

# Aliah University

# Alechanical Engineering Department Academic Audit 2020-2021

2020-2021

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

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

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# **Academic Management**

#### Information about HOD/HOD (Officiating)

1] Name: Dr. Shamim Haidar

2] Designation: Associate Professor

3] Qualification: Ph D

4] Teaching experience (in years): 17 years

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

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): 4 International Journal Paper

- (1) R Haque, M Sekh, G Kibria, S Haidar, "Improvement of surface quality of ti-6al-4v alloy by powder mixed electrical discharge machining using copper powder" FactaUniversitatis Series Mechanical Engineering, April, 2021 Doi:.org/10.22190/FUME201215042H
- (2) Z Seikh, S Haidar et al, "Density, hardness and wear responses of aluminium-copper-magnesium alloys", May 2021, Materials Today: Proceedings, doi: 10.1016/j.matpr.2021.04.318
- (3) R Haque, M Sekh, G Kibria, S Haidar, "Comparative study of parametric effects on the performance of simple and powder mixed EDM using aluminium and graphite powder on Inconel X750 alloy", April 2021, Materials Today: Proceedings10.1016/j.matpr.2021.03.419
- (4) R Haque, M Sekh, G Kibria, S Haidar, "Enhancement of Surface Quality of AISI-D3 Steel after Electrical Discharge Machining (EDM) with Aluminium Powder Mixed in the Dielectric" July 2020; International Journal of Engineering and Advanced Technology; doi: 10.35940/ijeat.A2244.109119
- 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
BOS	Chairman	Preside over the
		curriculum building
		process
Departmental	Chairman	Initiate and finalize
Purchase Committee		purchase process

1	Prepared Time Table

11] BestPracticesinteaching&academic-administrationintroducedinthedepartmentinthe academic year (Please specify, add rows if required):

1	
2	

Span dar 1/21

1] Name: Amitava Dutta

2] Designation: Assistant Professor

3] Qualification: M. Tech

4] Teaching experience (in years):16 years

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

6] Number of teaching hours per week: 22hrs (Including lectures, tutorials, laboratory classes and project supervisions)

7] Number of Research Projects/Publications/

Study material developed during

The academic year (provide list in separate sheet):

- I declare that I have developed the study materials of UG subjects (fluid mechanics & fluid machinery) and PG subjects (advanced fluid mechanics and advanced heat transfer) in academic year 2020-2021: I also have updated the Courses/Curriculum Design (UG and PG Course).
- 2. Published a journal paper on "Microfluidic concentration enhancement of bio-analyte by temperature gradient focusing via Joule heating by dc plus ac field: a numerical approach" Journal Name: Int. Journal of thermal science and engineering application Date of publication 23/02/2021, 1st and corresponding author
- 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:

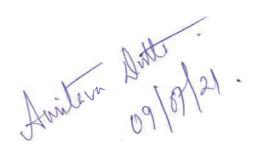
Position held	Work done/ Activity
Member	1. Preparation of various e-tender
	documents related to purchase of
	various machineries and instruments
	in departmental labs.

Board of Studies	Member	1. Discussion in meeting regarding
(Mechanical		improvement of contents of various
Engineering		subjects and labs.
department)		
Space allocation	Member	1. Discussion in meeting regarding
		allocation and utilization of spaces of
		Park circus campus.

1	In-depth discussion on various opportunities (like GATE, PSUs like IOCL,
	ONGC, NTPC, BHEL, GAIL, integrated M.S. Ph.D. etc) after B.Tech. and/or
	M.Tech. degree in Mechanical Engineering.
2	

11] BestPracticesinteaching&academic-administrationintroducedinthedepartmentinthe academic year (Please specify, add rows if required):

1	
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1] Name: Mukandar Sekh

2] Designation: Assistant Professor

3] Qualification: PhD

4] Teaching experience (in years): 11 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): 4 Journal Papers

- Ziyauddin Seikh, Abu Huraira Biswas, Md Kamaruzzaman, Rafiqul Haque, Golam Kibria, Shamim Haidar, Mukandar Sekh, "Density, hardness and wear responses of aluminiumcopper-magnesium alloys", Journal of Materials Today: Proceedings, Volume 47, Part 10, 2021, Pages 2358-2363.
- 2. Kingshuk Mandal, Mukandar Sekh, Dipankar Bose, Souren Mitra, Soumya Sarkar, "Influence of dielectric conductivity on corner error in wire electrical discharge machining of Al 7075 alloy", "Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, December 2020, Volume 235, Issue 20.
- R Haque, M Sekh, G Kibria, S haidar, "Comparative study of parametric effects on the performance of simple and powder mixed EDM using aluminium and graphite powder on Inconel X750 alloy" Materials Today: Proceedings <u>Volume 46, Part 17</u>, March, 2021, Pages 8366-8373
- R Haque, M Sekh, G Kibria, S haidar, "Improvement of surface quality of Ti-6Al-4V alloy by powder mixed Electrical Discharge Machining using Copper powder", Facta Universitatis in Mechanical Engineering, March, 2021

5.

- 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
BOS	member	Implemented the Drafted the modified syllabus by the members

1	
2	

11] BestPracticesinteaching&academic-administrationintroducedinthedepartmentinthe academic year (Please specify, add rows if required):

1	Question papers setting, Invigilation
2	Evaluation of Answer Scripts

24/08/21

1] Name: Dr. Golam Kibria

2] Designation: Assistant Professor

3] Qualification: Ph.D.

4] Teaching experience (in years): 9 year

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

6] Number of teaching hours per week: 22 Hours (including lectures, tutorials, practicals and project supervision)

7] Number of Research Projects/Publications/ Study material developed during
The academic year (provide list in separate sheet): One UG level project, two PG level project, one
edited book, four book chapter, four journal papers and one international conference paper.

Year	UG Level	PG Level
2020-2021	Study of EDM	Experimentation and Analysis on
	Optimization	Characteristics of Fiber Laser Micro Marking on
	using Grey	Ti-6Al-4V based on RSM Approach
	Relational	By FensiKhatun
	Analysis	Roll No. MEN192014
		Experimental Investigation of Micro-Milling on
		Magnesium Alloy (AZ31) using Pulsed Fiber
		Laser
		By ManjurAktar
		Roll No. MEN192008

#### **Publication:**

#### (a) Book Edited

Advances in Abrasive Based Machining and Finishing Processes, S. Das (Eds.), G. Kibria (Eds.), B. Doloi (Eds.), B. Bhattacharyya (Eds.), Book Series: Materials Forming, Machining and Tribology, Springer Nature Singapore Pte Ltd, 2020, eBook ISBN 978-3-030-43312-3, Hardcover ISBN 978-3-030-43311-6, DOI 10.1007/978-3-030-43312-3.

#### (b) Book Chapter

- G. Kibria, I. Shivakoti, S. Das, B. Doloi, B. Bhattacharyya, Introduction to Abrasive Based Machining and Finishing, In: Advances in Abrasive Based Machining and Finishing Processes, S. Das (Eds.), G. Kibria (Eds.), B. Doloi (Eds.), B. Bhattacharyya (Eds.), Book Series: Materials Forming, Machining and Tribology, Springer Nature Singapore Pte Ltd, 2020, eBook ISBN 978-3-030-43312-3, Hardcover ISBN 978-3-030-43311-6, DOI 10.1007/978-3-030-43312-3.
- S. Das, S. Kumar, G. Kibria, B. Doloi, B. Bhattacharyya, Advancement in Ultrasonic Machining for 3D Profile Cutting, In: Advances in Abrasive Based Machining and Finishing Processes, S. Das (Eds.), G. Kibria (Eds.), B. Doloi (Eds.), B. Bhattacharyya (Eds.), Book Series: Materials Forming, Machining and Tribology, Springer Nature Singapore Pte Ltd, 2020, eBook ISBN 978-3-030-43312-3, Hardcover ISBN 978-3-030-43311-6, DOI 10.1007/978-3-030-43312-3.
- I. Shivakoti, G. Kibria, B. B. Pradhan, A. Sharma, Experimental Investigation and Fuzzy-Based Modeling of Micro-EDM Process Parameters, In: Advances in Greener Energy Technologies, A.K. Bhoi, K.S. Sherpa, A. Kalam, G.S. Chae, (Eds.), DOI 10.1007/978-981-15-4246-6, Print ISBN 978-981-15-4245-9, Online ISBN 978-981-15-4246-6, Springer Nature Singapore Pte Ltd. 2020
- O. F. Biswas, A. Sen, G. Kibria, B. Doloi, B. Bhattacharyya, Parametric Analysis on Surface Roughness of Micro-channel by Fiber Laser Milling on Zirconia (ZrO2). In: Li L., Pratihar D., Chakrabarty S., Mishra P. (eds) Advances in Materials and Manufacturing Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore, 2020, DOI 10.1007/978-981-15-1307-7\_10, Print ISBN 978-981-15-1306-0, Online ISBN 978-981-15-1307-7, pp 91-97.

#### (c) Journal Papers:

- R. Phipon, I. Shivakoti, K. Kalita, G. Kibria, A. Sharma, R. K. Ghadai, Laser beam micro engraving on silicon carbide, Materials and Manufacturing Processes, Volume 35, Issue 12, 2020, pp. 1372-1382
- IshwerShivakoti, Golam Kibria, Soham Das, Ashis Sharma, Bal Bahadur Pradhan, and Somenath Chatterjee, Laser surface texturing on Ti-6AI-4V, Materials and Manufacturing Processes, Volume 36, Issue 7, 2021, pp. 858-867.

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- 3. IshwerShivakoti, Golam Kibria, Robert Cep, Bal Bahadur Pradhan, Ashis Sharma, Laser Surface Texturing for Biomedical Applications: A Review, Coatings, 2021, Vol. 11, No. 2, pp. 124.
- Omar Faruk Biswas, Abhishek Sen, IshwerShivakoti, Golam Kibria, Parametric Influences on Heat Affected Zone in Microchannel Milling Process of Zirconia Ceramic, PeriodicaPolytechnica Mechanical Engineering Vol. 65, No. 2, 2021, pp. 189-196.

#### (d) International Conference Papers:

- Shivakoti, I., Pandey, D., Kibria, G., Sharma, A., & Pradhan, B. B. (2020, November). State
  of the Art: Laser Surface Texturing for Biomedical Applications. In 2020 International
  Conference on Decision Aid Sciences and Application (DASA) (pp. 473-479). IEEE. DOI:
  10.1109/DASA51403.2020.9317267
- 8] Contribution to enrich quality of teaching-learning during the academic year: (Seminars/Workshops/lectures/fieldvisitsorganized):
  - Delivered expert lecture title "Laser Micromachining: Fundamental & Research Issues", One Day Workshop organized by Calcutta Institute of Technology, Howrah on 5 August 2020.
  - Delivered expert Lecture title "Introduction and Research Perspective of Micromachining Processes", One Day Workshop organized by Regent Education and Research Foundation, Barrackpore on 20 August 2020
- 9] ContributiontothegrowthanddevelopmentoftheUniversity during the academic year:

Committee	Position held	Work done/ Activity
Departmental	Coordinator	1. Preparation of requisition of
Research		admission of PhD students
Committee (DRC)		2. Progress report seminar
		presentation
		3. Interviewing the candidates who
		qualify written exam as well as
		AURET exempted candidates
		4. Verification of documents of

		PhD candidates before final admission
Board of Studies (Mechanical Engg.	Member	Discussion in meeting regarding improvement of contents of various
Department)		subjects and labs.
		2. Discussion of need of faculty
		(guest / permanent)

1	Advisements for their future / career in higher studies in India and abroad
2	In-depth discussion on various opportunities (like GATE, PSUs like
	IOCL, ONGC, NTPC, BHEL, GAIL, integrated M.S. Ph.D. etc) after
	B.Tech. and/or M.Tech. degree in Mechanical Engineering

11] BestPracticesinteaching&academic-administrationintroducedinthedepartmentinthe academic year (Please specify, add rows if required):

1	
2	

(De 102/21

1] Name

: Sunny Akhtar

2] Designation

: Assistant Professor

3] Qualification

: M. E.

4] Teaching experience (in years)

: 8yrs

5] Industry experience (if any in years)

N. T\*1

3] industry experience (if any in years)

: Nil

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)

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
AICTE Affairs	Convenor	Conducting AICTE
Committee		approval process
Institute Induction	Member	Conducting Student
Programme Cell		Induction Program
Board of Studies	Member	1. Discussion in meeting
(Mechanical Engg.		regarding
Department)		improvement of contents of
		various
		subjects and labs.
Purchase Committee	Member	1. Discussion related to
(Electrical Engg. Dept.)		purchase of various
38 1 7		machineries and instruments
		for the laboratories in
		Electrical Engg. Dept.
Purchase Committee	Member	1. Discussion related to
(Mechanical Engg. Dept.)		purchase of various
(		machineries and instruments
		for the laboratories in
		Mechanical Engg. Dept.

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

1	Exam-Coordinator: Academic session: 2020-2021 (December, 2021)
2	Question papers setting, Invigilation and Answer Scripts evaluation
3	Counseled of B.Tech. students in Mechanical Engineering

	for their future / career in various opportunities like GATE, PSUs (like	
IOCL, ONGC, NTPC, BHEL)/ higher studies like M.Tech., M.S., PhD.		
	n the department in the	
11] Best !	Practices in teaching &academic-administration introduced in the department in the	
-	Practices in teaching &academic-administration introduced in the department in the year (Please specify, add rows if required):	

20 09/07/w<sup>2</sup>)

1] Name: Mr. Rafiqul Haque

2] Designation: Assistant Professor

3] Qualification: M.E

4] Teaching experience (in years): 14Years

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

6] Number of teaching hours per week: 22 Hours (including lectures, tutorials, practicals and project supervision)

7] Number of Research Projects/Publications/

Study material developed during

The academic year (provide list in separate sheet): 3 International Journal Papers and 1 International Book Chapter.

#### **Publication:**

#### Journals:

1. Rafiqul Haque, Mukandar Sekh, Golam Kibria and Shamim Haidar, 'Improvement of Surface Quality of Ti-6Al-4V Alloy by Powder Mixed Electrical Discharge Machining using Copper (Cu) Powder', Facta Universitatis, Series: Mechanical Engineering (FU Mech Eng), https://doi.org/10.22190/FUME201215042H, 2021.

 Rafiqul Haque, Mukandar Sekh, Golam Kibria and Shamim Haidar, 'Comparative Study of Parametric Effects on the Performance of Simple and Powder Mixed EDM using Aluminium and Graphite Powder on Inconel X750 Alloy', Materials Today: Proceedings Journal, Vol. 46,

Part 17, pp. 8366-8373, 2021.

3. Ziyauddin Seikh, Abu Huraira Biswas, Md Kamaruzzaman, Rafiqul Haque, Golam Kibria, Shamim Haidar, Mukandar Sekh, 'Density, hardness and wear responses of aluminium-coppermagnesium alloys', Materials Today: Proceedings Journal, Volume 47, Part 10, pp. 2358-2363, 2021.

**Book Chapter:** 

1. Md. Kamaruzzaman, R. Haque, Design and Implementation of a Wireless Robot for Image Processing, Handbook of Research on Advanced Mechatronic Systems and Intelligent Robotics, ISBN 13: 9781799801375, ISBN 10: 1799801373, DOI: 10.4018/978-1-7998-0137-5, pp. 323-344, 2020.

#### National/International Conference Papers:

- 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
Hostel	Member	1. Acted as Warden of Boy's Hostel,
Management Committee (HMC)		Newtown Campus  2. Actively worked for taking care of the students of Boy's hostel daily life problems

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Computer Purchase Committee	Member	Preparation of various e-tender documents related to purchase of Computers and Laptops for our University and also discussed various issues related to computer purchasing
Special Committee for Departmental Laboratories	Member	Looked after the different aesthetics of departmental laboratories equipments
Training & Placement Cell Committee	Member	Looking after the different issues related to placement of our students and also acted as the departmental coordinator
Board of Studies (Mechanical Engg. Department)	Member	Discussion in meeting regarding improvement of contents of various subjects and labs.     Discussion of need of faculty (guest / permanent)
Student's Welfare Committee	Member	Acted as an active member of the Student's welfare related issues.
Aliah University Science and Technology Club (AUSTC)	Convenor	Actively arranging meetings and write the minutes of these meetings.

1	Preparing question papers for the semester examination and Answer script evaluation
2	Counselled of B.Tech. and M.Tech. students in Mechanical Engineering for their future / career in higher studies in India and abroad
3	In-depth discussion on various opportunities (like GATE, PSUs like IOCL, ONGC, NTPC, BHEL, GAIL, integrated M.S. Ph.D. etc) after B.Tech. and/or M.Tech. degree in Mechanical Engineering

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

1	Taken remedial classes for the weak students
2	

Interfood 102/2021

1] Name: Dr. Subha Mondal

2] Designation: Assistant Professor

3] Qualification: PhD

4] Teaching experience (in years):14years

5] Industry experience (if any in years):

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): 2 SCI Journal publications and

#### Research paper Published:

SCI Journal Paper:

- Mondal S, De S (2020, October) Performance assessment of a low-grade heat driven dual ejector vapour compression refrigeration cycle. Applied Thermal Engineering 179, 115782. <a href="https://doi.org/10.1016/j.applthermaleng.2020.115782">https://doi.org/10.1016/j.applthermaleng.2020.115782</a>
- 2. Sahana C, De S, Mondal S (2021, May) Integration of CO2 power and refrigeration cycles with a desalination unit to recover geothermal heat in an oilfield. Applied Thermal Engineering 189, 116744.

https://doi.org/10.1016/j.applthermaleng.2021.116744

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
BOS	Member	Monitoring departmental curriculum and associated activities
Departmental representative in engineering common syllabus curriculum committee	Member	Taken part in formulation of uniform course curriculum
DRC	Member	Monitoring departmental research activity

1	Preparing question paper and Answer script evaluation
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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Subhamad 9 107 121

1] Name: Mr. Shahanwaz Khan

2] Designation: Assistant Professor (Stage I)

3] Qualification: M. Tech.

4] Teaching experience (in years):10 years

5] Industry experience (if any in years): 4 Years

6] Number of teaching hours per week: 22 hrs (Including lectures, tutorials, laboratory classes and project supervisions)

7] Number of Research Projects/Publications/Study material developed during the a

#### **Publications:**

#### International Journal:

**Shahanwaz Khan**, Rajsekhar Panua, Probir Kumar Bose. The impact of combustion chamber configuration on combustion and emissions of a single cylinder diesel engine fuelled with soybean methyl ester blends with diesel. *Renewable Energy* 2019; 143: 335–351. https://doi.org/10.1016/j.renene.2019.04.162.

**Shahanwaz Khan**, Probir Kumar Bose, RajsekharPanua. Numerical analysis to explore the influence of swirl ratio on combustion and emission of diesel engine. *Proceedings of International Conference on Energy and Sustainable Development*, Jointly organized by Jadavpur University and The Institution of Engineers, India, February 14-15, 2020.

#### Study material developed:

I declare that I have developed the study materials of UG subjects (Thermodynamics and I C Engines) and PG subjects (Jet Propulsion and Principles of Combustion) in academic year 2020-2021: I also have updated the Courses/Curriculum Design (UG and PG Course).

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

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

Committee	Position held	Work done/ Activity	
Anti-Ragging Squad	Jt. Convenor	1. Arrange committee meeting and	
		drafting resolution of meeting	
		which was resolved after threadbare	
		discussion in the meeting.	
Board of Studies	Member	1. Discussion in meeting regarding	
(Mechanical Engineering		improvement of contents of various	
Department)		subjects and laboratories.	
Institute Induction	Member	1. Organize students' induction	
Programme Cell		programme for newly admitted	
<i>5</i>		Engineering students.	
Departmental Asset	Convenor	1. Arrange committee meeting and	
Management Committee		drafting resolution of meeting	
	2	which was resolved during	
		discussion in the meeting.	
Purchase Committee	Member	1. Preparation of various e-tender	
(Civil Engineering)		documents related to purchase of	
5 5		various machineries and	
		instruments in Civil Engineering	
		laboratories.	

1	In-depth discussion on various opportunities (like GATE, PSUs such as
	IOCL, ONGC, NTPC, BHEL, GAIL, integrated M.S. Ph.D. etc) after
	awarding B.Tech. and/or M.Tech. degree in Mechanical Engineering.

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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#### **Academic Practices**

## Academic Practices (for the academic year :2020-2021)

- 1] Total number of teaching-days in the academic year: 180
- 2] Total number of permanent teaching staff: 08
- 3] Total number of permanent teaching staff with PhD: 04
- 4] Number of programmes offered (please specify): B.Tech, M.Tech and PhD
- 5] Number of sanctioned intake of students and Number of actual admissions:

B.Tech	Intake capacity		Actual admission	
	Regular	60	39 (37male+2Female)	
	Lateral	30	29 (28male +1Female	
M. Tech		18	18 (Male)	

- 6] How many teaching members have attended Orientation Programme/ Refresher Course/FDP/ Workshop/ Training Programme/ Research Methodology Course/Capacity Building Programme etc.: 04
- 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: Nil
- 10] Innovative practices (please specify):

# Teaching-Learning-Evaluation process (for the academic year: 220-2021)

- 1] Does teaching members participate in course designing? Yes
- 2] Does the department have a structured Board of Studies or Similar academic body to design/expand/ modify course content? Yes
- 3] Does the programme follow:
  - a. CBCS structureV
  - b. Elective-based structure√
  - c. Any other, please specify
- 4] Does the department follow Academic Calendar implemented by the University? Yes
- 5] Use of Teaching-Learning tools/ platforms (Please specify)
  - a. OHP√

- b. LCD
- c. Interactive Boards
- d. LMS
- e. Any other
- 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
- 7] Weekly class hour per course (average): 35
- 8] Whether remedial/ tutorial classes included in class routine? Yes
- 9] Does the programme offered has scope of Internship/ Project/ Field work/ Seminar presentation/ Industrial training? Yes
- 10] Does the department follow progressive evaluation of students? Yes
- 11] Number of students appeared and passed in the academic year:

## Research output (for the academic year: 2020-2021)

- 1] Does the department offer MPhil/ PhD/ Post-Doctoral Programme: (Please specify): M.Tech & PhD programme
- 2] Number of students/ scholars registered/ enrolled in MPhil/ PhD/ Post-Doctoral Programme (If the answer to Q1 is yes): 02 PhD
- 3] Number of publications in refereed & peer-reviewed journals: 12
- 4] Number of book/ edited-volume/ book-chapter published with ISBN: 1 edited book & 5 book chapter
- 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: Nil

- 8] Number of sponsored research projects:
  - a. Completed
  - b. Ongoing =1
- 9] Number of collaborative research projects:
  - a. Completed
  - b. Ongoing
- 10] Any innovative research initiative adopted and implemented (please specify):

# Infrastructure & facilities (departmental level)

- 1] Number of classrooms: 07
- 2] Number of ICT-enabled classrooms: Nil
- 3] Number of laboratories: 10
- 4] Availability of licensed software/ databases: Nil
- 5] Number of tutorial rooms: Nil
- 6] Number of seminar halls: Nil
- 7] Number of rooms for the teaching members: 02
- 8] Number of computer/ printer/ scanner available:
  - a. In laboratory
  - b. In teachers' enclosure√
  - c. For Research scholars
  - d. For Administrative purpose
- 9] Whether Internet facility available in classrooms/ laboratory

/ Teachers' enclosure?

In teacher's enclosure and some specific laboratory

- 10] Whether reprographic facility available? Yes
- 11] Number of washroom facility (for male): 04
- 12] Number of washroom facility (for female): 02
- 13] Presence of appropriate signage: Yes
- 14] Barrier free environment ensured? Yes

# Initiatives and Supplementation for Students:

- 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? Some times

- 4] Does the department arrange seminars/ workshops/ skill-development programmes etc. for students? Some times
- 5] Does the department arrange programmes for the students focusing Soft-skill and Personality development? No
- 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? No
- 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): No data is available with the department
- 12] Please indicate the number of students those have progressed for higher studies (for the specific period): No data is available with the department
- 13] Please indicate the number of students those were offered placements by the University (for the specific period).

## Summary of departmental members

Year	No. of Teacher	No. of Technical Assistant	No. of Office Staff (Group-C)	No. of Office Staff (Group-D)
2019-2020	08	03	Nil	Nil

