CURRICULUM VITAE

DR. MD. LOKMAN ALI

Contact Address:

Department of Physics, Pabna University of Science and Technology, Pabna, Bangladesh.
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lokman.cu12@gmail.com

Career Objective

Keen to enrich my knowledge by doing original research work with world-class researchers where success comes through creativity, hardworking and sincerity.

Teaching Experience

Lecturer: 25.11.2014 to 24.11.2016
Assistant Professor: 25.11.2016 to 05.08.2022
Associate Professor: 06.08.2022 to Till Date

Administrative Experience:

Director: Research and Technology Transfer Cell, Pabna University of Science and Technology, Pabna-6600, Bangladesh.
Duration: 01.05.2025 to Till date

Academic Qualifications

Doctor of Philosophy (Ph.D.):

- Institute : Osaka University, Japan.
- Department : Department of Mechanical Science and Bio-engineering
- Year of awarded : 25th September, 2021

Master of Science (M.S.):

- Institute : University of Chittagong, Bangladesh.
- Department : Physics
- Year of Passing : 2013
- Result : 3.93 out of 4.00 (1st position among the 110 students of the batch)

Bachelor of Science (B.Sc.):

- Institute : University of Chittagong, Bangladesh
- Department : Physics
- Year of Passing : 2011
- Result : 3.72 out of 4.00 (1st position among the 110 students of the batch)

Academic Positions:

Profession	Organization	Position	Experience
Teaching	Dept. of Physics, Pabna University of Science and Technology	Associate Professor	06/08/2022 To date
Teaching	Dept. of Physics, Pabna University of Science and Technology	Assistant Professor	25/11/2016 05/08/2022
Teaching	Dept. of Physics, Pabna University of Science and Technology	Lecturer	25/11/2014 To 24/11/2016

3. EXPERIENCE IN IMPLEMENTING PROJECT/RESEARCH

TITLE OF THE PROJECT/ RESEARCH ACTIVITY	DONOR/ SPONSOR	POSTION IN THE PROJECT	YEAR	
			FROM	TO
Prior Projects				
1. Dislocation, Grain boundary and chemical short range order effects on physical properties of high entropy alloys.	University of Grant Commission (UGC), Bangladesh	Principal investigator	2021-2022	
2. Grain boundary segregation and chemical short range order effects on mechanical properties of multi-principle element alloys for technological applications.	Pabna University of Science and Technology, Bangladesh.	Principal investigator	2022-2023	
3. Lattice distortion, crystal defects, chemical randomness and chemical short range order effects on mechanical properties in multi-principal element alloys.	Ministry of Science and Technology, Bangladesh	Principle investigator	2023-2024	
4. Impact of the transition metals doping on the mechanical properties of high/medium entropy alloys.	Pabna University of Science and Technology, Bangladesh	Principal investigator	2023-2024	
5. Pressure and temperature dependent mechanical properties of multi-principal element alloys	Pabna University of Science and Technology, Bangladesh	Principal investigator	2024-2025	
6. Crystal defects engineering in High Entropy Alloys: Advances and	Ministry of Science and	Principal investigator	2024-2025	

Applications	Technology, Bangladesh		

Supervision Experience (Bachelor's and Master's levels)

- Successfully supervised 08 (Five) MS (thesis) Students
- Ongoing supervising: M.Phil. Student (Thesis) = 01
  MS Student (Thesis) = 04
  Undergraduate (Thesis) = 05

List of Publications:

Sl.	Year	Quartile	Publication details
1		Q1	Zihad Hossain, Md. Riad Khan, Sanzida Naznin Mim, Md. Emon Hassan, Mohammad Abdur Rashid, and Md. Lokman Ali, First-principles investigation of CuBiSeCl2: a quaternary halide chalcogenide material for advanced optoelectronic and thermoelectric energy harvesting and conversion technologies, Materials Advances, Publisher: Royal Soceity of Chemistry, Impact Factor: 4.0
2		Q1	Sanzida Naznin Mim,a Zihad Hossaina and Md Lokman Ali, Atomistic investigation of grain boundary strengthening and composition-dependent mechanical properties in CuNi binary alloys, RSC Advances, 2025, 15, 38158-38175, Publisher: Royal Soceity of Chemistry, Impact Factor: 4.0 https://doi.org/10.1039/D5RA07327H
3	2025	Q1	Md, Riad Khan, Zihad Hossain, Md. Emon Hossain, Md. Saiful Alam, Md. Abdur Rashid Sarkar, **Md. Lokman Ali***, Doping Effect of Antimony on BaFeO3 Perovskite Oxide: Optical, Electronic, Magnetic and Thermoelectric Properties, RSC Advances, 2025, 15, 38158-38175, Publisher: Royal Soceity of Chemistry, Impact Factor: 4.0 https://doi.org/10.1039/D5RA06101F
4		Q1	Zihad Hossain, Riad Khan, Sanzida Naznin Min, Md. Al Amin, Md. Hossain, Md. Hafizur Rahman, Md, Lokman Ali*, Strategic engineering of charge transport layers for designing lead-free halide perovskite CsGeIBr2-based solar cells: Insights from DFT and SCAPS-1D modeling, Energy Reports, 14, 2479-2497 (2025)
5		Q2	**Md Lokman Ali***, Sanzida Naznin Mim, Zihad Hossain, Zahid Hasan, Md Mehedi Hasan, Md Afsuddin, Exploring Pressure-Dependent Physical Properties of Lead-Free Perovskite Cs2CuBiCl6 for Optoelectronic Applications, Physica B: Condensed Matter, 716, 417750 (2025).
6		Q1	Md Afsuddin, Md Mehedi Hasan, **Md Lokman Ali***, Pressure-induced physical properties of non-toxic lead free halide double perovskites M 2 N a G a C l 6 (M= K, R b) for optoelectronic applications, Optical and Quantum Mechanics, 57, 410 (2025), Publisher: Springer; Impact factor: 4.0
7		Q3	Md. Nadim Mahmud Nabin, Md. Lokman Ali, Md. Khairul Alam, Enhanced mechanical properties achieved through Al addition in high entropy alloys, AIP Advances, Publisher: American Institute in Physics

			(AIP), Impact Factor: 1.8, Journal rank: Q3
8		Q2	**Md Lokman Ali*,** Zahid Hasan, Mst Shorifa Akter, Mithun Khan, Pressure induced physical properties of lead-free double perovskite for optoelectronic applications, Computational Condensed Matter, 44, e01078 (2025)
9		Q1	**Md. Lokman Ali***, Zihad Hossain, Sanzida Naznin Mim, Samiron Kumar Saha, Pressure effects on physical properties of binary rare earth mono-pnictide YBi for Optoelectronics Applications; Advanced Theory and Simulations, 2025, 2401066; Publisher's: Willey; Impact factor: 3.00; https://doi.org/10.1002/adts.202401066
10		Q1	**Md. Lokman Ali***, Sanzida Naznin Mim, Zihad Hossain, Mahbub Alam, H.M.A.R Maruf, Pressure-induced physical properties of lead-free double perovskite Oxides La2NiMnO6 for optoelectronic applications; Optical and Quantum Mechanics, 57, 132 (2025), Publisher: Springer; Impact factor: 4.0 DOI: 10.1007/s11082-025-08044-z.
11	2024	Q1	Md. Mehedi Hasan, Md. Afsuddin, **Md. Lokman Ali***, Pressure-Driven Perfection: Advancing Lead-Free Halide Perovskites Rb2AgBiX6 (X= Br, Cl) for Optoelectronic Applications; Haliyon, 20, e39285; Publisher: Elsevier; Impact factor: 3.40; https://doi.org/10.1016/j.heliyon.2024.e39285
12		Q1	Nadim Mahamud Nobin, **Md. Lokman Ali***, Md. Khairul Alam, Edge Dislocations, Alloy Composition, and Grain Boundaries Effects on the Mechanical Properties in NiCo Binary Alloy; Scientific Reports, 14, 27790; Publisher: Nature; Impact factor: 4.22; http://dx.doi.org/10.1038/s41598-024-65437-y
13		Q1	**Md. Lokman Ali***, Mithun Khan, Edge Dislocation and Grain Boundaries Effects on the Mechanical Properties in NiCoAl Medium Entropy Alloy; Advanced Engineering Materials, 26, 2400614; Publisher: Wiley; Impact factor: 4.122; https://doi.org/10.1002/adem.202400614
14		Q2	**Md. Lokman Ali*** Md. Afsuddin, Md. Mehedi Hasan; Pressure-induced lead-free halide double perovskite Rb2CuSbX6 for optoelectronic applications; Physica B: Condensed Matter, 690, 416203; Publisher: Elsevier; Impact factor: 2.8; https://doi.org/10.1016/j.physb.2024.416203
15		Q1	Md. Nadim Mahamud Nobin, Zahid Hasan, Md. Zahidur Rahaman, **Md. Lokman Ali***; Advanced mechanical properties obtained via transition metals doped in CrFeNi medium entropy alloy; Journal of Materials Research and Technology, 30, 5334-5345; Publisher's: Elsevier; Impact factor: 6.40; https://doi.org/10.1016/j.jmrt.2024.04.247,
16		Q3	Zahid Hasan, Toukir Ahmmed, Mithun Khan, Md. Nadim Mahamud Nobin, Shorifa Akter, **Md. Lokman Ali*,** Electronic, optical and mechanical properties of MAs2 (M = W, Cr, Mo): a first-principles study; Indian Journal of Physics, 98, 4761-4773; Publisher's: Springer India; Impact factor: 2.00; https://doi.org/10.1007/s12648-024-03235-y

17		Q2	Mithun Khan, **Md Lokman Ali***, Enhanced Physical Metallurgy of AlCrNi Medium Entropy Alloy Under Pressure; JOM, 76, 3099-3110; Publisher's: Springer US; Impact factor: 2.47; https://doi.org/10.1007/s11837-024-06514-5
18		Q2	Samiron Kumar Saha, Mithun Khan, Zahid Hasan, Dayal Chandra Roy, **Md Lokman Ali***, Enhanced physical properties of stable lead-free oxide double perovskite Ba2TbBiO6 for photovoltaics: Effects of Sb doping; AIP Advances 14, 035013; Publisher's: AIP publishing; Impact factor: 1.4; https://doi.org/10.1063/5.0197633
19		Q2	Mithun Khan, Md Zahidur Rahaman, **Md Lokman Ali***, Impact of edge dislocation and grain boundaries on mechanical properties in CoCrCuFeNi high entropy alloy; Journal of Applied Physics, 135, 055103; Publisher's: AIP publishing; Impact factor: 2.7 https://doi.org/10.1063/5.0185982
20		Q2	**Md Lokman Ali***, Mithun Khan, Narrowing band gap and enhanced optoelectronic properties in methylammonium lead chloride perovskite under pressure; Physica B: Condensed Matter, 676, 415688; Publisher's: North-Holland; Impact factor: 2.8; https://doi.org/10.1016/j.physb.2024.415688
21		Q1	Md. Khairul Alam, Md. Nadim Mahamud Nobin and **Md. Lokman Ali***, Pressure-induced tuning of physical properties in high-throughput metal halide MSn2Br5 (M = K, Cs) perovskites for optoelectronic applications; RSC Adv., 14, 1267-1283; Publisher's: Royal Society of Chemistry; Impact factor: 4.036 https://doi.org/10.1039/D3RA06215E
22		Q2	Mithun Khan; Md. Zahidur Rahaman; **Md. Lokman Ali***, High-Throughput screening of inorganic lead-free halide perovskites CsCu2X3 (X = Cl, Br, I) for optoelectronics applications; Materials Science and Engineering: B, 299, 116928; Publisher's: Elsevier; Impact factor: 3.88; https://doi.org/10.1016/j.mseb.2023.116928
23	2023	Q2	**Md Lokman Ali** , Md Khairul Alam , Mithun Khan , Md Nadim Mahamud Nobin, Nurul Islam, Umor Faruk , Md Zahidur Rahaman, Pressure-dependent structural, electronic, optical, and mechanical properties of superconductor CeRh2As2: A first-principles study; Physica B: Condensed Matter, 668, 415224; Publisher's: Elsevier; Impact factor: 2.8; https://doi.org/10.1016/j.physb.2023.415224
24		Q2	Mithun Khan, Md. Rakib Hossain, **Md. Lokman Ali**, Pressure-induced physical properties in topological semi-metals MAs2 (Hf, Ti); Results in Physics, 52, 106860; Publisher's: Elsevier; Impact factor: 5.30; https://doi.org/10.1016/j.rinp.2023.106860
25		Q1	**Md Lokman Ali**, Mithun Khan, Md Abdullah Al Asad, Md Zahidur Rahaman, Highly efficient and stable lead-free cesium copper halide perovskites for optoelectronic applications: A DFT based study; Heliyon, 9, e18816; Publisher's: Elsevier; Impact factor: 4.0; https://doi.org/10.1016/j.heliyon.2023.e18816

26		Q1	Md. Nadim Mahamud Nobin, Mithun Khan, Md. Sayed Saiful Islam, **Md. Lokman Ali***, Pressure-induced physical properties in topological semi-metal TaM2 (M = As, Sb); RSC Advances, 13, 22088-22100; Publisher's: Royal Society of Chemistry (RSC); Impact factor: 4.132; https://doi.org/10.1039/D3RA03085G
27		Q2	Rubayet Akter, Mithun Khan, Md. Nadim Mahmud Nobin, Md. Shahajan Ali1, Md. Mukter Hossain, Md. Zahidur Rahaman, **Md. Lokman Ali***, Effects of grain boundary and chemical short-range order on mechanical properties of NiCoCr multi- principal element alloys: A molecular dynamics simulations; Materials Today Communications, 36, 106630; Publisher's: Elsevier; Impact factor: 3.80; https://doi.org/10.1016/j.mtcomm.2023.106630
28		Q1	Mithun Khan; Md. Zahidur Rahaman; **Md. Lokman Ali**, Pressure-Induced Band Gap Engineering of Nontoxic Lead-Free Halide Perovskite CsMgI3 for Optoelectronic Applications; ACS Omega, 8, 24942-24951; Publisher's: American Chemical Society (ACS); Impact factor: 4.10; https://doi.org/10.1021/acsomega.3c01388
29		Q2	M.H. Kabir, M.M. Hossain, M.A. Ali, M.M. Uddin, **M.L. Ali**, M.Z. Hasan, A. K. M. A. Islam, S.H. Naqib, First principles study of mechanical, thermal, electronic, optical and superconducting properties of C40-typegermanide-based MGe2 (M = V, Nb and Ta); Results in Physics, 51, 106701; Publisher's: Elsevier; Impact factor: 5.30; https://doi.org/10.1016/j.rinp.2023.106701
30		Q2	**Md. Lokman Ali**, Marof Billah, Mithun Khan, Md. Nadim Mahamud Nobin, Md. Zahidur Rahaman, Pressure-induced Physical Properties of Alkali Metal Chlorides Rb2NbCl6: A Density Functional Theory Study; AIP Advances, 13, 065110; Publisher's: AIP Publishing; Impact factor:1.4; https://doi.org/10.1063/5.0146802
31		Q3	**Md. Lokman Ali**, Md. Farhanul Islam, Md. Nadim Mahamud Nobin, Mithun Khan & Md. Zahidur Rahaman, Pressure-Induced Superconductivity in CsFe2As2; Journal of Superconductivity and Novel Magnetism, 36, 1305-1321; Publisher's: Springer; Impact factor: 1.675; https://doi.org/10.1007/s10948-023-06573-w
32		Q2	Nadim Mahamud Nobin, Mithun Khan, **Md Lokman Ali**, An atomistic modeling study of high-throughput RVO3(R=La, Nd) perovskites for efficient solar energy conversion materials; Physica B: Condensed Matter, 660, 414879; Publisher's: Elsevier; Impact factor: 2.8; https://doi.org/10.1016/j.physb.2023.414879
33		Q3	**Md. Lokman Ali**, Mithun Khan & Md. Zahidur Rahaman, First-Principles Studies in Pd-Based RP d 2 P 2 (R= Pr and Nd) Superconductors Under Pressure; Journal of superconductivity and Noble Magnetism, 36, 885-902; Publisher's: Springer US; Impact factor: 1.675; https://doi.org/10.1007/s10948-022-06476-2
34		Q2	Md Atikur Rahman, Kamrunnahar Mousumi, **Md Lokman Ali**, Md Zillur Rahman, Sayed Sahriar Hasan, Wakil Hasan, Md Rasheduzzaman, Md Zahid Hasan, First-principles calculations to investigate elastic, electronic, optical and thermodynamic properties of Pt3X (X = Ti, Cu); Results in Physics, 44, 106141; Publisher's: Elsevier; Impact factor: 5.30; https://doi.org/10.1016/j.rinp.2022.106141

35	2021	Q1	Md. Nurul Islam, Jiban Podder, **Md. Lokman Ali**, The effect of metal substitution in CsSnI3 perovskite with enhanced optoelectronic and photovoltaic properties; RSC Advances, 11, 39553-39563; Publisher's: Royal Society of Chemistry (RSC); Impact factor: 4.132; https://doi.org/10.1039/D1RA07609D
36		Q1	**Md. Lokman Ali**, Enhanced lattice distortion, yield strength, critical resolved shear stress, and improving mechanical properties of transition-metals doped CrCoNi medium entropy alloy; RSC Advances, 11, 23719-23724; Publisher's: Royal Society of Chemistry (RSC); Impact factor: 4.132; https://doi.org/10.1039/D1RA02073K
37.		Q1	Md. Majibul Haque Babu, Jiban Podder, Rabeya Rahman Tofa, **Md. Lokman Ali**, Effect of Co doping in tailoring the crystallite size, surface morphology and optical band gap of CuO thin films prepared via thermal spray pyrolysis; Surfaces and Interfaces, 25, 101269; Publisher's: Elsevier; Impact factor: 1.61; https://doi.org/10.1016/j.surfin.2021.101269
38		Q1	**Md. Lokman Ali**, Enamul Haque, Md. Zahidur Rahaman, Pressure- and temperature-dependent physical metallurgy in a face-centered cubic NiCoFeCrMn high entropy alloy and its subsystems; Journal of Alloys and Compounds, 873, 159843; Publisher's: Elsevier; Impact factor: 6.24; https://doi.org/10.1016/j.jallcom.2021.159843
39		Q2	Khandaker Monower Hossain, Md. Zahid Hasan, and **Md. Lokman Ali**, Narrowing bandgap and enhanced mechanical and optoelectronic properties of perovskite halides: Effects of metal doping; AIP Advances, 11, 015052; AIP Publishing; Impact factor:1.4; https://doi.org/10.1063/5.0039308
40	2020	Q2	Khandaker Monower Hossain, Md. Zahid Hasan, **Md. Lokman Ali**, Understanding the influences of Mg doping on the physical properties of SrMoO3 perovskite; Results in Physics, 19, 103337; Publisher's: Elsevier; Impact factor: 5.30; https://doi.org/10.1016/j.rinp.2020.103337
41		Q2	**Md. Lokman Ali**, Shuhei Shinzato, Vei Wang, Zeqi Shen, Jun-ping Du, Shigenobu Ogata, An Atomistic Modeling Study of the Relationship between Critical Resolved Shear Stress and Atomic Structure Distortion in FCC High Entropy Alloys — Relationship in Random Solid Solution and Chemical-Short-Range-Order Alloys —; Materials Transactions, 61, 605-609; Impact factor: 1.22; DOI: https://doi.org/10.2320/matertrans.MT-MK2019007
42	2019	Q2	Md Atikur Rahman, Md. Zahidur Rahaman, **Md Lokman Ali**, Md Shahjahan Ali, The physical properties of ThCr2Si2- type nickel-based superconductors BaNi2T2 (T = P, As): An ab-initio study; Chinese journal of Physics, 59, 58-69; Publisher's: Elsevier; Impact factor: 5.0; https://doi.org/10.1016/j.cjph.2018.12.026
43	2018	Q3	**Md Lokman Ali**, Md Tosaddek Hossen, Shahin Alam, Md Sadek Hossain, Jakiul Islam, SM Rubayatul Islam, The physical properties of ThCr2Si2-type superconductors MPd2P2 (M = Y, La): A theoretical investigation; International Journal of Modern Physics B, 32, 1850312; Publisher's: World Scientific Publishing Company; Impact factor: 2.02;

			https://doi.org/10.1142/S0217979218503125
44		Q2	Md. Zahidur Rahaman, **Md. Lokman Ali**, Insight into the physical properties of two niobium based compounds Nb3Be and Nb3Be2 via first principles calculation; Chinese journal of Physics, 56, 1386-1393; Publisher's: Elsevier; Impact factor: 5.0; https://doi.org/10.1016/j.cjph.2018.05.016
45		Q3	**Md. Lokman Ali**, Md. Zahidur Rahaman, Md. AtikurRahman, Investigation of different physical aspects such as structural, mechanical, optical properties and Debye temperature of Fe2ScM (M = P and As) semiconductors: a DFT based first principles study; International Journal of Modern Physics B., 32, 1850121; Publisher: World Scientific Publishing Company; Impact factor: 2.02; https://doi.org/10.1142/S0217979218501217
46		Q2	Md. Zahidur Rahaman, **Md. Lokman Ali**, Md. Atikur Rahman, Pressure-dependent mechanical and thermodynamic properties of newly discovered cubic Na2He; Chinese Journal of Physics, 56, 231-237 (2017) Publisher: Elsevier; Impact factor: 5.0; https://doi.org/10.1016/j.cjph.2017.12.024
47	2017	--	**Md. Lokman Ali**, Md. Zahidur Rahaman, Variation of the physical properties of four transition metal oxides SrTMO3 (TM = Rh, Ti, Mo, Zr) under pressure: An Ab initio study; Journal of Advanced Physics, 06, 206-209 Publisher's: American Scientific Publishers; Impact factor: 0.397; https://doi.org/10.1166/jap.2017.1329
48		Q3	**Md. Lokman Ali**, Md. Zahidur Rahaman, Md. Atikur Rahman, The structural, elastic and optical properties of ScM (M = Rh, Cu, Ag, Hg) intermetallic compounds under pressure by ab initio simulations; International Journal of Computational Materials Science and Engineering, 5, 1650024; Publisher's: World Scientific Publishing Company; Impact factor: 1.4; https://doi.org/10.1142/S204768411650024X
49	2016	--	Md. Afjalur Rahman, Md. Atikur Rahman, Utttam Kumar Chowdhury, M.T.H. Bhhuiyan, **Md. Lokman Ali**, First principles investigation of structural, elastic, electronic and optical properties of ABi2O6 (A = Mg, Zn) with trirutile-type structure; Cogent Physics, 3, 1257414; Publisher's: Cogent; https://doi.org/10.1080/23311940.2016.1257414
50		--	Utttam Kumar Chowdhury, Md. Atikur Rahman, Md. Afjalur Rahman, M.T.H. Bhhuiyan, **Md. Lokman Ali**, Ab initio study on structural, elastic, electronic and optical properties of cuprate based superconductor; Cogent Physics, 3, 1231361; Publisher's: Cogent; https://doi.org/10.1080/23311940.2016.1231361
51		--	**Md. Lokman Ali**, Md. Zahidur Rahaman, Md. Atikur Rahman, Md. Afjalur Rahman, Pressure effects on structural, elastic and electronic properties of MgRh compound by ab initio study, Material Focus, 5, 268-274; Publisher's: American Scientific Publishers; https://doi.org/10.1166/mat.2016.1322

52		--	**Md. Lokman Ali**, Md. Zahidur Rahaman, The structural, elastic, electronic and optical properties of cubic perovskite SrVO3 compound: An ab initio study; International Journal of Materials Science and applications, 5, 202-206;
53		--	**Md. Lokman Ali**, Md. Zahidur Rahaman, Theoretical prediction of the structural, electronic and optical properties of HfB monoboride from first principle calculations; International Journal of Scientific Engineering and Technology, 5, 213-216; Publisher's: Innovative Research Publications; Impact factor: 0.421; http://dx.doi.org/10.17950/ijset/v5s4/411

Conference and Seminar Attended

- Md. Lokman Ali, Investigation of grain boundary segregation and chemical short range ordering in multi-principal element alloys. 8th-11th December, 2024, India Institute of Technology, Patna, India (Oral presentation).
- Oral presentation in 9th Confere4nce of Bangladesh Crystallography Association, Md. Lokman Ali, Md. Afsuddin, Lead free halide perovskite CsGeIBr2: Design strategies and future direction in photovoltaic devices using DFT and SCAPS-1D simulator; 10-11th January, 2025, University of Dhaka.
- Poster presentation in 9th Confere4nce of Bangladesh Crystallography Association, Md. Lokman Ali, Md. Afsuddin, Pressure induced band gap engineering non toxic lead free halide perovskite M2NaGaCl6(M = K, Rb) for optoelectronic applications; 10-11 th January, 2025, University of Dhaka.
- Md. Lokman Ali, Investigation of grain boundary segregation and chemical short range ordering in multi-principal element alloys. 8th-11th December, 2024, India Institute of Technology, Patna, India (Oral presentation).

- Poster presentation in the Internation Conference on Physics - 2024; Poster title: Edge Dislocations, Alloy Composition, and Grain Boundaries Effects on the Mechanical Properties in NiCo Binary Alloy; Md. Nadim Mahamud Nobin, Md. Lokman Ali; 9-11 May - 2024, Organized by Bangladesh Physical Society (BPS)

- Poster presentation in the Internation Conference on Physics - 2024; Poster title: Edge Dislocation and Grain Boundaries Effects on the Mechanical Properties in NiCoAl Medium Entropy Alloy; Mithun Khan, Md. Lokman Ali; 9-11 May - 2024, Organized by Bangladesh Physical Society (BPS)
- Poster presentation in the Internation Conference on Physics - 2024; Poster title: Enhanced mechanical properties of transition metals doped in CrFeNi medium entropy alloy; Zahid Hasan, Md. Nadim Mahmud Nobin, Md. Lokman Ali; 9-11 May - 2024, Organized by Bangladesh Physical Society (BPS)
- Md. Lokman Ali, Oral presentation in the International Conference on Physics - 2024: Talk title: Grain boundary, grain boundary segregation and chemical short range order effects on mechanical properties in NiCoCr medium entropy alloy, 9-11 May - 2024; Organized by Bangladesh Physical Society (BPS)
- The 9th international conference on Multiscale Materials Modeling, Oct. 28 to Nov. 2, 2018, Osaka, Japan
- IEEE Authorship workshop, 7 to 8 June-2019 Venue: Suntory Memorial Hall, 5F,Bldg C3, Division of Advanced Science and Biotechnology, Graduate School of Engineering, Suita Campus, Osaka University, Japan

Administrative Position:

Treasurer: Physics Association, Pabna University of Science and Technology

Awards and Achievements

- 2013 : **Distinction Award** (in recognition of outstanding Results in M.S. degree)
- 2011 : **Distinction Award** (in recognition of Excellent Results in B.Sc. (honor's) degree)

Scholarships

- **2018 : Japanese Government (MEXT) Scholarship** to pursue PhD degree from Osaka University, Japan

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Areas of Research Interest

Materials Synthesis, Optoelectronic materials, Sustainable materials, Lead free materials, Multi-scale modeling, Theoretical solid mechanics, Computational materials science, Multi-principal elements alloys,

Research Experiences

- Analytical Tools (Experimental): SEM, XRD, FTIR, UV-Visible Spectrophotometer, Precision Impedance Analyzer, Four Probe Technique.
- Analytical Tools (Simulation): LAMMPS, CASTEP, VASP, SCAPS-1D

Scientific Association

- Google Scholar: https://scholar.google.com/citations?user=agk7avEAAAAJ&hl=en
- ResearchGate: https://www.researchgate.net/profile/Md-Lokman-Ali
- ORCiD: https://orcid.org/0000-0001-5750-9412

Publications

- Total Papers: 53

Research Scores and Citation

- Google Scholar : Citations # 770, h-index # 14, i10-index # 22

Core Courses

Bachelor of Science (B.Sc.)

Mechanics, Electromagnetism, Properties of Matter Waves & Vibration, Heat & Thermodynamics, Optics, Classical Mechanics, Elementary Quantum Theory, Quantum Mechanics, Classical Electrodynamics, Atomic & Molecular Physics, Basic Electronics, Relativity: Special & General, Nuclear Physics, Mathematical physics, Solid State physics, Radiation & Statistical Mechanics, Digital Electronics, Reactor Physics, Medical physics.

Master of Science (M.S.)

Advanced solid state physics

Course Taught

Renewable Energy, Quantum Physics, Elementary Quantum Theory, Computational Physics, General and Special, Reactor Physics, Radiation & Statistical Physics, Heat &Thermodynamics.

Language proficiency

Good reading, writing and speaking skill in both Bangla & English.

Personal Details

- Father's Name : Md. Hitullah Khan.
- Mother's name : Noorjahan.
- Date of Birth : 22th July, 1987
- Sex : Male
- Marital Status : Married
- Nationality : Bangladeshi by birth
- Height : 5′-7″
- Permanent address : Village+ Post Office: Kamarer Char, Police Station: Sherpur Sadar, District: Sherpur, Country: Bangladesh.

References

Dr. Shigenobu Ogata Professor Department of Mechanical Science and Bioengineering, Graduate School of Engineering Science, Osaka University, Japan Phone: +81-6-6850-6197 Email: Ogata@me.es.osaka-u.ac.jp	**Dr. Md. Khairul Alam** Professor, Department of Physics Pabna University of Science and Technology, Pabna Phone: +8801712659746 E-mail: drmkalam14@gmail.com	**Dr. Md. Rfiqul Islam** Professor Department of Physics University of Chittagong, Bangladesh Phone: +8801727-472804 Email: nhasan72bd@yahoo.com

I hereby declare that the information given above is correct to the best of my knowledge.

Sincerely yours,

Dr. Md. Lokman Ali Date: 30/09/2025