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

Official Transcript

Roll Number:	14D070007	Academic Unit:	Electrical Engineering
Name of the Student:	MEET UDESHI	Discipline/Specialization:	Microelectronics
Programme:	Dual Degree (Dual Degree Programme)	Joining Month & Year:	July 2014

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
Academic Year: 2014 - 2015, Term: Semester Autumn									
BB 101	Biology	6.0	MA	BC	ME 113	Workshop Practice	4.0	MA	AB
CH 105	Organic & Inorganic Chemistry	4.0	MA	CC	NOCS01	NCC/NSS/NSO	0.0	MA	PP
CH 107	Physical Chemistry	4.0	MA	BC	PH 107	Quantum Physics and Application	6.0	MA	BC
EE 111	Introduction to Electrical Systems	6.0	MA	BB	PH 117	Physics Lab	3.0	MA	AB
MA 105	Calculus	8.0	MA	BB					
SPI=7.59/10					CPI=7.59/10				
Academic Year: 2014 - 2015, Term: Semester Spring									
CH 117	Chemistry Lab	3.0	MA	AA	MA 108	Differential Equations	4.0	MA	CD
CS 101	Computer Programming and Utilization	6.0	MA	AP	ME 119	Engineering Graphics & Drawing	5.0	MA	AB
EE 112	Introduction to Electronics	6.0	MA	AB	NOCS02	NCC/NSS/NSO	0.0	MA	PP
MA 106	Linear Algebra	4.0	MA	BC	PH 108	Basics of Electricity & Magnetism	6.0	MA	BC
SPI=8.21/10					CPI=7.87/10				
Academic Year: 2015 - 2016, Term: Semester Autumn									
EE 207	Electronic Devices & Circuits	6.0	MA	BB	EE 236	Electronic Devices Lab	3.0	MA	AA
EE 223	Data Analysis and Interpretation	6.0	MA	CC	HS 101	Economics	6.0	MA	BB
EE 225	Network Theory	6.0	MA	BC	MA 205	Complex Analysis	4.0	MA	BC
EE 227	Microelectronics	6.0	MA	BC	MA 207	Differential Equations II	4.0	MA	CD
SPI=7.17/10					CPI=7.62/10				
Academic Year: 2015 - 2016, Term: Semester Spring									
EE 204	Analog Circuits	6.0	MA	CD	EE 230	Analog Lab	3.0	MA	AA
EE 210	Signals and Systems	6.0	MA	CC	EE 234	Machines Lab	4.0	MA	CC
EE 214	Digital Circuits Lab	3.0	MA	AA	ES 200	Environmental Studies: Science and Engineering	3.0	MA	BC
EE 222	Electrical Machines and Power Electronics	6.0	MA	DD					
EE 224	Digital Systems	6.0	MA	AB	HS 200	Environmental Studies	3.0	MA	CD
SPI=6.60/10					CPI=7.36/10				
Academic Year: 2016 - 2017, Term: Semester Autumn									
CS 663	Fundamentals of Digital Image Processing	6.0	MA	BB	EE 325	Probability and Random Processes	6.0	MA	CC
EE 301	Electromagnetic Waves	6.0	MA	CD	EE 337	Microprocessors Laboratory	3.0	MA	AA
EE 308	Communication Systems	6.0	MA	CC	EE 340	Communications Lab	3.0	MA	AB
EE 309	Microprocessors	6.0	MA	AA	HS 309	Introduction to the Study of Language	6.0	MA	BB
SPI=7.50/10					CPI=7.39/10				
Academic Year: 2016 - 2017, Term: Semester Spring									
CS 754	Advanced Image Processing	6.0	MA	AA	EE 344	Electronic Design Lab	6.0	MA	AB
EE 302	Control Systems	6.0	MA	CC	EE 352	Digital Signal Processing Lab	4.0	MA	AA
EE 324	Control Systems Lab	3.0	MA	AA	EE 620	Physics of Transistors	6.0	MA	AB
EE 328	Digital Communications	6.0	MA	BB	EE 739	Processor Design	6.0	MA	AA
EE 338	Digital Signal Processing	6.0	MA	AB					
SPI=8.90/10					CPI=7.69/10				

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Name of the Student: MEET UDESHI | Roll Number : 14D070007

Code	Name	Credits	Tag	Grade	Code	Name	Credits	Tag	Grade
Academic Year: 2017 - 2018, Term: Semester Autumn									
EE 451	Supervised Research Exposition	6.0	MA	AA	EE 677	Foundation of VLSI CAD	6.0	MA	AB
EE 617	Sensors in Instrumentation	6.0	MA	BC	EE 735	Microelectronics Simulations Lab	6.0	MA	BC
EE 669	VLSI Technology	6.0	MA	BC	EE 748	Advanced Topics in Computer Architecture	6.0	MA	AB
EE 671	VLSI Design	6.0	MA	CC					
SPI=7.86/10					CPI=7.71/10				
Academic Year: 2017 - 2018, Term: Semester Spring									
CS 654	Current Topics in VLSI and System Design	6.0	MA	AB	EE 702	Computer Vision	6.0	AL	DD
CS 684	Embedded Systems	6.0	AL	BC	EE 705	V L S I Design Lab	6.0	MA	AB
EE 668	Systems Design	6.0	MA	CD	EE 709	Testing and Verification of VLSI Circuits	6.0	MA	AB
EE 691	R & D Project	6.0	MA	AA					
SPI=8.40/10					CPI=7.78/10				
Academic Year: 2018 - 2019, Term: Semester Project									
EE 593	Dual Degree Project I	36.0	PR	AA					
SPI = 10.00/10		CPI (Coursework) = 7.78/10 CPI (Overall) = 8.00/10							
Academic Year: 2018 - 2019, Term: Semester Autumn									
EE 746	Neuromorphic Engineering	6.0	MA	BB					
SPI=8.00/10					CPI=7.78/10				
Academic Year: 2018 - 2019, Term: Semester Summer									
EE 594	Dual Degree Project II	36.0	PR	AA					
SPI = 10.00/10		CPI (Coursework) = 7.78/10 CPI (Overall) = 8.18/10							

Mandatory Course Credits (MA+HO)	**= 325.0**	**CPI (Courses)**	**= 7.78/10**
Project Credits (PR)	**= 72.0**	**CPI (Project)**	**= 10.00/10**
Net Mandatory Credits (MA+PR)	**= 397.0**	**CPI (Overall)**	**= 8.18/10**
Overall Completed Credits	**= 409.0**		
Overall Grade Points	**= 3315.0**		

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 Electrical Engineering and Master of Technology in Electrical Engineering with Specialization in Microelectronics

Signature & Seal of Transcript Issuing Authority:

27/8/2019

Joint/Assistant Registrar (Academic), IIT Bombay
Date: 31-July-2019
Place: Mumbai

सहायक कुलसचिव (शैक्षिक)
Assistant Registrar (Academic)
भारतीय प्रौद्योगिकी संस्थान, मुंबई
Indian Institute of Technology, Bombay
पवई, मुंबई/Powai, Mumbai - 400 076.

भारतीय प्रौद्योगिकी संस्थान, मुंबई ★ पवई, मुंबई Powai, Mumbai-76. ★ Indian Institute of Technology, Bombay

CONTINUED

Official Transcript

Name of the Student: MEET UDESHI | Roll Number: 14D070007

General Information

The medium of instruction at the Institute is English.

Course credits and grade: Each academic course is associated with a credit which is an indicator of its relative academic 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 $C_1, C_2, \ldots, C_n$, with grade points of $G_1, G_2, \ldots, G_n$ respectively, then

Semester Credits = $C_1 + C_2 + \ldots + C_n$.	Semester Grade Points = $C_1G_1 + C_2G_2 + \ldots + C_nG_n$.	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.

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END OF TRANSCRIPT | Roll Number: 14D070007