

CURRICULUM VITAE



PERSONAL DETAILS:

NAME: Dr. K. N. Pathak (KARE NARAIN PATHAK)

DATE OF BIRTH: 30 July 1941

Present Position: Professor Emeritus (P U), INSA Senior Scientist
Department of Physics and
Former Vice Chancellor
Panjab University, Chandigarh 160 014

Home Address: H. No. 382, Sector 38 A, Chandigarh-160014.

Tel: 0172 – 2699944 (R), 2534467 (O), cell: +919988360009

E-mail: pathak@pu.ac.in

EDUCATIONAL QUALIFICATION:

- Ph.D., 1966 from IIT Kanpur.
- M.Sc. (1st Class), 1962 from Allahabad University.
- B.Sc. (1st Class), 1960 from Agra University.

SCHOLARSHIP:

- ✓ Awarded the Govt of India Merit Scholarship during M.Sc.
- ✓ Awarded the U.P. Govt. Scholarship during B.Sc.

FIELD OF SPECIALIZATION:

- ✓ Condensed Matter Physics/Solid State Physics

TEACHING:

- ✓ Taught for 36 years various courses in Physics both at the Graduate and Postgraduate level, in India and abroad.

RESEARCH:

- Research Papers published in international journals - **132** (List Enclosed) and papers recently presented in International and National Conference/Symposium -**8**
- Review Articles - **7** (List Enclosed)
- Supervised **13 Ph.D. Thesis** and **5 M. Phil Thesis** (List Enclosed). Currently supervising 1.
- **Referee** Physical review, Physical Review Letters, Pramana, Indian Journal of Pure and Applied Physics and Proceedings of the National Academy of Sciences.
- Invited to deliver a lecture and 'preside over a session in **International Conference** on Strongly Coupled Coulomb Systems, 3 August - 10 August 1997 at Boston (USA).
- **Chaired** a session in **Adriatico International Conference** in July 1999 at Trieste, Italy.
- **Chaired** a session at **International Conference on Statistical Physics** (Statphysics-22) held at Bangalore on **July 4 - 8, 2004**.
- Participated in the **Conference of Executive Heads of Association of Commonwealth Universities**, held at the University of Adelaide, Australia on April 9-12, 2006.
- Delivered around **50 Invited Lectures** in India and abroad. (List Enclosed).

AWARDS AND HONOURS:

- **Council Member , National Academy of Sciences of India, 2013-14,INSA 2014-**
- **Fellow, Indian National Science Academy, 2008**
- **Goyal Prize for Physics, 2001** (awarded by Kurukshetra University).
- **Fellow, Punjab Academy of Sciences, 2001**
- **Meghnad Saha Award** for the year 1996 (awarded by U.G.C)
- **Senior Associate Member**, the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy, 1992-1998.
- **Fellow, Indian Academy of Sciences, 1992.**
- **UGC National Fellowship Award** 1991.
- **UGC National Lecturer Award** 1986-87.
- **Founder Member**, Society for Scientific Values, New Delhi.
- **Fellow, National Academy of Sciences, 1983.**
- **Alexander von Humboldt Senior Fellowship Award**, 1977.
- **Associate Member**, the Abdus Salam ICTP, Trieste, Italy, 1972-1977.
- **Post Doctoral Research Fellowship Award**, National Research Council of Canada, 1967.

ORGANISATIONAL ACTIVITIES

- **Organized** an International Advanced School in Statistical Physics from September 28 - October 9, 1987 at Panjab University, Chandigarh.
- **Organized** a National Conference on Industry - University Interface- February 20-21, 1998 at Panjab University, Chandigarh.
- **Organized** a TIFAC (DST) Workshop on Patents Awareness on 18 February 2000.
- **Organized** an International Seminar on BEC and Solitons on 1-3 February 2012.

ADMINISTRATIVE EXPERIENCE:

- **Vice-Chancellor**, Panjab University, Chandigarh, from July 23, 2000 to July 22, 2006.
- **Dean of University Instructions** (equivalent to PVC) Panjab University, Chandigarh, November 1993 - October 1995.
- **Dean, Faculty of Science**, Panjab University, Chandigarh, December 1996 - January 1999.
- **Chairman** (Head of Department), Department of Physics, Panjab University, Chandigarh, August 1989 - May 1992.
- **Coordinator** UGC, CAS/COSIST Program, Physics Department, Panjab University, Chandigarh from 1991 - July 2000.
- **Hon. Director**, Centre for Industry-Institute Partnership Program, Panjab University, Chandigarh, December 1995 - July 2000.
- **Vice President**, Indian Association of Physics Teachers, 1999-2000.
- **Joint Secretary**, Council of Society for Scientific Values, 1999-2000.

Memberships:

- **Member**, National Physical Research Committee, CSIR, New Delhi, 1992-95.
- **Member**, UGC Visiting Committee on 9th and 11th Plan.
- **Member** UGC/COSIST Programme Evaluation Committee.
- **Member**, UPSC Selection Committees.
- **Member** of various research, selection committees at Panjab and other Universities.
- **Member** of Governing Body and Governing Council of Nuclear Science Centre, New Delhi (2001)

- **Member** of Governing Body and Governing Council of IUCA, Pune (2001).
- **Member** of Curriculum and Book Writing Committee - National Council for Educational Research and Training (NCERT), New Delhi (2001).
- **Member** of Governing Council of Central: Scientific Instruments Organization (CSIO), Chandigarh (CSIR Research Lab.) (2001 onwards).
- **Member** Governing Body and Governing Council of Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh (2001-2006).
- **Chairman, Standing Academic Committee** of PGIMER, Chandigarh (2004-2006).
- **Ex-officio Member** of General Council of the National Institute of Agricultural Extension Management at Rajendranagar, Hyderabad (2002-2005)
- **Member** of Governing Body of Indian Institute of Advanced Study, Shimla (2002-2004).
- **Member** of National Organizing Committee for International Conference on Statistical Physics i. e., STATPHYS-22 to be held at Bangalore in July 2004.
- **Visitor's nominee** of the Court, University of Hyderabad, Hyderabad, Andhra Pradesh (2003-2006).
- **Chancellor's nominee on the 'Court of Kurukshetra University', Kurukshetra**, for a term of three years beginning December 2005.
- **Member 3rd Delhi Finance Commission to Local Bodies of the Union Territory of Chandigarh.**
- **Member (continuing)** of Society of Centre for Research in Rural and Industrial Development (CRRID) September 1, 2003.
- **Member** of the Senate of Dr. B.R. National Institute of Technology, (Deemed University), July 2003.
- **Member**, Programme Advisory Committee in Physical Sciences under SERC, DST (GOI) from March 1998 - 2001.
- **Founder Member, 'IC Centre for Governance' - 2004**
- **Member**, Punjab State Council for Science & Technology (Department of Science, Technology Environment and Non-Conventional Energy), Govt of Punjab, for three years beginning December 2004.
- **Member**, Board of Control of Institute of Integrated Himalayan Studies, Himachal Pradesh University, Shimla.
- **Member** of Academic Advisory Committee of UGC-Academic Staff College, Himachal Pradesh University, Shimla, for two years beginning March, 2004.

- **Member**, Academic Advisory Committee of UGC-Academic Staff College, Kurukshetra University, Kurukshetra.
- **Academic Advisory Committee of the Academic Staff College of Aligarh Muslim University** for a period of two years beginning June 2004.

ACADEMIC POSITIONS HELD:

- **2012 (2 months)** Visiting Scientist at Freie University, Berlin ,Germany(Humboldt Foundation)
- **2011-14: Indian National Science academy (New Delhi), Senior Scientist at Panjab University Chandigarh.**
- **2010 (2 months)** Visiting Scientist at Freie University, Berlin ,Germany(DFG)
- **2007-09 U.G.C.** Emeritus Fellow at Physics department ,P U Chandigarh
- **2008 (2 months)** Visiting Scientist at Freie University, Berlin ,Germany(AvH)
- **2006(3 months):** Visiting Scientist at Freie University, Berlin , Germany(AvH)
- **2000-2006 :** Vice Chancellor Panjab University Chandigarh
- **1993 - 2001:** Senior Most Professors in Panjab University, Chandigarh.
- **1977 - 1993:** Professor of Physics, Panjab University, Chandigarh.
- **1999:** Visiting Senior Scientist, The Abdus Salam Centre for Theoretical Physics, Trieste, Italy
- **1992-1998:** Senior Associate Member, the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.
- **1997:** Visiting Professor, Royal Military College, Kingston, Ontario, Canada. Also visited Department of Physics, University of Georgia, Athens, USA
- **1996:** Visiting Professor Royal Military College of Canada, Kingston, Ontario.
- **1992:** Senior Alexander Humboldt Fellow at Technical University, München, Germany.
- **1993:** Visiting Professor, Royal Military College, Kingston, Ontario, Canada.
- **1991:** Visiting Professor, Lake head University, Thunder Bay, Ontario, Canada.
- **.1985 - 1988:** Visiting Professor, Lake head University, Thunder Bay, Ontario, Canada.
- **1983 - 1984:** Visiting Professor, Lake head University Thunder Bay, Ontario, Canada.
- **1982:** Visiting Scientist, International Centre for Theoretical Physics, Trieste, Italy.
- **1977 - 1979:** Alexander von Humboldt Stiftung Senior Fellow, Department of Physics, Technical University, München, Garching, Germany.
- **1979:** Visiting Professor, North Western University, Evanston, Illinois, U.S.A.
- **1972 - 1976:** Associate Member, the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy.

- **1972:** Visited Institute of Theoretical Physics, Gutenberg, Sweden.
- **1970 -1976:** Reader in Physics, Panjab University, Chandigarh.
- **1969 - 1970:** Research Associate, Dept. of Physics, North western University, Evanston, Illinois U.S.A.
- **1967 - 1969:** Postdoctoral Research Fellow, National Research Council, Ottawa, Canada
- **1966 - 1967:** Lecturer in Physics, Indian Institute of Technology, Powai, Mumbai.

INVITED LECTURES:

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|---|------------------|
| ➤ International Centre for Theoretical Physics, Trieste, Italy. | 1973,1974 & 1975 |
| ➤ Nuclear Physics and Solid State Physics Symp. Calcutta, India. | 1975 |
| ➤ 63rd session of Indian Science Congress, Waltair, India. | 1975 |
| ➤ Denmark Atomic Energy Establishment, Roskilde, Denmark. | 1978 |
| ➤ Sweden Atomic Energy Establishment Studsvik, Sweden. | 1978 |
| ➤ Institute of Theoretical Physics, Gutenberg, Sweden | 1978 |
| ➤ Technical University, Munich, Germany. | 1978 |
| ➤ Freie University, Berlin, Germany | 1978 |
| ➤ North-western University Evanston, Illinois, USA | 1978 |
| ➤ Indian National Science Academy, Chandigarh Chapter | 1980 |
| ➤ Nuclear Physics and Solid State Physics Symp. New Delhi, India | 1980 |
| ➤ International Centre for Theoretical Physics, Trieste, Italy | 1982 |
| ➤ Lake head University, Thunder Bay, Canada | 1984 |
| ➤ National Symposium on Disordered Material University of Rajasthan, Jaipur, India. | 1990 |
| ➤ University of Paris Sud Orsay, France | 1991 |
| ➤ Technical University, Munchen, Germany | 1992 |
| ➤ International Seminar on Current Developments in Disordered Material, Kurukshetra University, Kurukshetra, India. | 1995 |
| ➤ University of Georgia, Athens, USA | 1997 |

- University of Konstanz, Germany. 1998
- K.S. Krishnan Conference in Condensed Matter Physics, 1998
University of Allahabad, Allahabad, India.
- Punjab Academy of Sciences: plenary lecture 2003
- Lecture delivered during PANEL DISCUSSION on '**Status of Basic Sciences in Higher Education**' on 30.9.2003 at Punjabi University, Patiala.
Journal, Punjab Academy of Sciences, 1 (2) 2004.
- **Current Fluctuations in Quantum gases** , on 06-01-2009 at University of Wisconsin, Milwaukee, USA
- **Current Fluctuations in Dilute Quantum gases** , on 11-02-2009 at Indian Institute of Educational Research and Teaching, Mohali , Punjab Under INSA
- **Matter at Ultra Low Temperatures**, on Science Day i. e 27 -02-2009 at DRDO Chandigarh
- **Nano Materials –Properties & Applications**, Maharaja Agrasen Institute of Technology Delhi on 8 April,2011

Ph.D. & M.Phil Theses Supervised

- The following students have worked under my supervision and have obtained their **Ph.D.** degree:

Sr. No.	Name	Year of Award	Position held
1.	Dr. H.B. Singh	1975	Working in an R&D Laboratory in Germany
2.	Dr. Bansal	1975	Working in an R & O Laboratory in Germany
3.	Dr. V. K. Jindal	1977	Professor of Physics, P.U. Chandigarh
4.	Dr. M. R. Monga	1978	Professor of Physics, P.U. Chandigarh
5.	Dr. P.K. Kahol	1978	Professor of Physics, Wichita State University, Arkansas, USA
6.	Dr. G.S.Dubey	1981	Working in University of New York, USA.
7.	Dr. J.S. Thakur	1984	Working as research Scientist in Sydney, Australia.
8.	Dr. G.K. Agarwal	1984	Senior lecturer in Sahu Jain College, Nazibabad, U.P.
9.	Dr.K. Tankeshwar	1990	Reader in Physics, P.U. Chandigarh.
10.	Dr. B. Singla	1993	Lecturer in Physics, Arya College, Ludhiana, Punjab.
11.	Rakesh Kumar	1997	Scientist, CSIO, Chandigarh.
12.	Rajneesh Kumar	1998	California, USA
13.	Renu Bala	2013-14	Thesis submitted

- The following students have obtained their M.Phil. Degree under my supervision:

1. Mr. G.K. Agarwal
Head, Physics Department
Sahu Jain College
Nazibabad.
2. Ms. Rajni Verma
Chandigarh.
3. Mr. Zile Singh
Physics Department
University College
Rohtak.
4. Ms. Charanjit Kaur
Delhi.
5. Ms. Anju Sharma
Govt College for Girls, Chandigarh.

