



THIRUVANANTHAPURAM

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुवनंतपुरम

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH  
THIRUVANANTHAPURAM

Maruthamala P. O., Vithura, Thiruvananthapuram - 695551, Kerala, India

CONSOLIDATED MARK LIST

Name of Student: ANANTHA KRISHNAN S

Date of Birth: 24/04/1999

Date of Issue: 19-Jul-2023

Roll Number: IMS18022

Graduating Class: 2023 - Dual Degree BS-MS Programme Page

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ANANTHA KRISHNAN S has completed all the course requirements for a major in PHYSICAL SCIENCES  
 ANANTHA KRISHNAN S has completed all the course requirements for a minor in DATA SCIENCES  
 ANANTHA KRISHNAN S has registered for 10 semester(s) of classes at IISER Thiruvananthapuram

Varsha 2018		Credits	Grade	Vasanth 2021		Credits	Grade
BIO111	BIOLOGICAL DIVERSITY AND EVOLUTION	3	B+	DSC321	INTRODUCTION TO PROGRAMMING	3	B+
BIO112	BIOLOGY LAB I	1	A	DSC322	INTRODUCTION TO DATA SCIENCE	3	B
CHY111	ATOMIC STRUCTURE AND CHEMICAL BONDING	3	A	PHY315	ADVANCED PHYSICS EXPERIMENTS LAB-I	3	A+
CHY112	CHEMISTRY LAB I	1	B+	PHY321	STATISTICAL MECHANICS	3	B
HUM111	COMMUNICATION SKILLS	1	B+	PHY322	CONDENSED MATTER PHYSICS I	3	C+
IDC111	MATHEMATICAL TOOLS-I	3	A	PHY323	ELECTRODYNAMICS AND SPECIAL THEORY OF RELATIVITY	3	B+
MAT111	SINGLE VARIABLE CALCULUS	3	B	PHY325	ADVANCED PHYSICS EXPERIMENTS LAB-II	3	A
PHY111	MECHANICS	3	A	PHY4201	QUANTUM INFORMATION THEORY	3	B
PHY112	PHYSICS LAB I	1	A+				
		SGPA:	8.47			SGPA:	7.75
Vasanth 2019		Credits	Grade	Varsha 2021		Credits	Grade
BIO121	BIOLOGICAL STRUCTURE AND FUNCTION	3	B	DSC411	MACHINE LEARNING	3	C+
BIO122	BIOLOGY LAB II	1	A	PHY411	NUCLEAR AND PARTICLE PHYSICS	3	A
CHY121	CONCEPTS IN INORGANIC CHEMISTRY	3	B+	PHY412	CONDENSED MATTER PHYSICS II	3	B
CHY122	CHEMISTRY LAB II	1	A+	PHY413	QUANTUM MECHANICS-II	3	B
HUM121	COMMUNICATION SKILLS (ADVANCED LEVEL)	1	B+	PHY415	ADVANCED PHYSICS EXPERIMENTS LAB-III	3	A+
IDC121	MATHEMATICAL TOOLS II	3	B+	PHY5125	FOUNDATIONS OF QUANTUM MECHANICS	3	B+
MAT121	INTRODUCTION TO ALGEBRA	3	B	PHY5128	GENERAL THEORY OF RELATIVITY AND COSMOLOGY	3	C+
PHY121	ELECTROMAGNETISM	3	B				
PHY122	PHYSICS LAB II	1	A			SGPA:	7.57
		SGPA:	7.74			Vasanth 2022	
Varsha 2019		Credits	Grade	DSC450		6	A
BIO211	GENETICS	3	B+	PHY421	COMPUTATIONAL TECHNIQUES & PROGRAMMING LANGUAGE	3	B
BIO212	BIOLOGY LAB-III	1	A	PHY422	ATOMIC AND MOLECULAR PHYSICS	3	B+
CHY211	BASIC CONCEPTS IN ORGANIC CHEMISTRY	3	B+	PHY5213	QUANTUM FIELD THEORY I	3	C+
CHY212	CHEMISTRY LAB III	1	A	PHY5229	QUANTUM MANY BODY THEORY	3	A
HUM211	INTRODUCTION TO ECONOMICS	1	B			SGPA:	8.00
IDC211	PHYSICAL PRINCIPLES IN BIOLOGY	3	B+			Varsha 2022	
MAT211	MULTIVARIABLE CALCULUS	3	B+	PHY511	MAJOR PROJECT - PHASE I	9	B+
PHY211	OPTICS	3	A			SGPA:	8.00
PHY212	PHYSICS LAB-III	1	A			Vasanth 2023	
		SGPA:	8.26	PHY521	MAJOR PROJECT - PHASE II	15	A+
Vasanth 2020		Credits	Grade			SGPA:	10.00
BIO221	CELL BIOLOGY AND SIGNALLING	3	B+				
BIO222	BIOLOGY LAB-IV	1	A+				
CHY221	PRINCIPLES OF PHYSICAL CHEMISTRY	3	A				
CHY222	CHEMISTRY LAB IV	1	A+				
HUM221	INTRODUCTION TO SOCIOLOGY	1	A				
IDC221	PRINCIPLES AND APPLICATIONS OF SPECTROSCOPY	3	A				
MAT221	INTRODUCTION TO PROBABILITY AND STATISTICS	3	A+				
PHY221	THERMAL AND STATISTICAL PHYSICS	3	A+				
PHY222	PHYSICS LAB IV	1	A				
		SGPA:	9.26				
Varsha 2020		Credits	Grade				
HUM311	PLANNING AND ECONOMIC DEVELOPMENT	3	A				
PHY311	MATHEMATICAL METHODS IN PHYSICS	3	A+				
PHY312	CLASSICAL MECHANICS	3	B+				
PHY313	ELECTRONICS I	3	B+				
PHY314	QUANTUM MECHANICS I	3	A				
		SGPA:	8.80				

Total Credits Completed: 178 CGPA: 8.34



Assistant Registrar (Academics)

Consolidated Grade Card No: NDGF55n555N

INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH THIRUVANANTHAPURAM  
Office of the Dean (Academics)

**SEMESTERS:** Each academic year consists of two semesters, Varsha (August to December) and Vasanth (January to May). A regular programme of study leading to the dual degree of Bachelor of Science and Master of Science is ten semesters long.

- The medium of instruction for all courses at IISER TVM is English.
- Level 1 and Level 2 courses are mandatory for all students.
- **MAJOR:** Designated CORE and ELECTIVE courses, at Level 3 or higher, in a particular subject along with a thesis by research spanning two semesters.
- **MINOR (optional):** A minimum of 15 credits at Level 3 or higher in a subject other than the major.

**GRADING:** The relative grading system is followed with the letter grades and corresponding grade points given below:

Class of 2013, 2014 and 2015

Letter Grade	Grade Point
A	10
B	8
C	6
D	4
F	0(Fail)
I	Incomplete

Class of 2016 onwards

Letter Grade	Grade Point
A+	10
A	9
B+	8
B	7
C+	6
C	5
D	4
F	0(Fail)
I	Incomplete
W	Withdrawn

**ACADEMIC CREDIT:** Each credit corresponds to one contact hour for theory courses and one session of 180 minute duration for laboratory courses. The cumulative grade point average (CGPA) and the semester grade point average (SGPA) are computed for each student as

$$SGPA/CGPA = \frac{\sum_k C_k G_k}{\sum_k C_k}$$

Where  $C_k$  is the credit for the  $k^{\text{th}}$  course and  $G_k$  is the grade point secured by the student in that course. For computing the CGPA, all the courses completed by the student with a passing grade are considered. For computing the SGPA all the courses attempted in the particular semester alone are considered.

**COURSE NUMBERING:** Courses are numbered in the format XYZ LSC. Elective courses are numbered as XYZLSCD where

XYZ : Subject code (BIO=Biological Sciences, CHY=Chemical Sciences, MAT=Mathematical Sciences, PHY=Physical Sciences, IDC=Interdisciplinary Studies, HUM=Humanities)

L : Level of the course (1, 2, 3, 4 or 5)

S : Semester (1 = Varsha, 2 = Vasanth)

C(D): Course number (in a particular subject) in that year and semester

**REQUIREMENTS FOR THE AWARD OF THE BS-MS DUAL DEGREE:**

- Each student should acquire a minimum of 175 credits with a CGPA of 5.0 or higher.
- All Level 1 and Level 2 courses and CORE courses must be successfully completed.
- Successful completion of the major thesis is mandatory.



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THIRUVANANTHAPURAM

अभिषद् एवं संकाय की अनुशंसा पर शासक पर्वद द्वारा

अनंत कृष्णन एस  
को  
विज्ञान स्नातक  
एवं  
विज्ञान स्नातकोत्तर  
की द्वैत डिग्री

भौतिक विज्ञान (मुख्य विषय) तथा डाटा विज्ञान (उप-विषय) के विहित  
पाठ्यक्रम के सफलतापूर्वक सम्पन्न करने की मान्यता में  
सम्बद्ध अधिकारों तथा विशेषाधिकारों सहित प्रदान की गयी है।

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान तिरुवनंतपुरम के पंद्रहवें वर्ष में  
सन् दो हजार तेईस के जुलाई माह की तेईसवें तारीख को संस्थान की मुहर के साथ जारी।

The Board of Governors upon recommendation of the Senate and Faculty  
has conferred on

**ANANTHA KRISHNAN S**

the dual degree of

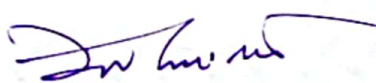
*Bachelor of Science  
and  
Master of Science*

together with all the rights and privileges thereunto appertaining  
in recognition of the satisfactory completion of a prescribed  
course of study in **Physical Sciences** with Data Sciences as minor.

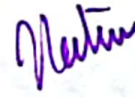
*Issued under the seal of the Institute on the twenty third day of July of the year two thousand and twenty three and  
the Fifteenth year of the Indian Institute of Science Education and Research Thiruvananthapuram*



कुलसचिव  
REGISTRAR



अध्यक्ष, अभिषद्  
CHAIRPERSON, SENATE



अध्यक्ष, शासक पर्वद  
CHAIRPERSON, BOARD OF GOVERNORS