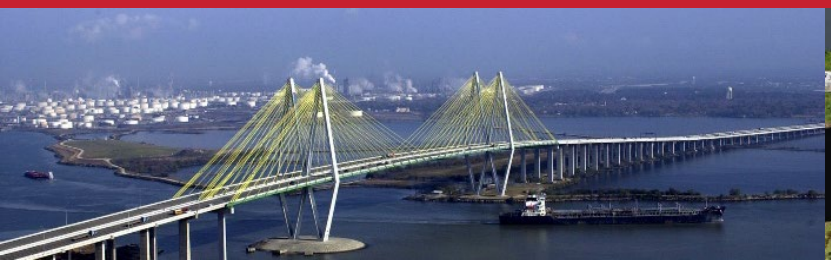
Postdoctoral Researcher

Structures and Artificial Intelligence Lab

UNIVERSITY of HOUSTON
CULLEN COLLEGE of ENGINEERING
Department of Civil & Environmental Engineering



Open postdoctoral position on
Digital Twins of Large Bridges

Preferred start date of **Fall 2023**

To apply, prospective candidates should email **Dr. Vedhus Hoskere** at **vhoskere@uh.edu** with the subject: *Postdoc Application: (your name)*

Attach one single PDF document (<4MB), including
- Cover letter
- A full CV
- Research statement (including research interests, research experience, and career goals)
- Reference names and emails for 3 references

Applications will be reviewed until the position is filled.

The Department of Civil and Environmental Engineering at the University of Houston is seeking a highly-motivated **postdoctoral researcher** with expertise in computer vision, deep learning, photogrammetry, LiDAR, and data collection to join the Structures and Artificial Intelligence Lab, led by Dr. Vedhus Hoskere. The successful candidate will be responsible for developing and testing novel and efficient procedures using Unmanned Aerial Systems (UAS), robotics, images, LiDAR, and georeferenced NDE technologies for rapid development of digital twins of bridges, assessing feasibility and requirements for detecting and quantifying changes over time, and preparing operational recommendations and guidance on data collection plans. The procedures will be validated through extensive filed data collection from **iconic Texas bridges such as the Fred Hartman bridge**. The candidate will lead the publication of findings in high-impact journal articles, and the development of guidelines on digital twinning of Texas bridges.

Preferred qualifications
- PhD in Civil/Structural/Geo-sensing/Geomatics/ Mechanical/Architectural or related Engineering discipline
- Strong background in computer vision, deep learning, photogrammetry, and/or LiDAR
- Strong publication track record with demonstrated capability in developing novel artificial intelligence/deep learning learning/computer vision algorithms
- Experience with field data collection using UAS and/or robots (FAA Part 107 license preferred)
- Excellent written and oral communication skills (in English)
- Strong organizational, interpersonal, and project management skills

The University of Houston is located in a picturesque 895 acre campus a few minutes from downtown Houston with over 45,000 students. **The University of Houston is ranked #39 in top public engineering grad programs in the US and #3 for Civil Engineering in Texas (US News)**

Houston is the fourth largest city in the U.S. and the "energy capital of the world". The city of Houston is home to the world's largest medical center, NASA, the Port of Houston and the second-most Fortune 500 headquarters of all major U.S. cities.