


<b>Name</b>	<b>Dr. Yogendra Kumar Gautam</b>		
<b>Designation</b>	Assitant Professor (Level-11)		
<b>Department</b>	Physics		
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### Educational Qualification

Degree	Institution/University	Year	Division	Subjects
<b>Ph.D.</b>	Indian Institute of Technology (IIT) Roorkee, India	2013	Awarded	Thesis title “ <b>Experimental Investigation of Hydrogen Effect on Selected Nanostructured Coatings</b> ”
<b>M.Tech.</b>	Indian Institute of Technology (IIT) Delhi, India	2007	First	<b>Solid State Materials (SSM)</b> , Project title “ <b>The Study of Dielectric Properties of Polymer Composite</b> ”
<b>M.Sc.</b>	ChaudharyCharanSinghUniversity(CCSU), CampusMeerut, U.P. India	2004	First	Physics (Electronics)
<b>B.Sc.</b>	Chaudhary Charan Singh University (CCSU), Meerut,U.P. , India	2002	First	Physics, Chemistry, Mathematics

### Academic Experience

Designation	Institution/Organization	Duration
Assistant Professor (Level 11)	Chaudhary Charan Singh University (CCSU), Campus Meerut, U.P. (INDIA)	2 March 2019 - Present
Assistant Professor (Level 10)	Chaudhary Charan Singh University (CCSU), Campus Meerut, U.P. (INDIA)	2 March 2015 - 1 March 2019
Assistant Professor(Level 10)	Jaypee University of Engineering & Technology (JUET), Raghogarh, Guna, Madhya Pradesh (India)	3 July 2013 - 28 Feb 2015
Research Associate (CSIR-RA)(Postdoc)	Indian Institute of Technology (IIT) Roorkee, India	Feb 2013 - June 2013

<b>Research Interest: Nanostructured Materials/Thin Films</b>	<b>Experimental Skills</b>
<ul style="list-style-type: none"> <li>❖ Hydrogen &amp; Toxic gases Sensors</li> <li>❖ Solid State Hydrogen Storage</li> <li>❖ Supercapacitors</li> <li>❖ Solar Cells</li> <li>❖ Green Synthesis of Nanomaterials</li> <li>❖ Photocatalytic &amp; Antimicrobial Activity</li> </ul>	DC/RF Magnetron Sputtering, Pulse Laser Deposition, Spin Coating, Thermal Evaporation. Hydrothermal Method, Vacuum Technology, X-Ray Diffraction, Scanning Probe Microscopy (SPM), Scanning Electron Microscope (SEM) & EDAX, Electrical (I-V) Measurement, Hydrogen Storage, Elastic Recoil Detection Analysis (ERDA).
<b>Teaching Assignments</b> <b>(PG Programme)</b>  <b>(Ph.D. Programme)</b>	Mathematical Physics, Statistical Physics, Atomic & Molecular Physics, Computational Methods & Programming, Nuclear Physics, Electronic Devices, Special Papers of Electronics, Physics of Nanomaterials, Condensed Matter Physics. Materials Science & Energy Devices. Research Methodology.

## Research Supervision

Degree Programme	Awarded	Submitted	Working
Ph.D.			4
M. Phil.	13		

## Research Projects Handled

Sr. No.	Title of Research Project	Name of Funding Agency	Grant (Lakhs)	Period	PI/Co-PI
1	Study of hydrogen gas sensing properties of selected nanostructured coatings	University Research Grant Scheme (URGS), CCSU Meerut	2.0	2022-24 (on going)	PI
2	Development of toxic gas sensors using biosynthesized semiconducting metal oxide nanostructures	Council of Higher Education, Government of UP, India	3.40	2021-2024 (on going)	Co-PI
3	Investigation of nanostructured metal oxide thin films for hydrogen gas sensing applications	UGC Start-up Grant, Government of India	6.00	2016-2018	PI













## Administrative Responsibilities and Duties

- Member of Internal Quality Assurance Cell (IQAC), CCS University Meerut.
- Currently working as Assistant Proctor, CCS University, Meerut.
- Currently working as Nodal officer of “Advantage Ghaziabad”, Under Startup Cell and Incubation Center (SCIC), CCS University Campus Meerut.
- Currently working as Member of the UG (NEP) Cell, CCS University Campus Meerut.
- Currently working as Coordinator of the Startup Cell, under Institute Incubation Center (IIC), CCS University Meerut.
- Currently working as Member of the Research Development Cell, CCS University Campus for the implementation of “NEP-2020”.
- Currently working as Member of the National Institutional Ranking Framework (NIRF) committee for CCS University, Meerut
- Worked as Assistant Controller in CCS University, Meerut central evaluations.
- Worked as Member of Flying Squad team in CCS University, Meerut examinations.
- Worked as Coordinator & Member of various committees time to time constituted by Sahityik Sanskritik Parishad, CCS University, Meerut.
- Worked as Observer of B.Ed. state (U.P.) level entrance examinations.
- Worked as Observer & Supervisor in the entrance examinations of different Universities.
- Worked as Member, admission committee for Department of Physics, CCS University, Meerut.
- Worked as Coordinator of Physics Association (A.Y.2016-17 & 2021-22), Department of Physics, CCS University, Meerut.

## Fellowship/Awards & Recognition

1. Received “**Van-Mitra Research Excellence Award**” from Environment, Forest and Climate Change Department, Gov. of Uttar Pradesh, August 2022.
2. **Certificate of Honour and cash prize** by Chaudhary Charan Singh University Meerut (India), August 15, 2022.
3. “**Dr. Sarvepalli Radhakrishnan Best Faculty & Researcher Award 2022 in Nanomaterials**” from IMRF Institute of Higher Education & Research, Vijayawada Andhra Pradesh, India
4. Received “**Research Excellence Award**” from ACMB, India, June 2022.
5. Received “**Research and Innovation Award**” from Mahila Patanjali Yogpeeth (Trust), Haridwar, India, August 15, 2022.
6. Received full Financial Assistantship from **Institute for energy and technology (IFE), Norway** for invited lecture (September, 2014).
7. Awarded **CSIR Research Associateship (RA)** from Council of Scientific & Industrial Research (CSIR), Government of India (June 2011- May 2013).
8. Awarded Senior Research Fellowship (SRF) from **MHRD, Government of India** in Ph.D. Programme (July 2007-May 2011).
9. Received full Financial Assistantship from IIT Roorkee heritage fund, IIT Roorkee, India for presenting research work in “International Symposium on Metal-Hydrogen Systems” **Institute of Solid State Physics, RAS, Chernogolovka, and Moscow State University Moscow, Russia** (July, 2010).
10. Received full Financial Assistantship from **University of Milano-Bicocca, Milan, Italy** for presenting research work in “Chemistry and Physics of materials for energetic, A European school in material science” (September, 2009)
11. Qualified Graduate Aptitude Test in Engineering (GATE-2004&2005) in Physics.

## Co-curricular and Professional Activities

-  Delivered a virtual training thin films deposition by using RF/DC sputtering for Solar Cells and Gas sensing applications to Ph.D. research scholars in Indo-Czech Republic International Workshop/Technical Virtual Training on Nanomaterials for Photovoltaic/Photocatalytic Devices, May 17-18, 2022.
-  Chaired a session in International Conference on Emerging Trends in Science & Technology, Vedanata PG Girls College, Rajasthan, India, 31.03.2022.
-  Organizing secretary of International women day celebration in Department of Physics, CCSU Meerut, 08.03.2022.
-  Organizing secretary of Special lecture on “Challenges and opportunities for memristive devices”, 11.03.2022.
-  Organizing secretary of National science day celebration during the week long science festival “Vigyan Sarvatra Pujyate, 28.02.2022.
-  Worked as Sub Nodal Officer in Vigyan Sarvatra Pujyate festival, February 22 to 28, 2022 organized by CCS University Meerut in collaboration with Vigyan Prasar, Deptt. of Science & Technology, Govt. of India.
-  Worked as Member of organizing committee for “Online University Level GD Competition” organized by Paryavaran Sanrakshan Gatividhi- Environment Youth Forum (EYF -2021), Ch. Charan Singh University Meerut, U.P., India on January 19, 2021.
-  Worked as Organizing Secretary in national webinar (e-Conference) on “Intellectual Property Rights: Rewards to Inventors” organized by Department of Physics, Ch. Charan Singh University Meerut UP, India, October 15, 2020.
-  Delivered an invited lecture on “Awareness of Recent Trends in Materials Science & Technology” 28 September, 2020 organized by school of basic sciences and research, Dept. of Physics, Sharda University, Noida.
-  Participated in COVID Vaccination drive door to door campaign in the rural/remote areas organized by CCSU Meerut.
-  Member of Pushtahaar distribution to T.B. patient adopted by CCSU Meerut.
-  Delivered an Invited talk on August 29, 2020 in 4 days National webinar on “Scientific Achievements, Current Challenges,

Problems and Scientific & Technical Terminology” from 26-29 August, 2020 organized by Commission for Scientific and Technical Terminology, Ministry of Education, Govt of India and Swami Premanand Mahavidyala, Mukerian, Punjab.

- ✚ Worked as Joint Secretary in organizing International Webinar (e-Conference) on “Prospective of Interdisciplinary Research in Science & Technology in the Present Scenario” organized by Department of Physics, Ch. Charan Singh University Meerut UP, India during, May 15-16, 2020.
- ✚ Chaired a session in “International Webinar on Air Quality, Climate Change and the Environment & Health Effects Referring to the Pandemic COVID-19 Lockdown” on May 02-03, 2020 held at Institutional Innovation Cell, H.N.B. Garhwal University, Srinagar, Uttarakhand, India.
- ✚ Prepared E-contents (Topic: 6, Pages/slides: 215) for M.Sc. and M.Phil programme, March- November, 2020.
- ✚ Worked as Member of organizing committee for Essay writing competition on National Science Day held at Department of Physics, Ch. Charan Singh University Meerut, U.P., India on February 28, 2020.
- ✚ Delivered an Invited Talk on “Semiconductor Devices” on January 29, 2020 at Ismail National Mahila (PG) College, Meerut, U.P. India.
- ✚ Delivered training sessions on DC/RF Magnetron Sputtering Technique and Scanning Electron Microscope (SEM)/EDAX in one week workshop on “Introduction, Synthesis, and Characterization of Nanomaterials” organized by Centre for International Cooperation, Ch. Charan Singh University and Central Connecticut State University, USA, December 16-21, 2019.
- ✚ Worked as member of Disciplinary Committee, Khadya Avam Satkar Samiti for “Gyanotsav 2076 Vikrami (Meerut)”, organized by Shiksha Sanskriti Utthan Nyas, New Delhi and Dept. of Education, CCS University Meerut, November 5-6, 2019.
- ✚ Chaired a session in 24<sup>th</sup> International Conference of International Academy of physical Sciences on Innovations in Physical Sciences held at Ch. Charan Singh University, Meerut during August 09-11, 2019.
- ✚ Worked as a member of review committee in the 24<sup>th</sup> International Conference of International Academy of physical Sciences on Innovations in Physical Sciences held at Ch. Charan Singh University, Meerut during August 09-11, 2019.
- ✚ Delivered an Invited Lecture on “Nanotechnology in Ancient India and Present Scenario” on Feb. 17, 2018 at J. V. Jain College Saharanpur (U.P.) India.
- ✚ Worked as secretary of organizing committee (Coordinator of Physics Association) for Inter-University Poster Competition for “Science Day Celebration” held at Department of Physics, Ch. Charan Singh University Meerut U.P., India on February 28, 2017.
- ✚ Developed courses for M.Phil programme in August 2016.
- ✚ Worked as Organizing secretary for 1<sup>st</sup> Alumni meet of Department of Physics, CCS University, Meerut under Golden Jubilee Year 2015-16 celebrations on 18 October, 2015.
- ✚ Delivered an Invited Lecture on Metal Hydrides Thin Films/Multilayers For Hydrogen Storage at Institute for energy and technology (IFE), Norway during September 28-30, 2014.

### **Research Publications in Peer Reviewed Journals: 26 (Published), 1 (Under review)**

**(Total Google scholar citations: 506, h-index: 12, i10-index: 13)**

1. Magnetron Sputtered Tin oxide thin films for hydrogen gas detection with high sensitivity, selectivity and high humidity tolerance, Vipin Kumar, Durvesh Gautam, Ashwani Kumar, Amit Sangar, Beer Pal Singh, **Yogendra K. Gautam\***, **Sensors & Actuators, B: Chemical** (Submitted 2022).
2. Palladium-doped Zinc oxide nanostructures for NO<sub>2</sub> gas sensing application, Anit K. Ambedkar, Durvesh Gautam, Ashwani Kumar, Amit Sangar, Beer Pal Singh, **Yogendra K. Gautam\***, **Sensors & Actuators, B: Chemical** (Submitted 2022).
3. Study of hydrogen gas sensing property of sputtered deposited Pd-capped SnO<sub>2</sub> thin films, Vipin Kumar, Durvesh Gautam, Ashwani Kumar, Amit Sangar, Beer Pal Singh, **Yogendra K. Gautam\***, **Journal of hydrogen energy** (Submitted 2022).

4. Sustainable cooperative catalytic, photocatalytic and antibacterial platforms using surface functionalized Silver-doped ZnO Nanostructures for waste water treatment, Sagar Vikal, **Yogendra Kumar Gautam\***, Ashwani, Swati Meena, Vijay Parewa Kumar, Ajay Kumar, Shushila Meena, Sanjay Kumar, Beer Pal Singh, **Journal of Surfaces and Interfaces** (Submitted 2022).
5. Tailoring of magnetic phase: Co-doped SiC thin films grown by RF sputtering, M. Kumar\*, A. Kumar, R. Kumar, A. K. Singh, **Yogendra K. Gautam**, Ramesh Chandra\*, **Materials Chemistry and Physics** (Under review: 2022).
6. Enhancement in the sensitivity and selectivity of Cu functionalized MoS<sub>2</sub> nanoworm thin films for nitrogen dioxide gas sensor, Shrestha Tyagi, Arvind Kumar, Ashwani Kumar\* , **Yogendra K. Gautam**, Virendera Kumar, Yogesh Kumar and Beer Pal Singh, **Materials Research Bulletin** 150(2022)111784(**Impact Factor: 5.6**).
7. Metal Oxide Nanomaterials based sensors for monitoring environmental NO<sub>2</sub> and its impact on plant ecosystem: A Review, Shrestha Tyagi, Manika Chaudhary, Anit K. Ambedkar, Kavita Sharma\*, **Yogendra K. Gautam**, Beer Pal Singh\*, **Sensors & Diagnostics** 1(2022)106-129.
8. Structural, optical and antimicrobial properties of pure and Ag-doped ZnO nanostructures, Sagar Vikal, **Yogendra K. Gautam\***, Anit K. Ambedkar, Durvesh Gautam, Jyoti Singh, Dharmendra Pratap\*, Ashwani Kumar, Sanjay Kumar and Beer Pal Singh\*, **Journal of Semiconductors** 43(2022)032802.(**Impact Factor: 1.754**).
9. Room temperature Photoluminescence and spectroscopic ellipsometry of reactive co-sputtered Cu-doped ZnO thin films, Manohar Singh, Anit K. Ambedkar , Shrestha Tyagi , Virendra Kumar, Ashwani Kumar , **Yogendra K. Gautam** , Beer Pal Singh\*. **Journal of Optik** 257(2022)168860.(**Impact Factor: 2.443** ).
10. Metal oxide semiconductor nanostructures-based greenhouse gas sensors: progress and challenges, **Yogendra K. Gautam\***, Kavita Sharma\*, S. Tyagi A. Ambedkar, M. Chaudhary, Beer Pal Singh\*, **Royal Society Open Science**, 8:201324(2021)1-42 (**Impact Factor: 3.653**).
11. Sputter Grown Pd-Capped CuO Thin Films for a Highly Sensitive and Selective Hydrogen Gas Sensor, Prashant Yadav, Ashwani Kumar, Amit Sanger, **Yogendra K. Gautam\***, Beer Pal Singh\*, **Journal of electronic materials** 50(1)(2021)192-200 (**Impact Factor: 1.938**).
12. Influence of SiC thin films thickness on the electrical properties of Pd/SiC thin films for hydrogen gas sensor, M. Kumar, A. Kumar, **Yogendra K. Gautam\***, R. Chandra M. S. Goyat, B.S. Tewari, R. K. Tewari, **Vacuum** 182 (2020)109750(1-8) (**Impact Factor: 4.11**).
13. Sputter deposited crystalline V<sub>2</sub>O<sub>5</sub>, WO<sub>3</sub> and WO<sub>3</sub>/V<sub>2</sub>O<sub>5</sub> multi-layers for optical and electrochemical applications, Atul Khanna\*, Ravish. K. Jain, **Yogendra K. Gautam**, Beer Pal Singh, **Applied Surface Science** 536 (2021)147804 (**Impact Factor: 7.392**).
14. Experimental Investigation of Co and Fe-Doped CuO Nanostructured Electrode Material for Remarkable Electrochemical Performance, Manika Chaudhary, Ashwani Kumar, **Yogendra K. Gautam**, Anil K. Malik, **Beer Pal Singh\***, **Ceramics International** 47(2) (2020)2094-2106 (**Impact Factor: 5.532**).
15. Structural, optical and thermoelectric properties of Al-doped ZnO thin films prepared by spray pyrolysis, Anit K. Ambedkar, Manohar Singh, Virendra Kumar, V. Kumar, Beer Pal. Singh, Ashwani Kumar, **Yogendra K. Gautam\***, **Surfaces and Interfaces** 19(2020)100504 (1-7) (**Impact Factor: 6.137**).
16. Effect of Co and Mn doping on the morphological, optical and magnetic properties of CuO nanostructures, Beer Pal Singh\*, Manika Chaudhary, Ashwani Kumar, Amit Kumar Singh, **Yogendra K. Gautam**, Stuti Rani, Rajan Walia, **Solid State Sciences** 106 (2020) (**Impact Factor: 3.752**).
17. Electrochemical sensing of hydrogen peroxide based on nano  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> modified glassy carbon electrode, Beer Pal Singh\*, Shrestha Tyagi, **Yogendra K. Gautam**, Anil. K. Malik, Carmen Vega, **Applied Innovative Research** 2(2020)162-166.
18. Study of optoelectronic and thermoelectric spectra of Tl(Nd/Gd)S<sub>2</sub>, Annveer, R. Gautam, A. Kumar, Arvind Kumar, **Yogendra K. Gautam**, A. L. Saroj and R. P. Singh, **Journal of Materials Science: Materials in Electronics** (2020). doi.org/10.1007/s10854-020-04852-z (**Impact Factor: 2.220**).

19. Facile green synthesis and applications of silver nanoparticles: a state-of-the-art review, Nazia Tarannum, Divya and **Yogendra K. Gautam**, *Journal of RSC Advances* 09 (2019) 34926-34948 (**Impact Factor: 4.036**).
20. Hydrogen induced resistance and optical transmittance of pulsed laser deposited Pd/Mg thin films, **Yogendra K. Gautam\***, Ashwani Kumar, Anit K. Ambedkar, Vipin Kumar, Beer Pal Singh, *Journal of Applied Innovative Research* 01(2) (2019) 96-100.
21. Effect of sputtering process parameters on structural and optical properties of CdS thin films, Ashwani Kumar, Vipin Kumar, Ramesh Chandra and **Yogendra K. Gautam\***, *Journal of Materials Research Express* 06(2019)1-9 (**Impact Factor: 2.025**).
22. A room temperature hydrogen sensor based on Pd-Mg alloy and multilayers prepared by magnetron sputtering, **Yogendra K. Gautam**, Amit sanger, Aswani Kumar, and Ramesh Chandra, *International Journal of Hydrogen Energy* 40(2015)15549-15555 (**Impact Factor: 7.139**).
23. Fast and reversible hydrogen sensing properties of Pd/Mg thin film modify hydrophobic porous silicon substrate, Amit sanger, Aswani Kumar, Samta Chuhan, **Yogendra K. Gautam** and Ramesh Chandra, *Journal of Sensors and Actuators B* 213 (2015) 252-260 (**Impact Factor: 9.221**).
24. Hydrogenation and dehydrogenation of Pd/Mg/Pd tri-layer prepared by magnetron sputtering; **Yogendra K. Gautam**, Mukesh Kumar and Ramesh Chandra, *Journal of Surface & Coatings Technology* 2013 (237) 450-455 (**Impact Factor: 4.865**).
25. Studies on hydrogen sensing properties of nanostructured Pd and Pd/Mg thin films prepared by Pulsed laser deposition, Yogendra K. Gautam, Ravish Jain, Sunil K. Tanwar, R. D. Agrawal and Ramesh Chandra, *Journal of Sensors and Actuators B* 176 (2013) 453-459 (**Impact Factor: 9.221**).
26. A study on structural, optical and hydrophobic properties of sputter deposited HfO<sub>2</sub> films, Ravish K. Jain, Yogendra K. Gautam, Vikramaditya Dave Amit K. Chawla, R. Chandra. *Journal of Applied surface science* 283(2013)332-338 (**Impact Factor: 7.392**).
27. Hydrogen absorption and optical properties of Pd/Mg thin films prepared by DC magnetron sputtering, Yogendra K. Gautam, Amit. K. Chawla, Saif A. Khan, R.D. Agrawal, R. Chandra, *International Journal of Hydrogen Energy* 37(2012) 3772-3778 (**Impact Factor: 7.139**).
28. A comprehensive study of structural and magnetic properties of sputter deposited nickel-silica thin films, RajanWalia, J.C. Pivin, A.K. Chawla, R. Jayaganthan, **Yogendra. K. Gautam**, Ramesh Chandra, *Materials Science & Engineering B* 177 (13) (2012) 1073-1079 (**Impact Factor: 4.051**).
29. Hydrogenation of Pd-capped Mg thin films prepared by DC magnetron sputtering, **Yogendra K. Gautam**, Amit.K. Chawla, Rajan. Walia, R.D. Agrawal, R.Chandra, *Journal of Applied Surface Science* 257 (2011) 6291-6295 (**Impact Factor: 7.392**).
30. Influence of sputtering gas on morphological and optical properties of magnesium films, **Yogendra K. Gautam**, Amit K. Chawla, Vipin Chawla, R. D. Agrawal and R. Chandra, *Journal of Materials science and Technology* 27(1) (2011) 51-58 (**Impact Factor: 10.319**).

### Books Chapters

- 1) Applications of green nanomaterials in coatings, **Yogendra K. Gautam\***, Kavita Sharma, Shrestha Tyagi, Ashwani Kumar, Beer Pal Singh\* book chapter to be published in the book titled "Green Nanomaterials for Industrial Applications" Published by Elsevier -2021. ISBN: 9780128236222. doi.org/10.1016/B978-0-12-823296-5.00014-9.
- 2) Sustainable nanomaterials for environmental remediation, Kavita Sharma, Shrestha Tyagi, Sagar Vikal, Arti Devi, **Yogendra K. Gautam\*** and Beer Pal Singh\* book chapter published in the book Handbook of Green and Sustainable Nanotechnology, doi.org/10.1007/978-3-030-69023-6\_13-1.by SPRINGER, 2022.
- 3) Transition Metal Dichalcogenides (TMDs) Nanocomposites-based Supercapacitors, Shrestha Tyagi, Kavita Sharma, Ashwani Kumar, **Yogendra K. Gautam**, Anil Kumar Malik, Beer Pal Singh\*, book chapter published-2022.

- 4) Sustainable green nanomaterials for advanced treatment process for contaminated water and soil, Kavita Sharma, Shrestha Tyagi, Sagar Vikal, Arti Devi, **Yogendra K. Gautam\***, Beer Pal Singh, book chapter published in the book titled "Green and Sustainable Nanotechnology" 10.1007/978-3-030-69023-6\_13-1 by SPRINGER, 2022.
- 5) Green and Sustainable Nanotechnology for Clean Energy Production, Beer Pal Singh, Kavita Sharma, Shrestha Tyagi, Durvesh Gautam, Manika Chaudhary, Ashwani Kumar, Sagar Vikal and **Yogendra K. Gautam\***, book chapter to be published in the book titled "Green and Sustainable Nanotechnology" by SPRINGER (**corrected proof in press**) 2022.

### **Publications in International Conference Proceedings**

1. Effect of hydrogen on the structural and magnetic properties of Pd-capped Nb/Cotri-layers, **Yogendra K. Gautam\***, Ravish Jain and Ramesh Chandra, International Journal of Research in Biosciences, Agriculture & Technology 2014, 1(2) 2347-517X, 389-397.
2. Effect of Working Pressure on Structural, Electrical and Optical Properties of CIGS Thin Film Deposited by PLD, Pradeep Kumar Mishra, **Yogendra K. Gautam**, J. N. Prasad, A. K. Choudhary, R. Chandra, Journal Advanced Material Research 2013, 678, 70-74.
3. Study on Structural, Optical and Wetable Properties of CeO<sub>2</sub> Thin Films Deposited by Reactive DC Magnetron Sputtering, Ravish K. Jain, Gurjinder Kaur, Samta Chauhan, **Yogendra K. Gautam** and Ramesh Chandra, Optoelectronic Materials and Thin Films: OMTAT-2013, 1576 (1), 155-158
4. Thickness dependent structural, optical and electrical properties of CuIn<sub>0.8</sub>Ga<sub>0.2</sub>Se<sub>2</sub> thin films deposited by PLD, Pradeep K. Mishra, **Yogendra K. Gautam**, Ashwani Kumar, Ravish K. Jain, Jagat N. Prasad, Ashwini K. Choudhary and Ramesh Chandra, Optoelectronic Materials and Thin Films: OMTAT-2013, 1576 (1), 33-37
5. Structural and thermal properties of CuO nanoparticle by magnetron sputtering, Monu Verma, V.K. Gupta, **Yogendra K. Gautam**, Ramesh Chandra, Optoelectronic Materials and Thin Films: OMTAT-2013, 1576 (1), 190-19.

### **Patents published**

**(1) Title of the invention:**

Sustainable valorization of household plastic waste into water soluble luminescent nanocarbons

**Application No.:** 202211047536 A (Indian Patent Office)

**Published Date:** 02/09/2022 (Issue No. 35/2022, Page No. 54789)

**Inventors:** **Yogendra Kumar Gautam**, Vijay Parewa, Surendra Saini, Pratibha Saini, Krishan Kumar, Beer Pal Singh

**(2) Title of the invention:**

Molybdenum disulfide nanocactus and method of preparation thereof

**Application No.:** 202211037152 A (Indian Patent Office)

**Publication Date:** 22/07/2022 (Issue No. 29/2022, Page No. 45532)

**Inventors:** Shrestha Tyagi, Beer Pal Singh, Ashwani Kumar, Kavita Sharma, Updesh Verma, **Yogendra Kumar Gautam**, Anil Kumar Malik, Anuj Kumar

**Research Work Presented(oral) in International Seminar/Conferences/Workshops**

S. No.	Conference/workshop	National/ International	Venue	Date/duration
1.	International Conference on Emerging Trends in Science & Technology	International	Vedanata PG Girls College, Rajasthan, India	March 29-31, 2022
3	International Webinar on Air Quality, Climate Change and the Environment Effects Referring to the Pandemic COVID-19 Lockdown	International	Institutional Innovation Cell, H.N.B. Garhwal University UK	May 02-03, 2020
2.	International Conference on Advanced Materials (ICAM-2019)	International	Jamia Millia Islamia, Delhi	March 6-7, 2019
3.	International Conference on Advanced Materials, Energy and Environmental Sustainability' (ICAMEES-2018)	International	University of Petroleum and Energy Studies (UPES), Dehradun	Dec. 14, 2018
4.	International Conference on Advanced Materials, Energy and Environmental Sustainability (ICAMEES-2018)	International	University of Petroleum and Energy Studies (UPES), Dehradun	Dec. 15, 2018
5.	International conference on Optoelectronic Materials and Thin films for Advanced Technology (OMTAT- 2013)	International	Cochin University of Science and Technology, Kochi, India	January 3-5, 2013
6.	International Conference on Renewable Energy (ICRE-2011)	International	University of Rajasthan, Jaipur, India	January 17-21, 2011
7.	International Symposium on Metal-Hydrogen Systems ( MH-2010)	International	Moscow State University, Moscow, Russia	July 19-23, 2010
8.	International school Chemistry and physics of materials for energetic, A European school in material science (PCAM)-2009	International	University of Milano-Bicocca, Italy	September 19, 2009
9.	International Symposium on Hydrogen in Matter (ISOHIM-2009)	International	IIT Chennai, India	December 13-16, 2009
10.	International Workshop on nanotechnology and Advanced Functional Materials (NTAFM-2009)	International	National Chemical Laboratory (NCL) Pune, India	July, 9-11, 2009

**Potential Reviewer of Various Journals**

1. Ceramic International.
2. International Journal of Hydrogen Energy
3. Nano Express
4. Solid State Science
5. Nanotechnology
6. Polymers
7. Indian Journal of Engineering and Materials Sciences
8. Applied Innovative Research
9. Journal of Biomass Conversion and Biorefinery
10. Journal of Micro and Nanostructures
11. Applied Sciences

**Orientation/Refresher/Short term-Course/Workshop/Summer School attended**

S. No.	Theme	Venue	Duration/Time	National/ International
1.	Online Refresher course in Physics	UGC-Human Resource Development Centre University of Allahabad, Prayagraj	November 21-04 December 2020	National



2.	Seven days national workshop on “Research Methodology”	NAScollee Meerut, U. P. and IGNOU Regional Centre Noida	June 09-15, 2020	National
3.	One week workshop on Introduction, Synthesis, and Characterization of Nanomaterials	Centre for International Cooperation, Ch. Charan Singh University, Meerut	December 16-21, 2019	International
4.	06 <sup>th</sup> 3-Week Refresher Course in Basic Science (Interdisciplinary)	UGC-HRDC, Jamia Millia Islamia, New Delhi	3-Week	Natioanl
5.	Refresher Course in Experimental Physics	Rajiv Gandhi University, Itanagar, Arunachal Pradesh	3-Week	Natioanl
6.	Orientation Programme	CPDHE, University of Delhi, Delhi	4-Week	Natioanl
7.	Nurturance Programme for Talent Search Awardees	Institute Indian of Technology (IIT) Roorkee, India	December 12-16, 2011	National
8.	International Summer School on Materials for the Hydrogen Society (MH-2010)	Institute of Solid State Physics, RAS, Chernogolovka, Moscow, Russia	July 14 -18, 2010	International
9.	Chemistry and physics of materials for energetic. A European school in material science (PCAM-2009)	University of Milano Bicocca, Milan, Italy	September 14-19, 2009	International
10.	Users workshop held at Inter University Accelerator Center (IUAC), Delhi	Inter University Accelerator Center (IUAC), Delhi	July 6-7, 2008	National
11.	Anational workshop on effective teaching and class room management	Institute Indian of Technology (IIT) Roorkee, India	January 27-28, 2008	National

### Foreign Visits

- ❖ Institute for energy and technology (IFE), **Norway** (September 28-30, 2014).
- ❖ Institute of Solid State Physics, Russian Academy of Sciences (RAS), Chernogolovka, Moscow, Russia (July 14-18, 2010) and Moscow State University, Moscow, **Russia** (July 19-23, 2010).
- ❖ University of Milano-Bicocca, Milan, **Italy** (September 14-19, 2009).