



Department of Physics  
School of Sciences  
Maulana Azad National Urdu University  
(Central University)  
Gachibowli, Hyderabad,  
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## DR. ZEENAT FATIMA

### CURRENT DESIGNATION/ INVOLVEMENT

Currently working as Guest Faculty in Physics, School of Sciences, Maulana Azad National Urdu University (Central University), Hyderabad, Telangana, India.

### RESEARCH PROFILES

Google Scholar ID: <https://scholar.google.com/citations?user=nd3kqNIAAAAJ&hl=en>  
Scopus ID: 55646761700  
ORCID ID: <https://orcid.org/0000-0002-4071-7845>

### AREA OF SPECIALIZATION

Crystallography and Materials Science

### ONGOING ACADEMIC RESEARCH/PROJECTS

Currently working on crystallographic studies of organic compounds to analyze their molecular structure and intermolecular interactions.

Minor research project on Growth, Structural Characterization and Dielectric Properties of Organic Crystals

### INNOVATION WITH FIELD OF STUDY AND COLLABORATIVE EFFORTS

Engaged in interdisciplinary research combining crystallography and organic chemistry.

### ACADEMIC AND ADMINISTRATIVE EXPERIENCE

Guest Faculty, Dept. of Physics, School of Sciences, Maulana Azad National Urdu University (MANUU), Hyderabad (May 2015 – till date)

- Teaching various disciplines of physics to undergraduate and postgraduate students.
- Supervised internship projects for B.Sc. students, providing mentorship and practical training
- Developed comprehensive lab manuals and course materials for M.Sc. Physics and B.Sc. laboratory courses.

- Was Member of Board of Studies and Research Advisory committee, Physics

Asst. Professor in Hi-Point College of Engineering & Technology, JNTU, Hyderabad.  
(Sept 2005 – Dec 2009)

#### EDUCATIONAL QUALIFICATION

Ph. D in Physics, CAS in Crystallography & Biophysics, University of Madras. Chennai (2014)

Ph. D Thesis Title: Crystallographic studies on some important organic compounds and structure-based drug design.

Supervisor: Prof. D. Velmurugan

M.Sc. in Physics, Osmania University, Hyderabad. (2005)

B. Sc (Hons) in Physics, Delhi University, New Delhi. (2003)

#### TEACHING PROFICIENCY

Various disciplines of Physics for B.Sc (Gen), B.Sc (Hons), B.tech, B.Voc(MIT), M.Sc and Ph.D

#### RESEARCH PUBLICATION DETAILS

##### Research Articles

1. A review: An overview on third-order nonlinear optical and optical limiting properties of Schiff bases  
Zeenat Fatima; H. Aleem Basha; Salman A. Khan, Journal of Molecular Structure,(2023).1292, 136062
2. N-(4-Methoxyphenyl)-2,6-dimethyl-1,3-dioxan-4-amine  
Zeenat Fatima, Rambabu G, Bandapalli P R, Vijayaparthasarathi V and Velmurugan D, Acta Cryst. (2013). E69, o1490.
3. 2,6-Dimethyl-N-(2-methylphenyl)-1,3-dioxan-4-amine  
Zeenat Fatima, Rambabu G, Bandapalli P R, Vijayaparthasarathi V and Velmurugan D, Acta Cryst. (2013). E69, o1561.
4. N-(2-fluorophenyl)-2,6-dimethyl-1,3-dioxan-4-amine  
Zeenat Fatima, Rambabu G, Bandapalli P R, Vijayaparthasarathi V and Velmurugan D, Acta Cryst. (2013). E69, o1524

5. N-(4-bromophenyl)-2,6-dimethyl-1,3-dioxan-4-amine  
Zeenat Fatima, Rambabu G, Bandapalli P R, Vijayaparthasarathi V and Velmurugan D, Acta Cryst. (2013). E69, o1579
6. N-tert-Butyl-2-(2,6-dichlorophenyl)-imidazo[1,2-a]pyrazin-3-amine Zeenat Fatima, Srinivasan T, Suman K, Thennarasu S and Velmurugan D, Acta Cryst. (2013). E69, o949–o950
7. N-tert-Butyl-2-[4-(dimethylamino)phenyl]imidazo[1,2-a]pyrazin-3-amine Zeenat Fatima, Srinivasan T, Suman K, Thennarasu S and Velmurugan D, Acta Cryst. (2013). E69, o612–o613
8. Methyl 2-(2,2-dimethyl-3a,6a-dihydrofuro[3,2-d][1,3]dioxol-5-yl)-4-oxo-4H- chromene-3-carboxylate  
Zeenat Fatima, Srinivasan T, Naga Siva Rao J, Raghunathan R and Velmurugan D, Acta Cryst. (2013). E69, o1310
9. Allyl 2-(2,2-dimethyl-3a,6a-dihydrofuro-[3,2-d][1,3]dioxol-5-yl)-4-oxo-4H- chromene- 3-carboxylate  
Zeenat Fatima, Srinivasan T, Naga Siva Rao J, Raghunathan R and Velmurugan D, Acta Cryst. (2013). E69, o1257–o1258.
10. 3-[(E)-2-(4-Chlorophenyl)ethenyl]-5,5-dimethylcyclohex-2-en-1-one  
Zeenat Fatima, Senthilkumar G, Vadivel A, Manikandan Hand Velmurugan D, Acta Cryst. (2013). E69, o1121
11. 3-[(E)-2-(2-Methoxyphenyl)vinyl]-5,5-dimethylcyclohex-2-enone  
Zeenat Fatima, Senthilkumar G, Vadivel A, Manikandan Hand Velmurugan D, Acta Cryst. (2014). E70, o509
12. 1-[2-(3-Methoxyphenyl)ethyl]pyrrolidine-2,5-dione  
Zeenat Fatima, Selvakumar J, Srinivasan T and Velmurugan D, Acta Cryst. (2013). E69, o1489
13. N-(4-fluorophenyl)-2,6-dimethyl-1,3-dioxan-4-amine  
Rambabu G, Zeenat Fatima, Bandapalli P R, Vijayaparthasarathi V and Velmurugan D, Acta Cryst. (2013). E69, o1602.

#### Book Chapters

1. 4 chapters in Waves & Optics, Directorate of Distance Education, Maulana Azad National Urdu University, Hyderabad, India, 2022, ISBN: 978-93-95203-15-9
2. 5 Chapters in Electricity and Magnetism, Directorate of Distance Education, Maulana Azad National Urdu University, Hyderabad, India, 2022, ISBN: 978-93-30822-99-5

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#### DETAILS OF CONFERENCE/ SEMINAR /WORKSHOP/ FDP (ATTENDED/ PRESENTED)

NEP Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grants Commission (UGC) Organized by UGC-MMTTC, Maulana Azad National Urdu University, Hyderabad from 2nd to 13th January, 2025.

“Molecular Docking studies of a Pyrrolidine derivative against Acetylcholinesterase” Talk given at National Urdu Science Congress – 2021, School of Sciences, Maulana Azad National Urdu University, Hyderabad.

Participated in International Workshop on Phinix Suite of Solving Macromolecular Structures-2014, BIF, University of Madras, Chennai.

“Molecular docking studies of dioxane derivatives against hsp90” at 6th International Symposium on Recent Trends in Macromolecular Structure and Function-2014, CAS in Crystallography and Biophysics, University of Madras, Chennai.

“Insilico analysis of anti-tubercular natural compounds against Mycobacterium tuberculosis catalase peroxidase” at Annual Meeting of the Indian Biophysical Society-2012, CAS in Crystallography and Biophysics, University of Madras, Chennai.

Participated in 41st National Seminar on Crystallography-2012, CAS in Crystallography and Biophysics, University of Madras, Chennai.

Participated in 5th International Symposium on Recent Trends in Macromolecular Structure and Function-2012, CAS in Crystallography and Biophysics, University of Madras, Chennai.

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DETAILS OF  
SUPERVISION  
(M.PHIL/M.TECH/PH.D.)

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PROFESSIONAL  
MEMBERSHIPS

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PROFESSIONAL  
ACTIVITIES

Co-Convenor for International Conference on Current Advances in Applied Physics organized by Dept. of Physics, School of Sciences, MANUU (20-21 February 2025)

Co-Convenor for National Symposium on Current Advances in Applied Physics organized by Dept. of Physics, School of Sciences, MANUU (28-29 February 2024)

Co-Chair of Technical Session at International Conference on Current Advances in Applied Physics Organised by Dept. of Physics, School of Sciences, MANUU (20-21 February 2025)

Member of Organizing Committees for annual International Urdu Science Conference organized by School of Sciences, MANUU (2023 & 2024)

Member of Organizing Committees for annual National Urdu Science Congress organized by School of Sciences, MANUU (2017,2018,2019,2020 & 2021)

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ACHIVEMENTS

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PERSONAL DETAILS

Father's Name : Ismail Ali Khan  
Date of Birth : 31/08/1983  
Gender : Female  
Marital Status : Married  
Nationality : Indian  
Language Known : Urdu, English, Hindi, Telugu, Tamil

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Date: 02-06-2025

Place: Hyderabad

Name: Zeenat Fatima

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