

## **Curriculum Vitae**

### **Abhishek Chaudhary :**

Assistant Professor, Department of Biotechnology  
Jaypee University of Information Technology, Waknaghat Solan-H.P  
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### **Academic Qualification:**

2010- 2016                      PhD in NanoBiotechnology from **IIT Mandi India**  
2008-2010                      M.Tech. in Biotechnology from **Anna University Chennai India**

### **Professional Positions**

2016-Present: Assistant Professor, Dept. of Biotechnology, JUIT, Waknaghat (Solan), India

### **Research Outcome:**

- Publications: International **15**
- h-index: **11**; i10-index: **11** (Google scholar)
- Google Scholar ID:  
<https://scholar.google.co.in/citations?user=IQUKtNYAAAAJ&hl=en>

### **Scholarship & Achievements:**

- 2012-2016                      Senior Research fellowship from MHRD, Govt of India  
2010-2012                      Junior research Fellowship from MHRD, Govt of India
- Qualified **ICMR** (Indian Council of Medical Research) JRF 2008
  - Qualified **GATE** 2008 with percentile 97.6 (held by IISc Bangalore India).
  - Qualified JNU-DBT exam (Combine entrance examination for biotechnology (M.tech)-AIR1).
  - CSIR India (LS) June 2012
  - IIT JAM 2007 (AIR 52)

### **Awards and honors :**

- Best Poster award at National Symposium on Nano-Biotechnology 2013 held at IIT Mandi India

### **Research Interest:**

- Nanosensor development (heavy metal sensor and Biosensor )
- Drug delivery system

### **Research Supervision:**

- PhD:                              02(On-going);
- PhD (Supervisor):           01 (Awarded)
- PhD (Co supervisor):       01 (Awarded)
- Master's (M.Tech):           01 (ongoing); 1 completed
- Master's (M.Sc):             01(ongoing); 2 (completed)
- Bachelors (B.Tech):         02 (ongoing); 14 completed

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### **Publications: From JUIT**

1. Biogenic and rapid route for the synthesis of palladium nanoparticles by using Roylea cinerea extract and their catalytic activity for Suzuki and Sonogashira coupling reactions and nitrophenol reduction, R.Sharma, P.Sagara,D.Sharma,A.Chaudhary, *Journal of Organometallic Chemistry*, 2024, 1018, 123294 (**Impact Factor-(2.10)**)
2. Comprehensive review on nanopollutant detoxification strategies in plants:Unraveling physiological, biochemical, and molecular mechanisms employed by plants to mitigate nanopollution, D. Sharma, V.Abbot, D. Sharma, A.Chaudhary *Environmental Nanotechnology, Monitoring & Management*, 2024, 22, 100969. (**Impact Factor- Awaited**)
3. Synthesis of Quercetin Functionalized Silver Nanoparticles and Their Application for the Colorimetric Detection of L-Cysteine in Biologically Complex Fluids, D.Sharma, **A. Chaudhary**, *ChemistrySelect*, 2022, doi.org/10.1002/slct.202104147 (**Impact Factor-(2.10)**)
4. Nanocatalysts as potential candidates in transforming CO<sub>2</sub> into valuable fuels and chemicals: A review, D.Sharma, R.Sharma, D.Chand, **A.Chaudhary**, *Environmental Nanotechnology, Monitoring & Management*, 2022, 18, 100671. (**Impact Factor-Awaited**)
5. Sustainable synthesis of silver nanoparticles using various biological sources and waste materials: a review, D. Sharrma, S.S Gulati, N.Sharma, **A.Chaudhary**, *Emergent material*, 2021, doi.org/10.1007/s42247-021-00292-5. (**Impact Factor-Awaited**)
6. One Pot Synthesis of Gentamicin Conjugated Gold Nanoparticlesas an Efficient Antibacterial Agent, D.Sharma, **A.Chaudhary**, *Journal of Cluster Science*, 2020, 32:995–1002 (**Impact Factor- 3.06**)
7. Polymer Stabilized Bimetallic Alloy Nanoparticles: Synthesis and Catalytic Application, C. Dwivedia, **A. Chaudhary**, S. Srinivasan, C. K. Nandi, *Colloid and Interface Science Communications*, 2018, 24, 62–67. (**Impact Factor- 5.63**)
8. One pot synthesis of Dox conjugated gold nanoparticle for sustained drug release, **A.Chaudhary**, C. Dwivedi, A. Gupta, C. K. Nandi, *RSC Advances*, 2015, 5,97330-97334. (**Impact Factor- 3.108**)
9. Lysine and dithiothreitol promoted ultrasensitive optical and colorimetric detection of mercury using anisotropic gold nanoparticles, **A.Chaudhary**, C. Dwivedi, M. Chawla, A. Gupta, C. K. Nandi, *RSC-Journal of Materials Chemistry C*, 2015, 3, 6962-6965. (**Impact Factor- 8.06**)
10. Effect of Surface Chemistry and Morphology of Gold Nanoparticleon the Structure and Activity of Common Blood Proteins, **A.Chaudhary**, S. Khan, A. Gupta, C. K. Nandi, *New Journal of Chemistry*, 2016 (DOI: 10.1039/c5nj03720d) (**Impact Factor- 3.277**)
11. Anisotropic gold nanoparticles for the highly sensitive colorimetric detection of glucose in human urine, **A. Chaudhary**, A. Gupta, C. K. Nandi, *RSC Advances*, **2015**, 5, 40849-40855. (**Impact Factor- 3.018**)

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12. Morphological effect of gold nanoparticles on the adsorption of bovine serum albumin, **A. Chaudhary**, A. Gupta, S. Khan, C. K. Nandi, *RSC-Physical Chemistry Chemical Physics*, 2014, 16, 20471-20482. (**Impact Factor- 4.123**)
13. Nitrogen Doped Thiol Functionalized Carbon Dots for Ultrasensitive Hg (II) Detection, A. Gupta, **A. Chaudhary**, P. Mehta, C. Dwivedi, S. Khan, N. C. Verma, C. K. Nandi, *RSC-Chemical Communications*, 2015, 51, 10750-10753. (**Impact Factor- 6.319**)
14. Direct visualization of lead corona and its nanomolar colorimetric detection using anisotropic gold nanoparticles, C. Dwivedi, **A. Chaudhary**, A. Gupta, C. K. Nandi, *ACS Applied Materials & Interfaces*, 2015, 7, 5039-5044. (**Impact Factor- 10.38**)
15. Orientational switching of protein conformation as a function of nanoparticles curvature and their geometrical fitting, S. Khan, A. Gupta, A. Chaudhary, C. K. Nandi, *AIP- The Journal of Chemical Physics*, 2014, 141, 084707. (**Impact Factor- 2.965**)
16. Gold nanoparticle chitosan composite hydrogel beads show efficient removal of methyl parathion from waste water, C. Dwivedi, A. Gupta, **A. Chaudhary**, C. K. Nandi, *RSC Advances*, 2014, 4, 39830-39838. (**Impact Factor- 3.108**)
17. Functional Molecular Lumino-Materials to Probe Serum Albumins: Solid Phase Selective Staining Through Noncovalent Fluorescent Labeling, G. Dey, A. Gupta, T. Mukherjee, P. Gaur, **A. Chaudhary**, S. K. Mukhopadhyay, C. K. Nandi, S. Ghosh, *ACS Applied Materials & Interfaces* 2014, 6, 10231-10237. (**Impact Factor- 10.38**).
18. Paper strip based and live cell ultrasensitive lead sensor using carbon dots synthesized from biological media. A. Gupta, N. C. Verma, S. Khan, S. Tiwari, **A. Chaudhary**, C. K. Nandi *Sensors and Actuators B: Chemical*, 2016, 232, 107-114 (**Impact Factor- 8.4**).

### **Book Chapters:**

1. D. Sharma, R. Sharma, A. Chaudhary, Microbial Cell Factories in Nanotechnology. In: Sharma S., Sharma N., Sharma M. (eds) Microbial Diversity, Interventions and Scope. Springer, Singapore. (2020) DOI <https://doi.org/10.1007/978-981-15-4099-8-6>
2. R. Kumar, A. Gupta, M. Chawla, K. R. Aadil, S. Dutt, K. R. Kumar, A. Chaudhary Advances in Nanotechnology based Strategies for Synthesis of Nanoparticles of Lignin. In: Sharma S., Kumar A. (eds) Lignin. Springer Series on Polymer and Composite Materials. Springer, Cham. (2020) <https://doi.org/10.1007/978-3-030-40663-9-7>
3. D. Sharma, A. Parashar, D. Sharma, S. Attri, A. Chaudhary Microbial Sensors A Tool for Accelerating Sustainable Green Technologies (2024) Taylor and Francis DOI: <https://doi.org/10.1201/9781003407683>.

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### **Faculty Development Programme (FDP):**

- One Week Faculty Development Programme on NEP 2020 Orientation & Sensitization programme, Organised by Malaviya Mission Teacher Training Centre, Himachal Pradesh University, Shimla Chennai. from 23<sup>rd</sup> Jan. -02<sup>nd</sup> Feb., 2024
- One Week Faculty Development Programme on Entrepreneurship Development” organized by Centre for Molecular and Nanomedical Sciences, Sathyabama Institute of Science and Technology, Chennai. from 10th - 17th August, 2020
- One Week Faculty Development Programme on Tools and Techniques for Effective Research organised by I.K. Gujral Punjab Technical University Amritsar Campus from 14December 2020 to 18 December 2020.
- One Week Faculty Development Programme on Recent Trends on Machine Learning for Signal processing organised by Jaypee University of Information Technology Solan from 20 May 2019 to 25 May 2019.
- One week Faculty Development Program on “Computer Diligence in Civil Engineering & Applications for Sustainable Development” organized by Department of Civil Engineering at Jaypee University of Information Technology from 11th – 15th July, 2022

### **Conferences & Workshops:**

#### **Organised and Session Chair:**

- **Organised (Convener)** an International Conference on Biotechnology and Bioinformatics (ICBAB-2023) organized by Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology during September 11 - 13, 2023.
- **Organised (Convener)** an International Conference on recent Trends In Biotechnology and Bioinformatics (ICBAB-2019) organized by Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology during September 01 -03, 2019.
- **Organised (Member)** A Virtual International Conference on Technologies for Environmental Sustainability and Smart Agriculture (TESSA-2020) organized by Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology during November 24 25, 2021.
- **Chaired a session** in virtual international conference on “Technological Intervention in Renewable Energy for Sustainable Environment (RESE-2021)” organized by Technology Incubation and Entrepreneurship Development (TIED) Cell and Centre of Excellence in Sustainable Technologies for Rural Development [CESTRD], Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology during November 24 - 25, 2021
- **Chaired a session** in a virtual international conference on “Technologies for Environmental Sustainability and Smart Agriculture” organized by Centre of Excellence in Sustainable Technologies for Rural Development [CESTRD],

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Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology during September 18 - 19, 2020.

### **Participation:**

- Participated in the International Conference on “Interdisciplinary Research in Cancer Biology” Organised by School of Health Science and technology UPES University Dehradun. September 22-23 2022.
- Participated in Debate competition on Caste System and Its perspective in present Scenario Organised Jaypee University of Information Technology August 23 2022.
- Participated in one-day workshop entitled “Environment and Sustainability” organized by Jaypee Institute of Information Technology, Noida and Jaypee University of Information Technology, Waknaghat on 9 June 2022
- Participated in International Webinar on” Present and future strategies to combat emerging and reemerging contagious disease organised by Burdwan University West bengal August, 16-18 2020
- Participated in webinar on Synthace: Accelerating process development with automated design of experiment organised by Chemistry world-jmp, September, 01 2020.
- Participated in webinar on Challenges in nanoindentation and Scratch: an overview for the mechanical characterization of Surface and coatings organised by Zwick Roell, July, 20, 2020.
- Participated in International webinar on Research and Technological Advancements in Biomedical and Healthcare Sector organized by Department of Biotechnology and Bioinformatics Jaypee University of Information Technology, Waknaghat, August 04, 2020.
- One pot green synthesis of Zinc oxide nanoparticles and its cytotoxicity studies, in Himachal Pradesh Science Congress held at IIT mandi, organized by Himachal Pradesh Council for Science Technology and Environment from 22nd-23rd October 2018.
- Ecofriendly synthesis of silver nanoparticles using Allium sativum aqueous extract as biocompatible novel antimicrobial agent, organized by Himachal Pradesh University Shimla from 26th -27th December 2018.
- Participated and presented a Poster entitled “ Structure and functional relationship of adsorbed protein on gold nanoparticle surface: a molecular level morphological effect” in National conference on Photo Sciences: Contemporary challenges and future perspective held at Department of Chemistry, **Jadavpur University Kolkata organized by Indian Photobiology society** from 12<sup>th</sup> – 14<sup>th</sup> December 2013.
- Participated and presented a poster entitled “Morphology dependent surface chemistry of gold nanoparticles shows contrasting biological response: a Molecular level study” in National Symposium on Nano-Biotechnology (NSNB-2013) held at **Indian Institute of Technology Mandi HP** from 9<sup>th</sup>-11<sup>th</sup> December 2013.

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- Participated and presented a poster entitled “Conformation study of serum protein with anisotropic Au@Ag core shell nanoparticles” in New Directions in Chemical Sciences held **at Indian Institute of Technology Delhi**, Delhi from 7<sup>th</sup>- 9<sup>th</sup> December 2012.
- Participated and presented a poster entitled “Controlling the Fate of Protein Corona by Tuning Surface Properties of Nanoparticles” in National Symposium on Recent Trends in Chemical Science & Technology held at **Indian Institute of Technology Patna Bihar** from 3<sup>rd</sup> – 4<sup>th</sup> March 2012.
- Actively Participation in Workshop on “Paradigms of Synthetis Biology ” from 26<sup>th</sup> July - 28th July, 2011 organized by **the Jaypee University Solan & Joint Bioenergy institute Emeryville, CA, USA**.
- Actively Participation in Workshop on “Frontiers in Nanobiotechnology” 1<sup>st</sup> December 2006 organized by **University of Allahabad, Allahabad, India**.