ANNEXURE
3

Table of Content

3.1.1 Course Outcome statements:

Course Name: Kinematics of Machines (KOM)

Faculty In charge: Mr. Puneeth H M **Course Code:18ME44**

Academic year: 2022-23 **Semester: IV**

COs	Previous CO	Revised CO
CO1	Knowledge of mechanisms and their motion.	Describe the principles of mechanisms and their motion.
CO2	Understand the inversions of four bar mechanisms.	Identify and analyze the inversions of four-bar mechanisms.
CO3	Analyze the velocity, acceleration of links and joints of mechanisms.	Evaluate the velocity and acceleration of links and joints in mechanisms.
CO4	Analysis of cam follower motion for the motion specifications.	Analyze cam-follower systems based on motion specifications.
CO5	Understand the working of the spur gears.	Comprehend the working principles and operations of spur gears.

Course Name: Finite Element Method (FEM)

Faculty In charge: Dr. Harish Kumar N S **Course Code: 18ME61**

Academic year: 2022-23 **Semester: VI**

COs	Previous Cos	Revised COs
CO1	Identify the application and characteristics of FEA elements such as bars, beams, plane and iso-parametric elements.	Recognize the applications and properties of various Finite Element Analysis (FEA) elements, including bars, beams, plane, and isoperimetric elements.
CO2	Develop element characteristic equation and generation of global equation.	Construct element characteristic equations and assemble them into global equations for analysis.
CO3	Formulate and solve Axi-symmetric and heat transfer problems.	Apply suitable boundary conditions to a global equation for beams, circular shafts and torsion of shafts.
CO4	Apply suitable boundary conditions to a global equation for bars, trusses, beams, circular shafts, heat transfer, fluid flow, axi-symmetric and dynamic problems.	Formulate and solve problems related to flow through pipes and heat transfer.
CO5	-	Impose suitable boundary conditions on the global formulation for axisymmetric and time-dependent (dynamic) problems

Course Name: Turbomachines (TM)

Faculty In charge: Mr. Prashanth Kumar S **Course Code: 18ME54**

Academic year: 2022-23 **Semester: V**

COs	Previous CO	Revised CO
CO1	Model studies and thermodynamics analysis of turbomachines.	Apply the model studies and thermodynamics analysis of turbomachines.
CO2	Identify various types of turbo machinery.	Analyse the energy transfers in Turbo machine with degree of reaction and utilization factor.
CO3	Classify, analyse and understand various type of steam turbine.	Categorize, evaluate and comprehend the different types of steam turbines.
CO4	Classify, analyse and understand various type of hydraulic turbine.	Classify, assess, and grasp the different types of hydraulic turbines.
CO5	Understand the concept of radial power absorbing machine and the problems involved during its operation.	Evaluate the performance parameters of pumps and compressors through velocity triangles and calculations.

Course Name: Automation and Robotics (A&R)

Faculty In charge: Mr. Akash **Course Code: 21ME71**

Academic year: 2024-25 **Semester: VII**

COs	Previous CO	Revised CO
CO1	Translate and simulate a real time activity using modern tools and discuss the Benefits of automation.	Model and replicate a real-time activity using modern digital tools, and explore the benefits of automation in improving efficiency and precision.
CO2	Identify suitable automation hardware for the given application.	Evaluate and recommend suitable automation hardware for the application.
CO3	Recommend appropriate modelling and simulation tool for the given manufacturing Application.	Identify and recommend a suitable tool for modelling and simulating the manufacturing application.
CO4	Explain the basic principles of Robotic technology, configurations, control and Programming of Robots.	Describe the core concepts of robotic technology, covering configurations, control mechanisms, and programming techniques.
CO5	Explain the basic principles of programming and apply it for typical Pick & place, Loading & unloading and palletizing applications.	Discuss basic programming principles and demonstrate their application in pick-and-place, loading/unloading, and palletizing tasks.

Section 3.1.2

CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices)

Subject Name: Basic Thermodynamics (BTD)

Faculty In charge: Dr. Santosh Kumar Panda **Subject Code: BME304**

Academic year: 2024-25 **Semester: III**

Previous Course Outcomes (COs)

CO1: Explain fundamentals of thermodynamics and evaluate energy interactions across the boundary of thermodynamic systems.

CO2: Apply 1st law of thermodynamics to closed and open systems and determine quantity of energy transfers.

CO3: Evaluate the feasibility of cyclic and non-cyclic processes using 2nd law of thermodynamics.

CO4: Apply the knowledge of entropy, reversibility and irreversibility to solve numerical problems and interpret the behavior of pure substances

CO5: Recognize differences between ideal and real gases and evaluate thermodynamic properties of ideal and real gas mixtures using various relations.

Mapping Table: CO-PO Alignment

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-
CO2	2	2	2	-	-	-	-	-	-	1	-	1	-	2	-
CO3	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-
CO4	2	2	2	-	-	-	-	-	-	1	-	1	-	2	-
CO5	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-

Revised Course Outcomes (COs)

CO1: Describe the fundamentals of thermodynamics and evaluate energy interactions across the boundary of thermodynamic systems.

CO2: Apply the first law of thermodynamics for different engineering applications.

CO3: Evaluate the energy systems by Second Law of Thermodynamics, ability to model and solve practical engineering problems by applying the concepts of entropy.

CO4: Apply the knowledge of reversibility and irreversibility to solve numerical problems and interpret the behavior of pure substances

CO5: Analyze the differences between ideal and real gases and evaluate thermodynamic properties of ideal and real gas mixtures using various relations.

Improved CO-PO Mapping Table

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	1	-	1	-	-	-	-	1	-	1	-	3	-
CO2	3	2	2	-	2	-	-	-	-	1	-	1	-	3	-
CO3	3	3	1	-	2	-	-	-	-	1	-	1	-	3	-
CO4	3	2	2	-	1	1	-	-	-	1	-	1	-	2	-
CO5	3	2	2	-	1	1	-	-	-	1	-	1	-	2	-

Justification Table for CO-PO-PSO Mapping

CO-PO Mapping	Mapping Weightage	Justification
CO1 to PO1	3	Students will apply the engineering knowledge while appraising various thermodynamics systems.
CO1 to PO2	3	Students will apply the principles of mathematics, natural sciences and engineering sciences for different thermodynamics properties.
CO1 to PO3	1	Students analyze and solve complex problems involving energy interactions and system boundaries, applying fundamental thermodynamic principles.
CO1 to PO5	1	Students may use modern tools, simulations, or software to evaluate and visualize energy transfer in thermodynamic systems.
CO1 to PO10	1	Students must effectively communicate their analysis and interpretation of thermodynamic systems in written and oral formats.
CO1 to PO12	1	It encourages continuous learning and application of thermodynamic concepts to new energy systems and technologies.
CO2 to PO1	3	Students require a strong understanding of basic thermodynamic principles, particularly the First Law, which is foundational to engineering science.
CO2 to PO2	2	Students analyze and interpret energy conversion problems, identifying how the First Law applies to different engineering systems.
CO2 to PO3	2	Students apply the First Law to model and solve real-life thermal system challenges in engineering contexts.
CO2 to PO5	2	Students uses of modern engineering tools and simulation software to perform energy balance calculations and system analysis.
CO2 to PO10	1	Students are expected to communicate their understanding, calculations, and interpretations effectively in technical formats.
CO2 to PO12	1	Students encouraged to continuous learning of how energy principles evolve and are applied across new and emerging engineering technologies.
CO3 to PO1	3	Apply the application knowledge of Second Law thermodynamics and entropy to evaluate energy systems.
CO3 to PO2	3	Students to identify, formulate, and analyze complex engineering problems related to energy efficiency and irreversibility in thermal systems.
CO3 to PO3	1	Focuses on solving complex engineering problems by applying the Second Law of Thermodynamics and entropy concepts to real-world energy systems.
CO3 to PO5	2	Students use appropriate modern engineering tools and simulation techniques to model and analyze thermodynamic systems.
CO3 to PO10	1	Students are expected to communicate their analysis and solutions clearly through technical reports, presentations, or discussions.
CO3 to PO12	1	Focuses on continuous learning of advanced thermodynamic principles and sustainability concepts relevant to evolving engineering practices.
CO4 to PO1	3	Students applying fundamental thermodynamic concepts of reversibility and

		irreversibility in problem-solving.
CO4 to PO2	2	Students to identify and analyze complex thermal problems using conceptual and mathematical approaches.
CO4 to PO3	2	Students apply of thermodynamic principles to model and solve engineering problems involving pure substances.
CO4 to PO5	1	Students uses of modern computational tools to analyze thermodynamic processes and visualize substance behaviour.
CO4 to PO6	1	Helps students understand the environmental and societal impact of energy losses due to irreversibility.
CO4 to PO10	1	Students must present and interpret their numerical solutions and analysis clearly and effectively.
CO4 to PO12	1	Focuses on lifelong learning in understanding and applying thermodynamic concepts to new and emerging systems.
CO5 to PO1	3	Students apply the fundamental principles of thermodynamics to understand and differentiate between ideal and real gases.
CO5 to PO2	2	Students to identify and analyze thermodynamic behaviour in complex gas systems using theoretical and empirical approaches.
CO5 to PO3	2	Students applying laws and equations to evaluate properties of gas mixtures in practical engineering situations.
CO5 to PO5	1	Student uses the property tables, software tools, and equations of state for gas mixture analysis.
CO5 to PO6	1	Students understanding the environmental and societal implications of using different gas mixtures in engineering systems.
CO5 to PO10	1	Students are required to present and explain thermodynamic analyses and results effectively through technical communication.
CO5 to PO12	1	Students are encouraged for continuous learning of thermodynamic behaviour and updated models of gas mixtures used in advanced applications.

Subject Name: Turbomachines (TM)

Faculty In charge: Mr. Prashanth Kumar **Subject Code: BME502**

Academic year: 2023-24 **Semester: V**

Previous Course Outcomes (COs)

CO1: Apply the Model studies and thermodynamics analysis of turbo machines.
CO2: Analyze the energy transfers in Turbo machine with degree of reaction and utilization factor.
CO3: Classify, analyse and understand various type of steam turbine.
CO4: Classify asses and understand various type of hydraulic turbine.
CO5: Understand the concept of radial power absorbing machine and the problems involved during its operation

Mapping Table: CO-PO Alignment

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-
CO2	2	2	2	-	-	-	-	-	-	1	-	1	-	2	-
CO3	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-
CO4	2	2	2	-	-	-	-	-	-	1	-	1	-	2	-
CO5	2	2	1	-	-	-	-	-	-	1	-	1	-	2	-

Revised Course Outcomes (COs)

CO1: Apply the Model studies and thermodynamics analysis of turbo machines.
CO2: Analyze the energy transfers in Turbo machine with degree of reaction and utilization factor.
CO3: Categorize, analyse and understand various type of steam turbine.
CO4: Classify, assess, and grasp the different types of hydraulic turbines.
CO5: Evaluate the concept of radial power absorbing machine and the problems involved during its operation.

Improved CO-PO Mapping Table

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	3	2	-	-	-	-	-	-	1	-	1	-	3	-
CO2	3	2	2	-	-	-	-	-	-	1	-	1	-	2	-
CO3	3	3	2	-	2	1	-	-	-	1	-	1	-	3	-
CO4	3	2	2	-	2	-	-	-	-	1	-	1	-	2	-
CO5	3	2	2	-	2	2	-	-	-	1	-	1	-	2	-

Justification Table for CO-PO-PSO Mapping

CO-PO Mapping	Mapping Weightage	Justification
CO1 to PO1	3	Students will apply the engineering knowledge while appraising various turbomachines.
CO1 to PO2	3	Students will apply the principles of mathematics, natural sciences and engineering sciences for different turbomachines.
CO1 to PO3	2	Students analysing and solving engineering problems related to turbo machines using thermodynamic principles and performance models.
CO1 to PO10	1	Students are expected to communicate the analysis, results, and interpretations related to turbo machinery through reports or presentations.
CO1 to PO12	1	Students encouraged to lifelong learning of evolving technologies and analytical methods in the field of turbomachinery.
CO2 to PO1	3	Students applying core concepts of thermodynamics and fluid mechanics to analyze energy transfer in turbomachinery.
CO2 to PO2	2	Students to identify, formulate, and analyze complex energy transfer problems involving degree of reaction and utilization factor.
CO2 to PO5	2	Students apply the analytical and mathematical models to evaluate and optimize turbomachine performance.
CO2 to PO10	1	Students must communicate their technical analysis and interpretations of turbomachinery performance clearly and effectively.
CO2 to PO12	1	Students encouraged to continuous learning in advanced topics related to turbomachinery and energy systems.
CO3 to PO1	3	Students applying fundamental engineering and thermodynamic principles to understand steam turbine operation.
CO3 to PO2	3	Students analyze and differentiate various steam turbine types based on their construction and working principles.
CO3 to PO3	2	Students solving engineering problems related to performance evaluation and selection of suitable steam turbines.
CO3 to PO5	2	Students use of diagrams, computational tools, and technical resources to model and analyze turbine behavior.
CO3 to PO6	1	Students have the awareness of the environmental and societal impacts of steam turbine applications in power generation.
CO3 to PO10	1	Students are expected to communicate their analysis and understanding of turbine types effectively through technical formats.
CO3 to PO12	1	Students encouraged lifelong learning of emerging turbine technologies and their applications in sustainable energy systems.
CO4 to PO1	3	Students applying basic principles of fluid mechanics and energy conversion to understand hydraulic turbine types.
CO4 to PO2	2	Students to analyze and compare various hydraulic turbines based on operating conditions and performance.
CO4 to PO3	2	Students involving in evaluation and selection of appropriate turbine types for specific engineering applications.
CO4 to PO5	2	Students use the software tools, flow diagrams, and models to analyze hydraulic turbine behaviour and efficiency.
CO4 to PO10	1	Students must clearly present and explain their understanding and assessments of turbine types.
CO4 to PO12	1	Students encouraged lifelong learning in the field of hydraulic energy systems and emerging turbine technologies.
CO5 to PO1	3	Students applying core concepts of mechanical engineering and fluid dynamics to understand radial power absorbing machines.
CO5 to PO2	2	Students to identify and analyze operational problems and performance limitations in such machines.

CO5 to PO3	2	Students solving real-world engineering problems related to the design and functioning of power absorbing devices.
CO5 to PO5	2	Students use modern tools, diagnostic techniques, and simulations to evaluate machine behaviour.
CO5 to PO6	2	Students have the awareness of safety, environmental, and societal impacts linked to the operation of these machines.
CO5 to PO10	1	Students must effectively communicate technical evaluations and solutions related to machine performance issues.
CO5 to PO12	1	Students encouraged continuous learning of new challenges, innovations, and maintenance strategies in power-absorbing systems.

Subject Name: Automation and Robotics (A&R)

Faculty In charge: Mr. Akash **Subject Code: 21ME71**

Academic year: 2024-25 **Semester: VII**

Previous Course Outcomes (COs)

CO1: Translate and simulate a real time activity using modern tools and discuss the Benefits of automation.
CO2: Identify suitable automation hardware for the given application.
CO3: Recommend appropriate modelling and simulation tool for the given manufacturing Application.
CO4: Explain the basic principles of Robotic technology, configurations, control and Programming of Robots.
CO5: Explain the basic principles of programming and apply it for typical Pick & place, loading & unloading and palletizing applications.

Mapping Table: CO-PO Alignment

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	2	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO2	2	2	-	-	1	-	-	-	-	1	-	1	-	-	2
CO3	2	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO4	2	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO5	2	2	-	-	2	-	-	-	-	1	-	1	-	-	2

Revised Course Outcomes (COs)

CO1: Model and replicate a real-time activity using modern digital tools, and explore the benefits of automation in improving efficiency and precision.
CO2: Evaluate and recommend suitable automation hardware for the application.
CO3: Identify and recommend a suitable tool for modelling and simulating the manufacturing application.
CO4: Describe the core concepts of robotic technology, covering configurations, control mechanisms, and programming techniques.
CO5:Discuss basic programming principles and demonstrate their application in pick-and-place, loading/unloading, and palletizing tasks.

Improved CO-PO Mapping Table

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1	3	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO2	3	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO3	3	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO4	3	2	-	-	2	-	-	-	-	1	-	1	-	-	2
CO5	3	2	-	-	2	-	-	-	-	1	-	1	-	-	2

Justification Table for CO-PO-PSO Mapping

CO-PO Mapping	Mapping Weightage	Justification
CO1 to PO1	3	Students require fundamental engineering knowledge to model and understand real-time systems and automation concepts.
CO1 to PO2	2	Students analyse of system behaviour and problem-solving in automated processes to enhance performance.
CO1 to PO5	2	Students use modern digital tools and technologies for modelling, simulation, and automation.
CO1 to PO10	1	Students must communicate modelling outcomes, automation strategies, and efficiency results effectively.
CO1 to PO12	1	Students encouraged to continuous learning in evolving digital technologies and automation practices.
CO2 to PO1	3	Students require application of fundamental engineering knowledge to understand the working and compatibility of automation hardware.
CO2 to PO2	2	Students involving in problem identification, analysis, and selection of appropriate automation hardware for specific engineering needs.
CO2 to PO5	2	Students use of modern engineering tools and platforms to evaluate, test, and validate automation hardware solutions.
CO2 to PO10	1	Students must effectively present their evaluations and justify their hardware recommendations in a technical format.
CO2 to PO12	1	Students encouraged to continuous learning of advancements in automation hardware and their applications in industry.
CO3 to PO1	3	Students applying fundamental knowledge of manufacturing systems and processes to select appropriate modelling tools.
CO3 to PO2	2	Students analyze the manufacturing challenges and the selection of suitable simulation tools based on system requirements.
CO3 to PO5	2	Students identify and use of modern digital tools and simulation software for accurate modelling of manufacturing applications.
CO3 to PO10	1	Students must effectively communicate their tool selection and justification through reports or presentations.
CO3 to PO12	1	Students encouraged to continuous learning of evolving simulation technologies and their applications in manufacturing.
CO4 to PO1	3	Students applying fundamental principles of mechanics, electronics, and computing to understand robotic systems.
CO4 to PO2	2	Students to analyze and interpret robotic configurations and control systems for problem-solving in automation.
CO4 to PO5	2	Students use of modern robotic tools, software, and platforms to explore control and programming techniques.
CO4 to PO10	1	Students are expected to effectively communicate robotic concepts, configurations, and program logic through technical documentation or

		presentations.
CO4 to PO12	1	Students encouraged to lifelong learning in rapidly evolving robotic technologies and their industrial applications.
CO5 to PO1	3	Students applying foundational knowledge of programming and automation to industrial robotic tasks.
CO5 to PO2	2	Students to analyze task requirements and develop logical solutions using programming techniques for automation.
CO5 to PO5	2	Students use of modern programming tools and robotic platforms to implement automation tasks.
CO5 to PO10	1	Students must effectively communicate their programming logic and task implementation through code documentation or presentations.
CO5 to PO12	1	Students encouraged to continuous learning in automation programming and adapting to emerging industrial technologies.

ATRIA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi Approved by AICTE, New Delhi| NBA & NACC Accredited| Recognized by Govt. of Karnataka)

ASKB Campus, Anandnagar, | Bangalore - 560 024, Ph: 080 2363 1204, email: principal@atria.edu

Department of Mechanical Engineering

23rd November 2022

Circular

Subject: Review Session on CO Statement and CO, PO, PSO Mapping for Batch 2020-24

This is to inform all the faculty members of Mechanical Engineering that a review session on CO statement and CO, PO and PSO mapping for batch 2019-23 is scheduled on **25.10.2022 at 2:00 PM in Room BC405.**

The subjects allotted to each faculty members are as follows:

Faculty List and with subject allocated

Sl. No.	Name of the Faculty	Subject Name	Signature
1.	Mr. Srinivasa Chari V	Mini-project (18MEMP68)	
2.		Additive Manufacturing (18ME741)	
3.		Project Work Phase – 1 & 2	
4.	Mr. Praveen Kumar B. C.	Computer Aided Modelling and Analysis Lab (18MEL67)	
5.		Control Engineering (18ME71)	
6.		Internship	
7.	Dr. Manjunatha C J	Material Testing lab (18MEL37A)	
8.		Design of Machine Elements II (18ME62)	
9.		Design of Machine Elements I (18ME52)	
10.		Dynamics of Machines (18ME53)	
11.	Dr. Srikumar Biradar	Metal cutting and forming (18ME35A)	
12.		Foundry, Forging and Welding lab (18MEL38B)	
13.		Computer Aided Design and Manufacturing (18ME72)	
14.		Non-Destructive Testing and Evaluation (18ME823)	
15.	Mr. Prashanth Kumar S	Turbo Machines (18ME54)	
16.		Energy Conversion Lab (18MEL58)	
17.		Heat Transfer (18ME63)	
18.		Heat Transfer Lab (18MEL67)	
19.	Mr. Chandrashekhar G L	Material Science (18ME34)	
20.		Workshop and Machine Shop Practice (18MEL38A)	
21.		Tribology (18ME822)	

Faculty review sessions are held to revise COs.

ATRIA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi Approved by AICTE, New Delhi| NBA & NACC Accredited| Recognized by Govt. of Karnataka)

ASKB Campus, Anandnagar, | Bangalore - 560 024, Ph: 080 2363 1204, email: principal@atria.edu

Department of Mechanical Engineering

22.		Metal Casting and Welding (18ME35B)	
23.	Mr. Puneeth H M	Mechanics of Materials(18ME32)	
24.		Computer Aided Machine Drawing (18ME36A)	
25.		Finite Element Methods (18ME61)	
26.		Kinematics of Machines (18ME44)	
27.	Dr. Harish Kumar N S	Operations Management (18ME56)	
28.		Energy Engineering (18ME81)	
29.		Automobile Engineering (18ME824)	
30.	Mr. Chethan Kumar N	Basic Thermodynamics(18ME33)	
31.		Applied Thermodynamics (18ME42)	
32.		Fluid Mechanics (18ME43)	
33.		Fluid Mechanics/Machines lab(18MEL57)	
34.	Mr. Ranga Swamy K V	Mechanical Measurements and Metrology (18ME36B)	
35.		Mechanical Measurements and Metrology lab (18MEL37B)	
36.		Fluid Power Engineering (18ME55)	
37.	Mrs. Kanchan Dwivedi	Non-Conventional Energy Sources (18ME651)	
38.		Management and Economics (18ME33)	
39.		Non-Traditional Machining (18ME641)	
40.		Total Quality Management (18ME734)	

Coordinator
(Mr. Prashanth Kumar S)

HoD
(Dr. Venkate Gowda C)

Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Faculty review sessions are held to revise COs.

ATRIA INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
BENGALURU

Department of Mechanical Engineering

6th September 2024

Circular

Subject: Review Session on CO Statement and CO, PO, PSO Mapping for Batch 2021-25

This is to inform all the faculty members of Mechanical Engineering that a review session on CO statement and CO, PO and PSO mapping for batch 2021-25 is scheduled on **10.09.2024 at 2:00 PM in Room No 205.**

The subjects allotted to each faculty members are as follows:

Faculty List and Subjects allocated

SL. NO.	NAME OF THE FACULTY	SUBJECT CODE	SUBJECT NAME	SIGNATURE
1	Dr. Venkate Gowda C	21ME44	Mechanics of Materials	
2	Dr. Srinivasa Chari V	21MEMP67/ 21MEP76	Mini Project / Project work	
3		21ME731	Additive Manufacturing	
4	Mr. Praveen Kumar B C	21ME72	Control Engineering	
5		21ME753	Operations Research	
6	Dr. Srikumar Biradar	21ME32	Metal casting, Forming and Joining Processes	
7		21ME642	Mechatronic System Design	
8	Mr. Anil Kumar B N	21ME33	Material Science and Engineering	
9		21ME42	Machining Science and Jigs & Fixtures	
10		21ME742	Theory and Design of IC Engines	
11	Mr. Santosh Kumar Panda	21ME34	Thermodynamics	
12		21ME43	Fluid Mechanics	
13		21ME652	Renewable Energy Power Plants	
14	Mr. Rajanna L	21MEL46	Mechanical Measurements and Metrology Lab	
15		21ME54	Modern Mobility and Automotive Mechanics	
16		21ME51	Theory of Machines	
17	Mr. Puneeth H M	21MEL35	Machine Drawing and GD & T	
18		21ME63	Machine design	
18		21MEL55	Design lab	

Faculty review sessions are held to revise COs.

ATRIA INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
BENGALURU

18		21MEL55	Design lab	
19	Mr. Prashanth Kumar S	21ME52	Thermo-fluids Engineering	
20		21MES81	Technical Seminar	
21	Mr. Jerin Raju John	21ME56	Research Methodology & Intellectual Property Rights	
22		21ME61	Production and Operations Management	
23	Mr. Akash Biradar	21INT49/68/82	Internship	
24		21MEL66	CNC Programming and 3-D Printing Lab	
25		21ME71	Automation and Robotics	
26	Mr. Rakesh T G	21ME62	Heat Transfer	
27		21ME53	Finite Element Analysis	

Coordinator
(Mr. Prashanth Kumar S)

HoD
(Dr. Venkate Gowda C)
Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Faculty review sessions are held to revise COs.

Request for Feedback on Revised Course Outcomes and Mapping with POs and PSOs - Reg

External Inbox ×

Puneeth H M <puneeth.hm@atria.edu> Mon, Oct 14, 2024, 3:15 AM

to mech, me

Respected Sir,

I hope this message finds you well. As per the suggestions from the National Board of Accreditation (NBA), I have recently revised the Course Outcomes (COs) for the courses Basic Mechanics of Materials (18ME32), Computer Aided Machine Drawing (18ME36A), Kinematics of Machinery (18ME44), and Finite Element Method (18ME61) which were originally prescribed by Visvesvaraya Technological University (VTU). Additionally, the new COs have been mapped with the Program Outcomes (POs) and Program Specific Outcomes (PSOs) of our program.

Given your expertise and valuable experience in the field, I would greatly appreciate your feedback and suggestions on these revised COs and their alignment with POs and PSOs. Your insights would help ensure that the changes are in line with best practices and enhance the effectiveness of our curriculum.

Please find attached the 18 Scheme syllabus of Visvesvaraya Technological University (VTU) and updated COs along with the mapping for your review.

I look forward to your constructive feedback at your earliest convenience.

Thank you for your time and consideration.

Regards,

PUNEETH HM
Assistant Professor,
Department of Mechanical Engg.
Atria Institute of Technology,
Bangalore - 24. Mob: 9632381480

Activate Windows
Go to Settings to activate Window

HOD-Mechanical Engineering <mech@sode-edu.in> Oct 14, 2024, 4:14 AM

to Puneeth, me

Respected sir,

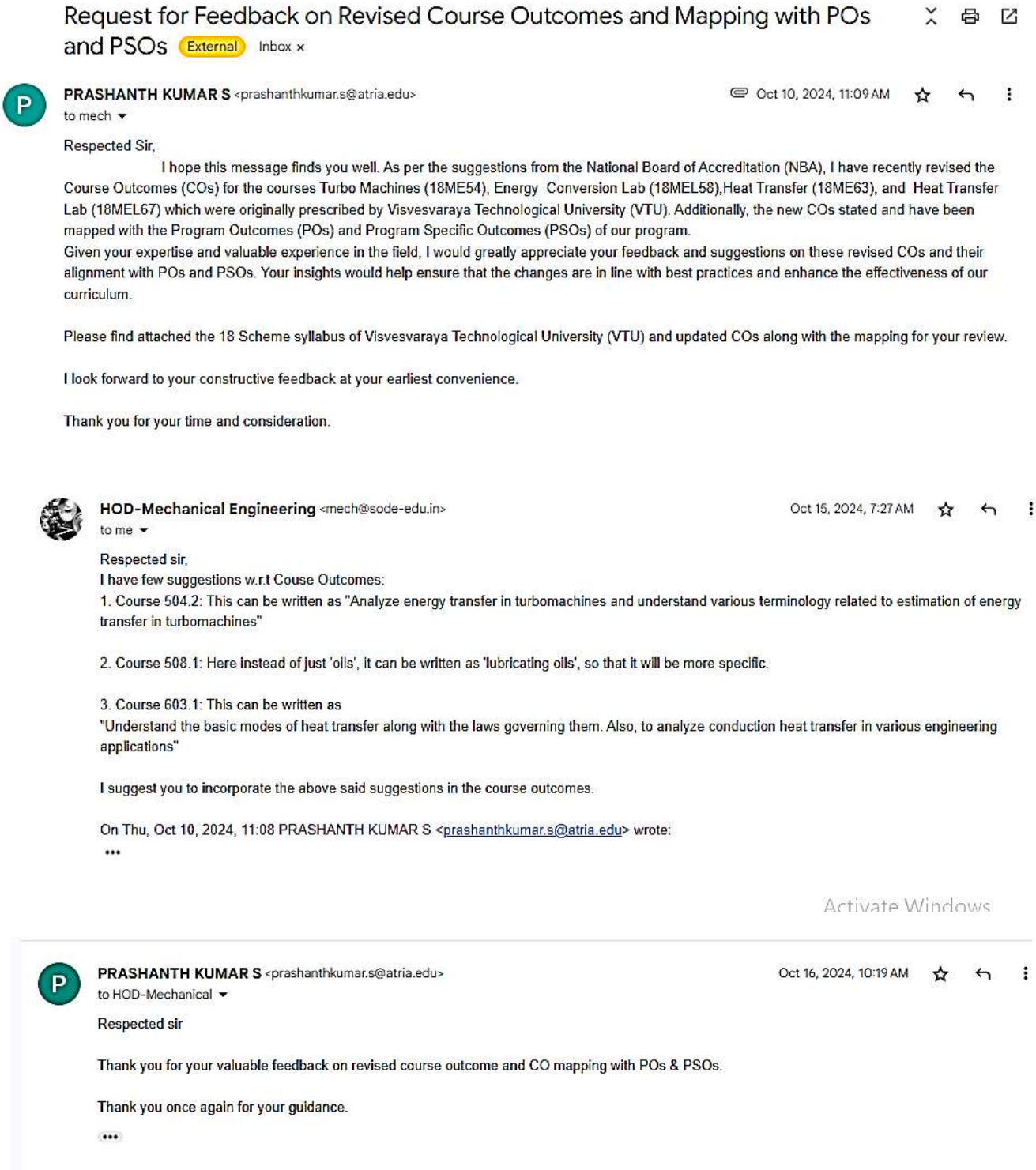
I have gone through the revised Course Outcomes (COs) for the courses Basic Mechanics of Materials (18ME32), Computer Aided Machine Drawing (18ME36A), Kinematics of Machinery (18ME44) and Finite Element Method (18ME61). COs are clearly defined and are mapped with Program Outcomes (POs) and Program Specific Outcomes (PSOs). COs are stressing much on acquiring practical knowledge as per the industry requirements and the current trends in the industry. **I am here suggesting you to strengthen the assessment (by incorporating assessment tools such as mini-project, assignments including solving problems using FEA analysis software packages and quizzes containing the multiple-choice questions with GATE level).** I am pretty sure that the outcomes of these courses will be helpful for the students to become Design Engineers. Also, contributes in strengthening the OBE process of the Mechanical Engineering UG program.

I wish to convey my best wishes to the ATRIA-MECH family. Kindly continue your good work.

With Warm Regards

Dr. Raja Yateesh Yadav B.E., M.Tech., Ph.D.
Associate Professor & Head,
Department of Mechanical Engineering,
Shri Madhwa Vadiraja Institute of Technology and Management,
Vishwothama Nagar,
Bantakal-574115,
Udupi District.
Karnataka, India
Ph: +91 7483031199/ 7483031200 (Office) Extn: 241
+91 9964281895 (Personal)

Mail Communication Document for Feedback on CO Statement, mapping of CO with POs and PSOs



Request for Feedback on Revised Course Outcomes and Mapping with POs and PSOs External Inbox ×

PRASHANTH KUMAR S <prashanthkumar.s@atria.edu> Oct 10, 2024, 11:09 AM
to mech

Respected Sir,

I hope this message finds you well. As per the suggestions from the National Board of Accreditation (NBA), I have recently revised the Course Outcomes (COs) for the courses Turbo Machines (18ME54), Energy Conversion Lab (18MEL58),Heat Transfer (18ME63), and Heat Transfer Lab (18MEL67) which were originally prescribed by Visvesvaraya Technological University (VTU). Additionally, the new COs stated and have been mapped with the Program Outcomes (POs) and Program Specific Outcomes (PSOs) of our program.
Given your expertise and valuable experience in the field, I would greatly appreciate your feedback and suggestions on these revised COs and their alignment with POs and PSOs. Your insights would help ensure that the changes are in line with best practices and enhance the effectiveness of our curriculum.

Please find attached the 18 Scheme syllabus of Visvesvaraya Technological University (VTU) and updated COs along with the mapping for your review.

I look forward to your constructive feedback at your earliest convenience.

Thank you for your time and consideration.

HOD-Mechanical Engineering <mech@sode-edu.in> Oct 15, 2024, 7:27 AM
to me

Respected sir,
I have few suggestions w.r.t Couse Outcomes:
1. Course 504.2: This can be written as "Analyze energy transfer in turbomachines and understand various terminology related to estimation of energy transfer in turbomachines"

2. Course 508.1: Here instead of just 'oils', it can be written as 'lubricating oils', so that it will be more specific.

3. Course 603.1: This can be written as
"Understand the basic modes of heat transfer along with the laws governing them. Also, to analyze conduction heat transfer in various engineering applications"

I suggest you to incorporate the above said suggestions in the course outcomes.

On Thu, Oct 10, 2024, 11:08 PRASHANTH KUMAR S <prashanthkumar.s@atria.edu> wrote:
...

Activate Windows

PRASHANTH KUMAR S <prashanthkumar.s@atria.edu> Oct 16, 2024, 10:19 AM
to HOD-Mechanical

Respected sir

Thank you for your valuable feedback on revised course outcome and CO mapping with POs & PSOs.

Thank you once again for your guidance.
...

Mail Communication Document for Feedback on CO Statement, mapping of CO with POs and PSOs

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

Date: 18.04.2023

Program Assessment Committee meeting

This is to report you that the Program Assessment Committee (PAC) meeting scheduled on 18th April 2023 to discuss the CO's, PEO's & PO's and other NAAC related matters. I look forward to meeting you at 10:00 AM in the Dept. of Mechanical Engineering HOD Cabin.

Hence all the members are requested to make it convenient to attend the meeting & give your valuable suggestions for improvement of the department in all aspects. The agenda for the meeting is

- To discuss the Course Outcomes & Review the CO-PO Mapping Values
- To discuss Program Outcomes & Programme Specific Outcomes of the department
- To discuss about Internal Assessment question papers & evaluation method.
- To discuss about the project guide selection
- Identification of gap in syllabus & remedial measures
- To discuss about the rubrics for project evaluation.
- To discuss about change of CO PO attainment target

Kindly make it convenient to attend the same & look forward to your presence.

1, Dr. Y. Vijayakumar

2, Dr. Venkategowda. C

Professor & HOD
Atria Institute of Technology
Anandnagar, Bangalore 560 024

3, Dr. N.G.S. Udupa : — 18-4-23

4, Dr. Basavaraj — 18/4/2023

5, Dr TK Chandrashekar 18/4/23

6, Srinivasa Murthy V 18/4/23

7, Dr. Harish Kumar. N.S 18/4/23

8. Sridhar. S 18/04/23

9. Praveen kumar B.C. 18/4/23

10. Dr. Sitkumar Biradar 18/04/23

11. G.L. chandrasekhar 18/4/23

12. Dr. Niranjan 18/4/23

Program Assessment Committee Meeting to Discuss CO Statement

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

AY 2022-2023

Program Assessment Committee - Mechanical Engineering

Members present:

Sl. No.	Name	Designation	Role in PAC	Signature
1	Dr. Venkate Gowda C	HOD	Convener	
2	Dr. Y Vijaya Kumar	Principal	Member	
3	Dr. N G S Udupa	Retired principal, UBDT, Davangere	Member	18/04/23
4	Dr. Baswaraj	Associate professor, VTU, mudenahalli	Member	18/4/2023
5	Dr. T K Chandrashekar	Professor, RNSIT Bangalore	Member	18/4/23
6	Dr. Niranjan H B	Retired professor, MSRIT, Bangalore	Member	18/04/23
7	Dr. Harish Kumar N S	Assistant Professor, AIT	Member	18/4/23
8	Dr. Manjunatha C J	Assistant Professor, AIT	Member	
9	Dr. Srikumar Biradar	Assistant Professor, AIT	Member	18/4/23
10	Mr. Praveen Kumar B C	Assistant Professor, AIT	Member	18/4/2023
11	Mr. Srinivasa Chari V	Assistant Professor, AIT	Member	18/4/23
12	Mr. Vibhav Koushik	Industrialist	Member	
13	Mr. Suman	Alumni	Member	

Professor & HOD
Department of Mechanical Engineering
Atria Institute of Technology
Anandnagar, Bangalore 560 024

List of PAC Members

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

PAC Meeting Outcome held on 18/04/2023

1. To discuss the Course Outcomes
   Members suggested CO has to be defined based on syllabus
   Minimum 5 CO per subject.

2. To discuss Program Outcomes & Programme Specific Outcomes of the department
   CO of every subject is to be mapped to at least 3 POs.

3. To discuss about Internal Assessment question papers & evaluation method.
   Internal question paper must be set so that average students can score at least 35% of marks easily, remaining should be L_3, L_4 and L_5 level questions.

4. To discuss about the project guide selection
   Based on specialization of the faculty members projects have to be allocated with emphasis on Interdisciplinary projects.

5. Identification of gap in syllabus & remedial measures
   Identifying the gaps in the syllabus with respect to current technologies and advancements in the previous technologies by organizing Guest / Expert lectures from industry experts and academicians from premier institutes.

6. To discuss about the rubrics for project evaluation.
   Existing method of evaluation can be continued.

Professor & HOD

Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Outcome of PAC Meeting

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

Date: 18.04.2023

Department Advisory Board meeting

This is to report you that the Department Advisory Board meeting scheduled on 18th April 2023 to discuss the NAAC related matters and Department activities. I look forward to meeting you at 02:00 PM in the Dept. of Mechanical Engineering HOD Cabin.

Hence all the members are requested to make it convenient to attend the meeting & give your valuable suggestions for improvement of the department in all aspects. The agenda for the meeting is

- To glance the NAAC Documents preparation
- To discuss about the R & D activities
- To discuss the Outcome Based Education (OBE)
- To discuss about retention related issues
- To discuss about the admission strategies
- To discuss about alumni related activities
- To discuss about paper publications (Scopus & Q-rated)
- Interdisciplinary activities in the department
- To discuss about Syllabus of 2022 Scheme
- To discuss about introduce of new branches Aeronautical and Robotics & Automation
- To discuss about institute planning for autonomous status

Kindly make it convenient to attend the same & look forward to your presence.

Professor & HOD

1, Dr. Y. Vijayakumar
2, Dr. Venkategowda. C
3, Dr. N. G. S. Udupa – 18/4/23
4 Dr. Basavaraj – 18/04/2023
5 Dr. T. K. Chandrashekar 18/4/23
6. Praveen Kumar B.C. 18/4/23
7 Dr. Harish Kumar. N S – 18/4/23
8. R.L. Chandra Sekar – 18/4/23
9. Srinivasa Chakravarthy
10. Dr. N Ironson 18/4/23

DAC Meeting Schedule

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

AY 2022-2023

Department Advisory Board members - Mechanical Engineering

Members present:

Sl. No.	Name	Designation	Role in DAC	Signature
1	Dr. Venkate Gowda C	HOD	Convener	
2	Dr. Y Vijaya Kumar	Principal	Member	
3	Dr. N G S Udupa	Retired principal, UBDT, Davangere	Member	18/04/23
4	Dr. Baswaraj	Associate professor, VTU, mudenahalli	Member	18/4/23
5	Dr. T K Chandrashekar	Professor, RNSIT Bangalore	Member	18/4/23
6	Dr. Niranjan H B	Retired professor, MSRIT, Bangalore	Member	18/4/23
7	Dr. Harish Kumar N S	Assistant Professor, AIT	Member	18/4/23
8	Mr. Vibhav Koushik	Industrialist	Member	
9	Mr. Suman	Alumni	Member	

Professor & HOD
Department of Mechanical Engineering
Atria Institute of Technology
Anandnagar, Bangalore 560 024

List of DAC Members

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

DAC meeting Outcome held on 18/04/2023

1. To glance the NAAC Documents preparation
   Members have suggested to display all the details pertaining to laboratories on the notice board.
   Experiments related to experiential learning must be included in the laboratory content.
   Display of projects and publications in Q-rated journals must be showcased in the Department.

2. Discussion about the R & D activities
   Proposals must be written in collaboration with IIT, NIT etc...
   Focus on defence projects and ceramic materials.

3. To discuss about Outcome Based Education (OBE)
   Results of 2nd and 3rd year should be improved by taking corrective measures.

4. To discuss about retention related issues
   Management should pay attractive salary, incentives at regular intervals.
   Encourage faculties to attend training, FDP and conferences by paying registration fees.

5. To discuss about the admission strategies
   Publish the Placed students in college brochure and display in campus.
   Advertise about Mechanical students placed in IT companies.
   Advertise about German Track related activities.

6. Discussion about Alumni related activities
   Every year Alumni meet should be conducted.
   Alumni data must be collected from each batch and identify the alumni in good post/position.

7. To discuss about paper publications (Scopus & Q-rated)
   Members suggested that management should provide allowances for faculty members attending conferences, paper presentations and FDP.
   Members suggested faculties to publish at least 2 papers per year in Q-Rated journals.

8. Interdisciplinary activities in the Department
   Introduce courses related to Electric Vehicle Technology and train the faculties about EV, Hybrid Vehicle and arrange visit to Battery Manufacturing Industries.

Outcome of DAC Meeting

ATRIA INSTITUTE OF TECHNOLOGY
(Approved by AICTE, New Delhi, Affiliated to VTU, Recognized by Govt. of Karnataka)
Anandanagar, Bengaluru – 560 024
Department of Mechanical Engineering

9. To discuss about Syllabus of 2022 Scheme and Autonomous syllabus
   Introduce the courses according to the Industry requirements and compare the NIT/IIT, Deemed Universities, other Autonomous Colleges syllabus and consider the quality of students.

10. Discussion about introduction of new branches like Aeronautical Engineering and Robotics & Automation Engineering.
    Members suggested that Robotics & Automation Engineering and Smart Manufacturing courses have high demand and more job opportunities.

11. Discussion about institute plan to become Autonomous status
    Guide and motivate the students to do higher studies in German and Japan.
    Introduce multidisciplinary courses to attract the students.

Professor & HOD

Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Outcome of DAC Meeting

ATRIA INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
BENGALURU

AIT/ME/2024-25/060 Date: 16.04.2025

Department of Mechanical Engineering

Dear PAC member,

Subject: Invitation to the Program Assessment Committee (PAC) meeting
Scheduled on 17th April 2025

Greetings from Atria Institute of Technology, Bengaluru

With reference to above subject, the PAC meeting for the academic year 2024-25 is scheduled on 17th April 2025, at 2:00 PM in room no 205.

Agenda of the meeting is as follows:

- Review of previous PAC meeting
- Result Analysis discussion
- Review of CO Statements
- CO-PO mapping, target fixing of CO & PO and attainment of last semester subjects
- Calendar of events – adherence report of odd semester
- Activities planned in even semester
- Projects - Best projects for publications and patent
- PAQIC Audit report and action plan
- Activities conducted in the academic year 2024-25
- Research and Development
- Placements and Higher Studies
- Admissions strategy plan for AY-2025-26
- Faculty retention
- Autonomous Syllabus of 2nd year
- BOS/BOE Meeting

We hereby invite you to this meeting. In addition, your support and valuable suggestions are anticipated for further strengthening of the Department.

Member Convener
Mr. Prashanth Kumar S

HOD
Dr. Venkate Gowda C
Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Copy to:
1. The Principal
2. Vice-Principal
3. Dean (IQAC)
4. Dean (Academics)
5. All PAC Members

PAC Meeting Approval Letter

ATRIA INSTITUTE OF TECHNOLOGY
[AN AUTONOMOUS INSTITUTION]
BENGALURU

AIT/ME/2024-25/062

Date: 29/04/2025

Department of Mechanical Engineering

To,
The Principal,
Atria Institute of Technology,
Bangalore.

Through HoD – Department of Mechanical Engineering

Subject: Requesting for permission to conduct DAC Meeting – AY 2024-25

Respected Sir,

With reference to the above subject, the Department of Mechanical Engineering is planning to conduct the Department Advisory Committee (DAC) meeting for the Academic Year 2024-25 on 7th **May 2025.** All DAC members including the external members are expected to attend this meeting.

In view of the above, I kindly request you to grant permission to conduct the DAC meeting on the above-mentioned date.

Looking forward to your kind approval. Thanking You.

Mr. Prashanth Kumar S
Coordinator

Dr. Venkate Gowda C
HoD

Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Supported and forwarded for further approval
30/4/2025

Approved
30/4/25

DAC Meeting Approval Letter

ATRIA INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
BENGALURU

AIT/ME/2024-25/064 **Date:** 30.04.2025

Department of Mechanical Engineering

Dear DAC member,

Subject: Invitation to the Department Advisory Committee (DAC) meeting Scheduled on 7th May 2025

Greetings from Atria Institute of Technology, Bengaluru

With reference to above subject, the DAC meeting of the academic year 2024-25 is scheduled on 7th May 2025, in the room no 205.

Agenda of the meeting is as follows:

- Review of previous PAC meeting
- Result Analysis discussion
- CO-PO mapping, target fixing of CO & PO and attainment of last semester subjects
  Identification of gap in syllabus & remedial measures
- Calendar of events – adherence report of odd semester
  Activities planned in even semester
- Projects - Best projects for publications and patent
- PAQIC Audit report and action plan
- Activities conducted in the academic year 2024-25
- Research and Development
- Placements and Higher Studies
- MoUs of department
- Alumni activities
- Admissions strategy plan for AY-2025-26
- Faculty retention
- Autonomous Syllabus of 2nd year
- BOS/BOE Meeting

We hereby invite you to this meeting. In addition, your support and valuable suggestions are anticipated for further strengthening of the Department.

Member Convener
Mr. Prashanth Kumar S

HOD
Dr. Venkate Gowda
Head of Department
Mechanical Engineering
ATRIA INSTITUTE OF TECHNOLOGY
BENGALURU - 560024

Copy to:
1. The Principal
2. Vice-Principal
3. Dean (IQAC)
4. Dean (Academics)
5. All DAC members

DAC Meeting Schedule

Section 3.1.3

Program level Course-PO/PSO's matrix of all courses including first year courses

CO-POs & PSOs Table for 2020-24 Batch

		Atria Institute of Technology														
SI NO	Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
1	C-111	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
2	C-112	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
3	C-113	2.00	1.00	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
4	C-114	2.40	1.00	"-"	1.00	"-"	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	2.00	2.00
5	C-115	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
6	C-116	2.00	2.00	"-"	".."	".."	".."	".."	".."	".."	".."	".."	1.00	"-"	"-"	"-"
7	C-117	3.00	1.00	"-"	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
8	C-121	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
9	C-122	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
10	C-123	1.00	1.00	"-"	1.00	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
11	C-124	3.00	3.00	2.00	"-"	3.00	1.00	1.00	1.00	1.00	"-"	1.00	1.00	"-"	"-"	"-"
12	C-125	2.00	2.00	3.00	2.00	3.00	"-"	1.00	"-"	3.00	2.00	"-"	"-"	"-"	"-"	"-"
13	C-126	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
14	C-127	3.00	1.00	"-"	".."	".."	".."	".."	".."	".."	".."	".."	"-"	"-"	"-"	"-"
15	C-231	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
16	C-232	2.80	1.60	2.50	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.00
17	C-233	2.00	1.50	"-"	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.30	"-"
18	C-234	2.00	2.00	1.20	"-"	"-"	1.00	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
19	C-235	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	1.00	"-"
20	C-236	2.40	1.75	1.80	"-"	2.60	"-"	"-"	1.00	"-"	1.50	"-"	1.00	1.40	"-"	"-"
21	C-237	2.00	"-"	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00
22	C-238	2.00	2.00	"-"	"-"	"-"	"-"	"-"	3.00	2.70	1.70	1.00	2.00	"-"	2.00	2.00
23	C-241	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
24	C-242	1.40	1.00	1.00	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"
25	C-243	2.60	2.20	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.60	"-"	1.60	"-"
26	C-244	2.00	2.70	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.70	2.00	"-"
27	C-245	2.00	1.50	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00
28	C-246	1.80	1.33	1.33	"-"	"-"	"-"	"-"	2.00	"-"	2.00	"-"	"-"	1.30	"-"	"-"
29	C-247	2.00	2.00	1.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	2.00	"-"	"-"
30	C-248	2.50	2.00	"-"	"-"	"-"	"-"	"-"	"-"	3.00	"-"	2.00	2.70	"-"	"-"	2.50
31	C-351	2.06	2.67	3.00	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
32	C-352	2.20	2.00	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	2.00	"-"	2.00
33	C-353	1.80	1.80	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	"-"
34	C-354	2.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	2.00	"-"
35	C-355	2.00	2.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	2.00
36	C-356	2.00	1.20	"-"	"-"	2.00	1.50	"-"	"-"	2.30	"-"	"-"	"-"	"-"	"-"	"-"
38	C-357	2.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	1.00	"-"	1.00	1.00	"-"	1.00	"-"
39	C-358	2.00	1.33	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	2.00	"-"	2.00	"-"

40	C-361	3.00	2.00	"-"	"-"	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"
41	C-362	2.20	"-"	"-"	"-"	2.00	"-"	"-"	"-"	2.00	"-"	"-"	"-"	2.00	"-"	"-"
42	C-363	2.00	2.00	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	1.00	1.00	"-"	1.00	"-"
43	C-364	2.00	2.00	3.00	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	1.00	"-"	1.75
44	C-365	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
46	C-366	1.75	1.75	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"
47	C-367	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"
48	C-368															
49	C-471	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.30	"-"
50	C-472	1.40	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
51	C-473	21.20	1.20	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.00
52	C-474	2.30	2.00	2.00	2.00	3.00	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.50
53	C-475	3.00	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
54	C-476	1.00	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	"-"
55	C-477	1.60	2.00	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"
56	C-478	2.00	2.00	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00
57	C-481	2.00	"-"	"-"	"-"	"-"	1.00	2.00	"-"	"-"	"-"	2.00	"-"	"-"	2.00	"-"
58	C-482	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	"-"	1.30
59	C-483	2.30	1.50	2.00	2.00	"-"	"-"	"-"	1.00	3.00	3.00	"-"	2.00	2.00	"-"	"-"
60	C-484	2.00	2.00	"-"	"-"	"-"	2.00	1.00	1.00	1.00	2.00	"-"	1.00	1.80	"-"	"-"
61	C-485	3.00	1.00	"-"	"-"	1.00	2.00	"-"	1.00	"-"	2.00	"-"	1.00	1.00	1.00	1.00
Average		**2.55**	**1.78**	**1.99**	**1.64**	**2.30**	**1.32**	**1.38**	**1.38**	**1.91**	**2.03**	**1.33**	**1.42**	**1.51**	**1.58**	**1.79**

Action Plan:

- The average CO to PO mapping value is 1.74.
- The POs with values below this average are PO4, PO6, PO7, PO8, PO11, and PO12.
- These POs will be addressed and strengthened by conducting the activities beyond the syllabus.

CO-POs & PSOs Table for 2019-23 Batch

Atria Institute of Technology

SI NO	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	C-111	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
2	C-112	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
3	C-113	1.00	1.00	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
4	C-114	2.40	1.00	"-"	1.00	"-"	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	2.00	2.00
5	C-115	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
6	C-116	1.00	1.00	"-"	".."	".."	".."	".."	".."	".."	".."	".."	1.00	"-"	"-"	"-"
7	C-117	3.00	1.00	"-"	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
8	C-121	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
9	C-122	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
10	C-123	1.00	1.00	"-"	1.00	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
11	C-124	3.00	3.00	2.00	"-"	3.00	1.00	1.00	1.00	1.00	"-"	1.00	1.00	"-"	"-"	"-"
12	C-125	2.00	2.00	3.00	2.00	3.00	"-"	1.00	"-"	3.00	2.00	"-"	"-"	"-"	"-"	"-"
13	C-126	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
14	C-127	3.00	1.00	"-"	".."	".."	".."	".."	".."	".."	".."	".."	"-"	"-"	"-"	"-"
15	C-231	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
16	C-232	2.80	1.60	2.50	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.00
17	C-233	1.00	1.50	"-"	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.30	"-"
18	C-234	2.00	2.00	1.20	"-"	"-"	1.00	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
19	C-235	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	1.00	"-"
20	C-236	1.40	1.75	1.80	"-"	1.60	"-"	"-"	1.00	"-"	1.50	"-"	1.00	1.40	"-"	"-"
21	C-237	2.00	"-"	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00
22	C-238	2.00	2.00	"-"	"-"	"-"	"-"	"-"	3.00	2.70	1.70	1.00	2.00	"-"	2.00	2.00
23	C-241	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
24	C-242	1.40	1.00	1.00	"-"	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"
25	C-243	2.60	2.20	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.60	"-"	1.60	"-"
26	C-244	2.00	2.70	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.70	2.00	"-"
27	C-245	2.00	1.50	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00
28	C-246	1.80	1.33	1.33	"-"	"-"	"-"	"-"	1.00	"-"	2.00	"-"	"-"	1.30	"-"	"-"
29	C-247	2.00	2.00	1.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	2.00	"-"	"-"
30	C-248	2.50	2.00	"-"	"-"	"-"	"-"	"-"	"-"	3.00	"-"	2.00	2.70	"-"	"-"	2.50
31	C-351	2.06	2.67	3.00	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
32	C-352	2.20	2.00	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	2.00	"-"	2.00
33	C-353	1.80	1.80	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	"-"
34	C-354	2.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	2.00	"-"
35	C-355	2.00	2.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	2.00
36	C-356	2.00	1.20	"-"	"-"	2.00	1.50	"-"	"-"	2.30	"-"	"-"	"-"	"-"	"-"	"-"
38	C-357	2.00	"-"	"-"	"-"	"-"	1.00	"-"	"-"	1.00	"-"	1.00	1.00	"-"	1.00	"-"
39	C-358	2.00	1.33	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	2.00	"-"	2.00	"-"
40	C-361	3.00	2.00	"-"	"-"	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"
41	C-362	2.20	"-"	"-"	"-"	2.00	"-"	"-"	"-"	1.00	"-"	"-"	"-"	2.00	"-"	"-"
42	C-363	2.00	1.00	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	1.00	1.00	"-"	1.00	"-"
43	C-364	2.00	1.00	3.00	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	1.00	"-"	1.75
44	C-365	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
46	C-366	1.75	1.75	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"
47	C-367	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"
48	C-368															
49	C-471	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.30	"-"
50	C-472	1.40	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
51	C-473	1.20	1.20	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	1.00
52	C-474	2.30	2.00	2.00	2.00	3.00	1.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.50
53	C-475	3.00	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
54	C-476	1.00	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"
55	C-477	1.60	2.00	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"
56	C-478	1.00	1.00	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00
57	C-481	2.00	"-"	"-"	"-"	"-"	1.00	1.00	"-"	"-"	"-"	1.00	"-"	"-"	1.00	"-"
58	C-482	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	1.30
59	C-483	2.30	1.50	1.00	2.00	"-"	"-"	"-"	1.00	3.00	3.00	"-"	2.00	2.00	"-"	"-"
60	C-484	2.00	2.00	"-"	"-"	"-"	1.00	1.00	1.00	1.00	1.00	"-"	1.00	1.80	"-"	"-"
61	C-485	3.00	1.00	"-"	"-"	1.00	2.00	"-"	1.00	"-"	2.00	"-"	1.00	1.00	1.00	1.00
Average		2.12	1.54	1.90	1.64	2.13	1.23	1.25	1.25	1.82	1.89	1.17	1.37	1.45	1.51	1.72

Action Plan:

- The average CO to PO mapping value is 1.60.
- The POs with values below this average are PO2, PO6, PO7, PO8, PO11 and PO12.
- These POs will be addressed and strengthened by conducting the activities beyond the syllabus.

CO-POs & PSOs Table for 2018-22 Batch

Atria Institute of Technology

SI NO	Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	C-111	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
2	C-112	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
3	C-113	1.00	1.00	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
4	C-114	2.40	1.00	"-"	1.00	"-"	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	2.00	2.00
5	C-115	3.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
6	C-116	1.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
7	C-117	3.00	1.00	"-"	"-"	"-"	"-"	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
8	C-121	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
9	C-122	3.00	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
10	C-123	2.00	1.00	"-"	1.00	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
11	C-124	3.00	3.00	2.00	"-"	3.00	1.00	1.00	1.00	1.00	"-"	1.00	1.00	"-"	"-"	"-"
12	C-125	2.00	2.00	3.00	2.00	3.00	"-"	1.00	"-"	3.00	2.00	"-"	"-"	"-"	"-"	"-"
13	C-126	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
14	C-127	3.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
15	C-231	3.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	C-232	1.80	1.60	1.40	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	1.33	0.00	"-"
17	C-233	2.00	1.20	0.60	0.40	0.60	0.20	0.80	0.00	0.00	0.00	0.20	0.40	0.00	2.00	0.00
18	C-234	2.00	2.00	1.20	"-"	"-"	1.00	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"
19	C-235	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	1.00	"-"	"-"	"-"	"-"	1.00	"-"
20	C-236	1.60	1.50	1.60	0.00	1.40	0.00	0.00	1.00	0.00	1.25	0.00	1.00	1.40	0.00	0.00
21	C-237	2.00	0.00	2.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
22	C-238	2.00	2.00	0.00	0.00	0.00	0.00	0.00	3.00	2.67	1.67	1.00	2.00	0.00	2.00	2.00
23	C-241	3.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	C-242	2.00	1.00	0.80	0.40	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.20	0.00	2.00	0.00
25	C-243	2.60	1.80	1.20	0.20	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
26	C-244	2	2.0	3	2	0	0	0	0	0	0	0	0	1.8	2	0
27	C-245	2	2	2	2	0	0	0	0	0	0	0	0	0	0	2
28	C-246	1.8	1.3	1.3	0	0	0	0	1	0	2	0	0	1.3	0	0
29	C-247	1.8	1.3	1.3	0	0	0	0	1	0	2	0	0	1.3	0	0
30	C-248	2.50	2.00	"-"	"-"	"-"	"-"	"-"	"-"	3.00	"-"	2.00	2.70	"-"	"-"	2.50
31	C-351	2	2	2	1	0	2	2	2	2	2	2	2	2	2	2
32	C-352	2.20	2.00	2.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	2.00
33	C-353	1.80	1.80	2.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	2.00	"-"	"-"
34	C-354	2	2	1.75	2	1	0	0	0	0	1	0	2	0	2	0
35	C-355	2	2	0	0	0	0	1	0	0	0	0	1	0	0	2
36	C-356	2.00	1.20	"-"	"-"	2.00	1.50	"-"	"-"	2.30	"-"	"-"	"-"	"-"	"-"	"-"
38	C-357	2	2	0.8	2	0.2	0	0	0	0	0	0	0.2	0	2	0
39	C-358	2	2	0	0	0	2	0	0	0	0	0	2	0	1.75	0
40	C-361	2.75	2	0	0	2.50	0	0	0	0	0	0	0	0	2	0
41	C-362	2.2	0	0	0	2	0	0	0	1	0	0	0	2	0	0
42	C-363	2	2	1	0	1	0	0	0	0	0	1	1	0	2	0
43	C-364	2	1.75	0	2	2	2	0	0	0	0	0	0	0	0	2
44	C-365	2.00	1.00	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"	"-"
46	C-366	1.75	1.75	2	0	3	0	0	0	0	0	0	0	1	0	0
47	C-367	2	1	0	0	1	0	0	0	0	1	0	0	0	1	0
48	C-368	1	1	0	2	0	0	0	0	0	2	0	0	1	1	1
49	C-471	2	1	1	0	2	0	0	0	0	0	0	1	0	1.3	0
50	C-472	1.4	1.4	2	0	0	0	0	0	0	0	0	0	0	0	0.8
51	C-473	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0
52	C-474	2.0	2	2	2	2.50	1	2	0	0	0	0	0	0	0	2.0
53	C-475	2	1	0	0	0	1	0	0	0	0	0	0	0	1.5	0
54	C-476	1	0	0	0	2	0	0	0	0	0	0	0	1	0	0
55	C-477	1.6	2	0	0	0	0	0	0	0	0	0	0	2	0	0
56	C-478	1	1	0	2	0	0	0	0	0	2	0	0	1	1	1
57	C-481	2	0	0	0	0	1	1	0	0	0	1	0	0	1	0
58	C-482	1.4	1	0.8	0	0	0	0	0	0	0	0	0	0	0	0.4
59	C-483	2.0	1.5	1	2	0	0	0	1	0	2	0	2	1.3	1	1
60	C-484	2	2	0	0	0	1	1	1	1	2	0	1	1.8	0	0
61	C-485	2	1	0	0	1	2	0	1	0	2	0	1	1	1	1
Average		**2.07**	**1.44**	**0.91**	**0.66**	**0.77**	**0.40**	**0.32**	**0.33**	**0.39**	**0.62**	**0.20**	**0.59**	**0.63**	**0.82**	**0.64**

Action Plan:

- The average CO to PO mapping value is 0.72.
- The POs with values below this average are PO4, PO6, PO7, PO8, PO9, PO10, PO11 and PO12.
- These POs will be addressed and strengthened by conducting the activities beyond the syllabus.