B.Tech(CSE(IOT))–CURRICULUM(KITSW-URR24)
SEMESTER-wise Curriculum with SCHEME OF INSTRUCTIONS

Abbreviations

L	LectureHours	O	OutsidetheClassWork(SelfStudy)Hours
T	TutorialHours	E	TotalEngagementinHours
P	PracticalHours	C	CreditAssigned

I SEMESTER

Stream-II

S.No.	Category	CourseCode	CourseTitle	Lectures/week					Credits
				L	T	P	O	E	C
-	IKSC	U24IK100	AICTEMandatedStudentInductionProgramme (UniversalHumanValues-I)						-
1	BSC	U24MH101	Differential Calculus and Ordinary Differential Equations	2	1	-	6	9	3
2	BSC	U24CY102B	EngineeringChemistry	2	1	2	5	10	4
3	ESC	U24CI111	DigitalLogic Design	2	1	-	4	7	3
4	ESC	U24IN104	ProgrammingforProblem SolvingwithC	2	1	2	5	10	4
5	HSMC	U24MH105	EnglishCommunication andReportWriting	2	-	-	3	5	2
6	VAC	U24VA106	Sports&Yoga	-	-	2	2	4	1
7	ESC	U24ME107	Engg.Graphics&CAD*	-	-	2	2	4	1
8	ELC	U24EL108	Practicum-I	-	-	-	4	4	1
9	VAC	U24VA109XXXXX	SEA–I/SAA-I	-	-	-	2	2	1
10	AEC	U24AE110	ExpertTalkSeries-1	-	-	-	1	1	1
Total:				10	4	8	34	56	21
Summer/ Inter-semBridge Courses (Approved by BoS and Dean,AA): 1 weekto10days:1credittoeachBridgecourseunderadditionallearning (willbeprintedongradesheet)									

* For CE andME, it will be a three (03) credit (1-0-4) course on Engineering Graphics & Design (Pedagogy:SessionswithconventionaldrafterandCAD).(ForCE:U24CE107/U24CE207andfor ME: U24ME107A/U24ME207A)

Pool–III(Chemistry)		
S.No.	CourseCode	CourseTitle
1.	U24CY102A	EngineeringChemistry *(forMechanicalEngineering)*
2.	U24CY102B	EngineeringChemistry *(CommontoCSM,CSD,CSN,CSO&IT)*

Stream-II

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	BSC	U24MH201	MatrixTheoryandVector Calculus	2	1	-	6	9	3
2	BSC	U24PY202B	EngineeringPhysics	2	1	2	5	10	4
3	PCC	U24IN203	ComputerArchitectureand Organisation	2	1	-	4	7	3
4	ESC	U24IN204	DataStructuresthroughC	2	1	2	5	10	4
5	ESC	U24EE205B	BasicElectricalEngineering	2	1	2	5	10	4
6	VAC	U24CY206	EnvironmentalStudies	2	-	-	2	4	-
7	AEC	U24AE207	IdeaLabMakerspace	-	-	2	2	4	1
8	SEC	U24SE208	ProgrammingSkill Development(PSD)Lab-1	-	-	2	2	4	1
9	ELC	U24EL209	Practicum-2	-	-	-	4	4	1
10	VAC	U24VA210XXXXX	SEA-2/SAA-2	-	-	-	2	2	1
11	AEC	U24AE211	ExpertTalkSeries-2	-	-	-	1	1	1
			Total:	12	5	10	38	65	23
Summer/ Inter-semBridgeCourses(Approved byBoS and Dean,AA):1 weekto10days:1credittoeachBridgecourseunderadditionallearning (will be printed on grade sheet)									

Pool–I(Physics)		
S.No.	CourseCode	CourseTitle
1.	U24PY202A	EngineeringPhysics *(forMechanicalEngineering)*
2.	U24PY202B	EngineeringPhysics *(CommontoCSM,CSD,CSN,CSO&IT)*

Pool–II(BasicElectrical&ElectronicsEngineering)		
S.No.	CourseCode	CourseTitle
1.	U24EE205A	BasicElectricalandElectronicsEngineering *(forMechanicalEngineering)*
2.	U24EE205B	BasicElectricalEngineering *(CommontoCSM,CSD,CSN,CSO&IT)*

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	PCC	U24IN301	FundamentalsofIoT	2	1	2	5	10	4
2	PCC	U24IN302	OperatingSystems	2	1	-	4	7	3
3	PCC	U24IN303	AdvancedDataStructures	2	1	2	5	10	4
4	PCC	U24IN304	ComputerNetworks	2	1	-	4	7	3
5	PCC	U24IN305	Object oriented programming through java	2	1	2	5	10	4
6	VAC	U24VA306B	SoftandInterpersonalSkills	-	-	2	2	4	1
7	SEC	U24SE307	PSDLab-02	-	-	2	2	4	1
8	ELC	U24EL308	Practicum-3	-	-	-	4	4	1
9	VAC	U24VA309XXXXX	SEA-3/SAA-3	-	-	-	2	2	1
10	AEC	U24AE310	ExpertTalkSeries-3	-	-	-	1	1	1
			Total:	10	5	10	34	59	23
Summer/ Inter-semBridge Courses (Approved by BoS and Dean,AA): 1week to10days: 1credittoeachBridgecourseunder additional learning (will be printed on grade sheet)									

@ Dean AA will allot the courses QALR (Stream-I), Soft & Interpersonal Skills (Stream-II), to thebranches as per Stream-I and Stream-II.

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	BSC	U24MH401D	DiscreteMathematicsand Probability,Statistics	2	1	-	6	9	3
2	PCC	U24IN402	WebTechnologies	2	1	2	5	10	4
3	PCC	U24IN403	DatabaseManagement Systems	2	1	2	5	10	4
4	PCC	U24IN404	IoTArchitecturesand Protocols	2	1	-	4	7	3
5	PCC	U24IN405	PythonProgrammingfor IoT	2	1	2	5	5	4
6	VAC	U24VA406A	QALR@	2	-	-	2	4	2
7	SEC	U24SE407	PSDLab-03	-	-	2	2	4	1
8	ELC	U24EL408	Practicum-4	-	-	-	4	4	1
9	VAC	U24VA409XXXXX	SEA-4/SAA-4	-	-	-	2	2	1
10	AEC	U24AE410	ExpertTalkSeries-4	-	-	-	1	1	1
11	VAC*	U24CH411*	EnvironmentalScience*	2*	-	-	3	5	-
			Total:	14	5	8	39	61	24
Summer/ Inter-semBridge Courses (Approved by BoS and Dean,AA):1weekto10days:1credittoeachBridgecourseunder additional learning (will be printed on grade sheet)									

ForLateralEntryStudentsOnly

* BranchSpecificMathematics:

BranchSpecificMathematics(Pool-4)			
S. No.	CourseCode	CourseTitle	Commonto
1.	U24MH401A	NumericalandStatisticalMethods	**CE**
2.	U24MH401B	AppliedMathematicsforMechanicalEngineering	**ME**
3.	U24MH401C	AppliedMathematics	**EEE,ECE,ECI**
4.	U24MH401D	DiscreteMathematicsandProbability,Statistics	**CSE, IT,CSN,CSO**
5.	U24MH401E	EssentialMathematicsandStatisticsforMachine learning	**CSM**
6.	U24MH401F	EssentialMathematicsandStatisticsforDatascience	**CSD**
7.	U24MH401X	AnyotherCourseapproved byBoSchairand DeanAA	-

@DeanAAwillallotthecoursesQALR(Stream-I),SoftandInterpersonalSkills(Stream-II), to the branches as per Stream-I and Stream-II.

S. No.	Category	CourseCode	CourseTitle	Lectures/week					Credits
				L	T	P	O	E	C
1	MOPEC	U24OE501XX	MOPECElective–I#	2	1	-	3	6	3
2	PCC	U24IN502	Artificial InternetofThings	2	1	2	5	10	4
3	PCC	U24IN503	AutomataTheoryand Compiler Design	2	1	-	4	7	3
4	PCC	U24IN504	DesignandAnalysisof Algorithms	2	1	2	5	10	4
5	HSMC	U24ST505X	ManagementBasket*	2	1	-	2	5	3
6	IKSC	U24IK506B	UHV-II	2	-	-	2	4	2
7	SEC	U24IN507	FullStack Development Laboratory (PSDLab-04)	-	-	2	2	4	1
8	HSSM	U24MH508	TechnicalEnglish	-	-	2	2	4	1
9	ELC	U24IN509	Seminar	-	-	-	2	2	1
10	AEC	U24AE510	ExpertTalkSeries-5	-	-	-	1	1	1
			Total:	12	5	8	28	53	23
	AdditionalLearning@:Maximumcreditsallowedfor Honours/Minor			-	-	-	-	-	5
	TotalcreditsforHonours/Minorstudents:			-	-	-	-	-	29
	Summer/ Inter-semBridge Courses (Approved by BoS and Dean,AA): 1 week to 10 days: 1 credit to each Bridge course under additional learning (will be printed on grade sheet)								

#MULTIDISCIPLINARYOPENELECTIVES:Studenthastoselectonecourseas multidisciplinary open elective from any of the MOPEC Basket of courses offered by other departments.

* Dean AA will allot the courses S&E Basket (Stream-I), Management Course Basket (Stream-II), to the branches as per Stream-I and Stream-II.

@List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula

ManagementCoursesBasket		
S.No.	CourseCode	CourseTitle
1.	U24MB505A/U24MB605A	ManagerialEconomicsandAccountancy
2.	U24MB505B/U24MB605B	IndustrialPsychology
3.	U24MB505C/U24MB605C	E-CommerceandDigitalMarketing
4.	U24MB505D/U24MB605D	OrganizationalBehaviour
5.	U24MB505E/U24MB605Z	AnyothercourseapprovedbyBoSChairandDeanAA

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	PEC	U24IN601X	ProgramElective–I/ MOOCs-I	2	1	-	4	7	3
2	PCC	U24IN602	IoTFrameworks	2	1	2	4	9	4
3	PCC	U24IN603	Devops	2	1	-	4	7	3
4	PCC	U24IN604	IndustrialIoT	2	1	2	5	10	4
5	STEC	U24MB605X	S&EBasket	2	1	-	2	5	3
6	IKSC	U24IK606A	EITK	2	-	-	2	4	2
7	SEC	U24IN607	DevopsLaboratory (PSDLab-5)	-	-	2	2	4	1
8	ELC	U24IN608	MiniProject	-	-	2	2	4	1
9	AEC	U24AE609	ExpertTalkSeries-6	-	-	-	1	1	1
			Total:	12	5	8	26	51	22
	AdditionalLearning@:Maximumcreditsallowedfor Honours/Minor			-	-	-	-	-	5
	TotalcreditsforHonours/Minorstudents:			-	-	-	-	-	27
	Summer/Inter-semBridgeCourses(ApprovedbyBoSand Dean,AA):1weekto10days:1credittoeachBridgecourse underadditionallearning(willbeprintedongradesheet)								

@**List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula**

B.TechHonourswithResearch:

Students opting for B. Tech Honours with Research, shall undergo a 2-Month Mandatory ResearchInternship-II(5Credits)atrespectivedepartmentduringthesummervacationafter VI Semester.

Startups&EntrepreneurshipBasket		
S.No.	CourseCode	CourseTitle
1.	U24ST505A/U24ST605A	DesignThinking
2.	U24ST505B/U24ST605B	InnovativeProductDesignandDevelopment
3.	U24ST505C/U24ST605C	Entrepreneurship
4.	U24ST505D/U24ST605D	DesignStudio
5.	U24ST505Z/U24ST605E	AnyothercourseapprovedbyBoSChairandDeanAA

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	MOPEC	U24OE701YYX	MOPECElective–II	2	1	-	3	6	3
2	PEC	U24IN702	Program Elective - II/ MOOCs-II	2	1	-	4	7	3
3	PCC	U24IN703	ComputerAidedSoftware Engineering	2	1	2	4	9	4
4	PCC	U24IN704	Privacyand SecurityinIoT	2	1	-	4	7	3
5	PCC	U24IN705	CyberPhysicalSystems	2	1	-	4	7	3
6	ELC	U24IN706	InternshipEvaluation*	-	-	2	-	2	1
7	ELC	U24IN707	MajorProject,Phase-1/ IndustrialInternship-1	-	-	8	6	14	4
			Total:	10	5	12	25	52	21
	AdditionalLearning@:Maximumcreditsallowedfor Honours/Minor			-	-	-	-	-	4
	TotalcreditsforHonours/Minorstudents:			-	-	-	-	-	24

#MULTIDISCIPLINARYOPENELECTIVES:Studenthastoselectonecourseas multidisciplinary open elective from any of the MOPEC Basket of courses offered by other departments.

@ List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula

B.TechHonourswithResearch

Students optingfor B. TechHonours with Research,shall complete Research MethodologyCourse(4Credits)throughMOOCS(OR)aworkshop/FDPofnotlessthan one week on "Research Methodologies" (4 Credits).

Internship Evaluation for the students opting B. Tech Honours with Research,will be done onthe 2-Month Research internship-II.

S. No.	Category	CourseCode	CourseTitle	Lectures/ week					Credits
				L	T	P	O	E	C
1	MOPEC	U24OE801YYX	MOPECElective–III	2	1	-	3	6	3
2	PEC	U24IN802	ProgramElective-III/ MOOCs-IV	2	1	-	4	7	3
3	PEC	U24IN803	ProgramElective-IV/ MOOCs-V	2	1	-	4	7	3
4	ELC	U24IN804	MajorProject,Phase–2/ IndustrialInternship-2	-	-	12	4	16	6
			Total:	6	3	12	15	36	15
	AdditionalLearning@:Maximumcreditsallowedfor Honours/Minor			-	-	-	-	-	4
	TotalcreditsforHonours/Minorstudents:			-	-	-	-	-	19

#MULTIDISCIPLINARYOPENELECTIVES:Studenthastoselectonecourseas multidisciplinary open elective from any of the MOPEC Basket of courses offered by other departments.

@ List of courses for additional learning through MOOCs towards Honours/Minor in Engineering shall be prescribed by the department under Honours/ Minor Curricula

B.TechHonourswithResearch
    StudentsoptingforB.TechHonourswithResearch,shallPublisharesearchpaperin reputed journal indexed by SCI / SCOPUS/Web of Science(4 Credits).

SUMMARY

SEMESTER	I	II	III	IV	V	VI	VII	VIII	TOTAL
CREDITS	21	23	23	24	23	22	21	15	172