

Background

Dr. Tara Cavalline is Assistant Professor in the Department of Engineering Technology and Construction Management at UNC Charlotte, and has extensive experience as a project engineer. She has a PhD in Infrastructure and Environmental Systems from UNC Charlotte, and an MS and BS in Civil Engineering from The Pennsylvania State University and is a registered professional engineer in North Carolina, South Carolina, Georgia, and Pennsylvania. She has received funding for her research into concrete, cementitious materials, durable infrastructure, and asset management from the NC Department of Transportation, the National Concrete Masonry Association and others.

Research Topics

Dr. Cavalline has authored and co-authored numerous articles on the engineering aspects of building materials, bridge safety and recycling demolition waste. She has presented at science camps, where she helps to introduce students to civil engineering and careers in the field. She teaches Quality Assurance in Construction, Construction Materials and other courses at UNC Charlotte, where she also does extensive research. “My construction materials research is focused primarily on concrete and other cementitious materials, with key areas including concrete properties, durability performance of concrete structures and pavements, sustainable construction materials, mechanistic-empirical pavement design, and non-destructive evaluation techniques. I am also involved in research focusing on bridge management systems and pavement management systems (for both concrete and asphalt pavements).” Her work as an engineering consultant included forensic engineering, roadway design and construction, and assessments of roads, buildings and dams.

Relevance

Women are historically underrepresented in engineering and construction. However, many women are active contributors to this professional field. I enjoy teaching and mentoring women in our Engineering Technology and Construction Management program, and hope that my presence helps to reinforce the fact that they too can have successful careers in these STEM fields.