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Natural Fibre Reinforced Polymer Nanocomposites for Insulator Applications in High Voltage Transmission Lines

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Fibre-reinforced polymer composite is commonly known as FRP composite are extensively used in automotive, aerospace, construction and electrical insulator industries. Recently, increased attention has been directed towards the development of natural fibre composites pursuant to the environmental issues and sustainability of the materials. However, the durability of the composite is a major problem due to the poor mechanical strength of the natural fibre and high water absorption characteristics. Therefore, the usage of nanoscale fillers are studied to improve the mechanical properties such as tensile behavior and electrical properties such as dielectric strength. Polymer nanocomposites with different nanoscale additives have been investigated in this paper to study the various properties such as mechanical properties, morphological properties and electrical properties that are required for Insulator applications in high voltage transmission lines.

Biography:

Dr. Ansari is currently working as an Associate Professor of Mechanical Engineering at Universiti Tenaga Nasional, Malaysia. He graduated his B.Eng. (Mechanical Engg.) from University of Madras (India) in 1994, after which he was bonded to serve a Saudi company (Al-Jawdah Co.) in Riyadh, K. S. A. for 1 year. After a few years, he was invited to work as Lecturer in Polymer Technology at Crescent Engineering College (Now known as B. S. A. University, Chennai, India) where he completed 5 years of academic service. Later, he was seconded to work in Malaysia's newly established University, AIMST University. After 1 year, he was given sponsorship to pursue his Ph.D at Universiti Sains Malaysia (U. S. M.). He earned his Ph.D in 2009. He has published more than 50 research publications. He serves as a technical reviewer in many international journals and conferences.