

Academic and Administrative Audit

Aliah University

Academic Year : 2021-22

Department : Physics

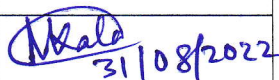
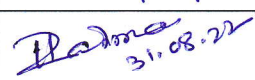
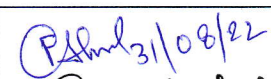

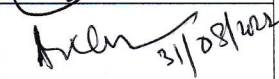
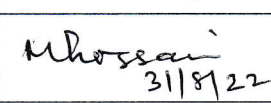
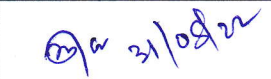
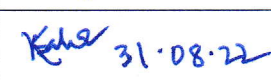


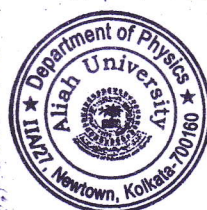
The Academic Audit of Aliah University focuses on four key functional areas:

- 1. Academic Management**
- 2. Academic Practices**
- 3. Infrastructure and supportive facilities**
- 4. Initiatives and Supplementation**



The Department of Physics has constituted an eight member internal academic audit committee to conduct an academic audit of the Physics Department:

Sl. No.	Name of the Faculty members	Designation	Role	Signature
1	Dr. Md. Mehedi Kalam	Professor	Chairman	 31/08/2022
2	Dr. Muklesur Rahman	Professor	Convenor	 31.08.22
3	Dr. Sk. Faruque Ahmed	Professor	Member	 31/08/22
4	Dr. Badiur Rahaman	Assistant Professor	Member	 31/08/22
5	Dr. Md. Abdul Khan	Assistant Professor	Member	 31/08/2022
6	Dr. Md. Mabud Hossain	Assistant Professor	Member	 31/8/22
7	Dr. A K M Maidul Islam	Assistant Professor	Member	 31/08/22
8	Dr. Jayanta Kumar Saha	Assistant Professor	Member	 31.08.22



Academic Management

Information about HOD/ HOD (Officiating) [01.07.21 to 31.10.2021]

1] Name: **Prof. MUKLESUR RAHMAN**

2] Designation: Professor

3] Qualification: PhD

4] Teaching experience (in years): 12+ years

5] Industry experience (if any in years): Nil

6] Number of teaching hours per week: 14

7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet):

Study material developed for PHYUGCC01, PHYUGCC03, PHYUGCC10, PHYUGSE01

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/field visits organized):

5th Regional Science and Technology Congress, 2022, 9th and 10th December 2022, Moulana Azad College, Kolkata.

9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity

10] Other responsibilities (Please specify, add rows if required):

1	Head, Department of Physics (November 2021)
2	

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about HOD/ HOD (Officiating) [1.11.21 to 30.06.2022]

- 1] Name: **Prof. Md. Mehedi Kalam**
- 2] Designation: Professor
- 3] Qualification: M.Sc., Ph.D.
- 4] Teaching experience (in years): 18 years
- 5] Industry experience (if any in years): Nil
- 6] Number of teaching hours per week: 12
- 7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet): 4
- [i] Lorentzian wormholes supported by tachyon matter.
Rikpratik Sengupta, Shounak Ghosh and **Mehedi Kalam**
Annals of Physics 439, 168778(2022);
- [ii] Analytical model on mass limits of strange stars.
Sajahan Molla, Masum Murshid and **Mehedi Kalam**
Astrophys. Space Sci. 367 no. 1, 4 (2022); arXiv: 2112.12807[gr-qc]
- [iii] Properties of rotating neutron stars in light of binary compact object mergers.
Bidisha Ghosh and **Mehedi Kalam**
Eur.Phys.J.Plus 137, no. 2, 251 (2022) ;
- [iv] Wormhole in Milky Way galaxy with global monopole charge.
Priyam Das and **Mehedi Kalam**
Eur.Phys.J.C 82, no. 4, 342 (2022);
- 8] Contribution to enrich quality of teaching-learning during the academic year:
(Seminars / Workshops / lectures / field visits organized): Nil
- 9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
Departmental Committee	Chairman	Organised several meeting with faculty members for smooth running of the departments
Board of Studies	Chairman	Organised BOS meetings
DRC and DSC, Physics	Chairman	Conducted meetings with DRC and DSC members for smooth functioning of the dept.

- 10] Other responsibilities (Please specify, add rows if required):

- 11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)
[From 01.07.2021 to 29.11.2021]

1] Name: **Prof. Md. Mehedi Kalam**

2] Designation: Professor

3] Qualification: M.Sc., Ph.D.

4] Teaching experience (in years): 18 years

5] Industry experience (if any in years): Nil

6] Number of teaching hours per week: 14

7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet): Nil

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized): Nil

9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
Board of Studies	Member	Participated in BOS meetings
DRC and DSC, Physics	Member	Attended meetings with DRC and DSC members for smooth functioning of the dept.
ERP evaluation Committee.	Member	Participated in several meeting to implement the ERP system of the University .

10] Other responsibilities (Please specify, add rows if required):

1	Member of Executive Council of Aliah University.
2	Member of Court of Aliah University
3	Dean, Faculty of Science and Technology, Aliah University

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)

- 1] Name: **Dr. Badiur Rahaman**
 2] Designation: Assistant Professor
 3] Qualification: M.Sc., Ph.D.
 4] Teaching experience (in years): 12+ Years
 5] Industry experience (if any in years): No
 6] Number of teaching hours per week: 18
 7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet):

A.Y.	Publications
2021-22	<i>Cu9O2(SeO3)4Cl6 revisited: Crystal structure, Raman scattering and first-principles calculations</i> , <i>Journal of Alloys and Compounds</i> 894:162291 (Oct. 2021); https://doi.org/10.1016/j.jallcom.2021.162291
	<i>Stabilization of ferromagnetism in carbon doped Mg(n-2)Mn2O_n clusters</i> , <i>International Journal of Computational Materials Science and Engineering</i> , 10, 04, 2150022 (Sep. 2021); https://doi.org/10.1142/S2047684121500226

A.Y.	Research Project
2021-22	Electronic and magnetic properties of low dimensional strongly correlated system , 463(Sanc.)/ST/P/S&T/16G-5/2018 dated 14.03.2019 4631235(Sanc.)/STBT-11012(26)/23/2021-ST/ SEC dated 26/02/2022

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/field visits organized):

9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity

10] Other responsibilities (Please specify, add rows if required):

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11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)

- 1] Name: **Dr. Sk Faruque Ahmed**
- 2] Designation: Professor
- 3] Qualification: Ph.D.
- 4] Teaching experience (in years): 12+ Years
- 5] Industry experience (if any in years):
- 6] Number of teaching hours per week: 14
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet):
1. Synthesis and Characterization of Copper Doped Zinc Oxide Thin Films Deposited by RF/DC Sputtering Technique; M. Khan, M. S. Alam and Sk. F. Ahmed, *Journal of Shanghai Jiao Tong University (Science)*, 50, (2022) 1-8.
 2. Effect of Ambient Temperature and Cathode-Anode Separation on Electron Field Emission Property of Carbon Nanofibers Thin Films; Sk. F. Ahmed and M. Khan, *Materials Today: Proceedings*, 50, (2022) 2031-2036.
 3. Diamond Like Carbon Assisted Nanostructure Wrinkle Thin Films on Flexible Substrate: Tunable Optical Properties; M. S. Alam, M. Khan and Sk. F. Ahmed, *Materials Today: Proceedings*, 49, (2022) 1401-1407.
- 8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/field visits organized):
- **Member:** Colloquium lecture-2022: Physics in Bengalion 21st February, 2022, Department of Physics, Aliah University, Kolkata, India.
 - **Member:** Colloquium lecture entitled "Photon Photon interactions in a Quantum Nonlinear medium" on 23rd December, 2021, Department of Physics, Aliah University, Kolkata, India.
- 9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
Examination Committee, Aliah University, January 2020 - November 2022.	Chairman	As per requirement
Committee for implementation of CBCS curricula and Exam, Aliah University, 2021.	Chairman	
Committee of expert for the Procurement of FESEM instrument, Aliah University, 2018.	Chairman	
Departmental Research committee (DRC) of the Department of Physics, Aliah University, September 2020- Till Now.	Convener	
Academic Council of Aliah University, September 2021-Till now.	Member	
Board of Research Studies (BRS), Aliah University, November 2020 - November 2022.	Member	
Re-admission Committee of the Aliah University, 2021.	Member	
Committee for the preparation of Draft Ordinance of the Aliah University, 2021.	Member	
Committee for the framing Examinations Rules, Aliah University, 2021.	Member	
Committee for the NAAC gradation, Aliah University, 2021.	Member	
Departmental Purchase committee (DPC) of the Department of Physics, Aliah University, December 2019-Till now.	Member	
Committee for International students affairs, Aliah University, November 2019- November 2022.	Member	
Board of Studies (BOS) in Department of Physics, Aliah University, December 2019 -Till now.	Member	



10] Other responsibilities (Please specify, add rows if required):

1	Controller of Examinations (Acting): Aliah University, November 2019 - November 2022.
2	Head of the Department: Department of Physics, Aliah University, October 2017- November 2019

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)

1] Name: **DR MD ABDUL KHAN**

2] Designation: ASSISTANT PROFESSOR (Stage-3)

3] Qualification: M.Sc.(CU), B.Ed. (CU), Ph.D.(CU)

4] Teaching experience (in years): **24** Years

10+2 Level: 11 years (2/1999-3/2010)

UG Level: 12 years (3/2010 – 6/2022)

PG Level: 09 years (11/2013 - 6/2022)

5] Industry experience (if any in years): NIL

6] Number of teaching hours per week: 16

7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet):

Projects	NIL
Publications	Journal Article
1	SH Mondal, M Alam, M Hasan, MA Khan, TOV equation of state and bulk properties of astro-nuclear objects: an investigation , Journal of Physics: Conference Series 2349 (1), (2022) 012025 [DOI: 10.1088/1742-6596/2349/1/012025]
2	M Alam, SH Mondal, M Hasan, MA Khan , Onset of the bound states in strange Λ , Ξ -hypernuclei and hyperspherical three-body model calculation for the corresponding double hyperon hypernuclei. Journal of Physics: Conference Series 2349 (1), (2022) 012021 [DOI 10.1088/1742-6596/2349/1/012021]
3	M Hasan, M Alam, S H Mondal and Md A Khan , Study of resonances in exotic neutron-rich ^{14}Be by the use of isospectral potential. <i>J. Phys.: Conf. Ser.</i> 2349 (2022) 012024 [DOI 10.1088/1742-6596/2349/1/012024]
4	Khan, M.A., Mondal, S.H., Alam, M., Hasan, M. S-factors and thermonuclear reaction rate for p+ ^{13}N , p+ ^{14}N and p+ ^{19}F fusion reactions at energies much below the Coulomb barrier. <i>Eur. Phys. J. Plus</i> 137 , 745 (2022). [https://doi.org/10.1140/epjp/s13360-022-02991-2]
5	SH Mondal and Md. A. Khan , Study of fusion cross section and astrophysical S-factor for p+ ^{15}N and α + ^{12}C at sub-barrier energy, <i>Int. J. Mod. Phys. E</i> , Volume 31, Issue 5, (2022) 2250045 [doi: https://doi.org/10.1142/S0218301322500458]
	Proceedings paper
	M. Hasan , and Md. A. Khan, (2022), "Structure study of the exotic ^{72}Ca dripline nucleus". <i>Proc. DAE Symp. Nucl. Phys.</i> 66 (2022) 222, 66 th DAE-BRNS Symposium on Nuclear Physics, Cotton University, Guwahati, Assam, India, December 01-05, 2022. ISBN: 9-788195-922512

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized):

Participation in Seminars / Workshops / lectures / field visits	
1	Participated in the Ministry of Education, Govt. of India Approved: Online Two - Week Interdisciplinary Refresher Course on "Research Methodology" organized by Teaching Learning Centre, Ramanujan College, University of Delhi held during 22.12.2021 to 05.01.2022
2	Shamim Haque Mondal and Md. Abdul Khan, "Study of energy dependence of thermonuclear reaction rate for p + ^{12}C fusion reaction", (Oral presentation) in National Conference on Low Energy Nuclear Reaction Dynamics, Aligarh Muslim University, Aligarh, India, March 7-9, (2022). [Presented by Co-author]
3	Participated in the "65 th DAE-BRNS Symposium on Nuclear Physics (SNP2021)" held at Bhabha Atomic Research Centre (BARC), Mumbai, India (HYBRID MODE) with THREE ORAL presentation by Co-authors: i) Paper-1 by Mr. M. Alam ii) Paper-2 by Mr.M Hasan and iii) Paper-



	3 by Mr.S H Mondal during December 1-5, 2021		
4	Participated in the UGC Sponsored (Online) 3 Week "Refresher Course in Natural Sciences " organized by UGC-HRDC, Goa University, Goa, India held during 27.07.2021 to 09.08.2021		
Conference/Seminar/Workshop organized			
	Feb 6-28, 2021, (8 days) [Sat & Sun]	LSIFT-2020 (Phase-II) Role: Jt. Convenor	Online Google Meet Department of Physics, Aliah University, Kolkata

9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
DRC	Member	PhD related activities PhD Supervision
DSC	Convenor	
AU Sc Tech Club	Chairman	Organizing Lecture, Seminar, Science Awareness' Progs.
AU Pub Committee	Member	
IQAC	Member	University publication related activities Quality improvement, Promotion under CAS & Related activities
NAAC	Member	NAAC related documentation
BOS Physics	Member	
Univ Space Alloc Committee	Member	Curriculum Design, UGC CBCS Course structure etc
IAPT, ISAMP	Life member	Relevant activities for proper utilization of space
Univ Pay Structure Committee	Convenor	Promoting knowledge/education Ropa-2019 pay fixation

10] Other responsibilities (Please specify, add rows if required):

1	Observer: BA/MA Kamil Exams at Beldanga DHSrM
2	Confidential Assignments from NSOU

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

1	Apart from Chalk & Talk, use of PPT, Microcontroller based Interactive Teaching learning (using Desktop/Laptop & Projector, Discrete circuit components), FORTRAN programming Skill development for PG/PhD students
2	Course module proof checking UGC CBCS Physics Honours: Mathematical Physics: CC10 Work on UG/PG Nuclear Physics book writing under progress



Information about Teaching Members (to be filled by individual Teaching member)

- 1] Name: **Dr. Md. Mabud Hossain**
- 2] Designation: Assistant Professor
- 3] Qualification: M.Sc., Ph.D.
- 4] Teaching experience (in years): 9+ Years
- 5] Industry experience (if any in years): No
- 6] Number of teaching hours per week: 18
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet):

A.Y.	Publications
2021-2022	"Microwave or radio-frequency controlled electromagnetically induced transparency (EIT) and related dispersion spectra in a pump-probe lasers driven multi-level Ξ -type system of 87Rb atom" A Das, J K Saha, M M Hossain , Optics Communications 520 , 128472 (2022). https://doi.org/10.1016/j.optcom.2022.128472
	"Theoretical study of coherent optical phenomena in a three lasers driven four-level ladder-type system involving a Rydberg state" R Hazra, M M Hossain , Laser Physics 32 , 065207 (p-14) (2022). https://doi.org/10.1088/1555-6611/ac641d
	"A theoretical study of the group refractive index ng in a four-level inverted Y-type system formed by 87Rb atom–laser radiation interaction" R Hazra, M M Hossain , Quantum Electronics 51 (8), 730 –743 (2021). https://doi.org/10.1070/QEL17522
A.Y.	Research Projects
2021-2022	West Bengal DSTBT (DHESTBT), Govt of W.B. Major Research Project: "Study of coherent nonlinear resonances in Zeeman sublevels of hyperfine structure of Rb atoms using pump-probe laser spectroscopy: Theory and Experiment" (PI: Dr. Md. Mabud Hossain & Co-PI: Dr. Jayanta Kr. Saha) [Duration: 2018-2019, 2019-2020, 2020-2021 (8 th July), Extended up to 31 st March 2023 due to pandemic Covid-19] Date of Start and Completion: 08/07/2018 & 31/03/2023 <u>Sanction Order Nos.</u> 249(Sanc.)/ST/P/S&T/16G-26/2017, dt 2503/2018 1901/ST/P/S&T/16G-26/2017, dt 1902/2020 1225(Sanc.)/STBT-11012 (26)/19/2019-ST SEC Dt 28/02/2022

- 8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/field visits organized):

A.Y.	Seminars/Workshops/Lectures/Field visits organized
2021-2022	Convener: Physics Colloquium Lecture-2021 on "Photon Photon interactions in a quantum nonlinear medium" by Dr. Bankim Chandra Das (Post-Doctoral Research Fellow, Dept. of Physics, Weizmann Institute of Science, Israel), organized by the Department of Physics, Aliah University on 23rd Dec, 2021.
	Convener: Colloquium Lecture-2022 on "Physics in Bengali" by Dr. Rajibul Islam, University of Waterloo, Canada, on the occasion of Matribhasa Diwas on 12 th February, 2022.



9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/Activity
All departmental committees: [Departmental Committee (DC), Departmental Purchase Committee (DPC), Board of Studies / Syllabus formation/revision committee, Departmental library/book list preparation committee, Departmental Research Committee (DRC), Departmental exam related committee, Doctoral Scrutiny Committee (DSC) of few PhD students, Departmental routine/ time table committee, etc.]	Member	Full time cooperation to HoD for daily activities; actively participation in tender process; syllabus construction; book list preparation; PhD course work and seminar organization for students; exam related works like invigilation, paper set, moderation, evaluation, marks preparation/tabulation, etc; engagement for class routine and exam schedule preparation; scrutiny of research of PhD students as DSC of few ones; always cooperation and engagement with departmental activities.
WBDST Project Purchase Committee, 2018- 31.03.2023	Convener	Financial work related to Fellowship and Purchase work done during the project
Convocation Medal/Prizes Committee, (24.07.2019)-till date	Member	Attended meeting, cooperation to Chairman for Medal and Prizes selection, preparation, etc.
University Research Programme (URP) Cell, AU (24.12.2019) to till date	Jt. Coordinator	Additional duty in an officer post at URP Cell/PhD Section for full coordination with departments, students, supervisors, CoE, FO, Admission committee, Deans and BRS Chairperson, for smooth running of PhD & MPhil programmes.
PhD Admission Committee Session 2020-2021 (29.09.2020)- till date	Member	Actively involved with Chairman and Convener for completion of all process related to PhD Admission
BRS of Aliah University (26.11.2020)- till date	Member	Actively involved to report and discuss all activities in PhD Section for running PhD programme at AU
SVMCM Non-NET Fellowship for PhD/MPhil of Aliah University (e.f. March 2020) to till date	Nodal Officer	Notification, receiving, verification and submission of necessary fellowship bills to WB-MDFC, through Registrar
Nodal Officer of Aliah University for the CSIR JRF/SRF/RA Fellowship Scheme (e.f. April 2021) till date	Nodal Officer	Role of Nodal Officer is as a Checker to check/verification of fellowship documents and submission/approval in CSIR New-IFMS web portal
NAAC Criteria-V Committee	Member	Attended meeting and cooperation by providing PhD students data and other research related data

10] Other responsibilities (Please specify, add rows if required):

1	PhD Students Supervision (throughout year)
2	MSc Project Students Supervision (Last Sem of each year)
3	AU Academic Council, Invitee Member, 06-01-2022, placed PhD related matter from PhD Section.

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)

1] Name: **Dr. A. K. M. MAIDUL ISLAM**

2] Designation: Assistant Professor

3] Qualification: PhD

4] Teaching experience (in years): 8+ years

5] Industry experience (if any in years): Nil

6] Number of teaching hours per week: 16 hours

7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet): **Two**

1. Received financial support from India-DESY Cooperation, funded by Department of Science and Technology (DST) and coordinated by JNCASR, Bengaluru, India to perform research experiment at the DESY Photon Science, Hamburg, Germany

2. Received financial support from International Centre for Theoretical Physics (ICTP), Trieste, Italy to perform research experiment at the Elettra Synchrotron, Trieste, Italy.

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized): nil

9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
1. Training and Placement cell committee	Member	Different activities related to university placement
2. Maintenance committee	Member	
3. Departmental purchase committee	Member	Different activities related to university placement
4. BOS	Member	

10] Other responsibilities (Please specify, add rows if required):

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11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Teaching Members (to be filled by individual Teaching member)

- 1] Name: **Dr. Jayanta Kumar Saha**
- 2] Designation: Assistant Professor
- 3] Qualification: M.Sc., Ph.D.
- 4] Teaching experience (in years): 6+ Years
- 5] Industry experience (if any in years): No
- 6] Number of teaching hours per week: 18
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet): 04
1. Analysis of electronic properties of dense plasma embedded highly charged ions using temperature dependent Ion-Sphere model, Cesar Martinez-Flores and **J. K. Saha**, Eur. Phys. J. D 76, 224 (2022); <https://doi.org/10.1140/epjd/s10053-022-00560-x>
 2. Microwave or radio-frequency controlled electromagnetically induced transparency (EIT) and related dispersion spectra in a pump-probe lasers driven multi-level Ξ -type system of 87Rb atom, Aparajita Das, **J. K. Saha**, Md. Mabud Hossain, Optics Communications 520, 128472 (2022) <https://doi.org/10.1016/j.optcom.2022.128472>
 3. He atom in a quantum dot: Structural, entanglement, and information-theoretical measures, S. Mondal, K. D. Sen and **J. K. Saha**, Phys. Rev. A 105, 032821 (2022); <https://doi.org/10.1103/PhysRevA.105.032821>
 4. Ground and Doubly excited states of He atom in Non-ideal Classical Plasmas: Structural, Entanglement and Information Theoretical Measures, S. Mondal, S. K. Nayek and **J. K. Saha**, Eur. Phys. J. Plus 137, 373 (2022); <https://doi.org/10.1140/epjp/s13360-022-02574-1>
- 8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/field visits organized): NIL
- 9] Contribution to the growth and development of the University during the academic year:

Committee	Position held	Work done/ Activity
All departmental committees: [Departmental Committee (DC), Departmental Purchase Committee (DPC), Board of Studies / Syllabus formation/revision committee, Departmental library/book list preparation committee, Departmental Research Committee (DRC), Departmental exam related committee, Doctoral Scrutiny Committee (DSC) of few PhD students, Departmental routine/ time table committee, etc.]	Member	Full time cooperation to HoD for daily activities; actively participation in tender process; syllabus construction; book list preparation; PhD course work and seminar organization for students; exam related works like invigilation, paper set, moderation, evaluation, marks preparation/tabulation, etc; engagement for class routine and exam schedule preparation; scrutiny of research of PhD students as DSC of few ones; always cooperation and engagement with departmental activities.
WBDST Project Purchase Committee	Convener	Financial work related to Fellowship and Purchase work done during the project



10] Other responsibilities (Please specify, add rows if required):

1	PhD Students Supervision (throughout year)
2	MSc Project Students Supervision (Last Sem of each year)
3	Life member of Indian Physical Society (IPS), Indian Society for Atomic, Molecular and Optical Physics (ISAMP), Indian Association for the Cultivation of Science (IACS)
4	Referee of various Int. Scopus Index Peer-reviewed Journals (IOP Science, Springer, Elsevier, OSA, Taylor & Fancies, etc.)

11] Best Practices in teaching & academic-administration introduced in the department in the academic year (Please specify, add rows if required):

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Information about Technical Staff & Non-Teaching Members (to be filled by individual Technical Staff & Non-Teaching Member)

1] Name: Mehedi Hassan

2] Designation: Technical Assistant (Grade-I)

3] Qualification: B.Sc (Physics, Hons.), M.Sc. (Physics), B.Ed.

4] Teaching experience (in years): 6 years

5] Industry experience (if any in years): N.A

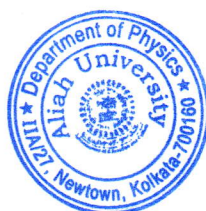
6] Number of teaching-support/ Lab- hours per week: 40 hours (for Technical Staff)

7] Contribution to the growth and development of the University during academic year (Administrative responsibilities):

Committee	Position held	Work done/ Activity
NAAC Committee	Member	As per requirement
Asset Marking Committee	Member	As per requirement
Ifter Maslish Committee	Member	As per requirement
Sports Committee	Member	As per requirement

8] Other responsibilities (Please specify, add rows if required):

1	All kind of official work
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Information about Technical Staff & Non-Teaching Members (to be filled by individual Technical Staff & Non-Teaching Member)

1] Name: Md. Muktada Hossain

2] Designation: Technical Assistant (Grade-I)

3] Qualification: B.Sc (Physics, Hons.), M.Sc. (Physics), B.Ed.

4] Teaching experience (in years): 6 years

5] Industry experience (if any in years): N.A.

6] Number of teaching-support/Lab- hours per week: 40 hours (for Technical Staff)

7] Contribution to the growth and development of the University during the academic year (Administrative responsibilities):

Committee	Position held	Work done/ Activity
NAAC	Member	Documentation

8] Other responsibilities (Please specify, add rows if required):

1	Preparation of Laboratory Instruction manuals
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Academic Practices

Academic Practices (for the academic year: 2021-22)

- 1] Total number of teaching-days in the academic year: **One hundred and sixty days (160)**
- 2] Total number of permanent teaching staff: **Eight (08)**
- 3] Total number of permanent teaching staff with PhD: **Eight (08)**
- 4] Number of programmes offered (please specify): **Three (03)**
 1. **3 year BSc. in Physics (CBCS)**
 2. **2 year MSc. in Physics (CBCS)**
 3. **PhD in Physics**
- 5] Number of sanctioned intake of students and Number of actual admissions:
Number of sanctioned intake of students in the 3 year B.Sc. in Physics is Sixty (60) and Number of actual admissions in the same is Thirty nine (39).
Number of sanctioned total intake of students in the 2 year M.Sc. in Physics is Sixty (60) and Number of actual admissions in the 2 year M.Sc. in Physics is Fifty nine (59).
- 6] How many teaching members have attended Orientation Programme/ Refresher Course/ FDP/ Workshop/ Training Programme/ Research Methodology Course/ Capacity Building Programme etc.:
Three (03) teaching members have attended Orientation Programme/Refresher Course/FDP/ Workshop/Training Programme/Research Methodology Course/Capacity Building Programme etc.
- 7] Number of Orientation Programme/ Refresher Course/ FDP/Workshop/ Training Programme/ Research Methodology Course/Capacity Building Programme etc. organised by the department:
NIL
- 8] Number of Training Programme/ Consultancy offered by the department:
NIL
- 9] Number of academic collaborations made by the department:
Five (05) academic collaborations for research purposes are made on an individual level by the faculty members of the department.
- 10] Innovative practices (please specify):
Apart from maximizing the active teaching methods, the Department frequently adopted innovative practices in teaching and learning e.g. free access to educational resources and research labs, use of information and communication technologies, computational thinking etc. for a holistic development of student's ability towards independent learning, innovation and skill development.



Teaching-Learning-Evaluation process (for the academic year: 2021-22)

1] Does teaching members participate in course designing?

Yes, all the teaching members actively participate in course designing as and when required.

2] Does the department have a structured Board of Studies or similar academic body to design/ expand/ modify course content?

Yes, the department have a structured Board of Studies or similar academic body to design/ expand/ modify course content

3] Does the programme follow:

- a. CBCS structure
- b. Elective-based structure
- c. Any other, please specify

Yes, the department offers elective-based programme.

4] Does the department follow Academic Calendar implemented By the University?

Yes, the department follow Academic Calendar implemented by the University.

5] Use of Teaching-Learning tools/platforms (Please specify)

- a. OHP
- b. LCD
- c. Interactive Boards
- d. LMS
- e. Any other

The faculty members frequently use LCD projector as a teaching-learning tools.

6] Use of ICT in Teaching-Learning-Evaluation

- a. e-books
- b. e-journals
- c. research database/ repositories
- d. IT enabled classroom
- e. Online assignment
- f. Online assessment
- g. Online feedback

The faculty members often prefer to use ICT in Teaching-Learning-Evaluation e.g. referring e-books, e-journals as well as for online assignment.

7] Weekly class hour per course (average):

For UG courses, 6 class hours per week and for PG courses, 4 class hours per week.

8] Whether remedial/tutorial classes included in class routine?

Yes, remedial/ tutorial classes included in class routine.

9] Does the programme offered has scope of Internship/Project/Field work/Seminar presentation/Industrial training?

Yes, as per the curriculum offered by the department, the programme offered has scope of Seminar presentation.

10] Does the department follow progressive evaluation of students?

Yes, the department follow progressive evaluation of students.

11] Number of students appeared and passed in the academic year:

Forty three (43) number of final year students (3 year BSc. in Physics) are appeared for the exam and Forty one (41) number of students have passed the same in the 2021-22 academic year.

Thirty seven (37) number of final year students (5 year Integrated BSc.-MSc. in Physics) are appeared for the exam and Thirty six (36) number of students have passed the same in the 2021-22 academic year.

Five (05) number of final year students (2 year MSc. in Physics) are appeared for the exam and Five (05) number of students have passed the same in the 2021-22 academic year.



Research output (for the academic year: 2021-22)

1] Does the department offer MPhil/ PhD/ Post-Doctoral Programme?
(Please specify):

Yes, the department offers "PhD in Physics" programme.

2] Number of students/ scholars registered/ enrolled in MPhil/PhD/Post-Doctoral Programme (If the answer to Q1 is yes):

Five (05) scholars are registered in PhD programme in the 2021-22 academic session.

3] Number of publications in refereed & peer-reviewed journals:

Twenty three (23) articles are published in different refereed & peer-reviewed journals of repute.

4] Number of book/edited-volume/book-chapter published with ISBN:

NIL

5] Number of patents registered:

NIL

6] Number of revenue generating events (Consultancy, Training Programme, MDP/ EDP etc.):

NIL

7] Number of Seminar/Conference/Workshop/FDP etc organised at State/National/ International level:

Two special lectures (online) are arranged by the department.

8] Number of sponsored research projects:

- a. Completed: **NIL**
- b. Ongoing: **Two (02)**

9] Number of collaborative research projects: **NIL**

- a. Completed
- b. Ongoing

10] Any innovative research initiative adopted and implemented (please specify):

Individual faculty members adopt and implement different innovative research initiatives as per necessity.



Infrastructure & facilities (departmental level)

- 1] Number of classrooms: **Six (06)**
- 2] Number of ICT-enabled classrooms: **One (01)**
- 3] Number of laboratories: **Eighteen (18)**
- 4] Availability of licensed software/databases: **One (01)**
- 5] Number of tutorial rooms: **One (01)**
- 6] Number of seminar halls: **One (01)**
- 7] Number of rooms for the teaching members: **Two (02)**
- 8] Number of computer/ printer/ scanner available:
 - a. In laboratory
 - b. In teachers' enclosure
 - c. For Research scholars
 - d. For Administrative purpose

	Computer	Printer	Scanner
In laboratory	49	01	01
In teachers' enclosure	08	08	08
For Research scholars	27	08	00
For Administrative purpose	02	04	02
Total	86	21	11

- 9] Whether Internet facility available in classrooms/laboratory/teachers' enclosure?
Yes, internet facility is available in the laboratories as well as in the teacher's enclosure.
- 10] Whether reprographic facility available?
Yes, reprographic facility available in available in the department.
- 11] Number of washroom facility (for male): **Three (03)**
- 12] Number of washroom facility (for female): **Three (03)**
- 13] Presence of appropriate signage:
Yes appropriate signage are there in the proper places.
- 14] Barrier free environment ensured?
Yes, Barrier free environment is ensured around the department.



Initiatives and Supplementation for Students:

1] Whether Mentorship (Teacher-driven) for students is in place?

Yes, mentorship (teacher-driven) for students is in place.

2] Do the students participate in extra-academic activities and pursue Co-curricular activities?

Yes, the students actively participate in different extra-academic activities and pursue co-curricular activities in various cultural programs organized in the department as well as in other departments of the University.

3] Does the department arrange Industry-visit/ Industrial lecture/Field-trips/ Excursions/Archeological trips/ Exhibitions etc. for students?

No, the department does not arrange Industry-visit/Industrial lecture/Field-trips/Excursions/ Archeological trips/Exhibitions etc. for students as it does not fit with the curriculum.

4] Does the department arrange seminars/workshops/skill-development programmes etc. for students?

Yes, the department arrange seminars/workshops/skill-development programmes etc. for students.

5] Does the department arrange programmes for the students focusing Soft-skill and Personality development?

Yes, it is within the undergraduate curriculum of the department and also organized by the university.

6] Does the department have any Student Forum/Club/Chapter etc.?

No, the department does not have any student's forum.

7] Does the department have a students' feedback mechanism in place?

No, the department does not have any students' feedback mechanism in place.

8] Are the students provided with Training and Placement support?

Yes, the students avail Training and Placement support from university placement cell.

9] Do the students receive ICT-based teaching?

Yes, the students receive ICT-based teaching.

10] Can the student's access digital resources offered by the University library?

Yes, the students can access digital resources offered by the University library.

11] Please indicate the number of students those have qualified for NET/SET/GATE/GMAT/SLET/WBCS/UPSC or any other Competitive Exam (for the specific period)

Eleven (11) students are qualified in different competitive exams in the 2021-22 academic session.

12] Please indicate the number of students those have progressed for higher studies (for the specific period)

Eleven (11) students are progressed for higher studies in the 2021-21 academic session.

13] Please indicate the number of students those were offered placements by the University (for the specific period).

NIL

