CO - PO Mapping

Class	S.Y. B Tech Part-I Sem-III
Year of Study	2023-24
Course Name:-	Engineering Mathematics-III (BTBS301)
BTBS301.1	Understand and apply the properties of Laplace trensform and fourier transform
BTBS301.2	Formulate partial differential equation and solve one dimensional and two dimensional heat flow
BTBS301.3	Analyse and map complex functions and Solve integration of complex
Course Name:-	Sensor & Transducer (BTINC302)
BTINC302.1	**Know** various sensors and transducers for measuring mechanical quantities.
BTINC302.2	Understand the specifications of sensors and transducers.
BTINC302.3	**Identify** the basic conditioning circuits for various sensors and transducers.
Course Name:-	Network Analysis & Synthesis (BTINC303)
BTINC303.1	**Review** basic components of electric network.
BTINC303.2	**Design** and develop network equations and their solutions.
BTINC303.3	**Analyze** AC circuit.
Course Name:-	Analog Electronics (BTINES304)
BTINES304.1	Analyze transistor circuit using h parameter model.
BTINES304.2	Design and analyze different op-amp circuits for various applications.
BTINES304.3	Describe characteristics of various power devices and power converters.
Course Name:-	SENSOR AND TRANSDUCER LABORATORY (BTINL305)
BTINL305.1	Identify various elements required for characterization of given transducers/sensors.
BTINL305.2	Design and conduct experiments for measurement.
BTINL305.3	related documents.
Course Name:-	ANALOG ELECTRONICS LABORATORY (BTINL306)
BTINL306.1	Understand characteristics of various semiconductor devices
BTINL306.2	Develop the ability to understand the design and working of different amplifier circuits.
BTINL306.3	Design multivibrator using transistor.
Course	Seminar (BTINS307
BTINS307.1	Understand different software applications/tools used to perform computaional techniques.
BTINS307.2	Do programming in LabVIEW to solve numerical problems.
BTINS307.3	Do programming in MATLAB to solve numerical problems.
Course	Internship Evaluation- I Evaluation (BTINS211P)
BTINS211P.1	Adapt readily to real life working environment and practice the right work attitude.
BTINS211P.2	Apply knowledge learnt, gain new skills and be aware of current technologies.
BTINS211P.3	Present a proper report, both orally and in writing on their work experience
Class	S.Y. B Tech Part-II Sem-IV
Year of Study	2023-24
Course Name:-	Digital electronics (BTINC401)
BTINC401.1	Know variety of number systems and numeric representations, including signed and unsigned
BTINC401.2	Analyze different types of digital elecrtonics circuit using various mapping and logical tools.
BTINC401.3	Outline the formal procedures for the analysis and design of combinational circuits and
Course Name:-	Feedback Control System (BTINC402)
BTINC402.1	Design mathematical model of physical system.
BTINC402.2	Evaluate time domain & frequency domain analysis
BTINC402.3	Formulate frequency domain analysis to explain the nature of stability of the system.
Course Name:-	Industrial Management and Economics (BTHM403)
BTHM403.1	To identify the Meaning of Production.
BTHM403.2	To Analyze the Meaning of Production Factor.
BTHM403.3	To understand the importance of Industrial Management & Economics.
Course Name:-	Electrical and Electronics Measurement (BTINC404)
BTINC404.1	Understand philosophy of measurement.
BTINC404.2	Understand different methods analog and digital measurement.
BTINC404.3	**Know** principle of construction and operation of different transducer and display
Course Name:-	Signals and System (BTINPE405C
BTINPE405C.1	Understand different types of signals and systems
BTINPE405C.2	Understand fourier transfor for CT and DT signals
BTINPE405C.3	Analyse sampling process and sampling of discrete time signals
Course Name:-	Feedback Control System Lab (BTINL407)
BTINL407.1	system for standard input functions.
BTINL407.2	system.
BTINL407.3	explicit performance objectives
Course Name:-	Digital Electronics Lab (BTINL406)

Engineering Mathematics-III (BTBS301)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTBS301.1	2	1												
BTBS301.2	2	1												
BTBS301.3	2	1												

Sensor & Transducer (BTINC302)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC302.1	1	3											3	
BTINC302.2		2	1	3									3	
BTINC302.3	1	2			3								1	

Network Analysis & Synthesis (BTINC303)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC303.1	3	3							2				1	
BTINC303.2		2	3							2			1	
BTINC303.3		3								2			1	

Analog Electronics (BTINES304)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINES304.1		3									1		1	
BTINES304.2		2	3											
BTINES304.3	1	3			2									1

SENSOR AND TRANSDUCER LABORATORY (BTINL305)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL305.1	1	3	2										3	
BTINL305.2			3	2									3	2
BTINL305.3		1								2				

ANALOG ELECTRONICS LABORATORY (BTINL306)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL306.1	3	1									2			1
BTINL306.2			3		1									2
BTINL306.3			3		1									1

Seminar (BTINS307	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINS307.1	2	3	3	2	3									
BTINS307.2	1	2			3									
BTINS307.3	2					1				3				

Internship Evaluation- I Evaluation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINS211P.1	1	3			3								2	2
BTINS211P.2		3	2		2								3	2
BTINS211P.3														

Digital electronics (BTINC401)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC401.1	3	2			1									1
BTINC401.2		3			2									1
BTINC401.3		3			2						2			1

Feedback Control System	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC402.1	3	1			2								3	2
BTINC402.2	3	2			1									1
BTINC402.3	2	3			1								1	1

Industrial	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTHM403.1	1													
BTHM403.2	2			2										
BTHM403.3							3							3

Electrical and	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC404.1	3	2		1										2
BTINC404.2	2	3				1								2
BTINC404.3	3	2				1							2	

Signals and	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE405C.1	3				1								2	
BTINPE405C.2			3	2										
BTINPE405C.3	1										1		2	

Feedback Control	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL407.1	1	2	3											2
BTINL407.2		1	2	2										1
BTINL407.3		3	1	3	1									2

Digital Electronics	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2

BTINL406.1	Define different types of logic gates, identify their ICs and also verify their truth table.
BTINL406.2	Design and verifies various digital circuits.
BTINL406.3	Design and test combinational and sequential circuits.
Course Name:-	**Mini Project (BTINM408)**
BTINM408.1	**Define** different phases of conducting a project
BTINM408.2	**Identify** a problem/challenge in instrumentation Engineering and related field
BTINM408.3	**Design, implement, and demonstrate** the solution using engineering tools and knowledge as a team
Course Name:-	**Internship (BTINP409)**
BTINP409.1	Adapt readily to real life working environment and practice the right work attitude.
BTINP409.2	Apply knowledge learnt, gain new skills and be aware of current technologies.
BTINP409.3	Present a proper report, both orally and in writing on their work experience
Course Name:-	**Universal Human Values – II (BTHM402)**
BTHM402.1	To become more aware of themselves, and their surroundings (family, society, nature)
BTHM402.2	They would become more responsible in life, and in handling problems with sustainable
BTHM402.3	They would also become sensitive to their commitment towards what they have understood
BTHM402.4	They would be able to apply what they have learnt to their own self in different day-to-day
Class	**T.Y. Btech Part-I (Sem- V)**
Year of Study	**2023-24**
Course Name:-	**Process loop components (BTINC501)**
BTINC501.1	Select different process control components for various applications.
BTINC501.2	Analyse performance of process loop components with respect to tuning.
BTINC501.3	Develop programmable logic controller programs for various industrial applications.
Course Name:-	**Microprocessor and Microcontroller (BTINC502)**
BTINC502.1	Know the architecture of 8085 and 8051.
BTINC502.2	Understand interfacing and interrupt features of 8085 and 8051.
BTINC502.3	Develop program for basic applications.
Course Name:-	**Digital Signal Processing (BTINC503)**
BTINC503.1	Apply different transformation tools on basic types of signals.
BTINC503.2	Design digital filter for digital signal processing.
BTINC503.3	Employe digital signal processing techniques for engineering application.
Course Name:-	**Human Rights (BTHM506)**
BTHM506.1	Understand value of education and self development
BTHM506.2	Demonstrate good values and character
BTHM506.3	Know human rights and legislative procedure
Course Name:-	**Linear Techniques (BTINPE504)**
BTINPE504.1	Understand basic concepts of Operational amplifier and its application
BTINPE504.2	Understand basic of PLL and its practical application
BTINPE504.3	Understand filters, voltage regulators and comparators
Course Name:-	**Biomedical Instrumentation (BTINOE505)**
BTINOE505.1	Understands anatomy of human body.
BTINOE505.2	Understands use of Biomedical Instruments
BTINOE505.3	Understands Transducers for biomedical instrumentation
Course Name:-	**Process loop components Lab (BTINNL507)**
BTINNL507.1	Evaluate PID tuning methods
BTINNL507.2	Know the fundamentals of PLC
BTINNL507.3	Develop Programmable Logic Controller programs for industrial applications.
Course Name:-	**Digital Signal Processing Lab (BTINNL508)**
BTINNL508.1	Understand about the basic signal generator
BTINNL508.2	Design FIR and IIR filters
BTINNL508.3	Learn Fourier transform concepts
Course Name	**Mini Project - I (BTINM509)**
BTINM509.1	Identify project objective and various stages of project
BTINM509.2	Illustrate scope of project work
BTINM509.3	Gain effective communication and documentation
Course Name	**Internship - II Evaluation (BTINP408)**
BTINP408.1	Adapt readily to real life working environment and practice the right work attitude.
BTINP408.2	Apply knowledge learnt, gain new skills and be aware of current technologies.
BTINP408.3	Present a proper report, both orally and in writing on their work experience
Class	**T.Y. Btech Part-II (Sem- VI)**
Year of Study	**2023-24**
Course Name:-	**Digital System (BTINC601)**
BTINC601.1	Analysis of system using the state space domain
BTINC601.2	Design controller in state space
BTINC601.3	Design observer
Course Name:-	**Industrial Automation & Control (BTINC602)**
BTINC602.1	Identify measurement system to design industrial application.
BTINC602.2	Analyze different control strategies in industrial process control.
BTINC602.3	Select Process Loop Components.
Course Name:-	**Power Electronics and Drives. (BTINC603)**
BTINC603.1	Review principle of construction, operation and characteristics of basic semiconductor devices.
BTINC603.2	Understand and analyze performance of controlled and uncontrolled converters.
BTINC603.3	Understand and analyze performance of DC to DC converters, DC to AC converters, &AC
Course Name:-	**Power plant Instrumentation (BTINPE604)**
BTINPE605.1	Analyze and Compare Power Generation Technologies
BTINPE605.2	Evaluate Site Selection and Operational Criteria for Power Plants
BTINPE605.3	Design and Optimize Power Plant Operations and Control Systems

BTINL406.1	3	2			1									1
BTINL406.2		3			2									1
BTINL406.3		3			2						2			1

Mini Project (BTINM408)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINM408.1	3				2							2	1	1
BTINM408.2	3				2								2	2
BTINM408.3			3		2				3		3		1	1

Internship (BTINP409)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINP409.1	3				1							2	1	1
BTINP409.2	3				2								2	1
BTINP409.3			3		2								1	1

Values – II	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTHM402.1						1	3	3	1					
BTHM402.2						2	2	3	3					
BTHM402.3						3	1	2	3					
BTHM402.4						3	2	2	1					

Process loop components	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC501.1		1	2	2	3									
BTINC501.2		3	2	3										3
BTINC501.3		3	2	1	3									2

Microprocessor and	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC502.1	3	1												
BTINC502.2	3	1			2									2
BTINC502.3			3	2										3

Digital Signal Processing	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC503.1	3				1								2	
BTINC503.2			3	2										
BTINC503.3	1										1		2	

Human Rights (BTHM506)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTHM506.1						2								
BTHM506.2						2		3						
BTHM506.3						2		3						

Linear Techniques (BTINPE504)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE504.1	3	2			1									1
BTINPE504.2		3			2									1
BTINPE504.3		3			2						2			1

Biomedical Instrumentation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINOE505.1	3				3						2		1	1
BTINOE505.2							3					2	2	2
BTINOE505.3	3			3			3					2	2	2

Process loop components Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINNL507.1	2	3			2								1	3
BTINNL507.2	3	1		2										
BTINNL507.3	2	3		2									2	3

Digital Signal Processing Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINNL508.1	3				1								2	
BTINNL508.2			3	2										
BTINNL508.3	1										1		2	

Mini Project - I (BTINM509)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINM509.1	3				2							2	1	1
BTINM509.2	3				2								2	2
BTINM509.3			3		2				3		3		1	1

Internship - II Evaluation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINP408.1	3				2							2	1	1
BTINP408.2	3				2								2	2
BTINP408.3			3		2				3		3		1	1

Digital System (BTINC601)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC601.1	3	1			2								3	2
BTINC601.2	3	2			1									1
BTINC601.3	2	3			1								1	1

Industrial Automation &	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC602.1	1	3	3											2
BTINC602.2	2	3	1											1
BTINC602.3		1		2	3								1	

Power Electronics and Drives	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC603.1	1	3		3				1				2		
BTINC603.2	2	2	3	1						1				3
BTINC603.3	3	2	3					2					3	

Power plant Instrumentation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE605.1		3	2			1								2
BTINPE605.2			3	1										
BTINPE605.3		2	3	1	1									2

Course Name:-	Industrial Data Communication (BTINOE605)
BTINOE605.1	Understand the concepts required for building industrial systems.
BTINOE605.2	Describe working of Foundation Fieldbus & HART protocols.
BTINOE605.3	Desgin different digital field bus networks.

Industrial Data Communication	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINOE605.1	1	3			1								2	1
BTINOE605.2	1	3			1								2	1
BTINOE605.3	3					1							1	

Course Name:-	Industrial Automation & Control Lab (BTINL606)
BTINL606.1	Design of PID Controller.
BTINL606.2	Develop Programmable logic controller programs for given applications.
BTINL606.3	Find the characteristics of process control components like control valve, convertors etc.

Industrial Automation & Control Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL606.1	2	3					1							
BTINL606.2	2	3											3	
BTINL606.3			3	2									2	1

Course Name:-	Power Electronics and drives Lab (BTINL607)
BTINL607.1	Review principle of construction, operation and characteristics of basic semiconductor devices.
BTINL607.2	Understand and analyze performance of controlled and uncontrolled converters.
BTINL607.3	Understand and analyze performance of DC to DC converters, DC to AC converters, &AC voltage controllers

Power Electronics and drives Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL607.1	1	3		3				1				2		
BTINL607.2	2	2	3	1						1				3
BTINL607.3	3	2	3					2					3	

Course Name:-	Mini Project - II (BTINM608)
BTINM608.1	Identify project objective and various stages of project
BTINM608.2	Illustrate scope of project work
BTINM608.3	Gain effective communication and documentation

Mini Project - II (BTINM608)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINM608.1	3				2							2	1	1
BTINM608.2	3				2								2	2
BTINM608.3			3		2				3		3		1	1

Course Name:-	Internship (BTINP609)
BTINP609.1	Adapt readily to real life working environment and practice the right work attitude.
BTINP609.2	Apply knowledge learnt, gain new skills and be aware of current technologies.
BTINP609.3	Present a proper report, both orally and in writing on their work experience

Internship (BTINP609)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINP609.1	3				2							2	1	1
BTINP609.2	3				2								2	2
BTINP609.3			3		2				3		3		1	1

Class **Final Year BTech (Sem- VII)**

Year of Study **2023-24**

Course Name:-	Process Instrumentation and Control (BTINC701)
BTINC701.1	Analyse characteristics of various control loops
BTINC701.2	Design appropriate control for different control loops.
BTINC701.3	Familiarize with the advances in process instrumentation.

Process Instrumentation and Control	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINC701.1	2	3	2	2										2
BTINC701.2	2	2	3	3	2									3
BTINC701.3	2	3	3	3	2									2

Course Name:-	Instrumentation System Design (BTINPE702)
BTINPE702.1	**Design and Analyse** CV Sizing
BTINPE702.2	**Identify** various Control panels and Control Room details
BTINPE702.3	**Understand** Signal Conditioning for Transducers.

Instrumentation System Design	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE702.1		3	3				2						3	
BTINPE702.2	2	3							2					2
BTINPE702.3	3	3							2				2	

Course Name:-	Industrial Project Planning and Estimation (BTINPE703A)
BTINPE703.1	Apply knowledge of the documentation for project execution.
BTINPE703.1	Documentation for procurement of instruments.
BTINPE703.3	Apply knowledge for project management.

Industrial Project Planning and Estimation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE703.1	1													
BTINPE703.1			2			1								
BTINPE703.3									3		3			

Course Name:-	Building Automation (BTINOE704C)
BTINOE704.1	Describe Alarm System.
BTINOE704.2	Know Security System.
BTINOE704.3	Identify processes in HVAC.

Building Automation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINOE704.1		3	2	1										
BTINOE704.2	2	2			3									2
BTINOE704.3		3	2											2

Course Name:-	Analytical Instrumentation (BTINOE705A)
BTINOE705.1	Understand instrumentation for all types of spectroscopy
BTINOE705.2	Understand separation methods such as chromatography and mass spectroscopy
BTINOE705.3	Understand working of Different analyzers

Analytical Instrumentation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINOE705.1		3		1		1								2
BTINOE705.2		3		1		1								2
BTINOE705.3		3		1		1								2

Course Name:-	Project Engineering & Management (BTHM706)
BTHM706.1	Apply knowledge of the documentation for project execution.
BTHM706.2	Documentation for procurement of instruments.
BTHM706.3	Apply knowledge for project management.

Project Engineering & Management	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTHM706.1	2	2									3			
BTHM706.2			2								3	2		
BTHM706.3	2	2									3			

Course Name:-	Process Instrumentation and Control Lab (BTINL707)
BTINL707.1	Design control strategy for various loops like pressure level flow temperature etc
BTINL707.2	Design experimental set up to determine performance characteristics of loops
BTINL707.3	Analyse different types of control strategy for level control loop

Process Instrumentation and Control Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL707.1	1	3	3	1										2
BTINL707.2		1	2	2	1									3
BTINL707.3		3	3	3	2									2

Course Name:-	Instrumentation System Design Lab (BTINL708)
BTINL708.1	**Design** signal conditioning circuit for Temperature sensors
BTINL708.2	**Discuss** the calibratation of instruments like I/P & P/I
BTINL708.3	**Design** signal conditioning circuit for Different sensors

Instrumentation System Design Lab	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINL708.1		3	3										3	
BTINL708.2	3	1											3	
BTINL708.3		3	3										3	

Course Name:-	Project Stage I (BTINM709)
BTINM709.1	To understand project objectives and various stages of project
BTINM709.2	To understand the project scope of work
BTINM709.3	To prepare detail report of project

Project Stage I (BTINM709)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINM709.1	3	3	3	2	2		2		2	3	3		2	2
BTINM709.2		2	2	3	2						3		1	1
BTINM709.3				3						3				

Course Name:-	Internship 3 Evaluation (BTINM609)
BTINM609.1	Adapt readily to real life working environment and practice the right work attitude.
BTINM609.2	Apply knowledge learnt, gain new skills and be aware of current technologies.
BTINM609.3	Present a proper report, both orally and in writing on their work experience

Internship 3 Evaluation	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINM609.1	1	3			3								2	2
BTINM609.2		3	2		2								3	2
BTINM609.3														

Class **Final Year BTech (Sem- ViII)**

Year of Study **2023-24**

Course Name:-	Control Engineering
BTINPE801.1	systems
BTINPE801.2	Ability to analyze linear and nonlinear control systems using mathematical tools
BTINPE801.3	constraints and stability

Control Engineering	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINPE801.1	3	2												
BTINPE801.2	2	3	2		2									
BTINPE801.3	1	2	3		3									

Course Name:-	Project Work
BTINP802.1	Identify technical problem of different fields
BTINP802.2	Implement and test the designed stages involved in solving the defined problem statement
BTINP802.3	Work in a team and documentation skills along with effective communication

Project Work	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
BTINP802.1	1	3	2		3	2	2	2	3	2			2	2
BTINP802.2		3	2		2								3	3
BTINP802.3		2						2	3	3	3		2	3