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Nondestructive Testing (NDT)/Nondestructive Evaluation (NDE) Practice Lead and Senior Project Manager, Advanced Infrastructure Design, Inc. (AID) 1 Crossroads Drive, Hamilton, NJ 08691	609-838-2216 (x208) mcelaya@aidpe.com 

EDUCATION

- PhD, Civil Engineering (Infrastructure), University of Texas at El Paso, TX, 2011
- MS (Structural), Civil Engineering, University of Texas at El Paso, TX, 2002
- BS & MS (Structural), Civil Engineering, Polytechnic University of Madrid (Madrid, Spain), 2000

PROFESSIONAL EXPERIENCE

- NDT/NDE Practice Lead and Senior Project Manager, Advanced Infrastructure Design, Inc. (AID), 2011–present
- Research Engineer, Center for Transportation Infrastructure Systems, University of Texas at El Paso, 2002–2011
- Research Assistant, Center for Structural Integrity of Aerospace Systems, University of Texas at El Paso, 2000 –2002

SELECTED RESEARCH PROJECTS

- Assisted with NDT/NDE of bridge components for a New Jersey Department of Transportation project titled *Bridge Resource Program (BRP)* and provided guidance and methodologies that considered practical NDT tools (2017–2020), with AID serving as a sub-consultant to the Rutgers Infrastructure Monitoring and Evaluation (RIME) Group
- Supervised ground-penetrating radar testing and analysis for a Pennsylvania Department of Transportation study titled *Evaluation of Thin Hot Mix Asphalt Overlay* to evaluate the performance of asphalt mixes and develop relevant specifications (2011–2016), with AID serving as a sub-consultant to Pennsylvania State University
- Participated in *Effective Utilization of Geosynthetic Products in Construction of Flexible Airfield Pavements* with the U.S. Army Corps of Engineers and on the second Strategic Highway Research Program (SHRP2) projects #R06-A: *Nondestructive Testing to Identify Concrete Bridge Deck Deterioration* and #R06-W: *Plan for Developing High-Speed, Nondestructive Testing Procedures for Both Design Evaluation and Construction Inspection*
- Participated as Co-PI on Airfield Asphalt Pavement Technology Program (AAPTP) Project #06-04: *Non-Destructive Testing to Identify Presence and Extent of Delamination of HMA Airfield Pavements* and on Texas Department of Transportation projects #0-6022, #0-5569, #0-4826, #0-4358, and #0-4519
- Participated in Arizona Department of Transportation Project #574-1: *Use of NDT Equipment for Construction Quality Control of Hot Mix Asphalt Pavements* and in Georgia Department of

Transportation projects *Detection of Stripping in Hot Mix Asphalt* and *Detection of Stripping in the Downtown Corridor*

SELECTED PUBLICATIONS

- Hafiz, A., M. Celaya, V. Jha, and M. Frabizzio. 2021. Semi-Automated Method to Determine Pavement Condition Index on Airfields. *Proc., International Airfield and Highway Pavements Conference (Virtual)*, June 8-10.
- Tabrizi, K., M. Celaya, B. S. Miller, A. Witter, and L. Ruzzi. 2017. Damage Assessment of Tunnel Lining by Mobile Laser Scanning: Pittsburgh, Pennsylvania, Implementation Phase of FHWA SHRP 2 R06G Project. *Transportation Research Record: Journal of the Transportation Research Board*, Vol. 2642, No. 1.
- Celaya, M., S. Nazarian. 2014. Field Evaluation of NDT Devices for Delamination Detection of HMA Airport Pavements. *Proc., Federal Aviation Administration (FAA) Worldwide Airport Technology Transfer Conference*, Galloway, NJ, August 5–7.
- Celaya, M., T. Schumacher, K. Tabrizi, G. Bitsko, and P. Shokouhi. 2014. Field Verification of Non-destructive Testing Technologies for Condition Assessment of Concrete Bridge Decks: A Case Study. *Proc., American Society for Nondestructive Testing (ASNT) Annual Conference*, Charleston, SC, October 27–30.
- Celaya, M., S. Nazarian, C. Rao, and H. Von Quintus. 2011. Delamination Detection of Asphalt Pavements with Nondestructive Testing Devices (11-1487). *Proc., Annual Meeting of the Transportation Research Board*, Washington, DC, January 23–27.
- Celaya, M., S. Nazarian, and D. Yuan. 2006. Nondestructive Quality Control of Geo-materials Using Seismic Methods. *Proc., GeoShanghai International Conference*, Shanghai, China.

PROFESSIONAL AFFILIATIONS AND SERVICE

- Member, American Society of Civil Engineers
- Friend, Transportation Research Board (TRB) Committee on Flexible Pavement Design (AFD60)