

#### Prof. Sunil Kumar Sharma I

M.Sc. Physics (Specialization in electronics) (1984) I<sup>st</sup> division Ph.d Physics (1990) {Prior high school and intermediate in I<sup>st</sup> division and B.Sc. I<sup>st</sup> division from Dehradun (1981)}

<u>Title of the Ph.d thesis</u> "MULTIELEMENT THIN FILM STUDIES" Institute of advance studies C.C.S. University Meerut U.P.

#### **Specialization area of research**

Thin film technology, solar cell, polymers, carbon technology, xero radiography

### Position held and experience

- 01. Head Department of Physics (from 20.08.2014 to 03.10.2020), (from 01.07.2021 to 22.10.2021).
- 02. Member Board of Studies (BOS) Physics of CCS University Meerut, from 31.01.2020 to Two Years.
- 03. Convener II Board of Studies (BOS) Physics of CCS University Meerut, from 19.05.2022 to Two Years.
- 04. Convener (Research) II Physics of CCS University Meerut, from 13.03.2022 to Two Years.
- 05. Head Examiner Physics CCS University Meerut letter dt.12.01.2016.
- 06. Worked as a Proctor, Chief Proctor, Dean Student Welfare, Convener Anti ragging Committee, Convener Sport Committee Member Admission Committee.
- 07. Helped for student seminars, cultural activities, carrier counseling.
- 08. Awarded a letter of appreciation on Teacher's day ie 05.sep.2021 by Honorable Vice Chancellor CCS University Meerut.

#### Ph.d thesis evaluated

- "Electronic and vibrational spectral studies of some substituted pyridines" H N B Garhwal University Srinagar (Garhwal) Uttaranchal.
   Candidate name: - Manoj kumar sharma
- 2. "Studies on Elastic properties of pure and mixed ionic crystals" Dr. B.R. Ambedkar University Agra Candidate name :- Sarvind kumar singh

3. "Study of geometrical, electronic structure, spectral and NLO properties of some phnthalonitrile dye sensitizers for salar cells Periyar University salem, Tamil Nadu India Candidate name:- K. Vasudevan

#### Research

P.G Dissertation

under supervision of Prof. S.K Sharma I

01. "IONOSPHERE"

Submitted to Dept. of Physics N.A.S (P.G) College Meerut-1993-94 by Ashok Kumar Sharma

- 02. "THEORETICAL SURVEY OF THE INTEGRATED CIRCUITS" Submitted to Dept. of Physics N.A.S (P.G) College Meerut. 1993-94 by Akshay Kumar Sharma
- 03. "LASERS"

Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2013-14 by Kanika Arora.

04. "NANOTECHNOLOGY"
Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2016-17 by Ashwani Sharma.

05. "LASER"

Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2016-17 by Rohit Kumar.

- 06. "THE GREAT INDIAN SCIENTIST SIR C.V. RAMAN. Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2014-15 by Nisha Sharma.
- 07. "S.N.BOSE"

  Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2014-15 by Yatharth Tyagi.
- 08. "THE LASER INTERFEROMETER GRAVITATIONAL WAVE OVSERVATORY AND THE FIRST DIRECT OBSERVATION OF GRAVITATIONAL WAVES"

Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2017-18 by Rohit .

09. "SUBMARINE"

Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2016-17 by Saloni Singh.

10. "QUANTUM SIZE EFFECTS IN NANOSTRUCTURE" Submitted to Dept. of Physics N.A.S (P.G) College Meerut-2016-17 by Namrata Bansal.

### Research guidance

Following research scholars got their Ph.d degree

- 1. Ishwar Dayal Sharma (30/11/2013) Topic-"Electrical and optical.....substances".
- 2. Vivek Yadav (24/04/2013) Topic- "Optical structural..... for device application".
- 3. Jitendra Singh (19/11/2012) Topic- "Study of conducting.....thin films".
- 4. Pushpendra Singh(26/07/2012) Tppic- "Effect of dopants on....polyaniline".
- 5. Nempal Singh (25/05/2012) Topic- "Characterization of semiconductor...application".
- 6. Nirdesh Kumar Singh (25/05/2012) Topic- "optical structural and thermal.....In2Se3xTe3(1-x)".
- 7. Hariom Dwivedi (27/07/2002) Topic- "Studies on the roleof...carbon-carbon composites".

### **Other achievements**

### Research experience

- 1986 up to date (37 Years)
- 1988 (joined) presently working as Professor P.G. Department of Physics N.A.S. College Meerut.

### **Awards**

1984-85 Teacher"s National Scholarship Awardee

1984-85 M.Phil Scholarship Awardee

1985-1988 Research Scholar Deptt. of Physics (Institute of Advance Studies. CCS University Meerut JRF, SRF Awardee)

## Membership professional bodies

- Life member Indian association of physics teachers(IAPT) letter no 8830, Date 19.08.2001
- Convener Raman Society department of physics N.A.S. College Meerut

### **Honors Awards**

- Vigyan Sancharak Award-2001 by District Magistrate Meerut.
- Secretary ICAM-2000 (International conference on advance materials) Dec.26-28,2000
- Member (Nirnayak Mandal Meerut) National children"s conference (NCSE) U.P

### Extra curricular activity

- General science quiz conducted at CCS University Meerut 1998.
- NCC Officer (C/T) 71-U.P. Batalian NCC N.A.S. College Meerut 1997-2000.
- NSS Officer N.A.S. College Meerut (July 2005 to July 2008).
- Manager Table Tenis team CCS Univ. Meerut held at Nauni-solan H.P. 1995-96.
- Manager Hockey (women) team CCS Univ. Meerut held at G.N.D. University Amritsar 2009-10.
- President Teacher's Association N.A.S. College Meerut.
- District representative, Joint Secretary, Special invitee CCS UniversityTeacher's Association MUTA Meerut.
- Member Innovation Monitoring Committee Meerut U.P. as appointed by District Magistrate Meerut 2017.
- Worked as a Proctor, Chief Proctor N.A.S. College Meerut.
- Worked as DSW N.A.S. College Meerut.
- Worked as a Member of CCS University flying Squad and 2022-23.

### **PUBLICATIONS**

- 1. "Study of Cu doping on PbS Thin Films"

  Modern Physics Letters B.Vol.3 No.11 (1989) 825-828.
- 2. "Optical properties of Indium Selenide Films" Indian Journal of Pure and Applied Physics Vol.28, Aug,1990, pp. 486-489.
- **3.** "Photo conduction in amorphous selenium alloy films" Indian journal of technology Vol.28, May (1990) pp. 205-207.
- **4.** "On the validity of Vegard's Law in selenium tellurium films" Physics of semiconductor devices Krishan Lal (Ed.) copy right (1993) Narosa Publishing House, New Delhi pp. 505-507.
- **5.** "Electrical Switching and structural analysis of alloy thin films" Indian journal of Pure and Appl. Physics Vol.35, Aug. 1997 pp. 508-513.
- **6.** "Characterization of PANI/CdS/Glass Multilayer system" Electroactive Polymers, Materials and devices S.A. Hashmi Vol.3 (2009), pp. 281-286.
- 7. "Characterization of PANI/ZnS/Glass Multilayer system" International journal of physics and research (IJPR) ISSN 2250-0030 Vol.2 issue 4 Dec. 2012 pp. 9-13 @ TJPRC Pvt. Ltd.

# 8. "Synthesis of nanostructured polyanilline for opto electric devices and gas sensing applications"

AIP conf. Proc 1536, 745 (2013) doi 10.1063/1.4810442 published by American Institute of Physics.

# 9. "Synthesis and Characterization of Dodecyl benzensulfonic acid doped polyaniline"

International journal of Applied Engineering Research ISSN 0973-4562 Volume 9, Number 1 (2014) pp. 29-34.

# 10. "Thermal Properties of Indium Chalcogenide Thin films Preparied by dropes quenching technique (396-402)" Glimpses Vol-08 No-11,2018

## 11. "Photoelectrical behavior of spray of deposited CdxS1-x Thin Films"

Presented at National Conference on POSAD held at B.H.U. Varanasi India (1985).

### 12. "Heavy doping effect on PbS films"

Presented at 7<sup>th</sup> International conference on Thin Films at New Delhi Dec. (1987).

#### 13. "Selenide Thin Films"

Presented at International Conference and Intensive tutorial course on semiconductor materials at New Delhi, Dec. 1988.

### 14."Optical properties of selenium tellurium compounds"

Presented at International Conference and Intensive tutorial course on semiconductor materials at New Delhi, Dec. (1988).

## 15. "Compositional analysis of CdxZn1-xS Thin films by Vegard's Law.

Presented at National Conference on "Recent Developments in Solid state materials related to devices, March 3-5 1994 held at Roorkee.

# 16. "Band gap measurement of sintered CdxSe1-x films from reflectance measurement Sachin Kumar Sharma, Vipin Kumar, Sanjeev Kumar Kaushish, T.P. Sharma and S.K. Sharma"

Presented 3<sup>rd</sup> International Conference and Intensive tutorial course on Semiconducter materials and technology (ICSMT"96) held on December 16-21, 1996, University of Delhi, New Delhi, India.

The conference Abstracts published in the proceeding.

# 17. "Role of Different types of Carbon Fibers in the development of Hybrid C/C Composites"

Proc. Indo. German Workshop on high temperature fiber composite materials pp. 97-104, Banaras Hindu University, Varanasi-221005 (India) 11-15 September, (2000).

# 18. "Structure-Property Relationship in PANEX Based carbon Fibers"

Presented at International conference on Advance Materials held at C.C.S. University, Meerut, Dec. 26-28, 2000.

### 19. "Structural Property of Composite SeAs-SeTe Alloy films"

Presented at International Conference on Advanced Materials held at C.C.S. University, Meerut, Dec. 26-28, 2000.

## 20."II-VI Alloy thin films for solid state devices application"

Presented at International Conference on Advance Materials held at C.C.S. University, Meerut Dec. 26-28 2000.

# 21. "Influence of Pyro Carbon Coating of H.M. Carbon fibres on the mechanical properties of C/C composites prepared there form"

Presented at National Conference on Lasers and Spectroscopy (Dec. 28-31, 2000) at N.A.S. College, Meerut (C.C.S. University, Meerut).

#### 22. "Tandom Solar Cells"

On future source of energy published in proceeding of the National Seminar held at yamunagar India (1988).

## 23. "Some aspects on non-conventional energy sources"

Published in proceeding of the National Seminar on future sources of energy held at Yamunagar India (1988).

# 24. "Measurement of Thermal Conductivity and Thermal diffusivity of Poly crystalline INDIUM CHALCOGENIDE In2Se3xTe3(1-x) (X=0, .2, .4, .6 and .8) at room temperature"

Published in the proceeding of National Conference on "New Approach in chemical sciences & Advancement In Renewable Energy" department of Chemistry SRM University Delhi NCR Campus pp.63-66, 4-5 April, 2014.