

Name: Dr. Beauty Pandey
Designation: Assistant Professor
Branch: Physics

Educational Qualification(s):

Qualification(s)	University
M.Sc (Physics)	VBU Hazaribagh
M.Phil (Applied Physics)	IIT (ISM) Dhanbad
Ph.D (Applied Physics)	IIT (ISM) Dhanbad

Experience in years:

Academic : 12

Details:

Sl. No.	Organization	Position Held	Duration	
			From	To
1.	IIT (ISM) Dhanbad	PhD (JRF+SRF)	2008	2014
2.	IIT (ISM) Dhanbad	Short Term Research	2015	2016
3.	IIT Madras	DST Women Scientist	2017	2019

Other Information:

(a) Publication details

1. "Electrical and Magnetic Properties of Electrodeposited Nickel Incorporated Diamond like Carbon Thin Films" by **B. Pandey***, D. Das, A.K. Kar ; in Applied Surface Science, 2015, Vol.337, pp. 195-207.
2. "Nickel Concentration Dependent Structural and Optical Properties of Electrodeposited Diamond-Like Carbon Thin Films" by **Beauty Pandey***, Jonaki Mukherjee, Bidyut Das and Asit K.Kar; in European Physics Journal: Applied Physics, 2014, Vol. 66, pp. 10302-p1-10302-p11.

3. "Impact of N5+ ion Implantation on Optical and Electrical Properties of Polycrystalline ZnO Film" by Ashutosh Kumar, Sunita Keshri, **Beauty Pandey**, J.B.M Krishna and Dipankar Das; in Radiation Effects and Defects in Solids, 2014, Vol. 169, No. 11, pp. 965-979.
4. "Effect of Nickel Incorporation on Microstructural and Optical Properties of Electrodeposited Diamond-Like Carbon (DLC) Thin Films" by **B. Pandey***, P.P. Pal, S. Bera, S.K. Ray, A.K. Kar; in Journal of Applied Surface Science, 2012, Vol. 261, pp. 789– 799.
5. "Effect of Nickel Incorporation on the Optical Properties of Diamond-Like Carbon (DLC) Matrix" by **B. Pandey*** and S. Hussain; in Journal of Physics and Chemistry of Solids, 2011, Vol. 72, pp. 1111–1116.
6. "A scalable approach for functionalization of separated Titanium dioxide (TiO₂) nanotube arrays with graphitic carbon nitride (g-C₃N₄), for enhanced photo electrochemical performance" by **B. Pandey***, Sanju Rani, Somnath C. Roy, communicated and under review.
7. "Observation of charge transfer mediated photoluminescence enhancement in carbon dots" by Anu Babusenana, **B. Pandey**, Somnath C. Roy, Jayeeta Bhattacharya communicated and under review.
8. "Graphene -TiO₂ nanocomposites for solar energy applications: a review" by **B. Pandey***, Somnath C. Roy, under preparation.
9. "Carbon-based Nanomaterials as Photocatalysts and their Performance Attributes" by **B. Pandey***, Somnath C. Roy, under process and will be soon communicated.

(b) Details of Seminar/Workshop/Conference

1. "Role of Graphene - TiO₂ Nanocomposites in Solar Hydrogen Production by Photo-electrochemical Water Splitting" by **B.Pandey*** and S.C.Roy; in the Proceedings of International Conference on Advanced Nanomaterials and Nanotechnology, 18-21 December, 2017 (ICANN 2017); Centre for Nanotechnology, IIT Guwahati, Assam.
2. "Microstructural Modifications in Electrodeposited Diamond Like Carbon Thin films with varying Growth Time and Nickel Incorporation" by **B.Pandey*** and A.K. Kar; in International Conference on Structural and Physical Properties of Solids, November 18-20, 2013; Department of Applied Physics, Indian School of Mines, Dhanbad, India.
3. "Studies of the Electrical Properties of Nickel-DLC Thin Films" by **B.Pandey*** and A. K. Kar; in the Proceedings of National Seminar on Nanomaterials and Their Applications, 10-11 February, 2011 (NANOMAT-2011); pp. 136-140 (Allied

Publishers Pvt. Ltd., New Delhi); Department of Applied Physics, Indian School of Mines, Dhanbad.

4. "Studies of Electrodeposited Nickel Incorporated DLC Thin Films" by **B.Pandey***, P. P. Pal, J. Mukherjee, B. Das and A. K. Kar, in the Proceedings of National Seminar on Photonics and Materials, March 25-27, 2010 (NASPAM-2010), pp. 124-131; Department of Applied Physics, Indian School of Mines, Dhanbad.
5. "Microstructural and Optical Properties of Electrodeposited Nickel Incorporated Diamond-Like Carbon (Ni-DLC) Thin Films" by **B.Pandey***, P. P. Pal, J. Mukherjee, B. Das, A. K. Kar; in International Conference on Nanomaterials and Nanotechnology, December 13-16, 2010; KSR Campus, Tiruchengode, Coimbatore, India. Published in 'Nanostructured Materials for Electronics, Energy and Environmental Applications', Edited by V. Rajendran, B. Hillebrands, K. Thyagarajah, K. E. Geckeler; Macmillan Publishers India Ltd.; pp. 249-254.
6. "Optical Studies on Ni Impregnated Diamond-Like Carbon Films" by **B.Pandey*** and S.Hussain; in the Proceedings of National Seminar on Recent Trends in Emerging Frontiers of Physical Sciences, November 02-03, 2009 (RTEFPS-2009), pp. 120-123; Sindri College, Sindri & BIT Sindri, Dhanbad.
7. "Studies of Surface Plasmon Properties of Composite Films of Ag-Cu Nanocrystallites Embedded in Diamond like Carbon Matrix" by **Beauty Pandey***, Suresh Das and S. Hussain in National Seminar on Recent Advances in Materials' Sciences, February 15 -17, 2008; Department of Applied Physics, Indian School of Mines, Dhanbad, India.

(c) Professional membership of reputed bodies if any

1. Member of the "Society of Applied Physics", IIT (ISM), Dhanbad, India.

(d) Projects

1. **DST Women Scientist (DST WOS A):** Was working as DST Women Scientist in Department of Physics, IIT Madras, Chennai. The project is funded by Department of Science & Technology, New Delhi under DST WOS-A Scheme. The approximate project cost is around ~31lakhs for a period of 3 years (2017-2020) where I was the sole P.I working under the mentorship of Dr. S.C.Roy, Associate Professor, Department of Physics, IIT Madras. The project aimed at the development of some graphene based composite materials for solar energy applications. I also extending

the research work in the synthesis and application of some other nanocomposites and nanomaterials such as Titanium Oxide nanostructures, graphitic carbon nitride, Metal incorporated Diamond like Carbon thin films etc.

(e) Awards

1. DST Women Scientist (DST WOS A) Fellowship funded by Department of Science & Technology, New Delhi in for a duration of 3 years (July'2017-July'2020). The host institute was Department of Physics, IIT Madras, Chennai.
2. ISM (Presently IIT, Dhanbad) JRF Fellowship funded by MHRD, New Delhi).
3. 1st class 1st and University topper in M Phil (Applied Physics) from IIT (I.S.M), Dhanbad.
4. Topper in College of M Sc. Part 1 Exam & 2nd University topper in M Sc. Final exams.