

Curriculum Vitae of Dr. Md. Atikur Rahman

Address:

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1. Academic Qualifications:

Degree/ Examination	Institution (University / College/ School/ Department)	Class/Division/ GPA (Percent Marks where applicable)	Year
PhD in Physics	Department of Physics, Pabna University of Science and Technology Pabna-6600, Bangladesh.	Successfully Awarded	2021
M.Sc. (Thesis)	Department of Physics, University of Rajshahi.	First Class (1st Position)	2010
B.Sc. (Hons.) (4 years Integrated)	Department of Physics, University of Rajshahi.	First Class (1st Position)	2009
H.S.C. (Science group)	Dr. Nashir Uddin Talukdar College, Natore.	4.90	2005
S.S.C. (Science group)	Srish Chandra BidyaNiketon High School, Natore.	4.50	2003

2. Teaching Experiences (start from the present):

Position	Institution	From	To
Associate Professor	Department of Physics, Pabna University of Science & Technology	7 th October	Till Now
Assistant Professor	Department of Physics, Pabna University of Science & Technology	1 st September, 2015	6 th October
Lecturer	Department of Physics, Pabna University of Science & Technology	1 st September, 2013	31 th August, 2015

3. Professional Awards / Honours Received:

National Science and Information and Communication Technology Scholarship (2010), Professor Basak Award 2009, Professor Basak Scholarship-2006, 2008, sponsored by Peninsula Welfare Trust, Bangladesh and Gold Medal by Shaheed Suhrawardy Hall for First class in B.Sc. Honours (2009) .

4. Teaching activities undertaken (course and laboratory) at undergraduate and graduate levels since the last appointment (last five years)

Sl.	Course No.	Title of The Courses Taught	Level	No. of Students	(Lectures Per Week) or (Hours/week)	Year
1.	PHY 5104	Advanced Materials Science	Graduate	20, 28, 24	4	2016- 2018
2.	PHY 4203	Crystallography and Spectroscopy	Undergraduate	31, 40, 28	3	2016-2018
3.	PHY 4104	Non-Conventional Energy	Undergraduate	31, 40, 28	3	2016 -2018
4.	PHY 3201	Basic Solid State Physics	Undergraduate	40, 28, 31	3	2016-2018
5.	PHY 1101	Mechanics and Properties of Matter	Undergraduate	37, 27, 29, 35	3	2016-2019
6.	PHY 1251	Mechanics, Properties of Matter, Wave and Sound	Undergraduate	37, 37, 40	3	2016-2018
7.	PHY 2255	Electricity, Magnetism and Modern Physics	Undergraduate	45, 44	3	2017, 2018
8.	PHY 3106	Physics Lab	Undergraduate	40	9	2016
9.	PHY 3205	Physics Lab	Undergraduate	28	9	2017
10.	PHY 2104	Physics Lab	Undergraduate	31	9	2017
11.	PHY 2204	Physics Lab	Undergraduate	23	9	2018

5. Supervision Thesis/Design Project at undergraduate Level since the last appointment

Sl.	No. of Student	No. of Project /Thesis	Design	Year/Period
1.	4	4	Project	2017(2011-2012)
2.	5	5	Project	2018(2012-2013)
3.	5	5	Project	2019(2013-2014)
4.	6	6	Project	2020(2014-2015)

6. Supervision of Completed Graduate Research Work

Sl.	Level (Masters/M.Phil/ Ph.D.)	Thesis/Project Title	Year/Period
1.	Masters (Thesis)	Physical Properties of ThCr ₂ Si ₂ -type Rh-based compounds ARh ₂ Ge ₂ (A=Ca, Sr, Y and Ba): DFT Based First-principles investigation.	2016 (2014-2015) [Held in 2018]
2.	Masters (Thesis)	First Principles Study of Structural, Elastic, Electronic and Optical Features of the Non-centrosymmetric Superconductors SrMGe ₃ (Where M= Ir, Pt, and Pd).	2018 (2016-2017) [Held in 2022]
3.	Masters (Thesis)	First Principles Study of Structural, Elastic, Electronic, Optical and Thermodynamic Properties of Pt ₃ X (X = Ti, Cu).	2018 (2016-2017) [Held in 2022]
4.	Masters (Thesis)	Comprehensive study on the physical properties of tetragonal BaMn ₂ X ₂ (X= P, As, Sb) compounds: An <i>ab initio</i> investigation.	2019 (2017-2018) [Held in 2022]
5.	Masters (Thesis)	First-principles calculations to investigate elastic, electronic, optical, and thermodynamic properties of Pt ₃ T (T = Nb, Ru, Rh, Pd, and Ag).	2020 (2018-2019) [Held in 2023]
6.	Masters (Thesis)	Tuning of band gap of double perovskite materials Ga ₂ TiX ₆ (X= Cl, Br) by applying pressure for optoelectronic device applications: A DFT based simulations.	2021 (2019-2020) [Held in 2023]
7.	Masters (Thesis)	Comparative exploration of physical features of La-based ternary intermetallic compounds LaM ₂ Si ₂ (M=Co, Cu, Rh, Pd, Ag, Ir, Pt, Au) through DFT simulation.	2021 (2019-2020) [Held in 2023]
8.	Masters (Project)	Structural, elastic, electronic and optical properties of new layered ternary compound SrCu ₂ Ge ₂ : a first principles investigation.	2016 (2015-2016) [Held in 2019]
9.	Masters (Project)	Structural, elastic, electronic and optical properties of new layered pnictides compound CaZn ₂ Ge ₂ : a first principle calculation.	2016 (2015-2016) [Held in 2019]
10.	Masters (Project)	Structural, Mechanical, Electronic, Mulliken atomic Populations and Optical Properties of Compound SrZn ₂ Ge ₂ .	2016 (2015-2016) [Held in 2019]
11.	Masters (Project)	Structural, Mechanical, Electronic, Mulliken atomic Populations and Optical Properties of Compound SrMn ₂ Ge ₂ .	2016 (2015-2016) [Held in 2019]
12.	Masters (Project)	Structural, elastic, electronic and optical properties of MAX phase compound Hf ₃ AlC ₂ under pressure: DFT based investigation.	2017 (2016-2017) [Held in 2021]
13.	Masters (Project)	Structural, elastic, electronic and optical properties of MAX phase compound Nb ₄ SiC ₃ under pressure: DFT based investigation.	2017 (2016-2017) [Held in 2021]
14.	Masters (Project)	DFT based investigation of structural, elastic, electronic and optical properties of MAX Phase compound Ta ₃ AlC ₂ under pressure.	2017 (2016-2017) [Held in 2021]
15.	Masters (Project)	An ab-initio study to Investigate the Structural, Elastic, Electronic and Optical Properties of Transition Metal Pt ₃ T (T= Ga, Cd).	2017 (2016-2017) [Held in 2023]
16.	Masters (Project)	First Principles Study on the Structural, Electronic, Elastic and Optical Properties of lead-free Perovskites CsCaX ₃ (X=F, Cl, Br).	2019 (2018-2019) [Held in 2022]

17.	Masters (Project)	Structural, Mechanical, Electronic, Optical and Thermodynamic Properties of Superconducting disilicides YT_2Si_2 (Y= Rh, Pd, Ir): DFTbased Comparative Study.	2019 (2018-2019) [Held in 2022]
18.	Masters (Project)	Physical Properties of $ThCr_2Si_2$ - type Compound YT_2Si_2 (T= Co, Ni and Ru): DFT based ab-initio Calculations.	2019 (2018-2019) [Held in 2022]
19.	Masters (Project)	A First Principle Study of Structural, Elastic, Electronic, Optical and Thermodynamic Properties of $ACuSb$ (A=Ca, Sr, Ba) Zintl Phase Compounds.	2020 (2019-2020) [Held in 2023]
20.	Masters (Project)	“First Principles Study on the Structural, Electronic, Mechanical, Optical, and Thermodynamic Properties of Half Heusler alloys $CoTSb$ (T = Ti, Zr, Hf)”	2020 (2019-2020) [Held in 2023]
21.	Masters (Project)	Pressure effect on the structural, elastic and electronic properties of boron (B) based MAX Phase compound Hf_3PB_4 .	2020 (2019-2020) [Held in 2023]
22.	Masters (Project)	First principle study on structural, mechanical and optical properties of superconducting disilicides UT_2Si_2 (T= Ru , Rh and Pd).	2020 (2019-2020) [Held in 2023]

7. Research Grants Received (last fifteen years)

Sl.	Organization Offering the Grant	Project title	Period
1.	Pabna University of Science and Technology	Ab-initio Simulation on Structural, Mechanical, Electronic, Optical and Thermodynamic Properties of Disilicide Superconductors ThX_2Si_2 (X = Ru, Rh, Ir, Pt)	2023-2024
2.	Pabna University of Science and Technology	Comparative Study of the Physical Properties of Half-Metallic Lead free Perovskite Oxides $AMnO_3$ (A=Ca, Sr, Ba) by DFT Simulation”	2022-2023
3.	Pabna University of Science and Technology	“Pressure effect on the structural, elastic, electronic, optical, and thermodynamic properties of B-containing MAX phases: Hf_2XB_2 (X = In, Sn)”	2021-2022
4.	Pabna University of Science and Technology	The Structural, Elastic, Electronic, Optical and Thermodynamic Properties of $ThCr_2Si_2$ - type nickel-based superconductors $BaNi_2T_2$ (T=P, As): An <i>ab-initio</i> study.	2018-2019
5.	Pabna University of Science and Technology	Synthesis, Characterization and Physical Properties of $CoCr_2O_4$ by Solid-State Reaction and First Principles Method.	2019-2020
6.	Ministry of Science and Technology (R&D) research grant.	Growth of $MgTa_2O_6$ crystals by solid-state method for high efficiency device applications.	2016 - 2017
7.	Pabna University of Science and Technology	An <i>ab-initio</i> study on Structural, Electronic and Magnetic Properties of Iron and Cuprate based Superconductors.	2014-2015

8. List of publications:

1.	Roy, Dayal Chandra, Md Atikur Rahman , Sushmita Sarker, Ahmad Irfan, Aijaz Rasool Chaudhry, and Md Ferdous Rahman. "First-principles calculations to investigate pressure effects on structural, elastic, electronic, optical and thermodynamic properties of AB ₂ (A= Hf, Zr, and BCo, W) type laves phases." <i>Journal of Materials Research and Technology</i> 30 (2024): 2781-2797. Impact Factor: 6.4
2.	Mouna, Sarah Chaba, Missoum Radjai, Abdelmadjid Bouhemadou, Md Atikur Rahman , Hüsnu Kara, Djamel Houatis, Djamel Allali, Saber Sâad Essaoud, and Hatem Allaf. "Structural, electronic, and optical characteristics of BaXCl ₃ (X= Li, Na) perovskites." <i>Materials Science and Engineering: B</i> 308 (2024): 117578. Impact Factor: 3.90
3.	Rahman, Md Atikur , Rejuana Ferdous, Dayal Chandra Roy, Rukaia Khatun, Ahmad Irfan, and Md Ferdous Rahman. "Pressure effect on the structural, electronic, mechanical, optical and thermal properties of Ga ₂ TiX ₆ (X= Cl, Br): A DFT simulation." <i>Materials Science and Engineering: B</i> 308 (2024): 117553. Impact Factor: 3.90
4.	Cheikh, Khaled, Wahiba Metiri, Md Atikur Rahman , and Asma Khatun. "Computational investigation of structural stability, mechanical, electronic and phonon properties of Pd ₃ Zr compound in L12 and D024 phases." <i>Indian Journal of Physics</i> (2024): 1-12. Impact Factor: 1.60
5.	Rima, Azizun Nesa, Md Atikur Rahman, Rejuana Ferdous, Md Nadim Mahamud Nobin, and Md Ferdous Rahman. "DFT simulation to study the physical properties of ternary intermetallic materials ACuSb (A= Ca, Sr, Ba) for solar cell and TBC materials." <i>Computational Condensed Matter</i> 39 (2024): e00900. Impact Factor: 2.60
6.	Rahman, Md Atikur , Rukaia Khatun, Rejuana Ferdous, Dayal Chandra Roy, Md Zahid Hasan, Ahmad Irfan, Md Abdur Razzaque Sarker et al. "First-principles calculations to investigate structural, elastic, electronic, optical and thermal properties of La-based ternary intermetallic superconductors LaM ₂ Si ₂ (M= Co, Cu, Rh, Pd, Ag, Ir, Pt, Au)." <i>Journal of Materials Research and Technology</i> 26 (2023): 3840-3862. Impact Factor: 6.4
7.	Rahman, Md Ferdous, Md Kamrul Hasan, Mithun Chowdhury, Md Rasidul Islam, Md Hafijur Rahman, Md Atikur Rahman , Sheikh Rashel Al Ahmed et al. "A qualitative Design and optimization of CIGS-based Solar Cells with Sn ₂ S ₃ Back Surface Field: A plan for achieving 21.83% efficiency." <i>Heliyon</i> 9, no. 12 (2023). Impact Factor: 3.77
8.	Ghosh, Avijit, Md Ferdous Rahman, Md Rasidul Islam, Md Shoriful Islam, M. Khalid Hossain, Sagar Bhattarai, Rahul Pandey, Jaya Madan, Md Atikur Rahman , and Abu Bakar Md Ismail. "Structural, electronic and optical characteristics of inorganic cubic perovskite Sr ₃ AsI ₃ ." <i>Optics Continuum</i> 2, no. 10 (2023): 2144-2153. Impact Factor: 1.26
9.	Mouna, Sarah Chaba, Missoum Radjai, Md Atikur Rahman , Abdelmadjid Bouhemadou, Djamel Houatis, Djamel Allali, Saber Sâad Essaoud, and Hatem Allaf. "Physical properties of Be-based fluoroperovskite compounds XBeF ₃ (X= K, Rb): a first-principles study." <i>Journal of Physics: Condensed Matter</i> 36, no. 5 (2023): 055701. Impact Factor: 2.70
10.	Sarker, Sushmita, Md Atikur Rahman , M. S. Ali, Dayal Chandra Roy, Ahmad Irfan, and Jannatul Ferdose Lubna. "First-principles calculations to investigate elastic, electronic, optical, and thermodynamic properties of intermetallic elements Pt ₃ T (T= Nb, Ru, Rh, Pd, and Ag)." <i>Solid State Communications</i> 376 (2023): 115362. Impact Factor: 2.10
11.	Rahman, Md Atikur , Farhana Mostari, Md Zahid Hasan, Ahmad Irfan, Md Ferdous Rahman, Md Joynadul Hosain, Sarah Chaba Mouna, Iftakher Ahmed Chowdhury, Md Rasheduzzaman, and M. S. H. Choudhury. "First principles study on the structural, elastic, electronic, optical and thermal properties of lead-free perovskites CsCaX ₃ (X= F, Cl, Br)." <i>Physica B: Condensed Matter</i> 669 (2023): 415260. Impact Factor: 2.80

12.	Rahman, Md Atikur , Wakil Hasan, Md Zahid Hasan, Ahmad Irfan, Sarah Chaba Mouna, Md Abdur Razzaque Sarker, Md Zahidur Rahaman, and Mahmudur Rahman. "Structural, mechanical, electronic, optical and thermodynamic features of lead free oxide perovskites $AMnO_3$ (A= Ca, Sr, Ba): DFT simulation based comparative study." <i>Physica B: Condensed Matter</i> 668 (2023): 415215. .Impact Factor: 2.80
13.	Nishat, Maliha, Md Atikur Rahman , Most Farzana Islam, Md Abul Hasnat, Farid Ahmed, and Md Zahid Hasan. "Pressure effect on the physical properties of 413-type MAX phase compound Nb_4AlC_3 : Insights from DFT simulation." <i>Materials Science and Engineering: B</i> 299 (2024): 116940. Impact Factor: 3.90
14.	Sadat, Md Nazmus, Md Atikur Rahman , Dayal Chandra Roy, Md Afjalur Rahman, Md Zahid Hasan, Irfan Ahmad, Swapnil Chowdhury, Wakil Hasan, Rejuana Ferdous, and Tajrin Aktar. "Study of the physical aspects of Pt_3T (T= Mn, Ni) intermetallic compounds using first principles method." <i>Physica B: Condensed Matter</i> 672 (2024): 415402. Impact Factor: 2.80
15.	Rahman, Md Atikur , Mahbub Hasan, Jannatul Ferdous Lubna, Rukaia Khatun, Sushmita Sarker, Md Zahid Hasan, Aslam Hossain et al. "Comparative study of the structural, mechanical, electronic, optical and thermodynamic properties of superconducting disilicide YT_2Si_2 (T= Co, Ni, Ru, Rh, Pd, Ir) by DFT simulation." <i>Journal of Physics and Chemistry of Solids</i> 178 (2023): 111342. . Impact Factor: 4.38
16.	Hasan, Md Zahid, M. A. Rayhan, Md Atikur Rahman , Aslam Hossain, Md Mukter Hossain, Wakil Hasan, Md Zillur Rahman et al. "Insights into the physical properties of newly synthesized AMn_2P_2 (A= Ca, Sr) via density functional theory." <i>Physica B: Condensed Matter</i> 653 (2023): 414651. Impact Factor: 2.80
17.	Rahman, Md Atikur , Wakil Hasan, Rukaia Khatun, Md Zahid Hasan, Md Hafijur Rahman, Sushmita Sarker, Mahbub Hasan, and Jannatul Ferdous Lubna. "An ab-initio study to investigate the structural, mechanical, electrical, optical and thermal properties of the $AZrO_3$ (A= Mg, Ca, Sr, Ba, Sn, Cu) compounds." <i>Materials Today Communications</i> 34 (2023): 105339. Impact Factor: 3.66
18.	Matiur, R. MD, Anissa A. Putri, Khandaker Monower Hossain, Md Atikur Rahman , Md Zahid Hasan, and T. Soga. "Experimental characterization and first-principles calculations to investigate structural, elastic, mechanical and optical properties of flakes-based BiOI film." <i>Physica B: Condensed Matter</i> 650 (2023): 414556. Impact Factor: 2.80
19.	Rahman, Md Atikur , Kamrunnahr Mousumi, Md Lokman Ali, Md Zillur Rahman, Sayed Sahriar Hasan, Wakil Hasan, Md Rasheduzzaman, and Md Zahid Hasan. "First-principles calculations to investigate elastic, electronic, optical and thermodynamic properties of Pt_3X (X= Ti, Cu)." <i>Results in Physics</i> 44 (2023): 106141. Impact Factor: 4.56
20.	Jamila, Nusrat, Israt Jahan Farah, Jibon Krishna Modak, Wakil Hasan, Md Atikur Rahman, Md Mukter Hossain, Md Rasheduzzaman et al. "DFT based computational investigations of the physical properties of perovskites-structure $SrXO_3$ (X= Si, Tb, Th) for optoelectronic and thermo-mechanical applications." <i>Materials Today Communications</i> 38 (2024): 107650. Impact Factor: 3.66
21.	M. Atikur Rahman , J.F. Lubna,S. Sarker, R. Khatun, S. Kumur Saha, M.Z. Rahaman,K.M. Hossain, M.Rasheduzzaman, M.Z. Hasan, First-Principles Study of the Physical Properties of CuV_2S_4 under Pressure, <i>Physics of the Solid State (publisher: Springer)</i> , 2022, Vol. 64, No. 8.
22.	Hasan, Wakil, Adeeb Mahamud Hossain, Md Rasheduzzaman, Md Atikur Rahman , Md Mukter Hossain, K. Rashel Mohammad, Raihan Chowdhury, Khandaker Monower Hossain, M. Moazzam Hossen, and Md Zahid Hasan. "Perovskite-structure $TiBO_3$ (B= Cr, Mn) for thermomechanical and optoelectronic applications: an investigation via a DFT scheme." <i>RSC advances</i> 12, no. 42 (2022): 27492-27507. Impact factor: 3.9
23.	M. I. Kholil, M. T. H. Bhuiyan, M. Atikur Rahman , M. S. Ali and M. Aftabuzzaman, Influence of molybdenum and technetium doping on visible light absorption, optical and electronic properties of lead-free perovskite $CsSnBr_3$ for optoelectronic applications, <i>RSC Advances (Royal Society of Chemistry)</i> , 2021, Vol. No.: 11, pages: 2405-2414, ISSN: 2046-2069 (online), Impact factor: 3.9, DOI: 10.1039/d0ra09853a.

24.	Md. Khokon Miah, Khandaker Monower Hossain, Md. Atikur Rahman , Md. Rasheduzzaman, S. K. Mitro, Jibon Krishna Modak, Md. Zahid Hasan, Comprehensive study on the physical properties of tetragonal LaTGe_3 ($T = \text{Rh, Ir, Pd}$) compounds: An <i>ab-initio</i> investigation, AIP Advances (American Institute of Physics) , 2021, Vol. No.: 11, pages: 025046:1-14, ISSN: 2158- 3226 (online), Impact factor: 1.579, DOI: 10.1063/5.0042924.
25.	M. I. Kholil, M. T. H. Bhuiyan, M. Atikur Rahman , M. S. Ali and M. Aftabuzzaman, Effects of Fe doping on the visible light absorption and band gap tuning of lead-free (CsSnCl_3) and lead halide (CsPbCl_3) perovskites for optoelectronic applications, AIP Advances (American Institute of Physics) , 2021, Vol. No.: 11, pages: 035229:1-11, ISSN: 2158-3226 (online), Impact factor: 1.579, DOI: 10.1063/5.0042847.
26.	Md. Zahid Hasan, Md. Abu Rayhan, Md. Atikur Rahman , Md. Rasheduzzaman, Jibon Modak, Khandaker Monower Hossain, Insights into the physical properties of inverse-Heusler alloy Cr_2CoGa via density functional theory, Physica Scripta (IOPscience) , 2021, Vol. No.: 96, Issue: 05, ISSN: 1402-4894, Impact factor: 1.985, DOI: 10.1088/1402-4896/abe90e.
27.	Sushmita Sarker, Md. Atikur Rahman , Rukayia Khatun, Study of structural, elastic, electronics, optical and thermodynamic properties of Hf_2PbC under pressure by <i>ab-initio</i> method, Computational Condensed Matter (ELSEVIER) , 2021, Vol. No.: 26, ISSN: 2352-2143, Impact factor: 0.97, DOI: 10.1016/j.cocom.2020.e00512.
28.	M. Atikur Rahman , M. R. Akter, M. Romana Khatun, R. Sultana, and M. A. Razzaque Sarker, Synthesis and Characterization of High-Quality Polycrystalline Sample NiV_2O_6 by Solid-State Reaction Technique, Physics of the Solid State (Springer) , 2020, Vol. No.: 62, Issue No.: 6, Pages: 1024–1032, ISSN: 1063-7834 (print), Impact factor: 0.99, DOI: 10.1134/S1063783420060049.
29.	Md. Atikur Rahman , Md. Abdur Razzaque Sarker, Synthesis, characterization and physical properties of high quality MgV_2O_6 crystals by solid-state reaction and <i>ab-initio</i> methods, Journal of Alloys and Compounds (ELSEVIER) , 2019, Vol. No.: 797, Pages: 630-639, ISSN: 0925- 8388, Impact factor: 4.65, DOI: 10.1016/j.jallcom.2019.05.081.
30.	Md. Atikur Rahman , Md. Zahidur Rahaman, Md. Shahjahan Ali, The physical properties of ThCr_2Si_2 -type nickel-based superconductors BaNi_2T_2 ($T = \text{P, As}$): An <i>ab-initio</i> study, Chinese Journal of Physics (ELSEVIER) , 2019, Vol. No.: 59, Pages: 58-69. ISSN: 0577-9073, Impact factor: 2.64, DOI: 10.1016/j.cjph.2018.12.026.
31.	M.U. Salma, Md. Atikur Rahman , Md. Ibrahim Kholil, Md. Shahjahan Ali, MgCu_2 -type Laves phases CaPt_2 , SrPd_2 and SrPt_2 : a DFT based <i>ab-initio</i> investigation, Solid State Communications(ELSEVIER) , 2019, Vol. No.: 296, Pages: 1-7, ISSN: 0038-1098, Impact factor: 1.52, DOI: 10.1016/j.ssc.2019.03.012.
32.	M. U. Salma and Md. Atikur Rahman , Physical properties of ThCr_2Si_2 -type Rh-based compounds ARh_2Ge_2 ($A = \text{Ca, Sr, Y and Ba}$): DFT based first-principles investigation, International Journal of Modern Physics B (World Scientific) , 2019, Vol. No.: 32, Pages: 1850357-20, ISSN: 0217-9792 (print), Impact factor: 0.863, DOI: 10.1142/S0217979218503575.
33.	Uttam Kumar Chowdhury, Md. Atikur Rahman , Afjalur Rahmana, Pretam Kumar Das M.U.Salma Md. Shahjahan Ali, Dayal Chandra Roy, The Physical Properties of ThCr_2Si_2 -type Ru-based Compounds SrRu_2X_2 ($X = \text{P, Ge, As}$): An <i>ab-initio</i> Investigation, Physica C Superconductivity and its Application (ELSEVIER) , 2019, Vol. No.: 562, Pages: 48-55,ISSN: 0921-4534, Impact factor: 1.24, DOI: 10.1016/j.physc.2018.11.002.
34.	Md. Atikur Rahman , Md. Zahidur Rahaman, Md. Shahjahan Ali, The physical properties of ThCr_2Si_2 -type nickel-based superconductors BaNi_2T_2 ($T = \text{P, As}$): An <i>ab-initio</i> study, Chinese Journal of Physics (ELSEVIER) , 2019, Vol. No.: 59, Pages: 58-69. ISSN: 0577-9073, Impact factor: 2.64, DOI: 10.1016/j.cjph.2018.12.026.

35.	M.U. Salma, Md. Atikur Rahman , Md. Ibrahim Kholil, Md. Shahjahan Ali, MgCu ₂ -type Laves phases CaPt ₂ , SrPd ₂ and SrPt ₂ : a DFT based ab-initio investigation, Solid State Communications(ELSEVIER) , 2019, Vol. No.: 296, Pages: 1-7, ISSN: 0038-1098, Impact factor: 1.52, DOI: 10.1016/j.ssc.2019.03.012.
36.	M. U. Salma and Md. Atikur Rahman , Physical properties of ThCr ₂ Si ₂ -type Rh-based compounds ARh ₂ Ge ₂ (A = Ca, Sr, Y and Ba): DFT based first-principles investigation, International Journal of Modern Physics B (World Scientific) , 2019, Vol. No.: 32, Pages: 1850357-20, ISSN: 0217-9792 (print), Impact factor: 0.863, DOI: 10.1142/S0217979218503575.
37.	Uttam Kumar Chowdhury, Md. Atikur Rahman , Afjalur Rahmana, Pretam Kumar Das M.U.Salma Md. Shahjahan Ali, Dayal Chandra Roy, The Physical Properties of ThCr ₂ Si ₂ -type Ru-based Compounds SrRu ₂ X ₂ (X= P, Ge, As): An ab-initio Investigation, Physica C Superconductivity and its Application (ELSEVIER) , 2019, Vol. No.: 562, Pages: 48-55,ISSN: 0921-4534, Impact factor: 1.24, DOI: 10.1016/j.physc.2018.11.002.
38.	Mst. Jannatul Naefa, Md. Atikur Rahman , Physical properties of ThCr ₂ Si ₂ -type Ni-based compounds SrNi ₂ M ₂ (M= As and Ge): DFT based Ab-initio calculations, Physica C: Superconductivity and its Applications (ELSEVIER) , 2019, Vol. No.: 560, Pages: 19-25, ISSN: 0921-4534, Impact factor: 1.24, DOI: 10.1016/j.physc.2019.02.007.
39.	Md. Shahjahan Ali, Md. Atikur Rahman , Md. Zahidur Rahaman, A theoretical investigation of ThCr ₂ Si ₂ -type Pd-based superconductors XPd ₂ Ge ₂ (X = Ca, Sr, La, Nd), Physica C: Superconductivity and its Applications (ELSEVIER) , 2019, Vol. No.: 561, Pages: 35-44, ISSN: 0921-4534, Impact factor: 1.24, DOI: 10.1016/j.physc.2018.10.015.
40.	Md. Atikur Rahman , Md. Zahidur Rahaman, Md. Shahjahan Ali, Md. Abdur Razzaque Sarker, Theoretical investigation on MgV ₂ O ₆ : <i>Ab-initio study</i> , Philosophical Magazine (Taylor & Francis) , 2018, Vol. No.: 98, Issue No.: 22, Pages: 2077-2093, ISSN: 1478-6435 (Print). Impact factor: 1.86, DOI: 10.1080/14786435.2018.1468094.
41.	Md. Zahidur Rahaman, Md. Atikur Rahman , Investigation on the Physical Properties of Two Laves Phase Compounds HRh ₂ (H = Ca and La): A DFT Study, International Journal of Modern Physics B (World Scientific) , 2018, Vol. No.: 32, Issue No.: 12, Pages: 1850149-13, ISSN: 0217-9792 (print), Impact factor: 0.863, DOI: 10.1142/S0217979218501497.
42.	Md. Zahidur Rahaman, Md. Lokman Ali, Md. Atikur Rahman , Pressure dependent mechanical and thermodynamic properties of newly discovered cubic Na ₂ He, Chinese Journal of Physics (ELSEVIER) , 2018, Vol. No.: 56, Pages: 231-237. ISSN: 0577-9073, Impact factor: 2.64, DOI: 10.1016/j.cjph.2017.12.024. Impact factor: 4.6
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9. Contribution to the Department Other Than Teaching and Research already stated above during the period under review (**last five years**):

a) Curriculum Improvement:

- (i) Worked as a member to design Syllabus for B.Sc. (Hon's) and M.S. of Department of Physics, Pabna University of Science and Technology, Pabna, Bangladesh.
- (ii) Worked as a member to design experiments at the Department of Physics, Pabna University of Science and Technology, Pabna, Bangladesh.

b) Laboratory Development:

- (i) Worked as a member to develop Second year Laboratory at the Department of Physics, Pabna University of Science and Technology, Pabna, Bangladesh.
- (ii) Worked as a member to develop Third year Laboratory at the Department of Physics, Pabna University of Science and Technology, Pabna, Bangladesh.

10. Contribution to the University Administration during the period the under review (**last five years**):

Hall Administration (mention period including position held): Assistant Provost (2017-2018).

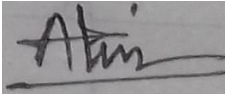
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I certify that the statements made above are correct.

A handwritten signature in black ink, appearing to read 'Atin', written on a light-colored background.

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