

PARTHA DHAR

SD-45, Satpura House, IIT Delhi
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EDUCATION

Indian Institute of Technology Delhi

Sophomore Undergraduate
Computer Science and Engineering

July 2017 - Present

GPA: 10/10

Delhi Public School Noida

Class XII
Class X

April 2003 - March 2017

96.2%

GPA: 10/10

TECHNICAL SKILLS

Programming Languages

C++, Python, Java, MATLAB, VHDL

Web Development

HTML, CSS, JavaScript, jQuery, Flask (python)

Softwares & Tools

Git, Xilinx ISE, Vivado, Autodesk Inventor, Adobe Photoshop

PROJECTS

Inverted Index Search Engine

Course Project - Data Structures & Algorithms

Prof. Amitabha Bagchi

September 2018 - October 2018

- Built a hashtable (with support for chaining) for the inverted index structure matching word queries to pages
- Maintained an AVL-tree for strings to answer compound phrase queries in order of measured “relevance”

Mobile Phone Routing System

Course Project - Data Structures & Algorithms

Prof. Amitabha Bagchi

August 2018 - September 2018

- Modelled a cellular network as a hierarchical tree data structure for representing sub-stations and base stations
- Implemented path-finding, DFS, BFS, LCA and other tree algorithms for call routing and network construction

Digital Clock with Asynchronous Set

Course Project - Digital Logic & System Design

Prof. Anshul Kumar

August 2018 - September 2018

- Implemented a digital design using asynchronous counters on a BASYS3 FPGA using Xilinx ISE and Vivado
- Included options for fast and slow increment while setting the time, and displaying hours, minutes & seconds in 24-hour format using 7-segment displays

Automation of Vacuum Forming Machine

Summer Project

Prof. P.V.M. Rao

May 2018 - July 2018

- Used an Arduino board, stepper motors and linear actuators to automate the heating and forming cycle
- Shortlisted for DISA 2018 (*Design Innovation Summer Award*) by Ministry of Human Resource Development

RELEVANT COURSEWORK

Completed/Ongoing

Data Structures & Algorithms
Probability Theory & Stochastic Processes
Discrete Mathematical Structures
Digital Logic & System Design
Linear Algebra & Differential Equations
Calculus
Macroeconomics

Next Semester

Programming Languages
Computer Architecture
Signals and Systems
Design Practices
Microeconomics

ACHIEVEMENTS

- **IOITC 2017:** Among the 27 students selected for the training & selection camp for IOI 2017 (International Olympiad in Informatics)
- **NTSE Scholar:** Among the top 750 (out of 800,000+ students) in the National Talent Search Examination 2015 conducted by NCERT
- **KVPY Fellow:** Secured All India Rank 168 (out of 1,00,000+ students) in KVPY(SA) examination 2015 conducted by Government of India to promote young scientists
- **Joint Entrance Examination 2017:** Ranked in the top 0.1% (out of 1,000,000+ students) and top 1% (out of 220,000+ students) nationally in JEE (Main) and JEE (Advanced) respectively
- **Highest CGPA** among 2nd Year Undergraduate students
- **IIT Delhi Semester Merit Award:** In the Top 7% of students in semesters I and II
- **Panini Linguistics Olympiad 2017:** *Honorable Mention* in the training & selection camp for IOL 2017 (International Linguistics Olympiad); Also won the team contest and a *Best Solution* award

POSITIONS OF RESPONSIBILITY

Quizzing Club, *Representative*

April 2018 - Present

Board for Student Publications, *Technical Editor*

April 2018 - Present

EXTRACURRICULARS

Best Fresher (Cultural Activities) 2018, Satpura House: Awarded for extensive contribution to the quizzing, debating and literary club throughout the year

Winner, National Finals of TCS IT Wiz 2016, India's largest inter-school IT Quiz Competition

Winner, National Finals of Gnosis 2018, quiz held during Agon 2018 (Management Fest of IIM Ranchi)

Runner-Up, National Finals of Texas Instruments India Science and Technology Quiz 2015

Runner-Up, SciTech Quiz held during Rendezvous 2018 (Cultural Fest of IIT Delhi)

Runner-Up, Inter Hostel Magazine Designing Competition