# Academic and Administrative Audit

# Aliah University

# Academic Year : 2019-20

# **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:

2

SI. No.	Name of the Faculty members	Designation	Role	Signature
1	Dr. Muklesur Rahman	Associate Professor	Chairman	Hohnan 31.9.20
2	Dr. Sk. Faruque Ahmed	Associate Professor	Convenor	PAlm 2109/20
3	Dr. Md. Mehedi Kalam	Professor	Member	Molal 31/09/20
4	Dr. Badiur Rahaman	Assistant Professor	Member	Don apr
5	Dr. Md. Abdul Khan	Assistant Professor	Member	Arch zilation
6	Dr. Md. Mabud Hossain	Assistant Professor	Member	Nehoscani 31/09/20
7	Dr. A K M Maidul Islam	Assistant Professor	Member	When will adju
8	Dr. Jayanta Kumar Saha	Assistant Professor	Member	Kahr 31.09.20



## Academic Management

# Information about HOD/ HOD (Officiating) [01.07.2019 to 31.10.2019]

1] Name: Sk Faruque Ahmed

2] Designation: Associate Professor

3] Qualification: Ph.D.

4] Teaching experience (in years): 10+ 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

1. Hierarchical copper oxide as efficient enzymeless amperometric biosensor and promising photocatalyst,

Sk. Faruque Ahmed et al., Journal of Environmental Chemical Engineering, 2213-3437(2020) Effect of Electrode Distance on the Electron Field Emission Property for CdS Nanofibers, Sk. Faruque 2. Ahmed et al., AIP Conference Proceedings, 1551-7616 (2019)

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

- Co-convener: Colloquium lecture entitled Element specific ultrafast magnetization dynamics using a table top high harmonic X-ray source on 10th July, 2019, Department of Physics, Aliah University, Kolkata, India.
- Convener: International Seminar on the contemporary research topics in Physics" on 6th August, 2019, Department of Physics, Aliah University, Kolkata, India.

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

	during the academic y	/ear:
Committee		
	Position held	Work done/
Board of Studies (BOS) in Department of Physics, Aliah University, April 2018- November 2019.		Activity
of Physics, Aliah University, August 2018- November 2019. Examination Committee, Aliah University, January 2020 - November 2022.		_
Re-admission Committee of the Aliah University, 2021. Committee for Extension of Students' Registration, Aliah	Member Member	_
Committee for Criteria II i.e., Teaching, Learning and evaluation for NACC gradation purpose, Aliah University, 2020.	Member	As per requirement
1 <sup>st</sup> Convocation Core Committee, Aliah University, 2020. Aliah University Admission Test (AUAT) for Academic Session 2019-20.	Member	
	Member	
Departmental Purchase committee (DPC) of the Department of Physics, Aliah University, December 2019-Till now.	Member	
Committee for International student's affairs, Aliah University, November 2019- November 2022.	Member	
Board of Studies (BOS) in Department of Physics, Aliah University, December 2019 -Till now.	Member	
Academic Council of Aliah University, April 2018- November 2019.	Member	jon.



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

1	
2	
2	



## Information about HOD/ HOD (Officiating) [01.11.2019 to 30.06.2020]

1] Name: Dr. MUKLESUR RAHMAN

2] Designation: Associate Professor

3] Qualification: PhD

4] Teaching experience (in years): 10+ 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. AC electrical conductivity and dielectric properties of doping induced molecular ferroelectric

diisopropylammonium bromide Mater. Res. Express 6, 096306 (2019).

2. Complex impedance studies of organic ferroelectric-diisopropylammonium iodide (DIPAI) AIP Conference Proceedings 2142, 040011 (2019).

3. Nematic—cybotactic nematic phase transition in a liquid crystal: a dielectric spectroscopic study Mater. Res. Express 6, 115105 (2019).

4. 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):

1. Oral Presentation entitled "A Century's Journey of Ferroelectric Molecular Crystal" CMDAYS 19, 29-31 August 2019, Vidyasagar University, West Midnapore

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 2019)	
2		
2		

1	
2	
2	



## Information about Teaching Members (to be filled by individual Teaching member) 1]

- 1] Name: Prof. Md. Mehedi Kalam
- 2] Designation: Professor
- 3] Qualification: M.Sc., Ph.D.

4] Teaching experience (in years): 16 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): 4

- [i] Analytical model of Strange star in Durgapal spacetime. Rabiul Islam, Sajahan Molla and Mehedi Kalam Astrophys. Space Sci. 364 no. 112, 1-7 (2019); DOI: 10.1007/s10509-019-3603-3
- [ii] Does dark matter admixed pulsar exist ?
  Sajahan Molla, Bidisha Ghosh and Mehedi Kalam
  Eur.Phys.J.Plus 135, no. 4,362 (2020); arXiv: 2007.13011[gr-qc]
- [iii] Possible existence of dark matter admixed pulsar. Nilofar Rahman, Sajahan Molla and Mehedi Kalam Eur.Phys.J.Plus 135, no. 8,637 (2020); DOI:10.1140/epjp/s13360-020-00650-y
- [iv] Analytical model of millisecond pulsar PSR J0514-4002A. Sajahan Molla, Bidisha Ghosh and Mehedi Kalam Eur.Phys.J.Plus 135, no. 10,819 (2020); arXiv: 2011.00123[astro-ph.HE]

8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized): Organised a Two phase online Lecture Series on "Introduction to Field Theory: LSIFT-2020" delivered by Prof. Jan -e Alam, VECC, Kolkata. 1<sup>st</sup> Phase was from 22.11.2020 – 06.12.2020 and 2<sup>nd</sup> Phase was from 06.02.2021- 28.02.2021(on Saturday-Sunday).

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

Committee	Position held	Work done/ Activity
Board of Studies DRC and DSC, Physics	Member	Participated in BOS meetings
Bro and DSC, Physics	Member	Attended meetings with DRC and
	×	DSC members for smooth
Partition Wall Committee for	Chairman	functioning of the dept.
faculty rooms.		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	-

1 2



1] Name: Dr. Badiur Rahaman

2] Designation: Assistant Professor

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

4] Teaching experience (in years): 10+ 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
2019-20	Thermodynamic and resonant properties of mixed spin compounds ACuFe2(VO4) (A=Li, Na), Journal of Alloys and Compounds 842, 155763 (Jun 2020) https://doi.org/10.1016/j.jallcom.2020.155763 <i>Electronic and magnetic structure of Sr</i> <sub>2</sub> <i>Fe</i> <sub>3</sub> <i>S</i> <sub>2</sub> <i>O</i> <sub>3</sub> : a 2-D AFM spin ladder system, International Journal of Innovative Research in Physics 1, 1, 9-16 (Nov 2019); https://doi.org/10.15864/ijiip.1102 <i>Short-Range and Long-Range Order in AFM–FM Exchange Coupled Compound</i> <i>LiCu2(VO4)(OH)2</i> , J. Phys. Chem. C 123, 29, 17933–17942 (Jul 2019); https://doi.org/10.1021/acs.jpcc.9b01534

A.Y.	Research Project
2019-20	<i>Electronic and magnetic properties of low dimensional strongly correlated system,</i> 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	

1	
2	
2	



### 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): 22 Years

10+2 Level:	11 years (2/1999-3/2010)
UG Level:	10 years (3/2010 – 6/2020)
PG Level:	07 years (11/2013 - 6/2020)

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
	MA Khan, M Alam, M Hasan, SH Mondal, Hyperspherical few-body model calculation for cascade exotic Xi-hypernuclei with reference to nuclear driplines, Bulgarian Journal of Physics 47 (1-2), 87-101 (2020)
	Conference
	M. Hasan, S. H. Mondal, M. Alam and Md. A. Khan. "Calculation for ground and resonance states in neutron-rich exotic 32 N e nucleus ", Proceedings of the 64th DAE-BRNS Symposium on Nuclear Physics, Vol. 64, 316 (2019) [www.sympnp.org/proceedings]

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

		Participation in Seminars / Worksho	pps / lectures / field visits	
1	Feb 10-14, 2020	"5 <sup>th</sup> School cum Workshop on Low Energy Nuclear Astrophysics: SLENA-2020" organized by Saha Institute of Nuclear Physics, Bidhannagar, Kolkata-700091	Participation & Chair of a Session	SINP
2	Nov 11-14, 2019	12 <sup>th</sup> International Conference on Plasma Science and Applications (ICPSA2019) Organized by Department of Physics, Lucknow University, Lucknow, INDIA	Participated with 1 Oral (Self) and 2 posters i) M Alam ii) M Hasan	Lucknow Univ

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
DSC	Convenor	PhD Supervision
AU Sc Tech Club	Chairman	Organizing Lecture, Seminar, Science Awareness' Progs.
AU Pub Committee	Member	University publication
IQAC	Member	related activities Quality improvement, Promotion under CAS &



NAAC BOS Physics	Member Member	Related activities NAAC related documentation
Univ Space Alloc Committee	Member	Curriculum Design, UGC CBCS Course structure etc Relevant activities for proper utilization of space

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

1	Observer: BA/MA Kamil Exams at Shirsi Sr Madrasah Uttar Dinajpur
2	

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 Work on UG/PG Nuclear Physics book writing under progress



### 1] Name: Dr. Md. Mabud Hossain

2] Designation: Assistant Professor

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

4] Teaching experience (in years): 7+ 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
2019-2020	"Study of multi-window electromagnetically induced transparency (EIT) and related dispersive signals in V-type systems in the Zeeman sublevels of hyperfine states of <sup>87</sup> Rb- D <sub>2</sub> line" R. Hazra and <b>M M Hossain</b> , <b>J. Phys. B: At. Mol. Opt. Phys. 53</b> , 235401 (2020). <u>https://doi.org/10.1088/1361-6455/abbd32</u>
A.Y.	Research Projects
2019-20	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 <sup>th</sup> July), Extended up to 31 <sup>st</sup> 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
	"Effect of magnetic field on polarization laser spectroscopy in Rb vapour cell" "Young Scientist Conference (YSC-2019), India International Science Festival (IISF)-2019" Organized by Ministry of Earth Science, Gol, 5-7 Nov, 2019, Kolkata, India. (Poster Presentation)

A.Y.	Seminars/Workshops/Lectures/Field visits organized	
2019-2020	Co-Convener: "International Seminar on Contemporary Research Topics in	
	Physics" organized by the Department of Physics, Aliah University, Date: 06/08/2019	

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,	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;



Departmental library/book list		
preparation committee, Departmental		exam related works like invigilation,
Research Committee (DRC),		paper set, moderation, evaluation,
Departmental exam related committee,		marks preparation/tabulation, etc;
Doctoral Scrutiny Committee (DSC) of		engagement for class routine and
few PhD students, Departmental	1	exam schedule preparation; scrutiny of
routine/ time table committee, etc.]	ž.	research of PhD students as DSC of
		few ones; always cooperation and
		engagement with departmental
WBDST Project Purchase Committee,	Convener	activities.
2018- 31.03.2023	Convenier	Financial work related to Fellowship
		and Purchase work done during the project
Convocation Medal/Prizes Committee	Member	
(24.07.2019)-till date	WGIIDEI	Attended meeting, cooperation to
		Chairman for Medal and Prizes
PhD and MPhil Admission Committee	Convener	selection, preparation, etc.
(Session 2019-2020) admission on	oonvener	Full responsibility along with Chairman
June 2020		of the committee to complete PhD
		admission process in June 2020
		(Advertisement, Applications, AURET&
		Interview schedule, list preparation,
		admission and other necessary work as per requirement)
Instrument In-charge of Laser	Chairman,	Technical and Financial bids related all
Spectroscopy Lab, 2018 – till 2020	Purchase	responsibilities as an In-Charge of the
	related	Laser Spectroscopy instrument setup
	Committee of	Laser opectroscopy instrument setup
	Laser Lab	
University Research Programme (URP)	Jt. Coordinator	Additional duty in an officer post at URP
Cell, AU (24.12.2019) to till date		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.
SVMCM Non-NET Fellowship for	Nodal Officer	Notification, receiving, verification and
PhD/MPhil of Aliah University (e.f.		submission of necessary fellowship
March 2020) to till date		bills to WB-MDFC, through Registrar
University Maintenance Committee -	Member	Attended meeting, involved for tender
2019		documents preparation, discussion on
		various maintenance work in New
0		Town Campus.
Committee for framing PhD Regulation-	Member	Actively involved for draft framing of
2017 (based on UGC Regukation-		regulation, checking and corrections,
2010).		final documents preparation ect
2016).		final documents preparation, ect.

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

1	PhD Students Supervision (throughout year)
2	Me Braise Cupervision (throughout year)
	MSc Project Students Supervision (Last Sem of each year)
3	University Board of Research Studies (BRS), Invitee Member, 23-07-2019, placed PhD related matter from PhD Section
4	AU Academic Council, Invitee Member, 06-01-2022, placed PhD related matter from PhD Section.
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 (2010) (New Paper)
7	Referee of various Int. Scopus Index Peer-reviewed Journals (IOP Science, Springer, Elsevier, OSA, Taylor & Fancies, etc.)

1	
2	



## 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): 6+ 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): **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
1.Training and Placement cell committee 2. Maintenance	Member Member	Different activities related to university placement
committee 3. Departmental purchase committee 4. BOS	Member	Different activities related to university placement
	Member	

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

1	
2	

1	
2	



- 1] Name: Dr. Jayanta Kumar Saha
- 2] Designation: Assistant Professor
- 3] Qualification: M.Sc., Ph.D.
- 4] Teaching experience (in years): 4+ 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) Critical Stability and Structural properties of screened two-electron system in Feshbach resonance state, A. Sadhukhan, S. Dutta, J. K Saha, Eur. Phys. J. D 75, 250 (2019); <u>https://doi.org/10.1140/epjd/e2019-100400-5</u>
- (b) Critical Stability and Quantum Phase transition in screened two-electron system, A. Sadhukhan, S. Dutta, J. K Saha, Published online, Int. J. Quant. Chem. 119(24), e26042(2019), <a href="http://dx.doi.org/10.1002/qua.26042">http://dx.doi.org/10.1002/qua.26042</a>
  Corrigendum: Published online, Int. J. Quant. Chem. 120(3), e26084 (2019) <a href="https://doi.org/10.1002/qua.26084">https://doi.org/10.1002/qua.26042</a>

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

**Secretary** of "International Seminar on Contemporary Research Topics in Physics" organized by the Department of Physics, Aliah University on 6<sup>th</sup> August, 2019.

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

Committee	Position held	Work dono/ 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	Work done/ Activity 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
Committee for the procurement of High Performance Computer cluster (HPC) facility of Aliah University.	Chairman	Meeting arranged for the finalization of HPC as a central instrumental facility and related works



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	Poster presented on "International conference on Atomic Molecular Optical and Nano
	Physics with Applications (CAMNP 2019)" organized by Department of Applied Physics
	Deini Technological University during 18th to 20th December 2019
4	Life member of Indian Physical Society (IPS), Indian Society for Atomic, Molecular and Optical
	Physics (ISAMP), Indian Association for the Cultivation of Science (IACS)
5	Referee of various Int. Scopus Index Peer-reviewed Journals (IOP Science Springer Elegvier
	OSA, Taylor & Fancies, etc.)

1	
2	



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

ę.

1] Name: Mehedi Hassan

1

2] Designation: Technical Assistant (Grade-I)

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

4] Teaching experience (in years): 4 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

Committee	Position held	Mort den 1 A Liti
NAAC Committee	Member	Work done/ Activity
Asset Marking Committee		As per requirement
The Marking Commutee	Member	As per requirement
Ifter Maslish Committee	Member	
Sports Committee		As per requirement
	Member	As per requirement

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

All kind of official work



# 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): 4 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	Desition 1	
	Position held	Work done/ Activity
NAAC	Member	
		Documentation

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

1 Preparation of Laboratory Instruction manuals



#### Academic Practices

### Academic Practices (for the academic year: 2019-20)

1] Total number of teaching-days in the academic year: One hundred and fifty eight days (158)

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 (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 Fifty seven (57).

Number of sanctioned total intake of students in the 2 year M.Sc. in Physics including the 4<sup>th</sup> year students of 5 year Integrated BSc.-MSc. in Physics [those admitted in 2016-17 academic session] is Sixty (60) and Number of actual admissions in the 2 year M.Sc. in Physics is Thirteen (13).

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: 2019-20)

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:

Twenty four (24) 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 2019-20 academic year.

Ten (10) number of final year students (2 year MSc. in Physics) are appeared for the exam and Seven (07) number of students have passed the same in the 2019-20 academic year.



### Research output (for the academic year: 2019-20)

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):

Four (04) scholars are registered in PhD programme in the 2019-20 academic session.

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

Fourteen (14) 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:

One seminar is arranged at the International level and one conference is arranged at the National level in 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	
For Administrative purpose	02	00	00
Total	86	21	02

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) Three (03) students are qualified in different competitive exams in the 2019-20 academic session.

12] Please indicate the number of students those have progressed for higher studies (for the specific period) **Three (03) students are progressed for higher studies in the 2019-20 academic session.** 

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

NIL

