

# KHAYALE JAN

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## Personal profile

Father's Name: Khustah Gul Khan  
Date of Birth: 15<sup>th</sup> June 1977  
Nic #: 21406-2404672-1  
Nationality: Pakistani  
Religion: Islam

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## Educational Qualifications:

<b>PhD</b> (Textile Science & Technology)	The University of Manchester, UK.	2015
<b>BSc</b> (Textile Engineering)	NCTE (Fsd) UET Lahore	2003
<b>FSc</b> (Pre Engineering)	Govt. College of Faisalabad	1997
<b>FSc</b> (Pre Medical)	Govt. College of Faisalabad	1997
<b>SSC</b>	Govt. Crescent Model High School Fsd	1993

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## Research Domain

The research project of my PhD was "Development of Novel 3D Braiding Concept for Multi-Axial Textile Preforms".

The project is to design and develop a novel braiding machine capable of producing multi-axial and multi-layer 3D textile preforms interlocked together by using binder yarns for enhancing out-of-plane properties.

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## Research Achievements

### 1. Insertion of through-the-thickness binder yarns along the z-axis:

The main distinguishing feature of the concept has been the insertion of through-the-thickness binder yarns along the z-axis; this has not been previously possible in either 3D circular braided structures or 2D circular over-wrapped layered structures.

### 2. Shuttle-cum-Rapier insertion system:

Insertion of binder yarns has been achieved by introducing a smart bobbin transferring mechanism. The key elements of the system are the miniature shuttle, pneumatic actuator and its associated handling mechanism.

### 3. Designing Miniature Shuttle:

The key element of this development is the miniature shuttle and its associated handling mechanism. The use of internal pneumatic grippers complementary with a pneumatic actuator has made it possible to transfer the bobbin across the braiding area and to return it, thus resulting in the placement of z-axis yarns in the structure.

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## Research Papers

### 1. Improving the fracture toughness of glass-epoxy laminates by intra-yarns hybridisation.

Proc IMechE Part L: J Materials: Design and Applications

### 2. Enhancing-the-fire-resistance-performance-of-composite-laminates-via-multi-scale-hybridisation: A review

Journal of Industrial Textiles

### 3. Improving the impact resistance and damage tolerance of fibre reinforced composites:

A review

Journal of Composite Materials

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## Industrial Experience

- Assistant Weaving Manager in Be Be Jan Fibres Pvt. Ltd. Faisalabad 2003
- Assistant Weaving Manager in Crescent Textile Mills Pvt. Ltd. Faisalabad 2004~2006

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## Teaching Experience

- Assistant professor Bahauddin Zakariya University Multan 2015~ date
- Lecturer (Textile) Bahauddin Zakariya University Multan 2008~ 2011
- Lecturer (Textile) The University of Faisalabad 2006~ 2008
- Lecturer (Visiting) GC University Faisalabad 2007

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## Administrative Experience

- Coordinator FYDP (BSc Program) BZU College of Textile Engg. 2024~date
- Industry Liaison Officer BZU College of Textile Engg. 2022~date
- Coordinator (MSc Program) BZU College of Textile Engg. 2022~date
- In-Charge Admissions BZU College of Textile Engg. 2019~2022
- Member Admissions Committee BZU College of Textile Engg. 2019~date
- Industry Advisory Board BZU College of Textile Engg. 2018~date
- Academic Advisory Committee BZU College of Textile Engg. 2018~2020
- In-Charge Weaving Lab. BZU College of Textile Engg. 2016~date
- Convener PEC Committee BZU College of Textile Engg. 2016~2018
- Member Curriculum Review Committee BZU College of Textile Engg. 2016~2022
- In-Charge Time Table BZU College of Textile Engg. 2016~2020
- Member Budget Committee BZU College of Textile Engg. 2016~2019
- Member Purchase Committee BZU College of Textile Engg. 2016~2019
- Project Coordinator (BSc Program) BZU College of Textile Engg. 2016~2016
- Member Disciplinary Committee BZU College of Textile Engg. 2010~2011
- Project Coordinator (BSc Program) BZU College of Textile Engg. 2009~2011
- In-Charge Purchase Committee BZU College of Textile Engg. 2009~2010
- Coordinator PEC BZU College of Textile Engg. 2008~2011
- In-Charge Time Table BZU College of Textile Engg. 2008~2011
- Secretary Board of Studies The University of Faisalabad 2006~2008
- Vice President Weaving Society National Textile University 2002

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## Workshop & Seminar

- A seminars on “Technical Textiles” in BZU Multan arranged by Pakistan Science Foundation (PSF) & BZU College of Textile Engineering (2017).
- One-Days Training of Health and Safety Program by Rescue-1122 in BZU Multan (2018).

- A series of seminars on “Teaching Methodology and Assessments” in BZU Multan by Education Department BZU (2017).
- Two-Days workshop on “Faculty development and teaching methodology” in the University of Faisalabad by Ismo Cohanen, educationist from UK
- One-Day seminar on Nano-Technology in the University of Faisalababd by N M Butt.
- Two-Days training of CodeSys Programming in the University of Manchester.
- Two-Days training of Health and Safety Program in the University of Manchester.
- 1<sup>st</sup> National Conference on Technical Textiles (NCTT-2016) in NTU Faisalabad.