



भारतीय प्रौद्योगिकी संस्थान मुंबई
INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
पवई / Powai, मुंबई / Mumbai 400 076



Roll Number: 200070044
Name of the Student: Mudavath Vishnuvardhan
Programme: Bachelor of Technology (B.Tech.)

Academic Unit: Electrical Engineering
Joining Month & Year: November 2020

Code	Name	Credits	Tag	Grade/ Marks	Code	Name	Credits	Tag	Grade/ Marks
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Academic Year: 2020 - 2021, Term: Semester Autumn

CH 105 Organic & Inorganic Chemistry	4.0	MA	CD	MA 109 Calculus I	4.0	MA	BC
CH 107 Physical Chemistry	4.0	MA	BB	MA 111 Calculus II	4.0	MA	CC
CS 101 Computer Programming and Utilization	6.0	MA	CD	NOC501 NCC/NSS/NSO	0.0	MA	PP
EE 113 Introduction to Electrical Engineering Practice	6.0	MA	BC	PH 107 Quantum Physics and Application	6.0	MA	BC

SPI=6.41/10

CPI=6.41/10

Academic Year: 2020 - 2021, Term: Semester Spring

BB 101 Biology	6.0	MA	BC	ME 119 Engineering Graphics & Drawing	5.0	MA	AB
EE 114 Power Engineering - I	6.0	MA	BC	NOC502 NCC/NSS/NSO	0.0	MA	PP
MA 106 Linear Algebra	4.0	MA	CC	PH 108 Basics of Electricity & Magnetism	6.0	MA	BC
MA 108 Differential Equations	4.0	MA	CD				

SPI=6.94/10

CPI=6.66/10

Academic Year: 2021 - 2022, Term: Semester Autumn

AE 153 Introduction to Aerospace Engg.	6.0	AL	CC	EE 325 Probability and Random Processes	6.0	MA	CD
EE 204 Analog Circuits	6.0	MA	CC	GC 101 Gender in the workplace	0.0	MA	PP
EE 214 Digital Circuits Lab	3.0	MA	BB	HS 101 Economics	6.0	MA	BB
EE 224 Digital Systems	6.0	MA	BB	MA 205 Complex Analysis	4.0	MA	DD
EE 229 Signal Processing - I	6.0	MA	CD	MA 207 Differential Equations II	4.0	MA	CC

SPI=6.24/10

CPI=6.50/10

Academic Year: 2021 - 2022, Term: Semester Spring

DE 408 Elements of Design	6.0	AL	W	EE 240 Power Engineering Lab	3.0	MA	BC
EE 207 Electronic Devices & Circuits	6.0	MA	BC	EE 302 Control Systems	6.0	MA	BB
EE 230 Analog Lab	3.0	MA	AA	EE 309 Microprocessors	6.0	MA	BC
EE 238 Power Engineering - II	6.0	MA	BB	EE 337 Microprocessors Laboratory	3.0	MA	BC

SPI=7.64/10

CPI=6.77/10

Academic Year: 2022 - 2023, Term: Semester Autumn

EE 236 Electronic Devices Lab	3.0	MA	BC	EE 609 Radiating Systems	6.0	MA	BC
EE 301 Electromagnetic Waves	6.0	MA	CD	EE 610 Image Processing	6.0	MA	BC
EE 324 Control Systems Lab	3.0	MA	AB	HS 301 Philosophy	6.0	MA	BB
EE 340 Communications Lab	3.0	MA	BC	SC 649 Embedded Control & Robotics	6.0	AL	W
EE 341 Communication Systems - I	6.0	MA	CC				

SPI=6.85/10

CPI=6.79/10

Academic Year: 2022 - 2023, Term: Semester Spring

CS 745 Principles of Data and System Security	6.0	MA	BB	EE 706 Communication Networks	6.0	MA	BB
EE 344 Electronic Design Lab	6.0	MA	AB	EE 769 Introduction to Machine Learning	6.0	MA	AB
EE 350 Technical Communication	6.0	MA	BC	GNR602 Advanced Methods in Satellite Image Processing	6.0	MA	BC
EE 602 Radar Systems	6.0	MA	BC				

SPI=7.86/10

CPI=6.99/10

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Name of the Student: Mudavath Vishnuvardhan

Roll Number : 200070044

Code	Name	Credits	Tag	Grade/ Marks	Code	Name	Credits	Tag	Grade/ Marks
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Academic Year: 2023 - 2024, Term: Semester Autumn

EE 491 BTP I	6.0	MA	AB	ES 200 Environmental Studies: Science and Engineering	3.0	MA	BC
EE 671 VLSI Design	6.0	MA	CC	HS 200 Environmental Studies	3.0	MA	AB
EE 782 Advanced Topics in Machine Learning	6.0	MA	BB				

SPI=7.75/10

CPI=7.07/10

Academic Year: 2023 - 2024, Term: Semester Spring

EE 705 V L S I Design Lab	6.0	MA	AB	PS 619 Health Policy: An Introduction	6.0	AL	CD
EE 709 Testing and Verification of VLSI Circuits	6.0	MA	CC				

SPI=7.50/10

CPI=7.09/10

Mandatory Course Credits (MA)	= 256.0	Overall CPI	= 7.09/10
Overall Credits Completed	= 268.0		
Overall Grade Points	= 1880.0		

Final Result

The student has completed the academic requirements of the programme in the month of May 2024 for the award of Bachelor of Technology in Electrical Engineering

Signature & Seal of Transcript Issuing Authority:

Phakur



Joint/Assistant Registrar (Academic), IIT Bombay

Date: 17-August-2024

Place: Mumbai

सहायक कुलसचिव (शैक्षणिक)
Assistant Registrar (Academic)

भारतीय प्रौद्योगिकी संस्थान, मुंबई
Indian Institute of Technology, Bombay

The medium of instruction at the Institute is English.

Course credits and grade: Each course is associated with credits which are an indicator of its relative weight in calculating the academic performance. A two-letter grade is awarded to students on the basis of their performance in examinations and assignments of a specific course. The letter grades have numerical equivalents on a 0-10 scale as given below.

Letter Grade	AP	AA	AB	BB	BC	CC	CD	DD	FF	FR	W	DX	PP	NP	AU
Numerical Equivalent	10	10	9	8	7	6	5	4	0	0					

FF: Fail, FR: Fail and repeat, W: Withdrawn, DX: Insufficient attendance, AU: Satisfactory performance in an audit course, PP: Pass, NP: Not Pass. The minimum passing grade in a course is DD. The grade AP is awarded to students with exceptional performance in core courses of a programme. Numerical equivalents of letter grades are referred to as grade points.

The numerical grade points are not convertible into marks or percentages.

Performance Indicators: The performance of a student in a semester is given by a number called the Semester Performance Index (SPI), which is the weighted average of the earned grade points in the courses during the semester.

If a student has courses with credits C_1, C_2, \dots, C_n , with grade points of G_1, G_2, \dots, G_n respectively, then

$$\text{Semester Credits} = C_1 + C_2 + \dots + C_n$$

$$\text{Semester Grade Points} = C_1 G_1 + C_2 G_2 + \dots + C_n G_n$$

$$\text{SPI} = \frac{\text{Semester Grade Points}}{\text{Semester Credits}}$$

Cumulative Performance Index (CPI) is the weighted average of the grade points in the courses in all semesters. The indices SPI and CPI are calculated upto two decimal places.

Courses are tagged as MA: Mandatory (Core/Elective), MI: Minor, HO: Honours, AL: Additional Learning, AU: Audit

- Each degree programme has mandatory credits consisting of core courses, elective courses, and non credit courses. These courses are tagged as MA.
- For calculation of SPI and CPI, grades obtained only in mandatory courses (MA) are considered.
- Students can supplement the learning experience by crediting additional courses. Credits earned in these courses, when appropriate, can earn additional credentials either in the form of "Honours" (HO) in the chosen discipline or "Minor" (MI) in another discipline or both.
- "Honours" is not indicative of proficiency, and can be earned by completing the additional prescribed set of advanced core and elective courses in the chosen discipline. "Minor" can be earned by completing the prescribed set of courses in a discipline other than the chosen discipline. Additional courses that are not used for earning "Honours" or "Minor" are tagged as "Additional Learning" (AL).
- The AU is awarded based on satisfactory attendance and fulfilling the minimum requirements as set by the course instructor. It carries no grade points and does not figure in SPI or CPI calculations.
- PP or NP is awarded in some credit courses that are not earmarked with a letter grade. Correspondingly, PP/NP does not carry a grade point.
- O-IITB is/are the Course(s) completed by a student outside IIT Bombay (NPTEL/ Swayam/ Semester Exchange). These course(s) contribute towards the completion of credits for a degree requirement. However, grades/marks earned for such course(s) is/are not considered for SPI / CPI calculation.

The Institute does not award any class or division. Notationally, the CPI may be multiplied by a factor of 10 to obtain a numerical percentage.

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END OF TRANSCRIPT

Roll Number: 200070044

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