



**Er. MOHIT RAWAT**  
**Assistant Professor**  
**Department of Nanotechnology**  
**Sri Guru Granth Sahib World University**  
**Fatehgarh Sahib (Punjab)**

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### **Academic Qualification:**

Masters of Technology (Nanotechnology)	National Institute of Technology (NIT) Kurukshetra, (CGPA 7.68) (First Division)	(2008-2010)
Post Graduate Diploma in Marketing and Communication	Singapore (First Division)	(2006-2007)
B.Tech in Biotechnology: (Department of Biotechnology)	Kurukshetra University, (First Division)	(2002-2006)
Senior Secondary Examination (10+2)	Central Board of Secondary Examination . (First Division)	(2000-2002)

## **Research Interest:**

- Synthesis and characterization of Nanomaterials and its Application
- Size and Shape controlled synthesis of metal, clay nanoparticles and their nanocomposites.
- Synthesis of Bimetallic (core-shell, inverted core-shell and alloyed) nanoparticles
- Self-assembly of metal nanoparticles using different ligands and their application in SERS and fluorescence.
- Biosensors
- Optical properties of metallic nanoparticles.

## **Working Experience:**

**20 July 2011 to till date** working as Assistant Professor in Department of Nanotechnology at Sri Guru Granth Sahib World University

### **Nature of work:**

#### **Subject Taught for UG and PG Course (M.Tech 5 year and M.Tech 2 year In Nanotechnology)**

- Fundamentals of Nano science and Technology
- Chemistry
- Nanobiotechnology
- Microorganism and Nanobiocomposites Materials
- Industrial Nanotechnology
- Workshop on General Awareness and Professional Protocols

#### **Labs taken for UG & PG Course**

- Synthesis and Characterization of Nanomaterials lab (PG)
- Bottom up synthesis of nanomaterials
- Chemistry Lab(UG)
- Semiconductor Nanomaterials Lab(UG)
- Characterization Techniques of Nanomaterials (UG)

#### **Supervised for two Students for Master of Technology in Nanotechnology 2 years Course**

Topics of the Thesis

- Ascorbic Acid Assisted Synthesis of Gold Nanoparticles.
- Synthesis and characterization of Polymer Capped Palladium Nanoparticles

**05 Septmeber to 20 July 2011** working as Academic Planner Department of Nanotechnology at Sri Guru Granth Sahib World University

**Central Scientific Instruments Organization CSIR Lab** – I have been worked in synthesis and characterization in Palladium nanoparticles by Chemical routes method . These PD nanoparticles is characterized by UV- visble , Fluorescence spectrophotometer, FTIR ,X ray Diffraction (XRD) , Atomic force Microscope (AFM), Scanning Electron Microscope (SEM). These Pd nanoparticles is Immobilized on glass plate and then Electrochemical studies of Pd nanoparticles. These Pd nanoparticles then we used in biosensor .

**Minor Project:** *Synthesis and Characterization of ZnO Nanoparticles*

I have been worked in **National Institute of Pharmaceutical Education and Research (NIPER )**(Pilot Plant) as Analytical Chemist from September 2007 to May 2008.

**JOB PROFILE:**

- Analysis of Finished products (Assay, Impurity profile by HPLC)
- Analysis of intermediates. (Assay, Impurity profile)
- In-process testing.(Reaction monitoring).
- Preparation of all documents related to Q.C Department.
- Manage all activities related to Quality Control Department.

**Book/Books chapter:**

- Rawat,Mohit;Singh Gurjinder; Starch Capped Gold Nanoparticles for Catechol Biosensor, LAMBERT Academic Publishing GmbH & Co. Germany, ISBN: 978-3-659-31210-6
- Rawat,Rohit;Rawat,Mohit(Edt);Implementation of Total Productive Maintenance In Steel Sector LAMBERT Academic Publishing GmbH & Co. Germany, ISBN: 978-3-659-41516-6

**International Conferences and workshop attended:**

- Gurpreet Kaur; Mohit Rawat; Basu, Soumen. Controlled Aggregation of Silver Nanoparticles By Vitamin B7. International Conference on Interdisciplinary Areas with Chemical Sciences (ICIACS-2013), 30th October- 1st November, 2013

- Rawat ,Mohit;Basu,Soumen; Synthesis, Dispersion and Size Control of Hectorite Nanoparticles for Nanotoxicology Studies. International Conference on Emerging Trends in Physics for Environmental Monitoring & Management (ETPEMM-12) 17-19, December 2012,Patiala, India.
- International convention on *Solar Photovoltaic Technologies* held at New Delhi, organized by Guru Gobind Singh Indraprastha University (GGSIPU) & Solar Energy Society of India (SESI) on 5th October, 2009
- Workshop on *Quantum Wise-Atomistix Toolkit and Virtual Nanolab workshop* held at New Delhi, jointly organized by GGS Indraprastha University (GGSIPU) & Integrated Microsystem (IMS) on 6th October, 2009
- International Symposium on *Nanostructured Materials: Structure, Properties and Application (ISNM-2009)* held at Jalandhar, Punjab, organized by P.G. Dept. Of Physics Kanya Mahavidyalaya ,from October 28-29, 2009, (Sponsored by : DST, DRDO, DAE and CSIR)

### **Wet Lab Projects and Trainings in Biotechnology**

**In Vitro Fertilization (IVF) and Embryo Transfer** – Successfully completed this project in final year of B.Tech (May 2006) under the supervision of Dr Mogra (Professor & Project Incharge) and Dr. Malagarh (Senior Scientist, NDRI Karnal, India) by fertilization of female goat eggs with male goat sperms in a laboratory dish and then transferred the resulting embryo in a surrogate mother's uterus (womb) to implant and develop naturally.

### **Phylogenetic Analysis and Secondary Structure Prediction of Proteases in Different Organisms-**

Successfully completed this Project with the help of Bioinformatics by using computer tools to determine the secondary structure of Proteases and their ancestry relationships are finding out by Phylogenetic Analysis

**Alpha Drugs Lalru (India)** – Two month industrial training on High Pressure Liquid Chromatography (HPLC), Gas Chromatography (GC), Electrophoresis, in (R&D), and Fermentation process in June 2005.

**NDRI (National Dairy Research Institute) ICAR LAB Karnal, (India)** - During in this stay at Animal Biotechnology Centre i learned a Molecular Biology Techniques like, Isolation Cloning and Analysis of DNA from Buffalo using relevant Molecular Biology Techniques Including Polymerase Chain Reaction, Single Strand Polymorphism Chain Reaction (SSCP) I have also exposed to the techniques of Embryo Biotechnology such as In Vito Fertilization (IVF) and Somatic Cell Cloning used for reproduction augmentation in Farm animals. I also learnt a technique in quality control (like Cheese, Milk, and Sweets) in Dairy Technology.

### **Personal Details:**

Gender : Male  
Marital Status : Married  
Date of Birth : 02-12-1984.  
Nationality : Indian  
Passport no : F2612737

### ***References***

#### **1). Dr. M.S Chauhan**

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#### **2). Dr.R.P.Chauhan**

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I hereby declare that everything mentioned in my curriculum vitae is true and best to my knowledge.

Mohit Rawat