

## Ri Na

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### Education

**Ph.D.** in Engineering, with focus on Construction Engineering and Management, University of Nebraska-Lincoln, August 2017

**M.S.** in Construction Management, with **Minor** in Business Administration, University of Nebraska-Lincoln, May 2013

**Bachelor of Engineering** in Construction Estimating, Chang'an University, Xi'an, China, July 2010

### Academic Experience

**Assistant Professor**, 2018-present, Department of Civil and Environmental Engineering, University of Delaware

CIEG 191 Introduction to Construction Engineering and Management, spring 2020

CIEG 222/LARC 222 Introduction to Surveying, fall 2018, 2019, spring 2021

CIEG 291 CAD and BIM in Construction, fall 2018, 2019, 2020, 2021

CIEG 315 Probability and Statistics, fall 2021

CIEG 367 Engineering Survey and Geomatics, spring 2022

CIEG 391 Construction Estimating/Cost Control, fall 2019, 2020, 2021

CIEG 467-010 Construction Engineering and Management, spring 2020

CIEG 467/667-012 Advanced BIM, spring 2021, 2022

CIEG 491 CEM Senior Design, spring 2021, 2022

**Teaching/Research Assistant**, 2011-2017, the Durham School of Architectural Engineering and Construction, University of Nebraska-Lincoln

### Selected Publications

Na, R., and Shen, Z. (2021) "Assessing Cooling Energy Reduction Potentials by Retrofitting Traditional Cavity Walls into Passively Ventilated Cavity Walls", *Building Simulation Journal*, Vol. 14, No. 4, pp. 1295-1309

Shen, Z., Cheng, C., Na, R., & Shang, Z. (2020). "To Automate Detecting, Quantifying and Mapping of Delamination via Aerial Thermography", Nebraska Department of Transportation

Cheng, C., Na, R., and Shen, Z. (2019) "Thermographic Laplacian-Pyramid Filtering to Enhance Delamination Detection in Concrete Structure", *Journal of Infrared Physics and Technologies*, 97, 162-176.

Na, R., Lin, S., Shen, Z., and Gu, L. (2016). "Case Study of Quantifying Energy Loss through Ceiling-Attic Recessed Lighting Fixtures through 3D Numerical Simulation." *Journal of Architecture. Engineering*, 23(1), C5016003.

### Selected Conference Publications/Presentations

Na, R. and Webber, R. (accepted). "Transportation Blueprint Reading with BIM-A Transportation Construction Workforce Training Pilot", Transportation Research Board Annual Meeting, Jan 9-13, 2022. Washington D.C.

Na, R., Aljagoub, D., Webber, R. and Small, E. (accepted). "Integrating Virtual Reality (VR) into Construction Engineering and Management (CEM) Courses-A Case Study", *Associated*

*Schools of Construction-Annual International Conference Proceedings*, April 20-23, 2022, Atlanta, GA

**Na, R.,** Shang, Z., Shen, Z. (2016). “Time-lapse of Cavity Brick Wall Temperature Profiles Using Infrared Thermography”. *Associated Schools of Construction-Annual International Conference Proceedings*, April 13-16, 2016, Salt Lake City, UT

**Na, R.,** Lin, S., Shen, Z., Gu, L. (2014). “Evaluating Energy Loss through Recessed Lighting Fixtures (RLF) in Residential Buildings through a Case Study”. *Computing in Civil and Building Engineering*, June 23-25, Orlando, FL

**Na, R.,** Lin, S., Shen, Z., Gu, L. (2013). “Impact of Air Leakage through Recessed Lighting Fixtures on the Energy Performance of Residential Buildings-A Case Study”. *The 3rd International Conference Central Europe towards Sustainable Building (CESB13)*, June 26 – 28, Prague, Czech Republic.

### **Peer Reviewer**

Center for Integrated Asset Management for Multimodal Transportation Infrastructure Systems (CIAMTIS) grant proposal  
Journal of Infrastructure Systems  
Journal of Civil Engineering and Architecture  
Associated School of Construction Annual International Conference  
ASCE Annual Conference  
Journal of Cement and Concrete Research  
The ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems  
Construction Research Congress  
Journal of Cleaner Production

### **Funded Research Grants**

**PI,** “Workforce Development and Job Training Pilot”, CIAMTIS, USDOT Region 3, 2021-2022, \$50,000

**Co-PI,** “Infrared NDE Sensing of Delamination and Deterioration of Concrete Bridge Decks Using Consumer-grade UAV and Infrared Sensor”, University of Delaware Davis TA grant, 2020-2022, a twelve-month stipend of \$28,000 plus a full-tuition scholarship.

**Co-PI,** “To Automate Detecting, Quantifying and Mapping of Delamination of Bridge Decks using Aerial Thermographic NDE”, NDOT, 2019-2020, \$ 109,844

### **Synergistic Activities**

Editorial Board Member of Journal of Sustainable Marine Structures, 2019-present  
Editorial Board Member of Journal of Construction Research, 2019-present  
Member, the American Society for Engineering Education, 2019-present  
Member, Delaware Department of Natural Resources and Environmental Control (DNREC) Hazardous Substance Cleanup Act (HSCA) Advisory Committee, 2019-present  
Member, UD’s Faculty Senate International Committee, 2019-present  
Member, UD’s CEE Chair Search Committee, 2019  
Member, Search Committee of CEM Program Visiting Professor, 2019  
ASCE Mini- ExCEED Fellow, 2018

Member, Sigma Lambda Chi, the International Construction Scholastic Honorary for  
Construction Engineering and Management students and faculty, 2017-present  
Awardee, Autodesk Revit Architecture Certified Professional, 2017  
Awardee, Associated Schools of Construction Annual Conference Travel Grant, 2016  
Awardee, LEED Green Associate, 2015