

Academic and Administrative Audit

Aliah University

Academic Year : 2018-19

Department : Physics



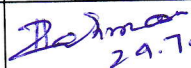
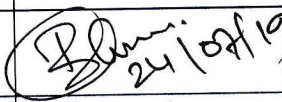

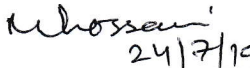
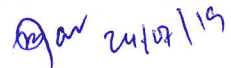
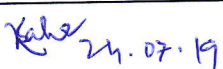


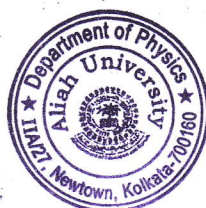
The Academic Audit of Aliah University focuses on four key functional areas:

- 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. Sk. Faruque Ahmed	Associate Professor	Chairman	 24/07/19
2	Dr. Md. Mehedi Kalam	Professor	Convenor	 24/07/19
3	Dr. Muklesur Rahman	Associate Professor	Member	 24.7.19
4	Dr. Badiur Rahaman	Assistant Professor	Member	 24/07/19
5	Dr. Md. Abdul Khan	Assistant Professor	Member	 24/07/19
6	Dr. Md. Mabud Hossain	Assistant Professor	Member	 24/7/19
7	Dr. A K M Maidul Islam	Assistant Professor	Member	 24/07/19
8	Dr. Jayanta Kumar Saha	Assistant Professor	Member	 24.07.19



Academic Management

Information about HOD/ HOD (Officiating)

1] Name: **Dr. Sk Faruque Ahmed**

2] Designation: Associate Professor

3] Qualification: Ph.D.

4] Teaching experience (in years): 9+ 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. Optical properties of diamond like carbon nanocomposite thin films; M.S.Alam, N. Mukherjee, and Sk. F. Ahmed, *AIP Conference Proceedings*, 1953 (2018) 090018.
2. Cu incorporated amorphous diamond like carbon (DLC) composites: Anefficient electron field emitter over a wide range of temperature; Sk. F. Ahmed, M. S. Alam and N. Mukherjee, *Physica E: Low-dimensional Systems and Nanostructures*, 97 (2018) 120-125.

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

- **Secretary:** One Day Seminar on the 125th Birth Anniversary of Prof. S. N. Bose, 29th November 2018, Department of Physics, Aliah University, Kolkata, India.
- **Secretary:** One day seminar on "Frontiers in Light-Matter interactions" on 14th January, 2019, Department of Physics, Aliah University, Kolkata, India.
- **Secretary:** National level conference on Atomic, Molecular and Nano Sciences (NCAMNS-2019), 3-4 April, 2019, 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
Aliah University Admission Test (AUAT) Committee for Academic Session 2018-2019.	Chairman	As per requirement
Board of Studies (BOS) in Department of Physics, Aliah University, April 2018- November 2019.	Chairman	
Departmental Research committee (DRC) of the Department of Physics, Aliah University, August 2018- November 2019.	Chairman / Chairperson	
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, April 2018- November 2019.	Member	
Committee to facilitate the eUGC12B Visiting Team for inspection of Aliah University, 2018.	Member	
Committee for the purchase of Pre-printed Stationary in CoEs section, Aliah University, 2018.	Member	



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

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):

1	
2	



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

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

2] Designation: Professor

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

4] Teaching experience (in years): 15 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): 2

[i] Analytical model of compact star in low-mass X-ray binary with de Sitter spacetime.

Sajahan Molla, Rabiul Islam, Md. A K Jafry and Mehedi Kalam
Res.Astron.Astrophys. 19, no. 2, 026 (2019); arXiv: 1808.09960[astro-ph.HE]

[ii] Analytical model of strange star in Durgapal spacetime.

Rabiul Islam, Sajahan Molla and Mehedi Kalam
Astrophys.Space Sci.364, no. 7,112 (2019); DOI:10.1007/s10509-019-3603-3

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.
Partition Wall Committee for faculty rooms.	Chairman	Organised several meeting for the faculty rooms.
ERP evaluation Committee.	Chairman	Organised 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	Active member IQAC Committee.
4	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. MUKLESUR RAHMAN**

2] Designation: Associate Professor

3] Qualification: PhD

4] Teaching experience (in years): 9+ years

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):

1. Salts of diisopropylammonium – A non-toxic alternate to perovskite ferroelectrics AIP Conference Proceedings 1942, 040006 (2018).

2. Processing of Ferroelectric Polymer Composites, Hybrid Polymer Composite Materials (Vol. 2), 2017 Elsevier Ltd. ISBN: 978-0-08-100785-3.

Study material developed for PHYUGCC01, PHYUGCC03

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

Mr. Abu Kausar Nasir, Scholar under my guidance visited National Changuha University of Education for joint research work, 26.02.2018 - 18.08.2018

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

Committee	Position held	Work done/ Activity
Committee for setting up CCTV and Biometric attendance	Member	Look after all the steps for implementation of the CCTV surveillance Biometric Attendance
Computer Purchase Committee	Member	Look after all the steps for the university
Board of Studies, Department of Physics	Member	Monitoring and evaluation of academics
National Academic Depository (NAD Cell)	Nodal Officer	Look after all the issues as time to time asked for by NAD.

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

1	
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 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): 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
2018-19	<i>Interplay of Alternation and Further Neighbor Interaction in 1-D S=1/2 spin chain: A case study with Cs₂CuA₁₄O₈</i> , Phys. Rev. B 98, 144412 (Oct 2018) https://doi.org/10.1103/PhysRevB.98.144412
	<i>Spin-order-induced ferroelectricity and magnetoelectric effect in LiCuFe₂(VO₄)₃</i> , Physical Review Applied 10, 034008 (Sep 2018); https://doi.org/10.1103/PhysRevApplied.10.034008
	<i>Thermodynamic properties, Mössbauer study and first principles calculations of TlFe(MoO₄)₂</i> , Journal of Materials Chemistry C 122, 19746-19755 (Jul 2018); https://doi.org/10.1021/acs.jpcc.8b05122

A.Y.	Research Project
2018-19	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):

1	
2	

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

1	
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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-2)

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

4] Teaching experience (in years): 21 Years

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

UG Level: 9 years (3/2010 – 6/2019)

PG Level: 06 years (11/2013 - 6/2019)

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	V Singh, D Atta, MA Khan, DN Basu, Astrophysical S-factor for deep sub-barrier fusion reactions of light nuclei, Nuclear Physics A 986, 98-106 (2019)
2	M Hasan, T Surungan, MA Khan, Construction of a one-parameter family of isospectral potential to study resonances in weakly bound halo nuclei, Journal of Physics: Conference Series 1354 (1), 012003 (2019)
3	PK Bera, S Sarwardi, MA Khan, Application of Homotopy Perturbation Method to an Eco-epidemic Model, Int. J. Ecological Economics and Statistics 40(2), 17-24 (2019) [http://www.ceser.in/ceserp/index.php/ijeess/issue/view/608]
	Proceedings paper
1	V. Singh, D. Atta and Md. A. Khan, D. N. Basu. "Deep sub-barrier fusion of $p+^{11}\text{Li}$, $p + D$ and S-function", Proceedings of the 63 rd DAE-International Symposium on Nuclear Physics, Vol. 63, 768 (2018)
	Book Published
1	Nuclear Astrophysics- A Course of Lectures published by CRC Press Taylor & Francis Group ISBN - 13: 978-1138588165, ISBN-10: 1138588164

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	Mar 18, 2019	National Seminar on Preparation and Publication of Research Articles		CSE, AU
2	Dec 10-14, 2018	63 rd DAE-International Symposium on Nuclear Physics DAE "International Symposium on Nuclear Physics 2018" held at Bhabha Atomic Research Centre (BARC), Mumbai, India	Deep sub-barrier fusion of $p+^{11}\text{Li}$, $p + D$ and S-function [Poster] Presented by co-author	BARC
3	Nov 19 – Dec 11, 2018	"Refresher Course on Recent Developments in Physics: Theory and Experiment (RCPHYS1819)", ORGANIZED BY UGC-HRDC, Jadavpur University, Kolkata, India.	Participation, PPT presentation and Written examination	JU
4	July 2-3, 2018	"Conference on Theoretical Physics and Nonlinear Phenomenon CTPNP-2018" organized by Department of	Construction of a one parameter family of Isospectral Potential to Study resonances in	HU



		Physics, Hasanuddin University, Makassar, INDONESIA	weakly bound halo nuclei [Oral]	
Conference/Seminar/Workshop organized				
	April 3-4, 2019	National Conf on Atomic, Molecular and Nano Sciences (NCAMNS-2019)		Department of Physics, Aliah University, Kolkata
	July 2-3, 2018	"Conference on Theoretical Physics and Nonlinear Phenomenon CTPNP-2018" Role: International Advisory Committee Member		Department of Physics, Hasanuddin University, Makassar, INDONESIA
	Nov 29, 2018	"One day Seminar on the 125 th Birth Anniversary of Prof. S. N. Bose" Role: Organizing Committee Member		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
DSC	Convenor	PhD Supervision of
BOS Physics	Member	Curriculum Design, UGC CBCS Course structure etc
DPC	Member	Departmental purchase related works
Committees on Departmental Seminar, student's cultural events etc	Member	Relevant assignments, monitoring, supervision etc
IAPT	Life Member	Promoting IAPT publications among students for knowledge enhancements on contemporary topics
ISAMP	Life Member	Participated in online seminars, shared announcements and notices among target students about latest research, popular talks, research opportunities etc.

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

1	Observer: AUAT 2018
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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):

1	Apart from Chalk & Talk, use of PPT, Microntroler based Interactive Teaching learning (using Dsktop/Laptop & Projector, Discrete circuit components), FORTRAN programming Skill development for PG/PhD students
2	Course module writing UGC CBCS Physics Honours: Mathematical Physics: CC10 Preparing module on Nuclear Physics for UG/ PG which will be published in the form of BOOK by National & International Publishers



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): 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):

A.Y.	Publications
2018-2019	"Study of Atomic Populations, Electromagnetically Induced Transparency, and Dispersive Signals in a λ -Type System Under Various Decoherence Effects" R. Hazra and M M Hossain, Ukrainian Journal of Physics, 64, 197 (2019). https://doi.org/10.15407/ujpe64.3.197
	"Simulation of double electromagnetically induced transparency in a four-level V-type system: A comparative study of probe and pump transmissions" R. Hazra and M M Hossain, AIP Conference Proceedings 2072, 020012 (2019). https://doi.org/10.1063/1.5090252
A.Y.	Research Projects
2018-19	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.	Invited Lectures/ Oral or Poster Presentations
2018-2019	"Study of multiple atomic coherent resonances in ⁸⁷ Rb atoms using multi-level V-type system of Zeeman sublevels of D2 hyperfine transition" "Young Scientist Conference (YSC-2018), India International Science Festival (IISF)-2018" Organized by Ministry of Earth Science, Gol, 5-6 Oct, 2018, Lucknow, India. (Poster Presentation)

A.Y.	Seminars/Workshops/Lectures/Field visits organized
2018-2019	Convener: "National Conference on Atomic, Molecular and Nano Sciences (NCAMNS-2019)" organized by the Department of Physics, Aliah University, Date: 3-4 April, 2019.



	Co-Convenor: "On Day Seminar on the Frontiers in Light-Matter Interactions" organized by the Department of Physics, Aliah University, Date: 14/01/2019.
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9] Contribution to the growth and development of the University during the academic year:

A.Y.: 2018-2019

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 Maintenance Committee - 2019	Member	Attended meeting, involved for tender documents preparation, discussion on various maintenance work in New Town Campus.
Committee for framing PhD Regulation- 2017 (based on UGC Regulation-2016).	Member	Actively involved for draft framing of regulation, checking and corrections, final documents preparation, etc.

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)
5	Application process for DSIR Certificate for Custom Duty Exemption: fresh (2014) and renewal (2018) applications: sole responsibility
6	External Examiner for a MSc Practical Paper examination at Visva Bharati University (regularly) & Project Presentation Evaluation at APC College (2019), New Barackpore.
7	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):

1	
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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): 5+ 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): **one**

Financial support to perform experiment at Elettra Synchrotron, Trieste, Italy
Funding agency: International Centre for Theoretical Physics (ICTP), 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):

1	
2	

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

1	
2	



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): 3+ 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): 02

- (a) Extensive investigations for metastable-bound and resonance 3Fe states of He atom
 S. Dutta, A. N. Sil, **J. K Saha**, T K Mukherjee
 Published online, Int. J. Quant. Chem. 119(18), e25981 (2019)
<http://dx.doi.org/10.1002/qua.25981>
- (b) Doubly excited 1,3Fe states of two-electron atoms under weakly coupled plasma environment
 S. Dutta, **J. K Saha**, S. Bhattacharyya, T K Mukherjee
 Commun. Theor. Phys. 71(7), 853 (2019)
<http://dx.doi.org/10.1088/0253-6102/71/7/853>

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

Co-Convener of "National Conference on Atomic, Molecular and Nano Sciences (NCAMNS-2019)" organized by the Department of Physics, Aliah University on 3-4th April, 2019.

Convener of "On Day Seminar on the Frontiers in Light-Matter Interactions" organized by the Department of Physics, Aliah University on 14th January, 2019.

Co-convener of the "One day seminar on the 125th Birth Anniversary of Prof. S. N. Bose" held at Aliah University on 29th November, 2018.

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	Member	Financial work related to Fellowship and Purchase work done during the project
UGC 12B visiting team facilitation committee	Member	Facilitation of UGC 12B visiting team related works



Committee for the process of inclusion of Aliah University in the list of Universities/Institutions enrolled in National Institutional Ranking Framework (NIRF)	Member	Necessary data collection from different departments and related compilations
Committee for the process of registration and submission of data of Aliah University in portal of Atal Ranking of Institutions on Innovation Achievement (ARIIA)	Member	Necessary data collection from different departments and related compilations
Examination committee	Member	Attended different meeting for the examination section
Purchase committee for examination section	Member	Attended purchase related meeting necessary for examination section
Annual Report Committee	Member	Necessary data collection from different departments and related compilations
Expert committee for the procurement of High Resolution Transmission Electron Microscope (HRTEM)	Member	Finalization of the technical specification and related procurement procedure

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	Oral presentation given at "Prof. M. R. Gupta Memorial 2nd National Seminar on Nonlinear and Complex phenomenon" organized by Centre for Plasma studies in collaboration with Department of Mathematics, Jadavpur University and Advanced centre for nonlinear and complex phenomena, Kolkata on 3rd August, 2018.
4	Invited talk given at the "Asian International Seminar on Atomic and Molecular Physics (AISAMP 2018)" jointly organized by IIT Bombay and TIFR Mumbai during December 3-8, 2018.
5	Invited talk given at the "One day State level seminar on Recent trends in Science" held at the Department of Physics, Gangarampur College on 19th March, 2019.
	Invited talk given at the "2nd National Conference on Science, Technology and Communication Skills (NCSTCS 2K19)" organized by Narula Institute of Technology, Kolkata on 5th April, 2019.
5	Served as an external expert of the selection committee to appoint one Junior Research Fellow under the DHESTBT, Govt. of West Bengal Funded Research project at the Department of Physics, Acharya Prafulla Chandra College, New Barracpore College, Kolkata on 15th September, 2018.
6	Served as a moderator of question papers of M.Sc. Physics Semester II and IV examinations of Department of Physics, Acharya Prafulla Chandra College, New Barracpore College, Kolkata on 26th June, 2019.
7	Life member of Indian Physical Society (IPS), Indian Society for Atomic, Molecular and Optical Physics (ISAMP), Indian Association for the Cultivation of Science (IACS)
8	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): 3 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. Muklada Hossain

2] Designation: Technical Assistant (Grade-I)

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

4] Teaching experience (in years): 3 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: 2018-19)

- 1] Total number of teaching-days in the academic year: **One hundred and eighty two days (182)**
- 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): **Two (02)**
 1. **3 year BSc. in Physics (non-CBCS)**
 2. **2 year MSc. in Physics (non-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 including the 4th year students of 5 year Integrated BSc.-MSc. in Physics [those admitted in 2015-16 academic session] is Sixty (60) and Number of actual admissions in the 2 year M.Sc. in Physics is Ten (10).
- 6] How many teaching members have attended Orientation Programme/ Refresher Course/ FDP/ Workshop/ Training Programme/ Research Methodology Course/ Capacity Building Programme etc.:
Two (02) 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: 2018-19)

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:

Thirty three (33) number of final year students (5 year Integrated BSc.-MSc. In Physics) are appeared for the exam and Fifteen (15) number of students have passed the same in the 2018-19 academic year.



Research output (for the academic year: 2018-19)

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):

Six (06) scholars are registered in PhD programme in the 2018-19 academic session.

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

Fifteen (15) articles are published in different refereed & peer-reviewed journals of repute.

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

One book and one book-chapter (with ISBN) are published.

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 seminars are arranged at the State level in the department.

8] Number of sponsored research projects:

a. Completed: **NIL**

b. Ongoing: **One (01)**

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)

Four (04) students are qualified in different competitive exams in the 2018-19 academic session.

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

Four (04) students are progressed for higher studies in the 2018-19 academic session.

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

NIL

