



Dr. Avish Kewal Patil

M. Sc. Physics (Atomic and Molecular Physics), NET-JRF, Ph. D. (Thin film Solar Cell Physics)

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Date of Birth : *11th September, 1988*

Postal address: *13 Patil Vihar, N.I.T. Layout,
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About Profile:

To leverage my extensive background in physics and research, along with my passion for teaching, to inspire and educate students as an Assistant Professor at your esteemed institution. As a driven and dependable professional, I am deeply committed to attaining the highest standards in both teaching and research. My ultimate goal is to motivate students to strive for academic and personal greatness. Through the establishment of a stimulating and supportive learning atmosphere, I aspire to foster a culture where students are inspired to embrace lifelong learning and scholarly pursuits.

Educational Qualifications

- **NET Exam in Physical Science**

Qualified, UGC/CSIR, 2017

- **Ph.D. in Physics**

Specialization: Optical Structural Morphological and Electrical Studies of Synthesized Metal-Nonmetal Thin Films on Glass Substrate

RTMNU (Institute of Science, Nagpur), Awarded (12th September 2016)

Viva-voce: 11th January 2019

Notification: 25th February 2019

- **Post-graduation in Physics (Atomic And Molecular Physics)**

RTMNU (Institute of Science, Nagpur), 2011

Percentage: 74.63%

Teaching Experience

- Postgraduate Level: 7 years
- Undergraduate Level: 13 years
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Professional Memberships

- Life Member, Indian Science Congress
- Life Member, Babasaheb Ambedkar Student Association
- Life Member, Student Welfare Association
- Life Member, Dr. Babasaheb Ambedkar Teachers Association
- Life Member, Vidyapit Shikshan Mancha

Publications

Books	International Journals	National Journals	Conferences Proceedings
02	04	05	21

Books

- Dr. B. M. Suryavanshi, P. B. Dabrase, Dr. G. R. Bedare, A. K. Patil, *Practical Physics B. Sc. Semester-II*, SAI JYOTI PUBLICATION, 2015-16, ISBN 978-93-81432-51-8
- Dr. B. M. Suryavanshi, P. B. Dabrase, Dr. G. R. Bedare, A. K. Patil, *Practical Physics B. Sc. Semester-III*, SAI JYOTI PUBLICATION, 2015-16, ISBN 978-93-81432-92-1

Journals

- Punam Thakur, S. J. Khambadkar, Avish K. Patil, C. M. Dudhe, Pooja Thombare, A. A. Chaudhary, *Characterization and photoluminescence of Dy³⁺ doped CaTiO₃ nanoparticles prepared by sol-gel method*, Indian Journal of Pure & Applied Physics Vol. 56, November 2018, pp. 853-858
- Avish K. Patil, Sachin H. Dhawankar, Swagatika Paul, Bhagwat M. Suryavanshi, Manish P. Tirpude, *Study of Optical energy band gap of ZnS thin films prepared at different substrate temperature*, International Journal of Emerging Technologies in Computational and Applied Sciences, 10(3), September-November, 2014, pp. 204-206, ISSN 2279-0047
- Sachin H. Dhawankar, Avish K. Patil, Jalindhar S. Lad, Bhagwat M. Suryavanshi, *Optical study of ZnS Solid thin film prepared by spray pyrolysis technique*, Archive of Physics Research Vol 4, issues (3), 7-11, 2013, Scholars Research Library, ISSN: 0976-0970
- Sachin H. Dhawankar, Avish K. Patil, Bhagwat M. Suryavanshi, *Optical characterization of CdO thin film on dielectric substrate*, International Journal of Innovative and Applied Research, 2014, volume 2, issues (8): 67 - 71, ISSN: 2348-0319
- Sachin H. Dhawankar, Avish K. Patil, Bhagwat M. Suryavanshi, *Optical properties of ZnO thin film Deposited by spray pyrolysis technique*, Applied Physics Letter, vol 1, issue- 2, 2014, 63-65, ISSN: 2349-1094
- Sachin H. Dhawankar, Avish K. Patil, B. M. Suryavanshi, Manish P. Tirpude, *Growth of Spray Pyrolysis deposited Copper oxide thin film*, International Journal of Physical Research, ISSN: 2307-9010
- Avish K. Patil, Sachin H. Dhawankar, *Optical, Structural and Electrical Properties of CuS Thin Film on Dielectric Substrate by Spray Pyrolysis Technique*, Jordan Journal of Physics [JJP] [ISSN: 1994-7607] e-ISSN: 1994-7615
- Arti Golhar, Avish K. Patil, *Prediction of Aluminum content in a metal using SPSS based linear regression analysis*, IOP Conference Series: Material Science and Engineering (ISSN: 1757-899X)

Conferences

- Avish K. Patil, Sachin H. Dhawankar, P. R. Arjunwadkar, B. M. Suravanshi, *Optical characterization of MoS₂ thin films deposited on glass substance*, UGC Sponsored National Conference on Synthesis & Application of Novel Materials (NCSANM - 2013), VMV Commerce, JMT Arts and JJP Science College, Nagpur, 5th October 2013, ISSN: 2229-4554
- Sachin H. Dhawankar, Avish K. Patil, B. M. Suravanshi, Renu Tripathi, *Synthesized CuS thin film by Spray Pyrolysis Technique*, AICON 2016, CSIT Durg (India), 22nd –

23rd April 2016, ISBN: 978-81-923288-4-3

- Sachin H. Dhawankar, Avish K. Patil, S. B. Gedam, Prashant Dabrase, B. M. Suryavanshi, *Optical energy band gap of ZnS thin films*, All India Conference on “Intelligent System in Physics”, Chhatrapati Shivaji Institute of Technology, Durg, India, 25th - 26th April 2014, ISBN: 978-81-923288-2-9
- Sachin Dhawankar, Avish K. Patil, Bhupesh. T. Borkar, B. M. Suryavanshi, *Study of Optical energy band gap of CdS thin films as function of thickness*, “Global Innovations in Physics” Chhatrapati Shivaji Institute of Technology, Durg (C.G), 12th - 13th April 2013, ISBN: 978-81-923288-1-2
- Sachin Dhawankar, Avish K. Patil, S. B. Gedam, B. M. Suryavanshi, *Optical characterization of synthesized Fe₂O₃ thin film on glass substrate*, UGC Sponsored International Conferences “Emerging Horizons in Biochemical Sciences and Nanomaterials” (EHBCSN-2013), Shri Shivaji Madavidyalaya, Barshi, Dist- Solapur, Maharashtra, India, 28th - 30th November 2013
- Avish K. Patil, Bhupesh T. Borkar, B. M. Suryavanshi, of MnS and AgS thin films pyrolysed on glass substrate *Studies of Optical energy band gap of MnS and AgS thin films pyrolysed on glass substrate*, UGC Sponsored International Conferences “Emerging Horizons in Biochemical Sciences and Nanomaterials” (EHBCSN-2013), Shri Shivaji Madavidyalaya, Barshi, Dist- Solapur, Maharashtra, India, 28th -30th November 2013
- Avish K. Patil, Bhupesh T. Borkar, B. M. Suryavanshi, *Synthesis and characterization of CdS thin films*, National Seminar on Material Preparation and Characterization; Nanoparticle and Future Trends (NAFT 2013), Sindhu Mahavidyalaya, Nagpur, ISBN: 978-93-82351-20-7
- Avish K. Patil, S. B. Gedam, J. S. Lad, B. M. Suryavanshi, *Study of microscopic relaxation time and dipole moment of acetone molecules at room temperature at microwave frequency*, National Seminar on Material Preparation and Characterization; Nanoparticle and Future Trends (NAFT 2013), Sindhu Mahavidyalaya, Nagpur, ISBN: 978-93-82351-20-7
- Avish K. Patil, G. R. Bedare, V. D. Bhandarkar, B. M. Suryavanshi, *Studies of acoustical and thermodynamic properties of binary mixtures at 303K and 4 MHz frequency*, National Symposium on Ultrasound (NSU-XX), Renwasha University, Cuttak, Odisha, 24th - 25th January 2014, ISBN: 978-81-926579-1-2
- Avish K. Patil, Mangesh Thakare Butea Monosperma Mediated Green Synthesis Of Metallic Nanoparticles, Characterization And Their Applications: A Review New Horizons And Trends In Chemical Sciences [ICNHTCS-2022] Department of chemistry, DRB Sindhu Mahavidyalaya, Nagpur
- Avish K. Patil, Sachin Dhawankar, S. P. Dange, V. P. Gondane Different parameter characterization of spray pyrolysis deposition CoS thin Film *National conference on*

*Multidisciplinary Research and studies ; Nanoparticle and Future Trends (NCMRS 2024),
Jawaharlal Nehru Arts Commences and Science college Wadi, Nagpur, 20th march 2024
ISBN: 978-93-82351- 20-7*

Workshops & Technical Skills

- Participated in 16th national workshop on “Catalysis for Sustainable Development” held at CSIR-NEERI, Nagpur, 4th - 5th February 2014, under the aegis of Catalysis Society of India
- Participated in the “Short Course on Spectroscopic Ellipsometry” held on 16th - 17th October 2014 at Indian Institute of Technology Madras, Chennai
- Participated in UGC Sponsored “Interaction Program for Ph.D. Scholars” held on 2nd - 22nd January 2015 at Academic Staff College, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur
- Participated in One week (30 hours) Workshop on “Research Methodology and Statistics” held on 28th November - 3rd December 2015 at Department of Physics, R.T.M. Nagpur University, Nagpur

References

Available upon request.