Junsuk Kang, Ph.D.

Professor
Green Infrastructure Engineering Laboratory
Dept. of Landscape Architecture and Rural Systems Engineering
Seoul National University, Bld. 200/Rm. 9221, 1 Gwanak-ro, Gwanak-gu
Seoul 08826, Republic of Korea

Mobile: +82-10-3121-2739
Office/Lab: +82-2-880-4872/2228
Fax: +82-2-873-5113
Email: junkang@snu.ac.kr
Homepage: http://ge.snu.ac.kr

Biography

Dr. Junsuk Kang has been a professor in the Department of Landscape Architecture and Rural Systems Engineering at Seoul National University since the spring of 2017. He heads the Green Infrastructure Engineering Laboratory, and is a director of Specialized Graduate School of Intelligent Eco-Science in the University. He is also a CEO of Green Infrastructure Disaster Prevention Center. Prior to his arrival, he had been working for the Department of Civil Engineering and Construction Management at Georgia Southern University, GA, USA as a tenure-track assistant professor since the fall of 2012. Dr. Junsuk Kang earned his Ph.D. degree in Structural Engineering in the Department of Civil Engineering at Auburn University, AL, USA in 2007. He obtained his master's degree in Structural Engineering from Korea University, South Korea, in 2000 and his bachelor's degree was in Civil and Environmental Engineering from Korea University, South Korea, in 1998. Prior to entering PhD study, Dr. Kang worked as a Senior Civil Engineer in Hong Kong HCT9 site and Seoul Headquarter of Hyundai Engineering and Construction Co., Ltd. during 2000- 2002. After his PhD study, he had taken many projects supported by ALDOT and Air Force Research Laboratory as a research associate at Auburn University during 2007 – 2011.

Education

Ph.D. Civil Engineering (Structures), Auburn University, Aug. 2003 – May 10, **2007**
M.S. Civil Engineering (Structures), Korea University, Seoul, Korea, March 1998 – Feb. **2000**
B.S. Civil Engineering, Korea University, Seoul, Korea, March 1991 – Feb. **1998**

Primary Research Interests and Expertise

- Green Infrastructure Engineering for Climate Disaster Mitigation
- Smart Landscape Systems Development
- Analysis and Design for Disaster-mitigating Infrastructure
- Evidence-based Urban Design
- Biomimicry Engineering

Primary Teaching Interests

- Landscape Engineering/ Landscape Materials and Construction
- Sustainable Environment Planning and Design
- Construction Cost Estimation
- Steel Design/ Reinforced Concrete Design/Statics/Dynamics
- Finite Element Methods in Structural Mechanics

Honors and Distinctions

- Faculty of the Year **2014-2015** in the Department of Civil Engineering and Construction Management at Georgia Southern University

- Nominated for Georgia Southern University Award for Excellence in Research and/or Creative Scholarly Activity for **2015-2016**
- Selected as one of ten Auburn Distinguished Outstanding Doctoral Students for **2006 – 2007**

Professional Affiliations

- Korean Society of Landscape Architecture, Regular Member (2017 – present)
- Korean Society of Civil Engineers, Regular Member
- Korean Society of Climate Change Research, Regular Member (2019 to present)
- Korean-American Professional Association in Life Sciences, Regular Member (2019 – present)
- Korea Academia-Industrial cooperation Society (KAIS), Regular Member (2018 – present)
- American Geophysics Union (AGU), Regular Member (2017 – present)
- Construction Vision Forum, Committee Member (2017 – present)
- Korean Society of Landscape Architecture, Regular Member (2017 – present)
- American Society of Civil Engineers (ASCE), Associate Member (2004 to present)
- Standards Committee for ASCE)SEI24 – Flood Resistant Design and Construction, Associate Member (2023 to present)
- Structural Engineering Institute (SEI) of ASCE, Associate Member (2013 to present)
- Transportation Research Board of the National Academy of Engineering, Friend of AFF70-
- Culverts and Hydraulic Structures Committee
- American Institute of Steel Construction (AISC), Member (2014 to present)
- American Society of Engineering Education (ASEE), Member (2016 to present)
- American Society for Testing and Materials (ASTM), Friend of F36-Technology and Underground Utilities Committee
- Korean Society for Advanced Composite Structures, Regular Member, Editor (2011 to present)
- Korean-American Scientists and Engineers Association, Regular Member
- Korean Society of Steel Construction, Regular Member, Editor of International Journal of Steel Structures (April 2016 – May 2017)
- Korean Society of Hazard Mitigation, Regular Member
- Korean Society for Railway Engineers, Regular Member

Professional Development & Certifications

- **AISC Educator Workshop –** 2 days**,** American Institute of Steel Construction, Chicago, Illinois, July 18-19, **2016**.
- **Developing and Teaching Online Courses** – 6 weeks, Georgia Southern University, Spring semester, **2016**.
- **Georgia Section ITE Technical Exchange**, Georgia Southern University, October 29, 2015.
- **Quality Matters (QM) Certificate** for Independent Applying the QM Rubric, Georgia Southern University, May 28, **2015.**
- **Professional Development Workshop (ProDeW)**, Korean-American Scientists and Engineers Association (KSEA), March 15 -16, **2014**.
- **EIT** in Civil Engineering, Korea (Sep. **1997**)

Overview of Professional Experience

Research Experience

Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 2024–Present

• Conducts research in the areas of:
- ✓ Intelligent Green Infrastructure Systems Development
- ✓ Disaster Mitigating Green Infrastructure Development
- ✓ Sustainable Landscape Construction and Management
- ✓ Landscape-Soil-Structure Interaction
- ✓ Analysis and Design of Landscape Structures

• Supervised and coordinated the work of several research teams, including graduate research assistants and undergraduates.

Associate Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 2019–Feb.2024

• Conducts research in the areas of:
- ✓ Green infrastructure engineering for climate disaster mitigation
- ✓ Smart landscape systems development
- ✓ Risk analysis and design for infrastructure
- ✓ Evidence-based urban design
- ✓ Bio-inspired engineering

• Supervised and coordinated the work of several research teams, including graduate research assistants and undergraduates.

Assistant Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 2017–Feb. 2019

• Conducts research in the areas of:
- ✓ Smart Landscape Systems Development
- ✓ Multi-functional Landscape Structures Development
- ✓ Sustainable Landscape Construction and Management
- ✓ Landscape-Soil-Structure Interaction
- ✓ Analysis and Design of Landscape Structures

• Supervised and coordinated the work of several research teams, including graduate research assistants and undergraduates.

Assistant Professor – Civil Eng. and Construction Mgt., Georgia Southern Univ.
Aug. 2012–Jan. 2017

• Conducted research in the areas of:
- ✓ Accelerated bridge construction and design
- ✓ Stability of tall wind turbine tower structures
- ✓ Analysis and design of reinforced concrete piers rehabilitated with FRP wraps

- ✓ Analysis and design of thermoplastic (PVC and HDPE) pipes for highway construction
- ✓ Analytical evaluation of stress development in cured-in-place culverts due to thermal and moisture change effects
- ✓ Analysis and design of tilt-up sandwich panels subjected to static and blast loadings
- ✓ Soil-structure interaction and imperfect trench installation for deeply buried conduits
- ✓ Stability of highway bridges due to scour

• Supervised and coordinated the work of several research teams, including undergraduate research assistants and ASCE steel bridge competition teams 2015 & 2017.

Research Associate - Civil Engineering, Auburn University May 2007–Aug. 2011

• Conducted research in the areas of:
- ✓ Structural analyses of the stability of highway bridges due to scour
- ✓ Analytical evaluation of stress development in cured-in-place culverts in Alabama due to thermal and moisture change effects
- ✓ Analytical study of buried structures subjected to internal blast
- ✓ Analysis and design of tilt-up sandwich panels (supported by the Air Force Research Laboratory and Tilt-up Concrete Association).
- ✓ Analysis and design of thermoplastic (PVC and HDPE) pipes for highway construction (supported by the Alabama Department of Transportation)
- ✓ Blast loading response for prestressed composite structures (supported by the Air Force Research Laboratory)
- ✓ Analysis and design of concrete and plastic-lined conduits
- ✓ Fluid-structure interaction of flexible shelter structures during air blast loading (supported by the Air Force Research Laboratory)

• Supervised and coordinated the work of several research teams, including both graduate and undergraduate research assistants

Graduate Research Assistant - Civil Engineering, Auburn University Aug. 2003–May 2007

• Conducted Ph.D. research in the area of:
- ✓ Soil-structure interactions for deeply buried concrete pipes and box culverts (supported by the Alabama Department of Transportation)
- ✓ Effects of imperfect trench installation for buried corrugated PVC and steel pipes (supported by the Highway Research Center at Auburn University)
- ✓ Ultimate strength of web panels under pure shear

• Prepared research proposals and presentations; authored and co-authored journal/conference publications and technical reports
• Reviewed papers submitted for publication in refereed journals

Graduate Research Assistant - Civil Engineering, Korea University Mar.1998–Feb. 2000

• Conducted research in the area of:
- ✓ Development of a nonlinear model for continuous welded rail tracks (supported by the Korean Railroad Research Institute)
- ✓ Structural analysis of steel plate girder bridges with a wide girder-space and thick wall

thickness (supported by Dasan Consultant Co., Ltd)

- ✓ Development of a slab with the upper reinforcing bars partially removed for use in steel plate girder bridge (supported by the Ministry of Construction and Transportation in the Seoul Metropolitan Area)
- ✓ Development of a design guide for steel plate and box girder bridges (supported by Hyundai Heavy Industries Co., Ltd)

Teaching Experience

Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 22024–Present

• Develops curriculum and teaches as instructor the following courses:

- ✓ Landscape Engineering
- ✓ Landscape Materials and Construction
- ✓ Landscape Cost Estimates and Analysis
- ✓ Studies in Techniques of Sustainable Environment Planning and Design
- ✓ Landscape Planning and Design

Associate Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 2019–Feb. 2024

• Develops curriculum and teaches as instructor the following courses:

- ✓ Landscape Engineering
- ✓ Landscape Materials and Construction
- ✓ Landscape Cost Estimates and Analysis
- ✓ Studies in Techniques of Sustainable Environment Planning and Design
- ✓ Landscape Planning and Design
- ✓ Introduction to Landscape Architecture and Rural Systems Engineering

Assistant Professor – Landscape Architecture and Rural Systems Eng., Seoul National Univ.
Mar. 2017–Feb. 2019

• Develops curriculum and teaches as instructor the following courses:

- ✓ Landscape Engineering
- ✓ Landscape Materials and Construction
- ✓ Landscape Cost Estimates and Analysis
- ✓ Studies in Techniques of Sustainable Environment Planning and Design
- ✓ Introduction to Landscape Architecture and Rural Systems Engineering

Assistant Professor – Civil Eng. & Construction Mgt., Georgia Southern University
Aug. 2012–Jan. 2017

• Developed curriculum and taught as instructor the following undergraduate courses:

- ✓ TCM 3231: Structures I (Steel Structures)
- ✓ TCM 3232: Structures II (Concrete and Masonry Structures)
- ✓ CENG 3135: Project Cost Analysis Planning and Management
- ✓ CENG 3331: Structural Analysis I
- ✓ TCM 2240: Introduction to Structures
- ✓ CENG 4539: Senior Project
- ✓ CENG 4518: Introduction to Senior Project

✓ CENG 4890: Special Prob in CE
✓ TMAE7891: Independent Study
✓ Study Abroad to South Korea (Summer 2014)

Full-time Instructor – Construction Mgt. & Civil Eng., Georgia Southern University
Aug. 2011–July 2012

• Developed curriculum and taught as instructor the following undergraduate courses:
✓ ENGR 2231: Engineering Mechanics I- Statics
✓ TCET 4132: Reinforced Concrete Design
✓ TCET 3131: Environmental Pollution Lab
✓ TCET 3236/CENG 3135: Project Cost Analysis and Management
✓ TCET 3234/CENG 3234: Construction Materials Lab
✓ TCET 4536: Senior Project
✓ TCET 4245: Water-Wastewater Treatment Lab
✓ TCET 3142/CENG 3242: Structural Analysis

Co-Instructor – Civil Engineering, Auburn University Sep. 2007–July 2011

• Developed curriculum and taught as co-instructor the following graduate and undergraduate courses:
✓ CIVL 7660: Finite Element Methods in Structural Mechanics
✓ CIVL 7970: Finite Element Methods II in Structural Mechanics
✓ CIVL 7630: Advanced Stress Analyses
✓ CIVL 7640: Stability of Structures

Graduate Teaching Assistant – Civil Engineering, Auburn University Sep. 2004–Sep. 2006

• Presented finite element analysis program lectures to graduate and undergraduate classes and seminars, including:
✓ CIVL 7660: Finite Element Methods in Structural Mechanics
✓ CIVL 7640: Stability of Structures
• Developed criteria for evaluating student assignments, and conducted evaluations for graduate and undergraduate classes and seminars, including:
✓ CIVL 7660: Finite Element Methods in Structural Mechanics
✓ CIVL 7640: Stability of Structures

Graduate Teaching Assistant – Civil Engineering, Korea University Mar. 1998–Dec.1999
• Developed criteria for evaluating student assignments, and conducted evaluations for graduate and undergraduate classes and seminars, including:
✓ CESE 234: Structural Analysis
✓ CESE 231: Mechanics of Materials

Advising and Mentoring

Master Students
• Dejuan Solan, Graduate Assistant, Dept. of Civil Engineering and Construction Management, Georgia Southern Univ., Fall 2016 – Fall 2017.
• Mohammad Bashar, Research Assistant, Mechanical Engineering at GSU, Summer 2013

Undergraduate Students

- Seul Gi Choi, Research Assistant, Landscape Architecture and Rural Systems Engineering at Seoul National Univ., 2017 - Present
- Zheong Zun Yi, Research Assistant, Landscape Architecture and Rural Systems Engineering at Seoul National Univ., 2017 - Present
- Kelvin Johnson, Research Assistant, Civil Eng. and Construction Management at GSU, 2015 - 2016
- ABC (Accelerated Bridge Construction) Research Team II (Kelvin Johnson, Clayton Rogers, Dejuan Solan, Daniel Laitano, Grant Cumbie), Fall 2015 – Spring 2016
- ABC (Accelerated Bridge Construction) Research Team (Mike Ofili, Kelvin Johnson, Cody Rogers, John Weyant, Chuck Byrne), Fall 2014 – Spring 2015
- ASCE Steel Bridge Competition Team (Nathaniel Tanner, Kelly McIIraith, James Coody, Elizabeth Sonnedecker, Christopher Bachmann), Fall 2014 – Spring 2015
- Brian Rawls, Research Assistant, Computer Science at GSU, Fall 2013
- Caitlin Smith, Research Assistant, Mechanical Engineering at GSU, Summer 2013
- Michael Ofili, Research Assistant, Civil Eng. and Construction Management at GSU, 2013 - Present
- Vincent Owens, Research Assistant, Civil Eng. and Construction Management at GSU, 2012 - 2013
- Efadul Huq, Research Assistant, Civil Engineering and Construction Management at GSU, 2012 -2013

Industrial Experience

Civil Engineer - Hyundai Engineering and Construction Co., Ltd. Jan.5, 2000–July 26 2002

- Hong Kong Container Terminal No.9 Development Project, Hong Kong
  - ✓ Conducted construction planning, scheduling and cost control
  - ✓ Supervised subcontractor's works and coordinated weekly progress meeting with the Project Engineer
- Division of Civil Works (Overseas), Headquarters, Seoul, Korea
  - ✓ Prepared the PQ and tender documents for international civil projects
- Jamsil Bridge Widening and Reinforcement Project, Seoul, Korea
  - ✓ Served as coordinator between the site and HIT (Hyundai Institute of Technology) on the structural problems encountered during the project

Specific Research Activities and Outcomes

Research Products

Sponsored Projects – Principal Investigator or Co-Principal Investigator
Note: all projects listed involved Kang as either Principal Investigator or Co-Principal Investigator and included primary responsibility for authoring proposal, managing project team, and delivery of all required deliverables under contract.

Funded Grants (at Seoul National University)

연번	연구과제명	연구기관 (연구비지원기관)	연구기간	연구책임자	역할	총 연구비* **(개인지분)** (원)	비고

1	2017년 차세대우수학자 지원금	서울대학교	2017.03.01. ~ 2018.02.28	강준석	연구책임자	150,000,000	교내지원금
2	풍하중에 종속된 거목의 안정성에 관한 실험 및 해석적 연구	서울대학교	2017.04.01. ~ 2018.03.30	강준석	연구책임자	19,500,000	교내연구과제
3	토피가 큰 지중아치 구조물의 최적화 시스템 구축을 위한 신개념 Embedded Trench Installation(ETI) 적용 기술개발	국토교통부	2017.06.30. ~ 2017.12.31	박종섭	공동연구기관 연구책임자	50,000,000	주관기관: 상명대학교
4	토피가 큰 지중아치 구조물의 최적화 시스템 구축을 위한 신개념 Embedded Trench Installation(ETI) 적용 기술개발	국토교통부	2018.01.01. ~ 2018.12.31	박종섭	공동연구기관 연구책임자	70,000,000	주관기관: 상명대학교
5	재난 대응 및 복구 지원을 위한 급속 손상도 평가 및 의사결정 시스템 개발	국토교통부	2018.04.10. ~ 2018.12.31	강준석	주관연구기관 연구책임자	104,000,000	공동기관: 조지아텍
6	Embedded Geofoam Installation (EGI)을 이용한 재난저감형 인프라스트럭처 모델 개발	교육부	2018.06.01. ~ 2019.02.28	강준석	연구책임자	37,500,000	
7	기후변화 적응정책 선정을 위한 통합평가 의사결정지원 도구개발 및 실증화·고도화	환경부	2018.08.02. ~ 2019.02.28	이동근	주관연구기관 공동연구원	78,500,000	주관기관: 서울대학교
8	재난 대응 및 복구 지원을 위한 급속 손상도 평가 및 의사결정 시스템 개발	국토교통부	2019.01.01. ~ 2019.12.31	강준석	주관연구기관 연구책임자	110,000,000	공동기관: 조지아텍
9	Embedded Geofoam Installation (EGI)을 이용한 재난저감형 인프라스트럭처 모델 개발	교육부	2019.03.01. ~ 2020.02.29	강준석	연구책임자	50,000,000	
10	기후변화 적응정책 선정을 위한 통합평가 의사결정지원 도구개발 및 실증화·고도화	환경부	2019.03.01. ~ 2019.12.31	이동근	주관연구기관 공동연구원	70,000,000	주관기관: 서울대학교
11	데이터 공유를 통한 재해(폭염 등) 저감 기술 개발	국토교통부	2019.10.14. ~ 2019.12.31.	이정민	공동연구기관 연구책임자	47,720,000	주관기관: 한국주택공사
12	재난 대응 및 복구 지원을 위한 급속 손상도 평가 및 의사결정 시스템 개발	국토교통부	2020.01.01. ~ 2020.12.31	강준석	주관연구기관 연구책임자	81,000,000	공동기관: 조지아텍
13	기후변화 적응정책 선정을 위한 통합평가 의사결정지원 도구개발 및 실증화·고도화	환경부	2020.01.01. ~ 2020.12.31	이동근	주관연구기관 공동연구원	65,000,000	주관기관: 서울대학교
14	재해(폭염 등) 저감장치 통합제어 기술 설계·검증 및	국토교통부	2020.01.01. ~ 2020.12.31.	이정민	공동연구기관 연구책임자	64,561,000	주관기관: 한국주택공사

	운영 모니터링						
15	Embedded Geofoam Installation (EGI)을 이용한 재난저감형 인프라스트럭처 모델 개발	교육부	2020.03.01. ~ 2021.02.28	강준석	연구책임자	50,000,000	
16	도시생태계 현안대응을 위한 다중기반 그린인프라 기술개발	환경부	2020.04.01 ~ 2020.12.31.	송영근	주관연구기관 공동연구원	100,000,000	주관기관: 서울대학교
17	서울대학교 스마트시티 글로벌 융합 혁신인재양성 교육연구단	교육부	2020.09.01. ~ 2021.02.28	황준석	주관연구기관 공동연구원	50,000,000	주관기관: 서울대학교
18	SNU 실전문제 인재양성 연구단	과학기술정보통신부	2021.01.01. ~ 2022.02.28.	서은석	주관연구기관 공동연구원	7,000,000	주관기관: 서울대학교
19	재해(폭염 등) 저감장치 통합제어 기술 설계·검증 및 운영 모니터링	국토교통부	2021.01.01. ~ 2021.12.31.	이정민	공동연구기관 연구책임자	47,719,000	주관기관: 한국주택공사
20	도시생태계 현안대응을 위한 다중기반 그린인프라 기술개발	환경부	2021.01.01 ~ 2021.12.31.	송영근	주관연구기관 공동연구원	79,000,000	주관기관: 서울대학교
21	Embedded Geofoam Installation (EGI)을 이용한 재난저감형 인프라스트럭처 모델 개발	교육부	2021.03.01. ~ 2021.05.31	강준석	연구책임자	12,500,000	
22	서울대학교 스마트시티 글로벌 융합 혁신인재양성 교육연구단	교육부	2021.03.01. ~ 2022.02.28	황준석	주관연구기관 공동연구원	50,000,000	주관기관: 서울대학교
23	딥러닝과 생태모방을 활용한 학교건물 내진설계 최적화 모델 개발	국토교통부	2021.04.01. ~ 2021.12.31.	강준석	연구책임자	96,000,000	
24	한국형 집중호우 대응 모듈러 방재기술 개발을 위한 특화 실험실	교육부·과학기술정보통신부	2021.06.01. ~ 2022.01.31.	강준석	연구책임자	50,000,000	
25	인공위성과 기상 빅데이터를 활용한 도심지 및 스마트팜 비닐하우스 태풍재해의 베이지안 추론법과 피해저감 AI 기술개발	서울대학교	2021.09.01. ~ 2023.08.31	강현구	주관연구기관 공동연구원	6,200,000	교내연구과제
26	지식기반 환경서비스 특성화대학원 지원사업	환경부	2021.11.01. ~ 2022.11.30.	강준석	연구책임자	142,500,000	
27	도시생태계 현안대응을 위한 다중기반 그린인프라 기술개발	환경부	2022.01.01 ~ 2022.12.31.	송영근	주관연구기관 공동연구원	103,000,000	주관기관: 서울대학교
28	딥러닝과 생태모방을 활용한 학교건물 내진설계 최적화 모델 개발	국토교통부	2022.01.01. ~ 2022.12.31.	강준석	연구책임자	126,000,000	
29	서울대학교 스마트시티 글로벌 융합 혁신인재양성 교육연구단	교육부	2022.03.01. ~ 2023.02.28	황준석	주관연구기관 공동연구원	50,000,000	주관기관: 서울대학교

30	지속가능한 미래사회를 위한 강소도시 연구	민간기관	2022.03.01. ~ 2023.04.30.	서현	주관연구기관 공동연구원	20,000,000	주관기관: 서울대학교
31	도시공간 기후탄력성 확보 기술 평가 및 의사결정지원 시스템 개발	환경부	2022.04.01. ~ 2022.12.31.	이동근	주관연구기관 공동연구원	74,000,000	주관기관: 서울대학교
32	2-116. 도시 수목 3D 생육 데이터	과학기술정보통신부	2022.07.01. ~ 2022.12.31	강준석	연구책임자	204,000,000	공동기관: 카탈로닉스, SK임업, 프리다츠
33	2-116. 도시 수목 3D 생육 데이터(크라우드소싱)	과학기술정보통신부	2022.07.01. ~ 2022.12.31	강준석	연구책임자	96,000,000	공동기관: 카탈로닉스, SK임업, 프리다츠
34	지식기반 환경서비스 특성화대학원 지원사업	환경부	2022.12.01. ~ 2023.11.30.	강준석	연구책임자	154,600,000	
35	도시공간 기후탄력성 확보 기술 평가 및 의사결정지원 시스템 개발	환경부	2023.01.01. ~ 2023.12.31.	이동근	주관연구기관 공동연구원	133,000,000	주관기관: 서울대학교
36	서울대학교 현장연계 탄소중립 ESG 미래선도인재양성지원사업단	과학기술정보통신부	2023.01.01. ~ 2023.12.31.	김성우	주관연구기관 공동연구원	10,000,000	주관기관: 서울대학교
37	서울대학교 스마트시티 글로벌 융합 혁신인재양성 교육연구단	교육부	2023.03.01. ~ 2024.02.28	황준석	주관연구기관 공동연구원	50,000,000	주관기관: 서울대학교
38	도시 기후변화 영향 실험모사(U-Ecotron) 기술개발	과학기술정보통신부	2023.05.01. ~ 2024.01.31	김상래	공동연구기관 연구책임자	275,000,000	주관기관: KCL
39	지식기반 환경서비스 특성화대학원 지원사업	환경부	2023.12.01. ~ 2024.11.30.	강준석	연구책임자	210,000,000	
소계(총 39건)						3,194,300,000	

Funded Grants (USA)

Project Name	Project Description	Sponsor	Project Period	Project Cost	Role
Optimum design and fabrication of a scaled steel bridge for the 2017 ASCE Student Steel Bridge Competition	Design and fabrication of a scaled steel bridge using the finite element analysis and advanced construction techniques	CEIT-UR at GSU	Nov. 2016 – May 2017 (Proposal submitted on October 2016 and **approved** on Nov. 18, 2016)	$2,000 (Prorated :$1,000)	Proposal co-author and **mentor** (Undergraduate researcher: Brandon Yingling)
Stability of high	Development of	CEIT-	Dec. 2015 –	$14,500	Proposal co-

capacity wind turbine tower structures	guidelines for design of tall steel wind turbine towers subjected to high capacity wind loads	Seed Grant at GSU	Oct. 2016 (Proposal submitted to CEIT, GSU on Oct. 9, 2015 and **approved** on Dec. 2, 2015)	(Prorated : $7,250)	author and **co-PI** (PI: Dr. Shahnam Navaee)
Optimum design and fabrication of a scaled steel bridge for the 2015 ASCE Student Steel Bridge Competition: Application of accelerated bridge construction techniques and finite element analysis	Design and fabrication of a scaled steel bridge using the finite element analysis and advanced construction techniques	CEIT-UR at GSU	Nov. 2014 – May 2015 (Proposal submitted on October 13, 2014 and **approved** on Nov. 10, 2014)	$2,850 (Prorated :$1,425)	Proposal co-author and **mentor** (Undergraduate researcher: Nathaniel Tanner)
3D finite element analyses for buried concrete pipes in imperfect trench installation	3D finite element analyses and field studies for rigid conduits with enhanced induced trench installations	CEIT-GSU	Nov. 2014 – Oct. 2015 (Proposal submitted on Oct. 10, 2014 and **approved** on Nov. 4, 2014)	$5,000 (Prorated : $5,000)	Proposal author and **PI**
PreFab Bridges for Georgia City and Country Roads	Develop a prefab bridge toolkit to be used by local governments	GDOT	Dec. 2014 – Feb. 2016	$100k (Prorated : $20,000)	Proposal author and **PI** (co-PIs: Drs. Jackson, Maldonado, Rogers, Maghiar)
Structural effects of shear tie resistances for foam-insulated concrete sandwich panels under uniform pressure	Analytical studies for structural behaviors of foam-insulated concrete sandwich panels using finite element analyses	University Honors Program-GSU	Aug. 2013 – May 2014 (Proposal **approved** on August 1, 2013)	$576 (Prorated : $288)	Proposal author and **mentor** (Mr. Mike Ofili)
A chronological image analysis of structural failure for innovation in infrastructure management	Development of structural failure criteria using advanced image analysis and finite element	CEIT-GSU	May 2013 – April 2014 (Proposal **approved** on April 1, 2013)	$9.500 (Prorated : $3,166)	Proposal author and **Co-PI**

	analysis				

Not Funded Grants

Project Name	Project Description	Sponsor	Proposal Submission Date	Project Cost	Role
Structural Stability of Tall Wind Turbine Towers Subjected to Extreme Wind Loads (Cloud Express ID: 17142, Proposal# 675)	Development of guidelines for design of tall steel wind turbine towers subjected to high capacity wind loads	AISC	Proposal submitted to AISC on Mar. 15, 2016 and rejected on Aug. 2016	$130K	Proposal co-author and PI (Co-PI: Dr. Shahnam Navaee)
Structural analysis and design of tall steel wind turbine towers	Development of guidelines for design of tall steel wind turbine towers subjected to high capacity wind loads	GRAPE Program, Georgia Power Company	Pre-proposal submitted to CEIT, GSU on Oct. 23, 2015 and **rejected** on Nov. 2015	$82,100	Proposal co-author and **PI** (Co-PI: Dr. Shahnam Navaee)
Pre-Proposal for Instrument Acquisition – MRI for LiDAR-& Photogrammetry-Based Models	Acquisition of state-of-the-art terrestrial, static and mobile light detection and ranging (LiDAR) instrumentation to assist in a large variety of research activities across different fields	NSF-MRI	Pre-Proposal submitted to ORSSP, GSU on Oct. 2, 2015 and **rejected** on Nov. 2015	$780K	Pre-proposal co-author and **co-PI** (PI: Gus Maldonado, John Van Stan, Marcel Maghiar, M. Jared Wood)
Cost Benefit Analysis for Culvert Replacement Methods	Cost benefit analysis of the three different culvert replacement methods	ODOT (Ohio Department of Transportation)	RFQ (Request for Qualifications) submitted on July 20, 2015 and **rejected** on Nov 5, 2015	N/A	RFQ co-author and **Co-PI** (PI: Pramen P. Shrestha, Co-PIs: Ahmed Abdel-Mohti, Aly Said)

Field Experiments and Analytical Studies for Buried Rigid and Flexible Pipes in the Imperfect Trench Installations	Develop fundamental understanding of the soil-structure interaction under imperfect trench installation using 3D finite element analysis and conduct field experiments	GDOT	Research Needs Statement submitted on March 20, 2015 and **rejected**	$340k	Proposal author and **PI** (Co-PIs: to be determined later)
Accelerated Repairs and Strengthening of Drainage Culverts	Develop the guidelines for securing the structural stability as well as maximizing the cost-effectiveness for lined-existing culverts.	GDOT	Research Needs Statement submitted on November 18, 2014 and **rejected**	$360k	Proposal author and **PI** (Co-PI: Celine Manoosingh)
Application of Accelerated Bridge Construction (ABC) Techniques for Georgia City and County Roads	Develop a ABC Construction toolkit to be used by Georgia City and Country Roads	University Honors Program-GSU	Proposal submitted on May 6, 2014 **(rejected)**	$320	Proposal author and **mento**r for Mike Ofili, Honors Student
Three-dimensional finite element analyses for deeply buried concrete pipes in the imperfect trench installations	Determination of the optimum geometry for the soft material zone in ITI using 3D FE models.	CEIT-GSU	Proposal submitted on Mar. 20, 2013 (**rejected**)	$10k	Proposal author and **PI**
Creating and designing a holistic data management for GDOT	Validation of Productive Asset Management Data Collection and Governance Practices	GDOT	Proposal submitted on Mar. 15, 2013 (**rejected**)	$20k	Proposal author and **Co-PI**
Structural effects of shear tie resistances for structural responses of foam-insulated concrete	Analytical studies for structural behaviors of	CEIT-UR at GSU	Proposal submitted on Mar. 8, 2013 (**rejected**)	$1.5k	Proposal co-author and **mentor** (Undergradua

sandwich panels under uniform pressure	foam-insulated concrete sandwich panels using finite element analyses				te researcher: Michael Ofili)
Analytical study for culvert joints in highway construction	Development of design requirements of rigid and flexible culvert joints under highway	ORSSP-GSU	Proposal submitted on Jan. 25, 2013 (**rejected**)	$10k	Proposal author and **PI**
A Chronological image analysis of structural failure for innovation in infrastructure management	Development of structural failure criteria using advanced image analysis and finite element analysis	NSF-IMEE	Proposal submitted on Oct. 1, 2012 (**rejected**)	$160K	Proposal author and **Co-PI**
Structural design guideline for culvert joints	Development of structural design requirement for joints in rigid and flexible culverts	GTI-UTC & GDOT	Proposal submitted on March 15, 2012 (**rejected**)	$150K	Proposal author and **PI**
Analysis and design of composite HV monopole transmission towers subjected to severe wind loads	Development of design guideline for composite transmission towers	Georgia Power – GRAPE Program	Proposal submitted on Nov. 2016 (**rejected**)	$98k	Proposal co-author and **PI** (Co-PIs: Drs. Navaee & Landry)

Proposals in Progress

Project Name	Project Description	Sponsor	Proposal/ Completion Date	Project Cost	Role
Evaluation and rehabilitation for existing and new prefabricated bridges	Development of maintenance component for accelerated bridge construction	GDOT	RNS **submitted** on Sep. 23, 2016	$100k	Proposal co-author and **PI** (Co-PIs: Drs. Jackson, Maldonado, Rogers, Maghiar)
Lifecycle management plan for ancillary structures supporting overhead signs, signals and luminaries	To determine current best practices and generate GDOT guidelines	GDOT	RNS **submitted** on Sep. 23, 2016	$98k	Proposal co-author and **Co-PI** (PI: Dr. Maldonado,

					Co-PIs:Drs. Jackson & Maghiar)
Analytical and experimental studies for soil-structure interaction of deeply buried pipes in the imperfect trench installations	Detailed 3D FE analyses and experimental studies for deeply buried pipes	GDOT	RNS **submitted** on Sep. 23, 2016	$340k	Proposal co-author and **PI** (Co-PIs: to be determined later)

Sponsored Projects – Contributor as a Research Assistant

Project Name	Contribution to Project	Sponsor	Completion Date	Project Cost	P.I.
Stability of Highway Bridges Subjected to Scour-Phase IV (930-776)	Structural analyses on the stability of highway bridges subjected to scour	Alabama Department of Transportation	May 2011	$100K	Dr. G. Ed Ramey, CE, Auburn University
Mitigation of Cracking of Cast-In-Place Culverts in Alabama (930-777)	Development of guidelines for mitigating cracking of culverts due to changing thermal and moisture conditions	Alabama Department of Transportation	Dec. 2011	$180K	Dr. James Davidson, CE, Auburn University
Expedient Repair and Strengthening of Drainage Culverts	Finite element simulation of corrugated steel pipe lined with composites under internal blast loading	Air Force Research Laboratory	May 2011	$180K	Dr. James Davidson, CE, Auburn University
Blast loading response for prestressed tilt-up sandwich panels	Finite element simulation of prestressed tilt-up sandwich panels under blast loading	Air Force Research Laboratory	May 2010	$200K	Dr. James Davidson, CE, Auburn University
Plastic Pipe for Highway Construction (930-718)	Development of maximum and minimum cover requirements; co-authored final report	Alabama Department of Transportation	May. 2010	$180K	Dr. James Davidson, CE, Auburn University

PVA Fiber Reinforced Shotcrete for Rehabilitation and Preventative Maintenance of Aging Culverts (930-657)	Development of engineering methodology of concrete-lined corrugated steel pipes	Alabama Department of Transportation	Dec. 2008	$150K	Dr. James Davidson, CE, Auburn University
Bedding and Fill Heights for Concrete Roadway Pipe and Box culverts (930-592)	Development of design methodology for deeply buried conduits; co-authored final report	Alabama Department of Transportation	Jun. 2005	$150K	Dr.Chai H. Yoo, CE, Auburn University
Development of Nonlinear Analysis Model of Continuous Welded Rail Tracks	Numerical analysis of CWR tracks under thermal load; co-authored final report	Korea Railroad Research Institute	Oct. 1999	$20K	Dr. Young Jong Kang, CE, Korea University
Structural Analysis of Steel Plate Girder Bridge with Wide Spacing between Each Girder and Thick Steel	Structural analysis; co-authored final report	Dasan Consultants Co., Ltd	Feb. 1999	$12K	Dr. Young Jong Kang, CE, Korea University
Development of the Slab with the Partially Removed Upper Reinforcing Bars in Steel Plate Girder Bridge	Lab. testing and analysis support and data collection; co-authored final report	Ministry of Construction & Transportation in the Seoul Metropolitan Area	Nov. 1998	$110K	Dr. Young Jong Kang, CE, Korea University
Development of Design Guide of Steel Plate & Box Girder Bridge	Development of design guide; co-authored final report	Hyundai Heavy Industries Co., Ltd	Feb. 1999	$25K	Dr. Young Jong Kang, CE, Korea University

Specific Teaching Activities and Outcomes

Academic Teaching Development Activities

AISC Educator Workshop – 2 days, American Institute of Steel Construction, Chicago, Illinois, July 18-19, **2016**.

Developing and Teaching Online Courses – 6 weeks, Georgia Southern University, Spring semester, **2016**.

Grants for the Development of Instruction, Georgia Southern University-Faculty Development Committee, Co-Principal Instructor (Principal Instructor: Dr. Shahnam Navaee), Awarded on Oct. 2015, **2015-2016**, **$2,500**.

Academic Teaching Activities

Assistant Professor (Seoul National University)

No	Year	Semester	Courses	Course No.	Credit
1	2017	1	Landscape Engineering	5271.224A	3
2	2017	1	Landscape Cost Estimation and Economic Analyses	5271.414	3
3	2017	2	Introduction to Landscape Architecture and Rural Systems Engineering	500.173	1
4	2017	2	Landscape Cost Estimation and Economic Analyses	5271.414	3
5	2017	2	Sustainable Environmental Planning and Design	5271.623	3
6	2017	2	Landscape Materials and Construction	5271.215	3
7	2018	1	Landscape Planning and Design	453.518	3
8	2018	1	Landscape Engineering	5271.224A	3
9	2018	1	Sustainable Environmental	5271.413	3

			Planning		
10	2018	1	Undergraduate Thesis	5271.416	1
	2018	1	Supervision on Thesis	5271.803	3
11	2018	2	Introduction to Landscape Architecture and Rural Systems Engineering	500.173	1
12	2018	2	Landscape Cost Estimation and Economic Analyses	5271.414	3
13	2018	2	Sustainable Environmental Planning and Design	5271.623	3
14	2018	2	Landscape Materials and Construction	5271.215	3
15	2018	2	Supervision on Thesis	5271.803	3
16	2019	1	Landscape Planning and Design	453.518	3
17	2019	1	Landscape Engineering	5271.224A	3
18	2019	1	Sustainable Environmental Planning	5271.413	3
19	2019	1	Supervision on Thesis	5271.803	3
20	2019	1	Landscape Seminar I	5271.416	1
21	2019	1	Space Design	5271.214A	3

Assistant Professor (Georgia Southern University)

Term	Institution	Course	Course Eval. (Scale: 5)	Instructor Eval. (Scale: 5)	Students
Fall 2016	Georgia Southern University	**TCM 3231A: Steel Structures**	4.3	4.8	35
Fall 2016	Georgia Southern University	**TCM 3231B: Steel Structures**	4.6	4.8	12
Fall 2016	Georgia Southern University	**CENG 4890C: Special Prob in CE-Adv Steel**	4.3	5.0	4

Fall 2016	Georgia Southern University	**TMAE7891C: Wind Turbine Tower Structure** (Graduate Student, Dejuan Solan)	N/A	N/A	1
Fall 2016	Georgia Southern University	**CENG4539C: Senior Project** (Rehabilitation of Reinforced Concrete Piers)	N/A	N/A	1
Fall 2016	Georgia Southern University	**CENG 4518: Intro to Senior Project** (2017 ASCE Steel Bridge Competition Team)	N/A	N/A	3
Summer 16	Georgia Southern University	**TCM 2240-01F: ONLINE Intro to Structures**	4.5	4.5	24
Spring 2016	Georgia Southern University	**TCM 3231: Steel Structures**	4.5	4.7	23
Spring 2016	Georgia Southern University	**TCM 3232: Concrete and Masonry Structures**	4.6	4.8	21
Spring 2016	Georgia Southern University	**CENG 4539E: Senior Project** (Accelerated Bridge Construction Research II)	4.6	5.0	5
Spring 2016	Georgia Southern University	**CENG 4518: Intro to Senior Project** (Accelerated Bridge Construction Research II)	N/A	N/A	1
Fall 2015	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.6	4.9	48
Fall 2015	Georgia Southern University	**TCM 3232: Structures II** (Concrete and Masonry Structures)	4.7	4.8	46
Fall 2015	Georgia Southern University	**TCM 4090A: Selected Topics in Construction** (Accelerated Bridge Construction Research II)	N/A	N/A	1
Fall 2015	Georgia Southern University	**CENG 4518: Introduction to Senior Project** (Accelerated Bridge Construction Research II)	N/A	N/A	3
Spring 2015	Georgia Southern University	**TCM 3232: Structures II** (Concrete and Masonry Structures)	4.5	4.8	34
Spring 2015	Georgia Southern University	**CENG 4539C: Senior Project** (Accelerated Bridge Construction)	N/A	N/A	4
Spring 2015	Georgia Southern University	**CENG 4539D: Senior Project** (ASCE Steel Bridge Competition)	N/A	N/A	7

Spring 2015	Georgia Southern University	**TCM 4090: Special Topics-Site Construction** (Accelerated Bridge Construction Research)	N/A	N/A	2
Fall 2014	Georgia Southern University	**TCM 2240: Introduction to Structures**	4.2	4.6	24
Fall 2014	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.5	4.7	26
Fall 2014	Georgia Southern University	**TCM 3232: Structures II** (Concrete and Masonry Structures)	4.6	4.6	24
Fall 2014	Georgia Southern University	**UHON-4999**: Honors Research – Capstone Project (Mr. Mike Ofili)	N/A	N/A	1
Summer 2014 (Term B)	Georgia Southern University; Chung-Ang University in South Korea	**Study Abroad of CECM to South Korea** 'Exploring International Construction with Global Internships: South Korea' **TCM 4530 S CAU/CENG 4539S CAU:** Senior Project **TCM 4090S CAU:** Advanced Construction Techniques	N/A	N/A	12 (9) (11)
Spring 2014	Georgia Southern University	**UHON-4999**: Honors Research (Mr. Mike Ofili, 1 credit)	N/A	N/A	1
Spring 2014	Georgia Southern University	**CENG 3135/TCET3236: Project Cost Analysis, Planning and Management**	4.4	4.8	44
Spring 2014	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.7	4.8	20
Spring 2014	Georgia Southern University	**TCM 3232: Structures II** (Concrete and Masonry Structures)	4.8	4.9	22
Fall 2013	Georgia Southern University	**UHON-4999**: Honors Research (Mr. Mike Ofili, 1 credit)	N/A	N/A	1
Fall 2013	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.8	5.0	20
Fall 2013	Georgia Southern University	**TCM 3232: Structures II** (Concrete and Masonry Structures)	4.8	5.0	27
Summer 2013 (Term A)	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.3	5.0	7
Summer 2013	Georgia Southern University	**CENG 3331: Structural Analysis I**	4.5	4.6	17

(Term A)					
Spring 2013	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.5	4.8	32
Spring 2013	Georgia Southern University	**TCM 3232: Structures II** (Reinforced Concrete and Masonry Structures)	4.6	5.0	29
Fall 2012	Georgia Southern University	**TCM 3231: Structures I** (Steel Structures)	4.5	4.8	26
Fall 2012	Georgia Southern University	**TCM 3232: Structures II** (Reinforced Concrete and Masonry Structures)	4.2	4.8	24

Full-time Instructor

Term	Institution	Course	Students
Summer 2012 (Term A)	Georgia Southern University	**TCET 3142/CENG 3242: Structural Analysis**	22
Spring 2012	Georgia Southern University	**ENGR 2231: Engineering Mechanics I-Statics**	48
Spring 2012	Georgia Southern University	**TCET 3236/CENG 3135: Project Cost Analysis and Management**	28
Spring 2012	Georgia Southern University	**TCET 3234/CENG 3234: Construction Materials Lab**	33
Spring 2012	Georgia Southern University	**TCET 4245: Water-Wastewater Treatment Lab**	15
Spring 2012	Georgia Southern University	**TCET 4536: Senior Project**	24
Fall 2011	Georgia Southern University	**ENGR 2231: Engineering Mechanics I-Statics**	29
Fall 2011	Georgia Southern University	**TCET 4142: Reinforced Concrete Design**	18
Fall 2011	Georgia Southern University	**TCET 3141: Environmental Pollution Lab**	12

Co-Instructor

Term	Institution	Course	Students
Spring 2011	Auburn University	**CIVL 7660: Finite Element Methods in Structural Mechanics**	25

		(co-instructor with Dr. James Davidson)	
Fall 2010	Auburn University	**CIVL 7630: Advanced Stress Analyses** (co-instructor with Dr. James Davidson)	10
Spring 2010	Auburn University	**CIVL 7640: Stability of Structures** (co-instructor with Dr. James Davidson)	5
Fall 2009	Auburn University	**CIVL 7970: Finite Element Methods II in Structural Mechanics** (co-instructor with Dr. James Davidson)	9
Spring 2009	Auburn University	**CIVL 7660: Finite Element Methods in Structural Mechanics** (co-instructor with Dr. James Davidson)	12
Fall 2008	Auburn University	**CIVL 7630: Advanced Stress Analyses** (co-instructor with Dr. James Davidson)	10
Spring 2008	Auburn University	**CIVL 7640: Stability of Structures** (co-instructor with Dr. James Davidson)	6

Teaching Assistant

Term	Institution	Course	Students
Fall 2007	Auburn University	**CIVL 7660 Finite Element Methods in Structural Mechanics** (instructor: Dr. James Davidson)	10
Spring 2006	Auburn University	**CIVL 7660 Finite Element Methods in Structural Mechanics** (instructor: Dr. Chai H. Yoo)	11
Fall 2004	Auburn University	**CIVL 7660 Finite Element Methods in Structural Mechanics** (instructor: Dr. Chai H. Yoo)	10
Fall 2003	Auburn University	**CIVL 6670 Advance Structural Analysis** (instructor: Dr. Chai H. Yoo)	9
Fall 1998	Korea University	**CESE 234 Structural Analysis** (instructor: Dr. Heung Bae Gil)	90
Spring 1998	Korea University	**CESE 231 Mechanics of Materials** (instructor: Dr. Heung Bae Gil)	80

Specific Service Activities and Outcomes

Professional Committee Activities

Transportation Research Board of the National Academy of Engineering – Friends of AFF70, AFS40, & AFF10-3 committees 2009 – present

Blast, Shock and Impact Committee of ASCE SEI – Friend 2013 – present

한국가설협회 기술연구위원 2018 – present

서울특별시 건설기술자문위원 2018 – present

Editorial and Review Activities

International Journal of Steel Structures, Official journal of Korean Society of Steel Construction, Editor, 2016 – 2017

Journal of Performance of Constructed Facilities, American Society of Civil Engineers – reviewer of refereed journal papers 2016 – present

Journal of Korean Society of Civil Engineers – reviewer of refereed journal papers 2014 – present

Journal of Materials in Civil Engineering, American Society of Civil Engineers – reviewer of refereed journal papers 2013 – present

Latin American Journal of Solids and Structures – reviewer of refereed journal papers 2013 – present

Canadian Geotechnical Journal, NRC Research Press – reviewer of refereed journal papers 2012 – present

Structure and Infrastructure Engineering, Taylor & Francis – reviewer of refereed journal

papers 2011 – present

Journal of the Korean Society for Advanced Composites Structures, Korean Society for Advanced Composite Structures – editor
2011 – present

Transportation Research Board of the National Academy of Engineering – reviewer of refereed journal papers (TRR, AFF70&AFS40 committees) 2009 – present

University and Departmental Activities

University Library Liaison of CECM, Georgia Southern University
2013 – Present

STEM Festival – Civil Engineering Booth Volunteer (with Dr. Rogers)**,** Georgia Southern University Fall 2015 & Fall 2016

CEIT Scholarships Committee, College of Engineering and Information Technology at Georgia Southern University 2014 – Present

CEIT Awards Committee, College of Engineering and Information Technology at Georgia Southern University 2013 – 2015

CEIT LLC (Living Learning Community) Faculty Chat, College of Engineering and Information Technology at Georgia Southern University Fall 2015

CECM 2017 ASCE Steel Bridge Competition Team Adviser, Department of Civil Engineering and Construction Management at Georgia Southern University 2016 – 2017

CECM 2015 ASCE Steel Bridge Competition Team Adviser, Department of Civil Engineering and Construction Management at Georgia Southern University 2014 – 2015

CECM Faculty Search Committee Chair (Structures), Department of Civil Engineering and Construction Management at Georgia Southern University 2014 – 2015

CECM Limited Term Faculty Search Committee (CM), Department of Civil Engineering and Construction Management at Georgia Southern University Summer 2015

CECM Open House/Recruiting Events Committee, Department of Civil Engineering and Construction Management at Georgia Southern University 2014 – present

CECM Scholarship Committee Chair, Department of Civil Engineering and Construction Management at Georgia Southern University 2014 – Present

Study Abroad Program Development (with Dr. Younghan Jung), *Exploring International Construction with Global Internships: South Korea***,** Georgia Southern University
Summer 2014

CECM Structures Lab Supervisor, Department of Civil Engineering and Construction Management at Georgia Southern University
2013 – present

CE Student Advisory Committee, Department of Civil Engineering and Construction Management at Georgia Southern University 2013 – present

SACS Assessment Committee, Department of Civil Engineering and Construction Management at Georgia Southern University 2013 – present

CECM Curriculum & Assessment Committee, Department of Civil Engineering and Construction Management at Georgia Southern University 2013 – present

ACCE Self Study Committee, Department of Civil Engineering and Construction Management at Georgia Southern University 2013 – 2014

Strategic Planning Committee, College of Business Administration at Georgia Southern University 2012 – 2013

Invitation of Guest Speakers (collaboration with Dr. Rogers) – Oldcastle Precast company, Department of Civil Engineering and Construction Management at Georgia Southern University Feb. 2016

Social Activities

Coach, Softball Team of Construction Management at Georgia Southern Univ., Statesboro, GA Fall 2013

Civic Activities

Julia P Bryan Elementary School Stem Festival, Poster Provided Feb. 9, 2016
Construction Committee, Auburn-Opelika Korean Church, Auburn, AL Jan. 2004 – July 2011
Honorary Inspector for Bridge Safety Mar.1998 - June 1999
Ministry of Construction Safety Management in City of Seoul, Seoul, Korea

Military Service

Adjutant of Commander, the 9th Corps Headquarters, Korea May 1995 - Mar.7, 1996
Military Engineer, 1118 Construction Battalion, Korea June 1994 - April 1995
Military Engineer, Army Engineering School, Korea Jan.5, 1994 - Mar. 1994

Computer Skills

Operating Systems

Windows, Linux

Finite Element Analysis Programs

ABAQUS, LS-DYNA, MSC/NASTRAN, ANSYS, GTSTRUDL, CANDE, SPIDA, SAP 2000

General Software

AutoCAD, CorelDraw, DPlot, Microsoft Office, HyperMesh, Maple11, Mathcad

Publications and Presentations

Refereed Journal Papers (* Corresponding Author)

Published (SCI/SCIE)

1. Zheongzun Yi, **Junsuk Kang***, "Finite element-based spatial distribution model for slope stability during earthquakes," Earthquakes and Structures. **2025**, DOI: https://doi.org/10.12989/eas.2025.28.2.149, **Impact Factor= 1.4.**
2. Joonghyun Ahn, **Junsuk Kang***, Jaekyoung, "Development of an artificial intelligence model for CFD data augmentation and improvement of thermal environment in urban areas using nature-based solutions," Urban Forestdry & Urban Greening. **2025**, https://doi.org/10.1016/j.ufug.2024.128629, **Impact Factor= 6.0.**
3. Jaekyoung Kim, **Junsuk Kang***, Jihoon Lee, "Optimization of geofoam shape for earth pressure reduction on debris flow barriers," Soil Mechanics and Foundation Engineering. **2024**, DOI 10.1007/s11204-024-09977-5, **Impact Factor= 0.8.**
4. Jaekyoung Kim, **Junsuk Kang***, Jongpyo Park, Samuel Park, "Enhancing water management and urban flood resilience using Hazard Capacity Factor Design (HCFD) model: Case study of Eco-Delta city, Busan," Sustainable Cities and Society. **2024**, https://doi.org/10.1016/j.scs.2024.105851, **Impact Factor= 10.5.**
5. Seounghun Baek, **Junsuk Kang*,** Jaekyoung Kim "Impact of Green Infrastructure on PM10 in Port-Adjacent Residential Complexes: A Finite Volume Method-Based Computational Fluid Dynamics Study," Sustainable Cities and Society. **2024**, https://doi.org/10.1016/j.scs.2024.105815, **Impact Factor= 10.5.**
6. Samuel Park, **Junsuk Kang*,** Jaekyoung Kim, **"**Heuristic approach to urban sewershed delineation for pluvial flood modeling," Journal of Water Process Engineering. **2024**, https://doi.org/10.1016/j.jwpe.2024.106129, **Impact Factor= 6.3.**
7. Samuel Park, **Junsuk Kang*,** Jaekyoung Kim, Hyeryung Yun, **"**Exploring the network structure of coupled green-grey infrastructure to enhance urban pluvial flood resilience: A scenario-based approach focusing on 'centralized' and 'decentralized' structures," Journal of Environmental Management. **2024**, https://doi.org/10.1016/j.jenvman.2024.122344, **Impact Factor= 8.0.**
8. Yeonwook Jeong, **Junsuk Kang*** "Enhancing Retaining Wall Stability with Geofoam," Heliyon. **2024**, https://doi.org/10.1016/j.heliyon.2024.e33560, **Impact Factor= 33.4.**
9. Samuel Park, **Junsuk Kang*,** Jaekyoung Kim, Yejin Kim, **"**Participatory Framework for Urban Pluvial Flood Modeling in the Digital Twin Era," Sustainable Cities and Society. **2024**, https://doi.org/10.1016/j.scs.2024.105496, **Impact Factor= 10.5.**
10. Fahimeh Yavartanoo, **Thomas H.-K, Kang***, Junsuk Kang, Numerical parametric study of dry-stack masonry walls with varied dimensional and loading configurations. Structures. **2024**, 10.1016/j.istruc.2024.106050, **Impact Factor= 3.9.**
11. Jaekyoung Kim, **Junsuk Kang***, Joonghyun Ahn, Adaptive wildfire spread prediction for complex terrain: modeling the effectiveness of sprinkler systems. Fire Ecology. **2024**, 10.1186/s42408-024-00306-7, **Impact Factor= 3.6.**
12. Samuel Park, Junsuk Kang*, Jaekyoung Kim, Exploring optimal deep tunnel sewer systems

to enhance urban pluvial flood resilience in the gangnam region, South Korea. JOURNAL OF ENVIRONMENTAL MANAGEMENT. **2024**, 10.1016/j.jenvman.2024.120762, **Impact Factor= 8.0.**

13. Fahimeh Yavartanoo, **Junsuk Kang*,** Youngkun Song "Performance of wildlife fence systems under animal impact load," Heliyon. **2023**, https://doi.org/10.1016/j.heliyon.2023.e21026, **Impact Factor= 33.4.**
14. Jaekyoung Kim, **Junsuk Kang*** "Development of Hazard Capacity Factor Design Model for Net-zero: Evaluation of the Flood Adaptation Effects considering Green - Gray Infrastructure Interaction," Sustainable Cities and Society. **2023**, https://doi.org/10.1016/j.scs.2023.104625, **Impact Factor= 10.696.**
15. Jaekyoung Kim, **Junsuk Kang*** "AI based temperature reduction effect model of fog cooling for human thermal comfort: climate adaptation technology," Sustainable Cities and Society. **2023**, https://doi.org/10.1016/j.scs.2023.104574, **Impact Factor= 10.696.**
16. Jaekyoung Kim, **Junsuk Kang*,** Jungmin Lee "Smart Cities and Disaster Risk Reduction in South Korea by 2022: The Case of Daegu," Heliyon. **2023**, https://doi.org/10.1016/j.heliyon.2023.e18794, **Impact Factor= 3.4.**
17. Jaekyoung Kim, Jihoon Lee, Soonho Hwang, **Junsuk Kang*** "Urban flood adaption and optimization for net-zero: Case study of Dongjak-gu, Seoul," Journal of Hydrology: Regional Studies. **2022**; 41, pp. 1-18, https://doi.org/10.1016/j.ejrh.2022.101110, **Impact Factor= 5.437.**
18. Jaekyoung Kim, **Junsuk Kang*** "Evaluating the efficiency of fog cooling for climate change adaptation in vulnerable groups: A case study of Daegu Metropolitan City," Building and Environment. **2022**; 217, pp.1-14, https://doi.org/10.1016/j.buidenv.2022.109120, **Impact Factor= 7.093.**
19. Soowon Chang*, Junyoung Cho, Jae Heo, **Junsuk Kang,** Takuro Kobashi "Energy infrastructure transitions with PV and EV combined systems using techno-economic analyses for decarbonization in cities," Applied Energy. **2022**; 319, https://doi.org/10.1016/j.apenergy.2022.119254, **Impact Factor= 11.446.**
20. Behzad Mohammadzadeh, Sunghoon Jung, Tae Hyung Lee, Joo Hwan Cha, Jongseong Park, Mehdi Shahedi Asl, Ho Won Jang, Sea-Hoon Lee*****, Mohammadreza Shokouhimehr*****, **Junsuk Kang*** "Characterization and FEA evaluation of a ZrB_2-SiC ceramic containing TaC for beam-column joint application," Ceramics International. 47(**2021)**, pp. 11438-11450, ISSN 0272-8842, https://doi.org/10.1016/j.ceramint.2020.12.271, **Impact Factor= 5.532.**
21. Behzad Mohammadzadeh, **Junsuk Kang***, "Seismic analysis of high-rise steel frame building considering irregularities in plan and elevation. Steel and Composite Structures. **2021**; 39(1), pp. 65-80, ISSN 1229-9367, https://doi.org/10.12989/scs.2021.39.1.065, **Impact Factor= 6.144.**
22. Younghun Choi, Junsuk Kang*, Jaekyoung Kim, Urban flood adaptation planning for local governments: hydrology analysis and optimization. International Journal of Disaster Risk Reduction. **2021**, 59(1): 102213, ISSN 2212-4209, https://doi.org/10.1016/j.ijdrr.2021.102213, **Impact Factor= 4.842.**
23. Behzad Mohammadzadeh, **Junsuk Kang***, Seokbeen Im "Blast loaded plates: Simplified analytical nonlinear dynamic approach," Structures. 28(**2020)**, pp. 2034-2046, ISSN 2352-0124, https://doi.org/10.1016/j.istruc.2020.10.043, **Impact Factor= 2.983.**
24. Hyeji Jeon, **Junsuk Kang***, "GIS based assessment and design for areas vulnerable to soil disasters: case study of Namhyeun-dong, South Korea," Sustainability. **2020**, 12, 2516, pp. 1-23, **Impact Factor= 2.592.**
25. Behzad Mohammadzadeh, Sunghoon Jung, Tae Hyung Lee, Quyet Van Le*****, Joo Hwan Cha, Ho Won Jang, Sea-Hoon Lee*, **Junsuk Kang***, Mohammadreza Shokouhimehr*

"Manufacturing ZrB2-SiC-TaC composite: potential application for aircraft wing assessed by frenquency analysis through finite element model," materials. 13(**2020)**, 2213, pp. 1-16, **Impact Factor= 3.057.**

26. Ralph R.V. Santos, **Junsuk Kang**, Jong Sup Park* "Effects of embedded trench installations using expanded polystyrene geofoam applied to buried corrugated steel arch structures," Tunnelling and Underground Space Technology. 98(**2020)**, 103323, pp. 1-9, **Impact Factor= 3.942.**
27. **Junsuk Kang**, Hwangi Im, Jong Sup Park* "The effect of load reduction on underground concrete arch structures in embedded trench installations," Tunnelling and Underground Space Technology. 98(**2020)**, 103240, pp. 1-8, **Impact Factor= 3.942.**
28. Hyeji Jeon, **Junsuk Kang*****, "GIS based assessment and design for areas vulnerable to soil disasters: case study of Namhyeun-dong, South Korea," Sustainability. **2020**, 12, 2516, pp. 1-23, **Impact Factor= 2.592.**
29. **Junsuk Kang*****, "Finite element analyses of deeply buried concrete pipes in proposed imperfect trench installations using Expanded Polystyrene (EPS) Foams," Engineering Structures. 189(**2019**), pp. 286-295, **Impact Factor= 2.755.**
30. Won Choi, Iman Mohseni, Jongsup Park, **Junsuk Kang*****, "Live Load Distribution Factor for Concrete Multicell Box-Girder Bridge," International Journal of Concrete Structures and Materials. Published online on Mar. **2019**. https://doi.org/10.1186/s40069-019-0336-1. **Impact Factor= 2.36.**
31. Pileun Kim, Jisoo Park, Yong Kwon Cho*****, and **Kang Junsuk**, UAV-assisted autonomous mobile robot navigation for as-is 3D data collection and registration in cluttered environments. *Automation in Construction*. **2019**; 106(2019), pp. 1 - 9, ISSN 0926-5805, https://doi.org/10.1016/j.autcon.2019.102918, **Impact Factor= 4.032.**
32. **Junsuk Kang**, Jeongbae Jeon, Seongsoo Yoon, Won Choi*, "Failure conditions for stand-alone cold frame greenhouses under heavy snow loads," Paddy and Water Environment. Published online on Jan. **2019**. https://doi.org/10.1007/s10333-019-00691-9. **Impact Factor= 1.379.**
33. Jisoo Park, Pileun Kim, Yong Kwon Cho*****, and **Kang Junsuk**, Framework for automated registration of UAV and UGV point clouds using local features in images. *Automation in Construction*. **2019**; 98(2019), pp. 175 - 182, ISSN 0926-5805, https://doi.org/10.1016/j.autcon.2018.11.024, **Impact Factor= 4.032.**
34. Iman Mohseni, Yonghan Ahn, **Junsuk Kang*****, " *Development of improved frequency expressions for composite horizontally curved bridges with high-performance steel girders,"* Arabian Journal for Science and Engineering. **2019;** 44(5), ISSN 2193-567X, https://doi.org/10.1007/s13369-018-3356-2. **Impact Factor= 1.092.**
35. Mohseni I, Lashkariani HA, **Kang Junsuk*****, Kang TH -K. Dynamic Response Evaluation of Long-Span Reinforced Arch Bridges Subjected to Near- and Far-Field Ground Motions. *Applied Sciences*. **2018**; 8(8):1243, 19pages, ISSN 2076-3417, https://doi.org/10.3390/app8081243, **Impact Factor= 1.689.**
36. Yi, Zheong Zun, **Junsuk Kang*****. "Reinforcing the Structural stability of old nationally important with FRP wraps," International Journal of Polymer Science, Volume **2018**, Article ID 4389597, 14 pages, ISSN 1687-9422, https://doi.org/10.1155/2018/4389597. **Impact Factor= 1.718.**
37. Iman Mohseni, Amin Ashin, W. Choi, **Junsuk Kang*****, " Development of dynamic impact factor for skewed composite concrete-steel slab-on-girder bridge under moving vehicles," Advances in Materials Science and Engineering, Volume **2018**, Article ID 4313671, 9pages, ISSN 1687-8434, https://doi.org/10.1155/2018/4313671. **Impact Factor= 1.372.**
38. Mohseni I, Yong Kwon Cho, **Junsuk Kang*****, Live Load Distribution Factors for Skew

Stringer Bridges with High-Performance-Steel Girders under Truck Loads. *Applied Sciences*. **2018**; 8(10):1717, ISSN 2076-3417, https://doi.org/10.3390/app8101717, **Impact Factor= 1.689.**

39. **Junsuk Kang***, "*Structural Behaviors of Reinforced Concrete Piers Rehabilitated with FRP Wraps,"* International Journal of Polymer Science, Volume **2017**, Article ID 2989238, 14 pages, ISSN 1687-9422, https://doi.org/10.1155/2017/2989238. **Impact Factor= 1.718.**
40. Mohseni, I., Rashid, A.K.A., and **Junsuk Kang***, "*Live load distribution at the piers of skewed continuous multicell box-girder bridges subjected to moving loads*," Journal of the Transportation Research Board, TRR No. 2522, National Research Council, Washington, D.C., **2015**, pp. 59-69, ISSN 0361-1981, DOI: 10.3141/2522-06. **Impact Factor= 0.776.**
41. Yoo, C.*, **Junsuk Kang**, and Kim, K.,"*Stresses due to torsion and distorsion on horizontally curved box girders*," Engineering Structures, Vol. 87, March **2015**, pp. 70-85, ISSN 0141-0296, DOI: 10.1016/j.engstruct.2015.01.011. **Impact Factor= 2.152.**
42. **Junsuk Kang***, "*Composite and non-composite behaviors of foam insulated concrete sandwich panels*," Composites Part B – Engineering, Vol. 68C, Jan. **2015**, pp. 153-161, ISSN 1359-8368, DOI: 10.1016/j.compositesb.2014.08.034. **Impact Factor= 4.727.**
43. Mohseni, I.*, Rashid, A.K.A., and **Junsuk Kang**, "*Effect of intermediate diaphragm on lateral load distribution factor of multicell box-girder bridges*," KSCE Journal of Civil Engineering, Vol. 18, Issue 7, Nov. **2014**, pp. 2128-2137, ISSN 1226-7988, DOI: 10.1007/s12205-014-0148-4. **Impact Factor= 0.615.**
44. Mohseni, I.*, Rashid, A.K.A., and **Junsuk Kang**, "*A simplified method to estimate the fundamental frequency of skew continuous multicell box-girder bridges*," Latin American Journal of Solids and Structures, Vol.11, No.4, Aug., **2014,** pp. 649-658, ISSN 1679-7825, DOI:10.1590/S1679-78252014000400006. **Impact Factor= 1.411.**
45. **Junsuk Kang*,** Stuart, S., and Davidson, J., "*Analytical study of minimum cover requirements for thermoplastic pipes used in highway construction*," Structure and Infrastructure Engineering, Vol. 10, No. 3, Mar. **2014,** pp. 316-327, ISSN 1573-2479, DOI: 10.1080/15732479.2012.754478. **Impact Factor= 1.565.**
46. **Junsuk Kang***, Jung, Y., and Ahn, Y., "*Cover requirements of thermoplastic pipes used under highways*," Composites Part B – Engineering, Vol. 56, Dec. **2013**, pp. 184-192, ISSN 1359-8368, DOI: 10.1016/j.compositesb.2013.06.025. **Impact Factor= 3.24.**
47. **Junsuk Kang*,** Stuart, S., and Davidson, J., "*Analytical evaluation of maximum cover limits for thermoplastic pipes used in highway construction*," Structure and Infrastructure Engineering, Vol. 9, No. 7, July **2013**, pp. 667-674, ISSN 1573-2479, DOI: 10.1080/15732479.2011.604090. **Impact Factor= 1.565.**
48. Lee, K.C., **Junsuk Kang**, and Yoo, C.*, "*Stiffness requirements for transverse stiffness of CFT compression panels*,", International Journal of Steel Structures, Vol. 13, No. 2, June **2013**, pp. 265-274, ISSN 1598-2351, DOI: 10.1007/S13296-013-2006-5. **Impact Factor= 0.659.**
49. Yoo, C.*, Kim, K., Lee, K. C., and **Junsuk Kang**, "*Bending strength of horizontally curved composite I-girder bridge*," Journal of Bridge Engineering, ASCE, Vol. 18, No.5, May **2013**, pp. 388-399, ISSN 1084-0702, DOI: 10.1061/(ASCE)BE.1943-5592.0000377. **Impact Factor= 1.23.**
50. **Junsuk Kang***, and Davidson, J., "*Structural effects of concrete lining for concrete-lined corrugated steel pipes*," Structure and Infrastructure Engineering, 130-140, Vol. 9, Issue 2, Feb. **2013**, pp. 130-140, ISSN 1573-2479, DOI: 10.1080/15732479.2010.532809. **Impact Factor= 1.565.**
51. Yoo, C.*, **Junsuk Kang**, Kim, K., and Lee, Kyoung C., "*Shear flow in thin-walled cellular sections*," Published online (http://dx.doi.org/10.1016/j.tws.2011.02.014), Thin-Walled

Structures, Vol. 49, Issue 11, Nov. **2011**, pp. 1341-1347, ISSN 0263-8231, DOI: 10.1016/j.tws.2011.02.014. **Impact Factor= 2.829.**

52. Park., J**., Junsuk Kang**, Ahn, H., Kim, S., Liu Dan, and Kim, D.*, "*Analysis of stress distribution in piezoelectric MEMS energy harvester using shaped cantilever structure*," Ferroelectrics, Vol. 409, Issue 1, Dec. **2010**, pp. 55-61, ISSN 0015-0193, DOI: 10.1080/00150193.2010.487125. **Impact Factor= 0.49.**
53. **Junsuk Kang**, Han, T., Kang, Y., and Yoo, C.*, "*Short-term and long-term behaviors of buried corrugated high-density polyethylene (HDPE) pipes*," Composites Part B – Engineering, Vol. 40B, Issue 5, July **2009**, pp. 404-412, ISSN 1359-8368, DOI: 10.1016/j.compositesb.2009.01.006. **Impact Factor= 3.24.**
54. **Junsuk Kang**, Parker, F., and Yoo, C.*, "*Soil-structure interaction for deeply buried corrugated steel pipes Part II: Imperfect trench installation*," Engineering Structures, Vol. 30, No. 3, March **2008**, pp. 588-594, ISSN 0141-0296, DOI: 10.1016/j.engstruct.2007.04.006. **Impact Factor= 2.15.**
55. **Junsuk Kang**, Parker, F., and Yoo, C.*, "*Soil-structure interaction for deeply buried corrugated steel pipes Part I: Embankment installation*," Engineering Structures, Vol. 30, No. 2, February **2008**, pp. 384-392, ISSN 0141-0296, DOI: 10.1016/j.engstruct.2007.04.014. **Impact Factor= 2.15.**
56. **Junsuk Kang**, Parker, F., Kang, Y., and Yoo, C.*, "*Effects of frictional forces acting on sidewalls of box culverts*," International Journal for Numerical and Analytical Methods in Geomechanics, Vol. 32, No. 3, February **2008**, pp. 289-306, ISSN 0363-9061, DOI: 10.10002/nag.628. **Impact Factor= 1.59.**
57. **Junsuk Kang**, Parker, F., and Yoo, C.*, "*Soil-structure interaction and imperfect trench installations for deeply buried corrugated PVC pipes*," Journal of the Transportation Research Board, TRR No. 2028, National Research Council, Washington, D.C., **2007**, pp.192-202, ISSN 0361-1981, DOI: 10.3141/2028-21. **Impact Factor= 0.776.**
58. **Junsuk Kang**, Parker, F., and Yoo, C.*, "*Soil-structure interaction and imperfect trench installations for deeply buried concrete pipes*," Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 133, No. 3, March **2007**, pp. 277-285, ISSN 1090-0241, DOI: 10.1061/(ASCE)1090-0241(2007)133:3(277). **Impact Factor= 1.92.**

Published (KCI)

1. Seung Jun Kim*, Deok Hee Won, **Junsuk Kang**, "Dynamic Behavior of Cable-stayed Bridges with Floating Towers under Waves," Journal of Korean Society of Steel Construction, Vol. 30, No. 4, pp.205-216, August **2018**.
2. Soo-Ha Kim, Jong-Sup Park*, **Junsuk Kang**, Numerical Analysis of Load Reduction for Underground Arch Structures with Soft Zone Using Expanded Polystyrene Geofoam," Vol 19, No.10, pp.24-30, **2018**.
3. Jeong, YW, Yi, ZZ, Lim, HK, Park, J., and **Junsuk Kang***, "*Development of Innovative Application Technology of Geofoam for Sustainable Design of Eco-bridges under Deep Soil Cover*," Journal of the Korean Society for Advanced Composite Structures, Vol. 9, No. 2, June **2018**, pp. 1-10. ISSN 2093-5145.
4. Santos, Ralph Raymond, **Junsuk Kang**, and Park, J.*, "*Elastic Buckling Assessment of Doubly Symmetric I-Beams with Singly Stepped Section at Midspan*," Journal of Korean Society of Hazard Mitigation, Vol. 17, No. 6, Dec. **2017**, pp. 1-10. ISSN 1738-2424.
5. Han, T., Kim, J., **Junsuk Kang**, and Kang, Y.*, "*Seismic performance of internally confined hollow RC column with corrugated steel tube*," Journal of Korean Society of Hazard

Mitigation, Vol. 8, No. 2, April **2008**, pp. 193-200. ISSN 1738-2424.

Published (International Journal)

1. Iman Mohseni, Amin Ashin, W. Choi, **Junsuk Kang***, " Development of dynamic impact factor for skewed composite concrete-steel slab-on-girder bridge under moving vehicles," Advances in Materials Science and Engineering, Volume **2018**, Article ID 4313671, 9pages, ISSN 1687-8434, https://doi.org/10.1155/2018/4313671.
2. Navaee, Shahnam*, and **Junsuk Kang**, "*Enhancement of a finite element course for structural engineering*," Computers in Education Journal, Vol. 7, No. 4, Oct. **2016**, pp. 11-24, ISSN 1069-3769.
3. Schambeau, M., Ramey, G. E., Hughes, M. L., **Junsuk Kang**, and Davidson, J.*, "*Screening tool to assess adequacy of bridge timber pile bents during extreme scour events*," Practice Periodical on Structural Design and Construction, ASCE, Vol. 19, No. 3, Aug. **2014**, pp. 1-12, ISSN 1084-0680, DOI: 10.1061/(ASCE)SC.1943-5576.0000199.
4. Ahn, Y.*, Holley, P., and **Junsuk Kang**, "*Risk management of exchange rates in international construction*," International Journal of Construction Education and Research, Vol. 5, No.1, Jan. **2009**, pp. 24-44, ISSN 1557-8771, DOI: 10.1080/15578770902717550.

Conference Presentations (SNU Tenure)

연번	구분	제목	발표일자	학술대회명	장소	주관기관	비고
1	국제학술대회	Finite element analysis of reinforced concrete piers rehabilitated with FRP wraps	2017.06.24.	2017 2nd International Conference on Green Composite Materials	Hong Kong Polytechnic Unversity, Hong Kong	Hong Kong Polytechnic Unversity	
2	국제학술대회	Finite Element Simulation Models for Mechanics of Materials	2017.06.28.	2017 ASEE Annual Conference & Exposition	Columbus, Ohio, USA	ASEE	
3	국내학술대회	보행자 교량의 개념설계와 구조해석의 상호작용	2017.10.20.	2018 대한토목학회	부산 BEXCO	대한토목학회	
4	국내학술대회	풍하중을 고려한 거수의 구조적 안정성 및 보강법에 관한 연구	2017.10.27.	한국환경조경학회연합 2017 추계학술대회	경희대학교 국제캠퍼스	한국환경조경학회연합	
5	국제학술대회	Effects of FRP wraps for stability of tall tree subjected to	2017.12.15.	2017 AGU Fall Meeting	New Orleans, USA	AGU	

		high wind loads					
6	국내학술대회	Embedded Trench Installation 기법을 적용한 지중아치구조물의Span-Rise비에 따른 토압 경감효과 연구	2018.02.28.	2018한국방재학회 학술발표대회	서울과학기술대학교	한국방재학회	
7	국내학술대회	바람에 종속된 거수의 가지가 구조적 안정성에 미치는 영향 분석	2018.03.23.	한국조경학회 춘계학술대회 논문집	고려대학교 생명과학관 동관	(사)한국조경학회	
8	국내학술대회	보행자 교량의 개념설계와 최적화 구조해석의 상호작용	2018.03.23.	춘계학술대회 논문집	고려대학교 생명과학관 동관	(사)한국조경학회	
9	국제학술대회	Effects of branches and FRP wraps on mechanical stability of tall trees subjected to high wind loads	2018.04.12.	2018 Global Conference on Polymer and Composite Materials	Kitakyushu, Japan	PCM 2018 Organization Committee	
10	국내학술대회	Embedded Trench Installation을 적용한 지중아치구조물의 Geofoam 최적화에 대한 연구	2018.04.19.	한국복합신소재구조학회 학술발표대회	제주 오리엔탈 호텔	한국복합신소재구조학회	
11	국내학술대회	Embedded Trench Installation기법을 적용한 지중아치구조물의 매설 깊이에 따른 토압 경 감 효과의 실험 연구	2018.05.31.	2018 한국강구조학회 학술대회	목포	한국강구조학회	
12	국제학술대회	Soil-Structure Interaction of Trench Installations using Expanded Polystyrene Geofoam for Buried Corrugated Steel Arches	2018.10.18.	2018 Dassault Systems Innovation Conference	경주HICO	대한토목학회	

13	국내학술대회	Application of Expanded Polystyrene Geofoam for Buried Concrete Arch Structure Considering the Construction Workability	2018.10.18.	대한토목학회2018	Seoul Dragon City Hotel, Seoul	Dassault Systems	
14	국제학술대회	Effects of earthquakes on Landslide Risk Map in South Korea	2018.10.26.	ACSP 2018	Buffalo, New York, USA	Association of Collegiate Schools of Planning	
15	국내학술대회	도시 토사위험취약지구에 대한 방어기술의 공간적 배치 설계 가이드라인	2019.02.20.	2019 한국방재학회 춘계학술대회	고려대학교	한국방재학회	
16	국내학술대회	지자체 적용을 위한 도시의 물 재난 적응형 모델 설계	2019.02.20.	한국방재학회 2019춘계학술대회	고려대학교 안암캠퍼스	한국방재학회	
17	국내학술대회	지오폼의 형태와 옹벽의 안전성 간의 관계 도출	2019.03.29.	2019 한국조경학회 춘계학술대회 논문집	서울시립대학교	(사)한국조경학회	
18	국내학술대회	지진이 사면안전성 및 인근 공동주택에 미치는 구조적 영향분석	2019.03.29.	2019 한국조경학회 춘계학술대회	서울시립대학교	(사)한국조경학회	
19	국내학술대회	옹벽에 걸리는 토압저감을 위한 최적의 지오폼 형상	2019.04.25.	2019한국복합신소재구조학회 학술발표회	스카이베이경포호텔	한국복합신소재구조학회	
20	국내학술대회	지중 아치 구조물의 적용되는 ETI와 ITI의 구조적 효과	2019.04.25.	2019한국복합신소재구조학회 학술발표회	스카이베이경포호텔	한국복합신소재구조학회	
21	국제학술대회	Nuclear Power Plant Disaster Site Simulation Using Rigid Body Physics	2019.06.18.	ASCE International Conference on Computing in Civil Engineering 2019 Proceedings	Georgia Institute of Technology, Atlanta, USA	American Society of Civil Engineers	
22	국내학술대회	도시 토사 위험 취약지에 대한 방재기술의 공간 해석 및 설계	2019.06.27.	2019 한국기후변화학회 상반기 학술대회	세종대학교	한국기후변화학회	

23	국내학술대회	도시차원 수문학 분석을 통한 지자체의 홍수 대응방안 설계	2019.06.28.	2019 한국기후변화학회 상반기 학술대회	세종대학교	한국기후변화학회	
24	국제학술대회	Optimum geometry of geofoam for earth pressure reduction on retaining walls	2019.07.15.	EKC 2019	Vienna, Austria	KOSEAA	
25	국제학술대회	Preventive Urban Design for Flooding on Local Government Based on Urban Scale Hydraulic Analysis	2019.08.02.	2019 Global Carbon Project Workshop	Yokohama & Tsukuba, Japan	IEEE	
26	국제학술대회	Spatial Analysis and Design of Disaster Prevention Technology for Urban Landslide Risky Area	2019.08.02.	2019 Global Carbon Project Workshop	Yokohama & Tsukuba, Japan	IEEE	
27	국제학술대회	The Efficient Planning Method of Rooftop Gardens in Wide Area through the Analysis of Envi-Met	2019.08.15.	UKC 2019	Chicago, USA	KSEA	
28	국제학술대회	The effects of vertical irregularities on seismic performance of high-rise steel frames	2019.08.16.	UKC 2019	Chicago, USA	KSEA	
29	국제학술대회	Seismic analysis of High-rise steel frame building considering irregularities in plan and elevation	2019.09.19.	ICSCS19	제주도	IASEM	
30	국내학술대회	Consideration of Flexural Strength for Composite IBeams under High Temperature and a Conc	2019.10.17.	KSCE 2019 Convention Conference	평창 알펜시아	대한토목학회	

31	국내학술대회	Nonlinear Seismic Analysis of high-rise Steel Frame with Irregularity in Plan using Abaqus	2019.10.22.	3D Experience Conference Korea	Seoul Dragon City Hotelplex, Seoul	Dassault Systemes	
32	국내학술대회	지오폼형상과 뒤채움흙의 각도가 옹벽의 수평토압 및 안전성에 미치는 영향분석	2019.11.01.	2019 한국조경학회 추계학술대회	강릉 원주대학교	한국조경학회	
33	국내학술대회	ENVI-met을 통한 옥상녹화 유형별 온도 저감 효과 분석 - 서울대 입구역을 중심으로 -	2019.11.14.	2019 한국기후변화학회 하반기학술대회	부경대학교	한국기후변화학회	
34	국내학술대회	데이터 공유 및 그린인프라를 이용한 폭염 저감기술 개발	2019.11.14.	2019 한국기후변화학회 하반기학술대회	부경대학교	한국기후변화학회	
35	국내학술대회	기후변화시나리오를 고려한 서울시의 홍수재해 대응 성능분석 및 설계	2019.11.15.	2019 한국기후변화학회 하반기학술대회	부경대학교	한국기후변화학회	
36	국제학술대회	Geofoam-Soil-Structure Interaction for Rigid Retaining Walls associated with Embedded Geofoam	2019.12.10.	AGU Fall Meeting 2019	San Francisco	AGU	
37	국제학술대회	Seismic loaded Steel Frame with Vertical Irregularity	2019.12.10.	AGU Fall Meeting 2019	San Francisco	AGU	
38	국제학술대회	Development of Heat Reduction Technology Using Data Sharing and Green Infrastructure	2019.12.12.	SBE19Seoul	Glad 여의도 호텔	Korea Institute for Sustainable Built Environment (SBE)	
39	국제학술대회	Irregular high-rise building subject to earthquake forces	2019.12.12.	SBE19Seoul	Glad 여의도 호텔	Korea Institute for Sustainable Built Environment (SBE)	
40	국내학술대회	RCP 4.5/8.5 시나리오를 고려한 부산시의 홍수 재해 적응 기술 성능분석 및 설계	2020.06.26.	한국기후변화학회 2020년 상반기학술대회	온라인	(사)한국조경학회	

41	국내학술대회	지속가능한 물순환체계 구축을 위한 빗물 저류조의 유지관리 시기에 대한 분석	2020.06.26.	한국조경학회 2020년 춘계학술대회	서울대학교 공학교육센터	(사)한국기후변화학회	국제, 국내
42	국내학술대회	녹지 공간에서 UAV를 활용한 시설물 유지관리를 위한 촬영기법에 대한 연구	2020.07.24.	한국산학기술학회 2020년도 춘계학술대회	제주국제컨벤션센터	(사)한국산학기술학회	
43	국내학술대회	근거기반 생태형 도시침수 저감기술	2020.11.04.	한국기후변화학회 2020년 하반기학술대회	제주도 오리엔탈 호텔	(사)한국기후변화학회	
44	국내학술대회	효율적 온도 저감을 위한 광역적 옥상정원 계획	2020.11.04.	한국기후변화학회 2020년 하반기학술대회	제주도 오리엔탈 호텔	(사)한국기후변화학회	
45	국내학술대회	Finite Element Analysis of Tectonic Fault Behaviors	2020.12.16.	UKC 2020 온라인	Virtual	KSEA	
46	국내학술대회	SWMM을 활용한 Green Infrastructure의 강우유출량 저감 효과 분석	2021.03.26.	2021 한국조경학회 춘계학술대회	서울대학교/온라인	한국조경학회	
47	국내학술대회	기후변화에 대응하는 그린인프라 시설의 유지관리시기 산정 및 경제성 분석	2021.03.26.	2021 한국조경학회 춘계학술대회	서울대학교/온라인	한국조경학회	
48	국내학술대회	담수호 준설에 따른 동적회복탄력성 변화 분석	2021.03.26.	2021 한국조경학회 춘계학술대회	서울대학교/온라인	한국조경학회	
49	국내학술대회	폭염 대응형 스마트 가로등의 온도저감효과 및 CFD 시뮬레이션 연구	2021.03.26.	2021 한국조경학회 춘계학술대회	서울대학교/온라인	한국조경학회	
50	국내학술대회	한중 고사 공간 조영 원리에 대한 탐구: 통일신라와 당조시대를 중심으로	2021.03.26.	2021 한국조경학회 춘계학술대회	서울대학교/온라인	한국조경학회	
51	국내학술대회	Analysis of Flood Resilience of the Stormwater Management Using SWMM Model	2021.06.03.	2021 한국수자원학회 학술발표대회	광주 김대중컨벤션센터	한국수자원학회	

52	국내학술대회	내수침수에 대응하는 도시차원의 적응기술 설계 및 개발	2021.09.09.	2021 한국방재학회 학술발표대회 : 팬데믹과 지속가능한 방재 안전	온라인	한국방재학회	
53	국내학술대회	도시 물순환 관리를 위한 해외 사례 비교 및 시사점 고찰	2021.09.09.	2021 한국방재학회 학술발표대회 : 팬데믹과 지속가능한 방재 안전	온라인	한국방재학회	
54	국내학술대회	쿨링포그 시스템 국가건설기준 마련을 위한 CFD 해석기반 온도저감효과 분석	2021.09.09.	2021 한국방재학회 학술발표대회 : 팬데믹과 지속가능한 방재 안전	온라인	한국방재학회	
55	국내학술대회	토사재해 방재를 위한 EGI 결합형 사방시스템의 형상 최적화	2021.09.09.	2021 한국방재학회 학술발표대회 : 팬데믹과 지속가능한 방재 안전	온라인	한국방재학회	
56	국내학술대회	딥러닝과 생태모방을 활용한 학교건물 내진설계 최적화 모델 개발	2021.09.10.	2021 한국방재학회 학술발표대회 : 팬데믹과 지속가능한 방재 안전	온라인	한국방재학회	
57	국내학술대회	그린인프라스트럭처의 적용을 통한 수원시 장안구의 물순환 시스템 개선평가	2021.10.15.	그린인프라스트럭처의 적용을 통한 수원시 장안구의 물순환 시스템 개선평가	온라인	한국조경학회	
58	국내학술대회	침사지를 포함하는 토사재해 방재시설의 배치에 따른 토석류 유출저감효과 분석: 축소모형실험 연구	2021.10.15.	2021 한국조경학회 추계학술대회 및 임시총회	온라인	한국조경학회	
59	국내학술대회	쿨링포그 국가건설기준 마련을 위한 상/하향식 나노미스트의 온도저감 실험	2021.10.15.	2021 한국조경학회 추계학술대회	온라인	한국조경학회	
60	국내학술대회	딥러닝과 생태모방을 적용한 학교건물 내진보강설계 모델 개발	2021.10.28.	2021년 대한건축학회 추계학술발표대회	여수 엑스포	대한건축학회	
61	국제학술대회	Assessment of flood resilience of the stormwater management using	2021.11.27.	2021 ICLEE Conference	Online	ICLEE	

		SWMM model					
62	국제학술대회	POTENTIALS OF ROOFTOP PHOTOVOLTAICS COMBINED WITH ELECTRIC VEHICLES FOR DECARBONIZATION IN KOREAN CITIES	2021.12.01.	ICAE2021 Conference - International Conference on Applied Energy	온라인	ICAE	
63	국내학술대회	LID 기법의 복합 시나리오 적용을 통한 수원시의 홍수 적응 기술 평가	2021.12.02.	2021 한국환경복원기술학회 학술대회	제주컨벤션센터	한국환경복원기술학회	
64	국내학술대회	도시 물순환 관리를 위한 해외 사례 비교	2021.12.02.	2021 한국환경복원기술학회 학술대회	제주컨벤션센터	한국환경복원기술학회	
65	국내학술대회	딥러닝 기반 학교건물 통합 내진 설계 위한 소규모 모델 데이터베이스 구축	2022.02.16.	2022 한국방재학회 학술발표대회 : 뉴노멀시대와 재난안전	Washington, D.C.	Transportation Research Board	
66	국내학술대회	산사태 저감을 위한 산림 방재기술의 해외사례 비교 및 축소모형 실험 연구	2022.02.16.	2022 한국방재학회 학술발표대회 : 뉴노멀시대와 재난안전	온라인	한국방재학회	
67	국내학술대회	수원시 장안구의 홍수 저감을 위한 그린인프라스트럭처의 도시적 설계 및 경제성 평가	2022.02.16.	2022 한국방재학회 학술발표대회 : 뉴노멀시대와 재난안전	온라인	한국방재학회	
68	국내학술대회	전산유체역학을 활용한 그린인프라 대기질 개선 효과 분석: 해외 사례 비교 및 시사점 고찰	2022.02.16.	2022 한국방재학회 학술발표대회 : 뉴노멀시대와 재난안전	온라인	한국방재학회	
69	국내학술대회	전산유체역학을 활용한 쿨링포그시스템의 온도저감효과 및 환경 매개변수 수치 분석	2022.02.16.	2022 한국방재학회 학술발표대회 : 뉴노멀시대와 재난안전	온라인	한국방재학회	
70	국내학술대회	딥러닝 및 생태모방기법 적용을 통한 노후 학교건물	2022.03.25.	한국조경학회 2022년도 춘계학술대회	온라인	한국조경학회	

		내진보강의 경제성 및 미관 향상					
71	국내학술대회	MLP(Multi Layer Perceptron)신경망을 이용한 노후 학교건물 내진보강 예측모델 개발	2022.04.18.	2022년도 한국복합신소재구조학회 학술대회	제주	한국복합신소재구조학회	
72	국내학술대회	멧돼지 보호 장벽에 대한 충격력의 수치 시뮬레이션	2022.04.18.	2022년도 한국복합신소재구조학회 학술대회	제주	한국복합신소재구조학회	
73	국제학술대회	A study on the optimization design of smart infrastructure and green infrastructure that can respond to the era of climate change	2022.08.31.	IFLA WORLD CONGRESS	광주	IFLA	
74	국내학술대회	도시 기후탄력성 평가를 위한 미시규모 내수침수 해석	2022.10.28.	한국조경학회 2022년도 추계학술대회	경산	한국조경학회	
75	국내학술대회	전산유체역학을 활용한 산불의 피해경로 예측과 스프링클러를 활용한 산불 지연시간 분석	2022.10.28.	한국조경학회 2022년도 추계학술대회	경산	한국조경학회	
76	국내학술대회	머신러닝을 활용한 폭염저감시설의 온도저감효과 설계 및 예측 모델 개발	2022.10.28.	한국조경학회 2022년도 추계학술대회	경산	한국조경학회	
77	국내학술대회	MAC-HCFD 모델을 활용한 그레이인프라의 도시물순환 개선효과 분석	2022.10.28.	한국조경학회 2022년도 추계학술대회	경산	한국조경학회	
78	국내학술대회	도시공간 기후탄력성 확보 기술 평가 및 의사결정지원 시스템 개발	2022.11..30..	2022 한국기후학회 하반기학술대회: 기후변화와 ESG경영	제주	한국기후학회	
79	국내학술대회	2차원 수치해석을 통한 도시 폭우 기후탄력성 분석: 수원시 장안구	2022.11.30.	2022 한국기후학회 하반기학술대회: 기후변화와 ESG경영	제주	한국기후학회	

		이목지구를 중심으로					
80	국제학술대회	Air quality assessment in residential complex behind port area using CFD	2022.12.16.	AGU Fall Meeting 2022	Chicago	AGU	
81	국제학술대회	Development of the Urban Flood Resilience Index for Macro Scale City response to Climate change	2022.12.16.	AGU Fall Meeting 2022	Chicago	AGU	
82	국제학술대회	Wildfire Prediction and VR Evacuation Routes Optimization using Computational Fluid Dynamics	2022.12.16.	AGU Fall Meeting 2022	Chicago	AGU	
83	국내학술대회	Coupled Green-gray Infrastructure Design Technique for Enhancing Urban Flash Flood Resilience	2023.02.17.	2023 한국방재학회 학술발표대회: 기후위기시대 재난 Resilience	제주	한국방재학회	
84	국제학술대회	Evaluation of Flood Reduction and Development of Safety Factor using HCFD Model	2023.05.14.	ICPS6 Conference	Auburn	International Association of Protective Structures	
85	국제학술대회	Green Infrastructure Design and Runoff Reduction Evaluation for Metro City Level: The Case Study of Suwon City	2023.08.04.	UKC 2023	Dallas	KSEA	
86	국제학술대회	Specialized Graduate School of Intelligent Eco-Science	2023.08.04.	UKC 2023	Dallas	KSEA	

소계(총 86건)							

Conference Presentations – Refereed

1. **Junsuk Kang,** Solan, Dejuan, and Nobles, Brandon "*Finite Element Analyses for reinforced concrete piers rehabilitated with FRP wraps*," Associated Schools of Construction Region 2 Competition and Conference, November 2nd, **2016**.
2. **Junsuk Kang**, and Ahn, Yonghan, "*Enhancement of durability and longevity of buried concrete pipes using innovative smart materials*," Accepted for presentation (Sep. **2016**), 4th International Conference on Sustainable Built Environment (SBE 2016), Seoul, December 11-14, **2016**.
3. Navaee, Shahnam, and **Junsuk Kang**, "*Enhancement of a finite element course for structural engineering*," ASEE's 123rd Annual Conference (Computers in Education Division), New Orleans, LA, June 26-29, **2016**.
4. **Junsuk Kang**, Jackson, Mike, Maldonado, Gustavo, Rogers, Peter, and Maghiar Marcel, "*Accelerated Bridge Construction (ABC) toolkit for Georgia city and county roads*," Presenter, 2015 National ABC Conference, Miami, FL, Dec. **2015**.
5. Yoo, C., **Junsuk Kang**, and Kim, Kyungsik, "*Internal bracing requirements of horizontally curved box girders*," 2015 NASCC: The Steel Conference, March 25-27, **2015**.
6. Mohseni, I., Rashid, A.K.A., and **Junsuk Kang**, "*Live load distribution at the piers of skewed continuous multicell box-girder bridges subjected to moving loads*," Presenter, 2015 TRB Annual Meeting, January 11 – 15, **2015**.
7. **Junsuk Kang**, "*Field study for thermoplastic pipes used as cross drain culverts*," Presenter, 2015 TRB Annual Meeting, January 11 – 15, **2015**.
8. **Junsuk Kang**, "*Analytical study of temporary minimum cover requirements for thermoplastic pipes under construction equipment loads*," Presenter, 2013 ASCE Pipelines Conference, June **2013**.
9. **Junsuk Kang,** Stuart, S., and Davidson, J., "*Evaluation of plastic pipes used for cross-drains in highway construction*," Presenter, 2012 TRB Annual Meeting, January **2012**.
10. **Junsuk Kang**, and Davidson, J., "*Analysis and Design of Concrete-Lined Corrugated Steel Pipes*," Presenter, 2010 TRB Annual Meeting, January **2010**.
11. **Junsuk Kang**, Parker, F., and Yoo, C., "*Soil-Structure Interaction and Imperfect Trench Installations for Deeply Buried Corrugated PVC Pipes*," Presenter, 2007 TRB Annual Meeting, January **2007**.
12. **Junsuk Kang**, Lim, N., and Kang, Y.," *Three Dimensional Buckling Analysis of Continuous Welded Rail Track Under Thermal Load*," Presenter, Proceedings of Korean Society for Railway, Seoul, Korea, May **2000**.

Conference Presentations – Non -refereed

1. **Junsuk Kang**, "Three-Dimensional Finite Element Analyses for Buried Concrete Pipes in the Imperfect Trench Installations," Research Symposium 2016, Georgia Southern University, April 16, **2016**.
2. **Junsuk Kang**, "*Analytical and experimental study of thermoplastic pipes used for cross-drains under highways*," 2nd International Conference for Sustainable Design, Engineering and Construction (joint conference with ASCE Texas Section and ASCE CI Summit, Fort

Worth, TX, Nov.7-9, **2012**.

3. **Junsuk Kang**, Stuart, S., Davidson, J., "*Analytical and experimental study of thermoplastic pipes used for cross-drains under highways*," Georgia Chapter, Regional Conference of Korean-American Scientists and Engineers Association, Duluth, GA, April **2012**.
4. **Junsuk Kang**, Parker, F., and Yoo, C., "*Soil-Structure Interaction for Deeply Buried Conduits*," Alabama Chapter, Workshop of Korean-American Scientists and Engineers Association, Auburn University, AL, Dec. **2007**.

Conference Presentations – Contributor

1. Newberry, C. M., Hoemann, J. M., Bewick, B. T., and Davidson, J. S., "*Finite Element Simulation of Foam Insulated Precast Concrete Sandwich Panels Subjected to Blast Loads*," 15th Australasian Conference on Information Security and Privacy (ACISP), July **2010**.
2. Newberry, C. M., Hoemann, J. M., Bewick, B. T., and Davidson, J. S., "*Simulation of Prestressed Concrete Sandwich Panels Subjected to Blast Loads*," Structures Congress 2010, ASCE, May **2010**.

Invited Lectures/Workshops

1. **Junsuk Kang**, Jackson, Mike, Maghiar Marcel, Maldonado, Gustavo, and Rogers, Peter, "*Prefab bridges for Georgia city and county roads*," SHRP2 R04 Peer-to-Peer Workshop, Emory Conference Center Hotel, Atlanta, GA, Nov. 18, **2015**.
2. **Junsuk Kang**, "*Evaluation of plastic pipes used for cross-drains in highway construction: analytical and field studies*," Construction Technology Innovation Laboratory: Seminar, Chung-Ang University, Seoul, South Korea, July **2014**.

Technical Reports

1. **Junsuk Kang**, Jackson, Mike, Maghiar Marcel, Maldonado, Gustavo, and Rogers, Peter, "*Prefab bridges for Georgia city and county roads*," Final Report, Georgia Department of Transportation Research Project No. 14-10, Department of Civil Engineering and Construction Management, Georgia Southern University, February **2016**.
2. Stuart, S., **Junsuk Kang**, Abernathy, G., and Davidson, J. "*Evaluation of HDPE and PVC pipes used for cross-drains in highway construction*," Final Report, Alabama Department of Transportation Project No. 930-718, Highway Research Center, Auburn University, September **2011**.
3. Ramey, G. E., Schambeau, Mary E., Hughes, Mary L., **Junsuk Kang**, and Davidson, James S., "*Stability of Highway Bridges Subject to Scour - Phase IV – Part 1*," Alabama Department of Transportation Project No. 930-776. Highway Research Center, Auburn University, July **2011**.
4. Davidson, J.S., **Junsuk Kang**, Grimes, T.C., Farrell, J., Vaidya, U.K., Pillay, S., and Thattaiparthasarat, B. "*PVA Fiber Reinforced Shotcrete for Rehabilitation and Preventative Maintenance of Aging Culverts*," A final report submitted to the Alabama Department of Transportation, ALDOT Project 930-657, December **2008**.
5. Yoo, C.H., Parker, F., and **Junsuk Kang** "*Soil-Structure Interaction for Deeply Buried Corrugated PVC and Steel* Pipes," Interim Report, IR-07-01, Highway Research Center, Auburn University, May **2007**.
6. Yoo, C.H., Parker, F., and **Junsuk Kang** "*Bedding and Fill Heights for Concrete Roadway Pipe and Box Culverts*," Final Report, ALDOT Project No. 930-592, Highway Research Center, Auburn University, June **2005**.

Technical Reports – Contributor

1. Newberry, C. M., Davidson, J.S., Hoemann, J. M., and Bewick, B. T., "*Finite element simulation and assessment of single-degree-of-freedom prediction methodology for insulated concrete sandwich panels subjected to Blast Loads",* Air Force Research Laboratory, AFRL-RX-TY-TR-2011-0031, Preprint, Feb. **2011.**
2. Newberry, C. M., Davidson, J.S., Hoemann, J. M., and Bewick, B. T., "*Simulation of Prestressed Concrete Sandwich Panels Subjected to Blast Loads",* Air Force Research Laboratory, AFRL-RX-TY-TP-2010-0014, Preprint, Feb. **2010**.

Technical Posters

1. Choi, S. G., Yi, Z.Z., and **Junsuk Kang**, "*Interaction of Conceptual Design and Structural Analysis for Pedestrian Bridges*," 2017 KSCE Convention, BEXCO, Busan, Republic of Korea, Oct. 18-20, **2017**.
2. **Junsuk Kang**, Jackson, Mike, Maldonado, Gustavo, Rogers, Peter, and Maghiar, Marcel, "*Prefab Bridges for Georgia city and county roads - Project Summary and Future Plan*," 2016 GDOT/GTI Research Expo, One Georgia Center, Atlanta, GA, Sep. **2016**.
3. **Junsuk Kang**, Jackson, Mike, Maldonado, Gustavo, Rogers, Peter, and Maghiar, Marcel, "*Prefab Bridges for Georgia city and county roads*," 2015 GDOT/GTI Research Expo, One Georgia Center, Atlanta, GA, Sep. **2015**.
4. N. Tanner, C. Bachmann, J. Coody, K. McIlraith, J. Montefusco, T. Riley, E. Sonnedecker, M. Russell, D. Kater, and S. Peetom, (Advisers: **Junsuk Kang**, Gustavo Maldonado, Mike Jackson), "Optimum design and fabrication of a scaled bridge for the 2015 ASCE Student Steel Bridge Competition," Research Symposium (Poster Session), Georgia Southern University, April 24, **2015**.
5. M. Ofili, and K. Johnson (Advisers: **Junsuk Kang**, Mike Jackson, Gustavo Maldonado, Peter Rogers, Marcel Maghiar), "Accelerated Bridge Construction (ABC) for Georgia city and county roads. Part I: Overview and survey results," Research Symposium (Poster Session), Georgia Southern University, April 24, **2015**.
6. C. Rogers, J. Weyant, and C. Byrne (Advisers: **Junsuk Kang**, Mike Jackson, Gustavo Maldonado, Peter Rogers, Marcel Maghiar), "Accelerated Bridge Construction (ABC) for Georgia city and county roads. Part II: Design concept and examples using MathCAD," Research Symposium (Poster Session), Georgia Southern University, April 24, **2015**.
7. A. Hartley, T. Brunson, and R. Ballard (Advisers: **Junsuk Kang**, Mike Jackson, Gustavo Maldonado, Peter Rogers, Marcel Maghiar), "Accelerated Bridge Construction (ABC) for Georgia city and county roads. Part III: Construction and cost estimates," Research Symposium (Poster Session), Georgia Southern University, April 24, **2015**.
8. Ofili, Mike., **Junsuk Kang**, "*Structural effects of shear tie resistances for foam-insulated concrete sandwich panels under uniform pressure,*" CEIT Research Symposium, Georgia Southern University, April 15, **2014**.
9. **Junsuk Kang**, "*Effects of shear connector resistances for structural responses of foam-insulated concrete sandwich panels under uniform pressure*," 2014 ASCE Structures Congress, Boston, MA, April 3-4, 2014.
10. Huq, E., **Junsuk Kang**, "*Composite and non-composite behaviors of foam-insulated concrete sandwich panels,*" CEIT Research Symposium, Georgia Southern University, April 10, **2013**.
11. Park, J., **Junsuk Kang**, Ahn, H., Kim, S., Liu Dan, and Kim, D., "*Analysis of Stress Distribution in Piezoelectric MEMS Energy Harvester Using Shaped Cantilever Structure*," Proceedings of the 3rd KSEA-AL Symposium on Automotive Technology – Green Manufacturing, Alabama Chapter, Korean-American Scientists and Engineers Association,

Opelika, AL, October **2009**.

12. **Junsuk Kang**, Parker, F., and Yoo, C., "*Soil-Structure Interaction and Imperfect Trench Installations As Applied To Deeply Buried Conduits*," Alabama Chapter, Annual Meeting of Korean-American Scientists and Engineers Association, Opelika, AL, April **2007**.

Dissertation and Thesis

Ofili, Mike, "State of Accelerated Bridge Construction (ABC) in the United States" (2015). *University Honors Program Theses.* Paper 118. http://digitalcommons.georgiasouthern.edu/honors-theses/118. (Mentor: **Junsuk Kang**), April **2015**.

Junsuk Kang, "*Soil-Structure Interaction and Imperfect Trench Installations As Applied To Deeply Buried Conduits*," **Doctoral Dissertation**, Auburn University, Auburn, AL, USA (Advisor: Dr. Chai H. Yoo), May **2007**.

Junsuk Kang, "*Buckling Behavior of Continuous Welded Rail Track Under Thermal Load,"* **Master's Thesis**, Korea University, Seoul, Korea (Advisor: Dr. Young-Jong Kang), Feb. **2000**.

Books

1. **Junsuk Kang**, "*Soil-Structure Interaction of Buried Culverts: Application of Imperfect Trench Installation*," VDM Verlag Dr. Müller AG & CoKG, Feb. **2009**, ISBN-10: 3639128362. 192 pages.