

Curriculum Vitae

**KANAK
RAJ SHARMA**

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| Address : H No.-16, Hnuman buld., Neb Sarai, New Delhi
| Languages : English, Hindi, Sanskrit

EDUCATION

COURSES (May 2019- ongoing)	Physics Coursework (M.Sc., Ph.D) [Informally] {details below} Jawaharlal Nehru University and IUAC, New Delhi
GRADUATION (2015-2019)	Bachelor of Technology, Electrical and Electronics Engineering Guru Gobind Singh Indraprastha University Maharaja Surajmal Institute of Technology (College) CGPA : 8.19
SCHOOLING (2015, 2013)	Kendriya Vidhyalaya JNU, New Delhi XII (CBSE Board ; Science, Maths) : 92.8% X (CBSE Board) : 10 CGPA

SKILLS AND ABILITIES

PROGRAMMING LANGUAGES & DOCUMENTATION	C, C++, Python, MATLAB , SQL, Common LISP(learning) MS Office, LATEX , Debian LINUX(learning)
EXPERIMENTAL	Electrical machines , electronics, chemical & physical lab equipment's handling

EXPERIENCE

- Oct 2020 – Dec 2021 Engineer Apprentice
Powergrid Corporation India Ltd., Jalandhar, Punjab & Delhi
· Operation and maintenance of 400/220KV substation, transmission line and oil testing chemical laboratory
- June 2019 – Aug 2019 Project assistant
School of Physical Science, *Jawaharlal Nehru University ND*
· Theoretical and Experimental work on Quantum dots and its photovoltaic application
- May 2018 – July 2018 Trainee
Upper Air Instrument Division, *India Meteorological Department ND*
· Worked on electronics module of GPS based Pilot-sonde and attended a workshop on meteorology and computation.
- Jan. 2018 – & Oct. 2016 Trainee(Workshop)
Dimension & Time-Frequency metrology, *National Physical Laboratory ND*
· Worked in physical measurements of various objects using various instruments and standards ; & time keeping instruments
- May 2017 – July 2017 Trainee, (Instrumentation, Electronics, Management)
Manufacturing and Industrial management Division, *Hella Automotive Pvt. Ltd. ,UP*
Worked in instrumentation and measurement of components, electronics of vehicle horn and time, industry management.

PROJECTS

- April 2019 (6 months) *Retrograde analysis*
Mathematical analysis and program (using LISP) for Retrograde chess problems of finding last moves of a given endgame configuration.
- Dec. 2019 (6 months) *Randomness and concepts of probability*
Theoretical study (exploratory research) on the problem and concept of randomness and noise
- April 2018 (3 months) *Mathematical Optimization*
Study of particle swarm Optimization and other optimization techniques and its use in economic load dispatch problem(using matlab)
- April 2017 *Circuit Design*
A measurement scale and circuit designed to make signal after certain level of water in tank.(using AT89S52 8051 microcontroller)

CERTIFICATION AND EXTRACURRICULAR ACTIVITIES

July 2019 – Jan. 2020	Certification Seminars on Physics, Mathematics, Chemistry, Economics, History and Vedas
Sept 2019	Mountaineering Club Camp on hills of Sanjay Van, Delhi
Oct 2017	Industrial Visit on Delhi Metro(blue line) Substation, Rajendra Place West Delhi
Aug 2015 – Dec 2016	Local Cricket Tournament (IGNOU Local cricket Team)
Jan. 2015	President Award (Scout) Bharat Scouts and Guides
Oct. 2014	National Tournament (Represented KVS) Lawn Tennis

OTHER INTERESTS

PHILOSOPHY & PSYCHOLOGY	Analytical Philosophy, Western & Eastern philosophy, Epistemology, Philosophy & foundations of science Psychoanalysis, Cognitive, behavioral & personality psychology
SOCIAL SC. & ART	I like to study Literature, History, Anthropology, Archaeology, Film theory, art and theoretical computer sc.

OTHER DETAILS

Attended pre-PhD. and MSc. Coursework at JNU and IUAC (from yr. 2019-21), details are:

- Classical mechanics and Statistical mechanics by Prof. Subir kumar Sarkar, SPS JNU, ND
- Quantum mechanics-1&2 and Particle Physics by Prof. Debashis Ghoshal, SPS JNU
- Soft condensed matter by Prof. Shankar P. Das, SPS JNU
- Atoms and Molecules by Prof. Prasenjit Sen, SPS JNU
- Properties of solids by Prof. Subhasis Ghosh(JNU) at IUAC, ND
 - Worked on matlab program on permittivity and reflectivity of various solids (got idea of dealing and manipulation with large numbers in computing)
- Ion beam induced modification of solids by Dr. Ambuj Tripathi at IUAC
- Topics in Classical and Quantum mechanics by Prof. Shankar P. Das, SPS JNU
- Phase transition and Critical Phenomena by Prof. Shankar P. Das, SPS JNU

- I have worked on computer simulations on designing simple systems based on fuzzy logic in matlab in my engineering course

DECLARATION

I do hereby declare that the information provided by me is true, complete and correct to the best of my knowledge and belief.

DATE & PLACE: 12th March, 2022
New Delhi

NAME: Kanak raj sharma