

# CURRICULUM VITAE

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## DR. MANDEEP SINGH

Address: Baba Deep Singh Nagar, Near  
Urban Estate-2, Patiala-147002

E-mail Id: mandeep\_rcplt@pbi.ac.in  
manasdawn@yahoo.com

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## **CAREER OBJECTIVE**

To have a career that will give me an opportunity to work and apply my potential in new, diverse and challenging fields in a reputed organization and facilitate learning and growth.

## **Work Experience (12Years 3Months +)**

**University:** Punjabi University, Patiala

**Experience:** 10 Jan 2013 to till Now

**Designation:** System Analyst.

**Job Profile:** Research Project and Teaching.

## **Projects and Working Experience**

- Development of robust document image understanding system for documents in Indian scripts (OCR - Phase 2) (2013-2016) in Punjabi University, Patiala as System Analyst.
- IPA based On-line Punjabi Teaching ([www.pt.learnpunjabi.org](http://www.pt.learnpunjabi.org)) in Punjabi University, Patiala as System Analyst.
- Conducted PSSSB typing test for Clerk/Data Entry Operator Recruitment (2016) in Punjab Govt. Recruitment as System Analyst.
- e-Learn Punjabi Online course for Punjabi Teaching with **Communicative Language Teaching Methodology** (<http://www.elearnpunjabi.com>) (2016-2019) as Video Editor (Making of Video Lecture, Video Lecture Script Learning and Optimization, Pictures making, Editing, Visual Effects Making) as System analyst.
- Worked in Parliament Election of India 2019 as IT Expert.
- e-Office Implementation in Punjabi University Patiala (2021) as e-Office Co-Administrator.
- Worked in Elections to Assembly Constituency Punjab 2022 as IT Officer.
- Worked on Missing Values Analysis for Data Cleaning as PhD Research Scholar in Punjabi University, Patiala.
- Analysis of different Techniques for Short Term Demand Prediction as PhD Research Scholar in Punjabi University, Patiala.
- Worked as Nodal Officer for NPS in Punjabi University, Patiala from 2023 to 2024.
- Worked as Nodal Officer for EPF/ESIC in Punjabi University, Patiala from 2023 to 2024.

- Worked as Nodal Officer for Development Tax/Professional Tax in Punjabi University, Patiala from 2023 to 2024.
- Worked in Elections to Parliamentary Election 2024 as IT Officer.
- Neural Network System Implementation for Demand Prediction for future as PhD Research Scholar in Punjabi University, Patiala.

**Subjects Taught:** Software Engineering, Network Security, Object Oriented Analysis and Design, Computer Networks.

**University:** Punjabi University, Patiala (Department of UCoE)

**Experience:** 19 July 2010 to 28 May 2012

**Designation:** Assistant Professor (Computer Engineering)

**Job Profile:** Teaching.

## AREA OF SPECIALISATION

- C, C++, CORE JAVA, Computer Networks, Network Security, Information technology.
- **Subjects Taught:** Computer Architecture, Object Oriented Programming, Data Structure, System Programming, Assembly Language, Compiler Design, System Analysis and Design

**Organization:** Vodafone Essar South Ltd. (Mohali, Punjab)

**Experience:** 6 Nov 2008 to 23 March 2010.

**Designation:** Executive Network Operations (Network Performance)

**Job Profile:** Database Management, Management Information System (MIS) and Network Optimization.

## PROJECTS

- **BSC's KPI's Measurement (for Vodafone Essar)** using oracle 8i, MSAccess, MSexecl.
- **Ranking KPI's Based on Network Cells (for Vodafone Essar)** using oracle 8i, MSAccess, MSexecl.
- **Automation of DATABASE Processing.**

## PUBLICATIONS

### Published Papers:

**1. Mandeep Singh and Balwinder Singh**, "Performance Evaluation of MANET Routing Protocols with Scalability for E-mail Throughput Traffic Using OPNET Modeler", International Journal of Research in Commerce, IT & Management, ISSN 2231-5756, Volume No. 3, Issue No. 09, pp 93-97, September 2013.

**2. Mandeep Singh and Balwinder Singh**, "Performance Evaluation of MANET Routing Protocols with Scalability for HTTP Traffic Delay Using OPNET Modeler", International

Journal of Software & Hardware Research in Engineering, ISSN 2347-4890, Volume No.1, Issue No. 1, pp-77-82, September 2013.

**3. Mandeep Singh and Amarvir Singh**, “Performance Evaluation of MANET Routing Protocols with Scalability for HTTP Network Load OPNET Modeler”, International Journal of Software & Hardware Research in Engineering, ISSN 2347-4890, Volume No.1, Issue No. 1, October 2013.

**4. Mandeep Singh**, “Performance Evaluation of Manet Routing Protocols with Scalability for FTP Network Delay Using Opnet Modeler”, International Journal of Core Research in Communication Engineering, ISSN 2349-7742, Volume No.1, Issue No. 02, October 2014.

**5. Mandeep Singh and Ankur Rana** “Performance Evaluation of Manet Routing Protocols with Scalability for E-mail Network Delay Using Opnet Modeler”, Research Cell: An International Journal of Engineering Sciences, ISSN 2229-6913, Volume No.16, Issue No. 01, December 2015.

**6. Mandeep Singh and Dr. Raman Maini**, “Various Electrical Load Forecasting Techniques with Pros and Cons”, International Journal of Recent Technology and Engineering (IJRTE), ISSN 2277-3878, Vol 8, March 2020.

**7. Mandeep Singh and Dr. Raman Maini**, “Missing Data Analysis for Electric Load Prediction with Whole Record Missing”, Advances in Mathematics: Scientific Journal, ISSN 1857-8365, 2020.

**8. Mandeep Singh and Dr. Raman Maini**, “Data Mining Techniques for Electricity Demand Forecasting, International Conference on Applications of AI & Machine Learning (ICAML), 2021.

**9. Mandeep Singh, Raman Maini and Jasvir Singh**, “A Neural Network Technique Based on the Levenberg-Marquardt Method for Predicting Short-Term Electricity Load”, International Journal of Applied Engineering & Technology, Scopus Indexed, ISSN: 2633-4828, Vol.5, No.4, December 2023.

**10. Mandeep Singh, Raman Maini and Jasvir Singh**, “Descriptive Statistics of Neural Network and Regression Based Results for Short Term Electricity Demand Prediction”, International Journal on Recent and Innovation Trends in Computing and Communication, Scopus Indexed, ISSN: 2321-8169, December 2023.

## **PROFESSIONAL QUALIFICATION**

### **AREA OF SPECIALIZATION: COMPUTER SCIENCE & ENGINEERING**

**Diploma (3 Years Regular) in Computer Engineering** from **Thapar Polytechnic, Patiala** 2002-2005 under board PSBTE & IT securing 64.89% marks.

**Bachelors of Technology (BTech. CSE)** 2005-08 from **Punjabi University, Patiala** with **Aggregate: 71.04%**.

**Masters of Technology (MTech. CSE)** 2010-13 from **Punjabi University, Patiala** with **Aggregate: 69.50%**.

**PhD Course Work Regular** 2014-2015 from **Punjabi University, Patiala** with '**A**' Grade (**83.75%**).

**Doctor of Philosophy** in the Faculty of Engineering and Technology from **Punjabi**

**University, Patiala** Under-Guidance of **Dr. Raman Maini, Professor**, Department of Computer Engineering, Punjabi University, Patiala and **Dr. Jasvir Singh, Assistant Professor**, Department of Computer Engineering, **Punjabi University, Patiala**.

### **ACADEMIC QUALIFICATION**

- Passed 10th in 2002 from PSEB board securing 68% marks.

### **PROFESSIONAL EXPOSURE**

- Languages Known: C/ C++, Assembly Language, Java 1.5, VBA, C#.
- Databases: SQL Server, Oracle, MS-Access.
- Web Technologies: HTML.
- Operating Systems: MS Windows, MS DOS.
- Computer Skills: MS-OFFICE, Hardware and software installation, Internet and Networking.

### **PROJECTS & TRAINING UNDERTAKEN (During Diploma and B.Tech)**

#### **PROJECTS**

- **Student Information Record** using Java 1.5, Graphical User Interface that includes keeps the information of the students in the college like Student Enrollment, Allotting Subjects, Class Information, Adding New Subjects, and Allocating Grades etc.
- **Car Assurance System** (Minor Project) using C, during diploma in Thapar Polytechnic, Patiala.
- **Traffic Light Control System** Using Assembly Language with 8086 Microprocessor.

#### **TRAINING**

- Six Months Training at **NIIT LIMITED, PATIALA** in **Java 1.5**.
- One Month Training in **COMPUTER NETWORKS** from **NODAL CENTRE (Thapar Polytechnic, Patiala)**.

#### **Declaration:**

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

**Place:** Patiala

(Dr. Mandeep Singh)