

CURRICULUM VITAE

I Personal data

1. **Name** Dr. Sudhish Kumar
2. **Academic degree** M.Sc., Ph.D.
3. **Present Position** Associate Professor of Physics
4. **Field of Research Work** Magnetism and Magnetic Materials
5. **Institutional & Mailing Address** DEPARTMENT OF PHYSICS
UNIVERSITY COLLEGE OF SCIENCE
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7. **Email ID** sudhish_k@yahoo.com and skmlsu@gmail.com
8. **Date of Birth** 15th MAY, 1966
9. **Place of Birth** Sikar (Raj.), India
10. **Nationality** Indian



II Academic Qualifications:

Examination Passed	University	Subject	Division	Percentage	Year of Passing
B. Sc.	M. L. Sukhadia University, Udaipur	Physics Chemistry Mathematics	I	64.37	1988
M. Sc.	M. L. Sukhadia University, Udaipur	Physics	I <i>(I rank in the University)</i>	61.80	1990
NET	CSIR-UGC, New Delhi	Physical Sciences	Selected for Lecturer-ship		Dec. 1990
NET	CSIR-UGC, New Delhi	Physical Sciences	Selected for JRF (UGC)		Dec. 1991

Three months Certificate course in the Scientific Glass instrumentation	University of Rajasthan, Jaipur	Techniques of Ampoules and Vacuum sealing for R & D work	June 15, 1993 - Sept. 30, 1993
Ph. D. *	University of Rajasthan, Jaipur	Thesis Title <i>"Study of magnetic Structure of some 3d metal based alloys"</i> . (Supervisor: Professor Bipin K. Srivastava, Co-Supervisor: Dr. S.K. Paranjpe (SSPD, BARC, Mumbai))	2001

*Ph. D. Thesis work was carried out at the University of Rajasthan, Jaipur and Dhruva reactor, SSPD, BARC, Mumbai as a Research Scholar in an IUC-DAEF funded project. I had delivered a talk on my Ph.D. Thesis work in the Thesis oral presentation session of the 43rd DAE Solid State Physics Symposium held at Bilaspur during Dec. 27 to Dec. 31, 2000.

Teaching Experience: PG - 16 Years; UG - 17 Years

Post held	Institution	From	To
Assistant Professor of Physics	Mohanlal Sukhadia University, Udaipur	July 31, 1997	April 27, 2011
Associate Professor of Physics	Mohanlal Sukhadia University, Udaipur	April 28, 2011	Till date

Papers Taught (at PG level):

- (i) Experimental Techniques in Physics
- (ii) Analog and Digital Electronics
- (ii) Condensed Matter Physics
- (iii) Advanced Solid State Physics
- (iv) Network Theory
- (v) Optical Fibre Communication
- (vi) VLSI design and Technology

Papers Taught (at UG level):

- (i) Optics
- (ii) Basics Electronics
- (iii) Electricity and Magnetism
- (iii) Electromagnetism
- (iv) Applied Electronics

Professional Courses: M.Sc. and B.Sc. Bio-Tech.: **05 Years** (Biophysics and Instrumentation)

Membership of Professional Societies:

- Life member of Indian Neutron Scattering Society
- Life member of Indian Society for radiation Physics

Membership of Academic Bodies:

- Member, Committee of Courses in Electronics and Computer Science, M.C.A. B.E., BCA, Mohanlal Sukhadia University, Udaipur.
- Member, Admission Committee, Discipline Committee, COSFEST Organizing Committee, University College of Science, Maharana Bhupal Campus, Sukhadia University, Udaipur.

Research Experience & Training

22 Years in the field of **Experimental Magnetism and Magnetic Materials**

Research Stage	Title of work/ Thesis	University where the work was carried out
Ph. D. 1991 - 2001	Study of magnetic structure of some 3d metal based alloys.	University of Rajasthan, Jaipur and Dhruva reactor, SSPD, BARC, Mumbai
Post -doctoral	Not Applicable	
Publications	In Journals = 34 In Conference Proceedings= 14	1. MLS University, Udaipur 2. University of Rajasthan, Jaipur 3. SSPD, BARC, Mumbai
Research Guidance	One Student is working for the Ph.D. degree	He is getting Fellowship from the UGC Research Project
Training	1. Fabrication techniques of ampoules and vacuum sealing for R& D work. 2. Computational Techniques in Neutron Scattering	University of Rajasthan, Jaipur IUC-DAEF, Indore

Ongoing Research Project

Title of the Project	Name of the Funding Agency	Duration	Remarks
<i>Investigation of structural and magnetic properties of some mixed valence manganates</i>	UGC, New Delhi Major Research Project (12.3 Lacs)	3 Years	July 1, 2012 to June 30, 2015

Reviewer for the Research Journals: 1. Journal of Physics: Cond. Matter

2. Journal of Physics D: Applied Physics
3. Physica Scripta
4. Journal of Alloys and Compounds
5. Materials Letters
6. Materials Chemistry and Physics
7. Indian Journal of Pure and Applied Physics
8. Pramana_Journal of Physics

RESEARCH INTERESTS

1. Synthesis and Characterization of Alloys, compounds and Minerals
2. Preparation and characterization of nano- particles of spinel ferrites, ferro-fluids, dilute semiconductors and Perovskites comprising these particles
3. Crystal Structure determination of alloys and compounds using X-Ray powder diffraction and Rietveld refinement technique.
4. Crystal and Magnetic Structures determination of alloys and compounds using Neutron diffraction and Rietveld refinement technique.
5. Study of magnetic structures / behaviors of alloys and compounds
6. Relaxation behavior of magnetization of nano- particles vis-à-vis conventional Spin Glasses. Spin glass behavior (relaxation and ageing and the phase transition)
7. Study of optical, electrical and magnetic behaviors of dilute Semiconductors
8. Study of optical, electrical and magnetic behaviors of minerals

METHODOLOGY

1. Powder X-Ray Diffraction
2. Powder Neutron Diffraction
3. Magnetization measurements on SQUID and VSM
4. ac-Susceptibility and Magnetoresistance
5. Mössbauer Spectroscopy
6. UV-Vis, FTIR, Raman, STM, SEM and TEM

International Schools and Refresher Course attended

International:

1. Euro Summer School 2002 on “New materials and their Dynamics- Advances through Synchrotron Radiation” held at Rostock - Warnemunde, Germany from Sep.29th to Oct. 11th, 2002.
2. Summer School on Condensed Matter Research – “Magnetism” from Aug. 10-17, 2002 at Zuoz, Switzerland.

National:

1. XIII Workshop on "Neutrons as Probes of Condensed Matter", organized by UGC-DAE Consortium for Scientific Research, Mumbai Centre and SSPD, Bhabha Atomic Research Centre, Mumbai, during Jan. 12 to Jan 14, 2008.
2. Awareness Workshop on 'Low Temperature and High Magnetic Field Facilities at CSR Indore' organized by UGC-DAE Consortium for Scientific Research, Indore, during Dec. 10 to Dec. 12, 2007.
3. Workshop on "Physics with Homemade Equipment and Innovative Experiments" from 12th Nov 2007 to 17th Nov, 2007 at IUAC, New Delhi.
4. Awareness Workshop on 'The facilities of UGC-DAE CSR at CSR Indore' organized by UGC-DAE Consortium for Scientific Research, Indore and Department of Physics, University of Rajasthan, Jaipur , during Nov. 18 to Nov. 19, 2005.
5. Workshop on "Utilization of Energetic ion beams for materials research" organized by IUC-DAEF and MSD, IGCAR, Kalpakkam, during July 29-31, 2003.
6. Workshop on for "Upgrading PG Laboratories", organized by CDPE, University of Rajasthan, Jaipur, during June 11-14, 2003 .
7. Three Day Need Assessment Orientation workshop from 21-08-1995- to 23-08- 1995 at *Academic Staff College, University of Rajasthan, Jaipur.*
8. Workshop on "*Computational Techniques in Neutron scattering*" conducted by the *IUC-DAEF, Indore*, during 03-03-1995 to 15-03-1995.

FELLOWSHIPS

1. Project Assistant (28-10-91 to 5-5-92) in an IUC-DAEF Research Project Sanctioned to Dr. B. K. Srivastava, Professor, Department of Physics, University of Rajasthan, and Jaipur.
2. Junior Research fellowship (from 6-5-92 to 27-10-93) in an IUC-DAEF research project "Study of magnetic structure of some 3d metal alloys" Sanctioned to Dr. B. K. Srivastava, Professor, Department of Physics, University of Rajasthan, Jaipur.
3. Senior Research fellowship (from 28-10-93 to 31-03-95) in an IUC-DAEF research project" Study of magnetic structure of some 3d metal alloys" Sanctioned to Dr. B. K. Srivastava, Professor, Department of Physics, University of Rajasthan, Jaipur.
4. Senior Research fellowship (from 01-04-95 to 30-07-97) in IUC-DAEF research project" Study of magnetic structure of some transition metal - metalloid alloys" sanctioned to Dr. B. K. Srivastava, Professor, Department of Physics, University of Rajasthan, Jaipur.

Academic Staff College Orientation/Refresher Course attended

S.No.	Name of the Course/ Summer School	Place	Duration	Sponsoring Agency
1.	Refresher Course in Material Science	University of Rajasthan, Jaipur	10- 08- 2009 to 29- 08- 2009	Academic Staff College, University of Rajasthan, Jaipur
2.	Refresher Course in Information Technology	University of Rajasthan, Jaipur	13- 02- 2006 to 04- 03- 2006,	Academic Staff College, University of Rajasthan, Jaipur
3.	Refresher Course in Experimental Physics	Department of Physics, Goa University, Goa	29-10-2001 to 12-11- 2001.	Indian Academy of Science, Bangalore
4.	UGC Orientation Course	University of Rajasthan, Jaipur	02-07-2001 to 28-07-2001	Academic Staff College, University of Rajasthan, Jaipur