

Dr. Dilshad Ahmad  
Department of physics Baba Guru Nanak University Nankana  
Sahib Pakistan  
[dilshad.ahmed@iub.edu.pk](mailto:dilshad.ahmed@iub.edu.pk) +92302-7709796  
Gender: Male | DOB: 05/04/1990 | Nationality: Pakistani



---

### Motivation:

Highly motivated and accomplished physics with a strong background in synthesis of Nano particles and their composites with applications to photo catalysis and water treatment and a proven track record of publishing in top-tier Journals. I am seeking a research position to continue contributing to the impact of the development of Nano particles and photo catalysts for their application in industrial sector and environment.

---

### Profile:

Dr. Dilshad Ahmad completed his PhD degree graduation (2018-2023) from The Islamia university of Bahawalpur Pakistan. During his PhD research, he worked synthesis of Nano particles and their Nano composites for their application in water treatment. These photo catalysts also have to significantly contribute to industry, society, science, and technology. For example, Bismuth based Nano particles and their Nano composites could make the industrial waste water clean and fresh for the human beings and as well as for the aquatic life. Additionally, these Nano particles can be used as anti-bacterial agents to kill the bacteria's such as E-coli, Pseudomonas and staphylococcus etc. He also applies these porous materials in photo redox catalysis applications for degrading harmful organic compounds in water as eco-friendly techniques.

---

### Research Interest and Expertise:

Developing the doped and co doped Nano particles and their Nano composites, using Sol-Gel, Co-precipitation and Hydrothermal methods. Characterizations of synthesized materials applying these materials in the photo redox catalysis for degradation of dyes, antibiotics, and organic pollutants.

Publication  
Statistics

Journal Papers	Combined I.F.	Citations	h-index	i-10 index
4	>20	10	2	18

---

**Major duties:**

- Synthesis of nanoparticles and nanocomposites and investigations of their characterizations.
- Co-Supervise, a research team of students (3 M. Phil and 1 master) for the development of nanoparticles and their photocatalytic properties in Biophotonic lab.

Research  
Collaboration

I am working with various collaborations. **Prof. Dr. Farooq Ahmad Warsi** (Institute of chemistry The Islamia university of Bahawalpur , Pakistan) **Assistant prof. Dr. Muhamad Amir Rafique** (Institute of physics The Islamia university of Bahawalpur ,Pakistan.)  
**Associate Prof. Dr. Muhammad Naseeb** (Department of physics Baba Guru Nanak University Nanakana Sahib,Pakistan.)  
**Associate Prof. Dr. Zhida Batool** (Institute of physics The Islamia university of Bahawalpur ,Pakistan.)  
,Post doc in university of Alberta Canada, continue )

---

**Education: PhD in Physics**

(2018–2023)

---

**Institute of physics The Islamia university of Bahawalpur Pakistan.**

**Thesis: Synthesis and characterization of Bismuth based Nano particles and their Nano composites for their Application in Water treatment** .The following approaches will be covered under this title.

- Cost effective synthesis of  $Cu_xBi_{2-x}Se_3$  photocatalysts by sol-gel method and their enhanced photo degradation and antibacterial activities (**ceramic international**)
- Fabrication of substituted Y-type hexaferrites/carbon dots composites for recording media and photo degradation of dye (**ceramic international**)
- Sol-gel synthesis of topological insulator bismuth selenide nanoparticles by using different solvents (**Digest journal of Nano Materials and Bio structures**)
- Synthesis of transition metal and rare earth metal doped nanocrystalline  $CdAl_2O_4$ , An outstanding approach for photodegradation of harmful organic contaminants (**Desalination and Water Treatment**)

**M.Phil in Physics**

(2013–2015)

**Institute of Physics, The Islamia University of Bahawalpur, Pakistan.**

**BS (Hons) in Physics**

(2008–2012)

**Institute of Physics, The Islamia University of Bahawalpur, Pakistan.**

**Awards:**

**Fee Reimbursement ('PM reimbursement scheme" launched by Higher Education Commission (HEC).**

Awarded Laptop (HEC-PM Laptop scheme).

---

Professional Education

**University of education Lahore, Pakistan.**

**Bachelor of Education (B. Ed)**

(2014)

The Islamia University of Bahawalpur, Pakistan

Teaching  
Experience

---

**Assistant professor**

Department of Physics , Baba Guru Nanak university Nankana Sahib Pakistant .

(3/ 2025– continue)

To teach the BS (Hons) classes guiding the students for practicals and research purposes

**Visiting Lecturer (Physics)**

Department of Physics, Glims institute of modern studies Bahawalpur, Pakistan.To teach the M.SC Class, guiding the students for practicals

(2017–03/2025)

**Secondary school Teacher (SSE)**

Govt. High School Punjab Education Department, Pakistan.

Teaching physics to secondary school students and having good control over a class of 50 students.

(07/216–03/2025)

**Lecturer (Physics)**

---

READSCOLLEGE, Bahawalpur, Pakistan.

Teaching chemistry to higher secondary school students and lab work as well.

Honors  
&  
Awards

1. **Awarded Laptop** (HEC-PM Laptop scheme). (2012)
  2. **Fee Reimbursement** ("PM reimbursement scheme" launched by Higher Education Commission (HEC) ). (2014)
-

## Conferences And Workshops

### **3rd International Conference Advances in Material Science**

15-12-2022 to 16-12-2022-University of education Lahore

**1<sup>st</sup> International Conference on Emerging Trends in Physics. Participated as a speaker on topic,**  
Cost effective synthesis of  $Cu_xBi_{2-x}Se_3$  photo catalysts by sol-gel method and their enhanced photo degradation and antibacterial activities

### **Two Days National Training Workshop and One Day Symposium on Nanotechnology Research in Pakistan**

25-11-2020 to 28-11-2020 National institute for bio technology and genetic engineering (NIBGE) Faisalabad Pakistan

**Organizer, Discipline Committee, 1<sup>st</sup> Annual Dinner, Institute of Physics The Islamia University of Bahawalpur 2022**

**Two-Days Training of presiding Officers and Sr. Assistant Presiding Officers –GE 2018 and 2024**

**Organizer, Two Days symposium on sustainable energy ,17-18 April 2025 ,Department of physics Baba Guru Nanak University Nankana Sahb Pakistan.**

**2<sup>nd</sup> INTERNATIONAL CONFERENCE ON APPLIED SCIENCES & TECHNOLOGY 15-17 October 2025 Baba Guru Nanak University Nankana Sahb Pakistan (Organizer, Discipline Committee)**

**Languages** 1. English (professional); 2. Urdu (native); 3. Punjabi (native)

---

## **References** 1.. **Dr. Zahida Batool (PhD Advisor) Associate professor**

Institute of Physics, The Islamia University of Bahawalpur, Pakistan

[Email: zahida.batool@iub.edu.pk](mailto:zahida.batool@iub.edu.pk), Phone: +923004522597

## 2. **Prof. Dr.Muhammad Amir Rafiq Associate professor**

Institute of Physics, The Islamia University of Bahawalpur, Pakistan

[Email:amir.rafiq@iub.edu.pk](mailto:amir.rafiq@iub.edu.pk), Phone: +923007850851

## 3. **Adjunct Assistant Professor. Dr.Mujahid Mustaqeem**

Institute of Electro-Optical Engineering National Taiwan Normal University Taiwan. (NTNU)

[Email mustaqeem.mujahid@gmail.com](mailto:mustaqeem.mujahid@gmail.com), Phone: +886-975424684,