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Vinayak P. Dravid is a professor of MSE at Northwestern University and founding director of the *NUANCE* Center, a shared scientific infrastructure for nanoscale characterization. His research spans advanced electron microscopy, quantum and neuromorphic materials, nanoscale structure–property relationships, and data-enabled materials discovery.

His group develops multimodal, in situ, cryogenic, and AI-assisted microscopy approaches that connect defects, interfaces, strain, and chemical heterogeneity with transport, coherence, and device performance. He also leads efforts in scientific data infrastructure and data provenance, aimed at making complex characterization data reproducible, interoperable, and trustworthy for AI-enabled discovery and translation.