



**Bangladesh University of Textiles**  
**KNOWLEDGE IS POWER**

2022-23

# ANNUAL REPORT

# 1<sup>st</sup> Annual Report

## 2022-2023



Bangladesh University of Textiles

# 1<sup>st</sup> Annual Report

## 2022-2023

**Mohammed Shahabuddin**  
Chancellor

**Prof. Dr. Shah Alimuzzaman**  
Vice-Chancellor



**Bangladesh University of Textiles**

# Preface

Bangladesh University of Textiles was established in 2010 with the objectives of leading the textile industry of Bangladesh through education and research. During the last one decade of endeavours, the university has achieved a lot towards its objectives. The university has opened 5 faculties and 14 departments to lead the textile industry of Bangladesh. We have 10 affiliated colleges. The university has extended its education and research to Masters and Doctoral level, and has also opened continuing education pursuit through MBA and PGD in Textile Management programs.

After the establishment of Bangladesh University of Textiles, the first annual report has been published where various activities including education, research, co-educational activities, income-expenditure and physical infrastructure development for the session 2022-2023 have been presented. All information included in this report has been collected from various departments/branches of the university. The Editorial Board has kept the received data unchanged unless any major discrepancies were observed and tried to complete the task with utmost awareness.

As this is the first annual report published by the University, there may be some inconsistencies and typographical errors in various areas. I sincerely apologize in advance for these mistakes that were published unintentionally and for unknown reasons.

Although it is important to address the issues to the people of Bangladesh through annual report every year. I think this annual report will be a guideline for taking any academic/administrative decisions. The initiative has been taken by the current Vice Chancellor Prof. Dr. Shah Alimuzzaman whose wholehearted encouragement made the publication possible on time. So, we are happy to launch the debut annual report of Bangladesh University of Textiles.

I express my sincere gratitude to all the members of the Annual Report Committee. A sincere thanks to all those who tirelessly contributed to this work.

**Prof. Dr. Nargish Jahan Ara**

Convener

1<sup>st</sup> Annual Report 2022-23 Committee

&

Dean

Faculty of Science and Engineering

Bangladesh University of Textiles

# Editorial Pannel

## Advisor

**Prof. Dr. Shah Alimuzzaman**  
Vice-chancellor

## Convenor

**Prof. Dr. Nargish Jahan Ara**  
Dean, Faculty of Science & Engineering

## Members

**Prof. Dr. Md. Masum**  
Dean, Faculty of Textile management & Business Studies  
&  
**Dr. Mahmuda Akter**  
Associate professor & Head, Department of Apparel Engineering

## Member Secretary

**Md. Shafiqul Islam**  
Assistant Director, Public Relations Office



## Message from the Vice-Chancellor

I am very happy to publish this first annual report of Bangladesh Textile University in 13 years of establishment.

The annual report provides a snapshot of a university's year-long academic research development and progress. As a result, through self-criticism, accepting and implementing the right action plan for the next year is an easy win. Basically; annual report is the mirror of an organization. Through this, many will get recognition of their own work and many will get encouragement to work.

I think that this annual report has a clear description of all the development activities including academic, administrative, research and physical infrastructure during the academic year 2022-2023.

My sincere thanks to all those involved in the publication of this report.

Joy Bangla

May Bangladesh live long.

**Professor Dr. Shah Alimuzzaman**

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### **Vice-Chancellor's Office**

- Audit Cell

### **Office of the Registrar**

- Administration
- Academic Section
- Estate & Security
- Store

### **Finance and Accounts**

### **Controller of Examination office**

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### **Transport**

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**HELD**

**Canteen**

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**Sheikh Hasina Hall**

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# The Bangladesh University of Textiles

Bangladesh University of Textiles (BUTEX) was established in 2010 by passing Bangladesh University of Textiles Act 2010 in the parliament to maintain and achieve parity with the advanced world in the various fields of textile science, textile management, textile engineering and textile technology; and to conduct higher education, research and development in related and other fields in the country through knowledge practice, technology innovation and transfer; and expansion and innovation of related facilities.

## **Vision**

To be a center of excellence for higher education, research and development in the field of textile science & engineering.

## **Mission**

- I. Modernization and updating the existing curriculum by adopting outcome based curriculum.
- II. Enhancing quality research work to develop diversified & value-added textile and Jute products.
- III. Expanding the facilities to train faculty members and staffs for enhancing the quality of higher education, research, and management system.
- IV. Necessary Infrastructural and other facilities of BUTEX will be developed by next 5 years for the establishment of new faculties, departments, classroom, workshops, labs, and libraries.

- V. To establish Student Service Centre to provide necessary services & counseling for the students.
- VI. Building an Academia-Industry linkage to cater the needs and demands of Textile Industry.
- VII. Undertaking exchange & linkage program with similar institutions for the development of human resources, technology transfer, academic standard & practices.
- VIII. Promoting quality education for the affiliated textile engineering colleges to improve their standard of education.

### **Objectives**

- I. To produce quality and skilled graduates with moral ethical values to meet the demand of Textile & Jute industry of Bangladesh.
- II. To create opportunity of higher education & research in all the branches of Textiles to meet the growing need of Textile & Apparel industry.
- III. To promote technology development and innovation in textile, apparel & jute industry.
- IV. To be an active leader in policy making for sustainable development of textiles & apparel industry of Bangladesh.
- V. To work with government and related stakeholders to boost up the export earnings of Bangladesh.
- VI. To be an active contributor in economic and social enhancement, and environmental protection through fostering the development of textile industry.
- VII. To provide textile testing and consultancy services to the community.

**The existing facilities of BUTEX is shown hereunder:**

|                                |            |
|--------------------------------|------------|
| • Land-                        | 11.57 Acr. |
| • Residential Halls-           | 4          |
| • Faculties-                   | 05         |
| • Departments-                 | 14         |
| • Affiliated Colleges-         | 10         |
| • Female Students-             | 128        |
| • Total Male Students-         | 2312       |
| • Total Female Students-       | 631        |
| • BSC in Textile Engineering-  | 2943       |
| • MSC in Textile Engineering-  | 96         |
| • Yearly intakes-              | 600        |
| • Affiliated College Students- | 4441       |
| • Total Teachers-              | 149        |
| • Male Teachers-               | 98         |
| • Female Teachers-             | 51         |
| • Professors-                  | 14         |
| • Associate Professors-        | 19         |
| • Assistant Professors-        | 92         |
| • Lecturers-                   | 24         |
| • Officers-                    | 79         |
| • Support Staffs               | 111        |

## The Syndicate

### Chairman

**Prof. Dr. Shah Alimuzzaman**  
Vice Chancellor  
Bangladesh University of Textiles

### Members

1. **Prof. Dr. Mijanur Rahman**
2. **Additional Secretary**
3. **Director General**
4. **Prof. Dr. Engr. Ayub Nabi Khan**
5. **Prof. Dr. Ummul Khair Fatema**
6. **Prof. Dr. Md. Masum**
7. **Prof. Dr. Nargish Jahan Ara**
8. **Prof Dr. Md. Ahashan Habib**
9. **Dr. HM Zakir Hossain**

### Member Secretary

**Kabari Majumder**  
Registrar, Butex.

## Finance Committee

### Chairman

**Prof. Dr. Shah Alimuzzaman**  
Vice-Chancellor, Butex.

### Member

1. **Prof. Dr. Ummul Khair Fatema**, Dean, Faculty of Textile Chemical Engineering
2. **Prof. Dr. Md. Masum**, Dean, Faculty of Textile Management and Business Studies
3. **Dr. Nazmina Chowdhury**, Chief Scientific Officer, Bangladesh Jute Research Institute, Manik Mia Avenue, Dhaka.
4. **Dr. Ferdous Zaman**, Secretary, Bangladesh University Grants Commission, Dhaka.
5. **Md. Noor-e-Alam**, Joint Secretary, Ministry of Education, Bangladesh Secretariat, Dhaka.

### Member Secretary

**Muhammad Kamruzzaman Chowdhury**, Deputy Director (Finance & Accounts)

# Academic Council

## External Member of Academic Council

**Engr. Md. Solaiman**

Principal

Pabna Textile Engineering College,  
Salgaria, Pabna-6600

**Engr. Md. Ali Azom Rokon**

Principal

Textile Engineering College,  
Zorargonj, Chattogram.

**Engr. Md. Abdul Kader Bepari**

Principal

Shahid Abdur Rab Serniabat Textile  
Engineering College, C & B Road,  
Barishal.

**Engr. Md. Saifur Rahman**

Principal

Textile Engineering College,  
Begumgonj, Noakhali.

**Engr. Md. Firoze Khandakar**

Principal

Sheikh Kamal Textile Engineering  
College, Aruakandi, Modhupur,  
Jhenaidah Sador.

**Engr. Bakhtiar Hossain**

Principal

Bangabandhu Textile Engineering  
College, Baghutia, Kalihati, Tangail.

**Engr. Md. Gulzer Hossain**

Principal

Bangladesh Handloom Education &  
Training Institute, Saheprotap,  
Norsingdi

**Engr. Md. Abdur Rokib**

Principal

Dr. M A Wazed Miah Textile  
Engineering College, Pirgonj,  
Rangpur.

**Engr. Nayon Chandra Ghosh**

Principal

Sheikh Rehana Textile Engineering  
College,  
Ghonapara, Gopalganj

**Bishawjit Das**

Principal

Sheikh Hasina Textile Engineering  
College,  
Melandaho, Jamalpur.

**Eng. Shafiqur Rahman**

President

Institute of Textile Engineers &  
Technologist, Dhaka.

**Prof. Dr. Muhammad Masroor Ali**

Department of Computer Science &  
Engineering

Bangladesh University of Engineering  
& Technology, Dhaka

**Engr. Syed Ishtiaq Ahmed**

Director, BTMA

Managing Director, Saiham Cotton  
Mills Ltd.

House-41, Flat -8B, Road-35,

Gulshan-02, Dhaka

**Mr. Tanvir Ahmed**

Director, BGMEA

Envoy Fashion Ltd., Envoy Tower,  
18/E, Lake Circus, Kalabagan, West  
Panthapath, Dhaka

**Mr. Md. Shamsuzzaman**

Director, BKMEA

Planners Tower (4<sup>th</sup> Floor), 13/A,  
Sonargaon, Road, Bangla Motor,  
Dhaka

# Faculties and Departments

## **Faculty of Textile Engineering**

Textile and garments is the largest export oriented sector in Bangladesh. The development of economy of Bangladesh and growth of export are highly dependent on the ability of textile industry to compete internationally with finest products. Cutting edge machinery maintained by skillful engineers are the most important prerequisites for perfect products.

### **Dean**

**Prof. Dr. Hosne Ara Begum**  
**Faculty of Textile Engineering**

### **Officer**

**Khatoon-E-Zannat**  
Section Officer



# Department of Yarn Engineering

Textile is the main sector on which foreign exchange earning of Bangladesh mostly depends and Spinning is one of the main sub-sector of textile. At present there are several hundreds of spinning industries in Bangladesh, which are running by different spinners most of them are graduated from this University with specialization in Yarn Engineering. This department has full production length laboratory which is equipped with modern and conventional machinery of yarn manufacturing so that students can learn practical knowledge. The department arranges frequent industrial tour for gaining the latest trend and set up of the industries. Students of this department are given comprehensive knowledge about textile fibers and techniques to convert them into yarn with the best possible available parameters and at most economical rates. The department also offers testing of fiber, yarn and fabric. The department carries out research and development projects for the spinning industry also.

## Vision

To develop Yarn Engineering department as a remarkable strong backbone of our textile and Jute sector for sustainable socio-economic development of Bangladesh.

## Mission

To provide effective and appropriate education to students to meet the existing requirement of Textile sector including challenge of upcoming advance technological development and capable of solving professional problems.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Yarn)

- Number of Seats: 80
- Number of Semester: 08 (6 months each)
- Total Credit: 166

### M. Sc. in Textile Engineering (Yarn)

- Number of Seats: 15
- Number of Semester: 03 (6 months each)
- Total Credit: 36

### PhD in Textile Science & Engineering

# Faculty Members

- 1. Dr. Hosne Ara Begum**  
**Professor**
- 2. Dr. Md. Reajul Islam**  
Associate Professor & Head, Dept. of Yarn Engineering
- 3. S. M. Farhana Iqbal**  
Associate Professor
- 4. Dr. Md. Sultan Mahmud**  
Associate Professor
- 5. Dr. MD Zahidul Islam**  
Associate Professor
- 6. Sharif Ahmed**  
Assistant Professor
- 7. Toufiqua Siddiqua**  
Assistant Professor
- 8. Dr Ahmed Jalal Uddin**  
Assistant Professor
- 9. Md. Masum Reza**  
Assistant Professor
- 10. Md. Rubel Khan**  
Assistant Professor
- 11. Farhad Mahmud Chowdhury**  
Assistant Professor
- 12. Md. Bashar Uddin**  
Assistant Professor
- 13. Samara Islam Nishi**  
Assistant Professor
- 14. Tanima Rahman Tanni**  
Assistant Professor
- 15. Mr. Tanvir Mahady Dip**  
Lecturer
- 16. Susmita Saha**  
Lecturer
- 17. Mohammad Hasib Uj Jaman Khan**  
Lecturer

## Officer's

### Department Office: YE

**B.M. Shahidul Islam**

Administrative Officer

### Testing Lab

**Engr. Abdul Barek Mia**

Technical Officer (Textile)

### Yarn Lab

**Engr. Md. Omar Faruk  
Bhuiyan**

Technical Officer (Textile)

**Engr. Sala Uddin**

Assistant Technical Officer

**Md. Abdul Awal**

Assistant Technical Officer

### Jute Lab

**Engr. Md. Tufail Hossain Khan**

Technical Officer (Textile)

**Md. Faroque Sheikh**

Assistant Technical Officer  
(Textile)

# Publication & Research

## Prof. Dr. Hosne Ara Begum Professor

1. Toufiqua Siddiqua, Dr. Hosne Ara Begum, Dr. Abu Bakr Siddique, Dr.-Ing. Thomas Stegmaier, Effect of Oil and Oil-Free Emulsion on Jute Fiber Processing and Yarn Properties, International Journal of Scientific & Technology Research, Volume-10, Issue-04, April 2021.
2. Md. Ariful Islam, Hosne Ara Begum, Md. Abdus Shahid & Ayub Ali, Antibacterial electrospun nanofibers from poly(vinyl alcohol) and Mikania micrantha with augmented moisture properties: formation and evaluation, The Journal of The Textile Institute, 2020
3. Hosne Ara Begum, Toufiqua Siddiqua, Abul Kalam Mohammad Mazed, Abu Bakr Siddique, Modification of Adapter in Auto Cone Winding Machine for Better Performance, International Journal of Recent Technology and Engineering, Volume-8 Issue-6, March 2020.
4. Md. Khalilur Rahman Khan, Hosne Ara Begum, Modification of Drafting Zone of Jute Flyer Spinning Frame to Improve the Jute Yarn Quality, European Scientific Journal, Volume 16, No. 27, September 2020
5. Hosne Ara Begum, A.K.M. Monjurul Haque, Md. Didarul Islam, M. Mehedi Hasan, Suza Ahmed, Md. Razzak, Ruhul Amin Khan, Analysis of the Adsorption of Toxic Chromium(VI) by Untreated and Chitosan Treated Banana and Areca Fiber, Journal of Textile Science and Technology, Volume 6, 2020
6. Md. Khalilur Rahman Khan, Hosne Ara Begum, Md. Razib Sheikh, An Overview on the Spinning Triangle Based Modifications of Ring Frame to Reduce the Staple Yarn Hairiness Journal of Textile Science and Technology, 6, 2020
7. Hosne Ara Begum, Md. Saitham Al Sagir Rakine, Sadman Ahmed Khan, Md, Khalilur Rahman Khan, Investigating the Interactive Effect of Card Cylinder Speed and Roller Gauge Settings of Breaker Drawing on Combed Yarn Evenness and Imperfections Advances in Applied Sciences, Volume 4, Issue 3, June 2019
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11. Hosne Ara Begum, Subrata Kumar Saha, Abu Bakr Siddique, Thomas Stegmaier, Investigation on the Spinability of Fine Areca Fiber, Journal of The Textile Institute, Volume 110 Issue 2019.
12. Zahidul Islam, A.N.M Mashudur Rahman Hosne Ara Begum, Comparative Study of Areca Fiber Reinforced Polyester Composite and Plywood, European Scientific Journal, October 2018.

13. Hosne Ara Begum, Md. Ramiz Howlader, Md. Abu Bakr Siddique, AyubNabi Khan, Investigation of Functional Properties Changing in Different Chemical Treatment of Various Cellulosic Fiber using FTIR, Saudi Journal of Engineering and Technology, Volume-2, Issue-7, Page 280-285.
14. Mohammad Billal Hossain, Dr. Hosne Ara Begum, The Effect of Chemical Treatment on Tensile Strength and Weight of Banana Stem fiber after Treating with Various Chemical, IOSR Journal of Dental and Medical Science, Vol 16, Issue 7 Ver IV, July 2017.
15. Tipu Sultan, Hosne Ara Begum, Effect of Carding Ratio of Jute Finisher Card on Processing Performance and Sliver Quality, International Journal of Textile Science, 2017, 6(4):99-104.
16. Mohammad Billal Hossain, Dr. Hosne Ara Begum, American Journal of Engineering Research, 2017, Volume 6, Issue 1, 322-327.
17. H.A Begum and C. Karmoker , A Novel Technique to use Waste Jute Fibre as a Blend Component with Polyester. Bangladesh Journal of Physics .Vol. 18. Dec 2015.
18. Hosne Ara Begum Abu Bakr Siddique, Md. Maksud Helali, Effects of Vibration on Tension and Properties of Ring Spun Yarn, Bangladesh Journal of Textile Science & Engineering, Vol. 1,
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20. Md. Tarik Hossain, M.U Jubayer, Hosne Ara Begum, Study on the Construction of Polyethylene Substitute Fabrics produced in Handlooms from Jute and Jute cotton Blended Yarn, Bangladesh Journal of Jute and Fiber Research 2008,28(2):31-39.
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2. Hosne Ara Begum, A New Spinnable Fiber in Asian Region.” Arranged by ICTA, Dhaka Bangladesh, 2010
3. Reajul Islam , Hosne Ara Begum, Analysis of the Physico- Mechanical Properties of Jute Polypropylene Blended Yarn, International Conference on Mechanical Industrial and Materials Engineering ICMIME 2015 MS-17 (104) 2015, RUET, Rajshahi, Bangladesh.
4. Hosne Ara Begum Abu Bakr Siddique, Md. Maksud Helali, Effect of Frequency and Amplitude of Vibration on Ring-Traveller Friction of Ring Spinning Frame International Conference on Mechanical Industrial and Materials Engineering ICM IME 2013 AM-05 (114-119) 2013, RUET, Rajshahi, Bangladesh.
5. H. A Begum, M.M. Helali, Application of vibration for Reduction of Ring – Traveller Friction of a ring Spinning Frame, International Conference on Mechanical Engineering ICM E11-AM-044, 2011(18-220 December) Bangladesh Book Chapter
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**Dr. Md. Reajul Islam**  
**Associate Professor**

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- [4] Islam, M.Z., Sarker, M.E., Rahman, M.M., Islam, M.R., Ahmed, A.T.M.F., Mahmud, M.S., et al., (2022). Green composites from natural fibers and biopolymers: A review on processing, properties, and applications. *Journal of Reinforced Plastics and Composites*. 41(13–14): 526–57. doi: 10.1177/07316844211058708.
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- [6] Erbil, Y., Islam, R., Babaarslan, O., Sırlıbaş, S., (2022). Effect of Structural Changes on the Cotton Composite Yarn Properties. *Journal of Natural Fibers*. 19(5): 1899–907. doi: 10.1080/15440478.2020.1788687.
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## Toufiqua Siddiqua

### Assistant Professor

⊖ Statistical Analysis of Properties of Compact Yarn Produced from Different Process; Toufiqua Siddiqua, Md. Alimur Reza and Habiba Altaf; *European Scientific Journal*; April 2019 edition

⊖ Analysis of Ring Yarn Properties Manufactured from Different Traveller Brands; Toufiqua Siddiqua, S. M. Farhana Iqbal; *European Scientific Journal*; Vol 15, No 18 (2019).

⊖ Optimization Of Raw Material Mixing In Rotor Spun Yarn Using Analytical Hierarchy Process, Shahriar Raian, Toufiqua Siddiqua, Md. Lutfor Rahman Shanzid, Tanzeena Refat Tumpa, *International Journal of Scientific & Technology Research*, Volume 8, Issue 11, November 2019.

⊖ Modification of Adapter in Auto Cone Winding Machine for Better Performance, Hosne Ara Begum, Toufiqua Siddiqua, Abul Kalam Mohammad Mazed, Abu Bakr Siddique, *International Journal of Recent Technology and Engineering*, Volume-8 Issue-6, March 2020.

⊖ Effect Of Oil And Oil-Free Emulsion On Jute Fiber Processing And Yarn Properties, Toufiqua Siddiqua, Dr. Hosne Ara Begum, Dr. Abu Bakr Siddique, Dr.-Ing. Thomas Stegmaier, *International Journal of Scientific & Technology Research*, Volume-10, Issue-04, April 2021.

## Dr Ahmed Jalal Uddin

### Assistant Professor

1. B. Uddin, **Ahmed Jalal Uddin (Corresponding author)**. *A Sustainable Approach to Manufacture Mélange Yarn from Waste Jute Fiber and Pre-consumer Cotton Fabric Waste Using I-optimal Mixture Design. Journal of Cleaner Production. In press* (<https://doi.org/10.1016/j.jclepro.2023.138376>). **[Impact factor: 11.01]**.
2. M. Reza, H. A Begum, Ahmed Jalal Uddin (**Corresponding author**). *Potentiality of sustainable corn starch-based biocomposites reinforced with cotton filter waste of spinning mill. Heliyon*(2023). **[Impact factor: 3.776]**.
3. R. Islam., R. Mia, **Ahmed Jalal Uddin (Corresponding author)**. *Investigation of the performance of okra fiber in woven fabric. Heliyon*8, no. 4 (2022): e09307. **[Impact factor: 3.776]**.
4. Rahman, **Ahmed Jalal Uddin (Corresponding author)**. *Unusable cotton spinning mill waste: A viable source of raw material in paper making. Heliyon*8, no. 8 (2022): e10055. **[Impact factor: 3.776]**

5. I. Islam, M. I. Islam, Ahmed Jalal Uddin (**Corresponding author**). *Enhancing the quality of elastane-cotton core yarn by compact spinning.* **Heliyon** 8, no. 6 (2022): e09562. [**Impact factor: 3.776**]
6. Arafat, Ahmed Jalal Uddin (**Corresponding author**). *Recycled fibers from pre-and post-consumer textile waste as blend constituents in manufacturing 100% cotton yarns in ring spinning: A sustainable and eco-friendly approach.* **Heliyon** 8, no. 11 (2022): e11275. [**Impact factor: 3.776**]
7. A. Rahim, S. Rahman, **Ahmed Jalal Uddin (Corresponding author)**. *Low-bagging (growth) stretch denim yarn production by spinning optimization of cotton-wrapped dual-core elastane and T400 multifilament.* **Heliyon** (2023). [**Impact factor: 3.776**]
8. **Ahmed Jalal Uddin**, M. Fujie, S. Sembo, Y. Gotoh. *Outstanding Reinforcing Effect of Highly Oriented Chitin Whiskers in PVA Nanocomposites*, **Carbohydrate Polymers** 87, 799–805, 2012 [**Impact factor: 9.38**].
9. **Ahmed Jalal Uddin**, J. Araki, Y. Gotoh. *Toward “Strong” Green Nanocomposites: Polyvinyl Alcohol Reinforced with Extremely Oriented Cellulose Whiskers*, **Biomacromolecules**, 12, 617–624, 2011 [**Impact factor: 6.988**].
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16. **Ahmed Jalal Uddin**, T. Narusawa, Y. Gotoh. *Enhancing Mechanical Properties of Gel-Spun Polyvinyl Alcohol Fibers by Iodine Doping.* **Polymer Engineering and Science**, 51, 647-653, 2011 [**Impact factor: 2.428**].
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18. **Ahmed Jalal Uddin**, Jun Araki, Y. Gotoh, M. Takatera. *A Novel Approach to Reduce Fibrillation of PVA Fibres Using Cellulose Whiskers*, **Textile Research Journal** 81, 447–458, 2011 [**Impact factor: 1.82**].



19. **Ahmed Jalal Uddin**, Atsushi Yamamoto, Y. Gotoh, M. Nagura, M. Iwata. *Preparation and Physical Properties of Regenerated Cellulose Fibres from Sugarcane Bagasse*, *Textile Research Journal* 80, 1846-1858, 2010 [**Impact factor: 1.82**].
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21. **Ahmed Jalal Uddin**, N. Katayama, Y. Ohkoshi, Y. Gotoh, M. Nagura. Controlling the Mechanical Properties of Poly(L-lactide-ε-caprolactone) Monofilament Sutures by an Acetone / Water Treatment, *Journal of Polymer Science: Part B: Polymer Physics*, 40, 2449-2462, 2002 [**Impact factor: 2.838**].
22. **Ahmed Jalal Uddin**, Y. Ohkoshi, Y. Gotoh, M. Nagura, T. Hara; Influence of Moisture on the Viscoelastic Relaxations in Long Aliphatic Chain Contained Semi-aromatic Polyamide, (PA9-T) Fiber, *Journal of Polymer Science: Part B: Polymer Physics*, 41, 22, 2878-2891, 2003 [**Impact factor: 2.499**].
23. **Ahmed Jalal Uddin**, Ohkoshi, Y. Gotoh, M. Nagura, R. Endo, T. Hara; Melt Spinning and Laser-Heated Drawing of a New Semi-Aromatic Polyamide, PA9-T Fiber, *Journal of Polymer Science: Part B: Polymer Physics*, 42, 433-444, 2004 [**Impact factor: 2.499**].
24. **Ahmed Jalal Uddin**, Y. Gotoh, Y. Ohkoshi, M. Nagura, R. Endo, T. Hara; *Hydration in a New Semiaromatic Polyamide PA9-T Observed by Humidity-Controlled Dynamic Viscoelastometry and WAXD*, *Journal of Polymer Science: Part B: Polymer Physics*, 43, 1640-1648, 2005 [**Impact factor: 2.499**].
25. **Ahmed Jalal Uddin**, Y. Mashima, Ohkoshi, Y. Gotoh, M. Nagura, A. Sakamoto, R. Kuroda; *Drawing Behavior and Characteristics of Laser Drawn Polypropylene Fibers*, *Journal of Polymer Science: Part B: Polymer Physics*, 44, 398-408, 2006 [**Impact factor: 2.499**].
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## **Md. Masum Reza**

### **Assistant Professor**

1. **Masum Reza**, Hosne Ara Begum, Ahmed Jalal Uddin. Potentiality of Sustainable Corn Starch-based Biocomposites Reinforced with Cotton Filter Waste of Spinning Mill. *Elsevier, Heliyon (IF 3.776, Q1, SCI, Scopus, Volume 9, Issue 5, April, 2023)*.
2. Mohammad Naim Hassan, Moni Sankar Mondal, Naimul Hasan, **Md Masum Reza**, Md Ishtiaque Rahman, Joy Sarkar, Nourin Mohsin, Rafat Mahmud Hridoy, Dr Ahmed Jalal Uddin. Evaluation of physico-mechanical properties of naturally dyed betel-nut leaf plate (BLPF) – Banana blended fabric. *Elsevier, Heliyon (IF 776, Q1, SCI, Scopus, Volume 9, Issue 2, February 2023)*
3. **Masum Reza**, Mohammad Nayemul Islam, Sharif Ahmed, Mohammad Naim Hassan. Effect of Changing Front Top Roller Pressure of Drafting Zone of a Ring Frame on the Quality of Cotton-Flax Blended Yarn. *Journal of Textile Science and Technology, Volume 08(01), 25-34, January 2022*.

4. Mohammad Shariful Alam, Al-Amin Hasan Ronee and **Masum Reza**-Effect of cylinder speed of carding machine on card waste and card sliver quality, Research Journal of Engineering Sciences, Volume 7, Issue 9, 1-6, October 2018.

## **Md. Rubel Khan**

### **Assistant Professor**

- Implementation of jute-based nose holder in surgical masks to reduce plastic contamination, May 2023, Heliyon 9(6):e16434, DOI:10.1016/j.heliyon.2023.e16434
- Challenges of textile waste composite products and its prospects of recycling, February 2023, Journal of Material Cycles and Waste Management 25(3), DOI: 10.1007/s10163-023-01614-x
- Double air suctioned carding process: A method for achieving improved quality ring-spun carded yarn, January 2023 Heliyon 9(5):e13096, DOI: 10.1016/j.heliyon.2023.e13096
- Comparative Analysis of Production Processes and Quality Parameters of Two Different Semi-Combed Yarns, January 2023 Journal of Natural Fibers 20(1):2163333 , DOI: 10.1080/15440478.2022.2163333
- Compact Spinning in Cotton-based Core-spun Yarn: A Review, October 2021 European Scientific Journal 17(37):287, DOI: 10.19044/esj.2021.v17n37p287
- Investigation of Fiber Length Change In Different Stages Of Ring Spinning Process, July 2021, European Scientific Journal Volume: 17, No. 25, Natural /Life/Medical Science:66 Following, DOI: 10.19044/esj.2021.v17n25p66
- A Fuzzy Logic Based Approach towards Sales Forecasting: Case Study of Knit Garments Industry, March 2020, Conference: Proceedings of the International Conference on Industrial Engineering and Operations Management (2020) 0(March) 345-352

## **Farhad Mahmud Chowdhury**

### **Assistant Professor**

- Farhad Mahmud Chowdhury and Abu Yousuf Mohammad Anwarul Azim-Qualitative Analysis of Blend Yarn: Blend Method Analysis, Journal of Textile Engineering (Dhaka), Volume, TE 02, Issue-1, and July 2015.
- Mohammed Farhad Mahmud Chowdhury, Dr. Hosne Ara Begum and Firoze Khandorker "Study on the Performance of Electronic Yarn Clearer." American Journal of Engineering Research (AJER) 6.8 (2017): 157-162.
- Md. Riazul Hoque, Md. Rokonzaman, Joykrishna Saha and Mohammed Farhad Mahmud Chowdhury "Improvement of Carded Yarn Quality by Changing Ring Frame Break Draft for Different Short Fibre Index." European Scientific Journal December 2017 edition Vol.13, No.36.
- Mohammed Farhad Mahmud Chowdhury and Md. Zayedul Hasan "Speed Triangle Analysis of Added Irregularity." IOSR Journal of Polymer and Textile Engineering (IOSR-JPTE), vol. 5, no. 1, 2018, pp. 01-04.

#### Publication of Book

- Manual of Short Staple Spinning, Granthonir Publication, March 2016.
- Manual of Short Staple Spinning, Volume - II, University Campus, September 2017.

#### Research Grants:

1. University Grant Commission (UGC), Ref-UGC/Budget/4/2017-3971, "Designing and development of a prototype carding machine",

Co-supervisor, BDT 256,000, Year 2018 – 2019.

2. Bangladesh University of Textiles (BUTEX), Memo-BUTEX/2019/RnE/004, “Development of a low cost Dust and Noise measuring device and investigating the present environmental condition of spinning and weaving industry in Bangladesh”,

Co-supervisor, BDT 150,000, Year 2019-2020.

## **Md. Bashar Uddin**

### **Assistant Professor**

1. **Md Bashar Uddin**, Ahmed Jalal Uddin. A sustainable approach to manufacture mélange yarn from waste jute fiber and pre-consumer cotton fabric waste using I-optimal mixture design. *Journal of Cleaner Production*, 2023, P-138376, ISSN 0959-6526, <https://doi.org/10.1016/j.jclepro.2023.138376>.
2. Ehsanur Rashid, Raihan Ul Haque, Md. Rubel Khan, **Md. Bashar Uddin**, Zahidul Islam Khan, Md Atikul Islam, Towfik Aziz Kanon, Md. Washique Tonmoy. Implementation of jute-based nose holder in surgical masks to reduce plastic contamination. *Heliyon*, VOLUME 9, ISSUE 6, E16434, JUNE 2023, <https://doi.org/10.1016/j.heliyon.2023.e16434>.
3. **Md Bashar Uddin**, Anupam Deb Nath, Kazi Sowrov, Hosne Ara Begum. Fabrication and characterization of jute-covered core-spun yarn produced on flyer-spinning frame. *Textile and Leather Review*, 2022, Volume 5, Pages, 414-429, <https://doi.org/10.31881/TLR.2022.60>.
4. Md Abu Sayed, **Md Bashar Uddin**, Hosne Ara Begum. Comparative Study of Cotton Yarn Properties Using Central-Fan and Multi-Fan for Vacuum Generation in Aerodynamic Compact Spinning Systems. *Textile & Leather Review*. 2022; 5:240-252. <https://doi.org/10.31881/TLR.2022.28>

## **Mr. Tanvir Mahady Dip**

### **Lecturer**

(1) Rahman, M.; Mahady Dip, T.; Padhye, R.; Houshyar, S. Review on Electrically Conductive Smart Nerve Guide Conduit for Peripheral Nerve Regeneration. *J. Biomed. Mater. Res. A* **2023**, n/a (n/a), 1–35. <https://doi.org/10.1002/jbm.a.37595>.

(2) Rahman, M.; Dip, T. M.; Haase, T.; Truong, Y. B.; Le, T. C.; Houshyar, S. Fabrication of Zein-Based Fibrous Scaffolds for Biomedical Applications—A Review. *Macromol. Mater. Eng.* **2023**, n/a (n/a), 2300175. <https://doi.org/10.1002/mame.202300175>.

(3) Khan, Md. R.; Dip, T. M.; Rashid, Md. E.; Haque, R. U.; Neloy, F. K.; Salehin, S. M. M.; Galib, S.; Sayem, A. S. M. Comparative Analysis of Production Processes and Quality Parameters of Two Different Semi-Combed Yarns. *J. Nat. Fibers* **2023**, 20 (1), 2163333. <https://doi.org/10.1080/15440478.2022.2163333>.

(4) Sikdar, P.; Dip, T. M.; Dhar, A. K.; Bhattacharjee, M.; Hoque, Md. S.; Ali, S. B. Polyurethane (PU) Based Multifunctional Materials: Emerging Paradigm for Functional Textiles, Smart, and Biomedical Applications. *J. Appl. Polym. Sci.* **2022**, 139 (38), e52832. <https://doi.org/10.1002/app.52832>.

(5) Sikdar, P.; Uddin, M. M.; Dip, T. M.; Islam, S.; Hoque, M. S.; Dhar, A. K.; Wu, S. Recent Advances in the Synthesis of Smart Hydrogels. *Mater. Adv.* **2021**, *2* (14), 4532–4573. <https://doi.org/10.1039/D1MA00193K>.

(6) Dip, T. M.; Emu, A. S.; Nafiz, M. N. H.; Kundu, P.; Rakhi, H. R.; Sayam, A.; Akhtarujman, M.; Shoaib, M.; Ahmed, M. S.; Ushno, S. T.; Asheque, A. I.; Hasnat, E.; Uddin, M. A.; Sayem, A. S. M. 3D Printing Technology for Textiles and Fashion. *Text. Prog.* **2020**, *52* (4), 167–260. <https://doi.org/10.1080/00405167.2021.1978223>.

(7) Dip, T. M.; Begum, P. D. H. A.; Hossain, M. A. A.; Uddin, M. M.; Faruque, M. O. Analysis of Physico-Mechanical Properties of Jute and Polyester Blended Yarn. *Int. J. Sci. Res. Manag. IJSRM* **2018**, *6* (09), 2018–2085. <https://doi.org/10.18535/ijrsm/v6i9.ec02>.

#### Book Chapters

(1) Shahid, M. A.; Dip, T. M.; Tanni, T. R.; Babaarslan, O. 4 - Natural Fiber: Twistless and Core Spun Yarn. In *Multiscale Textile Preforms and Structures for Natural Fiber Composites*; Midani, M., Hamouda, T., Hassanin, A. H., Seyam, A.-F. M., Eds.; Woodhead Publishing Series in Composites Science and Engineering; Woodhead Publishing, 2023; pp 87–118. <https://doi.org/10.1016/B978-0-323-95329-0.00001-6>.

(2) Uddin, M. M.; Dip, T. M.; Sharma, S. Wearable Nanogenerators. In *Nanogenerators*; CRC Press, 2022; pp 185–286. <https://doi.org/10.1201/9781003187615-10>

# Department of Fabric Engineering

Since the department of Fabric Engineering is responsible for developing fabric expert so that they can renovate, shape up and lead the sector with ensured sustainability, we are very careful about its course structure and relevant infrastructure. At present it is offering B. Sc. in Textile Engineering (Fabric) and M.Sc. in Textile Engineering (Fabric). The department at present owns a number of core laboratories. They are Weaving Preparatory Process Lab, Weaving Lab, Knitting Lab, Fabric Structure and Design Lab, Fabric Testing Lab and newly installed CCI lab. To keep pace with the coming market, it is going to set up full scale Non-wovens Lab soon. All the laboratories are well equipped and arranged in an order such that students gradually come up with the technologies and develop confidence so that they can exploit the technologies to bring out the best while they are in the professional life. Besides the in-house laboratory, we keep close contact with the industries and make frequent visits with students.

## Vision

The Department of Fabric Engineering is visionary to contribute textile sector by research and knowledge development.

## Mission

- Providing updated curriculum that keeps pace with the latest textile technology.
- Introducing innovative educational practices and multi-disciplinary research activities through the entity.
- Provide visionary leadership and collaborative services to the university, country and global communities.
- Provide knowledge based technological services to satisfy the needs of society and industry.
- Emphasis on the development of communication, behavior, attitude and presentation skill of the graduates.
- Engaging in worldwide co-operation with direct and close contacts among scientific institutions outside of the academic community, industries and cultural institutions.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Fabric)

- Number of Seats: 80
- Number of Semester: 08 (6 months each)
- Total Credit: 166

## **M. Sc. in Textile Engineering (Fabric)**

- Number of Seats: 15
- Number of Semester: 03 (6 months each)
- Total Credit: 36

## **PhD in Textile Science & Engineering**

### **Faculty Members**

**Dr. Shah Alimuzzaman**

**Professor**

Dr. A T M Faiz Ahmed

**Associate Professor & Head Dept. of the Department**

Mrs. Shilpi Akter

**Professor**

Dr. Emdad Sarker

**Associate Professor**

Kazi Sowrov

**Assistant Professor**

Abdullah Al Faruque

**Assistant Professor**

Dewan Murshed Ahmed

**Assistant Professor**

A.K.M. Ashiqur Rahman Mazumdar

**Assistant Professor**

Faisal Abedin

**Assistant Professor**

Md. Jawad Ibn Amin

**Assistant Professor**

Md. Abdullah Al. Mamun

**Assistant Professor**

Mr. A.N.M. Masudur Rahman

**Assistant Professor**

Md. Aswad Al Haque Sarker

**Assistant Professor**

Faisal Ahmed

**Assistant Professor**

Md. Mohaddesh Hosen

Assistant Professor  
Shamima Akter Smriti  
Assistant Professor  
Md. Reasat Aktar Arin  
Lecturer

## Officer's

### Department Office: FE

**Zakia Akter**  
Administrative Officer

### Knitting Lab

**Engr. Mir Md. Aminul Iqram**  
Technical Officer

**Engr. Md. Ebrahim Khalil**  
Technical Officer

**Md. Sohrab Hossin**  
Assistant Technical Officer

### Weaving Lab

**Md. Khorshed Alam**  
Assistant Technical Officer

**Engr. Md. Tanvir Ahmed Sourov**  
Assistant Technical Officer

### FSD Lab

**Md. Abul Kashem**  
Assistant Technical Officer

## Publication & Research

### Dr. Shah Alimuzzaman

#### Professor

- Alimuzzaman, R. H. Gong, and M. H. Akonda, “Nonwoven Polylactic Acid and Flax Biocomposites”, Polymer Composites, 2013, Volume 34, Issue 10, Page (1611 – 1619).
- Alimuzzaman, R. H. Gong, and M. H. Akonda, “Impact Property of PLA/Flax Nonwoven Biocomposite”, Hindawi Publishing Corporation, Journal of Conference Papers in Materials

Science, Volume 2013, Article ID 136861.

• Alimuzzaman, R. H. Gong, and M. H. Akonda, “Three-Dimensional Nonwoven Flax Fibre Reinforced Polylactic Acid Biocomposites”, Polymer Composites, 2014, Volume 35, Issue 7, Page (1244 – 1252).

• Alimuzzaman, R. H. Gong, and M. H. Akonda, “Biodegradability of Nonwoven Flax Fibre Reinforced Polylactic Acid Biocomposites”, Polymer Composites, 2014, Volume 35, Issue 11, Page (2094 – 2102).

### **Kazi Sowrov**

#### **Assistant Professor**

- Comparative study of woven fabric properties made from regular ring spun, compact & SIRO spun yarn. Journal of Textile Engineering (JTE), IEB; April 2015.
- Comparative Analysis of Ring, Compact and SIRO Spun Yarn. Journal of Textile Engineering (JTE), IEB; April 2015.
- Effect of Elastane on Single Jersey Knit Fabric Properties - Physical & Dimensional Properties. International Journal of Textile Science 2014; 3(1): 12-16

### **Abdullah Al Faruque**

#### **Assistant Professor**

- Effect of Elastane on single jersey knit fabric properties - physical & dimensional properties
- Medical Textiles: significance and future prospect in Bangladesh
- Scope of polyester cotton blended single jersey knit fabric finishing without heat setting
- Terry towel in Bangladesh

### **Faisal Abedin**

#### **Assistant Professor**

- Effect of Gauge Variation of Circular Knitting Machine on Physical and Mechanical Properties of Cotton Knitted Fabrics
- Investigation on Physico-Chemical Properties of 100% Cotton Woven Fabric Treated with Titanium Dioxide

### **Shamima Akter Smriti**

#### **Assistant Professor**

- Prediction of whiteness index of cotton using bleaching process variables by fuzzy inference system”, Fashion and Textiles, 2018, 5:4, pp 1-13, publisher: Springer. Indexed in Scopus.
- "Fuzzy modeling for prediction of bursting strength of cotton knitted fabric using bleaching process variables" AATCC Journal of Research, Publisher: AATCC,2019,6(1),pp 29-37.Indexed in: Scopus and ESCI (by Clarivate Analytics, ex-Thomson Reuters).



- 'Comparative enactment of formaldehyde-free and formaldehyde-based cross-linkers on cotton woven fabrics', *Tekstilec*, Vol- 60(2), page 107-115, 2017. Scopus and Clarivate Analytics indexed.
- "Kinetics and Thermodynamics of Silk Dyeing with Turmeric Extract", *AATCC Journal of Research*, Publisher: AATCC, 2018, 5(3), pp 8-14. Indexed in: Scopus and ESCI (by Clarivate Analytics, ex-Thomson Reuters).
- "Kinetic Study of Curcumin on Modal Fabric", *Tekstilec*, 2018, 61(1), pp 27-32. Scopus and Clarivate Analytics Indexed.
- Investigation on the Changes of Areal Density of Knit Fabric with Stitch Length Variation on the Increment of Tuck Loop Percentages (*IOSR Journal of Polymer and Textile Engineering (IOSR-JPTE)*), VOL:2, Issue 3
- An Exploration on Pilling Attitudes of Cotton Polyester Blended Single Jersey Knit Fabric After Mechanical Singeing, *Science Innovation*. Vol. 3, No. 1, 2015, pp. 18-21. doi: 10.11648/j.si.20150301.12
- Reflectance Value and Yellowing Propensity on Thermal and Storage Condition of Cotton Fabric Treated with Different Softeners, *International Journal of Current Engineering and Technology (IJCET)*, eISSN: 2277-4106 | pISSN: 2347-5161, Volume No.5, Issue No.1, pp : 507-511, 28 Feb 2015.
- Color Co-Ordinates and Relative Color Strength of Reactive Dye Influenced by Fabric GSM and Dye Concentration, *International Journal of Research in Engineering and Technology (IJRET)*, eISSN: 2319-1163 | pISSN: 2321-7308, Vol: 4, No. 2, pp. 192-197, February 2015. [ Impact factor(ISRA): 2.375, Global impact factor: 0.567)
- Investigate the Relation Among Thickness, Relative Porosity and Air Permeability of Different Types of Knitted Fabrics (*International Journal of Current Engineering and Technology*, VOL:5, Issue 6 pp3907-3910

## **Md. Reasat Aktar Arin**

### **Lecturer**

He is one of the inventors of BUTEX patent "SEAMLESS JUTE BAGS AND SACKS & THE METHOD THEREOF, PAT. NO. 382/2019, BD PAT. SERIAL NO. 1006510"

# **Faculty of Textile Chemicals Engineering**

There are three departments namely Department of Wet Process Engineering (WPE), Department of Dyes & Chemical Engineering (DCE), and Department of Environmental Science & Engineering (ESE) under this faculty. Initially the Department of WPE was the only member of this Faculty to produce competent graduates for textile finishing industries primarily for textile dyeing, printing, finishing industries. Meanwhile, the activities and requirements of the industry expanded a lot. The industry consume huge amount of dyes and chemicals every year, which may remitting out about \$1 billion within the couple of years. To prevent this remittance drainage Bangladesh needs to establish a number of dyes and chemicals manufacturing plants. Last couple of years, there some companies have been started the production units of dyes and chemicals, and others are in the pipeline. Besides, handling the environmental issues related to the textile industries are also another utmost requirements of the industry. Department of DCE and the Department of ESE were established to produce graduates with right knowledge and skills to deal these new needs of the industry. There is another department under this Faculty, Department of Textile Materials Engineering, is going to launch its program very soon targeting the unconventional textile materials and product development.

The target of the Faculty is to create the academic, technical and business leaders for today and tomorrow who will employ the skills sets of industrial processes and scientific advances. We believe the Faculty of TCE will be the key to create local industry to support a healthier, cleaner, greener and more efficient textile industry for sustainable development of the industry.

We welcome the talented and visionary teachers and students globally to be the part of our Faculty. We appreciate the multidisciplinary research environment where collaboration is the key; within the departments, faculties, universities and between the industry. The Faculty of TCE works aligning with the vision and mission of BUTEX to be the part of the centre of excellence for textile education and research for the benefit of our country and the society. I wish to thank you for visiting our Faculty.

**Dean**

**Prof. Dr. Ummul Khair Fatema**

**Faculty of Textile Chemical Engineering**

# Department of Wet Process Engineering

The department of Wet Process Engineering was founded in 1960, to meet the increasing demand of know how people in textile dyeing industries of Bangladesh. The graduates from this department obtained top-notch position in their professions. The department reflects the dream and commitment of BUTEX in engaging research activities and collaboration with industry. The academic learning of the department includes strong practical programs such as laboratory experiments, internships, in-house projects, joint projects with industries. The course curriculum embraces fibre-forming polymer engineering, fibre characterization, as well as wet treatment and coloration of different forms of textiles such as fibre, yarn, fabric, and garments, etc. and textile finishing that involved to improve aesthetic and service value of textile goods. The aim of the department is to promote employ-ability, entrepreneurship, leadership, research aptitude among the students to troubleshoot the industrial problems and developments of new technology without leaving footprint in environment and society.

## Vision

The department of Wet Process Engineering (WPE) envisions: To be a world-class premier academic entity recognized for excellence and innovation, research, education and services in the field of textile wet process engineering and technology.

## Mission

The following strategic characteristics and aspiration will enable the WPE department to realize its vision:

- Modernizing of existing education system and curriculum through incorporating outcome-based education system and curriculum along with highly skilled academicians and staff.
- Developing adequate infrastructure facilities to enable smooth running of academic program through ensuring quality.
- Graduating talented, broadly educated engineers to explore, exploit, utilize and conserve available resources for sustainable development of Textile sector.
- Conducting fundamental and applied quality research in the field of chemical processing of textiles like wet preparation, dyeing, printing, finishing and environmental issues related to textile wet treatments.
- Developing breakthrough technologies through local and global collaboration with industries and/or other institution.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Wet Process)

- Number of Seats: 80
- Number of Semester: 08 (6 months each)
- Total Credit: 166

### M. Sc. in Textile Engineering (Wet Process)

- Number of Seats: 15
- Number of Semester: 03 (6 months each)
- Total Credit: 36

### PhD in Textile Science & Engineering

#### Faculty Members

Dr. Engr. Md. Zulhash Uddin

**Professor & Head of the Department**

Dr. Sharfun Nahar Arju

**Professor**

Kawser Parveen Chowdhury

**Associate Professor**

Rasheda Begum Dina

**Associate Professor**

Dr. Shekh Md. Mamun Kabir

**Associate Professor**

Dr. Imana Shahrin Tania

**Associate Professor**

Piash Shakirul Islam

**Assistant Professor**

Md. Rashedul Islam

**Assistant Professor**

Mst. Tania Aktek

**Assistant Professor**

Emran Hossain

**Assistant Professor**

Solaiman Bin Ali

**Assistant Professor**

Md. Motakabbir Hasan (Tomal)

**Assistant Professor**

Rifat Jahan

**Assistant Professor**

Tabassum Ferdous

**Assistant Professor**

Tania Akther

Lecturer

Md. Shohag Babu

Lecturer

Sk. Mohammad Raafi

Lecturer

## Officer's

### **Wet Process Lab**

**Md. Hossain Shahid Shrwardi**

Senior Technical Officer (Textile)

**Md. Younus Ali**

Technical Officer (Textile)

**Md. Babul Akhtar**

Assistant Technical Officer

**Md. Mozammel Haque**

Assistant Technical Officer

# Publication & Research

## Dr. Engr. Md. Zulhash Uddin

### Professor

Dr. Zulhash has been published more than twenty of research article/paper during his service career at home and abroad. His interest is to contribute in generation of quality textile graduates and reduce the involvement of Foreigners' activities at textile industries in Bangladesh and hence improve unemployment problems at Home.

## Dr. Shekh Md. Mamun Kabir

### Associate Professor

|  |  |   |  |  |                           |
|--|--|---|--|--|---------------------------|
| Alkaline weight reduction and dyeing properties of black dope dyed poly(ethylene terephthalate) microfibre fabrics | Coloration Technology, Volume 133, Issue 3, Pages 209-217  | 28 February 2017, Country: UK                             | Shekh Md. Mamun Kabir, Joonseok Koh    | International Publication  |                           |
| 2.   | Investigation of alkaline hydrolysis of phthalimide-based azo dye and its application to after-treatment optimisation for high-fastness dyeing of polyesters | Coloration Technology, Volume 134, Issue 3, Pages 206-213 | 18 May 2018, Country: UK               | Shekh Md. Mamun Kabir, Minyoung Eom, Jieun Lee, Da Eun Chae, Sungchan Baek, Joonseok Koh | International Publication |
| 3.   | Effect of chelating agent in disperse dye dyeing on polyester fabric   | Fibers and Polymers, Volume 18, Issue 12, Pages 2315-2321 | 30 December 2017, Country: Switzerland | Shekh Md. Mamun Kabir, Joonseok Koh  | International Publication |
| 4.   | Application of Jackfruit Latex Gum as an Eco-  | Fibers and Polymers, Volume 19,                           | 26 November 2018,                      | Shekh Md. Mamun Kabir, Sung  | International Publication |

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|-----|---|---|-------------------------------------|---|---------------------------|
|     | friendly Binder to Pigment Printing   | Issue 11, Pages 2365-2371   | Country: Switzerland                | Dong Kim Joonseok Koh   |                           |
| 5.  | Novel Approach to Dye Polyethylene Terephthalate (PET) Fabric in Supercritical Carbon Dioxide with Natural Curcuminoid Dyes | Fibers and Textiles in Eastern Europe, Volume 27, Issue 3(135), Pages 65-70               | 20 April 2019, Country: Poland      | Shekh Md. Mamun Kabir, Md. Mahabub Hasan, Zulhash Uddin       | International Publication |
| 6.  | The use of natural <i>Areca catechu</i> dyes for silk and nylon and its halochromic effect                                  | The Journal of The Textile Institute, DOI: 10.1080/00405000.2019.1674542                  | 10 October 2019, Country: UK        | Shekh Md. Mamun Kabir, Avik Kumar Dhar & Maitry Bhattacharjee | International Publication |
| 7.  | A Comparative Study on Dyeing Properties of Hemp and Cotton Fiber   | European Scientific Journal, Volume 13, Issue 33, Pages 378-389                           | 10 November 2017, Country: Portugal | Shekh Md. Mamun Kabir, Rezaul Karim, Khayrul Islam            | International Publication |
| 8.  | Book Chapter: Dyeing Chemicals<br><br>Book Name: Chemistry and Technology of Natural and Synthetic Dyes and Pigments        | IntechOpen<br>DOI: 10.5772/intechopen.81438   | 30 November 2018, Country: UK       | Shekh Md. Mamun Kabir, Joonseok Koh                           | International Book        |
| 9.  | Synthesis of Mono Azo Disperse Dyes and Analysis of Dyeing Behavior with PET Fabric   | Bangladesh Journal of Textile Science & Engineering, Volume 1, Issue 1, Pages 7-12        | May, 2014                           | Shekh Md. Mamun Kabir, Zulhash Uddin, Joonseok Koh            | National Publication      |
| 10. | Disperse dyeing properties of (easy dyeable polyester)/spandex blend  | 17 <sup>th</sup> World Textile Conference AUTEX 2017<br>DOI:10.1088/1757-899X/254/8/08202 | 2017, Country: Greece               | M M Rahman, S M Mamun Kabir, H Kim and J Koh                  | International Conference  |

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| 11. | Dyeing Properties of (Polyethylene terephthalate)/ Poly (ethylene glycol) Block Copolymer Fibers   | 13 <sup>th</sup> Asian Textile Conference, ATC-2015                           | 3-6 November 2015,<br>Country: Australia        | Shekh Md. Mamun Kabir, Joonseok Koh                                      | International Conference  |
| 12. | Book Chapter: Sustainable Textile Processing by Enzyme Applications<br>Book Name: Biodegradation Technology of Organic and Inorganic Pollutants                    | IntechOpen<br>DOI: 10.5772/intechopen.97198                                   | 12 March 2021,<br>Country: UK                   | Shekh Md. Mamun Kabir, Joonseok Koh                                      | International Book        |
| 13. | Sustainable Low liquor ratio dyeing of Cotton with C.I. Reactive Blue 21 using dioctyl sodium sulfosuccinate   | Textile Research Journal, Volume 91, Issue 9-10, Pages 1083-1093              | 10 <sup>th</sup> November 2020,<br>Country: USA | Shekh Md. Mamun Kabir, Salauddin Sk, Joonseok Koh                        | International Publication |
| 14. | Effect of Resin Treatment on the Quality of Cotton Fabric Dyed with Reactive Dye   | Fibers and Textiles in Eastern Europe, Volume 26, Issue 1(127), Pages 102-107 | 28 February 2018,<br>Country: Poland            | Imana Shahrin Tania, Shekh Md. Mamun Kabir, Zulhash Uddin                | International Publication |
| 15. | The Influence of Natural UV-Absorber ( <i>Areca catechu</i> ) on the UV Protection and Antimicrobial Properties of Silk and Nylon Fabrics                          | Fibers and Polymers, Volume 22, Issue 2, Pages 382-386                        | 18 January 2021,<br>Country: Switzerland        | Shekh Md. Mamun Kabir, Avik Kumar Dhar Joonseok Koh                      | International Publication |
| 16. | Dyeing of Polyester with 4-Fluorosulfonylphenylazo-5-pyrazolone Disperse Dyes and Application of Environment-Friendly Aftertreatment for Their High Color Fastness | materials, MDPI Volume 12, Issue 24, Pages 4209                               | 14 December 2019,<br>Country: Austria           | Sanghyun Yoon, Byunghun Choi, Md. Morshedur Rahman, Santosh Kumar, Shekh | International Publication |



|     |  |  |   |   |                           |
|-----|--|--|---|---|---------------------------|
|     |  |  |   | Md. Mamun Kabir,<br>Joonseok Koh  |                           |
| 17. | Antimicrobial Performance of silver-copper-zeolite microparticle treated organic cotton fabric using versatile methods | Surface Innovations, Volume 11, Issue 4, Pages 223-230                     | 13 May 2022, Country: UK                | Salauddin Sk, Rony Mia, Ejajul Hoque, Bulbul Ahmed, Jawad Ibn-Amin, Shekh Md. Mamun Kabir, Sakil Mahmud | International Publication |
| 18. | Investigating the Functional and Comfort properties of Face Mask based on a Coolmax Blended Cotton Fabric              | Fibers and Textiles in Eastern Europe, Volume 30, Issue 3, Pages 102-110   | 12 October 2022, Country: Poland        | Shekh Md. Mamun Kabir, Md. Mahbub Hasan, AKM Mashud Alam  | International Publication |
| 19. | Fabrication of UV-Protective Polyester Fabric with Polysorbate 20 Incorporating Fluorescent Color                      | polymers, MDPI Volume 14, Issue 20, Pages 4366                             | 16 October 2022, Country: UK            | Salauddin Sk, Wasim Akram, Rony Mia, Jian Fang, Shekh Md. Mamun Kabir                                   | International Publication |
| 20. | Recovery of dyes and salts from highly concentrated (dye and salt) mixed water using nano-filtration ceramic membrane  | Heliyon, Volume 8, Issue 11, e11543  | 3 November, 2022                        | Shekh Md. Mamun Kabir, Hassan Mahmud, Harald Schoenberger   | International Publication |
| 21. | Bleaching of Jute-Cotton blend Fabric with peracetic acid for deep dyeing  | Journal of Fiber Science and Technology, Volume 77, Issue 4, Pages 146-156 | 2021, Country: Japan                    | Shekh Md. Mamun Kabir and J Koh   | International Publication |
| 22. | Fastness Properties Improvement of Fluorescent Pigments  | Fibers and Textiles, Volume 29, Issue 2, Pages 45-53                       | 10 August 2022, Country: Czech Republic | Md. Khyrul Islam, Shekh Md. Mamun Kabir, Md. Dulal Hosen, Md. Azharul Islam                             | International Publication |
| 23. | DBU-Intercalated $\gamma$ -titanium phosphate as a thermal latent catalyst in  | RSC Advances, Volume 2023, Issue   | 15 March 2023,                          | Ayumi Fujiwara, Hiroshi Furuya,   | International Publication |

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|-----|---|--|--|--|---------------------------|
|     | the reaction of glycidyl phenyl ether (GPE) and hexahydro-4-methylphthalic anhydride (MHPA) | 13, Pages 8630-8635  | Country: UK                                | Shekh Md. Mamun Kabir, Motohiro Shizuma, Atsushi Ohtaka, Osamu Shimomura |                           |
| 24. | Photofading mechanism of Reactive Blue Dyes on Cotton against Sunlight and Xenon Arc Lamp   | Journal of Textile & Apparel Technology & Management, Volume 11, Issue 4, Pages 1-14 | 1 <sup>st</sup> October 2020, Country: USA | Shekh Md. Mamun Kabir, SK Mohammad Raafi, Joonseok Koh                   | International Publication |
| 25. | Process Maximization of Salt Free Reactive Dyeing on Cotton Using Taguchi Approach          | Bioresources, Volume 18, Issue 3, Pages 4543-4557                                    | 15 May 2023, Country: USA                  | Shekh Md. Mamun Kabir  | International Publication |

## Md. Rashedul Islam

### Assistant Professor

|   |  |  |  |  |      |
|---|--|--|--|--|------|
| Smart and Multifunctional Fiber-Reinforced Composites of 2D Heterostructure-Based Textiles  | Marzia Dulal, <b>Md Rashedul Islam</b> , Saptarshi Maiti, Mohammad Hamidul Islam, Iftikhar Ali, Amr M. Abdelkader, Kostya S. Novoselov, Shaila Afroj, Nazmul Karim |  |  |  |      |
| Journal Name: Advanced Functional Materials, Wiley  |  |  |  |  |      |
| <a href="https://doi.org/10.1002/adfm.202305901">https://doi.org/10.1002/adfm.202305901</a> |  |  |  |  | 2023 |

|   |  |  |    |    |      |
|---|--|--|----|----|------|
| 2 | <p>Nanotechnology for High-Performance Textiles: A Promising Frontier for Innovation</p> <p>Journal Name: Chem Nano Mat, Wiley</p> <p><a href="https://doi.org/10.1002/cnma.202300205">https://doi.org/10.1002/cnma.202300205</a></p>  | <p>Md. Syduzzaman*, Abir Hassan, Habibur Rahman Anik, Mahin Akter, <b>Md Rashedul Islam*</b></p>                                 | -  | -  | 2023 |
| 3 | <p>Highly sensitive and extremely durable wearable e-textiles of graphene/carbon nanotube hybrid for cardiorespiratory monitoring</p> <p>Journal Name: iScience, Cell Press</p> <p><a href="https://doi.org/10.1016/j.isci.2023.106403">https://doi.org/10.1016/j.isci.2023.106403</a></p> | <p>Sirui Tan, Shaila Afroj,* Daiqi Li, <b>Md Rashedul Islam</b>, Jihong Wu, Guangming Cai, Nazmul Karim,*</p> <p>Zhong Zhao*</p> | 26 | 4  | 2023 |
| 4 | <p>Highly Scalable, Sensitive and Ultraflexible Graphene-Based Wearable E-Textiles Sensor for Bio-Signal Detection</p> <p>Journal Name: Advanced Sensor Research, Wiley</p> <p><a href="https://doi.org/10.1002/adsr.202200010">https://doi.org/10.1002/adsr.202200010</a></p>             | <p>Sirui Tan, <b>Md Rashedul Islam</b>, Huixuan Li, Anura Fernando, Shaila Afroj,* Nazmul Karim*</p>                             | 1  | 1  | 2022 |
| 5 | <p>Smart Electronic Textile-Based Wearable Supercapacitors</p> <p>Journal Name: Advanced Science, Wiley</p> <p><a href="https://doi.org/10.1002/advs.202203856">https://doi.org/10.1002/advs.202203856</a></p>   | <p><b>Md Rashedul Islam</b>, Shaila Afroj,* Kostya S. Novoselov, Nazmul Karim*</p>   | 9  | 31 | 2022 |
| 6 | <p>Sustainable Fiber-Reinforced Composites: A Review</p> <p>Journal Name: Advanced Sustainable Systems</p> <p><a href="https://doi.org/10.1002/adsu.202200258">https://doi.org/10.1002/adsu.202200258</a></p>  | <p>Saptarshi Maiti, <b>Md Rashedul Islam</b>, Mohammad Abbas Uddin, Shaila Afroj, Stephen J. Eichhorn, Nazmul Karim*</p>         | 6  | 11 | 2022 |

|    |   |  |    |   |      |
|----|---|--|----|---|------|
| 7  | <p>Fully printed and multifunctional graphene-based wearable e-textiles for personalized healthcare applications</p> <p>Journal Name: iScience, Cell Press</p> <p><a href="https://doi.org/10.1016/j.isci.2022.103945">https://doi.org/10.1016/j.isci.2022.103945</a></p>                             | <p><b>Md Rashedul Islam,</b> Shaila Afroj,* Christopher Beach, Mohammad Hamidul Islam, Carinna Parraman, Amr Abdelkader, Alexander J. Casson, Kostya S. Novoselov, and Nazmul Karim*</p> | 25 | 3 | 2022 |
| 8  | <p>The effect of surface treatments and graphene-based modifications on mechanical properties of natural jute fiber composites: A review</p> <p>Journal Name: iScience, Cell Press</p> <p><a href="https://doi.org/10.1016/j.isci.2021.103597">https://doi.org/10.1016/j.isci.2021.103597</a></p>     | <p>Mohammad Hamidul Islam, <b>Md Rashedul Islam,</b> Marzia Dulal, Shaila Afroj, Nazmul Karim*</p>   | 25 | 1 | 2022 |
| 9  | <p>A Comparative analysis of polyester fabric properties between dyed with Indigo and with disperse dyes</p> <p>Journal Name: Journal of Textile Science and Technology</p> <p><a href="http://doi.org/10.4236/jtst.2021.72007">http://doi.org/10.4236/jtst.2021.72007</a></p>                        | <p><b>Md Rashedul Islam,*</b> Ummul Khair Fatema</p>   | 7  | 2 | 2021 |
| 10 | <p>Influence of Natural and Artificial Mordants on the Dyeing Performance of Cotton Knit Fabric with Natural Dyes</p> <p>Journal Name: IOSR Journal of Polymer and Textile Engineering (IOSR-JPTE)</p> <p><a href="http://doi.org/10.9790/019X-06010106">http://doi.org/10.9790/019X-06010106</a></p> | <p>Shuvo Brahma,* <b>Md Rashedul Islam,</b> Salima Sultana Shimo, Rasheda Begum Dina</p>   | 6  | 1 | 2019 |
| 11 | <p>Role of Mercerizing Condition on Physical and Dyeing Properties of Cotton Knit Fabric Dyed with Reactive Dyes</p>  | <p>Shuvo Brahma,* <b>Md Rashedul Islam,</b> Rasheda Begum Dina</p>   | 8  | 4 | 2018 |

|    |  |   |   |    |      |
|----|--|---|---|----|------|
|    | Journal Name: International Journal of Current Engineering and Technology, Inpressco   |   |   |    |      |
| 12 | Efficacy of whip roller setting on physical attributes of denim fabric<br><br>Journal Name: Fashion and Textiles, Springer<br><br><a href="https://doi.org/10.1186/s40691-017-0106-0">https://doi.org/10.1186/s40691-017-0106-0</a>          | Fariat Islam Farha, Fahmida Siddiqa, <b>Md Rashedul Islam</b>     | 4 | 21 | 2017 |
| 13 | Effect of Chemical Concentration on the Pretreatment Performance of Cotton Woven Fabric<br><br>Journal Name: International Journal of Current Engineering and Technology, Inpressco  | <b>Md Rashedul Islam</b> , Fariat Islam Farha                     | 6 | 1  | 2016 |
| 14 | Evaluating the performance of alkali reductive stripping process of reactive dyes<br><br>Journal Name:<br><br>Journal of Fashion Technology and Textile Engineering  | Mohammad Gias Uddin, <b>Md Rashedul Islam</b>                     | 3 | 2  | 2015 |
| 15 | Effects of reductive stripping of reactive dyes on the quality of cotton fabric<br><br>Journal Name: Fashion and Textiles, Springer<br><br><a href="https://doi.org/10.1186/s40691-015-0032-y">https://doi.org/10.1186/s40691-015-0032-y</a> | Mohammad Gias Uddin,* Md. Mazedul Islam, <b>Md Rashedul Islam</b> | 2 | 8  | 2015 |

## **Mst. Tania Aktek**

### **Assistant Professor**

Salt free dyeing of cotton fiber-A critical Review” published in International Journal of Textile Science p-ISSN: 2325-0119, e-ISSN: 2325-010, 2017, Volume: 6, Issue: 2, pages: 21-33.

## **Sk. Mohammad Raafi**

### **Lecturer**

1. Raafi, S.M., Arju, S.N., Asaduzzaman, M., Khan, H.H. and Rokonuzzaman, M., 2023. Eco-friendly scouring of cotton knit fabrics with enzyme and soapnut: An alternative to conventional NaOH and synthetic surfactant based scouring. *Heliyon*.
2. Raafi, S.M. and Fatema, U.K., 2021. Implementation of Pre-Heating System in Stenters for Improving Machine Performance and Increasing Efficiency. *Journal of Textile Science and Technology*, 7(4), pp.143-151.
3. Kabir, S.M., Raafi, S. and Koh, J., 2020. Photofading Mechanism of Reactive Blue Dyes on Cotton against Sunlight and Xenon-arc lamp. *Journal of Textile & Apparel Technology & Management (JTATM)*, 11(4).

# **Department of Dyes and Chemical Engineering**

The Department of Dyes and Chemical Engineering (DCE), Bangladesh University of Textiles (BUTEX) is one of the most demandable subject in Textile Sector.. The mission of the undergraduate program is to develop students' understanding of the core scientific, mathematical, and engineering principles that form the foundation underlying these processes. The curriculum focuses on fibre-forming polymers, textile chemistry and chemical analysis, and the synthesis of dyes and chemicals. The department also focuses on applying chemicals and colourants in various textile processing such as pretreatment, dyeing, printing, finishing, and pollution control. The target is to create the academic, technical and business leaders for today and tomorrow who will employ the skills sets of industrial processes and scientific advances.

We aspire to create a unique multidisciplinary research environment where collaboration is the key; within the departments, faculties, and industries. The strength of DCE is its people, and we strongly welcome the very best staff, students and researchers from around the country and world to become part of our mission. We encourage exceptional and highly motivated students to consider our range of engaging and stimulating research opportunities to benefit our country and society. The department reflects the vision and commitment of BUTEX in engaging research activities and collaboration with the industry. Currently, the textile industry is at a critical junction – trying to add more value and localise the input. The chemical industry, with a market of almost \$1 billion USD, is mostly input dependent apart from some basic chemicals. It is foreseen that the local chemical industry for textile applications will flourish to reduce the cost and lead time. We believe a combination of Textile and chemical engineering is the key to making a better tomorrow and Bangladesh.

## **Vision**

Department of DCE strives to contribute in national and global through knowledge, research, and innovation in synthesis, separation, formulation, and applications of textile dyes and chemicals.

## **Mission**

- Modernization of existing Teaching-Learning system and curriculum through incorporating Outcome-based Teaching-Learning system and curriculum.
- Infrastructure and other necessary facilities such as digital classroom, labs and libraries will be developed to provide better teaching-learning and research environment.
- Develop a Quality Culture through Teaching-Learning, Staff Development, Student Activities and Management system.
- Promote Research and Innovation through strong industry linkage and collaboration with other local and global research and educational institutions.
- Active contribution in policy making within the University, Country and Global.

## Objectives

- To provide basic and in-depth knowledge and know-how to the students in the area of color chemistry, textile chemicals, process technology, and applications.
- To provide need-based quality education for the students to meet the industry requirements in local and global.
- To engage students in independent research design and personal development & management through a combination of multidisciplinary course works and research, in combination with seminar, assignment, competition, exhibition and other co-curricular activities.
- Promote students to link-up with local and global textile chemicals and dyestuffs manufacturing companies and industries so that the students can understand the real life application, effectiveness, effects & impacts, and problems.
- Nurture a motivating academic environment through exchange and research collaboration with local and international organizations and professionals.
- Planting social values & responsibilities, justice, environmental awareness, and ethics in the mind of students.

## Intended Learning Outcomes

- Know the basic concepts of synthesizing and formulizing the chemicals and colorants used in textile processing.
- Understand the properties and application of textile chemicals, colorants and auxiliaries.
- Know the effects and impacts of textile chemicals, colorants and auxiliaries on environment and ecology.
- Asses and analyze the nature, strength and purity of chemicals.
- Identify and analyze the root causes of problems and probable solutions by using analytical equipment and instruments.
- Comparing and characterizing existing methods, identifying flaws in existing methods, and designing or re-designing of the methods.
- Motivated graduates upholding social values & responsibilities, ethics & justice, and respect to laws and environment.
- Exercise the qualities of scholarly attainment and manners, sense of responsibility and accountability in the familial, professional, and, social environment.
- Demonstrate sound capacity to conduct independent research and deliver effective presentation.
- Extend the frontier of acquired knowledge through further independent learning, and, thus, add to existing knowledge bank.

## Degree Offered

### B. Sc. in Textile Engineering (Dyes & Chemicals)

- Number of Seats: 40
- Number of Semester: 08 (6 months each)
- Total Credit: 165

## PhD in Textile Science & Engineering



## Ongoing Research

- Development of eco-friendly natural dyeing process for cotton fabric by waste tea extract (memo no BUTEX/2021/RNE/009)
- Design and development of a laboratory prototype Machine to recycle plastic for filament extrusion
- The dye adsorption capability of Aluminium doped Cobalt-Manganese ferrites synthesised by sol-gel auto combustion methods
- Designing of a prototype carding machine (memo no BUTEX/2021/RNE/009 dated 23/98/2021 and বাটেবি/প্রশা:১৪০/২০১৬ dated 04/12/2021)
- Fragrance Extraction from recycled natural sources
- Designing and building prototype sample dyeing machine (UGC grant memo no 37-01-0000-073-04-018/2019 dated 11/03/2020)

## Faculty Members

Dr. Mohammad Forhad Hossain

**Professor & Head of the Department**

Dr. Mohammad Abbas Uddin Shiyak

**Assistant Professor**

Mustafijur Rahman

**Assistant Professor**

Dr. Sultana Bedoura

**Assistant Professor**

Nusrat Jahan

**Assistant Professor**

Kazi Sirajul Islam

**Assistant Professor**

Md Abul Kalam Aza

**Lecturer**

**Officer**

**Md. Rowshanuzzaman Kanon**

Assistant Technical Officer

# Publication & Research

**Dr. Mohd. Forhad Hossain**  
**Professor**

- 1) Hossain, M. and Rahman, M. (2021). Preparation and Characterization of the Electrospun Alginate Nanofibers, Journal of Textile Science and Technology.
- 2) Rahman, M., Uddin, MA.,Shibly, MMH., Hossain, NB., Hossain, MF. and Rigout, M. (2021). Synthesis and Characterisation of Azo-Based Dichlorotriazine Reactive Dye with Halochromic Behaviour, Tekstilec, University of Ljubljana.
- 3) Md. Mahbubur Rahman, Mohammad Forhad Hossain and Mustafijur Rahman, (2021). Effectiveness of Carbon Electrode Electrolysis Effluent Treatment System in Textile Dyeing, Journal of Textile Science & Fashion Technology.
- 4) Mustafijur Rahman, Vinit Viduran, Kazi Sirajul Islam, Adnan Maroof Khan, Nusrat Binta Hossain, Mohammad Forhad Hossain and Mohammad Abbas Uddin, (2021). Development of Jute Hybrid Composites for use in the Car Panels, Global Journal of Engineering Sciences.
- 5) Md. Moynul Hassan Shibly, Mohammad Forhad Hossain, Mustafijur Rahman, Md. Golam Nur (2019). Development of Cost-Effective Menstrual Absorbent Pad with EcoFriendly Antimicrobial Finish, European Scientific Journal.
- 6) Hossain, M. F. (2019). Wound Care: A Material Solution, Encyclopedia of Renewable and Sustainable Materials; ELSEVIER.
- 7) Md. Saiful Hoque , Samit Chakraborty, Md. Forhad Hossain , Md. Masud Alam, (2018). Knit Fabric Scouring with Soapnut: A Sustainable Approach Towards Textile Pre-Treatment, American Journal of Environmental Protection.
- 8) Hossain, M. F. & Gong, R. H. (2016). Silver-loaded Antibacterial Alginate Nanofibres: Preparation and characterization. Journal of Fashion Technology & Textile Engineering.
- 9) Hossain, M. F., Gong, R. H. & Rigout, M. (2016). Effect of polymer concentration on electrospinning of hydroxypropyl- $\beta$ -cyclodextrin/PEO nanofibres. The Journal of The Textile Institute.
- 10) Hossain, M. F., Gong, R. H. & Rigout, M. (2015). Preparation and characterization of poly(ethylene oxide)-loaded hydroxypropyl- $\beta$ -cyclodextrin nanofibres. Polymers for Advanced Technologies.
- 11) Hossain, M. F., Gong, R. H. & Rigout, M. (2015). Optimization of the process variables for electrospinning of poly(ethylene oxide)-loaded hydroxypropyl- $\beta$ -cyclodextrin nanofibres. The Journal of The Textile Institute.
- 12) Hossain, M. F. (2009). CSR – its influence on Bangladesh textile and apparel industry, Textile Asia.

## **PATENT:**

Mohammad Forhad HOSSAIN, Hugh R. GONG, Lucy BALLAMY (2016). ANTIBACTERIAL NANOFIBRES, US Patent WO2016176495A1.

# Dr. Mohammad Abbas Uddin Shiyak

## Assistant Professor

### Research/Project:

#### Ongoing Research/Study/Project:

- Co-Author (2021), National Chemical Management Guideline for Textile and RMG Industry, commissioned by BGMEA and Ministry of Commerce in association with GIZ.
- Principal Investigator (2018-2022), Designing of a prototype carding machine (memo no BUTEX/2021/RNE/009 dated 23/98/2021 and বাটেবি/প্রশা:/১৪০/২০১৬ dated 04/12/2021)
- Principal Investigator (2020-2021), Designing and building prototype sample dyeing machine (UGC grant memo no 37-01-0000-073-04-018/2019 dated 11/03/2020),
- Principal Researcher (2021-2022), Design and development of a laboratory prototype Machine to recycle plastic for filament extrusion (memo no BUTEX/2021/RNE/009)
- Co-Researcher (2021-2022), Development of eco-friendly natural dyeing process for cotton fabric by waste tea extract (memo no BUTEX/2021/RNE/009)
- Co-Researcher (2021-2022), The dye adsorption capability of Aluminium doped Cobalt-Manganese ferrites synthesised by sol-gel auto combustion methods (memo no BUTEX/2021/RNE/009)
- Principal Investigator (2019-2021), Fragrance Extraction from recycled natural sources, Research fund grant by BUTEX, University Grants Commission, Bangladesh,
- Team leader (2021-2022) Market Assessment on RMG sector to strengthen its backward linkage and complexity, commissioned by BGMEA under IFC grant

#### Completed Research/Study/Project:

- Team lead for 'Baseline macro-level information on the chemical and textile industry in Bangladesh' for ZDHC Zero Discharge of Hazardous Chemicals (ZDHC) under UN GEF project
- Research Team lead, Apparel Automation Pulse (Nov 2020 to May 2021) for Shimmy Technologies and Better work Bangladesh, ILO, pilot study for 30 Apparel factories.
- Team leader (2021), Sector Assessment: Leather Goods SMEs of Bangladesh leather B-SkillFUL Phase II Programme, funded by the Embassy of Switzerland in Bangladesh and implemented by Swisscontact
- Postdoctoral Research Associate (Feb 2021- July 2021), Manchester Fashion Institute, Manchester Metropolitan University, UK QR Global Challenges Research Fund 2020/21, Research Capacity Building and Promoting Sustainable Fashion and Textiles Practices in Bangladesh: 1) Zero-Waste apparel production and 2) Material sustainability, circular economy, Life Cycle Analysis (LCA).
- Principal Investigator (2020-2021), Design and Develop a ReKard machine to produce rope from recycled clothing, A commercial contract

## Consultancy Work:

- Technical Expert (2019-2021) for ‘To Produce a Video Documentary on the Current Status of Textile and Textile Education Sector in Bangladesh and Government’s Success in Developing this Sectors’ commissioned by Ministry of Textile and Jute
- ‘Resource Efficiency Assessment of 7 factories under proposed CETP in Narayanganj’ (2021) funded by Bangladesh Knit Dyeing and Exporters Association and DOHWA, Korea.
- ‘Advanced Chemical Management program at their 5 supplier factories’ (2021) for Gueldenpfennig
- Expert (Oct 2020 to May 2021) on Sound chemicals management e-learning concept with Adelphi and Beuth University of Applied Sciences Berlin, GIZ Fostering and Advancing Sustainable Business and Responsible Industrial Practices in the Clothing Industry in Asia (FABRIC)
- Expert (2021-2023) for FABRIC project (GIZ), for Knowledge on Wastewater Recycling and Reuse in Textile Industry (Workshop and Manual), waste management, ETP operator training.
- Expert (2021-2023) for GIZ Sustainability in the Textile and Leather Sector (STILE) for Environmental Management with a focus on audits in the Textile sector for Laboratory manual and ETP training for operator
- Development of online learning on ‘Chemical Management’ for Hawassa University in Ethiopia, (Nov 2020 to March 2021) for Institute of Distance Learning, Beuth University of Applied Sciences Berlin
- Consultant, Advanced Chemical management program of Gueldenpfennig for five supplier factories (Feb 2021 to Nov 2021)
- National ESIA in RMG Expert (Nov 2020 to March 2021), in the Team of IPC and CES, Design Study to promote Energy Efficiency in the Industry in Bangladesh, designing credit line for 80 million Euro, provided by KfW to Bangladesh in highly energy-intensive industries such as RMG & Textile, cement, steel, chemical fertiliser, paper & pulp, glass, food & beverages, telecom, and other common technologies.
- Technical expert for Webinar held on “Investment Opportunity in ETP upgradation and ZLD measures in Ready-Made Garments (RMG) sector’s value chain under SREUP Credit Line.” by GIZ under its SSREU project. 16 January 2021.
- Technical expert for Webinar held on “Investment Opportunity in Energy Efficiency measures in Ready-Made Garments (RMG) sector’s value chain under SREUP Credit Line.” by GIZ under its SSREU project. 11 January 2021.
- Technical expert (2019-2020), Reduce volume and hazardous level of sludge for selected textile factories (ETPsludge) in 5 factories of Bangladesh, for GIZ.
- Technical expert (2014-17), ‘Promoting In-depth Cleaner Production in the Textile Washing/Dyeing/Finishing Sector in Bangladesh’ for 35 factories, under IFC PaCT project, funded by the World Bank.

## LIST OF PUBLICATIONS:

### Journal Article Published:

- U. N. Haq, A Huraira, M. A. Uddin (2021), Physical characteristics of Typha elephantina Roxb. fibre (Hogla) for Textile Application, Journal of Textile Institute. <https://doi.org/10.1080/00405000.2021.1981020>
- T. M. Dip, M. A. Uddin, ASM Sayem et al. (2021), 3D Printing Technology for Textiles and Fashion, Textile Progress <https://doi.org/10.1080/00405167.2021.1978223>
- Uddin, M. A., Nazmul Karim, Shaila Afroj (2021), Environmental Impact of Single-Use Personal Protective Clothing <https://arxiv.org/abs/2109.01037>
- M. Rahman, V. Viduran, K. S., A. M. Khan, M. A. Uddin et al. Development of Jute Hybrid Composites for use in the Car Panels. Glob J Eng Sci. 7(3): 2021. GJES.MS.ID.000661.
- Rahman, M., Uddin, MA., Shibly, MMH., Hossain, NB., Hossain, MF. and Rigout, M., 2021. Synthesis and Characterisation of Azo-Based Dichlorotriazine Reactive Dye with Halochromic Behaviour. (Accepted) Tekstilec, 64(3). Publisher: Publisher University of Ljubljana, Faculty for Natural Sciences and Engineering.
- M. A. Uddin, Sayem, A.S.M. et. al (2020). Natural Indigo for Textiles: Past, Present, and Future. In: Hashmi, Saleem and Choudhury, Imtiaz Ahmed (eds.). Encyclopedia of Renewable and Sustainable Materials, vol. 2, pp. 803-809, Oxford: Elsevier. <https://doi.org/10.1016/B978-0-12-803581-8.11669-8>
- Broadbent, P. J., Carr, C. M., Rigout, M., Kistamah, N., Choolun, J., Radhakeesoon, C. L., Uddin, M. Abbas (2018) 'Investigation into the dyeing of wool with Lanazol and Remazol reactive dyes in seawater', Coloration Technology, 134(2), pp. 156–161. doi: 10.1111/cote.12329.
- M. M. K. Akter, U. N. Haq, M Hossain and M. A. Uddin (2021), Textile-Apparel Manufacturing and Material Waste Management in the Circular Economy- Conceptual Model to Achieve Sustainable Development Goals (SDG) 12 for Bangladesh under review
- M. A. Uddin, M. M. Rahman, M. A. Sayem et al. (2021), Natural Colourants for Textiles: A Review, under review
- Uddin, M. A., Datta. S., K. S. Afreen, S. Akter and A. Bandyopadhyay. Assessment of antimicrobial effectiveness of natural dyed fabrics. Bangladesh J. Sci. Ind. Res. 48(3), 179-184, 2013. DOI: <http://dx.doi.org/10.3329/bjsir.v48i3.17327>
- Datta, S\*, Uddin, M. A., K. S. Afreena and A. Bandyopadhyay. Antimicrobial effect of natural dyed fabrics. Journal of Pharmacy & Biological Sciences, IOSR, 2012)
- Uddin, M. A., Datta, S., S. K. Pramanik, M. Abdullah-Al-Shoeb. Natural adsorbents for dye effluent of high strength COD and their microbiological analysis. Chemistry Journal, UK, 2011, Volume 1, p29-35.
- Uddin, M. A., Z. Ahmed ,and S. Datta. Microbiological analysis of medical textiles and effectiveness of antimicrobial finished fabrics. Journal of Primeasia University Studies, 2011, Volume 1, No.1, p1-4
- Uddin, M. A., A. Bandyopadhyay, and S. Datta. Microbiological and Chemical Standardization of water treatment plant. Journal of Primeasia University Studies, 2011, Volume 1, No.1, p 35-42
- Uddin, M. A., A. Bandyopadhyay, and S. Datta. Microbiological and Chemical analysis of treated water from different textile zones around Dhaka city, Bangladesh. Journal of Primeasia University Studies, 2011, Volume 1, No.1, p 5-10
- Datta, S., M. A. Uddin, and A. Bandyopadhyay. Efficacy of antimicrobial finish on cotton fabrics.

Journal of Pure & Applied Microbiology, 2010, Volume 4, No. 2, p 513-516

- Uddin, M.A., Ahmed, Z., and Datta, S. Microbiological analysis of medical textiles and effectiveness of antimicrobial finished fabrics. J. Primeasia University. 1 (1): 1-4 (2011).
- Uddin. M.A., Md. I. Amin, M. H. Khan. Branding Bangladesh with Jute The Golden fiber of Bengal, Bangladesh Textile Today, Vol 1:4, 2008
- Uddin. M.A. Readymade garment industry of Bangladesh: How the industry is affected in post MFA period?, published in <http://www.love.com.au/PublicationsTLminisite/publications.htm>
- Uddin. M.A., Compliance or Non-compliance in Apparel industry of Bangladesh: at what cost?, Bangladesh Textile Journal, Vol 1:3, 69-72, 2008

## **Mustafijur Rahman**

### **Assistant Professor**

## **Research/Project**

### **Ongoing Research/Study/Project**

- Ph.D. Research on “Nanofibres Application in Medical Textiles (Nerve Regeneration)” under Center for Materials Innovation and Future Fashion, School of Fashion and Textiles at RMIT University, Australia.
- Co-Investigator “Development of a low cost wireless E-Textile integrated with pulse acquisition and vibration system for heart rate monitoring and body massaging facility” (2019-2021), Research fund grant by BUTEX, University Grants Commission, Bangladesh.
- Academic Supervisor “Implementation of IoT with RFID based tracking system in the garment production process” funded and organized by “Setting Transformation Blueprint Project-Bangladesh Textile Today” (2019-2021).
- Academic Supervisor “Developing a standard operating procedure (SOP) for 100% micro polyester yarn dyeing to improve right-first-time (RFT)%” funded and organized by “Setting Transformation Blueprint Project-Bangladesh Textile Today” (2019-2021).

### **Completed Research/Study/Project**

- Co-Researcher “Development of cost-effective menstrual absorbent pad with eco-friendly antimicrobial finish”. (2016-2019) Bangladesh University of Textiles (BUTEX).
- Co-Researcher “Development and morphological analysis of natural nanofibres for biomedical applications”. (2016-2020) Bangladesh University of Textiles (BUTEX).
- Principal-Researcher “Development of jute hybrid epoxy composites and its application in car panels”. (2016-2018) Bangladesh University of Textiles (BUTEX).
- Co-Researcher “Feasibility study of integrated desizing, scouring and bleaching of cotton woven fabric with H<sub>2</sub>O<sub>2</sub> and investigation of various physical properties with traditionally treated fabric”. (2016-2018) Bangladesh University of Textiles (BUTEX).
- Principal Researcher “Synthesis and application of reactive azo-based halochromic dyes for the implementation as pH sensor on wound dressings”, This research work conducted at the University of Manchester in collaboration with Colour Synthesis Solutions Ltd, UK. (2013-2014).

## LIST OF PUBLICATIONS:

### Journal Articles

- Rahman, M., Uddin, MA., Shibly, MMH., Hossain, NB., Hossain, MF. and Rigout, M., 2021. Synthesis and Characterisation of Azo-Based Dichlorotriazine Reactive Dye with Halochromic Behaviour. (Accepted) *Tekstilec*, 64(3), Publisher: Publisher University of Ljubljana, Faculty for Natural Sciences and Engineering.
- Rahman, M.M., Hossain, M.F. and Rahman, M., 2021. Effectiveness of Carbon Electrode Electrolysis Effluent Treatment System in Textile Dyeing. *Journal of Textile Science and Fashion Technology*, 8(3), Iris Publishers, USA. DOI: 10.33552/JTSFT.2021.07.000690
- Hossain, M.F. and Rahman, M., 2021. Preparation and Characterization of the Electrospun Alginate Nanofibers. *Journal of Textile Science and Technology*, 7(2), pp.91-100. DOI: 10.4236/jtst.2021.72008
- Ashraf, M., Rahman, M.H. and Rahman, M., 2021. Comparative Study on Antimicrobial Activity of Four Bangladeshi Medicinal Plants Used as Antimicrobial Finishes on Cotton Fabric. *Journal of Textile Science and Fashion Technology*, 8(3), Iris Publishers, USA. DOI: 10.33552/JTSFT.2021.08.000686
- Rahman, M., Viduran, V., Islama, K.S., Khan, A.M., Hossain, N.B., Hossain, M.F. and Uddin, M.A., 2021. Development of Jute Hybrid Composites for use in the Car Panels. *Global Journal of Engineering Sciences*, 7(3), Iris Publishers, USA. DOI: 10.33552/GJES.2021.07.000661
- Hossain, M.F., Rahman, M. and Ismail, M., 2021. Investigation of Physio-chemical Properties of the Natural Nanofibrous Functional Wound Dressing. (Under Review), *Journal of Natural Fibers*.
- Shibly, M. M. H., Hossain, M. F., Rahman, M. and Nur, M. G. (2019) "Development of Cost-Effective Menstrual Absorbent Pad with Eco-Friendly Antimicrobial Finish", *European Scientific Journal*, ESJ, 15(36), p. 438. Doi:10.19044/esj.2019.v15n36p438
- Hossain, M. F., Rahman, M. and Nur, M. G. (2017) "Ageing Effects of Na-Alginate/PEO Spinning Solution on Electrospinnability and Morphology of Nanofibres", *European Scientific Journal*, ESJ, 13(9), p. 56. DOI: 10.19044/esj.2017.v13n9p56
- Nur, M. G., Hossain, M. F. and Rahman, M. (2016) "Feasibility Study of Integrated Desizing, Scouring and Bleaching of Cotton Woven Fabric with H<sub>2</sub>O<sub>2</sub> and Investigation of Various Physical Properties with Traditionally Treated Fabric", *European Scientific Journal*, ESJ, 12(33), p. 26. DOI: 10.19044/esj.2016.v12n33p26
- Rahman, M., Rayyaan, R., Nur, M. G., Saaqib, S. N., & Shibly, M. M. H. (2015). An Exploratory Study on Modern 3D Computerised Body Scanning System and Various Types of Pattern Making Software's with Their Constructive Implementation in Apparel Industry. *European Scientific Journal*, ESJ, 11(15). <https://eujournal.org/index.php/esj/article/view/5619>
- Rahman, M. and Nur, M.G. (2014). Feasible Application of Modern Eco-Friendly Treatment of Wool Fabric before Coloration. *International Journal of Scientific and Research Publications*, 4(7), p.228. <http://www.ijsrp.org/research-paper-0714.php?rp=P312896>
- Rahman, M. and Nur, M.G., 2014. Recent Innovations in Yarn Technology: A Review. *International Journal of Scientific and Research Publications*, 4(6), p.7. <http://www.ijsrp.org/research-paper-0614.php?rp=P302771>

## **Dr. Sultana Bedoura**

### **Assistant Professor**

#### **Journal Articles**

- Xi, H.-W.; Bedoura, S.; Alam Sk, M.; Lim, K. H., Mono-, Di-, Tri- and Tetra-silacyclobutenes: Strain Energy, Hyperconjugation and Ring-Opening Reaction. Polyhedron. (Accepted)
- Bedoura, S. ; Xi, H.-W.; Goh, H.W.; Lim, K. H., DFT/TDDFT Investigation on Donor-Acceptor Triazole-based Copolymers for Organic Photovoltaics. Journal of Molecular Structure, 1248 (2022) 131406. . <https://doi.org/10.1016/j.molstruc.2021.131406>
- Xi, H.-W. ; Bedoura, S. ; Alam Sk, M.; Lim, K. H., The disappearance of the stable slightly bent isomer of germasilaallenes and the appearance of its cyclic isomer. Polyhedron 2020, 192(1), 114821. <https://doi.org/10.1016/j.poly.2020.114821>
- Bedoura, S. ; Xi, H.-W.; Lim, K. H., Hydrogen Bond nature in Formamide (CYHNH) complexes at their ground and low-lying excited states. Journal of Physical Organic Chemistry 2014, 27(3), 226. <https://doi.org/10.1002/poc.3270>
- Xi, H.-W.; Bedoura, S. ; Lim, K. H., Hydrogen bond and internal rotations barrier: DFT study on heavier group-14 analogues of formamide. Journal of Physical Organic Chemistry 2013, 26 (5), 420. <https://doi.org/10.1002/poc.3103>
- Tan, S. J.; Xi, H.-W.; Bedoura, S. ; Lim, K. H., DFT study of salicylaldehyde semicarbazone derivatives interaction with copper and the effect of aminic substituent . Inorganica Chimica Acta 2012, 384 (0), 29.<https://doi.org/10.1016/j.ica.2011.11.024>

## **Nusrat Jahan**

### **Assistant Professor**

#### **Research/Project:**

##### **Ongoing Research/Study/Project**

- Principal Researcher (2021-2022), The dye adsorption capability of Aluminium doped Cobalt-Manganese ferrites synthesised by sol-gel auto combustion methods (memo no BUTEX/2021/RNE/009)
- Co-Investigator (2019-2021), Fragrance Extraction from recycled natural sources, Research fund grant by BUTEX, University Grants Commission, Bangladesh

##### **Completed Research/Study/Project**

- Research Assistant (April 2021- July 2021), Manchester Fashion Institute, Manchester Metropolitan University, UK QR Global Challenges Research Fund 2020/21, Research Capacity Building and Promoting Sustainable Fashion and Textiles Practices in Bangladesh: 1) Zero-Waste apparel production and 2) Material sustainability, circular economy, Life Cycle Analysis (LCA).



## LIST OF PUBLICATIONS:

### Journal Article

- Hoque, M., Rashid, M.A. and Jahan, N., 2020. Adsorptive Removal of Methylene Blue Dye Coloration from Aqueous Solution by Adsorption Using Jute Wastages.
- Hashi, M.R. and Jahan, N., 2018. Analysis of Topmost Defects in Finishing Department to Ensure the Quality of Readymade Garments in the Apparel Industry

### Kazi Sirajul Islam

#### Assistant Professor

### Research/Project:

Ongoing Research/Study/Project

- Principal Author “A Review: Nanomaterials based Additive Manufacturing”

Completed Research/Study/Project

- Co-Researcher “Development of jute hybrid epoxy composites and its application in car panels”. (2016-2018) Bangladesh University of Textiles (BUTEX).
- Academic Supervisor “Comparative study between cationic cotton dyeing and conventional dyeing: An approach towards sustainability” funded and organized by “Setting Transformation Blueprint Project-Bangladesh Textile Today” (2019-2021).

### Md Abul Kalam Azad

#### Lecturer

### Research / Projects:

Co-Researcher: Current Scenario of Solar Energy Production in Bangladesh and Future Potentiality. <https://www.ijser.org/onlineResearchPaperViewer.aspx?Current-Scenario-of-Solar-Energy-Production-in-Bangladesh-and-Future-Potentiality.pdf>

Principal-Researcher: Analysis of Compressive Behavior of 3D Woven Carbon -Fiber Reinforced (IM7/Epoxy) Polymer Composites Used in Aerospace, (UoM). [https://www.researchgate.net/publication/350791438\\_Analysis\\_of\\_Compressive\\_Behaviour\\_of\\_3D\\_Woven\\_Carbon\\_-Fibre\\_Reinforced\\_IM7Epoxy\\_Polymer\\_Composites\\_Used\\_In\\_Aerospace](https://www.researchgate.net/publication/350791438_Analysis_of_Compressive_Behaviour_of_3D_Woven_Carbon_-Fibre_Reinforced_IM7Epoxy_Polymer_Composites_Used_In_Aerospace).

# Department of Environmental Science and Engineering

Department of Environmental Science and Engineering (DoESE) has opened in 2018 to meet the global challenges of present time. Right now the department offers bachelor program for the prospective students with a seat capacity of 40. Currently four batches of students have already been enrolled in four academic sessions.

## Vision

To evolve as a center of excellence in knowledge, research and innovation in the field of Environmental Sciences and Engineering focusing on textile sustainability to invigorate competent professionals capable of resolving national and global environmental challenges.

## Mission

- Incorporation of outcome based Teaching-Learning system and curriculum.
- Development of infrastructural and digital facilities for better provision, communication, research and maintaining congenial Teaching- Learning domain.
- Conducting need-based research on contemporary industrial environmental issues in association with industries and other educational institutions for innovation and rationalization.
- Organizing and synchronizing national and international events through conferences/workshops/ seminars/ symposia/training programs etc.
- Active contribution to the national and international environmental policy making process.
- Indoctrination of graduates with the necessary skills to be employable in industry, academia and other fields of the environmental development worldwide.
- Creating abilities in graduates to recognize ethical and professional responsibilities in engineering situations and make authenticated judgments.

## Graduate Attributes/Generic Skills:

After successful completion of the undergraduate program, a graduate will be able to:

- Apply his/her knowledge of basic sciences, textile technology, and management to identify and solve real-world problems in the textile industry.
- Perform actively and communicate effectively as a member in a multidisciplinary team.
- Use the techniques, skills, and modern engineering tools necessary for textile engineering practices including IT familiarity.
- Possess an understanding of professional, social and ethical responsibility.
- Acquire managerial and entrepreneurial skills.
- Able to become a Future leader in his/her position

- Become a life-long learner by seeking educational and development opportunities in his/her professional life such as pursuing certificate programs and advanced degrees.

## • Faculty Research

- Our 5 full time faculty members lead research efforts in Textile process control, Textile chemical management, pollution control, sustainable resource management, climate change, environmental economics and policy, environmental health, environmental toxicology, water resource management, waste management, environmental valuation and impact assessment, textile sustainability, bio-based materials development, nanomaterials, waste water treatment, waste to energy, microplastic analysis etc.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (ESE)

- Number of Seats: 40
- Number of Semester: 08 (6 months each)
- Total Credit: 166

### PhD in Textile Science & Engineering

## Faculty Members

Dr. Ummul Khair Fatema

Professor

Humayra Akhter Himu

Assistant Professor and Head of the Department

Shuvo Brahma

Assistant Professor

Md. Refat Hossain

Lecturer

Md. Morshedul Haque

Lecturer

# Publication & Research

## Dr. Ummul Khair Fatema Professor

|   |  |
|---|--|
| 1 | <u>Implementation of Pre-Heating System in Stenters for Improving Machine Performance and Increasing Efficiency</u> , Sk. Mohammad Raafi, <u>Ummul Khair Fatema</u> , Journal of Textile Science and Technology, Vol.7 No.4 2021 Scientific Research Publishers [DOI: <a href="https://doi.org/10.4236/jtst.2021.74012">10.4236/jtst.2021.74012</a> ]            |
| 2 | <u>A Comparative Analysis of Polyester Fabric Properties between Dyed with Indigo and with Disperse Dyes</u> , Md. Rashedul Islam, Ummul Khair Fatema, Journal of Textile Science and Technology, Vol.7 No.2, 2021 [DOI: <a href="https://doi.org/10.4236/jtst.2021.72007">10.4236/jtst.2021.72007</a> ]   |
| 3 | <u>Effect of mesh count on dot design and quality of screen printing in knit fabric</u> , Rasheda Begum Dina, Md Zulhash Uddin, Ummul Khair Fatema, Journal of Textile Engineering & Fashion Technology, Vol 6 (4), 2020 Medcrave [DOI: <a href="https://doi.org/10.15406/jteft.2020.06.00240">10.15406/jteft.2020.06.00240</a> ]                                |
| 4 | <u>Mesh opening effect on solid design and quality of screen printing in knit fabric</u> , Rasheda Begum Dina, Md Zulhash Uddin, Ummul Khair Fatema , Journal of Textile Engineering & Fashion Technology, Vol 6 (5) 2020, Medcrave [DOI: <a href="https://doi.org/10.15406/jteft.2020.06.00254">10.15406/jteft.2020.06.00254</a> ]                              |
| 5 | <u>Sustainable Supply Chain for sustainable Garments Industry: A case study at Ever Smart BD Ltd. in Bangladesh</u> , Aiasha Siddiqua, <u>Dr. Ummul Khair Fatema</u> , Dr. L M Boral, Faysal Ahammed Akash , International Conference on Sustaining Global Garments Industries, Ahsanullah University of Science and Technology, 2019 , 5 March Bangladesh       |
| 6 | <u>Carbon fiber: Progress in fabrication from polymeric precursor and it's microstructure for unique application</u> , <u>Dr. Ummul Khair Fatema</u> , 1 <sup>st</sup> national Conference on Sustainable Textile and Apparel Engineering, Department of Textile Engg., Mawlana Bhashani Science and Technology University, 2019 February 23, Bangladesh         |
| 4 | <u>Sensitivity Analysis of Vinylsulphone and Monochlorotriazine/Vinyl Sulphone Reactive Groups of Reactive Dyes in Dyeing</u> , Sanjida Sultana, <u>Dr. Ummul Khair Fatema</u> Md. Aminul Islam, Journal of Polymer and Textile Engineering, Volume 5, Issue 2, PP 08-15, 2018 [DOI: <a href="https://doi.org/10.9790/019X-05020815">10.9790/019X-05020815</a> ] |
| 7 | <u>Performance Evaluation of Stripping Agents on Bi-Functional Reactive Dyes</u> , Nayon Chandra Ghosh, <u>Dr. Ummul Khair Fatema</u> , Afsana Munni , American Journal of Engineering Research (AJER), Volume-7, Issue-2, pp-250-258, 2018  |
| 8 | <u>Sensitivity Analysis of Vinyl Sulphone And Bis Monochlorotriazine Reactive Groups of Reactive Dyes</u> , Sanjida Sultana, <u>Ummul Khair Fatema</u> , Md. Aminul Islam, European Scientific Journal , Vol.12 (18) , 337-346, 2016 ESI, Portugal [DOI: <a href="https://doi.org/10.19044/esj.2016.v12n18p337">10.19044/esj.2016.v12n18p337</a> ]               |
| 9 | <u>Influence of heat treatment conditions on the structure of hollow carbon fibers prepared from solid PVA fibers using iodine pretreatment</u> , <u>Ummul Khair Fatema</u> , Yasuo Gotoh, Journal of Materials Science, 49(3), 1049-1057, 2014 Springer, USA [DOI: <a href="https://doi.org/10.1016/j.carbon.2011.01.048">10.1016/j.carbon.2011.01.048</a> ]    |

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|----|--|
| 10 | A new electroless Ni plating procedure of iodine-treated aramid fiber, <u>Ummul Khair Fatema</u> , Yasuo Gotoh, <i>Journal of Coatings Technology &amp; Research</i> , 10(3), 451-425, 2013, Springer, USA [https://doi.org/10.1007/s11998-012-9441-7]   |
| 11 | Iodine-aided palladium-free catalyzation process for durable electroless nickel plating on Kevlar® fiber, <u>Ummul Khair Fatema</u> , Yasuo Gotoh, <i>Surface &amp; Coatings Technology</i> , 206, 3472–3478, 2012, Elsevier B.V. Netherlands [https://doi.org/10.1016/j.surfcoat.2012.02.014]                                     |
| 12 | Fabrication of carbon fibers from electrospun poly(vinyl alcohol) nanofibers, <u>Ummul Khair Fatema</u> , Ahmed Jalal Uddin, Keita Uemura, Yasuo Gotoh, <i>Textile Research Journal</i> , 81(7), 659–672, 2011, Sage USA [DOI:10.1177/0040517510385175]  |
| 13 | Iodine-aided fabrication of hollow carbon fibers from solid poly(vinyl alcohol) fibers, <u>Ummul Khair Fatema</u> , Chiemi Tomizawa, Masaru Harada, Yasuo Gotoh, <i>Carbon</i> 49, 2158-2161, 2011, Elsevier B.V. Netherlands [https://doi.org/10.1016/j.carbon.2011.01.048]   |
| 14 | Highly adhesive metal plating on Zylon® fiber via iodine pretreatment, <u>Ummul Khair Fatema</u> , Yasuo Gotoh, <i>Applied Surface Science</i> 258, 883– 889, 2011, Elsevier B.V., Netherlands [https://doi.org/10.1016/j.apsusc.2011.09.020]  |
| 15 | Metal plating on high performance fibers using iodine, <i>Fiber Preprints</i> , <u>Ummul Khair Fatema</u> , T Ishikawa, Yasuo Gotoh, Japan, 65 (1), 243, 2010, Japan   |
| 16 | Functionalization of inert textile fibers from polyester and polyolefin's by textile wet processing, <u>Ummul khair Fatema</u> , Volker Rossbach, Rolf-Dieter Hund, Yasuo Gotoh, <i>The 2nd Int. Students Joint Symposium on High-tech Fiber Engg.</i> , Nano Fusion Research Group, Shinshu University, Japan, 20-23, 2008, Japan |

## Humayra Akhter Himu

### Assistant Professor

1. Smriti, S.A., Haque, A.N.M.A., Khadem, A.H., Siddiq F., Rahman A.N.M.M., Himu H.A., Farzana N., Islam M.A., Naebe M. Recent developments of the nanocellulose extraction from water hyacinth: a review. *Cellulose*(2023). <https://doi.org/10.1007/s10570-023-05374-7>
2. Dhar, A.K., **Himu, H.A.**, Bhattacharjee, M. *et al.* Insights on applications of bentonite clays for the removal of dyes and heavy metals from wastewater: a review. *Environ Sci Pollut Res* **30**, 5440–5474 (2023). <https://doi.org/10.1007/s11356-022-24277-x>
3. Nusrat Jahan, Jannatul Ferdush, Sraboni Ahmed, **Humayra Akhter Himu**, Iffat Ara (2022). Sustainable Dyeing of Jute Fabric with Natural Dye Sources by Cold Pad Batch Technique. *Journal of Natural Science and Textile Technology*: 1 (1), Vol.1 (1), 35-43, ISSN: 2789-9411. <http://182.160.97.198:8080/xmlui/handle/123456789/1417>
4. Rafid A. Khan, Md. M. Hasan Jibon, **Humayra A. Himu**, S. Siddika, Abu Mohammad Azmal Morshed and Mohammad Forhad Hossain. Study of the Effectiveness of Water Hyacinth on Textile Dye-House Effluent Treatment: An Eco-friendly Approach. *IOSR Journal of*

## Md. Refat Hossain

### Lecturer

#### International Journals:

1. **Hossain, M. R.**, Khalekuzzaman, M., Kabir, S. B., Islam, M. B., & Bari, Q. H. (2022). Enhancing faecal sludge derived biocrude quality and productivity using peat biomass through co-hydrothermal liquefaction. *Journal of Cleaner Production, Elsevier* 130371. **Q1** <https://doi.org/10.1016/j.jclepro.2022.130371>
2. **Hossain, Md. R.**, Khalekuzzaman, M., Bin Kabir, S., Islam, Md. B., & Bari, Q. H. (2022). Production of light oil-prone biocrude through co-hydrothermal liquefaction of wastewater-grown microalgae and peat. *Journal of Analytical and Applied Pyrolysis, Elsevier*, 161, 105423. **Q1** <https://doi.org/10.1016/j.jaap.2021.105423>
3. Islam, Md. B., Khalekuzzaman, M., Kabir, S.B., **Hossain, Md. R.**, Alam, Md. A., (2022). “Substituting microalgal biomass with faecal sludge for high-quality biocrude production through co-liquefaction: A sustainable biorefinery approach”. *Fuel Processing Technology, Elsevier*, 225, 107063. **Q1** <https://doi.org/10.1016/j.fuproc.2021.107063>
4. Kabir, S.B., Khalekuzzaman, M., Islam, M.B., **Hossain, M.R.**, (2022). “Performance optimization of organic solid waste and peat co-liquefaction mechanism for processing sustainable biocrude” *Fuel Processing Technology, Elsevier*, 231, 107234. **Q1**, <https://doi.org/10.1016/j.fuproc.2022.107234>
5. Islam, M.B., Khalekuzzaman, M., Kabir, S.B., **Hossain, M.R.**, (2022). “Shrimp waste-derived chitosan harvested microalgae for the production of high quality biocrude through hydrothermal liquefaction” *Fuel, Elsevier*, 320, 123906, **Q1**, <https://doi.org/10.1016/j.fuel.2022.123906>
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2. Islam, Md. B., Khalekuzzaman, M., Kabir, S. B., & **Hossain, Md. R.** (2023). Characterization of chitosan extracted from shrimp shell waste and its utilization as a flocculant for harvesting of microalgae. *AIP Conference Proceedings*, 2713(1), 060015. <https://doi.org/10.1063/5.0129839>

3. **Hossain, M. R.**, Khalekuzzaman, M., Bari, Q. H., Kabir, S. B., & Islam, M. B. (2022). "Characterizations of peat biomass for subsequent thermochemical conversion" *6th International Conference on Civil Engineering for Sustainable Development (ICCESD 2022)*, 10~12 February, KUET, Khulna, Bangladesh (ISBN: 978-984-35-1972-6)
4. Islam, Md. B., Khalekuzzaman, M., Kabir, S.B., **Hossain, Md. R.** "Characterization of Chitosan Extracted from Shrimp Shell Waste and Its Utilization as A Flocculant for Harvesting of Microalgae" *6th International Conference on Civil Engineering for Sustainable Development (ICCESD 2022)*, 10~12 February, KUET, Khulna, Bangladesh (ISBN: 978-984-35-1972-6)
5. **Hossain, M. R.**, and Hassan, K. M. (2019). "Risk Assessment of Solid Waste Disposal on Groundwater Quality Around Rajbandh Dumping Site", *Proceedings of the 6<sup>th</sup> International Conference on Integrated Solid Waste & Faecal Sludge Management in south-Asian Countries (WasteSafe)*, KUET, (ISBN: 978-984-34-6151-3), pp. 35-36
6. **Hossain, M. R.**, and Hassan, K. M. (2020). "Statistical and GIS Based Analysis of Physicochemical Parameters of Groundwater Samples Around Rajbandh Dumping Site," *5th International Conference on Civil Engineering for Sustainable Development (ICCESD 2020)*, 7~9 February 2020, KUET, Khulna, Bangladesh, pp.144

## Md. Morshedul Haque

### Lecturer

#### Research

Google Scholar: <https://scholar.google.com/citations?user=Xw6DZW8AAAAJ&hl=en>  
 ResearchGate: <https://www.researchgate.net/profile/Md-Haque-115>  
 Orcid: <https://orcid.org/0000-0001-9799-6948>

#### Profile

1. Miah, O., Roy, A., Sakib, A.A., Niloy, M.M., **Haque, M.M.**, Shammi, Tareq, S.M. (2023). Diurnal and seasonal variations of pCO<sub>2</sub> and fluorescent dissolved organic matter (FDOM) in different polluted lakes. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-023-28878-y>
2. Parvin, F., Niloy, N.M., **Haque, M.M.**, Tareq, S.M. (2023). Activated carbon as potential material for heavy metals removal from wastewater. *Emerging Techniques for Treatment of Toxic Metals from Wastewater*, 117– <https://doi.org/10.1016/B978-0-12-822880-7.00005-4>
3. Choudhury, T.R., Ferdous, J., **Haque, M.M.**, Rahman, M.M., Quraishi, S.B., Rahman, M.S. (2022). Assessment of heavy metals and radionuclides in groundwater and associated human health risk appraisal in the vicinity of Rooppur nuclear power plant, Bangladesh. *Journal of Contaminant Hydrology*, 251, 104072. <https://doi.org/10.1016/j.jconhyd.2022.104072>
4. **Haque, M.M.**, Nupur, F.Y., Parvin, F, Tareq, S.M. (2022). Occurrence and characteristics of microplastic in different types of industrial wastewater and sludge: A potential threat of emerging pollutants to the freshwater of Bangladesh. *Journal of Hazardous Materials Advances*, 8, 100166. <https://doi.org/10.1016/j.hazadv.2022.100166>
5. Nahin, M., Shammi, M., **Haque, M.M.**, Tareq, S.M. (2022). Biogeochemistry of the dissolved organic matter (DOM) in the estuarine rivers of Bangladesh–Sundarbans under different anthropogenic influences. *Heliyon*, 8, e10228. <https://doi.org/10.1016/j.heliyon.2022.e10228>

6. **Haque, M.M.**, Begum, M.S., Nayna, O.K., Tareq, S.M., Park, J.H. (2022). Seasonal shifts in diurnal variations of pCO<sub>2</sub> and O<sub>2</sub> in the lower Ganges River. *Limnology and Oceanography Letter*. <https://doi.org/10.1002/lol2.10246>
7. **Haque, M.M.**, Sultana, S., Niloy, N.M., Quraishi, S.B., Tareq, S.M. (2022). Source apportionment, ecological and human health risks of toxic metals in road dust of densely populated capital and connected major highway of Bangladesh. *Environmental Science and Pollution Research*, 29: 37218–37233. <https://doi.org/10.1007/s11356-021-18458-3>
8. Nahin, M., Shammi, M., **Haque, M.M.**, Tareq, S.M. (2022). Investigating dissolved organic matter dynamics in the downstream reaches of the Ganges and Brahmaputra Rivers using fluorescence spectroscopy. *Frontiers in Earth Science*. <https://doi.org/10.3389/feart.2022.821050>
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10. Parvin, F., **Haque, M.M.**, Tareq, S.M. (2022). Recent status of water quality in Bangladesh: A systematic review, meta-analysis and health risk assessment. *Environmental Challenges*, 6: 100416. <https://doi.org/10.1016/j.envc.2021.100416>
11. Rahman, M., **Haque, M.M.**, Tareq, S.M. (2021). Appraisal of groundwater vulnerability in South-Central part of Bangladesh using DRASTIC model: An approach towards groundwater protection and health safety. *Environmental Challenges*, 5: 100392. <https://doi.org/10.1016/j.envc.2021.100391>
12. Niloy, N.M., **Haque, M.M.**, Tareq, S.M., (2021). Characterization of dissolved organic matter at urban and industrial rainwater of Bangladesh by fluorescence spectroscopy and EEM-PARAFAC modelling. *Environmental Challenges*, 5: 100250. <https://doi.org/10.1016/j.envc.2021.100250>
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14. **Haque, M.M.**, Hossain, N., Zolly, Y.N., Tareq, S.M., (2021). Probabilistic health risk assessment of toxic metals in poultry chicken form the largest production areas of Dhaka, Bangladesh. *Environmental Science and Pollution Research*, 28: 51329–51341. <https://doi.org/10.1007/s11356-021-13534-0>
15. Niloy, N.M., **Haque, M.M.**, Tareq, S.M., (2021). Characteristics, Sources, and Seasonal Variability of Dissolved Organic Matter (DOM) in the Ganges River, Bangladesh. *Environmental Processes*, 8: 593–613. <https://doi.org/10.1007/s40710-021-00499-y>
16. **Haque, M.M.**, Niloy, N.M., Nayna, O.K., Quraishi, S.B., Fatema, K.J., Park, J.H., Kim, K.W., Tareq, S.M., (2020). Variability of Water Quality and Metal Pollution Index in the Ganges River, Bangladesh. *Environmental Science and Pollution Research*, 27: 42582–42599. <https://doi.org/10.1007/s11356-020-10060-3>
17. Niloy, N.M., **Haque, M.M.**, Tareq, S.M., (2020). Fluorescent whitening agents in commercial detergent: a potential marker of emerging anthropogenic pollution in freshwater of Bangladesh. *Environmental Nanotechnology, Monitoring & Management*, 15: 100419. <https://doi.org/10.1016/j.enmm.2020.100419>



18. Tareq, S.M., **Haque, M.M.**, Niloy, N.M. (2020). Comment on “Spatiotemporal variations of DOM components in the Kushi River impacted by a wetland” by Shafiquzzaman et al. 2020. *Environmental Science and Pollution Research*, 28: 4887–4888. <https://doi.org/10.1007/s11356-020-11098-z>
19. Akbor, M.A., Rahman, M.M., Bodrud-Doza, M., **Haque, M.M.**, Siddique, M.A.B., Ahsan, M.A., Uddin, M.K. (2020). Metal Pollution in Water and Sediments of the Buriganga River, Bangladesh: An Ecological Risk Perspective. *Desalination and Water treatment*, 193: 284-301. <https://doi.org/10.5004/dwt.2020.25805>
20. Bodrud-Doza, M., Islam, S.M.D., Hasan, M.T., Alam, F.M., Haque, M.M., Rakib, M.A., Asad, M.A., Rahman, M.A., (2019). Groundwater pollution by trace metals and human health risk assessment in central west part of Bangladesh. *Groundwater for Sustainable Development*, 9:10219. <https://doi.org/10.1016/j.gsd.2019.100219>
21. Bodrud-Doza, M., Bhuiyan, M.A.H., Islam, S.M.D., Rahman, M.S., **Haque, M.M.**, Fatema, K.J., Ahmed, N., Rakib, M.A., Rahman, M.A. (2019). Hydrogeochemical investigation of groundwater in Dhaka City of Bangladesh using GIS and multivariate statistical techniques. *Groundwater for Sustainable Development*, 8: 226-244. <https://doi.org/10.1016/j.gsd.2018.11.008>

# **Faculty of Textile Management & Business Studies**

Textile and garments is the largest export oriented sector in Bangladesh. The development of economy of Bangladesh and growth of export are highly dependent on the ability of textile industry to compete internationally with finest products. Cutting edge machinery maintained by skillful engineers are the most important prerequisites for perfect products.

**Dean**

**Prof. Dr. Md. Masum**

**Faculty of Textile Management  
and Business Studies**

## **Department of Textile Engineering Management**

The aim of Textile Engineering Management department is to produce highly competent multidisciplinary knowledge based textile graduates. The program is designed in such a way that one can be technically sound as a graduate engineer as well as can develop his managerial skills where both technical and managerial skills give him a strong base of his future engineering career. Currently, we are offering B.Sc in Textile Engineering Management, M.Sc. in Textile Engineering Management and MBA in Textiles. The undergraduate programs help students defining and solving managerial problems with fundamental concepts and practical demonstrations. Besides the basic textile engineering courses, we are focusing on fundamentals of management, marketing, accounting & finance, economics, product development, entrepreneurship, project development and supply chain management in Textile and Apparel industry. Our M.Sc in Textile Engineering Management is mixed mode program with an extensive research work for industrial & managerial problem solving and exploiting, innovating & discovering of Textile & Apparel business.

### **Vision**

To be a centre of excellence in education, research and professional services through the application of Textile Engineering Management within a global context.

### **Mission**

To graduate innovative and inquisitive Textile Engineers from the department of Textile Engineering Management, who are filled with strong moral virtues of their profession and are able to design, implement, manage and continuously improve systems and applications that are geared to identify and solve problems with technological, economic, legal and managerial dimensions in business, textile industry, government and non-profit settings.

### **Objectives**

- To nurture students with academic excellence through high quality teaching, research, case development, innovative courses and enlightenment of learning.
- Academic leadership in textile engineering education to prepare managers for diverse leadership roles in industry, business, academia and government enterprises.
- To provide managerial talent as well as textile knowledge with risk managing ability, passion for learning and creative thinking and, values in rapidly evolving economic and social environment.
- To establish research program in addressing national and international issues in areas of Textile Engineering Management.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Management)

- Number of Seats: 80
- Number of Semester: 08 (6 months each)
- Total Credit: 165

### M. Sc. in Textile Engineering (Management & Business Studies)

- Number of Seats: 15
- Number of Semester: 03 (6 months each)
- Total Credit: 36

### MBA in Textiles

- Number of Seats: 100
- Number of Semester: 04 (6 months each)
- Total Credit: 48

### PhD in Textile Science & Engineering

## FACULTY MEMBERS

**Dr. Md. Masum**  
**Professor**

Dr.Md.Ahashan Habib  
Professor & Head of the Department

Dr. Md. Syduzzaman  
Associate Professor

Dr. Md. Nurun Nabi  
Assistant Professor

Md. Shayekh Munir  
Assistant Professor

Md. Arif Iqbal  
Assistant Professor

Marzia Dulal  
Assistant Professor

Ahsan Habib  
Assistant Professor

Md. Hasan Sheikh  
Assistant Professor

Farjana Sakila  
Assistant Professor

Maen Md. Khairul Akter  
Assistant Professor

Md. Rezaul karim  
Assistant Professor

Asma Ansary Asha

Assistant Professor

Ayesha Siddika Emu

Lecturer

Md. Golam Sarower Rayhan

Lecturer

Forhad Ahmed

Lecturer

## Publication & Research

**Dr. Md. Masum**

**Professor**

### Journal Papers:

1. Masum, M. & Ullah, M. S. (2020). Sustainable Clothing Production in Bangladesh: The Case of Energy Intensity and CO2 Emissions. Journal of Business Studies, 41(1), 1-12.
2. Masum, M. & Mohiuddin, M. (2019). Hasinomics: The Development Model of Bangladesh. Dhaka University Journal of Management, 13(2), 93-108.
3. Masum, M., Ahamed, M.M., & Rahman, M.S. (2019). Analysis of Structural Decomposition of the Textile-Clothing Industry in Bangladesh. Khulna University Business Review, 14(1), 10-17.
4. Masum, M. & Inaba, K. (2019). The textile-clothing industry of Bangladesh: A demand-supply review with Asian competitors. Social System Studies, 38(March), 101-135.
5. Masum, M. & Inaba, K. (2018). A role of textile-clothing industry in the economic structure of Bangladesh: An input-output analysis. The Ritsumeikan Economic Review, 67(3), 1-20.
6. Masum, M. (2017). Demand-supply direction of the textile-clothing industry of Asian newly industrialized economy South Korea and Bangladesh. The Ritsumeikan Economic Review, 65(4), 289-333.
7. Masum, M. (2016). The Bangladesh textile-clothing industry: A demand-supply review. Social System Studies, 33(September), 109-140.
8. Masum, M., & Islam, M. M. (2014). Analyzing job security of lower and lower middle class employees of textile sector of Bangladesh. Journal of Textile Science and Engineering, 1(1), 27-34.
9. Masum, M., Bhattacharjee, D., & Haque, M. (2013). Performance, effectiveness, consequences of industrial cooperation on textile & garments task force of developing 8 group: Some analytic solutions. PRC Journal, 2(1), 207-220.
10. Masum, M. (2012). Human resource management: How human resources use and utilize the other factors of production and add value to the enterprise vis-à-vis to the national economy. Business Review-Bangladesh, 1(1), 126-134.
11. Masum, M., & Haque, M. (2012). Congenial industrial relations: A solution to RMG workers' frequent unrest. Business Review-Bangladesh, 1(2), 224-231.

### International Conference Presentations:

1. The 10th International Conference on the Regional Innovation and Cooperation in Asia, Bangkok, Thailand.
2. The 12th Regional Innovation and Cooperation in Asia Conference, Guangzhou, China
3. The 25th IIOA Conference, New Jersey, USA
4. The 24th IIOA Conference, Seoul, Korea
5. The Korean Association of Economic Systems Research Conference 2017, Seoul, Korea.
6. The 11th Regional Innovation and Cooperation in Asia Conference, Busan, Korea
7. The 22nd Annual International Conference on Advances in Management, Boston, USA
8. The Korean Association of Economic Systems Research Conference 2018, Chuncheon, Korea
9. The 1st International Conference on Economic Structures, Tokyo, Japan
10. The 2nd International Conference on Economic Structures, Nagoya, Japan
11. The 28th PAPAIOs Conference, Osaka, Japan
12. The 27th PAPAIOs Conference, Kochi, Japan
13. The 26th PAPAIOs Conference, Meiji, Japan
14. Economists conference, Chukyo University, Nagoya, Japan
15. International conference on economic theory and policy, Tokyo, Japan.
16. Japan Economic Association conference, Shiga, Japan.

**Dr.Md.Ahashan Habib**  
**Professor**

**Journal Publications:**

1. Md. Ahashan Habib, Md. Rezaul Karim, Marzia Dulal, Mohammad Shayekh Munir; "Impact of Institutional Pressure on Cleaner Production and Sustainable Firm Performance *Sustainability*. 2022; 14(24):16748. <https://doi.org/10.3390/su142416748>
2. Asma Ansary Asha, Marzia Dulal, and Ahashan Habib. "The Influence of Sustainable Supply Chain Management, Technology Orientation, and Organizational Culture on the Delivery Product Quality-Customer Satisfaction Nexus." *Cleaner Logistics and Supply Chain*(2023): 100107. <https://doi.org/10.1016/j.clscn.2023.100107>
3. Md. Ahashan Habib\*, Yukun Bao, Nurun Nabi, Marzia Dulal, Asma Ansary Asha and Mazedul Islam; "Impact of Strategic Orientations on the Implementation of Green Supply Chain Management Practices and Sustainable Firm Performance"; *Journal of Sustainability*, Volume-13, Issue-1, 340, January-2021, <https://doi.org/10.3390/su13010340>
4. Md Sobuj, Adnan Maroof Khan, Md Ahashan Habib, Md Mazedul Islam; "Factors influencing eco-friendly apparel purchase behavior of Bangladeshi young consumers: case study"; Emerald Publishing Limited, *Research Journal of Textile and Apparel*, Volume-25, Issue-1, 2021, Page:1560-6074, DOI 10.1108/RJTA-10-2019-0052
5. Ahashan Habib, Yukun Bao & Aboobucker Ilmudeen; "The Impact of Green Entrepreneurial Orientation, Market Orientation and Green Supply Chain Management Practices on Sustainable Firm Performance", *Cogent Business & Management*, 2020, Volume 7, Issue 1, ISSN: (Print) 2331-1975 (Online), <https://doi.org/10.1080/23311975.2020.1743616>
6. Ahashan Habib and Yukun Bao, "Impact of knowledge management capability and green supply chain management practices on firm performance", *International Journal of Research*

in Business and Social Science, 2019, Volume 8, Issue 6, ISSN: 2147- 4478.

DOI:<https://doi.org/10.20525/ijrbs.v8i5.548>

7. Ahashan Habib, Md. Ruhul Amin Mondal , Fahria Binte Islam; Identification the Factors of Safety and SWOT Analysis of Ready Made Garment Industry in Bangladesh, International Journal of Scientific and Engineering Research, 2019, Volume 10, Issue 11, ISSN 2229-5518.
8. Syduzzaman, Md. Monirul Islam, Md. Ahashan Habib, Dilruba Yeasmin, Effects of Implementing TQM Principles in the Apparel Manufacturing Industry: Case Study on a Bangladeshi Clothing Factory, Scientific & Academic Publishing, Science and Technology 2016, 6(3): 68-75, p-ISSN: 2163-2669, e-ISSN: 2163-2677.
9. Ahashan Habib, Md Mahbub Uz Zaman, “A Generalized Framework for Value Stream Mapping in the Textile and RMG industries” Textile Talent Hunt Research, Bangladesh Textile Today, Volume 09, Issue 05, Page 43-46, ISSN 1999-2076, Reg.8/2012.
10. Syduzzaman, Md. Mahbubor Rahman, Md. Mazedul Islam, Md. Ahashan Habib, Sharif Ahmed , “Implementing Total Quality Management Approach In Garments Industry”, European Scientific Journal, Volume-10, No. 34, ISSN: 1857-7881(Print), 1857-7431(Online).
11. Batan Biswas and Md. Ahashan Habib, “Temperature Regulating Melt Spun Bi-Component Fibers With PA6 Sheath And PCM/HDPE Core”, Bangladesh Journal of Textile Science & Engineering, Volume-1, Issue-1, June 2014, ISSN 2306-1537.
12. Ahashan Habib, “Management of Textile and Apparel Industry by PDM and ERP software”, Textile Trends, Volume-04 , Issue: July-24, 2011, Page 33-36, ISSN 0040-5205, Reg. No: 2815/58
13. Ahashan Habib, “Comparative Study of CAD, CAM Suitability in Apparel Product Development Process”, Bangladesh Textile Today, Volume 3, Issue 05, Page 34-37, ISSN 1999-2076, Reg.51/2010.

## **Dr. Md. Syduzzaman**

### **Associate Professor**

#### **Research articles:**

- **Syduzzaman M**, Rumi SS, Fahmi FF, Akter M, and Dina RB. Mapping the recent advancements in bast fiber reinforced biocomposites: A review on fiber modifications, mechanical properties, and their applications. Results in Materials, Elsevier. September 2023.
- **Syduzzaman M.**, Hassan A., Anik HR., Tania IS., Ferdous T., and Fahmi FF. Unveiling New Frontiers: Bast Fiber-Reinforced Polymer Composites and their Mechanical Properties. Polymer Composites, Wiley. July 2023.
- **Syduzzaman, Md**, Hassan, Abir, Anik, Habibur Rahman, Akter, Mahin, Islam, Md Rashedul, Nanotechnology for High-Performance Textiles: A Promising Frontier for Innovation. ChemNanoMat, Wiley. July 2023.
- Islam MZ, Sarker ME, Rahman MM, Islam MR, Ahmed ATMF, Mahmud MS, and **Syduzzaman M.** Green composites from natural fibers and biopolymers: A review on processing, properties, and applications. Journal of Reinforced Plastics and Composites. January 2022.

- Al Faruque MA, **Syduzzaman M**, Sarkar J, Bilisik K, Naebe M. A Review on the Production Methods and Applications of Graphene-Based Materials. *Nanomaterials*. 2021; 11(9):2414.
- Bilisik, K., **Syduzzaman, M.** Carbon nanotubes in carbon/epoxy multiscale textile preform composites: A review. *Polymer Composites*. 2021; 1– 28.
- **Syduzzaman, M.**; Al Faruque, M.A.; Bilisik, K.; Naebe, M. Plant-Based Natural Fiber Reinforced Composites: A Review on Fabrication, Properties and Applications. *Coatings* **2020**, *10*(10), 973.
- Dulal, M., **Syduzzaman, M.** (2020). Brand Preferences and Frequency of Buying Branded Clothes: A Research on Dhaka City, Bangladesh. *Tekstil ve Mühendis*, 27 (119), 178-185.

## Dr. Md. Nurun Nabi

### Assistant Professor

[1] Nabi, M.N., Liu, Z., & Hasan, N., (2022), Examining the nexus between transformational leadership and follower's radical creativity: the role of creative process engagement and leader creativity expectation, *International Journal of Emerging Markets*. Vol. ahead-of-print No. ahead-of-print. DOI 10.1108/IJOEM-05-2021-0659, First Author, Journal Level: SSCI, IF. 2.488-Emerald Publishing)

[2] Nabi, M.N., Liu, Z., & Hasan, N., (2021), Investigating the effects of Leaders' Stewardship Behavior on Radical Innovation: A Mediating Role of Knowledge Management Dynamic Capability and Moderating Role of Environmental Uncertainty, *Management Research Review*, Vol. 46 No. 2, pp. 173-195, First Author, Journal Level: (ESCI, Scopus-Emerald Publishing)

[3] Nabi, M.N., Liu, Z., & Akter, M. M., (2021), Transformational Leadership and Radical Innovation for Sustainability: Mediating Role of Knowledge Management Capability and Moderating Role of Competitive Intensity, *Innovation and Management Review*, Vol. ahead-of-print No. ahead-of-print. DOI 10.1108/INMR-05-2021-0075. First Author, Journal Level: (ESCI, Scopus-Emerald Publishing).

[4] Nabi, M.N., & Liu, Z., (2022), Participative leadership effects on followers' radical creativity: role of creative process engagement and supervisor support for creativity, *Evidence-based HRM: a Global Forum for Empirical Scholarship*. Vol. ahead-of-print No. ahead-of-print. DOI 10.1108/EBHRM-11-2021-0239, First Author, Journal Level: ESCI and Scopus, Emerald Publishing)

[5] Nabi, M.N., & Liu, Z., (2021), Benevolent paternalistic leadership behavior and follower's radical creativity: The mediating role of follower's voice behavior and the moderating role of follower's power distance orientation. *International Journal of Research in Business and Social Science*, Vol 10 No 3 ISSN: 2147-4478. First Author, Journal level: ABI (ProQuest).

[6] Habib, M.A.; Bao, Y.; Nabi, N.; Dulal, M.; Asha, A.A., (2021), Islam, M. Impact of Strategic Orientations on the Implementation of Green Supply Chain Management Practices and Sustainable Firm Performance. *Sustainability*, 13, 340. 3rd Author, Journal level: SSCI. IF. 3.899-MDPI.

[7] Nabi, M.N.; Masud, A.A.; Shuvro, R.A., Milon, M.; Islam, F., Akter, M. M., (2022) Covid-2019 Disruption On Foreign Direct Investment (FDI) of The Textile And Apparel Industry: Evidence-Based Analysis. *International Journal of Information, Business and Management*, Vol. 14, No.4, 2022. First Author, Journal level: ABI (ProQuest)



[8] Nabi, M. N., Akter, M. M., Habib, A., Al Masud, A., & Kumer Pal, S. (2021). Influence of CSR stakeholders on the textile firms performances: The mediating role of organizational legitimacy. International Journal of Research in Business and Social Science (2147- 4478), 10(8). First Author, Journal level: ABI (ProQuest)

[9] Al, A., Hossain A., Roy D.K., Hossain, M.S., Nabi, M. N., Ferdous, A., & Hossain, M.T., (2021), GLOBAL PANDEMIC SITUATION , RESPONSES AND MEASURES IN BANGLADESH : NEW NORMAL AND SUSTAINABILITY PERSPECTIV. International Journal of Asian Social Science 11(7), 314–332.

## Md. Shayekh Munir

### Assistant Professor

|   |   |  |    |    |                |
|---|---|--|----|----|----------------|
| European Scientific Journal (ISSN: 1857 – 7881 (Print))                         | Present status of workers in readymade garments industries in Bangladesh  | Kaniz Farhana,<br>Md. Syduzzaman<br>Md. Shayekh Munir                      | 11 | 7  | March 2015     |
| Human Resource Management Research 2016<br><br>(DOI:10.5923/j.hrmr.20160602.03) | The Impact of Human Resource Management Practices on Job Performances: A Case Study of Dhaka Bank Pvt. Ltd., Bangladesh | Md. Nurun Nabi,<br>Md. Syduzzaman,<br>Md. Shayekh Munir                    | 6  | 2  | 2016           |
| International Journal of Current Research<br><br>(ISSN: 0975-833X)              | How motivation influences the job factors of production: A case study of Jamuna Bank Pvt. Ltd, Bangladesh               | Md Nurun Nabi<br>Md Shayekh Munir<br>Abu Al Tareq Ahmed<br>Jenepha Eyesmin | 8  | 12 | December, 2016 |
| Global Journal of Researches in Engineering<br><br>(DOI:10.17406/GJRE)          | A Survey on the Factors Affecting Employee Turnover in the Readymade Garments of Bangladesh                             | Sraboni Ahmed,<br>Md. Hasanuzzaman,<br>Md. Shafiqul Islam Chowdhury,       | 18 | 1  | 2018           |

|   |  |   |     |     |                     |
|---|--|---|-----|-----|---------------------|
|   |  | Md. Ebrahim<br>Shaikh Md.<br>Shayekh Munir  |     |     |                     |
| Human Resource Management<br>Research<br><br>(DOI:10.5923/j.hrmr.20221201.01) | Factor Analysis: The<br>Outcome of<br>Motivation on<br><br>Employees'<br>Performance in<br>Textile Sector.   | Sraboni Ahmed,<br>Mohammad<br>Shayekh Munir<br><br>Mohammad<br>Rashel Hawlader,<br><br>G. M. Faysal<br><br>Md. Nazmul Islam                                 | 12  | 1   | 2022                |
| Sustainability (MDPI)<br><br>(DOI:10.3390/su142416748)                        | Impact of<br>Institutional Pressure<br>on Cleaner<br>Production and<br>Sustainable Firm<br>Performance   | Md. Ahashan<br>Habib Md. Rezaul<br>Karim Marzia<br>Dulal Mohammad<br>Shayekh Munir  | 14  | 24  | 14 December<br>2022 |
| Springer Nature (Chemical Papers,<br>IF:2.187)                                | In situ synthesis and<br>deposition of AgNPs<br>on the<br>alkali - pretreated<br>cotton/flax blended<br>denim fabric for<br>antibacterial efficacy | Sraboni Ahmed<br><br>Adnan Maroof<br>Khan<br><br>Md. Mashiur<br>Rahman Khan<br><br>Md.<br>Hasanuzzaman<br><br>Md. Shayekh<br>Munir<br><br>Md. Saiful Quddus | N/A | N/A | 9 May 2023          |

## **Md. Arif Iqbal**

### **Assistant Professor**

- [China & India: Two immense powers of textile chemicals and dyestuff manufacturing](#)
- [Cotton fabric with Titanium Dioxide cleans itself exposed to sunlight](#)
- [Developments in medical textiles creating the future of textiles](#)
- [DeLPHE focused on sustainability for future fashion](#)
- [An Investigation of Budget 2012-13 for the Textile & Apparel Industry](#)
- [“Air conditioned” jackets gets flurry in Japan](#)
- [Textile education on the table at its 100 years completion](#)
- [Developments in medical textiles creating the future of textiles](#)

## **Marzia Dulal**

### **Assistant Professor**

#### **LIST OF PUBLICATIONS:**

1. Dulal, M., Islam, M. M, (2018). A Study on Consumer Buying Behavior towards Foreign and Domestic Branded Apparels. Global Journal of Management and Business Research: E Marketing. Volume 18 Issue 5 Version 1.0 Year 2018, Type: Double Blind Peer Reviewed International Research Journal, Publisher: Global Journals, Online ISSN: 2249-4588 & Print ISSN: 0975-5853
2. Alam ,J.M. & Dulal, M. (2018).Coping Strategies of Stress Tolerance in Relation to Military Training.Global Journal of HUMAN-SOCIAL SCIENCE: A Arts & Humanities - Psychology. Volume 18 Issue 3 Version 1.0 Year 2018T, ype: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Online ISSN: 2249-460x & Print ISSN: 0975-587X
3. Dulal, M. & Syduzzaman, M.(2017). Needle Management System in Apparel Industry. International Journal of Scientific & Engineering Research .Volume 8, Issue 5, May-2017,ISSN 2229-5518
4. Syduzzaman, M. & Dulal, M. (2016). Empirical Study on the TQM implementation in the Apparel Industry of Bangladesh. International Journal of Scientific & Engineering Research .Volume 7, Issue 12, December-2016,ISSN 2229-5518
5. Prasad, K.,R., Shahid, A.,M., Nurunnabi , Dulal, M.(2015) A comparative study between one bath dyeing method for polyester cotton (pc) blended fabric over conventional two bath dyeing method. European Scientific Journal. November 2015 edition vol.11, No.33 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431

## **Ahsan Habib**

### **Assistant Professor**

- Ahsan Habib, Morium Pervin , Nasrin Akhter (2018), Social Safety & Security of Women Workers in Garments Sector of Bangladesh. Publisher: Global Journals, Online ISSN: 2249-460x & Print ISSN: 0975-587X.
- Ahsan Habib, Md. Hasan Sheikh, Nurun Nabi, (2018). Employee Turnover & It's Impact on Apparel Industry in Bangladesh: A Case Study of Mondol Group. Publisher: Scientific & Academic Publishing, DOI:10.5923/j.hrmr.20180803.03.

## **Md. Hasan Sheikh**

### **Assistant Professor**

- Hasan Sheikh, Ibrahim Khalil, Saruar Hossain & S.M. Rafio Morshed, (2019). Reducing Defects in Denim Weaving by Applying Six Sigma Methodology: A Case Study. Publisher: Global Journals, Online ISSN: 2249-460x & Print ISSN: 0975-587X.
- Ahsan Habib, Md. Hasan Sheikh, Nurun Nabi, (2018). Employee Turnover & It's Impact on Apparel Industry in Bangladesh: A Case Study of Mondol Group. Publisher: Scientific & Academic Publishing, DOI:10.5923/j.hrmr.20180803.03.
- Nurun Nabi, Rimon Sarkar, Marium Akter, Hasan Sheikh and Asma Ansary Asha, (2018). Impact of marketing mix on customer satisfactions—a case study on officina (bd) ltd, International Journal of Current Research, DOI: <https://doi.org/10.24941/ijcr.33112.12.2018>.

## **Farjana Sakila**

### **Assistant Professor**

1. Journal: JOURNAL OF MATERIALS SCIENCE AND NANOMATERIALS

Journal homepage: Bhuiyan et al., J Mater Sci Nanomater 2018, 2:1

Published: April 30, 2018

Title: Scope of Adsorption of Acid Dyes by Chitosan-Viscose Hybrid Material from an Aqueous Solution

2. Journal: JOURNAL OF ADVANCEMENT IN ENGINEERING AND TECHNOLOGY

Journal homepage: <http://scienceq.org/Journals/JAET.php>

Published: July 22, 2015

Title: Market Analysis of Textile Dyes and Auxiliaries in Bangladesh: Challenges and Prospects

**Maeen Md. Khairul Akter**

**Assistant Professor**

Analysis of The Factors Affecting the Lead Time for Export of Readymade Apparels from Bangladesh; Proposals for Strategic Reduction of Lead Time, European Scientific Journal November 2014 edition vol.10, No.33 ISSN: 1857 – 7881 (Print) e - ISSN 1857- 7431.

Development of Different Denim Effect on Knitted Fabric and Comparative Analysis with Conventional Woven Denim on the Basis of Physical and Dimensional Properties, Research Journal of Engineering Sciences, ISSN 2278 – 9472, Vol. 4(4), 9-15, April (2015)

# Department of Industrial and Production Engineering

Industrial and Production Engineering (IPE) is a globally recognized engineering fraternity concerned with the development, improvement, implementation and evaluation of integrated systems of people, money, knowledge, information, equipment, energy, material and process. It is very necessary for any manufacturing industry and also service providing enterprise to implement this concept of engineering and principles of management science. Industrial engineers work to eliminate waste of time, money, materials, man-hours, machine time, energy and other resources that do not generate value. IPE engineers figure out how to do things better, they engineer processes and systems that improve quality and productivity. Industrial Engineers can run any industry by improving efficiency as well as effectiveness of operations.

Textile and Ready-made Garments (RMG) industry is the main manufacturing entity in Bangladesh. To make our Textile and RMG sector competitive in the global market, Graduates of Textile Engineering equipped with the tools of Industrial and Production Engineering can be of great value. Its uniqueness will help the graduates of the department to support the contemporary & succeeding needs of the Industries, especially in Textiles and Garments sectors of Bangladesh.

## Vision

Recognition of Industrial & Production Engineering (IPE) Team in every Textile Industries in Bangladesh.

## Mission

- Development of curriculum for IPE department according to the industry requirement.
- Continuous Linkage or Collaboration between Industry and the Department.
- Skill Development of Faculty Member and Staff.
- Modernized Lab Facilities to be established in the Department.
- Collaborative Research Activities between Local and International Universities offering IPE degree.
- Applying tools and techniques of IPE in the industry more effectively.

## Objectives

- Improving Productivity of our RMG and Textile Industry.
- Proper Quality Management of our Industry.
- Creating opportunity of Textile Engineers specialized on IPE in Textile Industry.
- Development of existing process.
- Innovation of new Products.
- Energy conservation.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Industrial & Production)

- Number of Seats: 40
- Number of Semester: 08 (6 months each)
- Total Credit: 166

### PhD in Textile Science & Engineering

## FACULTY MEMBERS

Dr. Mohammad Ali

Professor

Dr. Mohammad Rafiqur Rashid

Assistant Professor & Head of the Department

Md. Abu Sayeed Biswas

Assistant Professor

Salima Sultana Shimo

Assistant Professor

Md Mamunur Rashid

Assistant Professor

Ahasan Ahamed

Assistant Professor

Sourav Kumar Ghosh

Assistant Professor

Saifur Rahman Tushar

Assistant Professor

Rashid Anzoom

Lecturer

Farhatul Janan

Lecturer

## Officer's

### Mechanical Lab

**Sarmin Akter**

Technical Officer

**Ripon Talukder**

Assistant Technical Officer

# Publication & Research

## Dr. Mohammad Ali

### Professor

- Influence of Plasticizer Content on the Transition of Electromechanical Behavior of PVC Gel Actuator
- Characteristics of the creep-induced bending deformation of a PVC gel actuator by an electric field
- Effect of plasticizer on the electric-field-induced adhesion of Dielectric PVC Gels
- Relationship between Electrode Polarization and Electrical Actuation of Dielectric PVC Gel Actuators
- Dielectric and electromechanical studies of plasticized poly (vinyl chloride) fabricated from plastisol

## Md Mamunur Rashid

### Assistant Professor

- An Adaptive Neuro-Fuzzy Inference System based Algorithm for Long Term Demand Forecasting of Natural Gas Consumption
- Selecting a Material for an Electroplating Process Using AHP and VIKOR Multi Attribute Decision Making Method
- <https://www.mendeley.com/catalogue/43ac0cc0-6741-3e1e-8dd0-afca23ad0046/>
- <https://www.mendeley.com/catalogue/324f8b96-34ad-3459-91e8-2112f08bcd30/>
- <http://www.ieomsociety.org/ieom2020/papers/386.pdf>
- <http://www.ieomsociety.org/ieom2020/papers/387.pdf>
- <http://www.ieomsociety.org/ieom2020/papers/390.pdf>
- <http://www.ieomsociety.org/ieom2020/papers/394.pdf>
- <http://itegam-jetia.org/journal/index.php/jetia/article/view/659>



## **Sourav Kumar Ghosh**

### **Assistant Professor**

- Sourav Kumar Ghosh, Naurin Zoha, Tanzima Zoha Chowdhury & Md. Sazol Ahmmed “Supplier Selection using Integer Linear Programming Model" Global Journal of Researches in Engineering Volume 18 Issue 4 Version 1.0 Year 2018, ISSN:2249-4596
- Sazol Ahmmed, Tanzima Zoha Chowdhury & Sourav Kumar Ghosh “Automatic Street Light Control System using Light Dependent Resistor and Motion Sensor" Global Journal of Researches in Engineering Volume 18 Issue 1 Version 1.0 Year 2018, ISSN:2249-4596
- Naurin Zoha & Sourav Kumar Ghosh “A simple heuristic for solving one stage multi-modal fixed charge transportation problems" 7th World Conference on Applied Sciences, Engineering & Management 26-27 October 2018, ABS-Paris, France
- Sourav Kumar Ghosh & Naurin Zoha “A Generic MCDM Model for Supplier Selection for Multiple Decision Makers Using Fuzzy TOPSIS" 5th International Conference on Engineering, Research, Innovation and Education, January 25-27, 2019, Sylhet, Bangladesh  
Google Scholar ID: <https://scholar.google.com/citations?user=w7znyFEAAA&hl=en>

## **Saifur Rahman Tushar**

### **Assistant Professor**

#### **Publications:**

1. Md. Sagar Islam Khan, Sanatan Sushil, Saifur Rahman Tushar, “Minimization of Defects in the Fabric Section through applying DMAIC Methodology of Six Sigma: A Case Study,” Asian Journal of Management Sciences & Education Vol. 9(3) July 2020

## **Rashid Anzoom**

### **Lecturer**

- Rashid Anzoom and M Ahsan Akhtar Hasin, “Application of Ant Colony Algorithm in Fleet Assignment Problem”, Production and Operations Management Society (POMS) International Conference 2018, Kandy, Srilanka.
- Pramiti Sarker, Kais Bin Zaman, Rashid Anzoom, “ A multi-objective Optimization Approach for the Analysis and Mitigation of Vulnerability of Road Network in Dhaka City”, 12<sup>th</sup> Global Engineering, Science and Technology Conference, 2016, Dhaka, Bangladesh.

# **Department of Humanities and Social Science**

The Department of Humanities and Social Science comprises of Business & Communicative English, Economics and Sociology, creating a distinct blend of communicative and applied tools crucial for Textile Engineers in their field of study and future career. This particular department has been formulated to provide students with necessary exposure to global economy, societal trends dictating business & industries and the effective usage of communication in business. The aim of this department is to prepare students to be able to compete under fierce business environment and global challenges. Adjoined with their core module of study, this department has highly qualified and experienced faculties who are dedicated towards ensuring necessary impetus and value addition to generate a holistic learning experience for future Engineers.

## **Vision**

The vision of The Department of Humanities and Social Science is to deliver the learning outcomes specified by the study program and achieve excellence in the fields of higher education by virtue of extensive knowledge on associated subject matter, comprehensive curriculum and consistent enhancement of teaching.

## **Mission**

Our mission is to prepare knowledgeable, competent graduates who will possess the ability to contribute to the society and integrate their knowledge with various sectors to fetch progressive transformation to the country at large.

## **Objectives**

The objective of the Department is to aid students with the knowledge and skills required to master the major skill sets of corresponding subjects. Graduates undertaking the courses of the Department would approach a diverse range of discourse including academic as well as professional texts by applying themselves with an analytical, critical and logical frame of mind.

## **Academic Courses :**

- a) HSS 101: Business and Communicative English (Theory)
- b) HSS 102: Business and Communicative English (Practical)
- c) HSS 401 : Sociology (Theory)
- d) HSS 301 : Economics(Theory)

## FACULTY MEMBERS

Shamima Akter Rozy

Assistant Professor & Head of the Department

Dilara Hossain

Assistant Professor

Md. Salah Uddin

Assistant Professor

Shahid Md. Adnan

Assistant Professor

Ehsan Elahi Sabik

Lecturer

## Publication & Research

### Dilara Hossain

Assistant Professor

- Customized Reality and Fatal Optimism: A Postmodern approach to Arthur Miller's Death of a salesman. Published on Chaos: IUB Studies in Language, Literature and Creative Writing - A Journal of the Department of English, Independent University, Bangladesh. Volume 2, Number 1. Summer 2014.
- Art and Williams' Poetry: Paintings, Painters and Perceptions that Precipitated William Carlos Williams' Poetry. Wizcraft Journal of Language and Literature: Vol. II: Issue: IV ISSN: 2319-4952. December, 2013.
- Voyeuristic Active Male Gaze vs. Passive Mechanism of Female: A Stereotypical Representation of Women in the Context of Television Commercial. Ideas & Ideologies (i&i) e Journal. Volume-1: Issue- 4. ISSN: 2320-7744. March 2013.

**Shamima Akter Rozy**  
**Assistant Professor**

**List of Journal Paper**

| Serial | Title of the Research Paper  | Name of the Researcher  | Journal name  | Volume  | Issue | Year of Publication |
|--------|--|---|---|---|-------|---------------------|
| 1.     | Analysis of the Socio-economic Factors of Poor Academic Results and Predicting Probable Solutions of Major Factors                 | Shamima Akter Rozy*,<br>Sourav Kumar Ghosh,<br>Farhatul Janan | Social Science Research Network                                   | <a href="https://ssrn.com/abstract=452312">https://ssrn.com/abstract=452312</a> |       | 2023                |
| 2.     | COVID-19 pandemic and its impact on the socio-economic context of Bangladesh.  | Shamima Akter Rozy*,<br>Muhammad Ali Emon                     | Eubios journal of Asian and international bioethics: EJAIB.       | 31  | 1     | 2021                |
| 3.     | Application of Anthony Giddens and Ulrich Beck's Theories Based on Sociological Study on Women's Demographic Change in Dhaka City. | Shamima Akter Rozy*,<br>Sourav Kumar Ghosh                    | International Journal of Social, Political and Economic Research. | 7   | 2     | 2020                |

|    |   |                     |  |    |   |      |
|----|---|---------------------|--|----|---|------|
| 4. | Socio-economic status of the child vendors: A sociological study in Farmgate and Tejgao industrial Areas. | Shamima Akter Rozy* | IOSR Journal of Humanities and Social Science. | 25 | 5 | 2020 |
|----|---|---------------------|--|----|---|------|

## **Shahid Md. Adnan**

### **Assistant Professor**

| Sl No. | Title of the Paper   | Name of the Researcher        | Name of the Journal with Page Number  | Volume          | Issue                  | Year of Publication |
|--------|--|-------------------------------|---|-----------------|------------------------|---------------------|
| 1      | <i>'Regressive or Progressive Apparatus: A Representation of Women in Billboard and Print Advertisements'</i>                        | Shahid Md. Adnan              | ASA University Review (ISSN 1997-6925)<br>Pages:<br>179-188                 | Volume 09, No.1 | 16 <sup>th</sup> Issue | January-June 2015   |
| 2      | <i>'The Role and Impact of Business Communication on Employee Performances and Job Satisfactions: A Case Study on Karmasangsthan</i> | Md. NurunNabi,<br>KM Foysol & | <b>Arabian Journal of Business and Management Review</b> (ISSN: 2223-5833), | Volume 07       | 7 <sup>th</sup> Issue  | August,             |

|   |   |   |   |                 |            |                    |
|---|---|---|---|-----------------|------------|--------------------|
|   | <i>Bank Limited, Bangladesh'</i>  | Shahid Md. Adnan  | doi:<br>10.4172/2223-5833.1000301                                       |                 |            | 2017               |
| 3 | <i>'Western Philosophy and Chaka: An Existential Reading'</i>   | Dilara Hossain<br>&<br>Shahid Md. Adnan                           | <b>ASA University Review</b> (ISSN 1997-6925)<br><br>Pages :<br>123-129 | Volume 12, No.2 | 23rd Issue | July-December 2018 |
| 4 | Trajectory of Sexualization in Film Adaptation of Homer's <i>The Iliad</i> and Hawthorne's <i>The Scarlet Letter'</i> | Sharjana Hossain,<br>Shahid Md. Adnan<br>&<br>Arifur Islam Laskar | <b>ASA University Review</b> (ISSN 1997-6925)                           |                 |            |                    |

# **Faculty of Fashion Design and Apparel Engineering**

Textile and garments is the largest export oriented sector in Bangladesh. The development of economy of Bangladesh and growth of export are highly dependent on the ability of textile industry to compete internationally with finest products. Cutting edge machinery maintained by skillful engineers are the most important prerequisites for perfect products.

Dean

**Prof. Dr. Md. Mashiur Rahman Khan**  
**Faculty of Fashion Design and Apparel Engineering**

# **Department of Apparel Engineering**

The Department of Apparel Engineering, a belt of omniscient knowledge and adeptness on industrial textile manufacturing. RMG sector occupies the most portion of foreign currency earning sources in Bangladesh and the demand will never dent due to being the second basic human need. Apparel Engineering Department is the most important and leading one in the first ever public university on textiles in Bangladesh. It has a proud history of delivering top class industry relevant courses and offers you a variety of challenging yet rewarding career paths. From the very technical and innovation to the practical and pragmatic, this department offers a diverse and high quality learning experience in this specific area.

## **Vision**

- To establish apparel engineering department of BUTEX with world class teaching-learning and research facilities.

## **Mission**

- Modernization of apparel engineering laboratory with latest machines, equipment, and technologies and to facilities regular practical classes and research works.
- Establishing apparel engineering department library for the teachers, students and researchers
- Establishing AE departmental seminar room to organize various seminars, workshop, training etc.
- Taking initiative for creating facilities for higher education and training both in home and abroad for the teachers and the staffs.
- Creating linkage of apparel engineering department with apparel industry and alumni.
- Establishing alumni association of apparel graduates initiated by apparel engineering department.

## **Objectives**

- To produce quality apparel graduates suitable for the apparel industry and business sector.
- To create facilities for research and development.
- To ensure pleasant teaching-learning environment.
- To create strong bond within apparel department and alumni.



## Academic Courses

At present, we are offering B. Sc. in Textile Engineering (Apparel) and M.Sc. in Textile Engineering (Apparel) degrees. Our courses are recognized for their depth, detail and quality within the sector and you can be assured of high quality teaching staffs and excellent facilities. We are firmly committed to give the students a solid foundation to build their career successfully.

## Research & Development

**Prof. Dr. Kaniz Farhana**

**Professor, Department of Apparel Engineering**

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1. Farhana, K., Kadirgama, K., Mahamude, A. S. F., & Jose, R. (2023). Review of MXenes as a component in smart textiles and an adsorbent for textile wastewater remediation. *Chinese Chemical Letters*, 108533.

Yusaf, T., Mahamude, A. S. F., Kadirgama, K., Ramasamy, D., Farhana, K., Dhahad, H. A., & Talib, A. R. A. (2023). Sustainable hydrogen energy in aviation—A narrative review. *International Journal of Hydrogen Energy*.

Farhana, K., Sneha, Z. Z., Mondol, S., Farin, F., & Mahamude, A. S. F. (2022). Business Trend Analysis of RMG Industry in Context of Bangladesh—A Case Study. *International Journal of Industrial Management*, 14(1), 515-528.

Farhana, K., & Muthaiyah, S. (2022). Behavioral intention to use cryptocurrency as an electronic payment in Malaysia. *Journal of System and Management Sciences*, 12(4), 219-231.

Mahamude, A. S. F., Kamarulzaman, M. K., Harun, W. S. W., Kadirgama, K., Ramasamy, D., Farhana, K., ... & Yousif, B. (2022). A comprehensive review on efficiency enhancement of solar collectors using hybrid nanofluids. *Energies*, 15(4), 1391.

Farhana, K., Kadirgama, K., Mahamude, A. S. F., & Mica, M. T. (2022). Energy consumption, environmental impact, and implementation of renewable energy resources in global textile industries: an overview towards circularity and sustainability. *Materials Circular Economy*, 4(1), 15.

Mahamude, A. S. F., Harun, W. S. W., Kadirgama, K., Ramasamy, D., Farhana, K., Salih, K., & Yusaf, T. (2022). Experimental study on the efficiency improvement of flat plate solar collectors using hybrid nanofluids graphene/waste cotton. *Energies*, 15(7), 2309.

Yusaf, T., Mahamude, A. S. F., Farhana, K., Harun, W. S. W., Kadirgama, K., Ramasamy, D., ... & Dhahad, H. A. (2022). A comprehensive review on graphene nanoparticles: Preparation, properties, and applications. *Sustainability*, 14(19), 12336.

- Farhana, K., Mahamude, A. S. F., & Mica, M. T. (2022). The scenario of textile industry in Malaysia: A review for potentiality. *Materials Circular Economy*, 4(1), 20.
- Ahmad, R., Sultana, A., Or-Rashid, M. H., Ony, T. A., Faruq, M., Islam, M., ... & Rayhan, G. M. (2022). Fast Track Surgery and Its Outcome in Colorectal Surgery in a Tertiary Care Hospital. *Open Journal of Gastroenterology*, 12(3), 44-54.
- Mahamude, A. S. F., Harun, W. S. W., Kadirgama, K., Farhana, K., Ramasamy, D., Samylingam, L., & Aslfattahi, N. (2021). Thermal performance of nanomaterial in solar collector: State-of-play for graphene. *Journal of Energy Storage*, 42, 103022.
- Chy, M. N. U., Adnan, M., Rauniyar, A. K., Amin, M. M., Majumder, M., Islam, M. S., ... & Paul, A. (2020). Evaluation of anti-nociceptive and anti-inflammatory activities of *Piper sylvaticum* (Roxb.) stem by experimental and computational approaches. *Advances in Traditional Medicine*, 20, 327-341.
- Mahamude, A. S. F., Harun, W. S. W., Kadirgama, K., Farhana, K., & Ramasamy, D. (2021, July). Numerical studies of graphene hybrid nanofluids in flat plate solar collector. In *2021 International Congress of Advanced Technology and Engineering (ICOTEN)* (pp. 1-6). IEEE.
- Farhana, K., Kadirgama, K., Subramonian, S., Ramasamy, D., Samykan, M., & Mahamude, A. S. F. (2021, October). Applications of Graphene Nanomaterials in Energy Storage—A State-of-Art Short Review. In *International Conference on Mechanical Engineering Research* (pp. 595-609). Singapore: Springer Nature Singapore.
- Farhana, K., Kadirgama, K., Subramonian, S., Ramasamy, D., Samykan, M., & Mahamude, A. S. F. (2021, October). Applications of Graphene Nanomaterials in Energy Storage—A State-of-Art Short Review. In *International Conference on Mechanical Engineering Research* (pp. 595-609). Singapore: Springer Nature Singapore.
- Kadirgama, G., Bin Razman, M. I., Ramasamy, D., Kadirgama, K., & Farhana, K. (2021, October). Graphene as an Alternative Additive in Automotive Cooling System. In *International Conference on Mechanical Engineering Research* (pp. 13-35). Singapore: Springer Nature Singapore.
- Mahamude, A. S. F., Harun, W. S. W., Kadirgama, K., Farhana, K., & Ramasamy, D. (2021, July). A Short Review of Nano-Cellulose Preparation from Textile Spinning Waste Cotton. In *2021 International Congress of Advanced Technology and Engineering (ICOTEN)* (pp. 1-7). IEEE.
- Farhana, K., Kadirgama, K., Mohamed, D., Faisal Mahamude, A. S., Subramonian, S., Ramasamy, D., & Samykan, M. (2021, October). An Experimental Evaluation of Specific Heat of Mono and Hybrid Nanofluids. In *International Conference on Mechanical Engineering Research* (pp. 215-223). Singapore: Springer Nature Singapore.
- Huda, S. F., Hossain, F., Uddin, M. J., Farhana, K., & Rahman, S. M. M. Home/Archives/Vol 47 No 3 (2021)/Research Articles Evaluation of Preoperative Predictors of Optimal Cytoreductive Surgery in Women with Epithelial Ovarian Cancer. *Parity*, 20, 64-52.

Farhana, K., Rahman, M., & Ahmed, M. T. (2020). An intrusion detection system for packet and flow based networks using deep neural network approach. *International Journal of Electrical & Computer Engineering* (2088-8708), 10(5).

Chy, M. N. U., Adnan, M., Rauniyar, A. K., Amin, M. M., Majumder, M., Islam, M. S., ... & Paul, A. (2020). Evaluation of anti-nociceptive and anti-inflammatory activities of *Piper sylvaticum* (Roxb.) stem by experimental and computational approaches. *Advances in Traditional Medicine*, 20, 327-341.

Syduzzaman, M. D., Patwary, S. U., Farhana, K., & Ahmed, S. (2015). Smart textiles and nano-technology: a general overview. *J. Text. Sci. Eng*, 5(1), 1-7.

Farhana, K., Syduzzaman, M., & Munir, M. S. (2015). Present status of workers in ready-made garments industries in Bangladesh. *European Scientific Journal*, 11(7).

Ahmed, T., Uddin, M. N., Ahmed, S. F., Saha, A., Farhana, K., & Rana, M. S. (2012). In vitro evaluation of antioxidant potential of *Artocarpus chama* Buch. fruits. *Journal of Applied Pharmaceutical Science*, 2(10), 075-080.

Farhana, K., Syduzzaman, M., & Yeasmin, D. (2015). Effect of sewing thread linear density on apparel seam strength: a research on lapped & superimposed seam. *Journal of Advancements and Engineering and Technology*, 3(3), 1-7.

Farhana, K., Syduzzaman, M., & Yeasmin, D. (2015). Comparison of seam strength between dyed and un-dyed gabardine apparels: a research on lapped & superimposed seam. *Journal of Textile Science and Technology*, 1(02), 75.

Islam, M. R., Reza, A. A., Hossain, M. S., & Farhana, M. K. (2014). In vitro evaluation of cytotoxic and thrombolytic activities of *Oroxylum indicum* (Linn.). *Bangladesh Pharmaceutical Journal*, 17(1), 70-74.

Islam, M. R., Uddin, M. N., Reza, A. M. A., Rana, M. N. U., & Farhana, K. (2014). In vivo evaluation of analgesic activity of methanolic extract of *Laportea interruptea* (L.) leaves. *J Chem Pharm Res*, 6(1), 552-556.

**Dr. Mahmuda Akter**

**Associate Professor and Head, Department of Apparel Engineering**

- 
1. Akter, M., Uddin, M. H., & Anik, H. R. (2023). Plant fiber-reinforced polymer composites: a review on modification, fabrication, properties, and applications. *Polymer Bulletin*, 1-85.
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## **Dr. Lamya Zahir**

### **Associate Professor, Department of Apparel Engineering**

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## **Adnan Maroof Khan**

### **Assistant Professor, Department of Apparel Engineering**

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## **Upama Nasrin Haq**

### **Assistant Professor, Department of Apparel Engineering**

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## FACULTY MEMBERS

**Dr. Md. Mashiur Rahman Khan**

**Professor**

Dr. Mahmuda Akhter

Associate professor & Head of the Department

Dr. Kaniz Farhana

Professor

Dr. Lamiya Zaheer

Associate Professor

Mr. Farzana Rahman

Assistant Professor

Mr. Adnan Maruf Khan

Assistant Professor

Mr. Md. Majedul Islam

Assistant Professor

Wishes of Mr. Jasmine Naha

Assistant Professor

Mr. Md. Kamrul Hasan Chowdhury

Assistant Professor

Mr. Upma Nasreen Haque

Assistant Professor

Mr. Smita Rani Debnath

Assistant Professor

Mr. Nurunnessa

Assistant Professor

Mr. Sajid Elahi

Assistant Professor

Mr. Shah Md. Maruf Hasan

Assistant Professor

Mr. Mocha: Farzana Sultana

Lecturer

Mr. Ayesha Siddiq

Lecturer



## Officers

**Palash Chandra Nath**

Technical Officer

**Md: Abu Sayed**

Assistant Technical Officer

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# **Department of Textile Fashion and Design**

The course offered from this department equips oneself with the necessary knowledge, skills and attributes to succeed in a wide range of careers related to fashion and textile. The course blends individual creativity, technical knowledge of textiles and commercial realism, and one will be able to apply his/her skills & knowledge of the professional design process for innovating something special. The course is designed to reflect contemporary practice in the fashion industry. Individual creativity, both in fashion design and fashion styling, balanced with realism, are key factors underlying the ethos of this course. Students are encouraged to explore their individual talents through the application of the professional design process, from concept to final product.

## **Vision**

Vision of Textile Fashion and Design department of Bangladesh University of Textiles is to be the premier institution of academic excellence for fashion, textiles and design education, research and partnership. The department is committed to Excellence, Innovation, and Customer Satisfaction and Development through self and shared efforts.

## **Mission**

The mission of Textile Fashion and Design department of Bangladesh University of Textiles is to inspire, educate and create true professionals in the broad spectrum of Textile and Fashion design field by promoting academic excellence through well-crafted curriculum and distinctive learner-centered environment. This department aims to nurture the inherent talents and creativity of the students by developing an intellectual stimulating community and fostering a culture of skill-based and practical learning environment through a holistic approach that enables students to maximize employment opportunities and to face global challenges by providing them with career oriented courses.

## **Objectives**

- To provide professional education covering the whole spectrum of activities in fashion and textiles, and develop “all-round” graduates with vision and a global outlook, a sense of social responsibility, critical and creative thinking ability.
- Innovative teaching methodologies and practices to further enhance learning and teaching to implement outcome based learning and teaching, to provide a state of the art environment that stimulates students’ learning interests.
- To impact professional education covering the whole spectrum of activities in the realm of Fashion and Textiles, Design and Management, to develop Design Professionals with a dynamic global outlook, a sense of social responsibility, critical and creative thinking.

- To conduct research to create and disseminate knowledge to all spheres-academic, commerce, industry, community, society and the world at large.
- To become a state of excellence in fashion and textile education and research, regionally and internationally.

## **DEGREE OFFERED**

### **B. Sc. in Textile Engineering (Fashion & Design)**

- Number of Seats: 40
- Number of Semester: 08 (6 months each)
- Total Credit: 165

### **PhD in Textile Science & Engineering**

## **FACULTY MEMBERS**

Dr. Md. Mahbubor Rahman

Associate Professor & Head of the Department

Sutapa Chowdhury

Associate Professor

Md. Mahamudul Hasan

Assistant Professor

Rebeka Sultana

Assistant Professor

Md. Kamrul Hasan

Assistant Professor

Naila Sharmin Kanta

Assistant Professor

Mozahida Akhtar

Assistant Professor

Bristi Sarker

Lecturer

## **Officer's**

**Department Office: TFD**

**Imranul Hasan**

Administrative Officer

**Fashion Lab**

**Md. Akhlaqur Rahman**

Technical Officer

# **Faculty of Science and Engineering**

The textile and apparel industry is one of the main sectors of industrialization in Bangladesh. The Industrial Revolution has a huge impact on the textile industry. Therefore, the textile industry must be aware of new challenges and reduce production costs, improve productivity, promote industry growth, and change the structure of the workforce. Cutting edge machinery maintained by skillful engineers are the most important prerequisites for perfect products. Our challenge is to transform OBE programmes and skills development infrastructure to deliver the talents needed for an innovative, digitized, sustainable economy.

**Dean**

**Prof. Dr. Nargish Jahan Ara**  
**Faculty of Science & Engineering**

# Department of Textile Machinery Design and Maintenance

Textile and garments is the largest export oriented sector in Bangladesh. The development of economy of Bangladesh and growth of export are highly dependent on the ability of textile industry to compete internationally with finest products. Cutting edge machinery maintained by skillful engineers are the most important prerequisites for perfect products. Our mission is to serve the textile industry and economy of Bangladesh on a long term basis by delivering excellent knowledge and highly skilled individuals. A clear conception on theoretical course content along with hands-on experience on machinery design and maintenance in our highest priority. This department includes experienced and brilliant faculty members from diversified disciplines. Excellent educational background and years of experience in teaching, research and hands-on experience on respective sectors made them highly competent. Moreover, this department offers its students state of the art laboratory facility to learn and research.

## Vision

Higher education and research for textile machinery.

## Mission

- Creating excellent faculty members.
- Increasing research and lab facilities.
- To enhance collaboration between academia and industry.
- Increasing undergraduate students and, launching MSc and PhD program.
- Integrating textile, electrical, mechanical and computer knowledge.

## Objectives

- To create skilled manpower for textile machinery design, manufacturing and maintenance.
- To create leadership in textile machinery marketing.

## DEGREE OFFERED

### B. Sc. in Textile Engineering (Machine Design & Maintenance)

- Number of Seats: 40
- Number of Semester: 08 (6 months each)
- Total Credit: 165

### PhD in Textile Science & Engineering

#### FACULTY MEMBERS

Dr. Shaikh Md. Mominul Alam

#### **Professor & Head of the Department**

A N M Bazlur Rashid

Assistant Professor

Md. Asaduzzaman

Assistant Professor

Tanjheel Hasan Mahdi

Assistant Professor

Md. Mafizul Islam

Assistant Professor

Tanvir Alam

Assistant Professor

Anupom Mondol

Assistant Professor

Ariful Haque Ashik

Assistant Professor

Md. Golam Kibria

Assistant Professor

Tarik Reza Toha

Lecturer

Sultana Umme Habiba

Lecturer

#### **Officer's**

#### **Electrical Lab**

**Md. Nurul Islam Miah**

Assistant Technical Officer (Electrical)

#### **Computer Lab**

**Mohammad Ala Uddin**

Technical Officer (Computer)

# Publication & Research

**Dr. Shaikh Md. Mominul Alam**  
**Professor**

- Preparation and properties of Polyimide-silica-polydimethylsiloxane hybrids, Journal of Photopolymer Science and Technology, 20 (2007) 159-162.
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## **A N M Bazlur Rashid**

### **Assistant Professor**

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- **Performance Evaluation of MPEG-4 Video Transmission over IP-Networks: Best Effort and Quality-of-Service. Md. Anwar Hossain and A.N.M. Bazlur Rashid.** Volume-03, Number-03, February-2012. Computer Engineering and Intelligent Systems.
- **Analysis of Dual Core Hexagonal PCF Based Polarization Beam Splitter. M. R. Khatun, M. S. Islam and A.N.M. Bazlur Rashid.** Volume-03, Number-03, February-2012. Computer Engineering and Intelligent Systems.

## Md. Asaduzzaman

### Assistant Professor

1. Asaduz-Zaman, A. H. Chowdhury, "Optimum economic dispatch of interconnected microgrid with energy storage system", International Conference on Electrical Engineering and Information Communication Technology (ICEEICT), Dhaka, pp. 1-5, 21-23 May 2015.
2. A. Motin, Md. Imran Hasan, Md. Asaduz-Zaman, "Design and optimization of a low cost multi band microstrip patch antenna for K-band, Ku-band and X-band applications", 15th International Conference on Computer and Information Technology (ICCIT), Chittagong, pp.615 - 620, 22-24 Dec., 2012.

## Tanjheel Hasan Mahdi

### Assistant Professor

1. *Characterization of Mechanical and Viscoelastic Properties of SC-15 Epoxy Nanocomposites Reinforced With Multi-Walled Carbon Nanotubes, Nanoclay and Binary Nanoparticles.* **Tanjheel H. Mahdi**, Mohammad E. Islam, Mahesh V. Hosur, Alfred Tcherbi-Narteh and S. Jeelani. ASME 2014 International Mechanical Engineering Congress and Exposition, **Montreal, Quebec, Canada.** November 14–20, 2014. pp. V014T11A031; 7 pages. doi: 10.1115/IMECE2014-36176.
2. *Low Velocity Impact Characterization of Nanoclay and MWCNTs Binary Nanoparticles Modified Carbon/Epoxy Composites Subjected to Marine Environmental Conditioning.* Mohammad E. Islam, **Tanjheel H. Mahdi**, Mahesh V. Hosur, Alfred Tcherbi-Narteh and S. Jeelani. ASME 2014 International Mechanical Engineering Congress and Exposition, **Montreal, Quebec, Canada.** November 14–20, 2014. pp. V014T11A030; 7 pages, doi: 10.1115/IMECE2014-36173.
3. *Synergistic Effects of Nanoclay and MWCNTs on the Performance of Epoxy and Carbon Fiber Reinforced Epoxy Composites.* **H. Mahdi**, M. E. Islam, M. V. Hosur, S. Jeelani, Nanotechnology-Smart Materials, Composites, Applications and New Innovations, 3rd International Conference, NANOCON 014, 14-15, October 2014, **Pune, India.**
4. *Evaluation of Fatigue Properties of Carbon Fiber Reinforced Epoxy Composites Modified with Nanoclay.* **H. Mahdi**, M. E. Islam, M. V. Hosur, S. Jeelani. First World Conference on Fracture and Damage Mechanics: Metals, Glass, Ceramics, Semi-conductors, Polymers, Alloys, Composites, Nanocomposites, Gels, and Adhesives (FRACTURE 2014): August 9-11, 2014 at Mahatma Gandhi University, Kottayam, **Kerala, India.**
5. *Characterization of Mechanical and Viscoelastic Properties of Carbon Fiber Reinforced Epoxy Composites Modified with Multi-Walled Carbon Nanotubes, Nanoclay and Binary Nanoparticles.* **H. Mahdi**, E. Islam, M.V. Hosur, S. Jeelani. CMAX-SAMPE Conference, October 14, 2014, **Orlando, Florida, USA.**
6. *Comparison of Low Velocity Impact Properties of MMT, MWCNT and MMT/MWCNT Binary Nanoparticles modified Carbon/Epoxy Composites Subjected to Marine Environmental Conditioning.* Mohammad E. Islam, **Tanjheel H. Mahdi**, Mahesh V. Hosur, Alfred Tcherbi-Narteh and S. Jeelani. ASC 29th Technical Conference, UC San Diego. September 8-10, 2014, **San Diego, CA, USA.** PP: 532
7. *Mechanical and Thermal Properties of Cellulose Nanofibers Reinforced Epoxy Polymer Nanocomposites.* Nuruddin, **T. H. Mahdi**, M. V. Hosur, S. Jeelani. ASC 29th Technical Conference, UC San Diego. September 8-10, 2014, **San Diego, CA, USA.** PP: 382

8. *Fabrication and performance of carbon/epoxy composites with hybrid of nanoclay AND MWCNTs.* Mahesh Hosur, **Tanjheel Mahdi**, Md. Ekramul Islam , Alfred Tcherbi-Narteh and Shaik Jeelani. 20th International Conference on Composite Materials, **Copenhagen, Denmark**, 19-24th July, 2015.
9. *Characterization of Carbon Fiber Reinforced Epoxy Composites Modified with Nanoclay and Carbon Nanotubes.* Md Ekramul Islam, **Tanjheel H. Mahdi**, Mahesh V. Hosur, Shaik Jeelani. 6th BSME International Conference on Thermal Engineering (ICTE 2014), Dhaka, Bangladesh. **Procedia Engineering, ELSEVIER**, 105 (2015) 821 – 828. doi: 10.1016/j.proeng.2015.05.078.
10. *Low Velocity Impact Characterization of Carbon Fiber Reinforced Epoxy Composites Modified with Multi-Walled Carbon Nanotubes, Nanoclay and Hybrid Nanoparticles.* **H. Mahdi**, E. Islam, M.V. Hosur, S. Jeelani. SAMPE conference. October 21-24, 2013, **Wichita, Kansas, USA**.
11. *Numerical Investigation for Optimum Thermal Performance of a Solar Chimney.* M. F. Ismail, **H. Mahdi**, M. A. R. Sarkar. 5th International Conference on Sustainable Energy and Environmental Protection-SEEP 2012 , **Dublin City University, Ireland**, 5-8 June, 2012, Paper ID-S0323
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## **Md. Mafizul Islam**

**Assistant Professor**

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## **Md. Golam Kibria**

**Assistant Professor**

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## Tarik Reza Toha

### Lecturer

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## Sultana Umme Habiba

### Lecturer

1. **Sultana Umme Habiba**, Tanoy Debnath, Md Khairul Islam, Lutfun Nahar, Mohammad Shahadat Hossain, Nanziba Basnin, and Karl Andersson. "Transfer Learning-Assisted DementiaNet: A Four Layer Deep CNN for Accurate Alzheimer's Disease Detection from MRI Images." In *International Conference on Brain Informatics*, pp. 383-394. Cham: Springer Nature Switzerland, 2023.
2. Md. Khairul Islam, **Sultana Umme Habiba**, Tahsin Ahmed Khan, Farzana Tasnim, COV-RadNet: A Deep Convolutional Neural Network for Automatic Detection of COVID-19 from Chest X-Rays and CT Scans, *Computer Methods and Programs in Biomedicine Update*, Volume 2, 2022, 100064, ISSN 2666-9900
3. **Sultana Umme Habiba**, Md. Khairul Islam, Farzana Tasnim, Lutfun Nahar, Mohammad Shahadat Hossain, Karl Andersson "Brain-DeepNet: A Deep Learning Based Classifier For Brain Tumor Detection and Classification", 5th International Conference on Intelligent Computing & Optimization 2022 (ICO 2022)
4. Farzana Tasnim, **Sultana Umme Habiba**, Nuren Nafisa, AfsanaAhmed, “Depressive Bangla Text Detection from Social Media Post Using Different Data Mining Techniques”, *International Conference on Computational Intelligence in Machine Learning 2021*, (ICCIML 2021). DOI: 10.1007/978-981-16-8484-5\_21

5. **Sultana Umme Habiba**, Md. Khairul Islam, Farzana Tasnim, “A Comparative Study on Fake Job Post Prediction Using Different Data Mining Techniques”, 2021 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST), DOI: 10.1109/ICREST51555.2021.9331230
6. Farzana Tasnim, **Sultana Umme Habiba**, “A Comparative Study on Heart Disease Prediction Using Data Mining Techniques and Feature Selection”, 2021 2nd International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST). DOI: 10.1109/ICREST51555.2021.9331158
7. **Sultana Umme Habiba**, Md. Khairul Islam, “Tomato Plant Diseases Classification Using Deep Learning Based Classifier From Leaves Images”, International Conference on Information and Communication Technology for Sustainable Development (ICICT4SD), BUP, 27-28 February 2021. DOI: 10.1109/ICICT4SD50815.2021.9396883
8. Md. Khairul Islam, **Sultana Umme Habiba**, “Human Age Estimation and Gender Classification Using Deep Convolutional Neural Network”, Cyber Security and Computer Science. ICONCS 2020. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 325. Springer, Cham. DOI: 10.1007/978-3-030-52856-0\_40
9. Md. Khairul Islam, **Sultana Umme Habiba**, Sk. Md. Masudul Ahsan, “Bangladeshi Plant Leaf Classification and Recognition Using YOLO Neural Network”, International Conference on Innovation in Engineering and Technology (ICIET), University of Dhaka, 23-24 December 2019.
10. **Sultana Umme Habiba**, Md. Khairul Islam, Sk. Md. Masudul Ahsan, “Bangladeshi Plant Recognition using Deep Learning based Leaf Classification”, 5th International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering, (IC4ME2), Rajshahi, Bangladesh, 11-12 July 2019. DOI: 10.1109/IC4ME247184.2019.9036515

# Department of Physics

The department of physics has started journey as an independent since 2015. Physics is the most fundamental of the sciences that employs rigorous logic, mathematics, experimentation, and critical reasoning. Physics Department design courses theoretical and practical to equip undergraduate student to develop the basic scientific skills in textiles. Our Physics Lab is organized on mechanical, optical, electrical, and thermal based experiments.

The teachers of this department with high professional, intellectual and ethical standards are actively engaged in teaching and research. Our mission is to provide basic physics in the area of Textiles Physics to fulfill the demand of the country. We are strongly committed to both teaching and research excellence.

## **Vision**

To build a foundation for excellence and encourage the development of the university by igniting and promoting enthusiasm, interests and passion in the study of physics.

## **Mission**

The Department aspires to provide the best scientific methods in teaching the basic principles of physics, both theoretical and experimental and puts most of time to keep the level of education and scientific research.

## **Objectives**

- Configure a basic of physics curriculum and smooth study plan.
- Provide a sophisticated level of physics education for teaching of undergraduate and graduate studies.
- Work in the completion of applied research, basic scientific research, experimental (theoretical and applied).
- Support and encourage the scientific cooperation between faculty members in the department and cooperation with other departments in the field of multi-purpose research.
- To awaken the young minds and discover their talents both in theory and in practical physics.
- Spread the spirit of competition and encouragement and give the opportunity to all students.
- To develop strategy in the department for continuous improvement.

## FACULTY MEMBERS

Dr. Hasina Akter

Associate Professor & Head of the Department

Dr. Tanu Shree Roy

Associate Professor

Md. Hedayet Ullah

Assistant Professor

Md. Harun Or Rashid

Assistant Professor

Mr. Lincoln Paik

Assistant Professor

Dr. Md. Murad Ahmed

Assistant Professor

Rajia Sultana

Lecturer

### Officer's

#### **Physics Lab**

**Md. Zakaria Rahman**

Senior Technical Officer

**Md. Abdur Razzak**

Technical Officer

**Md. Ariful Islam**

Assistant Technical Officer



# Publication & Research

**Dr. Hasina Akter**

**Associate Professor**

| Sl. No | Title of the Research Paper   | Name of the Researcher  | Volume   | Issue   | Year of Publication |
|--------|---|---|--|---|---------------------|
| 1      | Carrier transport mechanisms of iodine-doped plasma polymerised N, N, 3, 5 tetramethylaniline thin films  | <b>H. Akther</b> ,<br>M. Mahbubur Rahman, A.H. Bhuiyan etc  | Vol 31,<br>103327,<br>Materials Today Communications | <a href="https://doi.org/10.1016/j.mtcomm.2022.103377">https://doi.org/10.1016/j.mtcomm.2022.103377</a>   | 2022                |
| 2      | Understanding the enhancement of the optical and electronic attributes of iodine-doped vacuum deposited tetramethylaniline (PPTMA) thin film coatings       | <b>Hasina Akther</b> , A.H. Bhuiyan , M. Mahbubur Rahman etc  | Vol 874 159989,<br>Journal of Alloys and Compounds   | <a href="https://doi.org/10.1016/j.jallcom.2021.159989">https://doi.org/10.1016/j.jallcom.2021.159989</a> | 2021                |
| 3      | Surface modification and improvements of wicking properties and dyeability of grey jute-cotton blended fabrics using low-pressure glow discharge air plasma | M.Hedayet Ullah , <b>Hasina Akther</b> , M.Mahbubur Rahman , A.B.M. Foisal , M.Mahmud Hasan , S.M. Amir-Al Zumahi , Amun Amri | Vol. 7, 07893<br>Heliyon                             | <a href="https://doi.org/10.1016/j.heliyon.2021.e07893">https://doi.org/10.1016/j.heliyon.2021.e07893</a> | 2021                |

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| 4. | Nonlinear wave solutions of cylindrical KdV-Burgers equation in nonextensive plasmas for astrophysical objects | U M Abdelsalam, M S Zobaer, <b>H. Akther</b> , M.G. M. Ghazal, M.M. Fares | Vol 137(6), 1061 Acta Physica Polonica A, | <a href="https://doi.org/10.12693/APhysPolA.137.1061">https:// doi: 10.12693/APhysPolA.137.1061</a>              | 2020 |
| 5  | Effect of film thickness on topographic, microstructural, optical and dielectric behaviour of PPMBA thin films | Rahima Nasrina, Humayun Kabir , <b>Hasina Akther</b> , A.H. Bhuiyan       | Vol 19 103357, Results in Physics         | <a href="https://doi.org/10.1016/j.rinp.2020.103357">https://doi.org/10.1016/j.rinp.2020.103357</a>              | 2020 |
| 6  | Chemical Analysis of Plasma Polymerized N,N,3,5 tetramethylaniline by X-ray Photoelectron Spectroscopy         | <b>H. Akther</b> and J. A. Syed   | Vol 7(1): 07-12 Int. j. eng. Technol.     | <a href="http://www.gurpukur.com">www.gurpukur.com</a> or <a href="http://www.gscience.net">www.gscience.net</a> | 2020 |
| 7. | Dielectric properties of plasma-polymerized N, N, 3, 5-tetra methylaniline thin films                          | <b>H. Akther</b> and A. H. Bhuiyan  | Vol 18, 53-60 Surface Review and Letters  | DOI: 10.1142/S0218625X11014485   | 2011 |
| 8. | Space charge limited conduction in plasma polymerized N, N, 3, 5, tetramethylaniline thin films                | <b>H. Akther</b> and A. H. Bhuiyan  | Vol 488, 93-97 Thin Solid Films,          | <a href="https://doi.org/10.1016/j.tsf.2005.04.110">https://doi.org/10.1016/j.tsf.2005.04.110</a>                | 2005 |
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| 12 | Determination of Graded-Index Profile of optical fiber by computational experiment                                       | K.M. Rezanur Rahman, <b>H. Akther</b> and M.R. Amin             | Vol 24, 185-189<br>Jahangirnagar Univer. J. of Sci.   | National  | 2007 |
| 13 | Preparation and chemical analysis of plasma polymerized N,N,3,5 tetramethylaniline                                       | <b>H. Akther</b> , A. H. Bhuiyan, Md.Asaduzza man and J.A. Syed | ICME11<br>-RT-051                                     | Conference Paper  | 2011 |

**Dr. Tanu Shree Roy**

**Associate Professor**

**List of Journal Papers**

| Serial | Title of the Research Paper   | Name of the Researcher   | Volume  | Issue   | Year of Publication |
|--------|---|--|---|---|---------------------|
| 1.     | Incorporation of Ag-Doped ZnO Nanorod through Graphite Hybridization: Effective Approach for Degradation of Ciprofloxacin | Tanu Shree Roy, Surya Akter, Monabbir Rafsan Fahim, Md. Abdul Gafur, Tahmina Ferdous                 | Vol . 9,no. 2 (2023) e13130<br><br>Heliyon                          | <a href="https://doi.org/10.1016/j.heliyon.2023.e13130">https://doi.org/10.1016/j.heliyon.2023.e13130</a>     | 2023                |
| 2.     | Eco-Friendly Synthesis of Silver Nanoparticles for Multifunctional Protective Cotton and Flax Fabrics                     | Tanu Shree Roy, Monabbir Rafsan Fahim, M. Tauhidul Islam, Md.Abdul Gafur & Tahmina Ferdous           | Vol.19,Issue 16<br><br>pp.13681–93<br><br>Journal of Natural Fibers | <a href="https://doi.org/10.1080/15440478.2022.2104775">https://doi.org/10.1080/15440478.2022.2104775</a>     | 2022                |
| 3.     | Electrostatic Ion-Acoustic Shock Waves in a Magnetized Degenerate Quantum Plasma  | Sharmin Jahan, Booshrat E. Sharmin, Nure Alam Chowdhury, Abdul Mannan, Tanu Shree Roy, and A A Mamun | Vol.4, pp. 426-434,<br><br>plasma                                   | <a href="https://doi.org/10.3390/plasma4030031">https://doi.org/10.3390/plasma4030031</a>                     | 2021                |
| 4.     | Modulational instability of dust-ion-acoustic waves in pair-ion plasma having non-thermal non-extensive electrons         | M.K. Islam, A.A. Noman, J. Akter, N.A. Chowdhury, A. Mannan, T.S. Roy, M. Salahuddin, A.A. Mamun     | pp-1-12<br><br>Contributions to Plasma Physics                      | <a href="https://doi.org/10.1002/ctpp.202000214">https://doi.org/10.1002/ctpp.202000214</a>                   | 2021                |
| 5      | First and second-order dust-ion-acoustic rogue waves in non-thermal plasma  | Banik, S., R. K. Shikha, A. A. Noman, N. A. Chowdhury, A. Mannan, T. S. Roy, and A. A. Mamun         | Vol.75,no2<br><br>The European Physical Journal D                   | <a href="https://doi.org/10.1140/epjd/s10053-020-00033-z">https://doi.org/10.1140/epjd/s10053-020-00033-z</a> | 2021                |

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| 7  | Design and Development of Floor Contamination Monitor for Gamma Ray Measurement                         | Mahedee Hasan, Kazi Golam Martuza, Tanu Shree Roy, Ashraf Mehbub, Humayun Kabir, Farhana                                       | Vol.4, Issue 6, pp. 23-30<br>International Journal of Research in Electronics & Communication Technology    | DOA:03012017  | 2016 |
| 8  | Design and Development of Low Cost Security Alarm Using Optoelectronic Device                           | Md. Barkat Ullah, Humayun Kabir, Tanu Shree Roy, Ashraf Mehbub, Kazi Golam Martuza, Md. Ramjan Ali, Md. Abdul Mannan Chowdhury | Vol.10, Issue 4, Ver. I, pp. 19-23<br>IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) | DOI:10.9790/2834-10411923   | 2015 |
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| 10 | Structural And Optical Properties Of Plasma Polymerized Pyromucic Aldehyde Thin Films                   | Humayun Kabir, M. Mahbubur Rahman, Tanu Shree Roy, A.H. Bhuiyan  | Vol.12 No:05 pp. 30-34<br>International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS        |   | 2012 |

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| 12 | The development of ZnO nanoparticle coated different fabrics for medical applications | BCSIR Congress 2019   |  | T. S. Roy, F.<br>Ahmed, M. A.<br>Gafur |                  |

**Md. Hedayet Ullah**  
**Assistant Professor**

| Serial | Title of the Research Paper  | Name of the Researcher   | Volume   | Issue   | Year of Publication |
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| 1.     | Laser-Induced Breakdown Spectroscopy (LIBS) for Trace Element Detection: A Review                      | Z. H. Khan , M. Hedayet Ullah , Bulu Rahman , Aminul I. Talukder, Md. Wahadoszamen , K. M. Abedin , and A. F. M. Y. Haider | Vol. 2022, pp.1-25,<br>Journal of Spectroscopy | <a href="https://doi.org/10.1155/2022/3887038">https://doi.org/10.1155/2022/3887038</a>                   | 2022                |
| 2.     | Surface modification and improvements of wicking properties and dyeability of grey jute-cotton blended | M.Hedayet Ullah , Hasina Akther , M.Mahbubur Rahman , A.B.M. Foisal , M.Mahmud Hasan , S.M. Amir-Al                        | Vol. 7, e 07893<br>Heliyon                     | <a href="https://doi.org/10.1016/j.heliyon.2021.e07893">https://doi.org/10.1016/j.heliyon.2021.e07893</a> | 2021                |

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## **Md. Harun Or Rashid**

### **Assistant Professor**

- Md. Harun-Or-Rashid, Md. Mahfuzur Rahman, M. Arifuzzaman, A.K.M. Akther Hossain. Structural, magnetic, and electrical properties of  $Ni_{0.38-x}Cu_{0.15+y}Zn_{0.47+x-y}Fe_2O_4$  synthesized by sol-gel auto-combustion technique. Journal of Materials Science: Materials in Electronics, Springer Nature (2021).
- M. Nazrul Islam, Md. Harun-Or-Rashid, Roksana Parvin, A.K.M. Akther Hossain. Improvement of microstructure and initial permeability of  $Mn_{0.5}Ni_{0.1}Zn_{0.4}GdxFe_{2-x}O_4$  with sintering temperature. Journal of Results in Physics, Elsevier (2021).
- Md. Harun-Or-Rashid, M. Nazrul Islam, M. Arifuzzaman, A.K.M. Akther Hossain. Effect of sintering temperature on the structural, morphological, electrical and magnetic properties of Ni-Cu-Zn and Ni-Cu-Zn-Sc ferrites. Journal of Materials Science: Materials in Electronics, Springer Nature (2021).
- M. Arifuzzaman, M. B. Hossen, Md. Harun-Or-Rashid, M. L. Rahman. Structural and magnetic properties of nanocrystalline  $Ni_{0.7-x}Cu_xCd_{0.3}Fe_2O_4$  prepared through Sol-gel method. Journal of Materials Characterizations, Elsevier 171 (2021) 110810.
- M.H. Rashid, A.K.M. Akther Hossain. Structural, morphological and electromagnetic properties of  $Sc^{3+}$  doped Ni-Cu-Zn ferrites. Journal of Results in Physics, Elsevier, 11 (2018) 888-895.
- M.H. Rashid, J. Rabeya, M.H. Doha, O. Islam, P. Reith, G. Hopman, H. Hilgenkam. Characterization of single step electrodeposition  $Cu_2ZnSnS_4$  thin films. Journal of Optics, Springer Nature, 47 (2018) 256.

# Mr. Lincoln Paik

Assistant Professor

- Dy-doped MoO<sub>3</sub> nanobelts synthesized via hydrothermal route: Influence of Dy contents on the structural, morphological and optical properties.

<https://doi.org/10.1016/j.jallcom.2021.160070>

# Dr. Md. Murad Ahmed

Assistant Professor

| Serial | Title of the Research Paper  | Name of the Researcher   | Volume   | Issue  | Year of Publication |
|--------|--|--|--|--|---------------------|
| 1      | <u><math>\beta</math>-<math>\gamma</math> spectroscopy of the <sup>195</sup>Os nucleus</u>   | <u>M. Ahmed</u> , Y. X. Watanabe, Y. Hirayama, M. Mukai et al.   | Phys. Rev. C 103, 054312   | DOI: <a href="https://doi.org/10.1103/PhysRevC.103.054312">https://doi.org/10.1103/PhysRevC.103.054312</a>       | 2021, USA           |
| 2      | <u>First direct observation of isomeric decay in neutron-rich odd-odd <sup>186</sup>Ta</u>   | Y. X. Watanabe, P. M. Walker, Y. Hirayama, M. Mukai. <u>M. Ahmed</u> et al.                                      | Phys. Rev. C 104, 024330   | DOI: <a href="https://doi.org/10.1103/PhysRevC.104.024330">https://doi.org/10.1103/PhysRevC.104.024330</a>       | 2021, USA           |
| 3      | <u>Deexcitation <math>\gamma</math>-ray transitions from the long-lived <math>T^{\pi}=13/2^+</math> metastable state in <sup>195</sup>Os</u> | Y. X. Watanabe,... <u>M. Ahmed</u> , Y. Hirayama, M. Mukai et al.  | Phys. Rev. C <b>101</b> , 041305(R)  | DOI: <a href="https://doi.org/10.1103/PhysRevC.101.041305">https://doi.org/10.1103/PhysRevC.101.041305</a>       | 2020, USA           |
| 4      | <u>Properties of <sup>187</sup>Ta Revealed through Isomeric Decay</u>  | P. M. Walker, Y. Hirayama, G. J. Lane, H. Watanabe, G. D. Dracoulis, <u>M. Ahmed</u> , M., X. Y. Watanabe et al. | Phys. Rev. Lett. 125, 192505   | DOI: <a href="https://doi.org/10.1103/PhysRevLett.125.192505">https://doi.org/10.1103/PhysRevLett.125.192505</a> | 2020, USA           |
| 5      | <u>Nuclear spectroscopy of r-process nuclei using KEK Isotope Separation System</u>  | Y. Hirayama, Y.X. Watanabe, M. Mukai, P. Schury, <u>M. Ahmed</u> et al.  | Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms 463, 425-430 | doi:10.1088/1742-6596/1643/1/012138  | 2020, Netherlands   |
| 6      | <u>Development of a multi-segmented proportional gas counter b-decay spectroscopy at KISS</u>  | M. Mukai, Y. Hirayama, P. Schury, Y. X Watanabe, <u>M. Ahmed</u> , H. Miyatake et al.                            | Nuclear Instruments and Methods in Physics Research B,10,1016  | <a href="https://doi.org/10.1016/j.nimb.2019.04.036">https://doi.org/10.1016/j.nimb.2019.04.036</a>              | 2019, Netherlands   |
| 7      | <u>b- and g- decay spectroscopy of <sup>197,198</sup>Os</u>  | Y. Hirayama, Y. X Watanabe, M. Mukai, <u>M. Ahmed</u> , H. Miyatake et al.                                       | Physical Review C, 98  | <a href="https://doi.org/10.1016/j.nimb.2019.04.035">https://doi.org/10.1016/j.nimb.2019.04.035</a>              | 2018, USA           |
| 8      | <u>High-efficiency and low background multi-segmented proportional gas counter for beta decay spectroscopy</u>                               | M. Mukai, Y. Hirayama, Y. X Watanabe, P. Schury, H. S. Jung, <u>M. Ahmed</u> , H. Miyatake et al.                | Nuclear Instruments and Methods in Physics Research A, 884   | <a href="https://doi.org/10.1016/j.nima.2017.12.013">https://doi.org/10.1016/j.nima.2017.12.013</a>              | 2018, Netherlands   |
| 9      | <u>In-gas-cell laser spectroscopy of magnetic dipole</u>   | Y. Hirayama, M. Mukai, Y. X Watanabe, <u>M. Ahmed</u> .  | Physical Review C, 96  | DOI: <a href="https://doi.org/10.1103/PhysRevC.96.014307">https://doi.org/10.1103/PhysRevC.96.014307</a>         | 2017, USA           |



|    |  |  |  |   |                   |
|----|--|--|--|---|-------------------|
|    | moment of the $N = 126$ isotope $^{199}\text{Pt}$  | al. H. Miyatake et   |  |   |                   |
| 10 | Doughnut-shaped gas cell for KEK Isotope Separation System   | Y. Hirayama, Y.X Watanabe, M. Mukai, M. Oyaizu, <b>M. Ahmed</b> , H. Miyatake et al.           | Nuclear Instruments and Methods in Physics Research B, 412     | <a href="https://doi.org/10.1016/j.nimb.2017.08.037">https://doi.org/10.1016/j.nimb.2017.08.037</a> | 2017, Netherlands |
| 11 | Ionization cross section, pressure shift measurements of osmium  | Yoshikazu Hirayama, Momo Mukai, Yutaka Watanabe, <b>Murad Ahmed</b> et al.                     | Journal of Physics B: Atomic Molecular and Optical Physics, 50 | <b>DOI</b> 10.1088/1361-6455/aa8b50   | 2017, U. K        |
| 12 | Nuclear spectroscopy of r-process nuclei around $N = 126$ using KISS   | Y. Hirayama, Y. X Watanabe, H.Miyatake, <b>M. Ahmed</b> et al.                                 | IL Nuovo Cimento, C, 39,                                       | <b>DOI</b> 10.1393/ncc/i2016-16359-9  | 2016, Switzerland |
| 13 | Natural Radioactivity and dose assessment in sand and sediment samples from Kuakata beach, Bangladesh  | <b>Md. Murad Ahmed</b> , Suranjan Kumar Das**, Selina Yeasmin**                                | J. Bangladesh Acad. Sci., Vol. 40, No. 1,                      |   | 2016, Bangladesh  |
| 14 | Measurement of the natural radioactivity and radiological hazard of soil, sand and sediment samples collected from coastal area, Cox's bazar, Bangladesh | Sariful, Suranjan Kumar Das**, <b>Md. Murad Ahmed</b> , Selina Yeasmin**                       | J. Bangladesh Acad. Sci., Vol. 39, No. 2                       |   | 2015, Bangladesh  |
| 15 | Study of natural radioactivity and radiological hazard of sand, sediment and soil samples from Inani Beach, Cox's Bazar, Bangladesh                      | <b>M. M. Ahmed</b> , Suranjan Kumar Das**, M. A Hayder, M. M. H. Bhuiyan, M. I. Ali, D. Paul** | Journal of Nuclear and Particle Physics, 4(2),                 |   |                   |

**Rajia Sultana**  
**Lecturer**

| Serial | Title of the Research Paper   | Name of the Researcher  | Journal Name                             | Issue  | Year of Publication |
|--------|---|---|--|--|---------------------|
| 1.     | A Study on Light Traps for Attracting and Killing the Insects Using PKL Electricity | K. A. Khan, Rajia Sultana, Shahinul Islam, and S. M. Zian Reza  | Springer Nature Singapore pte Ltd 2021   | <a href="https://doi.org/10.1007/978-981-33-6915-3_14">https://doi.org/10.1007/978-981-33-6915-3_14</a>      | 2021                |
| 2.     | PKL Electricity- An Observation   | Md. Afzol Hossain, Md Ohiduzzaman, Rajia Sultana, Rajada Khatun, Shirin Akter, K. A. Khan, and Mehedi hasan | Springer Nature Singapore pte Ltd 2021   | <a href="https://doi.org/10.1007/978-981-33-6915-3_53">https://doi.org/10.1007/978-981-33-6915-3_53</a>      | 2021                |
| 3.     | Portable PKL Powered Lantern  | Md. Ohiduzzaman, Rajia Sultana, Rajada Khatun, Shirin Akter, and K. A. Khan                                 | Ethics and Information Technology (ETIT) | DOI: <a href="http://doi.org/10.26480/etit.02.2020.179.183">http://doi.org/10.26480/etit.02.2020.179.183</a> | 2021                |

# Department of Chemistry

Among the four departments under the Faculty of Science and Engineering, the department of Chemistry is one of the promising departments of Textile University. Chemistry is the central science of innovation, information, technology and development. The department of chemistry acts as a base for all engineering department of BUTEX. It is a highly specialized branch in the areas of dyeing and finishing chemistry, fiber and polymer chemistry, and a newer area that intersects with materials science and effluent treatments of textile waste water. The research is on doing things better (quicker, cheaper) and with a lower adverse environmental impact than offered by conventional technology to improve textile handle, water repellency and laundering properties. Undergraduate and graduate laboratories of the department are soon going to be enriched under the \_\_\_\_\_ project.

The department also focuses on providing masters degree on chemistry to create opportunity of higher education and research in growing need of textile, textile effluents and garments industry.

## **Vision**

To be a window of modern age through research, innovative works and establishing new dimension between textile and chemistry.

## **Mission**

- To ensure a dynamic and encouraging learning environment and research based educational class room and laboratory.
- To acts as a base for all branches of science like textile engineering.
- To strengthen the students providing quality teaching and make them capable to cope with leadership, teamwork, problem solving, career preparation, ethics.
- To enhance collaboration between institutional knowledge and industrial knowledge.
- To carry out collaborative projects that offer long term innovative works.

## **Objectives**

- Impart quality education by updating and adopting outcome based curriculum.
- Provide high quality education for the undergraduate and graduate program on textile chemistry.

# FACULTY MEMBERS

Dr.Nargish Jahan Ara

Professor

Dr. Md. Samiul Islam Chowdhury

Professor & Head of the Department

Dr. A M Azmal Morshed

Associate Professor

Md. Farhadur Rahman

Assistant Professor

Farzana Yasmin

Assistant Professor

Sadia Salsabil Bristy

Assistant Professor

Md. Mizanoor Rahman

Lecturer

Afnan bin Siddique

Lecturer

Nazmul Hossain

Lecturer

## Officer's

### Chemistry Lab

**Md. Jahangir Hossen**

Senior Technical Officer

**Md. Ataur Rahman**

Technical Officer

**Md.Kamrojjaman**

Assistant Technical Officer

# Publication & Research

**Dr. Md. Samiul Islam Chowdhury**

**Professor**

| Sl No. | Title of the Paper  | Name of the Journal with Vol. No. pp  | Year and Country of Publication | Name of Author(s)*  | Types of Publication** |
|--------|---|---|---------------------------------|---|------------------------|
| 1      | Synthesis of homo- and copolymer containing sulfonic acid via atom transfer radical polymerization.   | <i>Taylor &amp; Francis</i><br>Vol. 25,<br>pp 261-270                                   | <b>2022</b><br>UK               | Md. Wali Ullah, Naoki Haraguchi, Md. Azgar Ali, Md. Rabiul Alama, and <b>Samiul Islam Chowdhury</b> | Research Article       |
| 2      | Polymerization of Styrene Derivatives Using Anilino-naphthoquinone-Ligated Nickel Complexes and Thermal/Rheological Properties of the Produced Polymers                   | <i>Macromolecular Chemistry and Physics,</i><br>Vol. 223,<br>pp 2100402(1-6)            | <b>2022</b><br>USA              | <b>Samiul Islam Chowdhury,</b> Takumitsu Kida, Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono         | Research Article       |
| 3      | Synthesis and antimicrobial activity of chalcone containing polystyrene   | <i>Indian Journal of Chemistry,</i><br>Vol. 60B,<br>pp 456-464                          | <b>2021</b><br>India            | Farhana Sumi Rain, Tariqul Hasan, <b>Samiul Islam Chowdhury</b> & Roushoun Ali                      | Research Article       |
| 4      | Effect of Flexible Chain on Mesomorphic Properties of Alkyloxy Substituted 4-Chloroazobenzene Liquid Crystals   | <i>Asian Journal of Chemistry</i><br>Vol. 33,<br>pp 1159-1164                           | <b>2021</b><br>India            | Kamruzzaman, Roushoun Ali, Rabiul Karim, <b>Samiul Islam Chowdhury</b> and Tariqul Hasan            | Research Article       |
| 5      | Copolymerization of norbornene and conjugated dienes using anilino-naphthoquinone-ligated nickel complexes  | <i>Polymer</i><br>Vol.187,<br>pp 122094.  | <b>2020</b><br>Netherlands      | <b>Samiul Islam Chowdhury,</b> Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono                         | Research Article       |
| 6      | Synthesis of norbornene/divinylbenzene copolymers catalyzed by anilino-naphthoquinone-ligated nickel complexes and their applications for the synthesis of graft polymers | <i>Journal of Polymer Science part A polymer Chemistry,</i><br>Vol. 58,<br>pp 1564–1570 | <b>2020</b><br>USA              | <b>Samiul Islam Chowdhury,</b> Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono                         | Research Article       |

|    |   |   |                     |   |                  |
|----|---|---|---------------------|---|------------------|
| 7  | Coordination-Insertion Copolymerization of Norbornene and <i>p</i> -Substituted Styrenes Using Anilinonaphthoquinone-Ligated Nickel Complexes.              | <i>Macromolecular Chemistry and Physics</i> ,<br>Vol. 221(5),<br>pp 1900-1904.  | 2020<br>USA         | <b>Samiul Islam Chowdhury</b> ,<br>Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono | Research Article |
| 8  | Copolymerization of Styrene and [Poly(ethylene glycol) methyl ether] Methacrylate using Reverse Atom Transfer Radical Polymerization                        | <i>Chemical Science &amp; Engineering Research</i> ,<br>Vol. 2,<br>pp 34-38   | 2020<br>India       | Lamya Zahir, Nargish Jahan Ara and <b>Samiul Islam Chowdhury</b>                | Research Article |
| 9  | Copolymerization of Norbornene and Styrene with Anilinonaphthoquinone-Ligated Nickel Complexes.   | <i>Polymers</i><br>Vol. 11 (7),<br>pp 1100.   | 2019<br>Switzerland | <b>Samiul Islam Chowdhury</b> ,<br>Ryo Tanaka, Yuushou Nakayama, Takeshi Shiono | Research Article |
| 10 | Kinetic Studies on Bulk Atom Transfer Radical Polymerization of Styrene   | <i>American Journal of Polymer Science and Technology</i><br>Vol. 3,<br>pp 103-107                                    | 2017<br>USA         | <b>Samiul Islam Chowdhury</b> ,<br>Lamya Zahir, Tariqul Hasan                   | Research Article |
| 11 | Synthesis of Well-Defined Vinyl End-Functional Polystyrene Using Multifunctional Initiator by Atom Transfer Radical Polymerization.                         | <i>American Journal of Applied Sciences</i> ,<br>Vol. 12 (8),<br>pp 581-587.  | 2015<br>UAE         | <b>Samiul Islam Chowdhury</b> ,<br>Roushoun Ali and Tariqul Hasan               | Research Article |
| 12 | Synthesis and Characterization of Mono and Di arm $\alpha$ -halo esters as a Initiator for Atom Transfer Radical Polymerization                             | <i>Research Journal of Chemical Sciences</i> ,<br>Vol. 5<br>pp 41-45  | 2015<br>India       | Homayun Kabir,<br><u><b>Samiul Islam Chowdhury</b>, Tariqul Hasan</u>           | Research Article |
| 13 | Synthesis and Characterization of Dioxolane $\alpha$ -bromoester from Glycerol and Its Application as Initiator on the Atom Transfer Radical Polymerization | <i>Journal of Chemical, Biological and Physical Science</i> ; Section A: Chemical Sciences<br>Vol. 5,<br>pp 2706-2722 | 2015<br>India       | <u><b>Samiul Islam Chowdhury</b>, Tariqul Hasan</u>                             | Research Article |

|    |   |   |             |  |                  |
|----|---|---|-------------|--|------------------|
| 14 | Synthesis of Well-defined Dihydroxyl End-Functional Polystyrene using Trifunctional Initiator via Atom Transfer Radical Polymerization. | <i>American International Journal of Research in Science, Technology, Engineering &amp; Mathematics</i><br><br>Vol: 9(2),<br>pp 113-118 | 2015<br>USA | <u>Samiul Islam Chowdhury, Tariqul Hasan</u> | Research Article |
| 15 | Effect of Spacer Length from Vinyl Group of Vinyl-bromoester Initiator on Atom Transfer Radical Polymerization of Styrene.              | <i>American International Journal of Research in Science, Technology, Engineering &amp; Mathematics</i><br><br>Vol: 9(3),<br>pp 212-215 | 2015<br>USA | <u>Samiul Islam Chowdhury, Tariqul Hasan</u> | Research Article |

## Dr. A M Azmal Morshed

### Associate Professor

1. **Abu Mohammad Azmal Morshed** , Md. K I. Sharker and Md. Abdul Khaleque,” A Application of Nanotechnology in the medical Sciences: A new horizon of treatment” Am. Journal of Biomed. Sci., **9(1)**, 1-14(2017).
2. Kaniz Fatema, T A Trisha, Abu Mohammad Azmal Morshed, Md. Moyeen Uddin Pk., Tanzina Akter, Bushra Jannat and Suvomoy Datta,” An Epidemiological Study of Antibiotic Resistance of Salmonella typhi and Salmonella Paratyphi-A from Clinical Sample in Dhaka City, Vol. 8(4), P. 1-5,(2016).
3. **Abu Mohammad Azmal Morshed** and Md. Mujibor Rahman,” A *Physico-Chemical Studies on dyeing progress variables and dyeing Kinetics of Natural Dyes*” *IOSR Journal of Polymer and Textile Engineering (IOSR-JPTE)*, **Vol. 2(3), 71-75, (January-2016)**.
4. Moyeen Uddin Pk, **Abu Mohammad Azmal Morshed**, Kaniz Fathema and Saiful Islam ,“Prevalence of Herpes Simplex Virus (HSV) infection among Adults Citizens of Dhaka, Bangladesh: A Statistical Inferences” *J. of Blood Disorders Transfusion* , **Vol.5( 1)**, 1000-1003,(August, 2015).
5. Md. Ehsanul Huq, **Abu Mohammad Azmal Morshed** and W. E. Sneader ”*Barbiturate Esters as Intravenous Anesthetics: A new Dimension of Anesthesia Route*”. *Archives of Medicine*, **7(3)**, 8-12,(April-2015).
6. **Abu Mohammad Azmal Morshed** ,”*Root Reasons behind the Unusual Behaviors of the Earth climate thus the causes of Natural Disasters*” *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)*, **7(2)**, p. 5-7 ,(Nov-2013).

7. Moyen Uddin Pk and **Abu Mohammad Azmal Morshed**,” *Prevalence of HBsAg and Anti-HCV Positivity among Blood Donors: Experience in a Private Hospital of Dhaka, Bangladesh*”, **J. of Blood Disorders Transfusion**, **4(5)**, 154-156, (Sep-2013)
8. **Abu Mohammad Azmal Morshed** and T. H. Yoon, “*Surfactant Induced Photostability Enhancements of Thiol Coated Quantum Dot Nanocolloids*”. **Korean Chem. Soc.**, **29(1)**,p.249-251,(2008).
9. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan,”*Redox behavior of D-mannose and chromium (VI) in the presence and absence of micelles and inorganic salts*”, **Indian Journal of Chemistry**, **43B**, p.2178-2188, (2004).
10. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan, “*The Role of Manganese (II), Micelles and Inorganic Salts on the Kinetics of the Redox Reaction of L-Sorbose and Chromium (VI)*”.**International Journal of Chemical Kinetics**, **35**, p.543–554,(2003).
11. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan,”*Micellar Effects on the Oxidation of D-Glucose by Chromic Acid in Perchloric Acidic Medium*”, **Journal of Carbohydrate Chemistry**, **22**, p.835-858, (2003).
12. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan,”*Influence of Sodium Dodecyl Sulfate/Triton X-100 Micelles on the Oxidation of D-fructose by Chromic acid in presence of HClO<sub>4</sub>*”. **Carbohydrate Research**, **337(17)**, p.1573-1583, (2002).
13. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan,”*Micellar Effects on the chromium (VI) oxidation of D(+)-xylose*” **Inorganic Reaction Mechanisms**, **3(4)**, p.255-266, (2002).
14. Kabir-ud-Din, **Abu Mohammad Azmal Morshed** and Z. Khan, “*Oxidative Degradation of L(+)-arabinose by Chromium(VI) in absence and presence of/Sodium Dodecyl Sulfate and TX-100 Micelles*”. **Oxidation Communication**, **26**, p.59-71 , (2003).

## Md. Farhadur Rahman

### Assistant Professor

- Mohammad Farhadur Rahman, Nargish Jahan Ara, Mohammad Mesbah Uddin, Mohammad Zakir Sultan. Toxic Effects of Levafix Blue CA and Levafix Amber CA Reactive Dyes on Liver and Kidney in Mice. *International Journal of Nutrition and Food Sciences*, 6, No. 5, 2017 pp. 187-193. doi: 10.11648/j.ijnfs.20170605.11
- Mohammad Farhadur Rahman, Nargish Jahan Ara, Bishnu Pada Dey, Mohammad Zakir Sultan. Toxic Effects of Coralene Red XF and Remazol Red RR Textile Dyes on Liver and Kidney in Mice. *International Journal of Food Science and Biotechnology*.Vol. 2, No. 4, 2017, pp. 97-102. doi: 10.11648/j.ijfsb.20170204.14
- Farhadur RM; Anisur RM; Zakir, SM and Abdus, SM (2017), “Study of Drug-Drug Interaction and Simultaneous Estimation of a new Combinational Drug by DSC and HPLC.” *International Journal of Drug Research and Technology*, 7 (4), 180-194
- Mohammad Farhadur Rahman, Md. Zakir Sultan, Asma Rahman, Md. Anisur Rahman and Md. Abdus Salam. Simultaneous Estimation of Antihypertensive and Antidiabetic Drugs by HPLC. *Research and Reviews: Journal of Pharmaceutical Quality Assurance* (2015), Volume 1 (1), 25-29
- Mohammad Farhadur Rahman, Md. Abdus Salam, Asma Rahman and Md. Zakir Sultan. 2017. Studies of Interactions of Valsartan, Glimepiride and Ciprofloxacin HCl by DSC and HPLC. *Bangladesh Pharmaceutical Journal* 20(2): 195-200



## Afnan bin Siddique

Lecturer

### Publication:

"Synthesis, structure and photophysical properties of mono- and di-nuclear platinum (II) acetylde complexes"- Journal of organometallic chemistry, Vol.950, Page. 121970, 2021.

## Nazmul Hossain

Lecturer

### Publications:

1. **Nazmul Hossain**, Md. Ismail Hossain, Parbhej Ahamed and Mohammad Abu Yousuf "Binary Solvent System for Extraction of Cathode Material From Spent Li-ion Batteries." *Dhaka University Journal of Science* (2022): 225-
2. Hossain M. M. and **M. N. Hossain**. "Determination of Quality Index for Surface and Ground Water of Jashore, Bangladesh." *Annals of Bangladesh Agriculture* 25.1 (2021): 117-122.
3. M.Shahidul Islam, Suman C.Mohanta, Md.Abu Bakar Siddique, M. Abdullah -Al-Mamun, **Nazmul Hossain**, Ummey Hafsa Bithi "Physico-chemical assessment of water quality parameters in Rupsha river of Khulna region, Bangladesh." *Int. J. Eng. Sci* 7.1 (2018).

# Department of Mathematics and Statistics

## Vision

To carry out the vision of the university by achieving the excellence in teaching and research in the field of Mathematics, Statistics and Engineering

## Mission

The Department of Mathematics and Statistics engages in the discovery and dissemination of mathematical knowledge at all levels-professional, graduate and undergraduate. The Department conducts fundamental research in pure mathematics, applied Mathematics and Statistics. Publications in peer-reviewed journals and participation in conferences, seminars are the hallmarks of the department's scientific activities.

## Objectives

To equip the graduates with Mathematical and Statistical Knowledge and allow them to utilize this Knowledge in solving problems related to their respective areas.

## FACULTY MEMBERS

Dr. Anup Kumar Datta

Associate Professor & Head of the Department

Md. Rokonuzzaman

Assistant Professor

Margia Yesmin

Assistant Professor

Md. Kawsarul Islam

Assistant Professor

Md. Anowar Hossain

Assistant Professor

# Publication & Research

## Md. Rokonzaman

Assistant Professor

| Serial | Title of the research paper   | Name of the Researchers   | Name of Journal/doi   | Volume/<br>Issue   | Year of Publication |
|--------|---|---|---|--|---------------------|
| 01     | Effect of quantity based discount frame in inventory planning under time dependent demand: A case study of mango business in Bangladesh | Md. Rokonzaman<br>Md. Al-Amin Khan<br>Aminur Rahman Khan<br>Ali Al Arjani<br>Md. Sharif Uddin<br>El-Awady Attia | ScienceDirect<br>Journal of King Saud University-Science<br><a href="https://doi.org/10.1016/j.jksus.2023.102480">https://doi.org/10.1016/j.jksus.2023.102480</a> | Paper is accepted and Peer reviewed, that is not yet assigned to volume/issue but is citable using DOI | 09 August, 2023     |

## Md. Anwar Hossain

Assistant Professor

### LIST OF PUBLICATIONS:

A. Hossain, M.S. Ali: Entitled-Study on Exterior Algebra Bundle and Differential Forms by Annals of Pure and Applied Mathematics, Volume 05, No. 02, 2014, 198-207

Chowdhury, D.F. Wahid, and M.A. Hossain: entitled- Proof of 'J is a Radical Class' Using Amitsur Theorem, by Global Journal of Science Frontier Research Mathematics and Decision Sciences, Volume 12, Issue 12, Version 1.0, Year 2012, 12-20

N Siddiki, M. Roy and M. A. Hossain: entitled- Numerical solution of large system of linear equations using several methods and its applications by Novus Natural Science Research, Vol. 3, No. 1, 2014

A. Hossain, M. A. Halim: entitled-Study of Grassmann Algebra with Differential Forms by International Journal of Scientific & Engineering Research, Volume 7, Issue 4, April-2016

K. S. Uddin, M. N. Siddiki, M. A. Hossain: entitled-Numerical Solution of a Linear Black-Scholes Models: A Comparative Overview by IOSR Journal of Engineering (IOSRJEN) ISSN (e): 2250-3021, ISSN (p): 2278-8719 Vol. 05, Issue 08 (August. 2015), ||V3|| PP 45-51

# Offices of BUTEX

# **Office of the Vice-Chancellor**

**Prof. Dr. Shah Alimuzzaman**  
Vice-Chancellor

**Md. Billal Hossain**  
Assistant Registrar (PS to VC)

**Md. Shafiqul Islam**  
Assistant Director (Public Relation)

# **Office of the Registrar**

**Kabari Majumder**

Registrar

## **Administrative Section, Registrar Office**

**Itemony**

Assistant Registrar (HR)

**Mohammad Arifur Rahman**

Assistant Registrar

**Farhana Akter**

Administrative Officer (HR)

**Gita Rani Karmaker**

Administrative Officer (HR)

## **Academic Section, Registrar Office**

**Mohammad Sharifur Rahman**

Deputy Registrar (HR)

**Jakirul Islam Peter**

Assistant Registrar (Academic)

**Md. Ehsanul Karim**

Assistant Registrar

## **Store Section**

**Md. Faruq Hossain**

Assistant Registrar

## Estate & Security Office

**Swapn Kumar Mandal**

State Officer (Additional Charge)

**Md. Monjur Alam**

Assistant Technical Officer and  
Security Inspector (Additional Charge)

## Physical Education Center

**Swapn Kumar Mandal**

Assistant Director (Physical Education)

## Engineering Office

**Engr. Md. Afzal Hossen**

Executive Engineer

**Sheikh Md. Mashrur Zayeem**

Senior Assistant Engineer (Civil)

**Md. Ramjan Ali Talukder**

Assistant Engineering (Civil)

**Arun Kanti Chakma**

Assistant Technical Officer

## Medical Center

**Dr. Md. Abu Ishaque**  
Medical Officer

## Office of the Finance & Accounts

**Muhammad Kamruzzaman  
Chowdhury**  
Deputy Director (Finance & Accounts)

**Sarmin Akhter**  
Assistant Director (Salary)

**Alok Chandra Dey**  
Assistant Director (Budget)

**Abdul Matin Dewan**  
Accounts Officer

**Mohammad Sahadat Hossain**  
Section Officer (Cash)

**Nasrin Akter**  
Assistant Accounts Officer

**Md. Masud Rana**  
Assistant Accounts Officer

## Audit Cell

**Md. Moniruzzaman**  
Deputy Director (Audit)

**Muhibbur Rahman**  
Assistant Audit & Accounts Officer



## Office of the Controller of Examinations

**Md. Rezaul Haque**

Controller (Current Charge)

**Md. Mubarak Hossain**

Deputy Controller of Examinations

**Marjani Tuban Nahar**

Assistant Controller of Examinations

**Mohammad Khaled Hossan**

Section Officer

**Md. Azizul Haque Khaled**

Section Officer

**Eva Akhter**

Section Officer

**Anwara Katun Nilu**

Administrative Officer

## Office of the External Affairs

**Dr. Mohammad Abbas Uddin**

(Shiyak)

Director, External Affairs

## Office of the Research and Extension (ORE)

**Dr. A T M Faiz Ahmed**

Director (Research & Extension)

## Office of the Students Welfare

**Dr. Md. Reajul Islam**  
Head, Dept of Yarn Engineering  
Director of Student's Welfare

## Office of the Planning & Development

**Prof. Dr. Mohd. Forhad Hossain**  
Director (Additional Charge)  
**Hossain Mohammad Akbar**  
Assistant Director (Procurement)

## Office of the Proctor

**Prof. Dr. Ummul Khair Fatema**  
Proctor  
**Dr. Sultan Mahmud**  
Assistant Proctor

## Central Library

**Mahfoza Begum**  
Section Officer

## ICT Cell

**Engr. Md. Ashifur Rahman**

Programmer

**Engr. Abu Saleh Md. Jahurul Haque**

Assistant Maintenance Engineer

**Rubel Rana**

Technician (Network & Hardware)

## Institutional Quality Assurance Cell (IQAC)

**Prof. Dr. Mohd. Forhad Hossain**

Director

**Dr. Md. Ahashan Habib**

Additional Director

**Md. Shamim Islam**

Assistant Director

**Abdul Matin Dewan**

Accounts Officer

## Accredited Lab

**Prof. Dr. Hosne Ara Begum**

Director (Additional Charge)

**Ummey Mohsina Asia Begum**

Assistant Director (Reporting)

**Ruksana Jannat Nourin**

Assistant Director (Reporting)

**Md. Farukul Islam Chowdhury**

Technical Officer

**Ahnaf Abid Momo**

Technical Officer

## **Executive Development Center (EDC)**

**Prof. Dr. Mohammad Ali**

Director, EDC

**Prof. Dr. Mohd. Forhad Hossain**

Deputy Director, EDC

**Dr. Mohammad Rafiqur Rashid**

Asst. Director, EDC (Academic)

**Dr. Mohammad Abbas Uddin**

Asst. Director, EDC (Administration)

**Adeeba Binte Azad**

Executive (Admin)

**Binoy Kumar Sarkar**

Executive (Finance)

## **HELD-BUTEX Project**

**Prof. Dr. Ummul Khair Fatema**

Co-ordinator-I, HELD-BUTEX

**Muhammad Sohel Hossain**

Finance Officer, HELD-BUTEX

## **BUTEX-KIK Scholarship Support Project**

**Dr. Mohammad Abbas Uddin**

(Shiyak)

Co-ordinator

## Affiliated College/Institute

- Bangabandhu Textile Engineering College
- Sheikh Rehana Textile Engineering College
- Sheikh Kamal Textile Engineering College
- Dr. M A Wazed Miah Textile Engineering College
  - Begumgonj Textile Engineering College
    - Pabna Textile Engineering College
    - SARS Textile Engineering College
    - Textile Engineering College Chittagong
- Bangladesh Handloom Education & Training Institute
- Sheikh Hasina Textile Engineering College, Melandaho,  
Jamalpur

# **Residential Hall**

# G. M. A. G. Osmani Hall

Dr. Md. Syduzzaman

Provost

Md. Kamrul Hasan

Assistant Provost

Saifur Rahman Tushar

House Tutor

Forhad Ahmed

House Tutor

## Officer

**Md. Ayub Ali**

Assistant Technical Officer

**Total Seat-296**

# **Shaheed Aziz Hall**

Dr. Emdad Sarker

Provost

Dr. Md. Nurun Nabi

Assistant Provost

Dr. Md. Murad Ahmed

Assistant Provost

Md. Bashar Uddin

House Tutor

**Officer**

**Md. Abdul Malek**

Assistant Technical Officer

**Total Seat-245**



# **Syed Nazrul Islam Hall**

Dr. Md. Mahbubor Rahman

Provost

Md. Rubel Khan

Assistant Provost

Md Abul Kalam Azad

Assistant Provost

Md. Reasat Aktar Arin

House Tutor

Md. Morshedul Haque

House Tutor

**Total Seat-216**

# **Sheikh Hasina Hall**

Dr. Hasina Akter

Provost

Toufiqua Siddiqua

Assistant Provost

Upama Nasrin Haq

House Tutor

Total Seat-164