



## Arslan Liaquat

**Nationality:** Pakistani **Date of birth:** 1995-12-22 **Gender:** Male

**Phone number:** (+39) 3408887124 **Email address:** [arslan.liaquat@unimore.it](mailto:arslan.liaquat@unimore.it)

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**Work:** University of Modena and Reggio Emilia Department of Physics, Informatics, and Mathematics Via Campi 213/A, 41125 Modena (Italy)

### EDUCATION AND TRAINING

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#### Ph.D. in Physics and Nanoscience

*University of Modena and Reggio Emilia* [ 2022-01-01 – Current ]

Country: Italy

#### M.Phil.(Physics)

*Riphah International University, Islamabad, Pakistan* [ 2017-02-16 – 2019-10-20 ]

Country: Pakistan

Website: <https://www.riphah.edu.pk/>

Final grade: 3.87/4.00 – Level in EQF: EQF level 7

NQF Level: 2 Years Semester System Program -18 Years of Education – Type of credits: 3 – Number of credits: 50

Thesis: Effect of dopant concentration of Gd on Electrical and Magnetic properties of Ba- hexaferrite

- Advanced Quantum Physics, Advanced Computational Physics, Advanced Statistical Physics, Advanced Electrodynamics, Advanced Mathematical Physics, Nanomaterial's, Material Science, Magnetism & Magnetic Materials, Dissertation

#### M.Sc.(Physics)

*University of the Punjab* [ 2014-08-31 – 2016-12-15 ]

Country: Pakistan

Website: <http://www.pu.edu.pk/>

Final grade: A – Level in EQF: EQF level 7

NQF Level: It's 2 Year Annual Program-16 Years of Education

Thesis: Temperature dependent effect of dopant concentration on Electrical properties of Sr-hexaferrite

- Quantum Mechanics, Classical Mechanics,, Mathematical Method of Physics, Solid State Physics (I&II), Electronics, Nuclear Physics, Computational Physics, Relativity and Cosmology, Statistical Mechanics, Electronics Lab, Modern Physics Lab, Dissertation.

#### B.Sc.(Double Math, Physics)

*University of the Punjab* [ 2012-08-31 – 2014-08-15 ]

Country: Pakistan

Website: <http://www.pu.edu.pk/>

Level in EQF: EQF level 6

NQF Level: Bachelor (2 Year Annual Program) - 14 Years of Education

### GRADUATION-THESIS

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#### Effect of Gd concentration on Electrical and Magnetic properties of Ba-Sr (0.5,0.5) hexaferrite nanoparticles

[ 2017-12-31 – 2019-12-30 ]

**Thesis Language Used:** English

**Supervisor:** Prof. Dr. Anwar ul Haq

## **Temperature Dependent Structural and Electrical Properties of Zn-Cr doped Sr-hexaferrite**

[ 2014-12-31 – 2016-12-30 ]

- Thesis Language Used: English
- Supervisor: Prof. Dr. Anwar ul Haq

### **PUBLICATIONS**

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#### **Impact of Gd dopant on electrical and magnetic properties of (Sr-Ba)Fe<sub>12</sub>O<sub>19</sub> nanoparticles**

[2020]

Arslan Liaquat, M. Anis-ur-Rehman , A. ul Haq, Journal of Alloys and Compounds,822 (2020) 153561.

#### **Electrical and magnetic properties of BiFeO<sub>3</sub> nanoparticles substituted with high concentrations of cobalt**

[2021]

S.Haider, A.Liaquat, M. S. Awan, N. Ul-Haq, A. ul Haq, Journal of the Australian Ceramics Society

#### **Development of electrical and magnetic properties of Gd substituted Ba<sub>0.75</sub>Sr<sub>0.25</sub>Fe<sub>12</sub>O<sub>19</sub> Nanoparticles**

[2021]

Z. Nawazish , A.Liaquat , M. Anis-ur-Rehman , A. ul Haq, Materials Today Communications 26 (2021)

#### **Impedance Spectroscopy and Investigation of Conduction Mechanism in Reduced Graphene/ CuFe<sub>2</sub>O<sub>4</sub> Nanocomposites**

[2021]

Applied Physics A (2021) 127:423

### **WORK EXPERIENCE**

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#### **Researcher &Co-Supervisor**

***Riphah International University*** [ 2020-12-31 – Current ]

City: Islamabad

Country: Pakistan

- Research Student Counselling
- Assisting students in laboratory
- Develop Scientific and Critical Thinking among Research Students
- Help Students to analyze the Research Data

#### **Teacher of science in high school**

***Punjab School Education Department*** [ 2017-07-27 – Current ]

City: Rawalpindi

Country: Pakistan

- Plan and present suitable learning experiences for all students.
- Oversee and analyze student outcomes in physics.
- Convey and interact with parents, students, staff and community.
- Maintain and update student attendance records, grades and varied required records.
- Monitor students' laboratory work.
- Supervise suitable use and care of materials, equipment and facilities.
- Develop course materials like homework assignments, syllabi and handouts.

## SKILLS AND CERTIFICATIONS

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**Graphic Designer (Adobe Photoshop, Adobe InDesign, CorelDraw)- 3 Months Certification**

**Computer Applications and Office Professionals-6 Month Diploma-Vocational Training Institute**

- 06 Month Diploma
- Expertise in Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Urdu In Page,
- English Typing Course

### Technical Skills

- Python
- Machine Learning
- Deep Learning
- R programming
- Cosmol
- Origin Software
- MATLAB
- X'pert Highscore
- MDI JADE Software
- ImageJ Software for analysis of SEM images

## CONFERENCES AND SEMINARS

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### 16th International Symposium on Advanced Materials (ISAM-2019)

[ National Centre for Physics, Islamabad, Pakistan, 2019-10-20 – 2019-10-24 ]

Oral Presentation on topic "Impact of Gd dopant on electrical and magnetic properties of (Sr-Ba)Fe<sub>12</sub>O<sub>19</sub> nanoparticles".

### 3rd International Workshop on Ion Beam Applications & Defects in Nano Materials

[ National Centre of Physics, Islamabad, Pakistan, 2019-08-04 – 2019-08-06 ]

### GIS DAY 2016

[ COMSATS University, Islamabad, Pakistan, 2016-11-15 – 2016-11-15 ]

### GIS DAY 2015

[ COMSATS University, Islamabad, Pakistan, 2015-11-17 – 2015-11-17 ]

## HONOURS AND AWARDS

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### Talent Scholarship Award

Riphah International University

- Awardee of Talent Scholarship Award-Tuition Waiver during core period of M.Phil. Physics (2 Years) due to outstanding academic performance and high CGPA

## MANAGEMENT AND LEADERSHIP SKILLS

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### Supervisor -National Socio-Economic Registry (NSER)

- Work as Supervisor for NSER Survey-one of the largest welfare program in the world.
- Lead the team for more than 6 months in the District Rawalpindi, Punjab which completes the survey process for welfare program required by Government of Pakistan
- My team was the leading team in the whole survey for collecting maximum data in short time with good efficiency and performance.

## LANGUAGE SKILLS

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Mother tongue(s): **Panjabi; Punjabi** | **Urdu**

**Other language(s):****English****LISTENING C1 READING C2 WRITING C1****SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1***Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user***RECOMMENDATIONS**

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**Supervisor****Name:** Prof.Dr. Francesco Rossella**Phone number:** (+39) 3293219608**Email:** [francesco.rossella@unimore.it](mailto:francesco.rossella@unimore.it)

Tenured assistant Professor

Scuola di Ingegneria | Dipartimento di Scienze Fisiche, Informatiche e Matematiche

Università di Modena e Reggio Emilia

**Supervisor****Name:** Professor. Dr. Anwar ul Haq**Phone number:** (+92) 3225757397**Email:** [anwar.haq@riphah.edu.pk](mailto:anwar.haq@riphah.edu.pk)

Prof.Dr. Anwar ul Haq , Dy.VC Riphah International University Islamabad, supervised my M.Phil. Physics Research Project.

**Co-Supervisor****Name:** Prof.Dr. M. Anis-ur-Rehman**Phone number:** (+92) 3215163059**Email:** [marehman@comsats.edu.pk](mailto:marehman@comsats.edu.pk)

I worked under the co-supervision of Prof. Dr. M. Anis-ur-Rehman in his Applied Thermal Physics Labortary during my M.Sc. and M.Phil. research projects.