Aneesh Panchal

Curriculum Vitae

Dept. of Computational and Data Sciences
Indian Institute of Science, Bangalore, IN
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🖆 My Webpage
 Github   in Linkedin

Education

2024 — present **PhD Engineering, Computational and Data Sciences**, *Indian Institute of Science*, Bangalore.
Thesis: **Scientific AI & ML** (*tentative*)
Supervisor: **Dr. Ratikanta Behera**

2020 — 2024 **Bachelor of Technology, Mathematics and Computing (Minor in Industrial Mathematics)**, *Delhi Technological University*, Delhi (*Formerly*, Delhi College of Engineering, Delhi).
CGPA: **9.74/10** (Dept. Rank: **2/152**)

2019 **Higher Secondary Examination**, *Rajkiya Pratibha Vikas Vidyalaya*, Sector XI, Rohini, Delhi.
Percentage: **94.6 %** (School Rank: **1/140**)

2017 **Secondary Examination**, *Rajkiya Pratibha Vikas Vidyalaya*, Sector XI, Rohini, Delhi.
CGPA: **10/10** (School Rank: **1/105**)

Publications & Presentations

Conference Proceedings (Accepted)

2024 **Aneesh Panchal, Vivek Kumar**, Seismic-inspired simplified Earthqauke Optimization Algorithm, 4th International Conference on Computational Methods in Science & Technology, 2024.
May 2, 2024 - May 3, 2024.

Paper Presentations

2024 **Aneesh Panchal, Abhishek Kumar Singh, Vivek Kumar, Mani Mehra**, *Optimized Adaptive Meshes using Modified Particle Swarm Optimization algorithm for Singularly Perturbed Problems*, International Conference on Computations and Data Science, 2024.
March 8, 2024 - March 10, 2024.

2024 **Aneesh Panchal, Kirti Beniwal, Vivek Kumar**, *Predator Prey Scavenger modelling and Parameter estimation using Physics Informed Deep Neural Network Optimization*, International Conference on Pure and Applied Mathematics, 2024.
February 22, 2024 - February 23, 2024.

Poster Presentations

2023 **Aneesh Panchal**, *Predator Prey Modelling using Probabilistic Approach: A Review*, Modelling and Tackling Complex Biological Systems 2023.
October 13, 2023 - October 14, 2023.

2023 **Aneesh Panchal, Kainat Khan, and Rahul Katarya**, *KANHA − Kinetically Adaptive Neurodevelopmental-Disorder Highway Assistance* (formerly, "*Assessment using Doraemon look-alike Evaluation Virtual Assistant*"), Young Researchers' Conclave 2023.
July 19, 2023.

Research Experience

Indian Institute of Technology, Delhi

Jun, 2023 —
Jul, 2023
Optimized adaptive mesh for Singularly perturbed problems.
Developed an algorithm to generate optimal adaptive meshes using modified particle swarm optimization for convection dominated singularly perturbed problems.

Advisor : **Prof. Mani Mehra**, *Professor, Dept. of Mathematics*, IIT Delhi, IN

Computational Analytics and Learning Intelligence Based Research Exploration (CALIBRE), Delhi Technological University, Delhi

Sept, 2022 —
Jul, 2023
KANHA − Kinetically Adaptive Neurodevelopmental-Disorder Highway Assistance.
Proposed a technique which provides real time road safety technology for neurodevelopmental patients which is a personalized assistant which suggests optimal road routes using their facial expressions and surrounding analysis simultaneously for learning process.

Jul, 2023 —
Apr, 2024
Empirical Analysis of Autism Spectrum Disorder Detection using Nature Inspired Algorithms from 3D Video Dataset.
Comparative study for various nature inspired algorithms for their feature selection ability for binary classification type problem. Got 100% accuracy with 69.81% feature reduction and 96.87% accuracy with 99.68% feature reduction.

Advisor : **Prof. Rahul Katarya**, *Professor, Dept. of Computer Science & Engineering*, DTU, Delhi, IN

Fellowships & Awards

2024 Secured **2nd Position** out of ***25 teams*** in SoLitRev − Literature Review, Evolute 24, SIAM & Dept. of Applied Mathematics, DTU.

2023 Secured **1st Position** in Poster Presentation (Machine Learning Track) − *Yousng Researchers' Conclave (YRC 2023), CSIR-CRRI*, Delhi.

2021 Secured **4th Position** out of ***100 teams*** in Bitgrit Video Popularity Prediction Hackathon.

2017 Recieved **Academic Excellence Award** by Govt. of NCT Delhi for securing **10 CGPA** in class X.

Academic Achievements

2024 Qualified *GATE 2024* (Paper Code: *DA*) with All India Rank **58**.

2023 Qualified *GATE 2023* (Paper Code: *MA*) with All India Rank **1441**.

2020 Qualified *JEE Advanced 2020* with All India Rank **10719**.

2020 Qualified *JEE Mains 2020* with **98.34%ile**.

2019 Qualified *JEE Mains 2019* with **96.78%ile**.

Position of Responsibility & Extra-Curricular Activities

2022 − 2023 **Head of Mathematics and Research, SIAM**, DTU, Delhi.

2022 − 2023 **Mentor, Desh Ke Mentor Programme**, Govt. of NCT Delhi.

2021 − 2022 **SIG Head, Society for Industrial and Applied Mathematics (SIAM)**, DTU, Delhi.

2021 − 2022 **SIG Head, Mathematics And Computing Society (MACS)**, DTU, Delhi.

2020 − 2021 **Member, Stage (Script Analysis Team), Pratibimb − The Dramatics and Film-making Society**, DTU, Delhi.

2018 − 2019 **President, Mathematics Society**, R.P.V.V. Sector 11, Rohini, Delhi.

2017 − 2019 **Teaching Assistant, ATAL Tinkering Lab**, R.P.V.V. Sector XI, Rohini, Delhi.

2015 − 2019 **Hockey Player, School Hockey Team**, R.P.V.V. Sector XI, Rohini, Delhi.