





JANUARY 2024: FEATURING Ranbir Singh Kang, Ph.D. Assistant Professor, Geography & Geospatial Sciences





## When Thinking "Outside the Box" Literally Means Thinking Outside



Dr. Ranbir Singh Kang's teaching philosophy focuses on learning by doing and using real world examples in his courses. He challenges his students intellectually and stimulates them to think outside the box. Fieldwork is a significant component of his teaching and research. He incorporates the examples of local landscapes in his teaching to explain the human environment relationship and selects a few students for research collaborations and works with them. Similar to his research, his mentoring is also longitudinal where he has supported students through multiple levels such as Freshman Scholars Program, Sophomore Scholars Program, and Undergraduate Research and Creative Activity (URCA). Dr. Kang says field work is the most important component of applied science in terms of teaching, research and service, and rivers and freshwater landscapes speak a secret language that he tries to understand with his research students. He believes that field work is the most important component of applied science in terms of teaching, research, and service.

His recent research includes an Interdepartmental Research Grant (2022-2023) to study Frey Lake in Kennesaw, which focused on elaborate field surveys and modeling of silt accumulation in a local reservoir. The findings will help develop long term funding while supporting the community in better management of freshwater resources. He also secured a Radow College Teaching Enhancement grant (2022-2023) to purchase an underwater drone for teaching and research which is being used to support the silt modeling of Frey Lake. In addition to this, he developed a new Student Research Lab that includes high performance computers for analyzing computationally and graphically intensive data. Currently, he is training many student researchers in analyzing point cloud data for landscape modeling at high spatial resolution.

Outside the academic arena, Dr. Kang applies his expertise in the community including, representing geospatial sciences at the Atlanta Science Festival, and engaging in outreach activities in local high schools to increase awareness of the geographic sciences. He is also developing a research project on local and regional landscapes that benefit communities such as Frey Lake (Pine Tree Country Club, Kennesaw) and Atlanta BeltLine. For the Beltline, he is developing long-term collaborative research that will focus on synthesizing the human environment connections of the Altanta BeltLine on communities and the landscape. Most recently, Dr. Kang received an additional intradepartmental research grant (2023-2024) as a co-PI with Dr. Paul McDaniel on interdisciplinary research on Atlanta BeltLine.

