

## **Brief Bio-data of Dr. Mahendra Singh Dhaka**

**Date and Place of Birth:** October 10, 1975 at Sigara, Jhunjhunu (Rajasthan, India)

### **Academic Record:**

1. B.Sc. (Phys., Chem., Maths), 1<sup>st</sup> Division, M.D.S. University, Ajmer, 1996
2. M.Sc. (Physics), 1<sup>st</sup> Division, M.D.S. University, Ajmer, 1998
3. M.Phil. (Physics), 2<sup>nd</sup> Division, University of Rajasthan, Jaipur, 1999
4. NET (Physical Sciences), CSIR, New Delhi, June-2000
5. Ph.D. (Science), University of Rajasthan, Jaipur, 2010 on “Electronic structure studies of some compounds of transition metals by Compton scattering technique”



### **Professional Record:**

1. Professor of Physics, Mohanlal Sukhadia University, Udaipur (20/12/2015-till date).
2. Associate Professor of Physics, Mohanlal Sukhadia Univ., Udaipur (17/03/12-19/12/15).
3. Assistant Professor/ Lecturer, Department of Physics, Engineering College Bikaner (10/03/05-16/03/12), Shekhawati Engineering College, Dundlod (01/07/03-09/03/05), S.B.D. Todi College, Laxmangarh, Sikar (21/09/02-28/02/03), Vinodini College, Khetri, Jhunjhunu (01/09/01-28/02/02 & 03/10/2000-28/02/01) and Alok College of Science, Kekri, Ajmer (11/10/99-30/09/2000).

### **Positions held:**

1. Coordinator, Flying Squad, Mohanlal Sukhadia University, Udaipur (2023-2024)
2. In-Charge, DSIR Cell, Mohanlal Sukhadia University, Udaipur (2018-2021)
3. Member, Research Advisory Committee, M.L.S. Univ., Udaipur (2018-2021)
4. Dean, Students' Welfare, Mohanlal Sukhadia University, Udaipur (2019)
5. Convener/ Member(s), Several Enquiry/General Committees, M.L.S. University, Udaipur
6. Head, Department of Physics, Engineering College Bikaner (2006-2011)
7. Head, Sports & Games, Engineering College Bikaner (2005-2011)
8. Welfare Officer, Engineering College Bikaner (2006-2012)
9. Public Relation Officer, Engineering College Bikaner (2007-2010)
10. Head, Department of Physics, Shekhawati Engineering College, Dundlod (2003-2005)

### **Current Positions:**

1. Professor, Department of Physics, Mohanlal Sukhadia University, Udaipur-313001 India

### **Awards/ Fellowships:**

1. Dr. P.C. Vyas Fellowship Award of Rajasthan Science Congress (2022).
2. Raman Fellowship of the University Grants Commission, New Delhi for one year (2015-16) to pursue Postdoctoral research work on solar cells at Iowa State University, USA.
3. Need-cum-Merit Scholarship of the College Education Directorate, Govt. of Rajasthan during M.Sc. (1996-98).

### Nominations/ special achievement:

1. **Assessor**, National Assessment and Accreditation Council, Bangalore (2019-Onwards).
2. **UGC nominee**, Governing Body, PSG College of Technology, Coimbatore, Tamilnadu for six years (2016-2022).
3. **Expert member**, Selection Committee for Assistant Professor, College Education at Rajasthan Public Service Commission, Ajmer, 2018.
4. **Expert member**, Selection Committee for Assistant Professor, Associate Professor and Professor (CAS) at The M.S. University of Baroda, Vadodara, 2018.
5. **Expert member**, Selection Committee for Assistant Professor of Physics and Computer Science, Dayalbag Educational Institute, Agra, 2021.
6. **External Member**, Board of Studies (Physics), M.D.S. University, Ajmer (2020-2022).
7. **External Member**, Board of Studies (Applied Science), Bikaner Technical University (2021-onwards).
8. **External Member**, Board of Studies (Basic Science), College of Technology & Engineering, M.P. University of Agriculture & Technology, Udaipur (2024-2027).
9. **External Member**, Board of Studies (Physics), P.D.U. Shekhawati University, Sikar (2022-2025).
10. **Member**, Committee of Courses (Physics), M.L.S. University, Udaipur (2022-2025).
11. **Member**, Board of Studies (B. Tech. 1<sup>st</sup> Year), Rajasthan Technical University, Kota (2006-2009).
12. **Opted Member**, Screening Committee, State University Research Excellence (Physical Sciences) Scheme, Science and Engineering Research Board, New Delhi (2022-2024).

### Research Papers Published:

Journals: 116, AIP and IEEE Conf. Proc.: 25, Citations: 3230, h-index: 32, i10-index: 69  
With highest impact factor (20.3, Coordination Chemistry Reviews **446**, 2021, 214115)  
Total impact factor: 398.8, average impact factor: 3.44 (Clarivate Analytics, 2024).  
Google Scholar: <https://scholar.google.com/citations?user=tTRg8DYAAAAJ&hl=en>  
ORCID: <https://orcid.org/0000-0002-3824-2764>  
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=36014898200>

### Books/ Conference Proceedings and Abstract Books, Published/ Edited:

Books: 05, Abstract Books: 03, Conference Proceedings: 03

### Research Interest:

Condensed Matter Physics, Materials Science, Thin Films, Solar Cell Devices.

### Reviewer of International Journals:

**Journals: ~65**

Scientific Reports, RSC Advances, Sustainable Energy and Fuels, Materials Science in Semiconductor Processing, Optical Materials, Applied Physics A, Indian Journal of Physics, Physica Status Solidi A, Physics Letters A, Materials Letters, Results in Physics, Journal of Crystal Growth, Micro & Nano Letters, Vacuum, Solar Energy, Energy and

Environment, Materials Science and Engineering B, Journal of Alloys and Compounds, Optik-IJLEO, Materials Research Express, Solar Energy Materials and Solar Cells, Journal of Materials Science, Journal of Materials Science: Materials in Electronics, Energy, Physica B: Condensed Matter, Physica E: Low Dimensional Systems and Nanostructures, Journal of Nanostructures in Chemistry, Journal of Inorganic and Organometallic Polymers and Materials, Thin Solid Films, Phase Transitions, Surface & Coatings Technology, Applied Energy, Rare Metals, Journal of Hazardous Materials, Semiconductor Science and Technology, Materials Science and Technology, Chemical Physics Letters, Journal of Semiconductors, Applied Surface Science, Plos One, Ceramic International, Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy, Infrared Physics and Technology, Journal of Industrial and Engineering Chemistry, Materials Chemistry and Physics, Hardware X, Applied Thermal Engineering, Surface Review and Letters, Current Nanoscience, Journal of Luminescence, Journal of Electrostatics, Current Applied Physics, Journal of Sulfur Chemistry, ACS Applied Electronics, Inorganic Chemistry Communications, Surfaces and Interfaces, Journal of Materials Science, Physica Scripta, ECS Journal of Solid State Science and Technology, Main Group Chemistry, Alexandria Engineering Journal, Materials Advances, iScience, Emergent Materials, Energy Technology etc.

#### Editor of International Journals:

1. **Academic Editor**, PLOS One (IF: 3.75): A Journal of PLOS Family (02/2021-Onwards).

#### Ph.D. Supervised:

##### **Awarded: 12 (Name, title to the thesis and award year)**

1. **Dr. Subhash Chander**, Growth and characterization of cadmium telluride (CdTe) thin films for solar cell applications (2017) *Physics, Supervision*.
2. **Dr. Anuradha Purohit**, Growth and characterization of some II-VI compound semiconductors thin films for optoelectronic applications (2017) *Physics, Supervision*.
3. **Dr. Shankar Lal Patel**, A study of chlorine treatment on physical properties of some II-VI compound thin films for photovoltaic applications (2021) *Physics, Supervision*.
4. **Dr. Himanshu**, A study on effect of doping and chlorine treatment on the physical properties of cadmium based thin films for solar cell applications (2022) *Phys. Supervis.*
5. **Dr. Suman Kumari**, A study on impact of halide treatment on Cd-based thin films for solar cells correlation with grain growth (2022) *Chemistry, Co-supervision*.
6. **Dr. Deepak Suthar**, Growth and characterization of zinc telluride (ZnTe) thin films for solar cell applications (2023) *Physics, Supervision*.
7. **Dr. Gaurav Chasta**, Development of yttria stabilized zirconia electrolyte for thin film solid oxide fuel cell applications (2023) *Physics, Supervision*.
8. **Dr. Reema Agarwal**, Growth and characterization of TiO<sub>2</sub> thin films for dye sensitized solar cell applications (2023) *Chemistry, Co-supervision*.
9. **Dr. Sakshi Chuhadiya**, Development of high performance nanomaterials from metal organic frameworks for solar cell applications (2023) *Physics, Supervision*.

10. **Dr. Ritika Sharma**, Growth and characterization of cadmium zinc telluride (CdZnTe) thin films for solar cells (2023) *Physics, Supervision*.
11. **Dr. Divya Agrawal**, Growth and characterization of Zinc sulphide (ZnS) thin films for solar cell applications (2024) *Physics, Supervision*.
12. **Dr. Kamlesh**, Growth and characterization of In<sub>2</sub>O<sub>3</sub> thin films for sensor applications (2024) *Physics, Supervision*.

**Ongoing: 05 (Name and registration year)**

Mrs. Arushi Sharma (2021), Mr. Pramod Dadheech (2022), Mr. Sanjay Beniwal (2022), Ms. Ekta Yadav (2022), and Ms. Madhavi Suthar (2023).

**Internship Supervised:**

1. **Ms. Kaushalya** (2017), Thermal evolution to physical properties of Zinc sulfide thin films as buffer layer for solar cells (Jamia Millia Islamia, a central University), she is presently Postdoctoral Fellow at Lawrence Berkeley National Laboratory, USA.
2. **Ms. Aarti** (2022), Phase stability in ZnSe thin films as alternative optical window to the thin film solar cell applications (D.C.R. University of Science & Technology, Murthal, a state funded University of Haryana).

**Conferences/ workshops/ symposium/ seminar organized:**

Convener: **04**, Organizing Secretary: **02**, Member Advisory Board: **07**

(Convener, ICCMP-2007, organized at BSIR, Jaipur under the joint auspices of Engineering College Bikaner, University of Rajasthan, Jaipur and University of Bikaner, Bikaner during November 25-28, 2007 where Nobel Laureate Professor Douglas Dean Osheroff, Physics, 1996, Stanford University, USA, Padamshree Dr. S.K. Sikka, Scientific Secy. to the Principal Scientific Advisor to the Govt. of India, Dr. J.V. Yakhmi, Advisor to the Chairman, Atomic Energy Commission, India attended the meet).

**Research and Development Projects:**

Completed: **03**: UGC, New Delhi, Amount: Rs. 11.50 Lakhs (01/04/13-31/03/17)

: SERB, New Delhi, Amount: Rs. 34.42 Lakhs(27/06/18-26/06/21)

: DST, Rajasthan, Amount: Rs. 7.00 Lakhs (01/04/18-31/03/21)

Ongoing: **02**: RUSA-MoE, New Delhi, Amount: Rs. 88.296 Lakhs (01/04/20-onwards)

: SERB, New Delhi, Amount: Rs. 40.31 Lakhs (01/06/24-onwards)

**Overseas visits:**

USA, U.K. and Norway

**Invited Talks:**

Conferences: 11 (one Invited Talk in DAE-SSPS), Refresher and Orientation Courses: 06

**Current Address:**

**Prof. M.S. Dhaka**, E-18, University Quarters, Ashok Nagar Main Road, Udaipur-313001, Rajasthan, mobile: 9414491729, email: [msdhaka75@yahoo.co.in](mailto:msdhaka75@yahoo.co.in)

University home page: [https://www.mlsu.ac.in/fac\\_profile.php?deptid=7&id=316](https://www.mlsu.ac.in/fac_profile.php?deptid=7&id=316)

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