

Decentralized Energy Trading with Blockchain and Microgrids

This technology enables peer-to-peer energy trading within local microgrids using blockchain smart contracts. Users can sell excess solar or wind power directly to neighbors, increasing grid resilience and democratizing energy access. The system supports transparent, tamper-proof transactions and incentivizes local renewable generation. Addresses SDG 7 (Affordable and Clean Energy), SDG 9 (Industry and Infrastructure), and SDG 13 (Climate Action).