

Curriculum Vitae

Dr. Surjit Singh 07838676781
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Father's Name: Dr. Mohinder Singh
Date of Birth: 27.10.1948

Educational Qualifications:

Class	Year	University	Division
Matriculation	1963	PU, Chandigarh	First
BSc (Hons. School)	1969	PU, Chandigarh	First
MSc (Hons. School)	1970	PU, Chandigarh	First
Cert. in German	1972	PU, Chandigarh	First
PhD – Physical Chemistry	1975	PU, Chandigarh	-

Employment:

Designation	Organization	From	To
Junior Scientific Officer	Exp. R&D Lab, Pune	June '76	Sept '76
Lecturer in Chemistry	GND University, Amritsar	Sept '76	July '85
Reader in Chemistry	GND University, Amritsar	July '85	Jan '92
Director Computer Centre	GND University, Amritsar	Jan '92	31 Oct 2008
Prof. & Head, Deptt of Information Technology	Amritsar Col. Of Engg & Tech., Amritsar	1 Nov 2008	31 May 2013
Dean (Research & Consultancy)	Amritsar Col. Of Engg & Tech., Amritsar	1 June 2013	28 May 2014

Research Guidance: For Ph. D. degree.

Chemistry

1. Dr. SK Aggarwal

Computer Science and Engineering (Completed)

2. Dr. Hardeep Singh, Prof. Deptt of CSE, GND University, Amritsar
3. Dr. KS Kahlon, Prof. Deptt of CSE, GND University, Amritsar
4. Dr. Lalit Sen Sharma, Deptt. of CSE, Jammu University, Jammu
5. Dr. Tripit Deep Singh Dua, Asso. Prof. GN Engg. Col. Model Town, Ludhiana

Computer Science and Engineering (Pursuing)

6. Neha Sethi
7. Dipti Malhotra
8. Girish Kumar
9. Tejinder Sharma
10. Sunaina
11. Jagdeep Singh

Academic Memberships:

Chairman, Board of Studies in Computer Science, PTU, Kapurthala
Member Boards of Studies in Computer Science at
Guru Nanak Dev University, Amritsar, and
HP University, Shimla

Chairman Selection Committee at DRDO, New Delhi 4 times
Member selection committees at GNDU, Amritsar,
Jammu University, Jammu and
Kashmir University Srinagar.

Life member of Computer Society of India,
Indian Chemical Society,
Punjab Science Congress, and of
Thermodynamics Society of India.

Foreign visits:

Visited Surrey University, Guildford Surrey under the Exchange Programme of
INSA and Royal Society, London for 3.5 months from July 1989 to Oct. 1989,
I worked there on **Computer Aided Learning** and developed a package in Quick
Basic for Shape of Orbitals.

Experience of working on computers:

- I have been using computers since 1968, starting with the use of Fortran Programming on IBM-1620.
- I also learnt Machine Language of IBM-1620, and translated all the important programs to ML, in order to gain speed and memory.
- I was the first to start teaching of Computer Science and Engineering at Guru Nanak Dev University in 1984.
- I was appointed as Head, Computer Science and Engineering in 1991, and Director Computer Centre in January 1992.
- I have been teaching M. Tech., MCA and B. Tech. classes of the Computer Science and Engineering Department of the Guru Nanak Dev University.
- I have been teaching programming in COBOL, Basic, QB, Pascal, C and C++ and the topics like Computer Graphics, Data Structure and Object Oriented Programming.
- I have created a huge personal library in C++ and developed classes for graphics and mouse functions.

Packages developed:

- Designed an OMR sheet for Objective Type Entrance Tests. This was read as a TIFF file that is opened in C++. This sheet is calibrated for various parameters and options to create text files of responses. This is then used for Editing, Evaluation, and Computer assisted Scrutiny of the result.

This package has been used for hundreds of entrance tests involving 100 to 40,000 candidates each, for over fifteen years, and has never faltered.

- Computer Aided Learning Package in QB for illustration of Cartesian and Polar coordinate systems, Solutions of Radial and Angular parts of Schrödinger wave equation. Each was illustrated graphically for selected quantum numbers, which were then multiplied in slow motion to produce shape of orbitals in various colours.
- Computer Aided Learning Package in QB for illustrating Fourier Transformation.
- Computer Aided Learning Package using C++ for drawing Bezier Curves. The control points for the curves can be marked by both mouse and key-board. These can then be moved also to see the corresponding effect on the curves.
- Computer Aided Learning Package using Pascal for explaining a Toggling Switch, A Clock, a JK Flip-Flop. Operator can change the state of FF, while the clock is moving on the screen. Then four such FFs were combined to create a Counter.
- An exhaustive statistical package was developed which was used by research fellows, till SPSS was introduced in the university.
- Projections of the three dimensional contour curves.

Packages supervised at Guru Nanak Dev University:

- Pay roll package for the university.
- Examination system of the university.