

KNOWLEDGE INSTITUTE OF TECHNOLOGY (AUTONOMOUS), SALEM - 637504											
B.TECH. ARTIFICIAL INTELLIGENCE AND DATA SCIENCE									Version: 1.0		
Courses of Study and Scheme of Assessment (Regulations 2023)									Date: 09.09.2023		
Sl. No.	Course Code	Course Title	Periods / Week						Maximum Marks		
			CAT	CP	L	T	P	C	IA	ESE	Total
SEMESTER I											
-	-	Induction Programme	-	-	-	-	-	-	-	-	-
	THEORY										
1.	BE23EN101	Communicative English - I	HS	2	1	1	0	2	40	60	100
2.	BE23MA201	Calculus for Engineers	BS	3	2	1	0	3	40	60	100
3.	BE23PH201	Basic and Applied Physics	BS	3	3	0	0	3	40	60	100
4.	BE23CY201	Engineering Chemistry	BS	3	3	0	0	3	40	60	100
5.	BE23GE301	Overview of Engineering andTechnology	ES	3	3	0	0	3	40	60	100
6.	BE23MC901	தமிழர் மரபு / Heritage of Tamils	MC	1	1	0	0	1	40	60	100
	THEORY CUM PRACTICAL										
7.	BE23GE307	Problem Solving using C Programming	ES	5	3	0	2	4	50	50	100
	PRACTICAL										
8.	BE23BS201	Physics and Chemistry Laboratory	BS	4	0	0	4	2	60	40	100
9.	BE23GE305	Engineering Practices Laboratory	ES	4	0	0	4	2	60	40	100
	EMPLOYABILITY ENHANCEMENT										
10.	BE23PT801	Human Excellence and Value Education - I	EEC	2	1	0	1	NC	100	-	100
Total				30	17	2	11	23	510	490	1000
SEMESTER II											
	THEORY										
1.	BE23EN102	Communicative English - II	HS	2	1	1	0	2	40	60	100
2.	BE23MA202	Vector Calculus and Numerical Methods	BS	3	2	1	0	3	40	60	100
3.	BE23GE304	Engineering Graphics and Network Drawings	ES	5	1	0	4	3	40	60	100
4.	BE23CS401	Digital Principles and Computer Organization	PC	3	3	0	0	3	40	60	100
5.	BE23CB403	Design Thinking	PC	3	3	0	0	3	40	60	100
6.	BE23MC902	தமிழரும் தொழில்நுட்பமும் / Tamils and Technology	MC	1	1	0	0	1	40	60	100
7.	BE23MC903	Universal Human Values and Ethics	MC	3	2	1	0	3	40	60	100
	THEORY CUM PRACTICAL										
8.	BE23GE310	Object Oriented Programming Using C++	ES	5	3	0	2	4	50	50	100
	EMPLOYABILITY ENHANCEMENT										
9.	BE23PT802	Human Excellence and Value Education - II	EEC	2	1	0	1	NC	100	-	100
10.	BE23PT804	Engineering Clinic - I	EEC	2	0	0	2	1	100	-	100
11.	BE23PT806	Aptitude Skills - I	EEC	1	0	0	1	0.5	100	-	100
Total				30	17	3	10	23.5	630	470	1100

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	SEMESTER III										
	THEORY										
1.	BE23MA203	Discrete Mathematics	BS	3	2	1	0	3	40	60	100
2.	BE23AD401	Introduction to Artificial Intelligence	PC	3	2	1	0	3	40	60	100
	THEORY CUM PRACTICAL										
3.	BE23GE309	Python Programming	ES	5	2	1	2	4	50	50	100
4.	BE23CS404	Data Structures and Algorithms	PC	5	2	1	2	4	50	50	100
5.	BE23CS405	Database Management Systems	PC	5	2	1	2	4	50	50	100
6.	BE23CS406	Operating Systems	PC	5	2	1	2	4	50	50	100
	PRACTICAL										
7.	BE23EN103	Professional Communication Laboratory – I	HS	2	0	0	2	1	100	-	100
8.	BE23AD402	Artificial Intelligence Laboratory	PC	4	0	0	4	2	60	40	100
	EMPLOYABILITY ENHANCEMENT										
9.	BE23PT805	Engineering Clinic – II	EEC	2	0	0	2	1	100	-	100
10.	BE23PT807	Aptitude Skills – II	EEC	1	0	0	1	0.5	100	-	100
Total				35	12	6	17	26.5	640	360	1000
SEMESTER IV											
	THEORY										
1.	BE23MA206	Mathematics for Business Analytics	BS	3	2	1	0	3	40	60	100
2.	BE23AD403	Machine Learning	PC	3	2	1	0	3	40	60	100
3.	BE23CS407	Design and Analysis of Algorithms	PC	3	2	1	0	3	40	60	100
4.	BE23MC904	Environmental Science and Sustainability	MC	2	1.5	0.5	0	NC	100	-	100
	THEORY CUM PRACTICAL										
5.	BE23AD404	Foundations of Data Science and Visualization	PC	5	3	0	2	4	50	50	100
6.	BE23CS315	Java Programming	ES	5	3	0	2	4	50	50	100
	PRACTICAL										
7.	BE23EN104	Professional Communication Laboratory – II	HS	2	0	0	2	1	100	-	100
8.	BE23AD405	Machine Learning Laboratory	PC	4	0	0	4	2	60	40	100
	EMPLOYABILITY ENHANCEMENT										
9.	BE23PT808	Aptitude Skills – III	EEC	1	0	0	1	0.5	100	-	100
		Total		28	11.5	5.5	11	20.5	580	320	900

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	SEMESTER V										
	THEORY										
1.	BE23AD406	Cloud Computing	PC	3	3	0	0	3	40	60	100
2.	BE23XX6XX	Open Elective – I	OE	3	3	0	0	3	40	60	100
3.	BE23AC905	Indian Constitution	AC	2	2	0	0	NC	100	-	100
	THEORY CUM PRACTICAL										
4.	BE23CS402	Computer Networks	PC	5	3	0	2	4	50	50	100
5.	BE23CS412	Embedded Systems and IoT	PC	5	3	0	2	4	50	50	100
6.	BE23AD5XX	Professional Elective – I	PE	5	3	0	2	4	50	50	100
7.	BE23AD5XX	Professional Elective – II	PE	5	3	0	2	4	50	50	100
	EMPLOYABILITY ENHANCEMENT										
9.	BE23PT809	Aptitude Skills – IV	EEC	1	0	0	1	0.5	100	-	100
10.	BE23PT810	Coding Skills – I	EEC	2	0	0	2	1	100	-	100
11.	BE23PT812	Technical Comprehension and Mock Interview – I	EEC	1	0	0	1	0.5	100	-	100
Total				32	20	0	12	24	680	320	1000
SEMESTER VI											
	THEORY										
1.	BE23AD407	Deep Learning	PC	3	3	0	0	3	40	60	100
2.	BE23XX6XX	Open Elective – I	OE	3	3	0	0	3	40	60	100
	THEORY CUM PRACTICAL										
3.	BE23AD409	R Programming for Data Science	PC	5	3	0	2	4	50	50	100
4.	BE23AD5XX	Professional Elective – III	PE	5	3	0	2	4	50	50	100
5.	BE23AD5XX	Professional Elective – IV	PE	5	3	0	2	4	50	50	100
	PRACTICAL										
6.	BE23AD408	Deep Learning Laboratory	PC	4	0	0	4	2	60	40	100
7.	BE23PW701	Make A Product	PW	2	0	0	2	1	100	-	100
	EMPLOYABILITY ENHANCEMENT										
8.	BE23PT803	Human Excellence and Value Education – III	EEC	2	1	0	1	NC	100	-	100
9.	BE23PT811	Coding Skills – II	EEC	2	0	0	2	1	100	-	100
10.	BE23PT813	Technical Comprehension and Mock Interview – II	EEC	1	0	0	1	0.5	100	-	100
Total				32	16	0	16	22.5	690	310	1000

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	SEMESTER VII										
	THEORY										
1.	BE23HS105	Project Management and Finance	HS	3	2	1	0	3	40	60	100
2.	BE23XX6XX	Open Elective – III	OE	3	3	0	0	3	40	60	100
	THEORY CUM PRACTICAL										
3.	BE23AD410	Big Data Analytics	PC	5	3	0	2	4	50	50	100
4.	BE23AD5XX	Professional Elective – V	PE	5	3	0	2	4	50	50	100
	PRACTICAL										
4.	BE23AD702	Project Work Phase – I	PW	2	0	0	2	1	100	-	100
	EMPLOYABILITY ENHANCEMENT										
5.	BE23PT814	Industrial Training / Entrepreneurship / Undergraduate Research Activity / Company Certification	EEC	6	0	0	6	3	100	-	100
Total				24	11	1	12	18	380	220	600
SEMESTER VIII											
	PRACTICAL										
1.	BE23CS703	Project Work Phase – II	PW	18	0	0	18	9	60	40	100
Total				18	0	0	18	9	60	40	100
			Total Number of Credits: 167								

SEMESTER-WISE CREDITS DISTRIBUTION

SUMMARY										KIOT	
Sl. No.	Course Category	Credits per Semester								Credits	Credit %
		I	II	III	IV	V	VI	VII	VIII		
1	HS	2	2	1	1	-	-	3	-	9	5.4
2	BS	11	3	3	3	-	-	-	-	20	11.9
3	ES	9	7	4	4	-	-	-	-	24	14.4
4	PC	-	6	17	12	11	9	4	-	59	35.3
5	PE	-	-	-	-	8	8	4	-	20	12.0
6	OE	-	-	-	-	3	3	3	-	9	5.4
7	PW	-	-	-	-	-	1	1	9	11	6.6
8	EEC	✓	1.5	1.5	0.5	2	1.5	3	-	10	6.0
9	MC\NC\AC	1	4	-	✓	✓	-	-	-	5	3.0
	Total	23	23.5	26.5	20.5	24	22.5	18	9	167	100

CAT	Category of Course	HS	Humanities, Social Sciences and Management Courses	PW	Project Work Courses
CP	Contact Periods	BS	Basic Science Courses	EEC	Employability Enhancement Courses
L	Lecture Hours	ES	Engineering Science Courses	MC/NC/AC	Mandatory Courses/Non-Credit Courses/Audit Courses
T	Tutorial Hours	PC	Professional Core Courses	CIA	Continuous Internal Assessment
P	Practical Hours	PE	Professional Elective Courses	ESE	End Semester Examination
C	Credits	OE	Open Elective Courses		