## Certificate of Attendance for Abraham Antai

Attended a one-hour webinar on June 18, 2020. The webinar was focused on accelerated bridge construction (ABC). It provided the latest news related to ABC nationwide and the featured presentation:

## **Design and Construction of High-Capacity Micropiles in ABC Projects**

by Paul V. Liles, Jr., P.E., Former State Bridge Engineer, Georgia Department of Transportation; John R. Wolosick, P.E., Senior Advisor, Keller North America; and Tony Sak, P.E., Senior Engineer, Keller North America

**Description:** Micropiles are drilled and grouted steel pipe or steel bar piles. They have been in use in the U.S. since the early 1980s. The low headroom (8 feet) required for placement of micropiles allows the installation of new foundations for a replacement bridge while traffic is maintained on the existing bridge, thereby reducing the length of bridge closures for ABC projects. Micropiles are small diameter piles, typically ranging from about 4 ½ inches to less than 12 inches in diameter. They can be installed in challenging ground conditions, such as karstic limestone, boulders, urban fills and high groundwater conditions. Micropiles can also be used where challenging physical constraints such as low headroom, limited access, or vibration sensitive areas exist. Micropiles are installed to carry very high capacities of 100 to over 200 tons service load, even with such small diameters and with very small deflections. The design and construction of micropile foundations in ABC bridge projects with reduced closure requirements were presented.

Sponsored by the Accelerated Bridge Construction University Transportation Center (ABC-UTC) at Florida International University (FIU); www.abc-utc.fiu.edu

**One-hour webinar**