

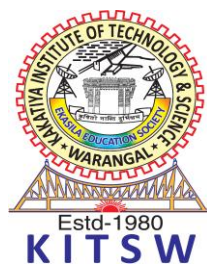
B.TECH. CURRICULUM

ACADEMIC YEAR: 2026-27

ELECTRONICS AND COMMUNICATION ENGINEERING (VLSI DESIGN & TECHNOLOGY)

**Undergraduate Rules and Regulations-2026 (URR26)
In accordance with the National Education Policy 2020
w.e.f AY 2026-27**

**Regulations Governing the
Choice Based Credit System and
Multiple Entry and Multiple Exit Options
with
Competancy-Focused Outcome Based Curriculum (CF-OBC)**



DEPARTMENT OF ECIE

KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL – 506 015

TELANGANA

(UGC Autonomous Institute Under Kakatiya University, Warangal)

B. Tech (ECE (VLSI & DT)) -CURRICULUM (KITSW-URR26)

SEMESTER-WISE CURRICULUM WITH SCHEME OF INSTRUCTIONS

Abbreviations

L	Lecture Hour	E	Total Engagement in Hours
T	Tutorial Hour	C	Credit Assigned
P	Practical Hour		

I SEMESTER (For **Stream - I: CSE, EEE, ECE, **ECV**)**

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
-	IKSC	U26IK100	AICTE Mandated Student Induction Programme (Universal Human Values - I)					-
1	BSC	U26MH101	Differential Calculus and Ordinary Differential Equations	2	1	-	3	3
2	BSC	U26PY102C	Engineering Physics (from Pool-I)	2	1	-	3	3
3	ESC	U26VL103	Programming for Problem Solving with C	2	1	-	3	3
4	ESC	U26EE104B	Basic Electrical Engineering (from Pool - II)	2	1	-	3	3
5	PCC	U26VL105	Electronic Measurements and Sensors	2	1	-	3	3
6	BSC	U26PY106C	Engineering Physics Laboratory (from Pool-III)	-	-	2	2	1
7	ESC	U26VL107	Programming for Problem Solving with C Laboratory	-	-	2	2	1
8	ESC	U26EE108B	Basic Electrical Engineering Laboratory (from Pool - IV)	-	-	2	2	1
9	PCC	U26VL109	Electronic Measurements and Simulation Laboratory	-	-	2	2	1
10	AEC	U26AE110	IDEA Lab Makerspace	-	-	2	2	1
Total:				10	5	10	25	20
Summer/ Inter-sem Bridge 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)				NIL				

S. No.	Course Code	Course Title	S. No.	Course Code	Course Title
Pool - I			Pool - III		
1.	U26PY102A	Engineering Physics (for CE)	1.	U26PY106A	Engineering Physics Laboratory (for CE)
2.	U26PY102B	Engineering Physics (for ME)	2.	U26PY106B	Engineering Physics Laboratory (for ME)
3.	U26PY102C	Engineering Physics (for EEE/ECE/ECV)	3.	U26PY106C	Engineering Physics Laboratory (for EEE/ECE/ECV)
4.	U26PY102D	Engineering Physics (for CS/IT)	4.	U26PY106D	Engineering Physics Laboratory (for CS/IT)
Pool - II			Pool - IV		
1.	U26EE104A	Basic Electrical & Electronics Engineering (for CE/ME)	1.	U26EE108A	Basic Electrical & Electronics Engineering Laboratory (for CE/ME)
2.	U26EE104B	Basic Electrical Engineering (for ECE/ECV)	2.	U26EE108B	Basic Electrical Engineering Laboratory (for ECE/ECV)
3.	U26EE104C	Basic Electrical Engineering (for EEE)	3.	U26EE108C	Basic Electrical Engineering Laboratory (for EEE)
4.	U26EE104D	Basic Electrical & Electronics Engineering (for CS/IT)	4.	U26EE108D	Basic Electrical & Electronics Engineering Laboratory (for CS/IT)

II SEMESTER (For **Stream - I**: CSE, EEE, ECE, **ECV**)

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
1	BSC	U26MH201	Matrix Theory and Vector Calculus	2	1	-	3	3
2	BSC	U26CY202F	Engineering Chemistry (from Pool - VII)	2	1	-	3	3
3	ESC	U26VL203	Data Structures through C	2	1	-	3	3
4	HSMC	U26MH204	English Communication and Report Writing	2	1	-	3	3
5	PCC	U26VL205	Electronic Devices and Circuits	2	1	-	3	3
6	BSC	U26CY206F	Engineering Chemistry Laboratory (from Pool - VIII)	-	-	2	2	1
7	ESC	U26VL207	Data Structures through C Laboratory	-	-	2	2	1
8	VAC	U26VA208	Sports & Yoga	-	-	2	2	1
9	PCC	U26VL209	Electronic Devices and Circuits Laboratory	-	-	2	2	1
10	ESC	U26ME210	Engg. Graphics through CAD Laboratory	-	-	2	2	1
Total:				10	5	10	25	20
Summer/ Inter-sem Bridge 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)								

S. No.	Course Code	Course Title		S. No.	Course Code	Course Title
Pool - VII				Pool - VIII		
1.	U26CY202A	Engineering Chemistry (for CE)		1.	U26CY206A	Engineering Chemistry Laboratory (for CE)
2.	U26CY202B	Engineering Chemistry (for ME)		2.	U26CY206B	Engineering Chemistry Laboratory (for ME)
3.	U26CY202C	Engineering Chemistry (for EEE/ECE)		3.	U26CY206C	Engineering Chemistry Laboratory (for EEE/ECE)
4.	U26CY202D	Engineering Chemistry (for CS/IT)		4.	U26CY206D	Engineering Chemistry Laboratory (for CS/IT)
5.	U26CY202F	Engineering Chemistry (for ECV)		5.	U26CY206F	Engineering Chemistry Laboratory (for ECV)

Bridge Courses for exit:

Successful completion of two subjects (6-Credits) during 2-months internship at the institute
OR

Successful completion of two suitable skill based courses (external) to qualify for Certification

A. After First Year: (UG Certificate in ECE (VLSI D&T))

- (i) The candidate should pass any two of the following additional courses (ITI Level) during the 2-Months internship at institute

Exit Options to Qualify for UG Certificate in ECE (VLSI D&T): Any Two (02) Courses during the 2 - Months internship									
S. No	Category	Course Code	Course Title	L	T	P	E	C	
1	PCC	U26VL212X	Digital Electronics	2	-	2	4	3	
2	PCC	U26VL213X	Operational Amplifiers and Applications	2	-	2	4	3	
3	PCC	U26VL214X	Communication Systems	2	-	2	4	3	
4	PCC	U26VL215X	Any other course approved by BoS Chair and Dean AA	2	-	2	4	3	

(OR)

- (ii) Any two suitable skill based courses to qualify for Certification.

Exit Options to Qualify for UG Certificate in ECE (VLSI D&T): Any Two (02) Skill based Courses -:									
S. No	Category	Course Code	Course Title	L	T	P	E	C	
1	SEC	U26SE212XVL	Consumer Electronics	-	-	6	6	3	
2	SEC	U26SE214XVL	Electronics Servicing and Maintenance	-	-	6	6	3	
3	SEC	U26SE215XVL	Electronic Testing & Assembly Operator https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3	
4	SEC	U26SE216XVL	Python https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_SOFTWARE_ModuleI_28072025.pdf	-	-	6	6	3	
5	SEC	U26SE217XVL	Any other skill based course approved by BoS Chair and Dean AA	-	-	6	6	3	

III SEMESTER (FOR CE, ME, EEE, ECE, ECV, CSM, AND CSD)

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
1	PCC	U26VL301	Signals and Systems	2	1	-	3	3
2	PCC	U26VL302	Linear Integrated Circuits and Applications	2	1	-	3	3
3	PCC	U26 VL303	Digital Circuits and Logic Design	2	1	-	3	3
4	PCC	U26 VL304	Electromagnetic Theory and Wave Propagation	2	1	-	3	3
5	PCC	U26 VL305	VLSI Technology	2	1	-	3	3
6	ESC	U26 VL306	OOP through Java	2	1	-	3	3
7	PCC	U26VL307	Linear Integrated Circuits and Applications Laboratory	-	-	2	2	1
8	PCC	U26VL308	Digital Circuits and Logic Design Laboratory	-	-	2	2	1
9	ESC	U26VL309	OOP through Java Laboratory	-	-	2	2	1
Total:				12	6	6	24	21
Summer/ Inter-sem Bridge 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)				"Programming in C" bridge course for Non-CS/IT Lateral Entry students				

IV SEMESTER (For CE, ME, EEE, ECE, ECV, CSM, CSD)

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	C
1	PCC	U26VL401	Digital IC Design	2	1	-	3	3
2	PCC	U26VL402	Digital Signal Processing	2	1	-	3	3
3	PCC	U26VL403	Analog and Digital Communication	2	1	-	3	3
4	PCC	U26VL404	Computer Architecture and Microprocessors	2	1	-	3	3
5	ESC	U26VL405	Python Programming	2	1	-	3	3
6	VAC	U26CY406	Environmental Studies	2	-	-	2	1
7	PCC	U26VL407	Digital IC Design Laboratory	-	-	2	2	1
8	PCC	U26VL408	Digital Signal Processing Laboratory	-	-	2	2	1
9	ESC	U26VL409	Python Programming Laboratory	-	-	2	2	1
10	VAC	U26VA410	Soft & Interpersonal Skills	-	-	2	2	1
Total:				12	5	8	25	20
Summer/ Inter-sem Bridge 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)				NIL				

Bridge Courses for exit:

Successful completion of two subjects (6-Credits) during 2-months internship at the institute

OR

Successful completion of two suitable skill based courses (external) to qualify for Certification

B. After Second Year: (UG Diploma in ECE (VLSI D&T))

- (i) The candidate should pass any two of the following additional courses (Diploma Level) during the 2-Months internship at institute

Exit Options to Qualify for UG Diploma in ECE(VLSI D&T): Any Two (02) Courses during the 2 - Months internship								
S. No.	Category	Course Code	Course Title	L	T	P	E	C
1	PCC	U26VL412X	Introduction to Microcontrollers and Embedded Systems	2	-	2	4	3
2	PCC	U26VL413X	Fundamentals of Internet of Things	2	-	2	4	3
3	PCC	U26VL414X	Introduction to Artificial Intelligence and Machine Learning	2	-	2	4	3
4	PCC	U26VL415X	<i>Any other course approved by BoS Chair and Dean AA</i>	2	-	2	4	3

(OR)

- (ii) Any two suitable skill based courses to qualify for Diploma.

Exit Options to Qualify for UG Diploma in ECE(VLSI D&T): Any Two (02) Skill based Courses -:								
S. No.	Category	Course Code	Course Title	L	T	P	E	C
1	SEC	U26SE412XVL	Data Communication and Networking	-	-	6	6	3
2	SEC	U26SE413XVL	Advance PCB Design & Techniques https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3
3	SEC	U26SE414XVL	VLSI Design https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3
4	SEC	U26SE415XVL	Embedded System & IOT https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3
5	SEC	U26SE416XVL	<i>Any other skill based course approved by BoS Chair and Dean AA</i>	-	-	6	6	3

B. Tech Honours with Research:

- Students opting for B. Tech Honours with Research, shall undergo a 2-Month Mandatory Research Internship-I (5 Credits) at respective department during the summer vacation after IV Semester.

V SEMESTER (For Stream - I: CSE, EEE, ECE, ECV)

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	C
1	OE	U26OE501X-SE	Open Elective -SE (Pool - XV)	2	1	-	3	3
2	PCC	U26VL502	Analog IC Design	2	1	-	3	3
3	PCC	U26VL503	Internet of Things	2	1	-	3	3
4	PCC	U26VL504	Microcontrollers and Embedded Systems	2	1	-	3	3
5	PCC	U26VL505	Semiconductor Device Modeling	2	1	-	3	3
6	IKSC	U26IK506A	Universal Human Values - II	2	-	-	2	2
7	HSMC	U26MH507	English Language Laboratory	-	-	2	2	1
8	PCC	U26VL508	Analog IC Design Laboratory	-	-	2	2	1
9	PCC	U26VL509	Microcontrollers and Embedded Systems Laboratory	-	-	2	2	1
10	ELC	U26VL510	Seminar	-	-	2	2	1
Total:				12	5	8	25	21
Additional Learning®: Maximum credits allowed for Honours/Minor				-	-	-	-	5
Total credits for Honours/Minor students:				-	-	-	-	26
Summer/ Inter-sem Bridge 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)				NIL				

Pool -XV		
Startups & Entrepreneurship Basket (OE - S&EB)		
S. No.	Course Code	Course Title
1.	U26OE501A-SE	Design Thinking
2.	U26OE501B-SE	Innovative Product Design and Development
3.	U26OE501C-SE	Entrepreneurship
4.	U26OE501D-SE	Design Studio
5.	U26OE501Z-SE	Any other course approved by BoS Chair and Dean AA

VI SEMESTER (For Stream - I: CSE, EEE, ECE, ECV)

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
1	OE	U26OE601X-MB	Open Elective - MB (from Pool -XVII)	2	1	-	3	3
2	PEC	U26VL602	Program Elective -I / MOOCs-I	2	1	-	3	3
3	PCC	U26VL603	VLSI Physical Design	2	1	-	3	3
4	PCC	U26VL604	Artificial Intelligence and Machine Learning	2	1	-	3	3
5	PCC	U26VL605	Embedded Systems with ARM Processor	2	1	-	3	3
6	IKSC	U26IK606B	Essence of Indian Traditional Knowledge	2	-	-	2	2
7	PCC	U26VL607	Internet of Things Laboratory	-	-	2	2	1
8	PCC	U26VL608	AIML Applications Laboratory	-	-	2	2	1
9	PCC	U26VL609	Embedded Systems with ARM Processor Laboratory	-	-	2	2	1
10	ELC	U26VL610	Mini Project	-	-	2	2	1
Total:				12	5	8	25	21
Additional Learning [@] :Maximum credits allowed for Honours/Minor				-	-	-	-	5
Total credits for Honours/Minor students:				-	-	-	-	26
Summer/ Inter-sem Bridge 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)				NIL				

Pool -XVII		
Open Elective - Management Basket (OE-MB)		
S. No.	Course Code	Course Title
1.	U26OE601A	Management Economics and Accountancy
2.	U26OE601B	Engineering Finance
3.	U26OE601C	Organizational Behaviour
4.	U26OE601D	E-Commerce and Digital Marketing
5.	U26OE601E	Any other course approved by BoS Chair and Dean AA
Program Elective - I Basket / MOOCs-I		
S. No.	Course Code	Course Title
1.	U26VL602A	Introduction to FPGA design
2.	U26VL602B	Introduction to Operating Systems
3.	U26VL602C	Cloud Computing
4.	U26VL602D	Control Systems Engineering
5.	U26VL602E	Any other course approved by BoS Chair and Dean AA

Bridge Courses for exit:

Successful completion of two subjects (6-Credits) during 2-months internship at the institute

OR

Successful completion of two suitable skill based courses (external) to qualify for Certification

C. After Third Year: (B. Voc. in ECE (VLSI D&T))

- (i) The candidate should pass any two of the following additional courses (Degree Level) during the 2-Months internship at institute

Exit Option to Qualify for B. Voc in ECE(VLSI D&T) : Any Two (02) Courses during the 2 - Months internship								
S. No	Category	Course Code	Course Title	L	T	P	E	C
1	PCC	U26VL610X	VLSI Verification and Testing	2	-	2	4	3
2	PCC	U26VL611X	Low Power VLSI Design	2	-	2	4	3
3	PCC	U26VL612X	Satellite and Fiber Optic Communication	2	-	2	4	3
4	PCC	U26VL613X	Any other course approved by BoS Chair and Dean AA	2	-	2	4	3

(OR)

- (ii) Any two suitable skill based courses to qualify for B. Voc in ECE (VLSI D&T) degree

Exit Option to Qualify for B. Voc in ECE(VLSI D&T) : Any Two (02) Skill based Courses -:								
S. No	Category	Course Code	Course Title	L	T	P	E	C
1	SEC	U26SE610XVL	Advanced Mobile Communication	-	-	6	6	3
2	SEC	U26SE612XVL	Internship Program in VLSI Design https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3
3	SEC	U26SE613XVL	Internship Program in Embedded Systems and IoT https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_detail_09092024_electronic.pdf	-	-	6	6	3
4	SEC	U26SE613XVL	Internship Program in Artificial Intelligence using Machine Learning https://www.nsic.co.in/documents/pdfs/ntsc/ntsc_hyd_SOFTWARE_ModuleI_28072025.pdf	-	-	6	6	3
5	SEC	U26SE613XVL	Any other skill based course approved by BoS Chair and Dean AA	-	-	6	6	3

VII SEMESTER (For **Stream - I: CSE, EEE, ECE, **ECV**)**

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
1	OE	U26OE701	Open Elective -SDGB	2	1	-	3	3
2	PEC	U26VL702	Program Elective - II/ MOOCs-II	2	1	-	3	3
3	PCC	U26VL703	VLSI Verification and Testing	2	1		3	3
4	PCC	U26VL704	Industrial IoT and Automation	2	1	-	3	3
5	PCC	U26VL705	Digital Image Processing and Computer Vision	2	1	-	3	3
6	PCC	U26VL706	VLSI Verification and Testing Laboratory	-	-	2	2	1
7	PCC	U26VL707	Industrial IoT and Automation Laboratory	-	-	2	2	1
8	ELC	U26VL708	Internship Evaluation	-	-	2	2	1
9	ELC	U26VL709	Major Project Phase-1 / Industrial Internship - 1	-	-	8	8	4
Total:				10	5	14	29	22
Additional Learning [@] :Maximum credits allowed for Honours/Minor				-	-	-	-	4
Total credits for Honours/Minor students:				-	-	-	-	26

Pool - XIX		
Open Elective – Sustainable Development Goals Basket (OE-SDGB)		
S. No.	Course Code	Course Title
1.	U24OE701A	Sustainable Waste Management and Circular Economy (offered by CED)
2.	U24OE701Y	Automotive Engineering for Sustainable Development (offered by MED)
3.	U24OE701E	Renewable Energy Systems (offered by EEED)
4.	U24OE701I	AI Ethics (offered by CSMD)
Program Elective – II Basket / MOOCs-II		
S. No.	Course Code	Course Title
1.	U26VL702A	Static Timing Analysis
2.	U26VL702B	Embedded Linux Systems
3.	U26VL702C	Deep Learning
4.	U26VL702D	Wireless and Mobile Communications
5.	U26VL702E	Nano Electronics
6.	U26VL702F	Any other course approved by BoS Chair and Dean AA

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

B. Tech Honours with Research

- (i). Students opting for B. Tech Honours with Research, shall complete Research Methodology Course (4 Credits) through MOOCs (OR) a workshop / FDP of not less than one week on “Research Methodologies” (4 Credits).
- (ii). Internship Evaluation for the students opting B. Tech Honours with Research, will be done on the 2-Month Research internship-II.

VIII SEMESTER

S. No.	Category	Course Code	Course Title	Lectures / week				Credits
				L	T	P	E	
1	PEC	U26VL801	Program Elective - III / MOOCs-III	2	1	-	3	3
2	PEC	U26VL802	Program Elective - IV / MOOCs-IV	2	1	-	3	3
3	PCC	U26VL803	Low Power VLSI Design	2	1	-	3	3
4	ELC	U26VL804	Major Project, Phase - 2 / Industrial Internship - 2	-	-	12	12	6
Total:				6	3	12	21	15
Additional Learning [@] :Maximum credits allowed for Honours/Minor				-	-	-	-	4
Total credits for Honours/Minor students:				-	-	-	-	19

Program Elective - III Basket / MOOCs-III		
S. No.	Course Code	Course Title
1.	U26VL802A	Introduction to ASIC design
2.	U26VL802B	Embodied AI & Robotics
3.	U26VL802C	Cybersecurity
4.	U26VL802D	Advanced Signal Processing
5.	U26VL802E	Any other course approved by BoS Chair and Dean AA
Program Elective - IV Basket / MOOCs-IV		
S. No.	Course Code	Course Title
1.	U26VL803A	RF and Mixed Signal Design
2.	U26VL803B	Quantum Computing
3.	U26VL803C	Artificial Intelligence in Healthcare
4.	U26VL803D	Satellite and Fiber Optic Communication
5.	U26VL803E	Any other course approved by BoS Chair and Dean AA

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

B. Tech Honours with Research

Students opting for B. Tech Honours with Research, shall Publish a research paper in reputed journal indexed by SCI/ SCOPUS/Web of Science (4 Credits).

SUMMARY

SEMESTER	I	II	III	IV	V	VI	VII	VIII	TOTAL
CREDITS FOR STREAM-I	21	20	19	21	21	21	22	15	160
CREDITS FOR STREAM-II	20	21	21	19	21	21	22	15	160

PROGRAM ELECTIVE COURSES (PEC)

There are four slots allotted to **Program Elective Courses (PECs)**

VERTICAL / PROGRAM ELECTIVE	PROGRAM ELECTIVE1 (PE1)	PROGRAM ELECTIVE1 (PE2)	PROGRAM ELECTIVE1 (PE3)	PROGRAM ELECTIVE1 (PE4)
VERTICAL 1: VLSI	U26VL602A: Introduction to FPGA design	U26VL702A: Static Timing Analysis	U26VL802A: Introduction to ASIC design	U26VL803A: RF and Mixed Signal Design
	(OR)			
	<i>Equivalent MOOC approved by BoS Chair and Dean AA</i>			
VERTICAL 2: Embedded Systems	U26VL602B: Introduction to Operating Systems	U26VL702B: Embedded Linux Systems	U26VL802B: Embodied AI & Robotics	U26VL803B: Quantum Computing
	(OR)			
	<i>Equivalent MOOC approved by BoS Chair and Dean AA</i>			
VERTICAL 3: IoT & AIML	U26VL602C: Cloud Computing	U26VL702C: Deep Learning	U26VL802C: Cybersecurity	U26VL803C: Artificial Intelligence in Healthcare
	(OR)			
	<i>Equivalent MOOC approved by BoS Chair and Dean AA</i>			
VERTICAL 4: Communication & Signal processing	U26VL602D: Control Systems Engineering	U26VL702D: Wireless and Mobile Communications	U26VL802D: Advanced Signal Processing	U26VL803D: Satellite and Fiber Optic Communication
	(OR)			
	<i>Equivalent MOOC approved by BoS Chair and Dean AA</i>			

SUMMARY OF CURRICULUM COMPONENTS

S. No.	CATEGORY	COURSE COMPONENT	TOTAL COURSES	TOTAL CREDITS	CURRICULUM CONTENT (% OF CREDITS)
1	HSMC	Humanity, Social Sciences and Management Courses	02	04	2.5
2	BSC	Basic Science Courses	06	14	8.75
3	ESC	Engineering Science Courses	11	21	13.125
4	PCC	Program Core Courses	35	79	49.375
5	PEC	Program Elective Courses	04	12	7.5
6	MOPEC	Multidisciplinary Open Elective Courses	03	09	5.625
7	ELC	Experiential Learning Courses	05	13	8.125
8	IKSC	Indian Knowledge System Courses	03	04	2.5
9	VAC	Value Added Courses	03	03	1.875
10	AEC	Ability Enhancement Courses	01	01	0.625
TOTAL			73	160	100

The curriculum supports approximately 60% of Theory and 40 % of Lab including PW. Online courses are optional.

14. SEMESTER WISE COURSE / CREDIT DISTRIBUTION

Semester	Number of Courses / Number of Credits (Course Category wise) - Stream -I										
	HSMC	BSC	ESC	PCC	PEC	MOPEC	ELC	IKSC	VAC	AEC	TOTAL
I	1/3	3/7	3/5	2/4	-	-	-	1/0	1/1	-	11/20
II	-	3/7	4/8	2/4	-	-	-	-	-	1/1	10/20
III	-	-	2/4	7/17	-	-	-	-	-	-	9/21
IV	-	-	2/4	6/14	-	-	-	-	2/2	-	10/20
V	-	-	-	7/15	-	1/3	1/1	1/2	-	-	10/21
VI	1/1	-	-	5/11	1/3	1/3	1/1	1/2	-	-	10/21
VII	-	-	-	5/11	1/3	1/3	2/5	-	-	-	9/22
VIII	-	-	-	1/3	2/6	-	1/6	-	-	-	4/15
Total	2/4	6/14	11/21	35/79	4/12	3/9	5/13	3/4	3/3	1/1	73/160
% Weightage of Course Category	2.5 % (4/160)	8.75 % (14/160)	13.125 % (21/160)	49.375 % (79/160)	7.5 % (12/160)	5.625 % (9/160)	8.125 % (13/160)	2.5 % (4/160)	1.875 % (3/160)	0.625 % (1/160)	100 % (160/160)

* Seminar- 1 C , Mini Project- 1 C, Intership Evaluation-1 C, Major Project : 4+6