

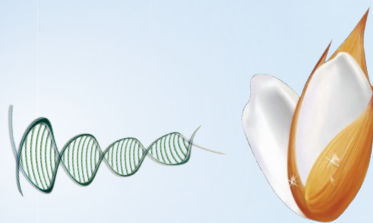
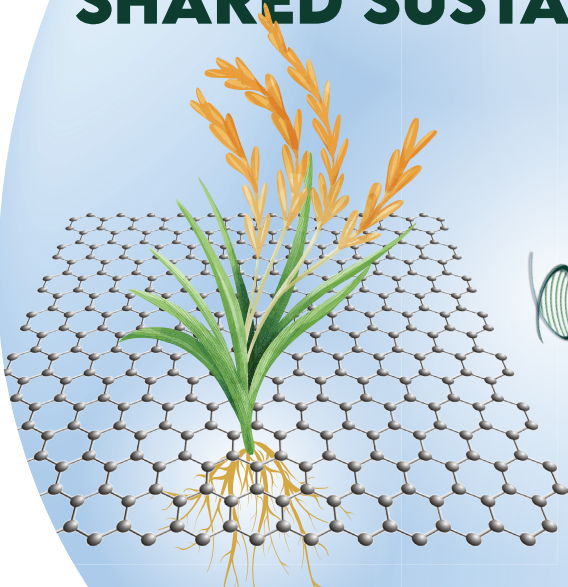
NDSU NORTH DAKOTA
STATE UNIVERSITY

FACULTY LECTURESHIP NO 63

ACHINTYA BEZBARUAH
GEHRTS PRESIDENTIAL PROFESSOR

Civil, Construction and
Environmental Engineering

**FROM RAINFALL
TO SNOWFALL:
NANOTECH
INNOVATIONS FOR
SHARED SUSTAINABILITY**



April 4, 2024 | 3-4 p.m.
Memorial Union, Anishinaabe Theatre
Reception will follow
also offered via Zoom

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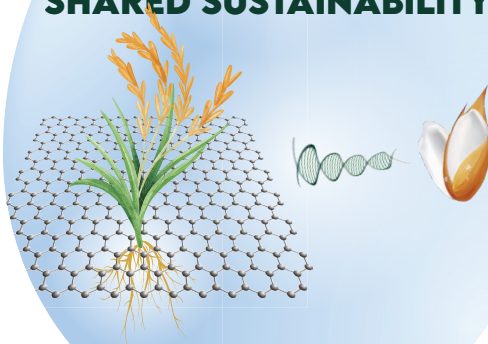


Bezbaruah, an NDSU faculty member since 2005, takes his passion for environmental engineering beyond campus boundaries, mentoring students locally and globally to become future leaders. His research focuses on the food-environment-water (FEW) nexus, specifically drinking water and plant nutrition. As a Fulbright scholar and specialist, he has promoted environmental nanotechnology research and education internationally. Currently serving as interim department chair and director of the NDSU Grand Challenges Scholars Program, Bezbaruah advocates for collaborative research to address global challenges, believing in the power of collective efforts to alleviate them.

ABSTRACT

Producing nutritious food demands interdisciplinary problem-solving and global partnerships. Developing nano-based materials for plant nutrition presents challenges in ensuring both technological viability and sustainability. Research into the ecological impacts of these materials has improved delivery options for essential nutrients like iron, phosphorus and zinc. Recent collaborations have resulted in phosphate fertilizers with slow-release capabilities and enhanced plant uptake. Arsenic uptake by rice is another overlooked issue that is crucial for agriculture and human health. NDSU's research in this area holds global significance, with potentially significant public health benefits.

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