2022-23
Number	03

Academic Incharge   **HoD(EE)**

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Department of Electronics and Telecommunication Engineering
"Rectifying Ideas, Amplifying Knowledge"
Session: 2022-23

VISION	MISSION
"To be a Department providing high quality & globally competent knowledge of concurrent technologies in the field of Electronics and Telecommunication."	1. To provide quality teaching learning process through well-developed educational environment and dedicated faculties. 2. To produce competent technocrats of high standards satisfying the needs of all stakeholders.

1.1.1

B. Tech. Electronics & Telecommunication Engineering
Program Specific Outcomes

PSO	Statement	Relevance to Development Need
PSO1	Ability to remember, understand and apply fundamental knowledge of core Electronics and Telecommunication Engineering subjects in the analysis, design, and development of various types of integrated electronic systems.	Local , Regional , National , Global
PSO2	Ability to use knowledge of core Electronics and Telecommunication Engineering in various domains to identify research gaps and hence to provide solution to new ideas and innovations.	Local , Regional , National , Global
PSO3	Ability to adapt the changing work environment, good interpersonal skills required to lead the team in appreciation of professional ethics and social responsibilities.	Local , Regional , National , Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	Network Synthesis & Analog Filters, Integrated Circuits & Applications, Innovation and Entrepreneurship Development, Universal Human Values, Microcontroller and Applications, Electromagnetic Fields, Electrical Machines and Instruments, Research Methodology, Intellectual Property Rights
Relevance to the Regional Needs	Integrated Circuits & Applications, Innovation and Entrepreneurship Development, Universal Human Values, Microcontroller and Applications, Electromagnetic Fields, Electrical Machines and Instruments, Research Methodology, Intellectual Property Rights
Relevance to the National Needs	Integrated Circuits & Applications, Innovation and Entrepreneurship Development, Universal Human Values, Electromagnetic Fields, Electrical Machines and Instruments, Research Methodology, Intellectual Property Rights
Relevance to the Global Needs	Integrated Circuits & Applications, Innovation and Entrepreneurship Development,, Universal Human Values, Electromagnetic Fields, Research Methodology, Intellectual Property Rights

Prof.G.A.Bhoyar
HOD

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PG Department of Electronics Engineering
"Rectifying Ideas, Amplifying Knowledge"
Session: 2022-23

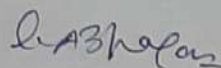| VISION	MISSION
"To be a Department providing high quality & globally competent knowledge of concurrent technologies in the field of Electronics and Telecommunication."	1. To provide quality teaching learning process through well-developed educational environment and dedicated faculties. 2. To produce competent technocrats of high standards satisfying the needs of all stakeholders.

1.1.1

M. Tech. Electronics Engineering

Program Specific Outcomes

PSO	Statement	Relevance to Development Need
PSO1	Ability to remember, understand and apply fundamental knowledge of core Electronics and Telecommunication Engineering subjects in the analysis, design, and development of various types of integrated electronic systems.	Local , Regional , National , Global
PSO2	Ability to use knowledge of core Electronics and Telecommunication Engineering in various domains to identify research gaps and hence to provide solution to new ideas and innovations.	Local , Regional , National , Global
PSO3	Ability to adapt the changing work environment, good interpersonal skills required to lead the team in appreciation of professional ethics and social responsibilities.	Local , Regional , National , Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	Computational Methods ,Embedded System design, Research Methodology, Intellectual Property Rights
Relevance to the Regional Needs	Computational Methods, Embedded System design, Research Methodology, Intellectual Property Rights
Relevance to the National Needs	Embedded System design, Research Methodology, Intellectual Property Rights
Relevance to the Global Needs	Computational Methods Embedded System design, VLSI System Design, Research Methodology, Intellectual Property Rights

Prof.G.A.Bhoyar
HOD

1.1.1
Program Specific Outcomes

PSO	Statement	Relevance to Development Need
PSO1	Ability to acquire programming efficiency to analyse, design and develop optimal solutions, apply standard practices in software project development to deliver quality software product	National Level & Global Level
PSO2	Ability to formulate, simulate and use knowledge in various domains like data engineering, image processing and information and network security, artificial intelligence etc., and provide innovation solutions in the interdisciplinary projects.	National Level & Global Level
PSO3	Anticipate the changing direction of information technology and evaluate and communicate the likely utility of new technologies to an individual or organization for performing tasks related to E-governance, E-Learning , Research, Training and/or Health Care Management with a cost effective solutions	National Level & Global Level

Course Category

	Sample Relevant Courses
Relevance to Local Needs	Organizational Behaviour
	Societal Internship/ Field Training
	Field Training/ Industrial Visit
Relevance to Regional Needs	Innovation and Entrepreneurship Development
	Internship
Relevance to National Needs	Communication Skills
	CRT(Campus Recruitment Training)
	Consumer Affairs
	Intellectual Property Rights
	Data Structure Using Oop's
	DBMS
	Java Programming
	Artificial Intelligence & Cognitive Robotics
	Data Science
	Machine Learning
	Research Methodology
	Soft Skills (5th Sem)

	Aptitude (5th Sem)	
	Universal Human Values(UHV)	
	Artificial Intelligence & Cognitive Robotics	
	Data Science	
	Machine Learning	
Relevance to Global Needs	Data Structure Using Oop's	
	DBMS	
	Java Programming	

Academic Incharge

HOD, IT

B. Tech. Mechanical Engineering		
Program Specific Outcomes		
PSO	Statement	Relevance to Development Need (Select Suitable)
PSO1	Graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices	Global
PSO2	Alumni should establish a successful career in an engineering-related field and adapt to changing technologies.	National / Global
PSO3	Graduates should be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.	Global

Course Category	Sample Relevant Courses
Relevance to the Local Needs	Communication Skills, Introduction to Computer programming, Industrial visit, Innovation and Entrepreneurship Development, Campus Recruitment Training,Research Methodology,
Relevance to the Regional Needs	Basic Electrical and Electronics Engineering, Product Design and Development, Consumer Affair,Skill Development, Intellectual property rights
Relevance to the National Needs	Basic Civil and Mechanical Engineering, Universal Human Value, Numerical Method, Basic Electronic Engineering,
Relevance to the Global Needs	Engineering Mathematics- I, Engineering Chemistry, Engineering Graphics, Engineering Mathematics- II, Engineering Physics, Energy and Environment Engineering, Applied Maths-III, Material Science, Engineering Thermodynamics, Theory Of Machines-I, Manufacturing Engineering-I, Manufacturing Engineering-II, Strength Of Materials, Fluid Mechanics & Fluid Machines, Heat Transfer, Theory Of Machines-II, Measurement and Quality Control, Operation Research, Applied Thermodynamics, Design of Machine Element,

1.1.1

MBA--------------------------		
Program Specific Outcomes		
PSO	Statement	Relevance to Development Need (Select Suitable)
PSO1	Proficiency to Identify Opportunities in the Business and Corporate World.	Global
PSO2	Ability to conduct Business Research and Leverage it for the Success of the Enterprise.	Local

Course Category	Sample Relevant Courses
Relevance to the Local Needs	CSR and Sustainability
Relevance to the Regional Needs	Sales and Distribution Management
Relevance to the National Needs	Managerial Economics
Relevance to the Global Needs	International Business