Build Your Global Competencies while Serving Communities:
Humanitarian Engineering Opportunities in Colombia

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This presentation shows why Colombia presents one of the most unique and interesting cases to rethink development and proposes innovative ways for engineering faculty and students to build their global competencies while serving the country's most vulnerable communities. It will highlight different kinds of opportunities (projects, trips, courses, research, etc.) for US faculty and students to get involved for different lengths of time (week, month, semester, etc.). It will showcase specific examples in community empowerment in the areas of "urban mining" (reusing valuable materials from waste), technologies for accessibility, and artisanal mining, to name a few. Most of these activities can happen virtually, in-country, or both thus making traveling to Colombia a desirable option but not required.

Juan is Professor and Director of Humanitarian Engineering (HE) Undergraduate Programs at the Department of Engineering, Design & Society of the Colorado School of Mines (Mines). Juan obtained a Ph.D. in Science and Technology Studies (STS) from Virginia Tech and two BS in Mechanical and Aeronautical Engineering from Rensselaer Polytechnic Institute. His books include *Defending the Nation: U.S. Policymaking to Create Scientists and Engineers from Sputnik to the 'War Against Terrorism'* (University Press of America, 2005), *Engineering and Sustainable Community Development* (with Jen Schneider, Jon Leydens, and Samantha Temple. Springer Nature 2024), *Engineering Education for Social Justice: Critical Explorations and Opportunities* (Springer, 2013), and *Engineering Justice: Transforming Engineering Education and Practice* (with Jon Leydens, IEEE-Wiley, 2017). He was recently in Colombia on a Fulbright scholarship, as a visiting professor at the National University of Colombia-Medellín and the University of Antioquia, developing the Humanitarian Engineering-Colombia (IH-Colombia) ecosystem.