



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



Roll Number: 150100027
Name of the Student: KARTHIK KALIDAS
Programme: Bachelor of Technology (B.Tech.)

Academic Unit: Mechanical Engineering
Joining Month & Year: July 2015

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
------	------	---------	-----	-------	------	------	---------	-----	-------

Academic Year: 2015 - 2016, Term: Semester Autumn

CH 105 Organic & Inorganic Chemistry	4.0	MA	BB	ME 102 Data Analysis and Interpretation	6.0	MA	BC
CH 107 Physical Chemistry	4.0	MA	BC	ME 119 Engineering Graphics & Drawing	5.0	MA	BB
CH 117 Chemistry Lab	3.0	MA	AA	NOCS01 NCC/NSS/NSO	0.0	MA	PP
CS 101 Computer Programming and Utilization	6.0	MA	BB	PH 107 Quantum Physics and application	6.0	MA	BC
MA 105 Calculus	8.0	MA	BC				

SPI=7.57/10

CPI=7.57/10

Academic Year: 2015 - 2016, Term: Semester Spring

BB 101 Biology	6.0	MA	BB	ME 113 Workshop Practice	4.0	MA	BB
CE 102 Engineering Mechanics	6.0	MA	BB	NOCS02 NCC/NSS/NSO	0.0	MA	PP
MA 106 Linear Algebra	4.0	MA	BB	PH 108 Basics of Electricity & Magnetism	6.0	MA	BB
MA 108 Differential Equations	4.0	MA	BB	PH 117 Physics Lab	3.0	MA	AA

SPI=8.18/10

CPI=7.84/10

Academic Year: 2016 - 2017, Term: Semester Autumn

EE 101 Introduction to Electrical and Electronics Circuits	8.0	MA	AB	ME 209 Thermodynamics	6.0	MA	AA
HS 101 Economics	6.0	MA	AB	ME 219 Fluid Mechanics	8.0	MA	AB
ME 201 Solid Mechanics	6.0	MA	BC	MM 207 Engineering Metallurgy	6.0	MA	AB

SPI=8.85/10

CPI=8.19/10

Academic Year: 2016 - 2017, Term: Semester Spring

MA 214 Introduction to Numerical Analysis	8.0	MA	AB	ME 218 Solid Mechanics Lab	3.0	MA	AB
ME 202 Strength of Materials	6.0	MA	BB	ME 224 Fluid Mechanics Lab	3.0	MA	AA
ME 206 Manufacturing Processes I	6.0	MA	AA	ME 226 Mechanical Measurements	6.0	MA	AA
ME 213 Manufacturing Practice Lab	5.0	MA	AA				

SPI=9.38/10

CPI=8.48/10

Academic Year: 2017 - 2018, Term: Semester Autumn

HS 307 Sociology	6.0	MA	AB	ME 346 Heat Transfer II	6.0	MA	BB
ME 307 Mechanical Measurements Lab	3.0	MA	AA	ME 374 Manufacturing Processes Lab	3.0	MA	AA
ME 311 Microprocessors and Automatic Control	6.0	MA	BB	ME 645 MEMS - Design, Fabrication, and Characterisation	6.0	MA	AB
ME 338 Manufacturing Processes II	6.0	MA	BB				

SPI=8.67/10

CPI=8.52/10

Academic Year: 2017 - 2018, Term: Semester Spring

EE 321 Power Electronics	6.0	MA	AB	ME 310 Microprocessors and Automatic Control Lab	3.0	MA	BB
ES 200 Environmental Studies: Science and Engineering	3.0	MA	BB	ME 316 Kinematics and Dynamics of Machines	6.0	MA	BB
HS 200 Environmental Studies	3.0	MA	BB	ME 370 Kinematics and Dynamics of Machines Lab	3.0	MA	AB
ME 306 Applied Thermodynamics	6.0	MA	BB	ME 372 Heat Transfer and Metrology Lab	3.0	MA	AA
ME 308 Industrial Engineering and Operations Research I	6.0	MA	CC				

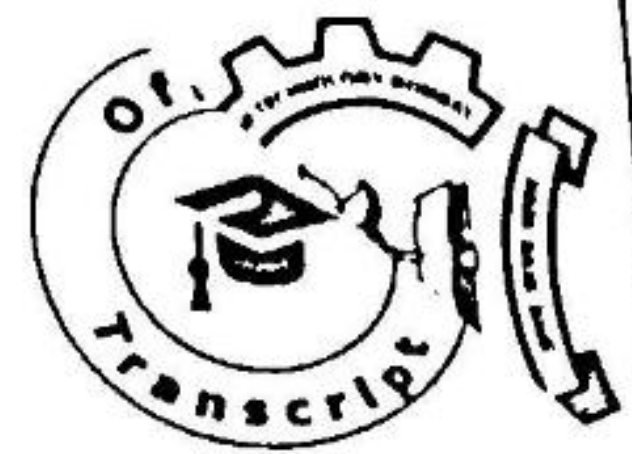
SPI=8.08/10

CPI=8.44/10

CONTINUED



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



General Information
Name of the Student: KARTHIK KALIDAS

Name of the Student: KARTHIK KALIDAS

Roll Number : 150100027

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
------	------	---------	-----	-------	------	------	---------	-----	-------

Academic Year: 2018 - 2019, Term: Semester Autumn

EE 657 Electric Drives	6.0	AL	BC	ME 441 Applied Thermodynamics Lab	3.0	MA	AB
EN 601 Nonconventional Energy Sources	6.0	AL	CC	ME 669 Design for Manufacturing	6.0	MA	BB
ME 423 Machine Design	8.0	MA	BB				

SPI=8.18/10

CPI=8.42/10

Academic Year: 2018 - 2019, Term: Semester Spring

AE 310 Engineering Design Optimization	6.0	MA	BB	ME 766 High Performance Scientific Computing	6.0	MA	AB
ME 604 Robotics	6.0	MA	BB	ME 772 Processing of Aerospace Materials-I	6.0	MA	BB
ME 754 Textile Machines Design & Automation	6.0	MA	BB				

SPI=8.20/10

CPI=8.40/10

Mandatory Course Credits (MA)	= 274.0	Overall CPI	= 8.40/10
Overall Credits Completed	= 286.0		
Overall Grade Points	= 2379.0		

Final Result

The student has completed the academic requirements of the programme in the month of June 2019 for the award of Bachelor of Technology in Mechanical Engineering

Signature & Seal of Transcript Issuing Authority:

[Signature]

Joint/Assistant Registrar (Academic), IIT Bombay

Date: 31-July-2019

Place: Mumbai

Assistant Registrar (Academic)

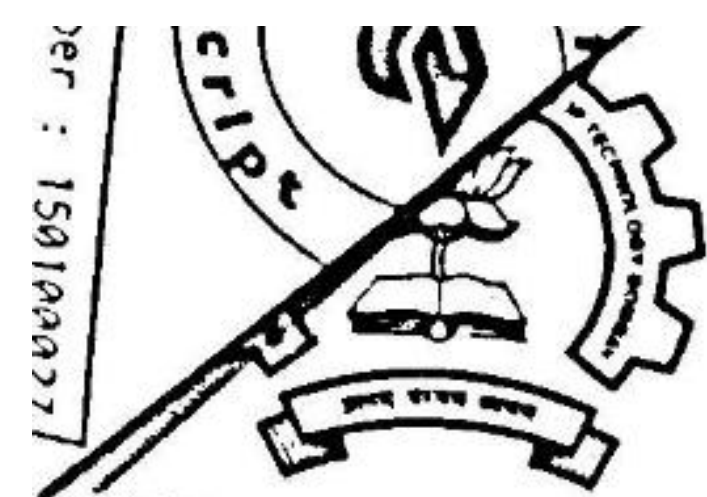
भारतीय प्रौद्योगिकी संस्थान, मुंबई

Indian Institute of Technology, Bombay

पवई, मुंबई / Powai, Mumbai - 400 076.



CONTINUED



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



Name of the Student: KARTHIK KALIDAS

Roll Number: 150100027

General Information

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

Semester Credits = $C_1 + C_2 + \dots + C_n$	Semester Grade Points = $C_1G_1 + C_2G_2 + \dots + C_nG_n$	SPI = Semester Grade Points / 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.

The Institute does not award any class or division. Notionally, the CPI may be multiplied by a factor of 10 to obtain a numerical percentage.
The veracity of this document can be ascertained by using the verification ticket number in the URL given at the bottom of this page.

END OF TRANSCRIPT

Roll Number: 150100027