5 Year Dual Degree (B.Tech.-M.Tech.) Curriculum

Department of Information Technology, IIEST Shibpur

First to Sixth Semesters Curriculum:

The curriculum of Dual Degree is the same as 4 Year UG for $1^{st} - 6^{th}$ semesters.

Seventh and Eighth Semesters Curriculum:

The Dual Degree 7^{th} - 8^{th} semester curriculum includes entire 4 Year UG 7^{th} - 8^{th} semester curriculum. ADDITIONALLY, the following courses are to be taken by Dual Degree students:

Seventh Semester

Sl. No	Course Name	Course code	Class Load/Week			Credit	Class load/ Week	
			L	T	P			
1.	ADB I	IT 711/X	3	0	0	3		3
2.	ADB I Lab	IT 763/X	0	0	3	2		3

ADB I (IT 711/X)

Eighth Semester

Sl. No	Course Name	Course code	Class Load/Week			Credit	Class load/ Week	
			L	T	P			
1.	ADB II	IT812/X	3	0	0	3		3
2.	ADB III	IT813/X	3	0	0	3		3
3.	ADS I	IT824/X	3	0	0	3		3

ADB I (IT 711/X)	Algebra and Computation			
ADB II (IT 812/X)	Artificial Intelligence			
ADB III (IT 813/X)	Image Processing and Pattern recognition			
Advanced Specialized	Electives			
subjects				
ADS I (IT 824/X)	1. Algorithm II			
	2. Distributed Algorithms			
	3. Big data analytics			
	4. Introduction to Embedded and Real Time Systems			

Ninth and Tenth Semesters Curriculum:

Ninth Semester

Sl.	Course Name	Course code	Class Load/Week			Credit	Class
No							load/week
			L	T	P		
1.	ADS II	IT921/X	3	0	0	3	3
3.	ADS III	IT 922/X	3	0	0	3	3
4.	ADS IV	IT 923/X	3	0	0	3	3
2.	ADS V	IT 924/X	3	0	0	3	3
	Theory Sub-total		12	0	NIL	12	12
6.	Project Thesis Part II	IT 971	0	0	9	6	9
7.	Project Thesis Viva Voce II	IT 991				3	
7.	ADS II lab	IT 981/X	0	0	3	2	3
	Sessional Sub-total		NIL	NIL	12	11	12
	9 th Semester Total					23	24

Advanced Specialized	Electives				
subjects					
ADS II (IT 921/X)	Complex Systems and Cellular Automata				
	2. Wireless Sensor Network				
	3. Cognitive Radio Networks				
	4. Embedded Processors and Microcontrollers				
ADS III (IT 922/X)	1. Computational Topology				
	2. Computer Vision				
	3. Medical Image Processing				
	4. Multi-core Architectures Systems				
ADS IV (IT 923/X)	Human computer Interaction				
	2. Multimedia coding and compression				
	3. Embedded System Security				
ADS V (IT 924/X)	Soft computing techniques				
	2. Cloud computing				
	3. Mobile Computing				
	4. Embedded Programming				

Tenth Semester

Sl. No	Course Name	Course code	Class Load/Week			Credit	Class load/ Week
			L	T	P		
1.	Project Thesis part III	IT 1071	0	0	20	12	20
2.	Project Thesis Viva-voce III	IT 1091				4	
	Sessional Sub-total		NIL	NIL	20	16	20
	10th Semester Total					16	20