



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



Roll Number: 08001021  
Name of the Student: THAMMISETTY DEVAKUMAR  
Programme: Bachelor of Technology (B.Tech.)

Academic Unit: Aerospace Engineering  
Joining Month & Year: July 2008

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
Academic Year: 2008 - 2009, Term: Semester Autumn									
CS 101	Computer Programming and Utilization	6.0	MA	BB	NC 101	N C C	0.0	MA	PP
HS 101	Economics	6.0	MA	AB	PH 103	Electricity & Magnetism	6.0	MA	BC
MA 105	Calculus	8.0	MA	BC	PH 117	Physics Lab	3.0	MA	AB
ME 119	Engineering Graphics & Drawing	5.0	MA	BB					
SPI=7.85/10					CPI=7.85/10				
Academic Year: 2008 - 2009, Term: Semester Spring									
AE 152	Introduction to Aerospace Engg.	8.0	MA	AB	MA 106	Linear Algebra	4.0	MA	AA
CH 103	Chemistry	6.0	MA	AB	MA 108	Differential Equations	4.0	MA	AA
CH 117	Chemistry Lab	3.0	MA	BB	ME 113	Workshop Practice	4.0	MA	AA
IC 102	Data Analysis and Interpretation	6.0	MA	CC	NC 102	N C C	0.0	MA	PP
SPI=8.74/10					CPI=8.30/10				
Academic Year: 2009 - 2010, Term: Semester Autumn									
AE 207	Introduction to Engineering Design	6.0	MA	AB	IC 211	Experimental and Measurement Laboratory	4.0	MA	AA
AE 209	Solid Mechanics	8.0	MA	AA	MA 207	Differential Equations II	4.0	MA	BC
AE 215	Aerospace Measurement Laboratory	4.0	MA	BB	MA 419	Basic Algebra	8.0	AL	DD
EE 101	Introduction to Electrical and Electronics Circuits	8.0	MA	BC					
SPI=8.53/10					CPI=8.38/10				
Academic Year: 2009 - 2010, Term: Semester Spring									
AE 214	Thermodynamics	6.0	MA	BB	AE 220	Aerospace Structural Mechanics	8.0	MA	AB
AE 216	Fluid Mechanics	8.0	MA	AB	AE 230	Modeling and Simulation Laboratory	5.0	MA	AB
AE 219	Supervised Learning	6.0	AL	AA	MA 214	Introduction to Numerical Analysis	8.0	MA	AB
SPI=8.83/10					CPI=8.49/10				
Academic Year: 2010 - 2011, Term: Semester Autumn									
AE 308	Control Theory	6.0	MA	AA	AE 411	Control Systems Laboratory	3.0	MA	AB
AE 314	Aircraft Structures Laboratory	5.0	MA	AB	AE 419	Supervised Learning	6.0	MA	AA
AE 329	Propulsion	8.0	MA	AA	AE 625	Particle Methods for Fluid Flow Simulation	6.0	HO	AB
AE 333	Aerodynamics	6.0	MA	BB	HS 303	Psychology	6.0	MA	CD
SPI=8.75/10					CPI=8.55/10				
Academic Year: 2010 - 2011, Term: Semester Spring									
AE 305	Flight Mechanics II	6.0	MA	AB	AE 338	Space Flight Mechanics	6.0	MA	AA
AE 310	Engineering Design Optimization	6.0	MA	AB	AE 493	BTP - I	6.0	AL	AB
AE 312	Aerodynamics Laboratory	5.0	MA	AB	MA 522	Fourier Analysis and Applications	8.0	MA	AA
AE 316	Aircraft Propulsion Laboratory	5.0	MA	AA					
SPI=9.53/10					CPI=8.71/10				
Academic Year: 2011 - 2012, Term: Semester Autumn									
AE 320	Computational Fluid Dynamics	6.0	MA	AA	AE 494	BTP - II	12.0	AL	AA
AE 332	Aircraft Design	6.0	MA	BB	AE 651	Aerodynamics of Compressors and Turbines	6.0	HO	AB
AE 425	Software Development Techniques for Engineering and Scientists	6.0	MA	AA	AE 695	State Space Methods for Flight Vehicles	6.0	MA	AA
SPI=9.50/10					CPI=8.79/10				

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Name of the Student: THAMMISSETTY DEVAKUMAR

Roll Number : 08001021

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
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Academic Year: 2011 - 2012, Term: Semester Spring

AE 417 Aircraft Design Lab.	4.0	MA	BB	ES 200 Environmental Studies: Science and Engineering	3.0	MA	BB
AE 455 Introduction to Aeroelasticity	6.0	HO	AB	HS 200 Environmental Studies	3.0	MA	CC
AE 616 Gas Dynamics	6.0	HO	BB	SC 612 Introduction to Linear Filtering and Beyond	6.0	MA	BB
AE 690 Control System Design Techniques	6.0	HO	AA				
SPI= 7.63/10				CPI= 8.72/10			

Mandatory Course Credits (MA)	= 254.0	Overall CPI	= 8.72/10
Overall Credits Completed	= 316.0		
Overall Grade Points	= 2751.0		

### Final Result

The student has completed the academic requirements of the programme in the month of May 2012 for the award of Bachelor of Technology in Aerospace Engineering with Honours

Signature & Seal of Transcript Issuing Authority:

Joint/Assistant Registrar (Academic), IIT Bombay

Date: 13-December-2017

Place: Mumbai

Asstt. Registrar (Academic)  
Indian Institute of Technology Bombay  
Powai, Mumbai - 400 076.



### 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

$$\text{Semester Credits} = C_1 + C_2 + \dots + C_n, \text{ Semester Grade Points} = C_1 G_1 + C_2 G_2 + \dots + C_n G_n, \text{ SPI} = \text{Semester Grade Points} \div \text{Semester Credits}.$$

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.

After successful completion of the programme, the degree is awarded without any mention of Class or Rank. However, CPI of 6.5 and above may be considered as equivalent to First Class.

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: 08001021