![UAA College of Engineering - University of Alaska Anchorage logo]

UAA Professional Development Seminar Series

From Diesel Dependency to Investable Microgrids: Applied Geospatial Intelligence

Presented by Dr. Tariq Khalil

ABSTRACT: Reducing diesel use in remote village grids in SE Asia doesn't fail because renewables don't work—it fails because project teams select the wrong sites and discover local realities too late. This talk shows how applied geospatial intelligence shifts remote-grid development from stalled pilots to scalable, finance-ready pipelines.

By screening with geospatial workflows before engineering, viable project rates jump from ~30–50% to 80%+. In Indonesia, ~68% of diesel sites evaluated through this pre-engineering method were commercially viable without subsidy. The approach is geography-agnostic—and may hold direct relevance for Alaska's rural microgrids.

We will explore real use cases and ideate how GeoAI could support more location aligned development—helping design and deliver energy and resource solutions tailored to Alaska's unique locations and communities.

Dr. Tariq Khalil: Founder of Mosaic Risk Analytics, Tariq help energy, mineral and infrastructure projects avoid costly mistakes by understanding location before engineering

Using satellite analytics and geospatial workflows, he screens remote grids for viable renewable projects. 20+ years across mining, energy, and frontier markets. Led screening of 150+ off-grid systems across Indonesia, Philippines, and Japan. Our location de-risking process increased viable project rates from 30–50% to 80%+..

Friday, November 21, 2025
11:45 am - 12:45 pm
EIB 211 or Online Via YouTube Live