JAIDEV EDUCATION SOCIETY'S
J D COLLEGE OF ENGINEERING AND MANAGEMENT
KATOL ROAD, NAGPUR
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 CSE Data Science
"Progress Beyond Excellence"
2023-24

VISION	MISSION
To be recognized as a centre of excellence in the field of Information Technology where inquisitive minds of students are fostered, leading to skills professionals for satisfying the needs of society.	1. Apply knowledge of engineering fundamentals & cutting-edge technology to identify and implement innovative solutions for engineering problems and issue in society at large. 2. Build strong interpersonal skills and will engage in life long learning to enhance their career positions, both as team members and leaders.

3rd Semester Computer Science & Engineering(Data Science) 2023-2027

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T/A	P	CA	MSE	ESE	Total	
1	PCC	DS3T001	Object Oriented Programming through Java	3	0	0	20	20	60	100	3
2	PCC	DS3T002	Operating Systems	3	0	0	20	20	60	100	3
3	PCC	DS3T003	Data Structures & Algorithm	3	0	0	20	20	60	100	3
4	PCC	DS3A001	Oraganization Behaviour	2	0	0	10	15	25	50	Audit
5	MDM	DS3M001	Discrete Mathematics & Statistical Analysis	2	0	0	20	20	60	100	2
6	OEC	DS3O001	OE-1	3	0	0	20	20	60	100	3
7	EEMC	DS3I001	Entrenship Development	2	0	0	20	20	60	100	2
8	VEC	DS3V001	UHV-II	2	0	0	20	20	60	100	2
9	PCC	DS3L005	Object Oriented Programming through Java Lab	0	0	2	60	-	40	100	1
10	PCC	DS3L006	Visulaization Tools Lab	0	0	2	60	-	40	100	1
11	PCC	DS3L007	Data Structures & Algorithm Lab	0	0	2	60	-	40	100	1
12	CEP/FP	DS3F001	Comm. Engg. Project	0	0	4	30	-	20	50	2
				20	0	10	360	155	585	1100	23

4th Semester Computer Science & Engineering(Data Science)

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T	P	CA	MSE	ESE	Total	
1	PCC	DS4T001	Database Management System	3	0	0	20	20	60	100	3
2	PCC	DS4T002	Automata Theory & Compiler Design	2	0	0	20	20	60	100	2
3	PCC	DS4T003	Degin and Analysis of Algorithms	3	0	0	20	20	60	100	3
4	MDM	DS4M002	Linear Algebra and Transform	2	0	0	20	20	60	100	2
5	OEC	DS4O002	OE-2	3	0	0	20	20	60	100	3
6	VSEC	DS4L001	Business Intelligence	0	0	4	60	-	40	100	2
7	AEC	DS4A001	Principle of Corporate Success	2	0	0	20	20	60	100	2
8	EEMC	DS4H001	Engineering Economics	2	0	0	20	20	60	100	2
9	VEC	DS4V002	Intellectual Property Rights	2	0	0	20	20	60	100	2
10	PCC	DS4L004	Database Management System Lab	0	0	2	60	-	40	100	1
11	PCC	DS4L005	Design and Analysis of Algorithms Lab	0	0	2	60	-	40	100	1
12	PCC	DS4L006	Data Science with Python Lab	0	0	2	60	-	40	100	1
				19	**0**	**12**	**400**	**160**	**640**	**1200**	**24**

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SESSION 2023-27

5th Semester Computer Science & Engineering(Data Science)

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T	P	CA	MSE	ESE	Total	Credit
1	PCC	DS5T001	Cybersecurity & Cryptography	2	0	0	20	20	60	100	2
2	PCC	DS5T002	Artificial Intelligence	2	0	0	20	20	60	100	2
3	PCC	DS5T003	Software Project Management	2	0	0	20	20	60	100	2
4	PEC	DS5E001	PEC-I	3	0	0	20	20	60	100	3
5	PEC	DS5E002	PEC-II	3	0	0	20	20	60	100	3
6	MDM	DS5M003	Human Computer Interface	2	0	0	20	20	60	100	2
7	MDM	DS5M004	Digital Image Optimization	2	0	0	20	20	60	100	2
8	OEC	DS5O003	OE-3	2	0	0	20	20	60	100	2
9	PCC	DS5L004	Cybersecurity & Cryptography Lab	0	0	2	60	-	40	100	1
10	PCC	DS5L005	Artificial Intelligence Lab	0	0	2	60	-	40	100	1
11	PCC	DS5L006	Data Science with R Lab	0	0	2	60	-	40	100	1
12	OJT	DS5I001	Internship-I	0	0	4	60	-	40	100	2
				18	0	10	400	160	640	1200	23

6th Semester Computer Science & Engineering(Data Science)

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T	P	CA	MSE	ESE	Total	
1	PCC	DS6T001	Machine Learning	2	0	0	20	20	60	100	2
2	PCC	DS6T002	Ad Hoc Wireless System	2	0	0	20	20	60	100	2
3	PCC	DS6T003	Data Handling and Analysis	2	0	0	20	20	60	100	2
4	PEC	DS6E003	PEC-III	3	0	0	20	20	60	100	3
5	PEC	DS6E004	PEC-IV	3	0	0	20	20	60	100	3
6	PEC	DS6E005	PEC-V	2	0	0	20	20	60	100	2
7	MDM	DS6M005	Digital Marketing Analytics	2	0	0	20	20	60	100	2
8	MDM	DS6M006	Social Network Analytics	2	0	0	20	20	60	100	2
9	VSEC	DS6L002	Cloud Computing	0	0	4	60	-	40	100	2
10	PCC	DS6L004	Machine Learning Lab	0	0	2	60	-	40	100	1
11	PCC	DS6L005	Ad Hoc Wireless System Lab	0	0	2	60	-	40	100	1
12	PCC	DS6L006	Data Visualization Using Tableau Lab	0	0	2	60	-	40	100	1
				18	0	10	400	160	640	1200	23

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7th Semester Computer Science & Engineering (Data Science)

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T	P	CA	MSE	ESE	Total	
1	PCC	DS7T001	Natural Language Processing	2	0	0	20	20	60	100	2
2	PCC	DS7T002	IoT Embedded & Computing	2	0	0	20	20	60	100	2
3	PCC	DS7T003	Optimization Techniques in ML	2	0	0	20	20	60	100	2
4	PEC	DS7E006	PEC-VI	3	0	0	20	20	60	100	3
5	PEC	DS7E007	PEC-VII	3	0	0	20	20	60	100	3
6	MDM	DS7M007	Digital and Mobile Forensics	2	0	0	20	20	60	100	2
7	PCC	DS7L004	Natural Language Processing Lab	0	0	2	60	-	40	100	1
8	PCC	DS7L005	IoT Lab	0	0	2	60	-	40	100	1
9	PCC	DS7L006	Deep Learning Lab	0	0	2	60	-	40	100	1
10	PROJECT	DS7P010	PROJECT PHASE-1	0	0	4	50	-	50	100	2
11	INTERNSHIP	DS7I002	INTERNSHIP-II	0	0	4	50	-	50	100	2
				14	0	14	400	120	580	1100	21

Open Elective-3 :

8th Semester Computer Science & Engineering (Data Science)

Sr. No.	Category of Subject	Course Code	Course Name	Teaching Scheme			Evaluation Scheme				Credit
				L	T	P	CA	MSE	ESE	Total	
1	PROJECT	DS8P002	PROJECT PHASE-1I	0	0	4	60	-	40	100	2
2	INTERNSHIP	DS8I003	Internship	0	0	4	180	-	120	300	8
				0	0	8	240	0	160	400	10

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Professional Elective Courses

1	DS in Cyber Security
2	Big Data Analytics
3	Blackchain Technology
4	VR & AR
5	Middleware Technology
6	Computational Intelligence
7	Advance Tools For Softwares
8	AWS Cloud Techniques
9	Quantum Computing
10	Parallel Computing
11	Advanced Database System
12	TCP/IP
13	Data Handling and Visualization
14	Cluster Computing
15	Reinforcement Learning
16	Soft Computing
17	Pattern Recognition
18	Fuzzy Logics and Genetic Algorithms
19	Interactive Media Development
20	Web and Social Media Analytics
21	DevOps
22	Computer Vision and Robotics
23	Data Visualization Techniques
24	Scripting Languages
25	Mobile Application Development
26	Cryptography and Network Security
27	Privacy Preserving in Data Mining
28	Mining Massive Datasets
29	Database Security
30	Web Security
31	Ad hoc and Sensor Networks
32	Storage Area Networks
33	MERN Stack-I(MongoDB, Express, React and Node.js.)
34	MEAN Stack-II(MongoDB, Express, Angular and Node.js.)

Open Elective Subjects

Application of Physics for Engineering	Elements of Earthquake	Principles of Management
Physics of Engineering materils	Metro System and Engineering	Project Management
Probability of Random Variable	Smart City	Consumer Behaviour
Abstract Algebra	Disaster Management	Human Resourse Management
Graph Theory	Waste Water Management	Social Economics
Mathematical Transforms	Natural Resourse Management	Financial Management
Empires of India	Energy Conservation	Fundamentals of Investment
History of Indian Independence	Ethics in IT	Digital Marketing
Vedic Maths	Ethical Hacking	E-business
Stress Management	E – Waste Management	Business analytics
Predicting Modelling & analytics	Domestic Equipment Naintence	Cyber Law & Cyber Crime
	Value Engineering	
	Solar Technology	
	Industry 4.0	
	Fundamental of industrial Engineering	