

## FACULTY PROFILE

### Personal Details:

Name: Dr. Sadhna Singh  
Designation: Associate Professor  
Department: Department of Physics, Barkatullah Univ.  
E mail ID: **drsadhna100@gmail.com**  
Phone: +91-755-2517117 (O).  
+91-755-2422922(R)



Fax:

### Academic Details:

Experience: (a) Research : 33 Years  
(b) Teaching : 23 Years  
NET/JRF: JRF: 1988-89 MPCST, Bhopal  
SRF: CSIR 1989-1991  
PDF: **1. Research Associate UGC: 1991-1996**  
**1991-1993 at Barkatullah Univ.**  
**1994-1996 at IIT Delhi**  
**2. Young Scientist Project DST: 1997-2000 at IIT Delhi**  
**3. Pool Officership CSIR: 2000-2003 at IIT Delhi**

PhD: Bhopal University, Bhopal (1990)  
M. Sc. 74%, 1st Div., Bhopal University, Bhopal (1983) II position in Merit list of Univ.  
B. Sc. 68%. 1st Div Bhopal University, Bhopal (1981)  
HSSC 72% M.P. Board

### Awards/Fellowships/Training/Workshops attended:

a. YOUNG SCIENTIST AWARD (1990) : Instituted by MPCST, Bhopal  
b. Young Scientist Project : DST, New Delhi  
c. Pool Officer ship : CSIR, New Delhi

c. Training/ Summer Course attended:

- Participated in workshop on Innovations and Good Practices in Institutional Governance of Higher Education at National Institute of Educational Planning and Administration (NIEPA), New Delhi Feb28-March02, 2019
- Workshop on “Community Engagement and Rural Immersion Curriculum Development” Organized by Mahatma Gandhi National Council Of Rural Education, Hyderabad, 17<sup>th</sup> January,2019
- Workshop- Centre of Excellence Workshop for HODs of Universities for The World Bank Project (MPHEQIP),20<sup>th</sup> April 2018, RCVP Naronha, Prashasan avam Prabandhakiya Academy, M.P.Bhopal
- Refresher course on Experimental Physics by Academy of Sciences Bangalore at Physics Dept, Barkatullah University, Bhopal. Sept 2013
- Orientation Course by Academy Staff College, Jabalpur at MPBOU, Bhopal 2006.
- Local Organizing Committee Member in 51<sup>st</sup> Solid State Physics Symposium sponsored by DAE,GOI, Dec26-30, 2006
- Participated in VIII International Workshop on Physics of Materials held at B.U. 22<sup>nd</sup> Jan -31<sup>st</sup> Jan1990.
- Participated in VI International Workshop on Physics of Materials held at Jamia Millia Islamia ,New Delhi 22<sup>nd</sup> Nov -5<sup>th</sup> Dec1987.
- Module -I on Computer Programming & Programming Methodology, conducted by Technical Teachers Training Institute (TTTI), Bhopal from 17<sup>th</sup> Feb. 1986 to 24<sup>th</sup> March 1986.
- Workshop on High Temperature Superconductivity held at B.U. Bhopal Dec 18-19 , 1986
- Six Week Program on Data Processing Techniques. 5<sup>th</sup> Nov to 13<sup>th</sup> Dec 1985,TTTI Bhopal

**Research Interests:**

Condensed Matter Physics:

- High Pressure Structural Phase Transition in Solids.
- Relative stability of Structures
- Polytypism
- Mechanical Properties

- Rare Earth Compounds
- Semiconductors
- Light metal compounds
- Lanthnides, pnictides,Chalcogenides
- Mixed Crystals
- Elastic Properties under High pressure
- High Temperature Phase Transition
- Various properties under Temperature

### **Research Projects:**

#### a. Ongoing:

- i. UGC SAP Program , Rs 70 Lakh (2018-2023);Presented SAP proposal
- ii. DST-FIST Program , Rs 151 Lakh(2018-2023);Presented FIST proposal

#### b. Completed:

- i. Phase Transition and Polytypism in Refractory Compounds.Rs 6 Lakh,Young Scientist Project , Funded by DST New Delhi. (1997-2000) at IIT New Delhi
- ii. Structural stability..... chalcogenides. Rs 4.52 Lakh funded by MPCST, Bhopal,2007-2010.At B.U. Bhopal
- iii. Study of..... Compounds. Rs10.27 Lakh funded by UGC, New Delhi (2010-2013). At B.U. Bhopal
- iv. High Pressure phase.....actinide compounds. Rs 10.85 Lakh funded by Department of Atomic Energy, BRNS, Mumbai ,(2009-2014) At B.U. Bhopal
- v. The Study of Structural and .....rare earth compounds. Rs 4.48 Lakhs funded by MPCST , Bhopal (2013-2016). At B.U. Bhopal

### **Papers in Journals /conferences**

National/International: 223

Citations: 1283

h-index: 19

i10- index: 40

### **Conferences attended:**

- a. International - 27
- b. National -31

**Member of Professional bodies:**

- Member Board of studies in Physics, Barkatullah University, Bhopal.
- Member Board of studies in Electronics, Barkatullah University, Bhopal
- Member Board of studies in Physics, MPBOU, Bhopal.
- Member Academic Council, B.U, Bhopal.
- Member Academic Council, MLB College, Bhopal
- Member Board of studies in Physics, Sat Sai Girls College, Bhopal
- Member Academic Council, SNGG College, Bhopal
- Life Member Indian Science Congress