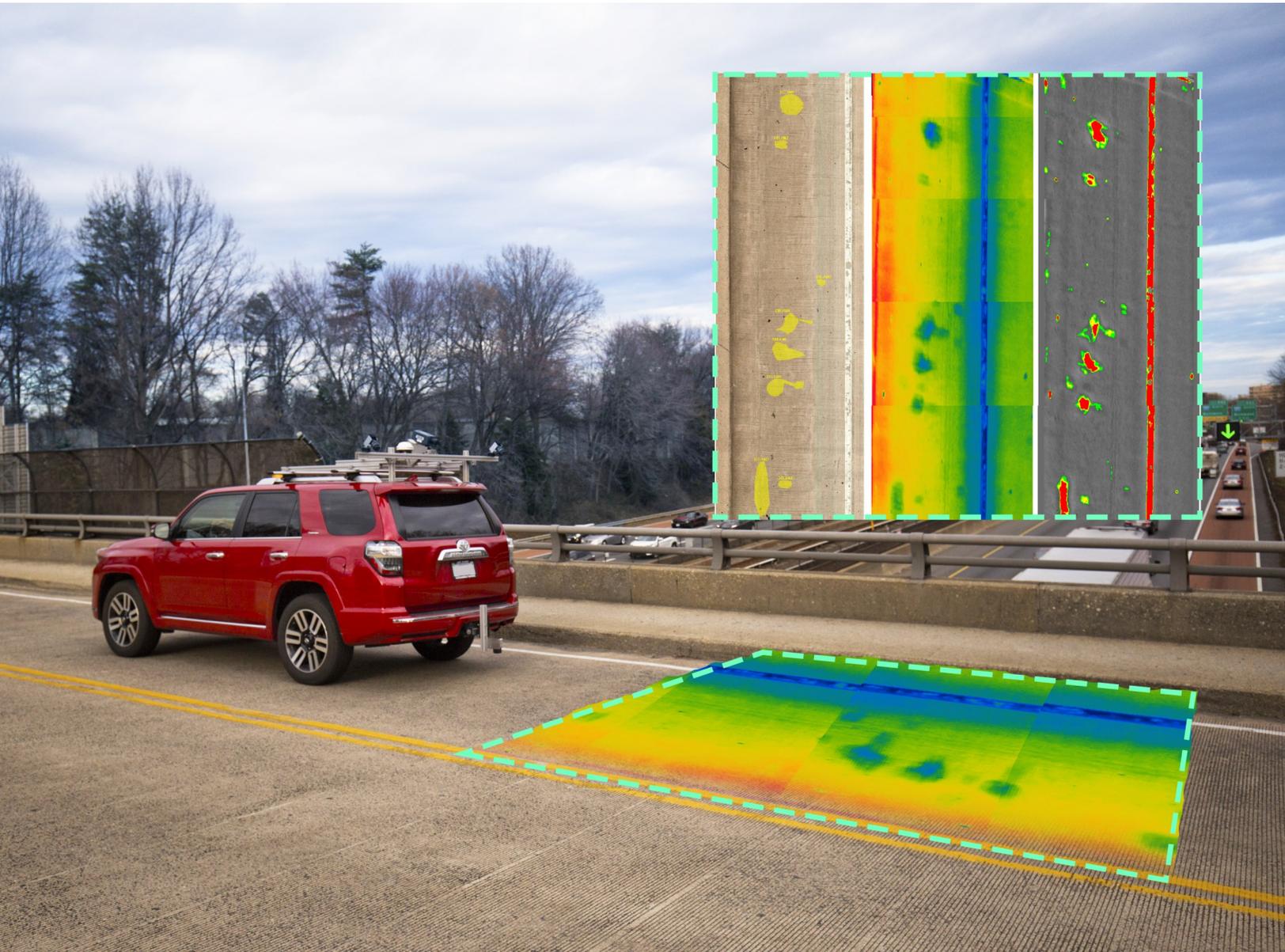


# Deck Top Scanning System (DTSS)



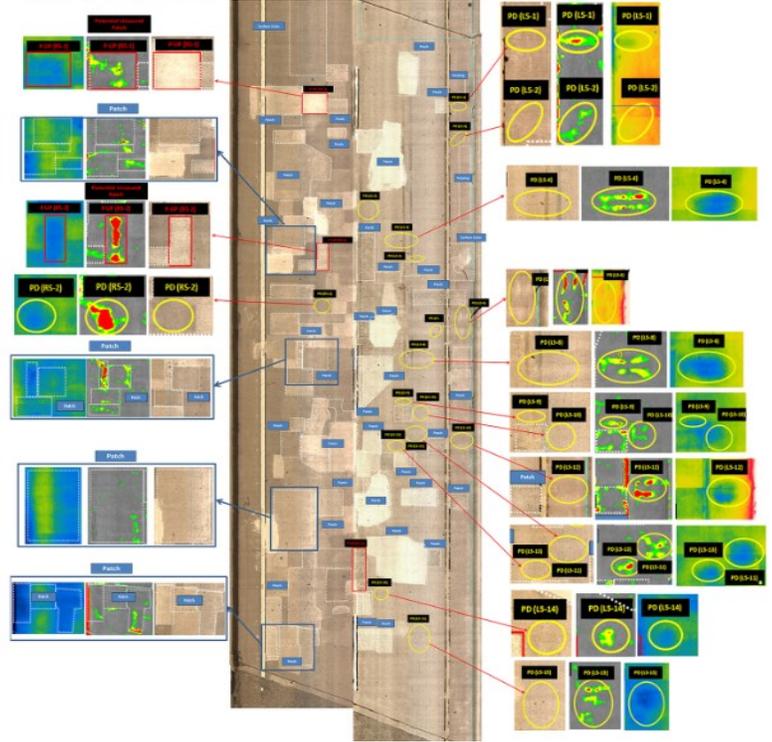
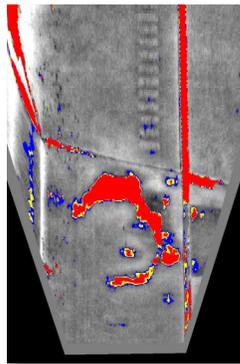
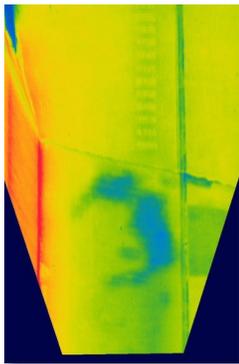
## What is DTSS?

DTSS is a vehicle-mounted camera system that captures both infrared thermography (IR) and high-resolution visual images at highway speeds. The dual-imaging system is designed to detect both surface and sub-surface defects in the concrete bridge deck by detecting slight deviations in the temperature of deficient areas.



# Benefits of using DTSS

DTSS captures IR and high resolution visual images at highway speed which minimizes the need for traditional manual inspections that require inconvenient lane closures as well as exposing inspectors to unsafe environments. The high resolution visual data boosts the accuracy of the inspection by detecting surface deficiencies as well as acting as a 'check' to the sub-surface IR deficiency data. The visual image data would eliminate factors such as blotches on the road surface that would cause slight temperature differences that are not related to sub-surface defects.



## Accreditations

“Since 2012, The University of Central Florida has been partnering with NEXCO - West USA, Inc. to conduct a successful on-site pilot application using the bridge deck scanning technology. The Florida Department of Transportation found that the technology has excellent potential for transportation agencies to improve and enhance the repair decision making process.”



F. Necati Catbas, PhD, P.E.  
Professor of Civil Engineering

“Since 2014, Florida's Turnpike has participated in two on site bridge deck scanning projects with NEXCO-West USA, and has successfully identified deficiencies within our target structures. We agree that the use of the technology has significant potential for transportation agencies to improve their corridor/network level bridge deck inspection programs.”



Aran M. Lessard, P.E.  
Structures Maintenance Engineer

“The experience provided us with insight into the challenges of scanning decks of long span bridges that carry large traffic volumes. The NEXCO scan emerged as the only feasible tool, as currently available nondestructive tools were clearly observed to be too slow and impractical. Therefore the opportunity of exploring a realistic scenario by scanning a real interstate viaduct proved priceless.”



Dr. Emin Aktan, PhD  
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