

UDIT DEO

uditdeo1670@gmail.com · <https://deoudit.github.io> · <https://www.linkedin.com/in/deoudit98/>

RESEARCH & ACADEMIC SNAPSHOT

- **Research Interests:** Computer Vision, Deep Learning, Machine Learning, Soft Computing, Fuzzy Optimization, Decision Systems
- **Academic Foundation:** Currently pursuing Ph.D. in Computer Science and Engineering (IIT Roorkee); M.Tech in Software Engineering with a GPA of 9.53 (MANIT Bhopal) and B.Tech in Computer Science and Engineering with a GPA of 8.21 (SMVDU), recipient of a merit-based tuition waiver for academic performance
- **National Level Exams:** UGC-NET JRF (Computer Science, Dec 2024) and GATE (CS - 2022 & 2025; DA - 2025) qualified, securing positions in the top 0.05% candidates nationally
- **Industry Experience:** 2 years at Amdocs Development Center with cross-domain exposure; recognized in innovation contests and internal awards
- **Research Output:** One Patent and three international conference publications - two Scopus-indexed (IEEE CICTN 2025, IEEE ICCCNT 2025) and one zbMATH-indexed (Springer ICAIA 2025)

EDUCATION

Indian Institute of Technology Roorkee Roorkee, UK
PhD in CSED under guidance of Prof. R. Balasubramanian July 2025 - Present

- **Relevant Coursework:** Essential Mathematics for AI, Concepts of Artificial Intelligence and Machine Learning, Advances in Signal and Image Processing

Maulana Azad National Institute of Technology Bhopal, MP
MTech in Software Engineering *GPA: 9.53* Aug 2023 - June 2025

- **Relevant Coursework:** Applied Mathematical Analysis, Machine Learning, Neural Networks and its Applications, Deep Learning, Data Science and Analytics, Data Warehousing and Data Mining, Cloud Computing using IoT, Research Methodology
- **M.Tech Thesis:** *Bridging Fuzziness and Optimization: Frameworks for Relation Inequalities and Multi-Criteria Decision Systems*
Guide: Prof. MMS Beg (ZHCET, AMU) and Dr. JK Jain (MANIT Bhopal)

Shri Mata Vaishno Devi University (GFTI) Reasi, J&K
BTech in Computer Science and Engineering *GPA: 8.21* July 2017 - June 2021

- **Relevant Coursework:** Data Structures and Algorithm, Programming Languages, Theory of Computation, Compiler Design, Engineering Mathematics, Discrete Mathematics, Operating System, DBMS, Digital Logic, Computer Networks, Computer Organization and Architecture
- **Tuition Fellowship:** Ranked 2nd in department (7th semester); awarded tuition waiver for academic excellence

INDUSTRY EXPERIENCE

Amdocs Development Center Gurugram, HR
Associate Software Engineer July 2021 - June 2023

- Worked on **billing modules** (BFENV, ODI, Splitter, Archive) using **C/C++** in a **Unix environment**
- Developed an automated **Python tool** for **backward compatibility** of **binary and ASCII files**, reducing manual effort by **90%**
- Designed a **Python-based database comparator & merger tool**, enabling efficient **synchronization** between database instances
- Implemented a **Flask-based Regression Testing Tool**, streamlining **testing processes** and enhancing **collaboration**
- Recognized at Amdocs for excellence in **innovation, coding, automation, and sports competitions**

CONFERENCES AND PUBLICATIONS

CICTN 2025 IEEE International Conference, Ghaziabad, India

Udit Deo, et al., "Advances in Fuzzy Relation Inequalities and Optimization Techniques", *IEEE CICTN 2025 (IEEE Xplore, Scopus Indexed)* DOI:<https://doi.org/10.1109/CICTN64563.2025.10932336>

ICAIA 2025 Springer International Conference, Delhi, India

Udit Deo, et al., "A New Approach to Fuzzy Relation Inequalities: Effects of Variable Absence and Weighted Composition", *Springer ICAIA 2025 (Under Publication, forthcoming in Algorithms for Intelligent Systems book series, zbMATH Indexed)*

ICCCNT 2025 IEEE International Conference, Indore, India

Udit Deo, et al., "Robust Client-Server Quality Allocation via Ordered Weighted Averaging: A Multi-Objective Optimization Framework", *IEEE ICCCNT 2025 (Under Publication, forthcoming in IEEE Xplore, Scopus Indexed)*

PATENT

Title: A Device for Producing Electricity Using Roof Air Ventilator

Design No.: 440258-001 — *Granted by IP India under the Designs Act, 2000 (Class 13-01)*

Date of Issue: 07 April 2025

Inventors: Dr. Anand Kumar, Ayush Kumar Agrawal, Uday Deo, **Udit Deo**, Shashank Kumar Soni, Bikramaditya Chakraborty, Basundhara Singhdeo

TECHNICAL SKILLS

- **Languages:** C, C++, Python, Shell
- **Libraries:** PyTorch, TensorFlow, OpenCV
- **Computer Vision:** YOLO, ResNet, MobileNetSSD, Transfer Learning
- **Tools:** Git, GDB, Unix/Linux, LaTeX