



Basic Information:

Name: - Jishu Das

Current Course: - BS-MS Dual Degree Programme/ Integrated M.Sc. (5 Years)

Institute: - Indian Institute of Science Education and Research, Kolkata

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Permanent:-

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Academic background:

Degree	Board/University	Year of Passing	Percentage/CGPA
4th year Integrated BS-MS (8 th Semester)	Indian Institute of Science Education and Research, Kolkata	2013-Present	CGPA-7.66 (Absolute Grading)
B.Tech. in Electrical Engineering (Not Completed)	BPUT(College of Engineering and Technology, Bhubaneswar)	2012-2013	1st Sem-8.46/10 2nd Sem-8.54/10 (Absolute Grading)
12 th	CHSE (College of Basic Science and Humanities, Bhubaneswar)	2012	78.50%
10 th	BSEO (Saraswati Shishu Vidya Mandir, Naya Bazar, Bhadrak)	2010	89.67%

Career interest:

Analytic Number Theory, Complex Analysis

Achievements:

Secured a rank of 8 in Shishu Vikas Medha 2009, Odisha

Secured a rank of 288 in OJEE 2012

Qualified for JEE Advanced 2013

Recipient of INSPIRE Fellowship awarded by Department of Science and Technology-India

Qualified CSIR Junior Research Fellowship with AIR 111

Courses undertaken during BS-MS:

Physics:-

1st Semester - Oscillation and Waves, Quantum Mechanics.

2nd Semester - Special Theory of Relativity, Basics of Electrodynamics, Nuclear Physics.

3rd Semester – Waves and Oscillation, Optics, Circuits and Electronics

4th Semester-Thermodynamics, Basics of Quantum Physics

5th Semester- Classical Mechanics, Mathematical methods in Physics (Complex Analysis, Curvilinear Coordinates, Differential equations, Special types of functions)

6th Semester- Basic Statistical Mechanics, Intermediate Electricity and Magnetism

7th Semester- Advanced Mathematical Methods in Physics (basics of algebraic topology including Homology Theory and Homotopy Theory)

Mathematics:-

1st Semester: - Vector Calculus, Linear Algebra (Matrices only), Sequences and Series

2nd Semester:—Ordinary Differential Equations, Fourier series, Probability and Statistics

3rd Semester - Real Analysis, Linear Algebra, Foundation-I (Set, Relation, Function, Elementary Combinatorics and Principle of counting)

4th Semester:-Real Analysis (continued), Probability and Statistics, Foundations-II (Axiom of choice, Zorn's lemma, Countability, basics of theory of equation)

5th Semester: - Algebra-I (Group Theory), Analysis-III (Metric Spaces, Several Variable Calculus), Elementary Number Theory, Combinatorics and Graph Theory

6th Semester: - Topology, Geometry of Curves and Surfaces, Measure Theory, Algebra-II (Ring Theory and Galois Theory)

7th Semester:- Algebra-III (Commutative Algebra), Complex Analysis, Functional Analysis, Seminar (Continuation of summer project of 3rd year summer i.e. reading some selected chapters of J P Serre's Book on "A course in Arithmetic")

8th Semester: - Algebraic Topology, Differential Geometry, Fourier Analysis, Ordinary Differential Equations, Statistics Laboratory, Seminar (Modular Forms from J P Serre's Book on "A course in Arithmetic")

Chemistry:-

1st Semester - Chemical Bonding, Bio-Inorganic Chemistry, General Organic Chemistry.

2nd Semester - General Physical Chemistry.

3rd Semester – Inorganic Chemistry, Introduction to Quantum Chemistry

4th Semester-Introduction to reaction Mechanism, Introduction to spectroscopy

Computer Science:-

1st Semester - Introduction to LINUX, GNU Plot, Python Programming Language, writing with Latex.

2nd Semester - Applications of GNU Plot and Python programming to scientific problems of physics, chemistry, mathematics, biology and earth sciences.

5th Semester-Programming with C

6th Semester- Data Structures and Algorithms

Biology:-

1st Semester - Origin and Evolution, Cells and Organelles, Cell Biology, DNA - replication, transcription, translation.

2nd Semester - Medellin Genetics, Evolution.

Earth Sciences:-

1st Semester - Plate Tectonics (including Geophysics), Rocks and Minerals.

2nd Semester - Global Information, Greenhouse Effect and Global Warming, Daisy Coverage and Feedbacks, Global Energy Balance.

Projects:

1. A short project on using Simpson's 3/8 Rule to estimate Triple Integration for a domain (whose equation of boundary given) for 2nd semester project for Computer Lab
2. From 20th June 2014 to 20th July 2014 under Dr. Shameek Paul of Centre for Excellence in Basic Sciences (CEBS), Mumbai on "basics of linear algebra"
3. From 13th December 2014 to 7th January 2015 under Dr. Shameek Paul of Centre for Excellence in Basic Sciences (CEBS), Mumbai on "structure of linear maps"
4. A short project on "real analysis including topics uniform continuity and Dedekind Cuts" under Dr. Saugata Bandyopadhyay of Indian Institute of Science Education and Research (IISER), Kolkata during 3rd Semester
5. From 25th May 2015 to 12th July 2015 under Dr. Srilakshmi Krishnamoorthy of Indian Institute of Technology (IIT), Madras on "basics of discrete mathematics including elementary portions from combinatorics and number theory"
6. A short programming project on creating a Library having basic functions (sorting, searching by author, date of issue, book name etc., issuing on availability) for 5th semester C programming course

7. A short programming project on solving mazes of a given order using python for 6th semester Data Structure Course
8. From 17th May 2016 to 30th June 2016 under Dr. B.Sury of Indian Statistical Institute (Bangalore Centre) on “Basics on Galois theory”
9. From 1st July 2016 to July 17th July 2016 under Dr. Srilakshmi Krishnamoorthy of Indian Institute of Technology (IIT), Madras on “Dirichlet’s Theorem of arithmetic progression”

Lectures and programmes attended:

1. A crash course in basics of Analytic Number Theory. Lecture series by Professor **M. Rama Murthy** of Queen’s University, Canada at Institute of Mathematical Sciences, Chennai during June 2015
2. A two day mathematics outreach programme FACETS-2015 on June 29-30 2015 organized by Institute of Mathematical Sciences, Chennai
3. A two day mathematics outreach programme FACETS-2016 on July 4-5 2015 organized by Institute of Mathematical Sciences, Chennai
4. **Completed three certified courses** namely Introduction to statistics (UC Berkeley), Circuit and Electronics (MIT), Mechanics Review (MIT) on edX (<https://www.edx.org/>)
5. Talk (Of Triangles, gases, prices and men) by **Cedric Villani** at Indian Statistical Institute, Kolkata

Publication:

This is the link to my publication in IJSER (ISSN 2229-5518) Volume-5, Issue-4, April 2014 Edition
<http://www.ijser.org/onlineResearchPaperViewer.aspx?Is-it-possible-to-construct-a-circuit-with-just-passive-elements.pdf>

Other Activities:

1. I taught 8 individual students preparing for 12th Board, JEE Main, JEE Advanced and JAM while studying at IISER Kolkata
2. I am also a regular tutor at **Ek Pehal** (An IISER Kolkata students’ Initiative for free Education)
3. I am a Student Counsellor for a group of 1st Year students at IISER Kolkata
4. I like to write at Quora. Here is my profile <http://www.quora.com/Jishu-Das-1>

Reference:

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(II) Dr. Srilakshmi Krishnamoorthy

Inspire Fellow, Department of Mathematics,

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(III) Dr. Shameek Paul

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