Annual Report - 2017

Dr. Zulfiqar Ali, Chairman
Email: drzulfiqarali70@gmail.com

Faculty of Engineering & Technology
National Textile University, Faisalabad
# Table of Contents

## 1 Academic

- 1.1 Full Time Faculty Members ........................................................................................................... 3
- 1.2 Faculty on Higher Studies .................................................................................................................. 3

## 2 Research product development and commercialization

- 2.1 Books Published ............................................................................................................................... 3
- 2.2 Research Articles ............................................................................................................................. 4
- 2.3 Conferences ...................................................................................................................................... 4

## 3 Events Organized by Technical Society

- 3.1 Society of Textile Spinners arranged an Industrial Tour to J.K. Textile Mills Ltd. ........... 7
- 3.2 A Lecture on Development and Marketing of Stretch Yarns and Fabrics ....................... 7
- 3.3 A Lecture Yarn Conditioning and Its Effects on Fabric Properties ................................. 8
- 3.4 Society of Textile Spinners arranged an Industrial Tour to Ibrahim Fibers (Pvt) Ltd. .... 9
- 3.5 A Lecture on the Fancy Yarns ....................................................................................................... 10
- 3.6 Quiz Competition Conducted by the Society of Textile Spinners ................................. 11
- 3.7 Society of Textile Spinners arranged an Industrial Tour to Nishat Textile Mills Ltd. ..... 11
- 3.8 Industrial Tour to Amer Cotton Mills Sapphire Fiber Limited ........................................ 12
- 3.9 Society of Textile Spinners arranged a Seminar on Career Counseling ....................... 12
- 3.10 Industrial Visit to Nisar Spinning Mills ..................................................................................... 13
- 3.11 Industrial Visit to AA Spinning Mills ......................................................................................... 13

## 4 Sports Activities

- 4.1 Department of Yarn Manufacturing Organized Intra-Departmental Sports .................. 14

## 5 Miscellaneous

- 5.1 Industrial Visits of Faculty Members for Knowledge Up-gradation ...................................... 15
- 5.2 Travel Grants Funded by HEC ................................................................................................. 19
- 5.3 Funded Projects .......................................................................................................................... 19
- 5.4 Consultancies .............................................................................................................................. 19
Annual Report-2017
Department of Yarn Manufacturing

1. Academic

1.1 Full-time Faculty Members

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>Designation</th>
<th>Highest Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Zulfiqar Ali</td>
<td>Assistant Professor</td>
<td>PhD Textile Engineering</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Hafiz Shahzad Maqsood</td>
<td>Assistant Professor</td>
<td>PhD Textile Technics and Materials Engineering</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Abdul Basit</td>
<td>Assistant Professor</td>
<td>PhD Mechanical Engineering</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Abdul Jabbar</td>
<td>Assistant Professor</td>
<td>PhD Textile Technics and Materials Engineering</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Muhammad Bilal Qadir</td>
<td>Assistant Professor</td>
<td>Post Doctorate in Organic and Nano Engineering</td>
</tr>
<tr>
<td>6</td>
<td>Mr. Uzair Hussain</td>
<td>Assistant Professor</td>
<td>MS Textile Engineering</td>
</tr>
<tr>
<td>7</td>
<td>Mr. Muhammad Bilal</td>
<td>Assistant Professor</td>
<td>MS Textile Management</td>
</tr>
<tr>
<td>8</td>
<td>Mr. Sarfraz Hussain</td>
<td>Lecturer</td>
<td>BSc Textile Engineering</td>
</tr>
<tr>
<td>9</td>
<td>Mr. Amir Shahzad</td>
<td>Lecturer</td>
<td>MS Textile Engineering</td>
</tr>
<tr>
<td>10</td>
<td>Mr. Arslan Ahmad Amin</td>
<td>Lecturer</td>
<td>M.Sc. Electrical Engineering (Control Systems)</td>
</tr>
</tbody>
</table>

1.2 Faculty Members on Higher Studies

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>University</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mr. Shoaib Iqbal</td>
<td>Technical University of Liberec</td>
<td>Czech Republic</td>
</tr>
</tbody>
</table>

2. Research, Product Development and Commercialization

- **Books Published**
  Jabbar A. “Sustainable Jute based Composite Materials: Mechanical and Thermo mechanical Behaviour” Springer Briefs in Applied Sciences and Technology 2017. DOI: 10.1007/978-3-319-65457-7, ISBN: 978-3-319-65456-0 (Print) 978-3-319-65457-7 (Online) published by SPRINGER
2.1 Research Articles

2.2 Conferences


7. Uzair hussain, Hafsa Jamshaid, Investigation of comfort properties of flame resistant fabrics , on International Conference on Technical Textiles(ICTT) 2017 9-10 November in NTU


18. Hafsa Jamshaid, Uzair hussain, Study of Structural Performance and Durability of Textile Reinforced Concrete, on International Conference on Technical Textiles(ICTT) 2017 9-10 November in NTU.
3. **Events Organized by Technical Society**

3.1 **Society of Textile Spinners arranged an Industrial Tour to J.K Textile Mills Ltd**

Society of Textile Spinners had arranged an industrial tour to J.K (Pvt.) Ltd. Sheikhupura Road, Faisalabad on April 13, 2017 (Thursday) for 2nd semester students of spinning department under the supervision of Dr. Abdul Basit. J.K Textile Mills Limited is one of the largest manufacture and exporters of yarn products in Pakistan. J.K Textile Unit No. 2 has a semi-automatic system from bale opening to the packing department. This tour was useful and informative for students to know about the manufacturing process.

3.2 **A Lecture on Development and Marketing of Stretch Yarns and Fabrics**

Society of Textile Spinners (STS) had arranged a lecture on “Development and marketing of stretch yarn and fabric” for the students of NTU in the main hall of National Textile University Faisalabad on April 20, 2017. Speaker for the lecture was Mr. Zaheer Anwar Randhawa, who is working with HYOSUNG Company (South Korea) as marketing manager since 2008. HYOSUNG Company offers the world’s best tire cords and produces high tenacity yarns for industrial applications, seat belts, airbag fabric in automobile industry. HYOSUNG is the leading company in Korea. Hyosung has developed aramid fibers and high performance carbon fibers with its independent technology.
The objective of this seminar was to enlighten the students about development and marketing of stretch yarns and fabrics. Speaker highlighted some rules of marketing which are essential for students in their professional life for success. In this lecture Mr. Zaheer Anwar discussed the current situation of spinning industry. He also introduced with the products of his company. This lecture was very beneficial for students to get new knowledge of stretch yarn and fabrics.

3.3 A Lecture on Yarn Conditioning & Its Effects on Fabric Properties

Society of Textile Spinners (STS) had arranged a lecture on "Yarn Conditioning & its Effect on Fabric Properties" for the students of NTU in the main hall of National Textile University Faisalabad on May 11, 2017. Speaker for the lecture was Mr. Moazzam Irshad, who is working with Nishat Group of Industries as a Spinning Manager. Nishat Mills Limited is the flagship company of Nishat Group. It was established in 1951. It is one of the most modern, largest vertically integrated textile companies in Pakistan. Nishat Mills Limited has 227,640 spindles, 805 Toyota air jet looms. The Company also has the most modern textile dyeing and processing units, 2 stitching units for home textile, two stitching units for garments and Power Generation facilities with a capacity of 120 MW. The Company’s total export for the year 2016 was Rs.
35.931 billion (US$ 344.744 million). Due to the application of prudent management policies, consolidation of operations, a strong balance sheet and an effective marketing strategy, the growth trend is expected to continue in the years to come. The Company's production facilities comprise spinning, weaving, processing, stitching and power generation.

The objective of this seminar was to enlighten the students about Yarn Conditioning & its Effect on Fabric Properties. Speaker highlighted on “why conditioning is important for yarn”. In this lecture Mr. Moazzam Irshad discussed the current situation of spinning industry. The lecture was very beneficial for students.

3.4 Society of Textile Spinners arranged an Industrial Tour to Ibrahim Fibers (Pvt.) Limited.

Society of Textile Spinners had arranged an industrial tour to Ibrahim Fibers Limited (Pvt.) Ltd. Sheikhupura Road, Faisalabad on May 13, 2017 (Saturday) for 3rd semester students of spinning department under the supervision of Dr. Muhammad Bilal Qadir. Ibrahim Fibers Limited is one of the largest manufacture and exporters of yarn products in Pakistan and also has a Polyester Manufacturing plant. This tour was useful and informative for students.
3.5 A Lecture on the Fancy Yarns
A lecture on the Fancy Yarns was delivered by Mr. Javed Iqbal on May 18, 2017 in the GM IT LAB. The main purpose of the lecture was to aware the students about the manufacturing fancy yarn and their use. Yarns refer to a structure composed of continuous length of interlocked yarns.

He told that fancy yarns are suitable for use in the production of textiles, sewing, weaving, embroidery and rope making. Fancy yarns are derived from the normal yarns. Fancy yarns appear mainly in high value items so their small volumes cannot be ignored. The fancy yarns give a fancy touch to the fabrics to a broad range of end uses. Significant demand for the fancy yarns is in the ladies and children outer wear. He also informed and taught about the basic principle and application of fancy yarns. Because of this lecture students got a lot of new knowledge about the fancy yarns. In this lecture, faculty members of YM department participated and at the end of lecture chairman of YM department presented the shield to the speaker. By this lecture the students gained useful knowledge about the fancy yarns.
3.6 Quiz Competition Conducted by the Society of Textile Spinners

A Quiz Competition was conducted by the Society of Textile Spinners on May 18, 2017 from 1:20 PM to 2:10 PM at main hall. In the quiz competition, students took a keen interest and more than 100 students participated in the event. It was supervised by the Dr. Bilal Qadir and Mr. Amir Shahzad and society management. Students from all the departments of the university participated in the Quiz competition. The quiz was based on weightage 30% textile (all technologies) and 70% general aptitude. The winners of competition were encouraged and awarded with the cash prizes on the annual dinner of society of textile spinners on May 19, 2017 by the chief guest. First, 2nd and 3rd positions were awarded to the Mr. Anees Arshad, Mr. Fahad Ali, and Mr. Ateeq Ur Rehman respectively.

3.7 Society of Textile Spinners had arranged an Industrial Tour to Nishat Textile Mills Limited Unit No. 03, Faisalabad.

Society of Textile Spinners had arranged an industrial tour to Nishat Textile Mills limited Unit No. 03, Faisalabad on May 25, 2017 (Thursday) for the 2nd Semester students of Yarn Manufacturing Department under the supervision of Dr. Hafiz Shahzad Maqsood. Nishat Textile Mills Ltd is one of the largest manufacturers and exporters of Yarn products in World. Nishat is well reputed industry in recent years. Nishat technology system is Semi-automatic from bale
opening towards the packing department. In recent year yarn produced by Nishat is the best product of yarn market.

Technical Director of Nishat Group Mr. Ghulam Abbas and HR Manager Mr. Abdul Qayyum welcomed the students then he recommended us for meeting with technical staff. Presence of Technical staff was encouraging for students. After meeting with General Manager Mr. Saleem Shahzad and technical staff, all the groups visited mechanical operations and environment. This tour was useful and enjoyable for students. Students appreciated it.

3.8 Industrial Tour to Amer Cotton Mills Sapphire Fiber Limited

Society of Textile Spinners arranged an industrial tour of the 5th semester students to Amer Cotton Mills-Sapphire Fiber Limited Multan Road, Pattoki on October 14, 2017. Amer Cotton Mills-Sapphire Limited is one of the largest manufacturers and exporters of Core Spun yarn products in Pakistan. Dr. Bilal Qadir accompanied the students. This study tour was very useful and informative for the students to know about the practical field.

3.9 Society of Textile Spinners arranged a Seminar on Career Counseling

Society of Textile Spinners arranged a Seminar on career counseling on October 31, 2017. Mr. Sheikh Usman was the guest speaker who is an ex-graduate of NTU (Batch 1998) and a Professional Trainer. The session was very beneficial for the students.
3.10 Industrial Visit to Nisar Spinning Mills
For the professional development of students of Department of Yarn Manufacturing, an industrial tour was arranged under the banner of Society of Textile Spinners 2017-18 on December 22, 2017 where 50 students from 2\textsuperscript{nd} year accompanied with final year students and visited the Nisar Spinning Mills under the supervision of Convener Society of Textile Spinners Dr. Muhammad Bilal Qadir. Nisar Spinning Mills is located in Riawind, south of Lahore in the Punjab (Pakistan). Here one of the most modern ring and compact spinning mills in Pakistan has been built, covering an area of 160 000 sqm. The spinning machines and systems were supplied by Rieter Switzerland. Nisar Spinning Mills spins only cotton, ranging from middle staple to extra-long staple. Yarn counts of Ne 12 to 200 can be produced. With a total installed capacity of 24 000 spindles (half of which are G-33 and half K-44), Nisar Spinning Mills produces up to 5 000 tons each of ring and compact yarn per year. On arrival at Nisar Spinning Mills, Technical Director Mr. Sanaullah Khan warmly welcomed the students. In about 2 hours students visited the mills and got answered of their questions.

3.11 Industrial visit to AA Spinning Mills
For the professional growth of students of Department of Yarn Manufacturing, an industrial tour was arranged under the banner of Society of Textile Spinners 2017-18 on December 29, 2017. Students from 1\textsuperscript{st} year and final year visited the AA Spinning mills under the supervision of Asst. Professor Dr. Abdul Basit. A.A. Spinning Mills Limited is the first ever unit in Pakistan which has fifty thousand spindles under one roof with the collaboration of leading European companies
having in the business of textile machinery for more than decades. They are dealing in Ne 14/1 to Ne 45/1 with an option of carded, combed by using both cotton and man-made fibers.

On arrival at AA Spinning Mills, Mr. Shakeel Hassan HR Manager by himself warmly welcomed the students and prayed for their successful future. After that General Manager Mr. Shahid Shahbaz, Deputy General Manager Mr. Saeed and Spinning Manager Mr. Usman gave a brief introduction to the students about the mills. The students observed the yarn manufacturing process and visited different departments.

4. **Sports Activities**

4.1 **Department of Yarn Manufacturing Organized Intra-Departmental Sports**

Department of Yarn Manufacturing organized intra-departmental sports competitions on Wednesday, October 25, 2017. The event was formally inaugurated by Dr. Zulfiqar Ali, Director FET. Dr. Abdul Basit, Sports Coordinator YMD, Mr Uzair Hussain, Assistant Professor, Mr. Pervaiz Akhtar Sports Officer, Mr. Imran Ali Gill, Sports Officer and faculty members of Yarn Manufacturing Department were also present on the occasion. Director FET emphasized the importance of sports and asked students to maximize their participation in sports activities along with the academic activities.
5. Miscellaneous

5.1 Industrial Visits of Faculty Members for knowledge up-gradation

<table>
<thead>
<tr>
<th>Name</th>
<th>Name of Mills</th>
<th>No. of Mills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Zulfiqar Ali Assistant Professor</td>
<td>1. Crestex Mills Ltd, Sargodha Road Faisalabad.</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>2. Ittehad Spinning &amp; Weaving Mills, Khurrianwala.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Nishat Mills Ltd Unit No. 54, Feroz Wattowan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Reliance Mills, Feroz Wattowan.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Sitara Mills (Processing Unit), Sargodha Road. Faisalabad.</td>
<td></td>
</tr>
</tbody>
</table>
| **Dr. Hafiz Shahzad Maqsood**  
**Assistant Professor** | 8. Ibrahim Fibres Ltd. Textile Plant No. 1, Shahkot.  
10. Noor Fatima (Wadding)  
11. Ravi Fibers (Recycling plant)  
12. CSD office Islamabad  
13. Multiple visits to local market and industry for ball fibers |
|---|---|
| **Dr. Abdul Basit**  
**Assistant Professor** | 1. Suraj Cotton Mills Ltd. Shahkot (4 Visits)  
2. Ibrahim Fibres Ltd. Textile Plant No. 2, Shahkot |
| --- | 2 |
| **Dr. Abdul Jabbar**  
**Assistant Professor** | 1. Crescent Textile Mills, Kotla Kahlowan  
2. Shamas Textile Mills, Faisalabad Road Chiniot. |
| --- | 2 |
| | 1. Nishat Mills Ltd. No. 27, Ferozwattowan  
2. Nishat Mills Ltd Unit No. 54, Feroz Wattowan  
3. Riaz Textile Mills, Feroz Wattowan  
5. Mannoo Group of Industries, Raiwind, Lahore.  
7. Nagina Group of Industries Lahore.  
| Dr. M. Bilal Qadir, Assistant Professor | 1. Nishat Group of Industries, Chunian Lahore.  
3. Naveena Group of Industries, Raiwind Lahore.  
4. Nagina Group of Industries Lahore.  
7. Al Nasr Textile Mills, Raiwind Road, Lahore.  
8. Mayfair Textile Mills, Raiwind Road, Lahore.  
9. Amir Cotton Mills, Multan Road, Lahore.  
10. Nishat Mills Ltd. No. 27, Feroz Wattowan  
11. Nishat Mills Ltd Unit No. 54, Feroz Wattowan  
12. Ibrahim Fibres Ltd. Textile Plant No. 1, Shahkot  
13. Ibrahim Fibres Ltd. Textile Plant No. 2, Shahkot  
15. Relience Cotton Mills, Feroz Wattowan | 15 |
| Mr. Amir Shahzad Lecturer | 1. Nishat Mills Ltd Unit No. 54, Feroz Wattowan  
2. Relience Cotton Mills, Feroz Wattowan  
3. Masood Textile Mills, Sheikhupura Road, | 14 |
<table>
<thead>
<tr>
<th>Mr. Uzair Hussain</th>
<th>Crescent Textile Mills Kotla Kahlowan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Professor</td>
<td>2. Crestex Mills Ltd, Sargodha Road Faisalabad.</td>
</tr>
<tr>
<td></td>
<td>4. Leathertex group, 29th KM Ferozpur Road- Lahore.</td>
</tr>
<tr>
<td></td>
<td>5. Tariq Open End Mills, Faisalabad.</td>
</tr>
<tr>
<td></td>
<td>6. Bhanero Textile Mills Ltd, Sheikhupura Road, Feroz Wattowan</td>
</tr>
<tr>
<td></td>
<td>7. Blessed Textile Mills, Ltd. Feroz Wattowan</td>
</tr>
<tr>
<td></td>
<td>8. CA Textile Mills, Lahore.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mr. Muhammad Bilal</th>
<th>Sitara Textile Mills, Sargodha Road, Faisalabad.</th>
</tr>
</thead>
</table>
| Assistant Professor | 3. Masood Textile Mills, Drammawala Morr, Khurrianwala.  
| | 4. Crescent Textile Mills Kotla Kahlowan |

5.2 Travel Grants funded by HEC

- Dr. Abdul Jabbar for presenting research paper in conference (ICNF-2017) in Portugal.
- Mr. Uzair Hussain for presenting research paper in conference in Czech Republic

5.3 Funded Projects

- Two Startup research grants funded by HEC were won by Dr. M. Bilal Qadir and Dr. Abdul Jabbar.
- One industrial grant of 0.5 million from Crestex Faisalabad to develop Nep generation machine won by Dr. Zulfiqar Ali and Amir Shahzad

5.4 Consultancies

Dr. Zulfiqar Ali is providing consultancy to CSD for Army uniform manufacturing processes regarding yarn, grey fabric and printed fabric inspection and quality control which is continued from 2012. In this consultancy team, Dr. Mumtaz Hasan Malik, Dr. Zulfiqar Ali, and Dr. Ahsan Nazir are a team of consultants. During 2017, an amount of Rs. 3.89 million had been received to the NTU.