# **Personal Detail**

Name Abdul Jalil Address: Department of Physics, Allama Iqbal Open University, H8-Islamabad Cell: +923315192550 WhatsApp: +923315192550 E-mail: abdul.jaleel@aiou.edu.pk, abdul@mail.ustc.edu.cn Website: <u>Staff Member Detail (aiou.edu.pk)</u> Date of birth: 19 Dec 1984 Nationality: Pakistan Passport No. : AH8700662



## Experience

2011-to date Assistant Professor Department of Physics, Allama Iqbal Open University, Islamabad Pakistan
2020-2024 (Postdoc) School of Materials Science and Engineering, Northwestern Polytechnical University

## **Research Area**

Research interests include development of materials design method, the design and computational simulation of spintronics materials, (photo)catalytic materials for energy, and other low-dimensional functional materials.

## Education

**2015-2018** (Doctorate) University of Science and Technology of China (USTC) PhD in Material Science and Engineering, 2018. USTC is amongst top world universities (2025)

- 2013-2015 MPhil Physics, Allama Iqbal Open University, Islamabad.
- 2006-2008 (MSc Physics), The University of Punjab, Lahore.

2004-2006 (Bachelors), The University of Punjab, Lahore

#### **Current Research Work**

Currently my I am working on 2D materials, Heterostructures in different applications, including

- Electronic & Optical Properties
- Gas Sensors
- Photocatalysis
- Tunning Schottky barrier Height
- Mobility calculations
- Thermoelectric Properties

#### 2025

- Substrate Temperature-Induced Grain Boundary Reduction for High-Efficiency Self-Powered n-V2O5/p-Si Photovoltaic Heterojunction Devices J Kazmi, W Ahmad, SRA Raza, JH Shah, A Khan, MA Shahid, M Dayer, ... Journal of Alloys and Compounds, 178811.
- Experimental and computational study of Bi2O3/WO3 heterostructures as efficient solar driven photocatalyst E Muhammad, T Jan, A Jalil Inorganic Chemistry Communications 171, 113581.
- High-performance, Self-powered ZnO NWs-ZnSe Heterojunction Photodetectors for Superior Visible and Near-Infrared Detection Z Hassan, SF Batool, J Kazmi, SRA Raza, JH Shah, A Jalil, HK Kaplan, ... Journal of Physics D: Applied Physics
- Mn-Mo ferrites doped with rare earth element for enhancing EMI shielding: A DFT calculation and experimental comparison HMF Shakir, T Zhao, MU Farooq, A Jalil Journal of Materials Science & Technology 224, 183-190
- Chirality-selective growth of single-walled carbon nanotubes through precise regulation of interfacial behavior L Yang, T Zhao, A Jalil, Y Yin, Y Shu, T Jiang Journal of Materials Science & Technology
- Structural and electronic properties of Graphene-like GeC3 under mechanical strain: A DFT Study AJMA Noor UI Ain, Arooba Kanwal, Tayyaba Aftab New Journal of Chemistry, 555
- Electromagnetic wave absorption property of crosslinked holey Fe/FeO/Fe2O3/RGO nanocomposite X Li, Y Shu, T Zhao, J Zhang, RP Feng, T Jiang, Y Yin Ceramics International 51 (3), 2974-2984

- Machine Learning-Assisted Screening of Hexagonal 2D van der Waals Bilayers for Photocatalysis A Kanwal, A Jalil, SRA Raza The Journal of Physical Chemistry C
- Mn-Mo ferrites doped with rare earth element for enhancing EMI shielding: A DFT calculation and experimental comparison HMF Shakir, T Zhao, MU Farooq, A Jalil Journal of Materials Science & Technology
- Electromagnetic wave absorption property of crosslinked holey Fe/FeO/Fe2O3/RGO nanocomposite X Li, Y Shu, T Zhao, J Zhang, RP Feng, T Jiang, Y Yin Ceramics International
- Experimental and Computational Study of Bi2O3/WO3 Heterostructures as Efficient Solar Driven Photocatalyst AJ Ijaz Muhammad, Tariq Jan Inorganic Chemistry Communication 11 (0888), 6789
- Thermal annealing and DFT Insights enhance photodetection efficiency in VOx/p-Si heterojunctions
   J Kazmi, J Kazmi, SRA Raza, JH Shah, A Jalil, MA Mohamed Ceramics International 50 (22), 46042-46050
- Controlled growth of single-walled carbon nanotubes with narrow diameter distribution and high areal density on Mn-doped ZrO2supported Fe catalyst L Yang, T Zhao, A Jalil, Y Yin, Y Shu, T Jiang

Ceramics International 50 (21), 43442-43451

- The first-principles study of 2D monolayer T-Mo2C as promising anode material for Lithium-ion Batteries MH Akhlaq, A Jalil Colloids and Surfaces A: Physicochemical and Engineering Aspects 699, 134628
- Computational prediction of two dimensional Mo4BC as promising anode material for lithium-ion batteries
   MH Akhlaq, A Jalil, A Kanwal, T Aftab, SRA Raza Journal of Physics and Chemistry of Solids 193, 112174
- Electrochemical CC coupling mediated by novel Sn-SnO2 supported Cu single atoms: The case of CO2 conversion to ethanol MAZG Sial, N Guo, A Jalil, M Abbas, M Mateen, S Ullah, U Alam, ZM Bhat, ... Chemical Engineering Journal 489, 151099
- 10. Electromagnetic interference shielding and DFT study of barium hexaferrites nanoparticles coated polyaniline with heterointerface polarization behavior HME Shakir T Zhao MU Faroog HB Aziz A Jalil K Zubair

HMF Shakir, T Zhao, MU Farooq, HR Aziz, A Jalil, K Zubair Ceramics International

#### 2024

- Modulating oxygen vacancy concentration for selective growth of semiconducting single-walled carbon nanotubes with narrow diameters L Yang, T Zhao, A Jalil, H Luo, T Jiang, Y Shu, Y Yin, W Jia Journal of Materials Science & Technology 174, 44-54
- Green-route synthesis and ab-initio studies of a highly efficient nano photocatalyst: Ce/zinc-oxide nanopetals A Hassan, A Jalil, SZ Ilyas, MF Iqbal, SZA Shah, Y Baqir Heliyon 10 (3)
- Li decorated graphene like MgN4 monolayer for hydrogen storage: A firstprinciples approach
   A Jalil, T Zhao, A Kanwal, S Hussain Surfaces and Interfaces 45, 103927
- Effect of strain on electronic properties of tri-layer MoS2/h-BN/graphene van der Waals heterostructures
   A Kanwal, A Jalil, RA Raza, S Ahmed, T Zhao, A Hassan, SZ Ilyas
   Journal of Physics and Chemistry of Solids 185, 111776
- 15. Computational study of two-dimensional SnGe 2 N 4 as a promising photocatalyst for the oxygen evolution reaction NU Ain, A Kanwal, A Jalil, CF Dee, T Zhao, SRA Raza, I Ahmad New Journal of Chemistry 48 (11), 4922-4930
- 16. Electromagnetic wave absorption property of crosslinked holey Fe/FeO/Fe2O3/RGO nanocomposite YY Tingkai Zhao,Xianghong Li,Yuan Shu,A. Jalil,Jumin ZhangF, uiping Feng,Tao Journal of Materials Science & Technology
- 17. Mechanism of liquid film migration and interface reaction in multi-layer aluminum sheets during brazing based on the homogenization annealing MXWCAZ Yuan, Y Lu, Y Jiang, Y Tu, Z Ni, J Peng, X Chen, S Li, L Huang, ... Journal of Manufacturing Processes under review
- 18. Computational prediction of phosphorene and graphene-like AsP 3 monolayers

SA Asghar, A Jalil, NU Ain, A Kanwal New Journal of Chemistry 48 (23), 10599-10606

- Enhanced photocatalytic water splitting with two-dimensional van der Waals heterostructures of BAs/WTeSe BB Hanifan, A Jalil, SZ Ilyas, AG Nabi, D Di Tommaso Materials Advances 5 (10), 4366-4377
- 20. Photoluminescence properties of double perovskite Ca2LuTaO6:Bi3+/Sm3+ white light emitting phosphors RKZ Noor Zamin Khan,Sayed Ali Khan, Weilong Chen a b, Abdul Jalil e ... Ceramic International, 2233
- 21. Computational insight on CsPbX3 (X = Cl, Br, I) and two-dimensional MYZ (M = Mo, W; YZ = Se, S) Heterostructures
  J Abdul, AK Hafsah Rashid
  Materials Science in Semiconductor Processing
- 22. Computational Insights into Schottky Barrier Heights: Graphene and

Borophene Interfaces with H and H-XSi2N4 (X = Mo, W) Monolayers A Jalil, T Zhao, A Firdous, A Kanwal, R Raza, A Rafiq Langmuir 15 (23)

- 23. MoO2/a-CNT/ rGO as electrode material for all-in-one flexible supercapacitor with integrated structure and function L Yang, H Zhang, J Abdul, T Jiang, Y Shu Diamond and related Materials
- 24. MOF Derivatives Co@NC with Heterogeneous Distributed Gradient Structure Anchored on Carbon Foam for High-performance Electromagnetic Wave Absorption HW Weibin Deng, Tiehu Li,\* Hao Li,\* Jalil abdul, Liting Liu,\* Alei Dang, Xin ... small, 23098

#### 2023

- Enhancing electromagnetic wave absorption and hydrophobicity/heat insulation properties of coral-like Co/CoO/RGO aerogels through pore structure regulation Y Shu, T Zhao, X Li, L Yang, G Abdul Jalil : Feng, Y Li, W Jia, F Luo
  - **Carbon**, 118278
- High-efficient electromagnetic wave absorption of coral-like Co/CoO/RGO hybrid aerogels with good hydrophobic and thermal insulation properties Y Shu, T Zhao, X Jalil Abdul, Li, L Yang, F Luo Chemical Engineering Journal, 144535
- Prediction of direct Z-scheme H and H-phase of MoSi2N4/MoSX (X= S, Se) van der Waals heterostructures: A promising candidate for photocatalysis A Jalil, T Zhao, A Kanwal, I Ahmed
  - **Chemical Engineering Journal**, 144239
- Catalyst regeneration and multicycle growth of high purity and yield semiconducting single-walled carbon nanotubes L Yang, T Zhao, A Jalil, T Jiang, Y Shu Chemical Engineering Journal 462, 142272 1
- Green synthesis and first-principles calculations of a highly efficient antibacterial agent: CuO/Ag nanocomposites
   Y Baqir, MT Tunio, SZ Ilyas, S Agathopoulos, H Mufti, A Jalil, A Hassan Chemical Papers 77 (5), 2459-2467
- Precursor concentration-dependent structural, optical and electrical properties of titanium dioxide nanostructures
   A Majeed, MN Ahmed, SRA Raza, A Jalil, AA Khan, A Ahmed
   Materials Chemistry and Physics 304, 127786
- Ab-initio characterization of iron-embedded nitrogen-doped graphene as a toxic gas sensor
   U Nosheen, A Jalil, SZ Ilyas, S Ahmed, A Illahi, MA Rafiq
   Journal of Computational Electronics 22 (1), 116-127
- Activity competition of catalysts and supports materials on the growth of carbon nanotubes with ZrO2/Fe catalyst L Yang, J Abdul, Y Shu, Y Yin, W Jia, T Jiang Applied Surface Science 637, 15 November 2023, 157889

 Modulating oxygen vacancy concentration for selective growth of semiconducting single-walled carbon nanotubes with narrow diameters Tingkai, A.Jalil L.Yang , Tingkai zhao Journal of Material Science & Technology

(https://doi.org/10.1016/j.jmst.2023.04.016)

10. Free Carrier-mediated Ferromagnetism in Non-magnetic ions (Bi-Li) codoped ZnO Nanowires

Phys. Chem. Chem. Phys., 2023,25, 14206-14218

**11.** Stable Two Dimensional Na Decorated BeN4: A Potential Candidate for Hydrogen Storage

**Journal of Computational Electronics** 

- Gas Sensing Properties of Black Phosphorene Like InP3 Monolayer: A FirstPrinciples Study
   Journal of Electronic Materials (https://doi.org/10.1007/s10825-023-02084-y)
- **13.** Effect of Strain on Electronic Properties of Tri-layer MoS2/h-BN/Graphene van der waals Hetrostructures

Journal of Physics & Chemistry of Solids (Under review)

**14.** Li decorated graphene like MgN4 monolayer for hydrogen storage: A firstprinciples approach

Applied Surface Science(Under review)

15. Electromagnetic wave absorption property of crosslinked holey Fe/FeO/Fe2O3/RGO nanocomposite

Y Shu, G Feng, A Jalil, X Li, L Yang, Y Li, W Jia, F Luo Journal of Colloid And Interface Science(Under review)

## 2022

- Prediction of atomically thin two-dimensional single monolayer SnGe withhigh carrier mobility: a DFT study
   H Mufti, A Jalil\*, SZ Ilyas, S Ahmed, A Hassan, T Zhao
   New Journal of Chemistry 46 (11), 5368-5373, 2022
- First-Principles Insight into a B4C3 Monolayer as a Promising Biosensor for Exhaled Breath Analysis Uzma Nosheen, A Jalil\*, Syed Zafar Ilyasa, Ahsan Illahi, Sayed Ali Khan, Ather Hassan, Journal of Electronic Materials,
- Ab-Initio Characterization Iron Embedded Nitrogen Doped Graphene as a Toxic Gas Sensor Uzma Nosheena, A Jalil\*, Syed Zafar Ilyas, Sarfraz Ahmed, Ahsan Illahi,

Muhammad Aftab Rafiq, Zhao Tingkai, Journal of Computational Electronics, Under Review...

 Fast and Self-Powered Photodetector of ZnO Nanowires and ZnSe/ZnSeO 3 based Heterojunction in Visible and NIR Region Zamir-ul-Hassan\*, Syeda Farzana Batool\*, Syed Raza Ali Raza\*, A Jalil, Asif

Majeed , Hüseyin Kaan Kaplan , Sertan Kemal Akay , Raja Azhar Saeed Khan , Mohsin Rafique, Ayaz Arif Khan, **ACS Applied Materials & Interfaces, Under** 

Review..

 Structural development and luminescent enhancement of CaAlSiN3: Eu2+ phosphor via replacing Al3+ by Ga3+

NZ Khan, SA Khan, A Jalil, F Wang, I Mehmood, MT Abbas, L Ali, ... Journal of Alloys and Compounds 897, 162485,1,2022

6. Cu ions irradiation-induced defects in graphene and their effects on optical properties

Jahanzaib, **A Jalil**, SO Aisida, Z Tingkai, CF Dee, M Sorokin, I Ahmad, ... **Radiation Physics and Chemistry** 193, 110008, **2022** 

7. COVID-19 persuaded lockdown impact on local environmental restoration in Pakistan

SZ Ilyas, A Hassan, SM Hussain, A Jalil, Y Baqir, S Agathopoulos Environmental Monitoring and Assessment 194 (4), 1-9,2022

8. Evaluation of Radio Refractivity in the Troposphere Over the Big Cities of Pakistan

Syed Zafar Ilyas, Ather Hassan, Nadia Bibi, Hareem Mufti, A Jalil, Journal of Geovisualization and Spatial Analysis 6,1-2022

#### 2021

1. 2D CoGeSe3 monolayer as a visible-light photocatalyst with high carrier mobility: Theoretical prediction A Jalil, SZ Ilyas, S Agathopoulos, A Qureshi, I Ahmed, T Zhao Applied Surface Science 565, 150588 2. DFT Study of Lead-Free Mixed-Halide Materials Cs2X2Y2 (X, Y = F, Cl, Br, I) for Optoelectronic Applications H Ahmed, SZ Ilyas, A Jalil, S Agathopoulos, A Dahshan Journal of Electronic Materials 50, 5647-5655 3. Development of structure and tuning ability of the luminescence of leadfree halide perovskite nanocrystals (NCs) 4. SA Khan, C Li, A Jalil, X Xin, M Rauf, J Ahmed, MAM Khan, B Dong, J Zhu, ... Chemical Engineering Journal 420, 127603 5. Synthesis, structure and photoluminescence properties of Ca2YTaO6: Bi3+\Eu3+ double perovskite white light emitting phosphors NZ Khan, SA Khan, L Zhan, A Jalil, J Ahmed, MAM Khan, MT Abbas, ... Journal of Alloys and Compounds 868, 159257 6. C ions irradiation induced defects analysis and effects on optical properties of TiO2 Nanoparticles A Faroog, SO Aisida, A Jalil, CF Dee, PC Ooi, M Sorokin, N Jabeen, ... Journal of Alloys and Compounds 863, 158635 7. Ab-initio characterization of B4C3 monolayer as a toxic gases sensing material S Ahmed, A Jalil, SZ Ilyas, A Hassan, A Ilahi, I Ahmed, M Khan, Q Khan Applied Surface Science 544, 148877 8. Ab-initio study of molybdenum carbide (Mo2C) as an adsorption-based filter

A Hassan, SZ Ilyas, S Ahmed, F Niaz, A Jalil, Q Khan Physics Letters A 392, 127119

9.	Evaluation of adverse effects of particulate matter on human life
	A Hassan, SZ Ilyas, S Agathopoulos, SM Hussain, A Jalil, S Ahmed,
	Heliyon 7 (2)

- 10. Optoelectronic and solar cell applications of ZnO nanostructures R Zahoor, A Jalil, SZ Ilyas, S Ahmed, A Hassan Results in Surfaces and Interfaces 2, 100003
- A new 2D Si3X (X= S, 0) direct band gap semiconductor with anisotropic carrier mobility
   A Jalil, SZ Ilyas, S Ahmed, A Hassan, D Li, K Musselman, Q Khan Surface Science 704, 121736
- Photocatalytic degradation of methylene blue using polyaniline-based silver-doped zinc sulfide (PANI-Ag/ZnS) composites"
   S Mazhar, UY Qazi, N Nadeem, PD Rahat Javaid, M Zahid, A Jalil, F Khan, ... Environmental Science and Pollution 11
- 13. Monetization of the environmental damage caused by fossil fuels AJZU Ather Hassan, Syed Zafar Ilyas Environmental Science and Pollution Research
- 14. Ligand Exchange Reaction in [Co4O4]-Cobalt Cubane: a Versatile Strategy Towards the Preparation of Cobalt Cubane-based Functional Small Molecules and Polymeric Materials

ZT Muhammad Waqas Ishaq,Raziq Nawaz,Lianwei Li,Abdul Jalil,Muhammad Ali Hashmi

Journal of Molecular Structure

## 2020

1.	New physical insight into crystal structure, luminescence and optical
	properties of YPO4: Dy3+\ Eu3+\ Tb3+ single-phase white-light-emitting
	phosphors
	CA Khan A Jalil Oll Khan DNA Infan I Mahmand K Khan M Kiani

SA Khan, A Jalil, QU Khan, RM Irfan, I Mehmood, K Khan, M Kiani, ... Journal of Alloys and Compounds 817, 152687

 A phosphorene-like InP 3 monolayer: structure, stability, and catalytic properties toward the hydrogen evolution reaction A Jalil, Z Zhuo, Z Sun, F Wu, C Wang, X Wu Journal of Materials Chemistry A 8 (3), 1307-1314

#### 2019

- Temperature dependent charge conduction and relaxation mechanism study of nano-structure WO3 by impedance spectroscopy AA Khan, MN Khan, M Iqbal, A Majeed, A Jalil, S Mukhtar, M Javed Materials Research Express 6 (12), 1250a5
- New physical insight in structural and electronic properties of InSb nanosheet being rolled up into single-wall nanotubes
   A Jalil, S Agathopoulos, NZ Khan, SA Khan, M Kiani, K Khan, L Zhu Applied Surface Science 487, 550-557
- 3. NiCoFe oxide amorphous nanohetrostructres for oxygen evolution reaction

MAZG Sial, S Baskaran, A Jalil, SH Talib, H Lin, Y Yao, Q Zhang, H Qian, ... International Journal of Hydrogen Energy 44 (41), 22991-23001

4. Facile synthesis of Gd and Sn co-doped BiFeO3 supported on nitrogen

#### doped graphene for enhanced photocatalytic activity

M Kiani, AB Kiani, SA Khan, S ur Rehmana, QU Khan, I Mahmood, ... Journal of Physics and Chemistry of Solids 130, 222-229

#### 2018

- Refining Defect States in W18O49 by Mo Doping: A Strategy for Tuning N2 Activation towards Solar-Driven Nitrogen Fixation N Zhang, A Jalil, D Wu, S Chen, Y Liu, C Gao, W Ye, Z Qi, H Ju, C Wang, ... Journal of the American Chemical Society 140 (30), 9434-9443
  - Magnetic and electronic properties of single-walled Mo2C nanotube: a first-principles study
     A Jalil, Z Sun, D Wang, X Wu Journal of Physics: Condensed Matter 30 (15), 155305
  - 3. A new phase of the two-dimensional ReS 2 sheet with tunable magnetism Z Sun, H Lv, Z Zhuo, A Jalil, W Zhang, X Wu, J Yang Journal of Materials Chemistry C 6 (5), 1248-1254

# **Speaker and Presenter in International Conferences and Seminars**

- 1. Invited Speaker in International Conference on Material Science and Nanotechnology 2023 Nanomaterials modeling and simulations. GC University Faislabad.
- 2. **Invited Speaker** in 3<sup>rd</sup> international symposium on Graphene Advanced Nanomaterials & Defects Engineering (GANDE) in Xian China, July-21,2023.
- 3. **Invited speaker** in The 4th International Conference on Graphene and Novel Nanomaterials (GNN 2022)September 16-19, 2022 | Shenzhen, China
- 4. **Distinguished Speaker** in the International workshop on 2D materials and Quantum Effect, PIEAS. **Pakistan**, March-2020
- 5. Distinguished Speaker Computational Screening of Two-Dimensional Materials For Different Applications, 2nd Conference on Physics May 17-18, 2022, Air University, Pakistan.
- 6. **Invited Speaker** in 2nd international symposium on Graphene Advanced Nanomaterials & Defects Engineering (GANDE) in Xian **China**, 2022.
- 7. **Distinguished Speaker** in the International workshop on 2D materials and Quantum Effect, PIEAS. **Pakistan**, July-2022
- 8. **Presenter** in 22 International conference of photochemical conversion and Solar Energy, **China**, Magnetic and electronic properties of single-walled Mo2C nanotube: A First-Principles study,
- 6. **Presenter** in 3rd International Conference on Graphene and Novel Nanomaterials (GNN 2021) in **China**
- 7. **Presenter** in Prediction of Atomically Thin Two-Dimensional Single Monolayer with High Carrier Mobility : A DFT Study, University of **Nigeria**
- Extraction of oil and alternative petroleum products from raw materials using microwaves. Presenter 1st International Conference on Energy & Environment, Pakistan
- 9. Study of Properties of Planar Surfaces Using Electromagnetic Wave. **Presenter** 1st National Conference on Modeling & Simulations, **Pakistan**

- Study of Dielectric Resonator Nanostructures at Visible Frequency, Presenter 2nd National Conference on Modeling & Simulations, Pakistan
  - Modeling of Heat dissipation in Power Transistor. Proceeding Second International Conference on Modeling & Simulation. Presenter 2nd National Conference on Modeling & Simulations, Pakistan
  - Study of Scattering Width of Nihility Cylinder Placed in Topological Insulator Space. Presenter, 3rd National Conference on Modeling & Simulations. Pakistan

# **Certificate Courses**

- The five-week Introduction to Technology-Enabled Learning (TELMOOC5) starts on April 5, 2020, The Commonwealth of Learning in collaboration with Athabasca University Canada
- The four-week Blended Learning Practice (BLPMOOC2) starts on April 19, 2020, The Commonwealth of Learning in collaboration with Athabasca University Canada
- 3. Switch Mode Power Supply.
- 4. IC Nanometer Designing.
- 5. Switch mode Power Supply.
- 6. Research proposal Training Workshop.
- 7. First Training Workshop on Microcontrollers for Faculty Members scientists & Engineers.
- 8. Second Training Workshop on Microcontrollers for Faculty Members scientists & Engineers.
- 9. First Training Workshop on Physics Lab Equipment.
- 10. Second Training Workshop on Physics Lab Equipment.
- 11. One Day Basic Training Course on Solar PV off grade System.
- 12. Training Workshop on Public Procurement.

# Organizer in Training Workshops ,Conference & Seminar

- 1st International Conference on Energy and Environment, Department of Physics, Allama Iqbal Open University, Islamabad, Oct 10-12, 2011
- Microcontroller Training Workshop for Faculty Members, Scientists and Engineers Department of Physics, Allama Iqbal Open University, Islamabad, November 03-09,2012
- 1st National Conference on Physics and Emerging Sciences, Department of Physics, Allama Iqbal Open University, Islamabad, April 06-07, 2013
- Faculty Development and Training Workshop on Physics Laboratory Equipment, Department of Physics, Allama Iqbal Open University, Islamabad, May 10-16, 2013
- 2nd Faculty Development and Training Workshop on Physics Laboratory Equipment, Department of Physics, Allama Iqbal Open University, Islamabad, August 03-09, 2014
- Training Workshop on EndNote, Department of Physics, Allama Iqbal Open.
- University, Islamabad, December 09, 2014, Science Block, Allama Iqbal Open University, H-8, Islamabad
- Training Workshop on Research Methodologies and Paper Writing, Department

of Physics, Allama Iqbal Open University, Islamabad, March 16-18, 2015, Academic Complex, Allama Iqbal Open University, H-8, Islamabad

- Three Days Training Workshop on XRD, FT-IR & LUMOS FT-IR Microscope, Organized by Department of Physics, AIOU, Islamabad, December 7-9, 2018Department of Physics, Allama Iqbal Open University, H-8, Islamabad.
- One Day Seminar on Policy Dialogue and Current Issues in Migration, Organized by International Organization of Migration, UNHCR Pakistan & Department of Physics, AIOU on January 23, 2019.
- One Day International Seminar on Material Sciences, Organized by Department of Physics AIOU, April 04, 2019
- 8th National Conference on Physics & Emerging Sciences, Organized by Department of Physics AIOU, April 04, 2019.
- Quiz & Debate Competition regarding Independence Day, Organized by Department of Physics AIOU, August 20, 2019.
- One Day Seminar on Field Emission Electron Microscope, Organized by Department of Physics AIOU, September 18, 2019.
- One Day International Training on Ion Beam Applications, Organized by Department of Physics AIOU, October 11, 2019.
- Training on LMS & AAGHI portal, organized by Department of QEC AIOU, November 04, 2019
- One Day Seminar on Policy Dialogue and Current Issues in Migration, Organized by International Organization of Migration, UNHCR Pakistan & Department of Physics, AIOU on January 23, 2019.
- 2nd International Conference on Nano-Materials Modeling & Simulation, Organized by Department of Physics AIOU, February 23-24, 2019.
- One Day International Seminar on Hydrogen Fuel Cell Technology, Organized by Department of Physics AIOU, March 18, 2019.
- One Day International Seminar on Material Sciences, Organized by Department of Physics AIOU, April 04, 2019.
- One Day Seminar on Scientific Facts & Surah e Rehman Therapy, Organized by Department of Physics AIOU & Mast Mast Healers Pakistan, January 22, 2019.
- 8th National Conference on Physics & Emerging Sciences, Organized by Department of Physics AIOU, April 04, 2019.
- Quiz & Debate Competition regarding Independence Day, Organized by Department of Physics AIOU, August 20, 2019
- One Day Seminar on Field Emission Electron Microscope, Organized by Department of Physics AIOU, September 18, 2019.
- One Day International Training on Ion Beam Applications, Organized by Department of Physics AIOU, October 11, 2019.

## References

# Supervisor of PhD Research Project Name: Professor Xiaojun Wu Institution: Department of Materials Sciences and Engineering, School of Chemistry and Materials Sciences Email: xjwu@ustc.edu.cn Phone: +86-551-63607915

#### Teacher in PhD

 Name: Professor REN Xinguo Institution: Key Laboratory of Quantum Information Mailing Address : Key Laboratory of Quantum Information, School of Physical Sciences, 96 Jinzhai Rd, Hefei, Anhui, PR China, Postal Code : 230026 Phone : 86-551-63600830

#### Supervisor of Postdoc Research Project

Dr. Ting-kai ZHAO
 Director, NPU-NCP Joint International Research Center on Advanced
 Nanomaterials and Defects Engineering,
 Vice-Director, Shaanxi Engineering Laboratory for Graphene New Carbon
 Materials & Application,School of Materials Science & Engineering,Northwestern
 Polytechnical University,Xi'an 710072, China
 E-mail: ztk-xjtu@163.com (OR) ztk@nwpu.edu.cn