



D.Phil. :Allahabad University
Post Doctoral Fellow: University des Saarland, Germany
Visiting Scientist:

- *Indian Institute of Technology, Roorkee: 1999*
- *Technical University, Ilmenau (GER.): 2010*
- *O. V. Guericke, University, Magdeburg (GER.) 2013*

Fax./Tel. :0581/2522200 (Lab.); 2520024(off.)
Email:dsudhirkumar_in@yahoo.com

RESEARCH AREA

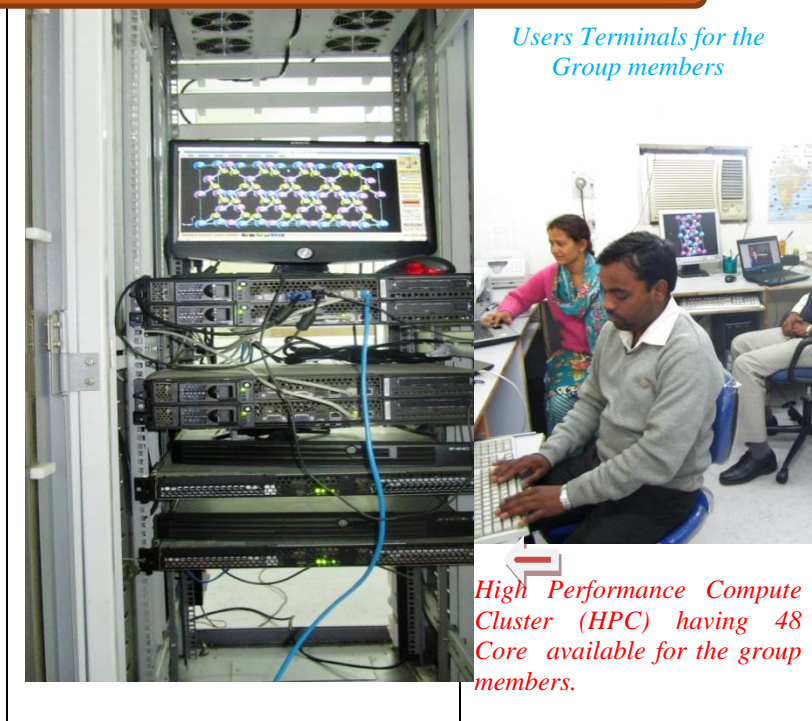
The main research activities of our team within Applied Physics Department, Faculty of Engineering and Technology, M.J.P. Rohilkhand University include the following:

- Theory of photovoltaic semiconductors
- Statistical and electronic theory of semiconductor alloys
- Defect properties of graphene
- Apply appropriate methods to predict material properties of novel semiconductor alloys and design materials with prescribed physical properties. Alter physical properties of a materials through defect control.

EXPERTISE

1. Using modern computational techniques like empirical LCAO and state of art methods like FPLMTO, LMTO-ASA, , Quantum ESPRESSO and FPLO etc.
2. Presently we are using VASP and FPLAPW code for predicting materials properties.

COMPUTATIONAL FACILITIES



RESEARCH FUNDS

AICTE, DST, UGC and DRDO, New Delhi




Foreign Visit

Germany (3), USA, Italy (2), Singapore, Iran etc

Fellowship Awarded

DAAD-Germany(1993);ICTP-Italy(1999);INSA-IITR(1999); ICTP-Iran(2005); DAAD-Germany(2010), INSA-DFG-Germany (2013)

Ph.D./D.Phil. Students

	<i>Satyam S. Parashari Awarded 2009</i>	<i>Electronic and Optical properties of III-V and II-VI Semiconducting compound</i>
	<i>Tarun Kumar Maurya Awarded 2009</i>	<i>Electronic and optical properties of selected semiconductors and their alloys.</i>
	<i>Swatantra K. Gupta Awarded-2012</i>	<i>Structural, electronic and optical properties of stable high pressure phases of semiconducting compounds.</i>
	<i>Mrs Suman Pandey</i>	<i>Electronic and optical properties of defects in chalcopyrite compounds</i>

Invited Talk re

<i>Hamburg Universität (GERMANY) -</i>	Prof. G.Thummes
<i>Universität des Saarland (GERMANY) -</i>	Prof S. Hufner
<i>Ishfahan University of Technology(IRAN)-</i>	Prof. H.Akbarzadeh
<i>Bareilly College, Bareilly (Invited Talk)</i>	SCSM- 2009
M.J.P Rohilkhand University(InvitedTalk)	SCAM2010
<i>TechnischeUniversität, Ilmenau (GERMANY) :</i>	Prof. Dr. G. Gobsch, 2010
<i>Friedrich-Schiller-Universität,Jena (GERMANY):</i>	Prof. Dr. F. Bechstedt, 2010
<i>Julius Maximilian Universität, Würzburg (GERMANY):</i>	Prof. Dr. FridrichReinert, 2010
<i>TechnischeUniversität, Ilmenau (GERMANY) :</i>	Prof. Dr. G. Gobsch, 2010
<i>The M.S. University, Baroda, Vadodara (Invited Talk)</i>	Prof. A.C. Sharma, 2011
Banaras Hindu University, Varanasi	Prof. O.N. Srivastava, 2012
<i>Julius Maximilian Universität, Würzburg (GERMANY):</i>	Prof. Dr. FridrichReinert, 2013
<i>Otto Von Guericke, University, Magdeburg (GERMANY):</i>	Prof. Rudiger Goldhahn, 2013

Senior Scientist Visited to Our Research Group

- *Prof. K.L. Yadav* *Physics Department, IIT Roorkee*
- *Prof. O.N. Srivastava:* *Physics Department, BHU*
- *Prof. AbhijeetMookherjee* *Physics Department, S.N.B. Calcutta*
- *Prof. Niraj. Khare* *Physics Department, IIT Delhi*
- *Prof. A.C Sharma* *Head, Physics Department, MS University, Vadodra*
- *Prof. Raja Ram Yadav* *Physics Deptment, Allahabad University*
- *Prof. Amit Roy* *Director, Inter University Accelerator Centre, New Delhi*
- *Dr. Pravin Kumar* *Scientist, Inter University Accelerator Centre, New Delhi*

RESEARCH COLLOBRATORS



Prof. S. Auluck, NPL
New Delhi
www.iitk.ac.in/phy/New01/profile_SA.html



Prof. Dr. G. Gobsch
Experimental Physics I
Technical University Ilmenau,
GERMANY
<http://www.tu-ilmenau.de/exphys1>



Prof. R. Goldhahn
Otto-von-Guericke-University
Department of Experimental Physics/Material Physics
39106 Magdeburg, GERMANY
hydra.nat.uni-magdeburg.de/amp



Prof. Dr. Friedrich Reinert
Experimentelle Physik 7 (EP7)
Universität Würzburg
D-97074 Würzburg, GERMANY
www.physik.uni-wuerzburg.de

OTHER EXPERIENCE

- *A. Dean Student Welfare, Faculty of Engineering and Technology, 1996 –2000*
- *Member of Executive Council, M.J.P. Rohilkhand University (2),*
- *Organised National Seminar (2003, 2010)*
- *Head of the Applied Physics, M.J.P. Rohilkhand University*
- *Inviting eminence Prof. regularly to deliver talk (mainly research talk)*