For Immediate Release
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Discover Natural Fibres Initiative

DNFI Award for Innovation in Natural Fibre Research 2025

Masters Student in Balochistan Wins 2025 DNFI Award

Mr Mohammad Faraz, a Masters Student at Buitems University in Quetta, Balochistan, Pakistan, (https://buitms.edu.pk) has won the 2025 DNFI Innovation in Natural Fibres Research Award. His co-author is Dr. Qasim Siddiqui and the industry partner Mr Muhammad Fawad Farooq**.**

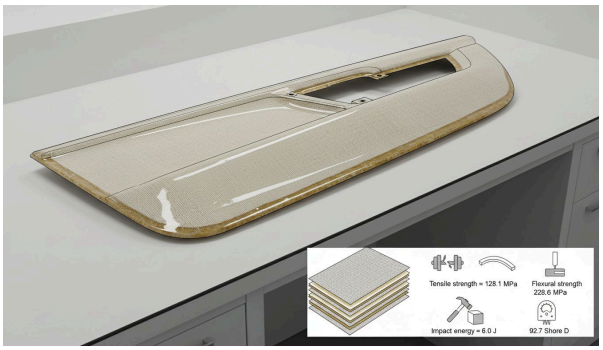
Mr Faraz's research presents a fully sustainable, end-to-end workflow for producing high-performance banana and cotton fiber–reinforced epoxy composites using chemical-free, solar-powered mechanical extraction and traceable fabrication methods. The approach addresses critical gaps in current processes for producing natural fiber composites by emphasizing reproducibility, a reduced carbon footprint, and standards-grade mechanical testing that ensures readiness for engineering adoption. The initial application for this process is automotive interiors.

(World production of banana and plantain fibres is estimated at a relatively minor 4,000 tonnes in 2025, but there is significant opportunity for growth. Banana fibres are harvested from the stems of banana plants. Based on average ratios, up to 7 million tonnes of fibre could be produced by the ten largest banana producing countries. (Fibral Material Alliance. https://fibral.org/)

Mr Faraz has developed a process to produce biocomposites using mechanically decorticated banana fibres. The fibres are cleaned through water immersion, jet rinsing, and manual removal of impurities, and solar-dried to a stable moisture content of 8–12%. Dried fibers measuring ≥60 cm in length, and with diameters ranging from 50 to 200 µm, are combed and spun into 1.87 Ne (531 tex) yarns using a solar-powered twisting system.

Blended fabrics are woven using cotton warp yarns (32/1 Ne, 66 ends per inch) and banana fiber weft yarns (15 picks per inch). The resulting plain-weave fabrics are washed and dried and fabricated into composites with an epoxy resin system.

The formal award ceremony to honor Mr Faraz and Dr Siddiqui as well Mr Farooq will be held on Thursday 15 January 2026 in the afternoon during Heimtextil fair in Frankfurt, Germany.



About DNFI

The Discover Natural Fibres Initiative (DNFI) is a platform for those who appreciate and acknowledge the importance of natural fibres and support their production and use.

DNFI facilitates the exchange of information and experiences and works to advance the common interests of all natural fibres in the face of competition with oil-based and wood-based manmade fibres. Representatives of natural fibre industries as diverse as abaca, alpaca, angora, cashmere, coir, natural fibres, flax, industrial hemp, jute, mohair, ramie, silk, sisal and wool participate in DNFI.

DNFI was created in January 2010 as an outgrowth of the International Year of Natural Fibres 2009, declared by the United Nations General Assembly. DNFI is entirely volunteer supported. There are no membership dues, the initiative has no budget or paid Secretariat and does not conduct projects. Instead, DNFI facilitates communication and collaboration through the exchange of information, including statistics on fibre production, value and employment, and updates on developments in fibre markets. DNFI raises awareness through reports, press releases and seminars, and encourages innovation through an annual award.

Membership in DNFI is open to anyone with an interest in the growth of natural fibre industries. To become a member, simply register on-line at www.DNFI.org.

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