

### **CURRICULUM VITA**

# Jaeheum Yeon, Ph.D.

Assistant Professor
Construction Engineering Program
Department of Engineering and Technology
College of Science and Engineering
Texas A&M University-Commerce
Commerce, Texas 75429

#### **EDUCATION**

# Ph. D. Texas A&M University, College Station, Texas (May 2017)

Department of Architecture College of Architecture

**Expertise: Construction Management** 

Supervisors: Dr. Julian H. Kang and Dr. Wei Yan

Dissertation: Rapid Concrete Pavement Spall Repair using 3D Scanning and 3D Printing

**Technologies** 

# M.S. Texas A&M University, College Station, Texas (December 2012)

Zachry Department of Civil Engineering Dwight Look College of Engineering

Expertise: Construction Engineering and Management

Supervisor: Dr. John A. Walewski

Thesis: Risk Framework for the Next Generation Nuclear Power Plant Construction

### M.S. Hanyang University, Seoul, South Korea (February 2008)

Department of Civil Engineering Expertise: Structural Engineering Supervisor: Dr. Taehyo Park

Thesis: Structural Performance Evaluation of Steel-Concrete Composite Bridge Deck

# B.S. Konkuk University, Seoul, South Korea (February 2006)

Department of Agricultural Engineering College of Agriculture and Life Sciences

[Current]

Civil and Environmental Engineering

College of Engineering

#### PROFESSIONAL EXPERIENCE

# Assistant Professor (Aug. 2017 – Present)

Department of Engineering and Technology, Texas A&M University-Commerce

- [CONE 221] Building Construction
- [CONE 321] Construction Estimating
- [CONE 322] Construction Planning and Scheduling
- [CONE 351] Surveying for Construction
- [CONE 422] Construction Project Management
- [CONE 424] Construction Accounting and Financial Managment
- [CONE 431] Sustainable Construction Methods and Processes
- [CONE 441] Highway and Heavy Construction
- [ENGR 2303] Engineering Mechanics (Statics + Dynamics)
- [TMGT 335] Construction and LEED System
- [TMGT 335] Managing Sustainability
- [TMGT 439] Construction Management
- [TMGT 454] Contracts and Specifications

# Ad-Interim Instructor (Jan. 2017 – May 2017)

Department of Engineering and Technology, Texas A&M University-Commerce

- [CONE 212] Dynamics
- [CONE 431] Sustainable Construction Methods and Processes
- [TMGT 335] Construction and LEED System
- [TMGT 439] Construction Management

# **Graduate Assistant Teaching (Instructor) (Aug. 2016 – Dec 2016)**

Department of Construction Science, Texas A&M University [COSC 175] Construction Graphics

### Graduate Research Assistant (Jan. 2015 – May 2017)

Department of Construction Science, Texas A&M University Creative Construction Laboratory

# Graduate Research Assistant (Mar. 2006 – Feb. 2008)

Department of Civil Engineering, Hanyang University, Seoul, South Korea Computational Solid & Structural Mechanic Laboratory

# **Graduate Teaching Assistant (Jan 2014 – May 2015)**

Department of Construction Science, Texas A&M University

# **Graduate Teaching Assistant (Mar 2006 – Dec 2006)**

Department of Civil Engineering, Hanyang University, Seoul, South Korea

### **PUBLICATIONS**

# A. Journal Articles (\*Corresponding Author)

- 1. \*Yeon, J., Czarny, M., Walewski, J., Kang, J. (2018) "Conceptual Big Data Case Study to Identifying Risks of New Nuclear Technologies", International Structural Engineering and Construction, The ISEC Society + ISEC Press. (ISBN: 978-0-9960437-4-8; Indexed in Scopus). (In Press)
- 2. **Yeon, J.**, \*Rew, Y., Choi, K., Kang, J. (2018) "Accelerated Pavement Repair Using 3D-Printing: A Life Cycle Assessment Approach to Verifying Its Sustainability", Journal of Management in Engineering, American Society of Civil Engineers (ASCE), Under Review. (ISSN: 1943-5479; 5-Year Impact Factor 2.864; H Index 52)
- 3. \*Yeon, J. (2018) "Applying 3D Printing Technology in the Construction Industry", Korean Journal of Construction Engineering and Management, Korea Institute of Construction Engineering and Management, Vol. 19, No. 3: 47 49. (ISSN: 1229-7534; 5-Year Impact Factor Not Calculated)
- 4. \*Yeon, J., Kang, J., Yan, W. (2018) "Spall Damage Repair using 3D Printing Technology", Automation in Construction, Elsevier BV, Vol. 89 266-274. (ISSN: 0926-5805; 5-Year Impact Factor 4.032; H Index 83) https://doi.org/10.1016/j.autcon.2018.02.003
- 5. Jin, N., \*Yeon, J., Min, S., Yeon, K. (2018) "Strength Developments and Deformation Characteristics of MMA-Modified Vinyl Ester Polymer Concrete", International Journal of Concrete Structures and Materials, Springer Science + Business Media, Vol. 12:4 65-76. (ISSN: 1976-0485; 5-Year Impact Factor: 3.134; H Index 15) https://doi.org/10.1186/s40069-018-0232-0
- 6. **\*Yeon, J.** and Kang, J. (2017) "Spall Repair using a 3D Printer and Epoxy Resin Adhesive", International Structural Engineering and Construction, The ISEC Society + ISEC Press, Article ID I-16. (ISBN: 978-0-9960437-4-8; Indexed in Scopus) https://doi.org/10.14455/ISEC.res.2017.213
- 7. Jin, N., \*Yeon, J., Seung, I., Yeon, K. (2017). "Effects of Curing Temperature and Hardener Type on the Mechanical Properties of Bisphenol F-Type Epoxy Resin Concrete", Journal of Construction and Building Materials, Elsevier BV, Vol. 156: 933-943. (ISSN: 0950-0618; 5-Year Impact Factor: 4.370; H Index 109) https://doi.org/10.1016/j.conbuildmat.2017.09.053
- 8. Jin, N., Yeon, K., Min, S., \*Yeon, J. (2017). "Using the Maturity Method in Predicting the Compressive Strength of Vinyl Ester Polymer Concrete at an Early Age", Journal of Advances in Materials Science and Engineering, Hindawi Publishing Corporation, Vol. 2017, Article ID 4546732, 12 pages. (ISSN: 1687-8442; 5-Year Impact Factor: 1.16; H Index 22) https://doi.org/10.1155/2017/4546732
- 9. Jin, N., Seung, I., Choi, Y., \*Yeon, J. (2017) "Prediction of Early-Age Compressive Strength of Epoxy Resin Concrete using the Maturity Method", Journal of Construction and Building Materials, Elsevier BV, Vol. 152: 990-998. (ISSN: 0950-0618; 5-Year Impact Factor: 4.370; H Index 109) https://doi.org/10.1016/j.conbuildmat.2017.07.066

- Yeon, K., Kim, K., Kim, C., \*Yeon, J. (2015) "Coefficient of Thermal Expansion of Polymer Concrete with Different Polymeric Binders", Advanced Materials Research, Trans Tech Publications, Vol. 1129: 139-144. (ISSN: 1662-8985; 5-Year Impact Factor: 0.115; H Index - 28) https://10.4028/www.scientific.net/AMR.1129.139
- 11. Yeon, K., Kim, K., Kim, C., \*Yeon, J. (2015) "Comparative Study on the Elastic Modulus of Polymer Concrete", Advanced Materials Research, Trans Tech Publications, Vol. 1129: 145-150. (ISSN: 1662-8985; 5-Year Impact Factor: 0.115; H Index 28) https://10.4028/www.scientific.net/AMR.1129.145

# **B.** Conference Proceedings

- 1. Aydin, B., **Yeon, J.**, Oh. I. (2019) "A Pilot Study of UAVs in the Construction Sector: Knowledge, Attitudes, and Practice", IISE 2019: The Institute of Industrial and Systems Engineers Annual Conference & Expo, Orlando, Florida, USA, May 18-21. (**In Press**)
- 2. **Yeon, J.**, Rew, Y., Kang, J., Choi, K. (2018) "Life-Cycle Assessment based Feasibility Study of Spall Damage Rehabilitation using 3D Printing Technology", ASC 2018: 54th International Conference Associated Schools of Construction, Minneapolis, Minnesota, USA, April 18-21.
- 3. Yeon, K., Kim, K., **Yeon, J.** (2018) "Feasibility Study of the Use of Polymer-Modified Cement Composites as 3D Concrete Printing Material", ICPIC 2018: 16th International Congress on Polymers in Concrete, Washington D.C., USA, April 29- May 1.
- 4. **Yeon, J.** and Kang, J. (2017) "Investigation of the Structural Stability of Rapid Spall Repair Method using 3D Printing Technology", International Conference on Maintenance and Rehabilitation of Constructed Infrastructure Facilities, Seoul, South Korea, Jul. 19–21.
- 5. **Yeon, J.** and Kang, J. (2017) "Spall Damage Repair using 3D Printers: Opportunities and Challenges", CITC 2017 The Ninth International Conference on Construction in the 21st Century, Dubai, United Arab Emirates, Mar. 5–7.
- 6. Kang, J, **Yeon, J.**, and Kandregula, S. (2015) "Fabrication of BIM CAVE 2: Challenges in Handling 9 Screen Walls", ISARC 2015: 32nd International Symposium on Automation and Robotics in Construction and Mining, Oulu, Finland, Jun. 15–18.
- 7. **Yeon, J.**, Walewski, J. and Kim, A. (2015) "International Project Risk Assessment (IPRA) Tool Compatibility Test for the International Nuclear Power Plant Construction", ASC 2015: 51st International Conference Associated Schools of Construction, College Station, Texas, USA, Apr. 22–25.
- 8. Walewski, J., Anderson, S., **Yeon, J.**, and Kim, A. (2013) "Risk Framework for the Next Generation Nuclear Power Plant Construction", ICCEPM 2013: 5th International Conference on Construction Engineering and Project Management, Anaheim, California, USA, Jan 9–11.

- 9. **Yeon, J.**, Noh, M., and Park, T. (2007) "Experimental Analysis for Reinforced Concrete Deck Bonded with Steel Plate", KCI 2007: Korea Concrete Institute Conference, Suwon, South Korea, Nov 1–3.
- 10. **Yeon, J.**, Noh, M., and Park, T. (2007) "Numerical Analysis for Novel-Type Steel-Concrete Composite Deck", KSCE 2007: Korean Society of Civil Engineering Conference, Daegu, South Korea, Oct 10-12.

# C. Technical Reports

1. **Yeon, J.**, Noh, M., Lee, J., and Park, T. (2007) "TTM Deck Evaluation (Static Test / Fatigue Test)", Brain Korea 21 Project Research Report (Interconstech.co.,Ltd), Computational Solid & Structural Mechanic Laboratory, Hanyang University, Seoul, South Korea.

#### **D. Presentations**

- 1. Czarny, M., **Yeon, J.** and Oh, I. (2018) "Content Analysis Approach: Infrastructure Construction Risk Identification using the Hurricanes Harvey and Katrina Disasters", Texas A&M System 2018: 15th Annual Pathways Research Symposium, Canyon, Texas, USA, November 1-2.
- 2. **Yeon, J.** and Kang, J. (2017) "Rapid Spall Rehabilitation using 3D Printing Technology", ASC 2017: 53rd International Conference Associated Schools of Construction, Seattle, Washington, USA, April 5-8.
- 3. **Yeon, J.**, Kang, J., Yan, W. (2016) "Investigation of the Structural Stability of Rapid Spall Repair Method using 3D Printing Technology", Texas A&M College of Architecture 2016: 18th Annual Faculty Research Symposium, College Station, Texas, Oct. 24.
- 4. **Yeon, J.**, Kang, J. (2013) "Omnidirectional Treadmill for Immersive Virtual Reality System", Texas A&M College of Architecture 2013: 15th Annual Faculty Research Symposium, College Station, Texas, Oct. 21.

# E. News

- 1. [e-News: eCampus News] "Texas A&M immerses students in 3D world", By Laura Devaney, (http://www.ecampusnews.com/technologies/students-3d-world-873/).
- 2. [e-News: Arch One] "CoSci Upgrades Its BIM CAVE in New Francis Hall Headquarters", College of Architecture, Texas A&M University, (http://one.arch.tamu.edu/news/2015/12/14/coscis-bimcave-upgraded-upscale-francis-hall-home/).
- [e-News: Samsung.com/us] Samsung Displays Help to Construct State-of-the Science Learning Environment, US Samsung.com, (http://www.samsung.com/us/system/b2b/resource/2015/08/17/CASEST-LFD-TEXASAMAUG15KC.pdf).