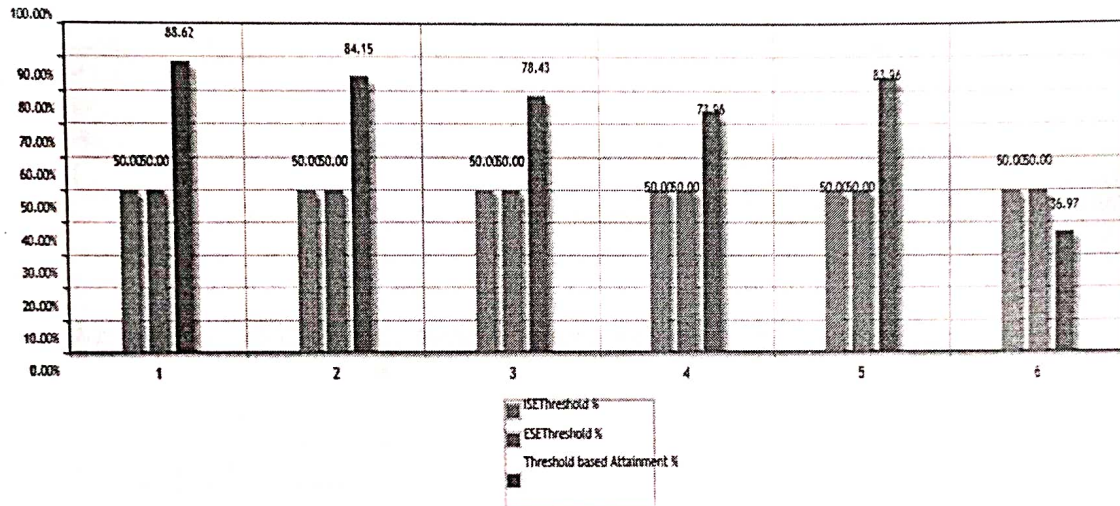




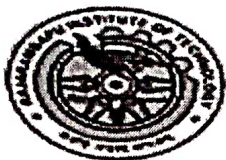
Curriculum: B. Tech. in ME 2019-2023.pdf AY. (2020-21)

Term: 3 - Semester

Course: ME2032 - Engineering Thermodynamics



Sl No.	CO Code	CO Statement	ISE Threshold %	ESE Threshold %	Threshold based Attainment %
1	CO1	Apply thermodynamics principles to mechanical engineering applications	50.00 %	50.00 %	88.62 %
2	CO2	Describe entropy, change in entropy and increase of entropy principle	50.00 %	50.00 %	84.15 %
3	CO3	Differentiate between available and unavailable energy with examples	50.00 %	50.00 %	78.43 %
4	CO4	Recognize the properties of pure substances and use thermodynamic property tables, charts	50.00 %	50.00 %	73.96 %
5	CO5	Apply mathematical fundamental to study the properties of steam gas and gas mixtures	50.00 %	50.00 %	83.96 %
6	CO6	Explain the air and vapor power cycles and calculate cycle performance	50.00 %	50.00 %	36.97 %



**Note:** The above bar graph depicts the overall class performance with respect to the Threshold % for individual Course Outcomes (COs). The Threshold based Attainment % & Average based Attainment % is calculated using the below formula.

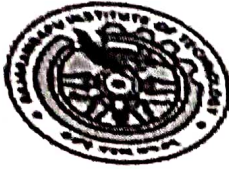
**For Threshold based Attainment % =  $(x / y) * 100$**

x = Count of Students  $\geq$  to Threshold %

y = Total number of Students Attempted .

**Course - Course Outcomes(COs) to Program Outcomes (POs) Attainment Matrix**

CO	PO_1	PO_2	PO_3	PO_4	PO_5	PO_6	PO_7	PO_8	PO_9	PO_10	PO_11	PO_12	PO_13	PO_14
CO_1	3 (88.62%)	-	-	-	1 (88.62%)	-	-	-	-	-	-	-	-	-
CO_2	3 (84.15%)	-	-	-	-	-	-	-	-	-	-	-	-	-
CO_3	3 (78.43%)	-	-	-	-	-	-	-	-	-	-	-	-	-
CO_4	3 (73.96%)	-	-	-	1 (73.96%)	-	-	-	-	-	-	-	-	-
CO_5	3 (83.96%)	-	-	-	-	-	-	-	-	-	-	-	-	-
CO_6	3 (36.97%)	-	-	-	-	-	-	-	-	-	-	-	-	-



**Program Outcomes (POs) Attainment by the Course**

Sl No.	PO	Attainment based on Threshold method %
1	<u>PO_1</u>	74.35 %
2	<u>PO_5</u>	81.29 %

**Map Level Weightageundefined**

**Note:** The above bar graph depicts the overall class performance with respect to the Threshold % for individual Program Outcomes (' POs '). The Attainment % for respective columns is calculated using the below formula.

**For Attainment based on Threshold method % =  $X / Y$**

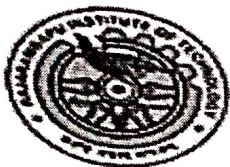
Where,

X = Sum of all the Course Outcomes(COs) Threshold based Attainment % mapped to the respective Program Outcome(PO)

Y = Count of Course Outcomes(COs) mapped to respective Program Outcome(PO)

*Shp*





## CO Attainment Action Plan

Academic Year 2020-2021

Course Name: Engineering Thermodynamics	Course Code: ME2032
Class: B. Tech. in ME 2019-2023	Semester: 3 - Semester
Course Teacher: Dr. Sharad Patil	

### 1. CO attainment:

CO No.	CO Statement	% Attainment
CO1	Apply thermodynamics principles to mechanical engineering applications	88.62 %
CO2	Describe entropy, change in entropy and increase of entropy principle	84.15 %
CO3	Differentiate between available and unavailable energy with examples	78.43 %
CO4	Recognize the properties of pure substances and use thermodynamic property tables, charts	73.96 %
CO5	Apply mathematical fundamental to study the properties of steam gas and gas mixtures	83.96 %
CO6	Explain the air and vapor power cycles and calculate cycle performance	36.97 %

### 2. Observations from CO attainment:

CO attainment of all the COs is satisfactory except CO6. Attainment of CO6 is very poor which must be improved.

### 3. Action Plan for improvement of CO attainment:

The threshold will be set higher level as average marks of 62.35 than 50%.

Emphasis will be given to solve numerical on vapor power cycles.

### 4. Sign of Course In-charge

### 5. Remark by Head of Department with sign

Good work. However improve attainment of CO6 as per  
704 action plan.