Aditya Pratap Singh

Civil Engineering M.Tech

Indian Institute of Technology Bombay Male

Specialization: Water Resources Engineering DOB: 18/12/1991

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| **Examination** | **University** | **Institute** | **Year** | **CPI/%** |
| --- | --- | --- | --- | --- |
| Post Graduation | IIT Bombay | IIT Bombay | 2016 | 8.7 |
| Graduation | RGPV | SGSITS Indore | 2014 | 7.55 |
| Intermediate/+2 | MP Board | Miss Hill’s H.S. School | 2009 | 81 |
| Matriculation | MP Board | Miss Hill’s H.S. School | 2007 | 87 |



**KEY ACADEMIC PROJECTS**



**APPLICATION OF PROXY SIMULATORS IN GROUNDWATER SIMULATION OPTIMIZATION** (M.Tech Project 2016) 

* To develop a groundwater simulation model for a hypothetical heterogeneous anisotropic confined aquifer with pumping wells pumping at a fixed pumping rate
* Coupling the simulation model with optimization algorithm (Differential Evolution) to fulfill the demand while keeping the drawdown minimum which is done by varying the discharge from different pumping wells which results in saving of pumping cost
* To substitute the Finite Element simulation model with proxy simulators namely Artificial Neural Network (ANN) and Support Vector Machine(SVM) to create a regression model and coupling it with optimization algorithm to obtain the optimal pumping policy which results in saving of computational time



**DESIGN AND PROJECT MANAGEMENT ASPECTS OF REINFORCED CEMENT CONCRETE BRIDGE** (B.Tech Project 2014)



* Calculated the discharge, afflux and scour depth for the bridge
* Design of a T girder bridge, its superstructure and substructure
*  Calculation of the total cost incurred

**SOFTWARE SKILLS**

* Software: Worked in AUTOCAD, SWMM, EPANET, LINGO, GMS, ArcGIS, HEC-RAS
* Programming Language: MATLAB



**POSITIONS OF RESPONSIBILITY**

**Teaching Assistant: Department of Civil Engineering, IIT Bombay**

* Assisted the professors in conducting classes and doubt sessions for Fluid Mechanics and Hydrology
* Provided guidance to students in performing various experiments of Fluid Mechanics and Hydraulic Engineering



**PERSONAL SKILLS/HOBBIES**

* Result oriented, Responsible, Perseverance
* Playing Guitar, Cooking, Reading Novels



**EXTRA CURRICULAR ACTIVITIES**

***Cultural Activities***

* Won 1st prize in a music band competition held in PG Cult phase 2
* Participated in a Graffiti making competition with a team of 7 members