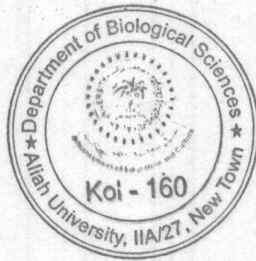


Aliah University

Academic Audit

Academic Year: 2022-2023



HOD (Official)
Dept. of Biological Sciences
Aliah University, Kol-160

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Academic Management
Information about HOD/ HOD (Officiating), 2022-23

- 1] Name : Dr. Sk Kabita
- 2] Designation : Head (Officiating)
- 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 : 20
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet):
- 8] Contribution to enrich quality of teaching-learning During the academic year:
 (Seminars / Workshops / lectures / field visits organized):

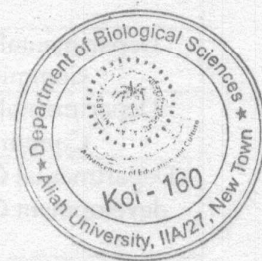
- Conducted 6 days academic excursion to the Dooars, Alipurduar, West Bengal, for the MSc final Semester students.

| Sl. No. | Title of the lectures | Resource person | Date |
|---------|---|---|----------|
| 1 | Seminar on PhD Abroad | Ms Rimly Roy, Mentor, Frame Learning. | 07.09.22 |
| 2 | "The arbitration of microbial competition by Type-VI secretion system (T6SS): as an antibiotic alternative approach for improving gut health" | Dr Amirul Islam Mallick, IISER Kolkata | 04.08.22 |

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

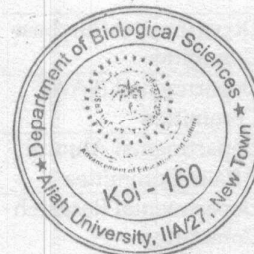
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Dept. of Biological Sciences
Aliah University, Kol-160



Information about Teaching Members (2022-23)


- 1] Name : Dr Mehboob Hoque
- 2] Designation : Assistant Professor
- 3] Qualification : MPhil, PhD
- 4] Teaching experience (in years) : 06
- 5] Industry experience (if any in years) : 0.5
- 6] Number of teaching hours per week : 20
- 7] Number of Research Projects/Publications/Study material developed during The academic year (provide list in separate sheet):



| Sl No | Publication Details (*Corresponding author) |
|-------|---|
| 1 | Zarnain Jamil, Arif Uddin, Syed Sahajada Mahafujul Alam, Arijit Samanta, Nojood Altwaijry, Mohd Ahmar Rauf, Safdar Ali, Mohd Shahnawaz Khan, Muhammad Nadeem Asghar, Mehboob Hoque* (2022). <i>Analysis of the Compositional Features and Codon Usage Pattern of Genes Involved in Human Autophagy</i> . Cells , 11(20), 3203; doi: https://doi.org/10.3390/cells11203203 . |
| 2 | Taslina Nasrin, Mehboob Hoque , Safdar Ali (2023). <i>Microsatellite signature analysis of twenty-one virophage genomes of the family Lavidaviridae</i> . Gene , 851: 147037. doi: https://doi.org/10.1016/j.gene.2022.147037 . |
| 3 | Mehboob Hoque , Arijit Samanta, Syed Sahajada Mahafujul Alam, Torki A. Zughaihi, Mohammad Amjad Kamal, Shams Tabrez (2023). <i>Nanomedicine-based immunotherapy for Alzheimer's Disease</i> . Neuroscience & Biobehavioral Reviews , 144: 104973. https://doi.org/10.1016/j.neubiorev.2022.104973 . |
| 4 | Arijit Samanta, Syed Sahajada Mahafujul Alam, Safdar Ali, Mehboob Hoque* (2023). <i>Evaluating the transmission feasibility of SARS-CoV-2 Omicron (B.1.1.529) variant to 143 mammalian hosts: Insights from S protein RBD and host ACE2 interaction studies</i> . Functional & Integrative Genomics , 23(1):36. doi: 10.1007/s10142-023-00962-z. |
| 5 | Iftikhar Ahmad, Mehboob Hoque , Syed Sahajada Mahafujul Alam, Torki A. Zughaihi, Shams Tabrez (2023). <i>Curcumin and Plumbagin Synergistically Target the PI3K/Akt/mTOR Pathway: A Prospective Role in Cancer Treatment</i> . International Journal of Molecular Sciences , 24(7):6651. doi: 10.3390/ijms24076651. |
| 6 | Taslina Nasrin, Mehboob Hoque , Safdar Ali (2023). <i>Systems biology of the genomes' microsatellite signature of Orthopoxvirus including the Monkeypox virus</i> . Comparative Immunology, Microbiology and Infectious Diseases , 98:102002. doi: https://doi.org/10.1016/j.cimid.2023.102002 . |

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

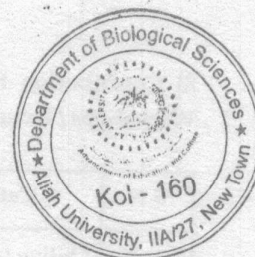
9] Contribution to the growth and development of the University during the academic year:


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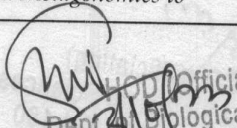
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Aliah University, Kol-160

Information about Teaching Members (2022-23)

- 1] Name : Dr Muddasarul Hoda
- 2] Designation : Assistant Professor
- 3] Qualification : MSc, PhD
- 4] Teaching experience (in years) : 6 years
- 5] Industry experience (if any in years) : Nil
- 6] Number of teaching hours per week : 20
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet) : 9 publications

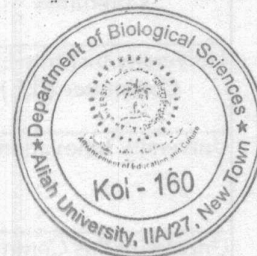


| No. | Publications |
|-----|--|
| 1. | Anti-melanogenic, antioxidant potentialities, and metabolome classification of six <i>Ocimum</i> species: Metabolomics and in-silico approaches. Sarkar, S., Hoda, M., Das, S. <i>Trends in Phytochemical Research</i> , 2023, 7(1), pp. 30-50 |
| 2. | Therapeutic role of resveratrol against hepatocellular carcinoma: A review on its molecular mechanisms of action. Bhattacharya, S., Perris, A., Jawed, J.J., Hoda, M. <i>Pharmacological Research - Modern Chinese Medicine</i> , 2023, 6, 100233 |
| 3. | Resveratrol as a potential therapeutic molecule against neuropathy: A new narrative. Ahmad, I., Rajagopalan, R., Dey, A., Hoda, M. <i>Treatments, Nutraceuticals, Supplements, and Herbal Medicine in Neurological Disorders</i> , 2023, pp. 773-795 |
| 4. | Indole curcumin combats metastatic HBV-positive hepatocellular carcinoma by inhibiting cell proliferation, migration, and matrix metalloproteinase-9 activity. Subramanian, S., Pajaniradje, S., Tumdam, R., ...Hoda M., Rajagopalan, R. <i>Journal of cancer research and therapeutics</i> , 2023, 19(2), pp. 265-272 |
| 5. | Unraveling the application of CRISPR/Cas system in natural product research. Biswas, P., Ghorai, M., Nandy, S., Hoda M., ...Singh, J., Dey, A. <i>CRISPR/Cas-Mediated Genome Editing in Plants</i> , 2023, pp. 353-373 |
| 6. | Unraveling the promise of CRISPR/Cas systems in modulating nutrients and antinutrients in fruits. Biswas, P., Ghorai, M., Nandy, S., Hoda M., ...Singh, J., Dey, A. <i>CRISPR/Cas-Mediated Genome Editing in Plants</i> , 2023, pp. 375-390 |
| 7. | Improvements in Taxol Biosynthesis by Metabolic Engineering: Recent Trends. Mitra, S., Ghorai, M., Ghosh, A., ...Hoda M., M.K., Dey, A. <i>Phytochemical Genomics: Plant Metabolomics and Medicinal Plant Genomics</i> , 2023, pp. 669-679 |
| 8. | Deciphering the Potential of RNAi Technology as Modulator of Plant Secondary Metabolites with Biomedical Significance. Mitra, S., Ghorai, M., Kumar, V., Hoda M., ...Swamy, M.K., Dey, A. <i>Phytochemical Genomics: Plant Metabolomics and Medicinal Plant Genomics</i> , 2023, pp. 591-604 |
| 9. | Microbial community and their role in bioremediation of polluted e-waste sites. Dey, S., Shekhawat, M.S., Pandey, D.K., Hoda M., ...Kumar, V., Dey, A. <i>Metagenomics to</i> |


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Information about Teaching Members (2022-23)

- 1] Name : Dr Safdar Ali
- 2] Designation : Assistant Professor
- 3] Qualification : PhD
- 4] Teaching experience (in years) : 11
- 5] Industry experience (if any in years) :
- 6] Number of teaching hours per week : 20
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet): 04



| Sl No | Publication Details |
|-------|--|
| 1 | Zarnain Jamil, Arif Uddin, Syed Sahajada Mahafujul Alam, Arijit Samanta, Nojood Altwaijry, Mohd Ahmar Rauf, Safdar Ali , Mohd Shahnawaz Khan, Muhammad Nadeem Asghar, Mehboob Hoque* (2022). Analysis of the Compositional Features and Codon Usage Pattern of Genes Involved in Human Autophagy. Cells, 11(20), 3203; doi: https://doi.org/10.3390/cells11203203 . |
| 2 | Taslina Nasrin, Mehboob Hoque, Safdar Ali (2023). Microsatellite signature analysis of twenty-one virophage genomes of the family Lavidaviridae. Gene, 851: 147037. doi: https://doi.org/10.1016/j.gene.2022.147037 |
| 3 | Arijit Samanta, Syed Sahajada Mahafujul Alam, Safdar Ali , Mehboob Hoque* (2023). Evaluating the transmission feasibility of SARS-CoV-2 Omicron (B.1.1.529) variant to 143 mammalian hosts: Insights from S protein RBD and host ACE2 interaction studies. Functional & Integrative Genomics, 23(1):36. doi: 10.1007/s10142-023-00962-z. |
| 4 | Taslina Nasrin, Mehboob Hoque, Safdar Ali (2023). Systems biology of the genomes' microsatellite signature of Orthopoxvirus including the Monkeypox virus. Comparative Immunology, Microbiology and Infectious Diseases, 98:102002. doi: https://doi.org/10.1016/j.cimid.2023.102002 . |

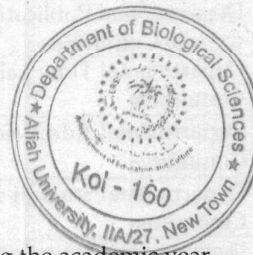
8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized):

- Completed Innovation Ambassador training Advanced Level (Total 15 Sessions of 30 contact hours) conducted by MoE's Innovation Cell & AICTE on 10th October 2022 in online mode.
- Attended the Regional Meet of Institutions' Innovation Council, organized by MoE's Innovation Cell at Guru Nanak Institute of Technology, Kolkata on 2nd August 2022.
- Ph. D. Thesis Submitted
Mr. Md Gulam Jilani (Enrol No BIO181608)
 Thesis Title: Assessment of Microsatellite as a Potential Biomarker for Viral Evolution and Host Divergence
 Submitted on 03 01 2023
Mr. Rezwanuzzaman Laskar (Enrol No BIO181607)
 Thesis Title: Studying the Viral Genome Evolution and its Impact on Viral Proteins of SARS-CoV-2
 Submitted on 28 09 2022

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Information about Teaching Members (2022-23)

- 1] Name : Dr. Masrure Alam
- 2] Designation : Assistant Professor
- 3] Qualification : PhD
- 4] Teaching experience (in years) : 7+ Years
- 5] Industry experience (if any in years) : Nil
- 6] Number of teaching hours per week : 20
- 7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet): 1*



Book Edited:

1. Book Title: Extremophiles: Diversity, Adaptation and Applications; Editors: Masrure Alam and Bipranch Kumar Tiwary; Bentham Books - Bentham Science Publishers; ISBN (Print): 978-981-5080-36-0; ISBN (Online): 978-981-5080-35-3; Year of Publication: 2022; DOI No.: 10.2174/97898150803531220101

Book Chapters:

1. **Masrure Alam*** and Baishali Pandit. 2022. '*Hyperthermophiles: Diversity, Adaptation and Applications*'. In Extremophiles: Diversity, Adaptation and Applications (Edited). Bentham Books - Bentham Science Publishers. Pp. 24-63; DOI: 10.2174/9789815080353122010006.
2. Bipranch Kumar Tiwary and **Masrure Alam***. 2022. '*Extremophiles: An Overview*'. In Extremophiles: Diversity, Adaptation and Applications (Edited). Bentham Books - Bentham Science Publishers. Pp. 1-23; DOI: 10.2174/9789815080353122010005.
3. Kunal Kumar Saha, Subhrangshu Mandal* and **Masrure Alam**. 2022. '*Diversity and Mechanisms of Adaptation of Predominant Bacterial Chemolithotrophs in Extreme Habitats*'. In Extremophiles: Diversity, Adaptation and Applications (Edited). Bentham Books. Pp. 356-394; DOI: 10.2174/9789815080353122010017.

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

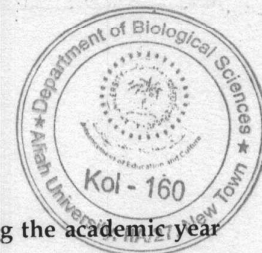
9] Contribution to the growth and development of the University during the academic year:

| Committee | Position held | Work done/ Activity |
|---|---------------|---|
| Board of Studies, Biological Sciences | Member | Conducted meetings of the BoS for approval of various issues of the department. |
| Departmental Purchase Committee | Member | Overlooking of all the departmental purchase activities |
| Departmental Research Committee | Member | Chaired the meetings of the Research Committee |
| Departmental Curriculum development Committee | Member | Drafted the syllabus of 2 Years MSc programme in |

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 Aliah University, Kol-160

Information about Teaching Members (2022-23)

- 1] Name : DR MD ZAKIR HOSSAIN
- 2] Designation : Assistant Professor
- 3] Qualification : MSc, BEd, PhD
- 4] Teaching experience (in years) : 8 years
- 5] Industry experience (if any in years) : Nil
- 6] Number of teaching hours per week : 20



7] Number of Research Projects/Publications/Study material developed during the academic year (provide list in separate sheet) : **1 publication**


a. Assessing lake water quality during COVID-19 era using geospatial techniques and artificial neural network model; S Mohinuddin, S Sengupta, B Sarkar, UD Saha, A Islam, ARMT Islam, **ZM Hossain**, S Mahammad, T Ahamed, R Mondal, W Zhang & A Basra; *Environmental Science and Pollution Research*; Vol- 30, Pages 65848–65864 (2023)

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

a. Participated in 1 week online STC on Statistical Analysis using various softwares organised by NEHU-HRDC, Shillong from 21.09..22 to 27.09.22

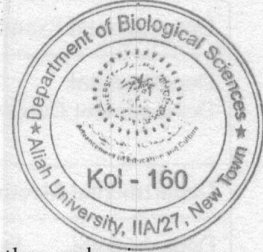
9] Contribution to the growth and development of the University during the academic year:

| Committee | Position held | Work done/ Activity |
|---|---------------|--|
| Board of Studies, Biological Sciences | Member | Framing various syllabi and Guidelines for UG and PG (Botany, Zoology and Microbiology) and Approval |
| Departmental Purchase Committee | Member | Look after the Purchase of different instruments and consumables. |
| Departmental Exam Committee | Member | Overlooking the Examination related activities of the department |
| Departmental Admission Committee | Member | Overlooking the admission related activities of the department |
| Departmental Extracurricular Activities Committee | Member | Coordinating extracurricular activities in the Department |
| Departmental Time Table Committee | Convener | Preparing the time table for all batches of the Department of Biological Sciences. |
| University Common Time Table Committee | Convener | Preparing the time table for all common papers of the Newtown campus of Aliah university |
| University Health Scheme Committee | Member | Looked after the process of implementation of WB Health Scheme in the University |
| University Rain Water Harvesting Committee | Member | Look after the system of saving rain water and reuse it |
| University Central NAAC Committee | Member | Preparation for NAAC visit |


 23/10/23
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Information about Teaching Members (2022-23)

- 1] Name : Sk Md Abu Imam Saadi
- 2] Designation : Assistant Professor
- 3] Qualification : PhD
- 4] Teaching experience (in years) : 4
- 5] Industry experience (if any in years) : NA
- 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



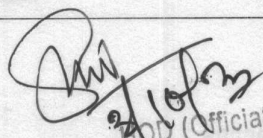
| S.No. | Publication |
|-------|---|
| 1 | Title: Ecological and Cultural Aspects of Sacred Grove: A Study among the Santals of Odisha. Name of the Book: Fundamentals of Biodiversity; Date of Publication: 22-12-2022, Publisher: Bharati Publications. Chapter 6; Pp. 70-83; ISBN: 978-93-94779-70-9. |

- 8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars / Workshops / lectures / field visits organized): 2

| S.No. | Seminars |
|-------|---|
| 1 | Title: Micro-morphology of calcium oxalate crystals and idioblasts: A Taxonomic Tool. Name of the Seminar: 5th Regional Science and Technology Congress; Organized by Raja N. L. Khan Women's College Collaboration with the Department of Science and Technology Congress from 13-14 January, 2023 |
| 2 | Title: Micro-morphology of calcium oxalate crystals and idioblasts of some members of Araceae: A possible Taxonomic Tool. Name of the Seminar: 1st Botanical Congress; Organized by Botanical Society of Bengal and Collaboration with the Department of Botany, University of Calcutta, from 23-03-2023 to 25-03-2023. |

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

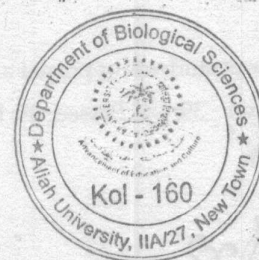
| Committee | Position held | Work done/ Activity |
|-----------------------------------|---------------|--|
| Board of Studies | Member | Framing various syllabi and Guidelines for UG and PG (Botany, Zoology and Microbiology) and Approval |
| Departmental Purchase Committee | Co-convener | Departmental Purchase Activity |
| Departmental NAAC Committee | Member | Preparing NAAC related documents |
| Departmental Research Committee | Member | Departmental Research Activity |
| Departmental Time Table Committee | Member | Workload distribution and finalizing class schedule |


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Academic Practices

Academic Practices (for the academic year: 2022-23)

- 1] Total number of teaching-days in the academic year: 199
- 2] Total number of permanent teaching staff: 07
- 3] Total number of permanent teaching staff with PhD: 07
- 4] Number of programmes offered (please specify): PG CBCS 03, UG CBCS 03, INTEGRATED 03
- 5] Number of sanctioned intake of students and Number of actual admissions:
UG Sanctioned 60 Admissions 59; PG Sanctioned 60, Admissions 55
- 6] How many teaching members have attended Orientation Programme/ Refresher Course/
FDP/ Workshop/Training Programme/ Research Methodology Course/Capacity Building
Programme etc.: 01
- 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: zero
- 9] Number of academic collaborations made by the department:
MH: 04; HM: 04; MZH: 01; SS: 03; MA: 02
- 10] Innovative practices (please specify):



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Research output (for the academic year: 2022-23)

1] Does the department offer MPhil/ PhD/ Post-Doctoral Programme: : yes

2] Number of students/ scholars registered/ enrolled in MPhil/ PhD/ Post-Doctoral Programme
(If the answer to Q1 is yes): 19

3] Number of publications in refereed & peer-reviewed journals: 17

4] Number of book/ edited-volume/ book-chapter published with ISBN:
Edited Volume: 01; Book Chapter: 04

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: 02

8] Number of sponsored research projects: NONE

a. Completed

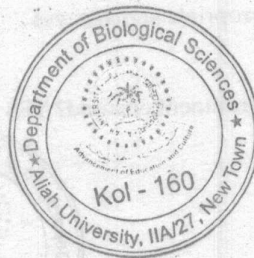
b. Ongoing

9] Number of collaborative research projects: NONE

a. Completed

b. Ongoing

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

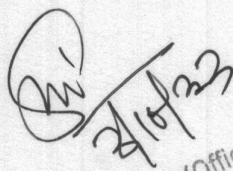


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Initiatives and Supplementation for Students: 2022-23

- 1] Whether Mentorship (Teacher-driven) for students is in place? yes
- 2] Do the students participate in extra-academic activities and pursue co-curricular activities? yes
- 3] Does the department arrange Industry-visit/ Industrial lecture/ Field-trips/ Excursions/ Archeological trips/ Exhibitions etc. for students? yes
- 4] Does the department arrange seminars/ workshops/ skill-development programmes etc. for students? yes
- 5] Does the department arrange programmes for the students focusing Soft-skill and Personality development? Yes
- 6] Does the department have any Student Forum/ Club/ Chapter etc.? no
- 7] Does the department have a students' feedback mechanism in place? No
- 8] Are the students provided with Training and Placement support? yes
- 9] Do the students receive ICT-based teaching? Yes
- 10] Can the students access digital resources offered by the University library? yes
- 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): 16
- 12] Please indicate the number of students those have progressed for higher studies (for the specific period) 35
- 13] Please indicate the number of students those were offered placements by the University (for the specific period). NIL


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