

2nd International Conference on Textile Science and Engineering

With special focus on Textile Processing, Sustainability, and Circularity Faculty of Textile Chemical Engineering **Bangladesh University of Textiles (BUTEX)**

Day 1: 23 May 2024

| | Plenary Session | 8.30 – 10:45 | BUTEX Auditorium |
|-------------|--------------------------------|---|---|
| 8.30-9.00 | Registration | | |
| 9.00-9.10 | Opening Speech | | Prof Dr Ummul Khair Fatema Dean, Faculty of Textile Chemical Engineering Organising Chair, ICTSE 2024 |
| 9.10-9.12 | Inauguration of the Conference | | Mohibul Hasan Chowdhury, MP Honorable Minister, Ministry of Education |
| 9.12 –9.45 | Keynote Speech | Sustainability is the future of Textile business | Prof. DrIng. Michael Rauch Institut für Materialwissenschaften Hof University of Applied Science |
| 9.45-10.10 | Q&A | | |
| 10.10-10.20 | Inauguration Speech | | Mohibul Hasan Chowdhury, MP Honorable Minister, Ministry of Education |
| 10.20-10.30 | Closing Speech | | Prof Dr Shah Alimuzzaman Vice Chancellor BUTEX Conference Chair, ICTSE 2024 |

| Tech | nical Session | 1 11:00 – 13:00 Teachers' Lounge | , Academic building |
|--------------|---------------|--|--|
| 11.00-11.20 | ICTSE24 001 | Bleach wash with potassium permanganate (KMNO ₄) and alternative potassium permanganate in wet wash and analysis performance in various properties of denim fabric in both cases | Md. Istiak Ashraf*, Saikat Roy, Setu Mallick, Saurabh Das, Md. Mehedi Hasan |
| 11.20-11.40 | ICTSE24 002 | Comparative evaluation of commercial antimicrobial agents on cotton fabric | Maliha Mumtaj Hossain, Mahfuza Tahsin Shoily, Tanvir Mahtab, Tasnima Islam, Mohammad Abbas Uddin* |
| 11.40 –12.00 | ICTSE24 003 | Assessment of various mordant and pH condition affecting cotton fabric dyeing with moringa leaves | Md. Mazharul Helal*, Lamya Zahir, Sazid Elahi, Md. Mahbubur Rahman, Md. Mutasim Uddin |
| 12.00-12.20 | ICTSE24 004 | Comparative analysis of the properties of viscose fabric dyed with reactive dyes using groundwater, rainwater and seawater | Md. Abu Sayed Monshi*, Faisal S Rahaman, Md. Solaima Bari, Mst. Mahfuza Akter, Md. Abu Touab Robin, Rawnak Jahan |
| 12.20-12.40 | ICTSE24 005 | Dyeing of silk fabric with natural colorants extracted from babool (acacia nilotica) bark: a green approach in protein fabric coloration | Priti Sarker*, Md. Abdullah Al Mamun, Mohammad Mamun Hossain, Mubarak Ahmad Khan |
| 12.40-13:00 | ICTSE24 006 | Antimicrobial and antioxidant functioilization of cotton knitted fabrics via mushroom and neem oil treatment: a step towards sustainable textiles | Joykrisna Saha*, Most. Rifat Ara, Arnob Dhar Pranta |

| Tech | nical Session | 2 11:00 – 13:00 Seminar room, | Administrative building |
|--------------|---------------|---|---|
| 11.00-11.20 | ICTSE24 007 | Machine learning based optimization of jute ply yarn process parameters and determination of relative importance of process variables | Palash Paul*, Asis Mukhopadhyay |
| 11.20-11.40 | ICTSE24 008 | Automated assessment of fabric color fastness through image analysis | Tasnim Tamanna, Md. Ahsan Habib, Md. Shakil Islam, Md. Mubin Atik Soscho, Sharif Ahmed*, Mohammad Hasib Uj Jaman Khan |
| 11.40 –12.00 | ICTSE24 009 | Development of an automated bale management technique using k-means cluster algorithm | Sharif Ahmed*, Ahnaf Abid , Abu Rafsun Karim, Mohammad Hasib Uj Jaman Khan |
| 12.00-12.20 | ICTSE24 010 | Development of an automated image analysis method to assess the fabric pilling grade | Md. Najmul Hasan, Isratul Islam, Md Asif Iqbal, Arghya Dey, Sharif Ahmed*, Mohammad Hasib Uj Jaman Khan |
| 12.20-12.40 | ICTSE24 011 | A novel approach for gsm estimation of woven fabric using yarn and fabric image analysis | Ashiqur Rahman Shuvo, Maliha Farzana, Ronobijoy Talukder Pritom, Sharif Ahmed, Mohammad Hasib Uj Jaman Khan* |
| 12.40-13:00 | ICTSE24 012 | Automated thread density measurement of woven fabric by image analysis technique | Ishrat Jahan Eva, Maisha Hasan, Tahmida Ahmed Tarin, Sharif Ahmed, Mohammad Hasib Uj Jaman Khan* |

| Tech | nical Session | 3 14:00 – 16:00 Teachers' Lounge | e, Academic building |
|--------------|---------------|--|---|
| 14.00-14.20 | ICTSE24 013 | Graphene oxide-chitosan nanocomposites: an effective solution for methyl orange dye removal in finishing wastewaters | Md Mostoba Rafid*, Md Safat Morshed, Tonmoy Sen, Shama Abdullah Moshrur |
| 14.20-14.40 | ICTSE24 014 | Sustainable approach to PBO fiber synthesis: utilizing chemical industry waste for sustainable fiber production | Mohammad Aiman Hasan, Fahmida Alam Sharif, Hirogaki Kazumasa, Abu Yousuf Mohammad Anwarul Azim* |
| 14.40 –15.00 | ICTSE24 015 | Conversion and characterization of bio- diesel from tannery solid waste | Saad Ahmed, Iftehaj Rafa Rian, Hasan Ahmed, Sadman Sadik , Pranta Bhowmik, Md Ashikul Islam, Shoeb Rahman, Md Sabbir Hosen* |
| 15.00-15.20 | ICTSE24 016 | Conversion of waste to wealth by reusing rinse water in knit dyeing | Arun Kanti Guha*, Hasin Raihan, Md Sabbir Hasan |
| 15.20-15.40 | ICTSE24 017 | Analysis on the prospects of textile sludge utilization in energy and agriculture through hydrothermal liquefaction | Md. Refat Hossain*, Mahamud-Ul Islam, Shajneen Islam, Md. Morshedul Haque |
| 15.40-16:00 | ICTSE24 018 | Biological treatment of textile wastewater by using domestic wastewater as a co-substrate | Md. Bashirul Islam*, Md. Nour Hossain, Amdadul Haque, Md. Refat Hossain, Rubel Ali |

| Technical Session 4 14:00 – 16:00 Seminar room, Administrative building | | | |
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| 14.00-14.20 | ÎCTSE24 019 | Phase change materials incorporated jute fabric for thermoregulating packaging applications | Md Abdus Shahid, Md. Tanvir Hossain *, Md. Ahasan Habib, Md. Mahbubay Rabbani Mim |
| 14.20-14.40 | ICTSE24 020 | Ergonomic design, development and comfort assessment of a maternity vest for garment workers with support to lower abdomen and lumbosacral region. | Md Jannatul Naime, Md Imran Howlader, Aiasha Siddiqua* |
| 14.40 –15.00 | ICTSE24 021 | Fabric of the future: statistical approaches to solar energy utilization in Bangladesh's textile realm | Mian Mohammad Rassel*, K. M. Tahsin Kabir, Md. Mortuza Ahmmed |
| 15.00-15.20 | ICTSE24 022 | Developing high-performance nanofibrous yarn through electrospinning | Faisal S. Rahaman, M. Sarwar Jahan, Rajib Samaddar, Fairuz L. Oishorjo, Abdul Latif, Mubarak A. Khan* |
| 15.20-15.40 | ICTSE24 023 | Effect of hybridization (jute-sugarcane bagasse) on mechanical properties of composites | Sharmin Akter*, Sweety Shahinur, Tahnin Bintay Kamal |
| 15.40-16:00 | ICTSE24 024 | Performance analysis for multiple generations of recycling pp in jute/PP composites | Sweety Shahinur*, Masroor Anwer, Moslem Uddin, Sharmin Akter, Tahnin Bintay Kamal, Hasant Arefin, Md Mahfuzul Islam, Taiabur Rahman Tushar, Julfikar Haider |

| Techni | ical Session 5 | 5 16:20 – 18:00 Teachers' Lounge | e, Academic building |
|--------------|----------------|--|--|
| 16.20-16.40 | ICTSE24 025 | Impact of present transportation dynamics on supply chain management of apparel sector of Bangladesh | Mohammad Mahmudur Rahman Niaz* |
| 16.40-17.00 | ICTSE24 026 | A comparative study of cost analysis of knit- based garments | Nusrat Tahmida Hossain*, Saifullah Mohammad Ashfak, Mohammad Rizvi |
| 17.00 –17.20 | ICTSE24 027 | Enhancing plastic waste management in Alkaran ward of Chattogram city through materials flow analysis | Md. Nour Hossain*, Md. Bashirul Islam, Asiful Hoque, Saykat Das, Giridhary Deb |
| 17.20-17.40 | ICTSE24 028 | Business process re-engineering of traditional textiles – a case study of aipan folk art of Uttarakhand, India | Shagun Tewari*, A. S. Rao |
| 17.40-18:00 | ICTSE24 029 | Analysis of ethno-force issue in the sustainability of apparel innovation entrepreneurship southwest rural area of Nigeria | K Ola Ajila* |

| Technical Session 6 16:20 – 18:00 Seminar room, Administrative building | | | nistrative building |
|---|-------------|--|---|
| 16.20-16.40 | ICTSE24 030 | Comparative study of UV-protective dyes from terminalia arjuna and punica granatum: mordanting techniques and sustainability in textile production | Tanvir Rayhan Rifat, Siddhartha Halder, Aisha Elahi, Syed Faez Tamzid Swad, Md. Harun-Or-Rashid, Shohag Chandra Das, Sultana Bedoura* |
| 16.40-17.00 | ICTSE24 031 | Analysis of mosquito repellency of viscose and cotton modal blend fabric dyed with <i>ocimum basilicum</i> plant extract by CPB method | Nusrat Jahan*, Rifat Ara Neera, Iffat Ara, Humayra Akhter Himu, Mumtahina Zaman Sujana |
| 17.00 –17.20 | ICTSE24 032 | Formulation and comparison of the performance of natural-based vs commercial softeners for textile application | Swimi Tabassum Ushno, Ashish Karmakar, Md Asadullah, Farhad Hossain Faruk, Md Tanvir Ahmed, Mohammad Abbas Uddin* |
| 17.20-17.40 | ICTSE24 033 | Banana peel bio-coatings: a sustainable approach for fire retardancy | G. M. Faysal, Manindra Nath Roy, Md. Imran Hosen, Jannatur Rayan, Md. Himel Mahmud* |
| 17.40-18:00 | ICTSE 034 | Different types of recycled polyester fabric dyeing with natural dye and performance analysis. | Nazmus Sakib*, Utsash kumer Sarker, Md.Sobuj Mia |

18:00 -19:00 Poster Presentation

19.30 - Conference dinner (for invited guests only)

Day 2: 24 May 2024, 3 PM onward, Factory visit for foreign delegates

Please note that, depending upon the chief guest arrival, your session may start a bit earlier or later on the specified day. Please consider the traffic situation of Dhaka on your journey.