THOMAS KANG

Professor, Department of Architecture & Architectural Engineering
Professor, Interdisciplinary Program of Artificial Intelligence
Seoul National University
1 Gwanak-ro, Gwanak-gu, Seoul 08826, Korea
+82-2-880-8368
tkang@snu.ac.kr

Academic Positions

Seoul National University, Department of Architecture & Architectural Engineering Professor (2018-Present: Full-time)

Seoul National University, Interdisciplinary Program of Artificial Intelligence Professor (2021-Present: Jointly Appointed)

Seoul National University, Global Education Center for Engineers (GECE)
Director (2019-2023)

Seoul National University, Engineering Education Innovation Center
Director & Vice Dean's Group of College of Engineering (2017-2023)

Seoul National University, Department of Architecture & Architectural Engineering
Associate Professor (2013-2018: Full-time)

Seoul National University, Department of Architecture & Architectural Engineering Assistant Professor (2011-2013: Full-time)

The University of Oklahoma, School of Civil Engineering and Environmental Science Assistant Professor (2007-2011: Full-time)

University of California at Los Angeles (UCLA), Department of Civil & Environmental Engineering Visiting Professor (2023-Present)

University of Cape Town, Department of Civil and Environmental Engineering Lecturer (2020-Present)

University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering Adjunct Professor (2019)

University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering Adjunct Associate Professor (2017)

University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering Adjunct Lecturer & Visiting Professor (2016)

University of Hawaii at Manoa, Department of Civil and Environmental Engineering Lecturer (2012-Present)

The University of Oklahoma, School of Civil Engineering and Environmental Science Adjunct Professor (2012-2017)

University of California at Los Angeles (UCLA), Department of Civil & Environmental Engineering Lecturer (2004-2007)

Other Positions

Oncrets, Brazil

Consultant (2021-Present)

EVEHX, Brazil

Consultant (2020-2021)

Precision-Hayes International, USA

Consultant (2018-2019)

Structural Design Firms: John A. Martin & Associates, KPFF-Los Angeles, etc., USA Structural Engineer (2004-2007)

Education

University of California, Los Angeles, California

Ph.D., Civil Engineering, 2004 Michigan State University, East Lansing, Michigan M.S., Civil Engineering, 2000 Seoul National University, Seoul, Korea B.S., Architecture, 1998

Licensures

Licensed Professional Civil Engineer, California, Since 2007 Engineer-in-Training, California, Since 2000

Honors and Awards

Fellow, Korean Academy of Science and Technology (KAST), 2023, Korean Academy of Science and Technology

Member, EU Academy of Sciences (EUAS), 2019, The EU Academy of Sciences

Member, National Academy of Artificial Intelligence (NAAI), 2025, National Academy of Artificial Intelligence

General Member, National Academy of Engineering of Korea (NAEK), 2022, The National Academy of Engineering of Korea

Fellow of the Institute, 2013, American Concrete Institute (ACI)

T. Y. Lin Award, 2025, American Society of Civil Engineers (ASCE) (as Responsible Author with 4 co-authors)

Wason Medal for Most Meritorious Paper, 2009, American Concrete Institute (ACI) (as Lead Author with 3 co-authors)

The Martin P. Korn Award, 2023, Precast/Prestressed Concrete Institute (PCI) (as Responsible Author with 4 co-authors)

Kenneth B. Bondy Award for the Most Meritorious Technical Paper, 2023, Post-Tensioning Institute (PTI) (as Lead Author with 4 co-authors)

Kenneth B. Bondy Award for the Most Meritorious Technical Paper, 2013, Post-Tensioning Institute (PTI) (as Lead Author with 1 co-author)

PTI Fellow Award, 2012, Post-Tensioning Institute (PTI)

ASCE Outstanding Reviewer Award, 2024, Journal of Structural Engineering, American Society of Civil Engineers (ASCE)

ASCE Outstanding Reviewer Award, 2021, Journal of Structural Engineering, American Society of Civil Engineers (ASCE)

Lee Ki-joon Engineering Innovation Award, 2020, Korean Society for Engineering Education (KSEE) Shinyang Engineering Academy Award (Research), 2020, College of Engineering (CoE), Seoul National University (SNU)

Selected as one of 100 Future Technologies, 2018, The National Academy of Engineering of Korea (NAEK), Seoul, Korea (as Leading Awardee with 1 co-awardee)

Led the effort as the Principle Investigator to publish the ICC-ES Evaluation Report of ESR-4134 (U-Shaped Steel-Concrete Composite Beam (BESTOBEAM SYSTEM), Issued June 2021, and to pass the AC495 (Acceptance Criteria for Cold-Formed Steel Structural Beams with Steel Angle Anchors Acting Compositely Cast-in-Place Concrete Slabs), Approved February 2018, ICC Evaluation Service (ICC-ES)

Excellence in Research Award, 2023, Earthquake Engineering Society of Korea (EESK), Seoul, Korea Excellence in Research Award, 2022, The Wind Engineering Institute of Korea (WEIK), Seoul, Korea Excellence in Research Award, 2021, Korea Institute for Structural Maintenance and Inspection (KSMI), Seoul, Korea

[Andrew Nghiem, PhD advisee] Best PhD Dissertation Award, 2018, College of Engineering, Seoul National University (SNU), Seoul, Korea

Best Paper Award, 2016, 2016 International Conference on Engineering, Technology and Management (ICETM 2016), Singapore (as Responsible Author & Advisor with 1 co-author)

Selected as one of the twelve papers nominated for the Outstanding Paper award for the 2015 volume of the ASCE Journal of Performance of Constructed Facilities, American Society of Civil Engineers (ASCE) (as Corresponding Author with 1 co-author) and recognized in Editor's Note

Certificate of Academic Contribution, The 2015 World Congress on Advances in Structural Engineering & Mechanics, Incheon, Korea

Best Paper Award, 2015, 7th Asia Pacific Young Researchers and Graduates Symposium (YRGS 2015), Kuala Lumpur, Malaysia (as Responsible Author & Advisor with 3 co-authors)

Best Paper Award, 2015, 2015 International Conference on Engineering and Natural Science (ICENS 2015), Bangkok, Thailand (as Lead and Corresponding Author with 3 co-authors)

Best Paper Award, 2015, Journal of the Korean Association for Spatial Structures (KASSS) (as Corresponding Author with 2 co-authors)

Award of Excellence, 2014, College of Engineering, Seoul National University (SNU)

Outstanding Reviewer, 2014, Engineering Structures, Elsevier

International Activities Award - Research Division, 2014, Korea Concrete Institute (KCI)

Best Paper Award, 2014, Korea Concrete Institute (KCI) (as Lead and Corresponding Author with 3 co-authors)

Best Paper Award, 2013, Korea Concrete Institute (KCI) (as Corresponding Author with 1 co-author)

Early Career Excellence Award, 2012, Korea Concrete Institute (KCI)

Best Presentation Award, 2012, Korea Concrete Institute (KCI)

Certificate of Appreciation, 2014, The Korean Structural Engineers Association (KSEA) (with 3 co-recipients)

Invited as an External Reviewer, 2019, University of Luxembourg - Competitive Promotion, Luxembourg Invited as a Reviewer, 2019, FONDECYT (National Fund for Scientific and Technological Development)

Regular Competition 2020, Comisión Nacional de Investigación Cientifica y Tecnológica (CONICYT), Chile

Invited as a Reviewer, 2016, Swiss National Science Foundation (SNSF), Div. Mathematics, Physical and Engineering Sciences, Swiss

Appointed as a Tie-Breaker Reviewer of Fulbright Specialist Engineering Education Committee, 2014-2015 Review Year, The Council for International Exchange of Scholars (CIES)

Appointed to Fulbright Specialist Peer Review Committee, 2013-2014 Review Year, The Council for International Exchange of Scholars (CIES)

Appointed to Fulbright Specialist Peer Review Committee, 2011-2012 Review Year, The Council for International Exchange of Scholars (CIES)

Appointed to Fulbright Specialist Peer Review Committee, 2010-2011 Review Year, The Council for International Exchange of Scholars (CIES)

Best Presentation Award, 2013, Architectural Institute of Korea (AIK) (with 4 co-authors)

International Journal of Concrete Structures and Materials Best Papers Award, 2014, Springer (as Corresponding Author with 1 co-author)

International Journal of Concrete Structures and Materials Best Papers Award, 2013, Springer (as Corresponding Author with 1 co-author)

International Journal of Concrete Structures and Materials Best Papers Award, 2012, Springer (as Lead Author with 3 co-authors)

Outstanding Faculty Early Career Grant, 2012, National Research Foundation of Korea (NRF)

Must-read Paper Picked by Editor-in-Chief, International Journal of Theoretical and Applied Multiscale Mechanics (IJTAMM), 2010, Inderscience Publisher, Ltd. (as Corresponding Author with 3 co-authors)

Award of Excellence, 2009, Precast/Prestressed Concrete Institute (PCI)

Recognized in the President's Monthly Research Highlights, 2013, The University of Oklahoma (as Adjunct Professor of the University of Oklahoma)

Recognized in the President's Monthly Research Highlights, 2012, The University of Oklahoma (as Adjunct Professor of the University of Oklahoma)

Recognized in the President's Monthly Research Highlights, 2011, The University of Oklahoma Recognized in the President's Monthly Research Highlights, 2011, The University of Oklahoma (with his M.S. student, Amy Hufnagel)

Recognized in the President's Monthly Research Highlights, 2009, The University of Oklahoma New Tenure-Track Faculty Startup Award, 2007, The University of Oklahoma (Unanimous Decision) Non-Senate Faculty Professional Development Award, 2005-2007, UCLA

13th World Conference on Earthquake Engineering Travel Grants, 2004, Consortium of Universities for Research in Earthquake Engineering (CUREE)

Doctoral Fellowship, 2000, UCLA

Graduate Fellowship, 1998, Michigan State University Full-Tuition Scholarship, 1994-1998, Seoul National University

International Professional Affiliations, Services and Activities

Technical Advisory Board (TAB), Post-Tensioning Institute, 2022-Present

Chair of Task Group within ACI Committee 369, 2010-2018

Guide for Seismic Rehabilitation of Existing Concrete Slab-Column Frames

Chair of Task Group within Joint ACI-ASCE Committee 352, 2007-2014

Design and Behavior of Headed Reinforcement in Beam-Column Joints

Vice Chair, 2012-2014

ACI Committee S805, Collegiate Concrete Council

Secretary, 2006-2013

Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete

Editor-in-Chief, 2020-Present

Wind and Structures (WAS), An International Journal, Techno Press, Daejeon, Korea

Editor-in-Chief, 2019-2020

International Journal of Concrete Structures and Materials (IJCSM), Springer, New York, NY

Editor-in-Chief, 2015-2022

Journal of Structural Integrity and Maintenance (JSIM), Taylor & Francis Group, Abingdon, U.K.

Editor-in-Chief, 2015-Present

Advances in Computational Design (ACD), An International Journal, Techno Press, Daejeon, Korea

Associate Editor, 2017-Present

PTI Journal, Post-Tensioning Institute, Farmington Hills, MI

Guest Editor, 2014

Special Issue of Earthquakes and Structures, An International Journal,

Behavior of Concrete and Composite Structures Subjected to Earthquake-Simulated Loading, Techno Press, Daejeon, Korea

Guest Editor, 2013

Special Edition of International Journal of Concrete Structures and Materials (IJCSM),

Performance of Concrete Structures with Unique Materials, Reinforcement or Geometry,

Springer, New York, NY

Managing Editor, 2013-2016

International Journal of Concrete Structures and Materials (IJCSM), Springer, New York, NY

Editorial Board, 2016-2021

Structural Engineering and Mechanics, An International Journal, Techno Press, Daejeon, Korea

Editorial Board, 2015-Present

ACF Journal, Asian Concrete Federation, Bangkok, Thailand

Editorial Board, 2014-2025

Engineering Structures, Elsevier Limited, Oxford, U.K.

Editorial Board, 2014-2021

Computers and Concrete, An International Journal, Techno Press, Daejeon, Korea

Editorial Board, 2011-2016

International Journal of Concrete Structures and Materials (IJCSM), Springer, New York, NY

Editorial Board, 2008-2017

International Journal of Theoretical and Applied Multiscale Mechanics (IJTAMM), Inderscience Publisher, Olney, Bucks, U.K.

Member of Board of Directors, 2012-Present

The International Society for Computing in Civil and Building Engineering (ISCCBE)

Board Member, 2012-2017

The ACI International Advisory Committee

Voting Member, 2019-2025

ACI Subcommittee 318T, Structural Concrete Building Code – Post-Tensioned Concrete

Voting Member, 2019-Present

ACI Committee 320, Post-Tensioned Concrete Building Code

Voting Member, 2018-Present

Joint ACI-ASME Committee 359, Concrete Containment for Nuclear Reactors

Voting Member, 2016-Present

ACI Committee 369-0C, Seismic Repair and Rehabilitation, Frames

Voting Member, 2016-Present

Joint ACI-ASME Committee 359-0B, Concrete Containment for Nuclear Reactors, Working Group on Materials, Fabrication & Examination

Voting Member, 2008-2014

ACI Committee S805, Collegiate Concrete Council

Voting Member, 2005-Present

Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete

Voting Member, 2010-Present

ACI Committee 335, Composite and Hybrid Structures

Voting Member, 2008-2017

ACI Committee 369, Seismic Repair and Rehabilitation

Voting Member, 2016-Present

Joint ACI-ASCE Committee 423, Prestressed Concrete

Voting Member, 2007-Present

ACI Committee E803, Faculty Network Coordinating Committee, 2007-Present

Founding Member and Voting Member, 2007-Present

PTI Building Design Committee

Contributing Member, 2016-2018

Joint ACI-ASME Committee 359, Concrete Containment for Nuclear Reactors

Associate Member, 2018-Present

ACI Committee 369, Seismic Repair and Rehabilitation

Associate Member, 2015-Present

ACI Committee 370, Blast and Impact Load Effects

Associate Member, 2015-Present

ACI Committee 550, Precast Concrete Structures

Associate Member, 2010-2018

ASCE committee 31/41, Seismic Rehabilitation Standards Committee

Associate Member, 2009-2010

ACI Committee 335, Composite and Hybrid Structures

Associate Member, 2008-2016

Joint ACI-ASCE Committee 423, Prestressed Concrete

Associate Member, 2004-2005

Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete

Editorial Subcommittee, 2011-Present

ACI 352R Beam-Column Connections Report

Editorial Subcommittee, 2007-2011

Practical Design Guide for Post-Tensioned Buildings

Editorial Subcommittee, 2004-2012

ACI 352.1R Slab-Column Connections Report

Task Group, 2012-2013

Task Group on International Representation

Task Group, 2009-Present

ACI 352.1R Slab-Column Connections Report – Design Examples

ACI 369 - ASCE 41 Liaison Subcommittee, 2010-2018

ACI Liaison Subcommittee 369L

International Scientific Committee, Mar. 2025

RILEM Annual Spring Convention, Focus: Durability of Building Materials and Systems in the Transportation Infrastructure, Mendrisio, Switzerland

Workshop Chair, Oct. 2024

The 25th Japan-Taiwan-Korea Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS 2024) Seoul, Korea

Workshop Chair, Aug. 2024

The 16th China-Japan-Korea International Workshop on Wind Engineering (CJK2024) Seoul, Korea

Congress Co-Chair, Aug. 2024

The 2024 Structures Congress (Structures24), Seoul, Korea

Conference Co-Chair, Aug. 2024

The 2024 International Conference on Advances in Wind and Structures (AWAS 2024), Seoul, Korea

Conference Co-Chair, Aug. 2024

The 2024 International Conference on Advances in Computational Design (ICACD 2024), Seoul, Korea

Conference Chair, Dec. 2023

2023 5th International Conference of Engineering Education and Innovation (ICEEI 2023), Bali, Indonesia

Conference Chair, Dec. 2023

2023 6th International Conference of Civil Engineering and Architecture (ICCEA 2022), Bali, Indonesia

Conference Co-Chair, Dec. 2022

2022 4th International Conference of Engineering Education and Innovation (ICEEI 2022), Hanoi, Vietnam

Conference Co-Chair, Dec. 2022

2022 5th International Conference of Civil Engineering and Architecture (ICCEA 2022), Hanoi, Vietnam

Congress Co-Chair, Aug. 2022

The 2022 Structures Congress (Structures22), Seoul, Korea

Conference Co-Chair, Aug. 2022

The 2022 International Conference on Advances in Wind and Structures (AWAS 2022), Seoul, Korea

Congress Co-Chair, Aug. 2021

The 2021 World Congress on Advances in Structural Engineering and Mechanics (ASEM21), Seoul, Korea

Conference Co-Chair, Aug. 2021

The 2020 International Conference on Earthquakes and Structures (ICEAS 2021), Seoul, Korea Mini Symposium Organizer, Aug. 2021

"Dynamic Effects on Structures Including Seismic"; Associated with The 2021 International Conference on Earthquakes and Structures (ICEAS 2021), Seoul, Korea

Conference Chair, July 2021

2021 3rd International Conference of Engineering Education and Innovation (ICEEI 2020), Seoul, Korea

Conference Chair, July 2021

2021 4th International Conference of Civil Engineering and Architecture (ICCEA 2021), Seoul, Korea

Congress Co-Chair, Aug. 2020

The 2020 Structures Congress (Structures20), Seoul, Korea

Conference Co-Chair, Aug. 2020

The 2020 International Conference on Advances in Wind and Structures (AWAS 2020), Seoul, Korea

Conference Co-Chair, Aug. 2020

The 2020 International Conference on Advances in Computational Design (ICACD 2020), Seoul, Korea

Conference Chair, June 2020

2020 2nd International Conference of Engineering Education and Innovation (ICEEI 2020), Compiègne, France (Virtual)

Conference Chair, June 2020

2020 3rd International Conference of Civil Engineering and Architecture (ICCEA 2020), Compiègne, France (Virtual)

Conference Special Session Organizer and Co-Chair, Dec. 2019

"Out-of-Plane Load and Resistance Assessment of Concrete Structures under Extreme Events – Korean Perspectives"; Associated with The 13th International Conference on Shock & Impact Loads on Structures (SILOS 19), Guangzhou, China, Dec. 2019

International Scientific Committee, Dec. 2019

The 13th International Conference on Shock & Impact Loads on Structures (SILOS 19), Guangzhou, China, Dec. 2019.

Conference Chair, Sept. 2019

2019 International Conference of Engineering Education and Innovation (ICEEI 2019), Seoul, Korea

Conference Chair, Sept. 2019

2019 2nd International Conference of Civil Engineering and Architecture (ICCEA 2019), Seoul, Korea

Program Chair, Oct. 2018

2018 International Conference on Civil Engineering and Architecture (ICCEA 2018), Chengdu, China

Conference Session Chair, Aug. 2021

"Reinforced Concrete"; Associated with 17th Word Conference on Earthquake Engineering (17WCEE), Sendai, Japan

Convention Session Chair, Apr. 2016

2016 PTI Convention, Long Beach, CA: PT Buildings I

Mini Symposium Co-Organizer, Sept. 2020

"Digital Design and Industry 4.0"; Associated with The 2018 International Conference on Advances in Computational Design (ICACD'20), Compiègne, France (Virtual)

Mini Symposium Co-Organizer, Aug. 2018

"Joint NU-SNU Mini-Symposium on the Design and Analysis of Innovative Structural and Geotechnical Systems I"; Associated with The 2018 International Conference on Advances in Computational Design (ICACD'18), Incheon, Korea

Mini Symposium Co-Organizer and Chair, Aug. 2018

"Joint NU-SNU Mini-Symposium on the Design and Analysis of Innovative Structural and Geotechnical Systems II"; Associated with The 2018 International Conference on Advances in Computational Design (ICACD'18), Incheon, Korea

Mini Symposium Organizer and Chair, Aug. 2018

"Recent Design and Evaluation Issues for Concrete, Steel, Composite Structures & Historical Structures"; Associated with The 2018 International Conference on Advances in Computational Design (ICACD'18), Incheon, Korea

Conference Session Chair, Aug. 2018

"Computer-Aided Design and Modeling of Structures"; Associated with The 2018 International Conference on Advances in Computational Design (ICACD'18), Incheon, Korea

Convention Session Moderator, Oct. 2017

ACI Fall 2017 Convention, Anaheim, CA: Joint ACI-ASCE 352 Session: Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 1 of 2

Convention Session Moderator, Oct. 2017

ACI Fall 2017 Convention, Anaheim, CA: Joint ACI-ASCE 352 Session: Design and Modeling Considerations for Concrete Joints, Connections, and Systems, Part 2 of 2

Mini Symposium Co-Organizer and Co-Chair, Aug. 2017

"Joint SNU-HIT Mini-Symposium on Structural Design, Behavior and Monitoring"; Associated with The 2017 International Conference on Innovative Structural Engineering and Mechanics (ISEM'17), Ilsan, Korea

Scientific Committee, June 2016

The 16th International Conference for Computing in Civil and Building Engineering (ICCCBE 2016), Osaka, Japan

Conference Chair, Aug. 2016

The 2016 International Conference on Advances in Computational Design (ICACD'16), Jeju, Korea

Mini Symposium Organizer and Chair, Aug. 2016

"Computational Design Issues in Concrete, Steel, and Composite Structures"; Associated with The 2016 International Conference on Advances in Computational Design (ICACD'16), Jeju, Korea

Mini Symposium Organizer and Chair, Aug. 2016

"Analysis and Design of High-Rise Buildings, Long-Span Structures and Impact-Resistant

Facilities"; Associated with The 2016 International Conference on Advances in Computational Design (ICACD'16), Jeju, Korea

Mini Symposium Co-Organizer and Co-Chair, Aug. 2016

"Structure Behavior, Analysis, and Design Model under Extreme Loads"; Associated with The 2016 International Conference on Advances in Computational Design (ICACD'16), Jeju, Korea

Workshop Co-Host, Aug. 2016

2016 Korea-China Bi-lateral Workshop on Structural Behavior under Extreme Loads (SBEL 2016), Seoul, Korea

Convention Session Chair, Apr. 2016

2016 PTI Convention, Long Beach, CA: PT Buildings I

Workshop Co-Host, Sept. 2015

2015 China-Korea Bi-lateral Workshop on Structural Behavior under Extreme Loads (SBEL 2015), Changsha, China

International Scientific and Technical Committee, Aug. 2015

The 7^{th} Asia and Pacific Young Researchers and Graduates Symposium, Kuala Lumpur, Malaysia

Mini Symposium Co-Organizer and Co-Chair, Aug. 2015

"Test and Analysis for Seismic, Impact, Blast or Wave Loading"; Associated with The International Conference on Computational Technologies in Concrete Structures (CTCS'15), Incheon, Korea

Conference Session Chair, Aug. 2015

"Computational Technologies in Concrete"; Associated with The International Conference on Computational Technologies in Concrete Structures (CTCS'15), Incheon, Korea

Convention Session Chair, April 2015

2015 PTI Convention, Houston, TX: Unbonded PT-Highrise Structures 1

Secretary of Scientific Committee, Sept. 2014

Scientific Committee, 2014 The 6th International Conference of Asian Concrete Federation (ACF2014), Seoul, Korea

Conference Session Co-Chair, Sept. 2014

"Fibrous Concrete and Use of FRP for Strengthening and Retrofitting"; Associated with The 2014 6th International Conference of Asian Concrete Federation (ACF 2014), Seoul, Korea Conference Session Chair, Aug. 2014

"Flutter and Interaction of Structures"; Associated with The 2014 International Conference on Advances in Coupled Systems Mechanics (ACSM), Busan, Korea

International Scientific Committee, July 2014

The 6^{th} Asia and Pacific Young Researchers and Graduates Symposium, Rangsit, Thailand Organizing Committee, June 2014

The 2014 International Conference for Computing in Civil and Building Engineering (ICCCBE²⁰¹⁴) and the 2014 CIB W078 Conference, Orlando, FL; Hosted by the Technical Council of Computing and IT (TCCIT) of the American Society of Civil Engineers (ASCE) and the University of Florida, Gainesville, FL

Associate Chair, June 2014

Scientific Organizing Committee, International Conference on Computational & Experimental Engineering and Sciences (ICCES'14), Changwon, Korea

Mini Symposium Organizer and Chair, June 2014

"Behavior of Concrete and Steel Structures"; Associated with International Conference on Computational & Experimental Engineering and Sciences (ICCES'14), Changwon, Korea International Advisory Committee, Sept. 2013

The 2013 World Congress on Advances in Structural Engineering and Mechanics (ASEM'13), Jeju, Korea

Mini Symposium Co-Organizer and Co-Chair, Sept. 2013

"Earthquake-Resistant Engineering of Reinforced Concrete Structures"; Associated with The 2013 International Conference on Earthquakes and Structures (ICEAS), Jeju, Korea Convention Session Chair, July 2013

2013 2nd International Conference on Civil Engineering and Materials, Hong Kong: Session 3 Convention Session Chair, May 2013

2013 PTI Convention, Scottsdale, AZ: Buildings

Convention Session Moderator, Oct. 2012

ACI Fall 2012 Convention, Toronto, Canada: Joint KCI-ACI Session: International-Level Research, Practice and Partnerships, Part 1 of 3 – Historical & Innovative Perspectives

Convention Session Moderator, Oct. 2012

ACI Fall 2012 Convention, Toronto, Canada: Joint KCI-ACI Session: International-Level Research, Practice and Partnerships, Part 2 of 3 – Hi-Performance Technologies

Convention Session Moderator, Oct. 2012

ACI Fall 2012 Convention, Toronto, Canada: Joint KCI-ACI Session: International-Level Research, Practice and Partnerships, Part 3 of 3 – Mega-structures

Conference Moderator, May 2012

The 2012 International Association for Shell and Spatial Structures (IASS) Annual Symposium, Seoul, Korea: Opening Ceremony & Welcome Reception

Conference Session Chair, May 2012

The 2012 International Association for Shell and Spatial Structures (IASS) Annual Symposium, Seoul, Korea: PS1-B Session – Analysis 1

Organizing Committee, May 2012

The 2012 International Association for Shell and Spatial Structures (IASS) Annual Symposium, Seoul, Korea

Convention Session Chair, May 2012

2012 PTI Convention, Nashville, TN: Post-Tensioning in Buildings

Convention Session Moderator, Mar. 2012

2012 ACI Spring Convention, Dallas, TX: Joint ACI 546-369 Session – Post Earthquake Repairs, Part II

Convention Session Co-Moderator, Mar. 2012

2012 ACI Spring Convention, Dallas, TX: Joint ACI 546-369 Session – Post Earthquake Repairs, Part I

Conference Session Chair, Nov. 2011

KCI Fall 2011 Convention, Seoul, Korea: English Presentation Session

Conference Session Chair, Nov. 2011

The 6th International Symposium on Steel Structures (ISSS-2011), Seoul, Korea: T17 Session – Composite Columns II

Mini Symposium Organizer and Chair, Sept 2011

"Computational Modeling of Prestressed Concrete Structures"; Associated with The 2011 International Conference on Computational Technologies in Concrete Structures (CTCS'11), Seoul, Korea

Symposium Co-Host and Co-Chair, July 2011

2011 Oklahoma Transportation Center Summer Symposium, Oklahoma City, OK

Symposium Session Chair, July 2011

2011 Oklahoma Transportation Center Summer Symposium, Oklahoma City, OK: Session – Stewardship, Safety, and Board Issues in Transportation

Conference Session Chair, May 2011

The Post-Tensioning Institute's Conference and Exhibition, Kansas City, KS: Post-Tensioning Software Session

Symposium Co-Host and Co-Chair, July 2010

2010 Oklahoma Transportation Center Summer Symposium, Oklahoma City, OK.

Symposium Session Chair, July 2010

2010 Oklahoma Transportation Center Summer Symposium, Oklahoma City, OK: Session – Health Monitoring for Transportation Structures

Conference Session Chair, May 2010

The Post-Tensioning Institute's Conference and Exhibition, Dallas, TX: Building Design Session 1

Conference Session Co-Chair, May 2010

7th International Conference on Fracture Mechanics of Concrete and Concrete Structures, Jeju, Korea: 3C Session – Fiber Reinforced Concrete 1

Conference Session Chair, Apr. 2009

2009 ASCE Structures Congress, Austin, TX: New Developments for Practical Analysis and Design of Structural Concrete Frame Connections, Sponsored by Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures

Conference Session Chair, May 2008

4th International Conference on Advances in Structural Engineering and Mechanics, Jeju, Korea: Concrete & RC Structures II

Conference Session Co-Chair, Apr. 2006

8th U.S. National Conference on Earthquake Engineering, San Francisco, CA – Seismic Performance of Non-Building and Industrial Structures

ACI Fellow, 2013-Present

American Concrete Institute (ACI)

Member, 2003-Present

American Concrete Institute (ACI)

PTI Fellow, 2012-Present

Post-Tensioning Institute (PTI)

Professional Member, 2006-2012

Post-Tensioning Institute (PTI)

Professional Member, 2007-Present

Precast/Prestressed Concrete Institute (PCI)

Member, 2003-Present

American Society of Civil Engineers (M. ASCE)

Member, 2000-2010

Earthquake Engineering Research Institute (EERI)

Member, 2007-Present

Korea Concrete Institute (KCI)

Member, 2010-Present

Architectural Institute of Korea (AIK)

Board of Directors, 2012-Present

Korean Association for Spatial Structures (KASSS)

Board of Directors, 2013-Present

Korea Institute for Structural Maintenance and Inspection (KSMI)

Faculty Advisor, 2010-2011

Architectural Engineering Institute Student Chapter, The University of Oklahoma

Faculty Search Committee, 2008-2009

Architectural Engineering, College of Engineering, The University of Oklahoma

Faculty Search Committee, 2009-2010

Structure-Construction Science, College of Architecture, The University of Oklahoma Instructor

CEED (Center of Excellence in Engineering and Diversity), Henry Samueli School of Engineering & Applied Science, UCLA, 2003

Educational Developer

PCA educational tool project – developed teaching aid packages for the subject of Design of Prestressed Concrete Structures (with Attila Beres)

Reference for

John Wallace (Professor, UCLA), Thomas Sabol (Adjunct Professor, UCLA), Uksun Kim (Professor, California State University at Fullerton), Yu-Chen Ou (Professor, National Taiwan University of Science and Technology), Eunjong Yu (Professor, Hanyang University), Helen Jung (Professor and Associate Dean, California Baptist University), Lisa Holliday (Rimkus Consulting Group, Inc.; former advisee), Leonardo Massone (Professor, University of Chile), Chien Chung Chen (Associate Professor, Purdue University Northwest), Woosuk Kim (Associate Professor, Kumoh National Institute of Technology; former advisee), Nilanjan Mitra (Associate Professor, IIT-Kharagpur), Brandon Ross (Associate Professor, Clemson University), Chang-Soo Kim (Associate Professor, Seoul National University of Science & Technology), Il Woo Nam (Assistant Professor, Handong University), Hyeong-Jong Hwang (Assistant Professor, Konkuk University), Young Chul Kim (Associate Professor, KAIST), Seongwon Hong (Associate Professor, Korea National University of Transportation; former advisee), Shideh Shadravan (Associate Professor, OU), Woo Young Lim (Assistant Professor, Wonkwang University),

Junwon Seo (Associate Professor, South Dakota State University), Yusuke Kurihashi (Associate Professor, Kanazawa University), YeongAe Heo (Assistant Professor, Case Western Reserve University; former advisee), Sanghee Kim (Kyonggi University; former advisee), Ah Sir Cho (SNU; former advisee), Donghyuk Jung (Assistant Professor, Pusan National University; former advisee), Jangwoon Baek (Assistant Professor, Kyunghee University), Mahadi Masud (University of Houston), Hajin Choi (Assistant Professor, Soongsil University), Chunyu Zhang (GCW Engineering, Inc.), Shahab Jaberansari (UCLA), Derek Skolnik (UCLA), Aysegul Gogus (UCLA), Genevieve Farrar (UCLA), Geeta Ashabi (OU; former advisee), Jessica Prince (OU), Michael Van Zandt (OU; former advisee), Yu Huang (OU; former advisee), Kah Mun Lam (OU; former advisee), Lee Blackburn (OU), Kyu Kim (OU; former advisee), Dhaval Mehta (OU; former advisee), Amy Hufnagel (OU; former advisee), Randy Martin (OU; former advisee), Moustapha Ary Ibrahim (OU; former advisee), Christopher Hill (OU; former advisee), Cassondra Underwood (OU), Yonathan Reches (OU; former advisee), Shelby Pankop (OU), Joseph Tuttle (OU), Joe Howell (OU; former advisee), William Carlton (OU), Jennifer Bergen (OU), Diana Lucero (OU), Kristy Olabimtan (OU), Patrick Crowder (OU), Chris Breazile (OU), Jesse Berdis (OU), Jenny Bergen (OU), Thanh Min Ngo (OU), Arash Hassanikhah (OU), Foroud Moradi (OU), Kate Turner (M.I.T.; OU-REU Student), Jean-Luc D'Abreau (Cal Poly San Luis Obispo; OU-REU Student), Deanna Quickle (Stony Brook University; OU-REU Student), Caroline Weston (Southwestern University; OU-REU Student), Andy Nghiem (SNU; former advisee), Hamidreza Alinejad (SNU; former advisee), Fahimeh Yavartanoo (SNU; former advisee), Jooyong Moon (SNU), Sangwoo Kim (SNU), Sanghee Kim (SNU; former advisee), Ju Dong Lee (SNU; former advisee), Ah Sir Cho (SNU; former advisee), Ju Dong Lee (SNU; former advisee), Joo Hong Lee (SNU; former advisee), Yousun Yi (SNU), Changhee Park (SNU), Denissa Purba (University of Illinois at Urbana-Champaign), Sanjeev Mohran Sri Balasu (University of Illinois at Urbana-Champaign), Nisheet Reddy Pinnapu Reddy (University of Illinois at Urbana-Champaign), Freddy Olejua (University of Illinois at Urbana-Champaign), Alvaro Emilio Canga Ruiz (University of Illinois at Urbana-Champaign), Yujae Seo (Missouri University of Science and Technology)

Courses Taught

Seoul National University

Structural Experiment and Material (4013.406), Prestressed Concrete (401.630), Wind-Resistant Design (401.628), Mechanics of Materials in Architecture 1 (4013.206A), Advanced Mechanics of Construction Materials (401.628), Design and Construction of Structural Concrete I (M1498.001400), Structural Dynamics (4013.311), Design of Reinforced Concrete II (4013.409), Structural Dynamics (4013.311), Capstone Design (4013.315), Field Application of IoT·AI and Big Data 1 (M2177.006400), Field Application of IoT·AI and Big Data 2 (M2177.006900), University of Tokyo

Performance-Based Design for Wind and Seismic

[Spring 2025 – a semester's course was taught by Dr. Kang on U. of Tokyo campus] Post-tensioned Concrete Structures

[Spring 2021 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang] Post-tensioned Concrete Structures

[Spring 2019 - a semester's graduate course was taught by Dr. Kang on U. of Tokyo campus] Design of Reinforced Concrete II

[Fall 2012 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang] University of Cape Town

Advanced Structural Concrete Engineering (CIV5006Z)

[Fall 2024 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang] Advanced Structural Concrete Engineering (CIV5006Z)

[Fall 2022 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang] Advanced Structural Concrete Engineering (CIV5006Z)

[Spring 2020 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang] University of Illinois at Urbana-Champaign

Post-Tensioned Concrete Structures (CEE 598PT)

[Summer 2019 – a semester's graduate course was taught by Dr. Kang on UIUC campus] [Summer 2017 – a semester's graduate course was taught by Dr. Kang on UIUC campus]

[Fall 2016 – a semester's graduate course was taught by Dr. Kang on UIUC campus]

Post-Tensioned Concrete Structures – Online (CEE 598PTO)

[Summer 2019 – a semester's graduate course was taught by Dr. Kang]

[Summer 2017 – a semester's graduate course was taught by Dr. Kang]

[Fall 2016 – a semester's graduate course was taught by Dr. Kang]

University of Hawaii at Manoa

Prestressed Concrete Design (CEE 687)

[Fall 2024 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2023 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2022 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2021 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2019 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2017 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2015 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2014 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2013 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

[Fall 2012 – live broadcast lectures; a semester's graduate course was taught by Dr. Kang]

Sendai National College of Technology

Steel Structure (Steel-Concrete Composite Design) [16 hours from July 9 to July 13, 2012] The University of Oklahoma

Structural Design—Concrete I (CEES 3673), Structural Design—Concrete I Laboratory (CEES 3673-010), Civil Engineering Capstone Design (CEES 4903; Capstone, with Dr. Gerald A. Miller), Architectural Engineering Capstone Design (CEES 4993; Capstone, with Dr. Gerald A. Miller), Structural Design—Concrete II (CEES 5783), Design of Prestressed Concrete Structures & Laboratory (CEES 5793), Design of Post-Tensioned Structures (CEES 5020-027), Structural

Design-Composites (CEES 5020-901)

University of California at Los Angeles

Behavior and Design of Reinforced Concrete Structural Elements (C&EE 243A), Design of Prestressed Concrete Structures (C&EE 143), Structural Loads and Safety for Civil Structures (C&EE 244), Structural Dynamics Laboratory (C&EE 137L), Introduction to Mechanics of Deformable Solids (C&EE 108)

Advising Students and Post-Doctoral Researchers

Seoul National University

Hyeongyeop Shin, Post-Doc., 2024-Present

Hamidreza Alinezhad (from Iran), Post-Doc., 2022-2023, Currently Researcher at Seoul National University

Seung Yong Jeong, Post-Doc., 2022-2023, Currently Senior Researcher of GEST ENG

Donghyuk Jung, Post-Doc., 2019, Currently Associate Professor of Civil, Environmental and Architectural Engineering at Korea University

Sanghee Kim, Post-Doc., 2018-2020, Currently Associate Professor of Architectural Engineering at Kyonggi University

Seongwon Hong, Post-Doc., 2014-2017, Currently Associate Professor of Safety Engineering at Korea National University of Transportation

YeongAe Heo, Post-Doc., 2013-2014, Currently Senior Researcher of Sandia National Laboratories, NM, USA

Woosuk Kim, Post-Doc., 2013-2013, Currently Professor of Architectural Engineering at Kumoh National Institute of Technology

Juhee Lee, PhD dissertation, 2025-Present

Yeong In Lee, PhD dissertation, 2024-Present

Seonhyeong Kim, PhD dissertation, 2023-Present

Man Woo Kim, PhD dissertation, 2023-Present

Han Sol Lee, PhD dissertation, 2023-Present

Sol-Gi Eun, PhD dissertation, 2022-Present

Seung Heon Lee, PhD dissertation, 2022-Present

Hyeonsik Choi, PhD dissertation, 2019-Present

Suhyun Park, PhD dissertation, 2021-Present

DongHyeok Lee, PhD dissertation, 2021-Present

Min Kyu Kim, PhD dissertation, 2019-Present

Han Suk Sung, PhD dissertation, 2018-2025, Currently Post-Doc. at Seoul National University

Byeonguk Ahn, PhD dissertation, 2018-2025, Currently Researcher at GEST ENG

Seong Ryong Ahn, PhD dissertation, 2018-2025, Currently Post-Doc. at Kyonggi University

Hafshah Salamah (from Indonesia), PhD dissertation, 2021-2024, Currently Assistant Professor at Bandung Institute of Technology, Bandung, Indonesia

Tse-An Chou (from Taiwan), PhD dissertation, 2020-2023, Currently Engineer at Ove Arup Korea

Hyeongyeop Shin, PhD dissertation, 2018-2023, Currently Post-Doc. at Seoul National University Seung Yong Jeong, PhD dissertation, 2017-2022, Currently Senior Researcher at GEST ENG

Hamidreza Alinezhad (from Iran), PhD dissertation, 2017-2022, Currently Researcher at Seoul National University

Andrew Nghiem (from USA), PhD dissertation, 2017-2021, Currently Researcher of Engineering Science Center at Sandia National Laboratories, NM, USA

Fahimeh Yavartanoo (from Iran), PhD dissertation, 2016-2021, Currently Adjunct Assistant Professor at City College of New York, NY, USA

Ah Sir Cho, PhD dissertation, 2014-2020, Currently Associate Professor of Living and Environmental Engineering at Dongyang Mirae University

Sanghee Kim, PhD dissertation (Aug. 2018), 2014-2018, Currently Associate Professor of Architectural Engineering at Kyonggi University

Tao Liu (from China), Exchange PhD student, 2015-2016, Currently Associate Professor of Civil Engineering at Hunan University of Science and Technology, Xiangtan, China

Adriana Valerieva Taskova (from Bulgaria), Exchange PhD student, 2014-2015

Saba Hejazi (from Iran), Exchange PhD student, 2023

Ruiqing Han (from China), Exchange PhD student, 2024-Present

Seungwon Chang, MS thesis, 2025-Present

Hyungyu Park, MS thesis, 2024-Present

Bin Dockko, MS thesis, 2024-Present

Yechan Sung, MS thesis, 2024-Present

Chaeyun Ahn, MS thesis, 2024-Present

Kwanwoo Lee, MS thesis, 2023-2025

Seunghyun Lee, MS thesis, 2023-2025

Jongwon Hong, MS thesis, 2023-2025

Chanho Kim, MS thesis, 2022-2024

Giwan Noh, MS thesis, 2022-2024

Man Woo Kim, MS project, 2021-2023

Han Sol Lee, MS thesis, 2021-2023

Sangmin Lee, MS thesis, 2021-2023

Seung Heon Lee, MS thesis, 2020-2022

Si Young Park, MS thesis, 2020-2022

Suhyun Park, MS thesis, 2019-2021

Gabriela Renee Martinez Lara (from Mexico), MS thesis, 2019-2021

Pauline Lam (from France), MS thesis (Dual degree with Ecole des Mines de Saint-Etienne (EMSE)), 2019-2021

Hyeong-Seok Oh, MS thesis, 2019-2021

DongHyeok Lee, MS thesis, 2019-2021

Kyungmin Kim, MS thesis (Aug. 2018), 2016-2018

Sohyun Moon, MS thesis (Aug. 2018), 2012-2018

Hyeongyeop Shin, MS thesis (Feb. 2018), 2016-2018

Joon-Ki Hong, MS thesis (Feb. 2018), 2016-2018

Seung Yong Jeong, MS thesis (Aug. 2017), 2015-2017

Joo-Hong Lee, MS thesis (Aug. 2017), 2015-2017

Minsun Lee, MS thesis (Feb. 2017), 2015-2017

Suhyun Ree, MS thesis (Feb. 2015), 2014-2016

Byung Un Kwon, MS thesis (Feb. 2015), 2014-2016

Ju Dong Lee, MS thesis (Aug. 2015), 2013-2015

Marta Gil Pérez (from Spain), MS thesis (Feb. 2015), 2013-2015

Dong Joo Lee, MS thesis (Feb. 2014), 2012-2014

Sanghee Kim, MS thesis (Feb. 2014), 2012-2014

Amy Loi Hui Chai, REU student (from Malaysia), 2015-2015

Aleisha Best, REU student (from U.K.), 2014-2015

Luiza Soares Guimaraes, REU student (from Brazil), 2013-2014

Kansas State University

Sam Weinhold, MS thesis, 2024-2025 (co-advised by Dr. Christopher A. Jones)

University of Illinois at Urbana-Champaign

Jae Ho Shin, MS thesis, 2016-2017 (co-advised by Dr. James M. LaFave)

The University of Oklahoma

Lisa Holliday, Post-Doc., 2009-2010 (co-advised by Dr. Kyran D. Mish), Formerly Associate Professor of Construction Science at the University of Oklahoma

Yu Huang, PhD dissertation (Aug. 2012), 2010-2012, Currently Senior Structural Engineer of Alan Margolin & Associates, P.C., New York, NY

Woosuk Kim, PhD dissertation (Aug. 2011), 2008-2011, Currently Professor of Architectural Engineering at Kumoh National Institute of Technology

Moustapha Ibrahim Ary, MS thesis (Dec. 2011), 2009-2011

Amy Hufnagel, MS thesis (Aug. 2011), 2009-2011

Kah Mun Lam, MS thesis (May 2010), 2008-2010

Randy D. Martin, MS thesis (May 2009), 2007-2009 (co-advised by Dr. Jin-Song Pei)

Paul Böer, MS project (May 2012), 2010-2012 (co-advised by Dr. Lisa Holliday)

Katy McNeil, MS project (May 2012), 2011-2012

Thanh Min Ngo, MS project (May 2011), 2009-2011

Joe Howell, MS project (May 2011), 2009-2011

Christopher Hill, MS project (May 2011), 2009-2011

Yu Huang, MS project (May 2010), 2008-2010

Kyu Kim, MS project (May 2010), 2008-2010

Dhaval Mehta, MS project (May 2010), 2008-2010

Geeta Ashabi, MS project (May 2010), 2007-2010

Amy Backel, MS project (Special Topics), 2011

Diana Lucero, BS student, 2010-2011; REU student (OU), 2010

Yonathan Reches, BS student (May 2010), 2009-2010 (co-advised by Dr. Chris Ramseyer)

Kah Mun Lam, BS student (May 2009), 2008-2009

Michael Van Zandt, BS student (May 2010), 2009-2010; REU student (OU), 2009

Deanna Quickle, REU student (from Stony Brook University, Stony Brook), 2011

Caroline Weston, REU student (from Southwestern University, Georgetown), 2011

Kate Turner, REU student (from Massachusetts Institute of Technology, Cambridge), 2010 Jenny Bergen, REU student (OU), 2010

Jean-Luc D'Abreau, REU student (from Cal Poly State Univ., San Luis Obispo), 2010 Saagar Patel, REU student (from Illinois Institute of Technology, Chicago), 2008

John Paul Badasci, REU student (from Austin Peay State University, Clarksville), 2008

Advising Undergraduate Student Activities

Nomination of Undergraduate Graduation Honor Recipient, Juhee Lee, from Korea Concrete Institute, 2025.

Nomination of Korean Association for Spatial Structures President Awardee for Hyuk-Jin Kwon in Structural Design Competition of Korean Structural Engineers Association (KSEA), 2024

Nomination of Undergraduate Graduation Honor Recipient, Hyuk-Jin Kwon, from Korea Concrete Institute, 2024.

Nomination of Undergraduate Graduation Honor Recipient, Seon Hyung Kim, from Korea Concrete Institute, 2022.

Nomination of Undergraduate Graduation Honor Recipient, Jong Hun Ahn, from Korea Concrete Institute, 2021.

Silver Medal Winner for KyuRim Lee and JeongYun Lee in Structural Design Competition of Korean

- Structural Engineers Association (KSEA), 2020
- Nomination of Undergraduate Graduation Honor Recipient, Cheng Woan Ling, from Korea Concrete Institute, 2020.
- Nomination of Gold Collar Engineering Student Prize Recipient, Suhyun Park, from Korean Society for Engineering Education, 2019
- Nomination of National Disaster Management Research Institute President Awardee (Second Place), Suhyun Park in 2019 Smart Earthquake Countermeasure Idea Competition, from National Disaster Management Research Institute, 2019
- Best Undergraduate Student Paper Award Recipient, Seong Ryong Ahn, from Architectural Institute of Korea (AIK), 2018
- Best Undergraduate Student Paper Award Recipient, Joo Hong Lee, from Architectural Institute of Korea (AIK), 2015
- Prize of Encouragement for Joo Hong Lee in Structural Design Competition of Korean Structural Engineers Association (KSEA), 2014
- Bronze Medal Winner for Woo Hyeon Shim, Yongsung Lim, and Jong Hwa Lee in Structural Design Competition of Korean Structural Engineers Association (KSEA), 2013

Nomination of PTI Edward K. Rice Memorial Scholarship Recipient, Amy Hufnagel, 2011

Nomination of OK-LSAMP Scholarship Recipient, Diana Lucero, 2010

Nomination of ACI Concrete Projects Competition Third Place Winner, Yonathan Reches, 2009

Nomination of Oklahoma Traffic Engr. Scholarship Recipient, Jessica Prince, 2009

Undergraduate Research Opportunities Program Award Recipient, Amy Hufnagel, 2009

Undergraduate Research Opportunities Program Award Recipient, Randy Martin, 2008

Third Place Winner in Zone 2 for Amy Hufnagel, Colin Osborne, Chris Hill and Moustapha Ibrahim Ary in PCI Engineering Student Design Competition, 2011

- First Place Winner in Zone 2 and Seventh Place Winner in the National Competition for Joe Howell, Woosuk Kim, Jenny Bergen & Joseph Tuttle in PCI Engineering Student Design Competition, 2010
- Fourth Place Winner in Zone 2 for Chris Davis, Yu Huang, Randy Martin, Victor Njiru, & Shelby Pankop in PCI Engineering Student Design Competition, 2009
- Rank #1 in both State and National Levels in Division 2 for JV 2008 TEAM+S Students, TEAM+S Competition, Oklahoma School of Science and Mathematics, 2008

Patent Registration

- "Wind Load Estimation System Based on Artificial Intelligence," PCT– The International Patent System, 2023 (70% credits; with 1 co-patent inventor)
- "AI-Based Defect Detection System inside Concrete Members," PCT- The International Patent System, 2023 (70% credits; with 1 co-patent inventor)
- "AI-Based Defect Detection System inside Concrete Members," Korea, 2023 (70% credits; with 1 copatent inventor)
- "Generation Method of Time History Directional Wind Load Using Skewness," Korea, 2022 (70% credits; with 1 co-patent inventor)
- "Generation Method of Time History Directional Wind Load Using Skewness," PCT– The International Patent System, 2021 (70% credits; with 1 co-patent inventor)
- "Generation Method of Time History Directional Wind Loads Considering Coherence," Korea, 2022 (70% credits; with 1 co-patent inventor)
- "Generation Method of Time History Directional Wind Loads Considering Coherence," PCT- The International Patent System, 2021 (70% credits; with 1 co-patent inventor)
- "Precast Concrete System with Wall and Rahmen Type," Korea, 2021 (50% credits; with 1 co-patent inventor)
- "Connector for PC Slab and Connection Structure of PC Slab Using the Same," Korea, 2021 (50% credits; with 1 co-patent inventor)
- "Generation of Time History Directional Wind Loads Considering Coherence and Maximum Load Ratio," U.S.A., 2023 (70% credits; with 1 co-patent inventor)
- "Generation of Time History Directional Wind Loads Considering Coherence and Maximum Load Ratio," Korea, 2022 (70% credits; with 1 co-patent inventor)
- "Generation of Time History Directional Wind Loads Considering Coherence and Maximum Load Ratio,"

- PCT– The International Patent System, 2021 (70% credits; with 1 co-patent inventor)
- "Modular PC Slab for Vibration Reduction," Korea, 2021 (50% credits; with 1 co-patent inventor)
- "Modular PC Slab for Vibration Reduction," PCT- The International Patent System, 2020 (50% credits; with 1 co-patent inventor)
- "Variable Assembly PC Member," Korea, 2019 (70% credits; with 2 co-patent inventors)
- "Variable Assembly PC Member," PCT- The International Patent System, 2020 (70% credits; with 2 copatent inventors)
- "High-Frequency Force Integrated Wind Tunnel Test Apparatus," U.S.A., 2023 (70% credits; with 2 copatent inventors)
- "High-Frequency Force Integrated Wind Tunnel Test Apparatus," PCT- The International Patent System, 2021 (70% credits; with 2 co-patent inventors)
- "High-Frequency Force Integrated Wind Tunnel Test Apparatus," Korea, 2019 (70% credits; with 2 copatent inventors)
- "Joint of PC Beam-Column," PCT- The International Patent System, 2020 (35% credits; with 2 co-patent inventors)
- "Joint of PC Beam-Column," Korea, 2019 (35% credits; with 2 co-patent inventors)
- "Automatic Determination of Method and System of Design Wind Speed based on Artificial Intelligence," Canada, 2023 (70% credits; with 2 co-patent inventors)
- "Automatic Determination of Method and System of Design Wind Speed based on Artificial Intelligence," PCT – The International Patent System, 2019 (70% credits; with 2 co-patent inventors)
- "Automatic Determination of Method and System of Design Wind Speed based on Artificial Intelligence," Korea, 2019 (70% credits; with 2 co-patent inventors)
- "Joint of PC Column Using Steel Block," Korea, 2019 (50% credits; with 1 co-patent inventor)
- "Apparatus for Measuring Stress Corrosion of Prestressing Tendons," Korea, 2019 (75% credits; with 2 co-patent inventors)
- "Stand-alone PC Column Joint," Brazil, 2024 (100% credits; with 1 co-patent inventor)
- "Stand-alone PC Column Joint," Switzerland/Riechenstein, 2023 (50% credits; with 1 co-patent inventor) "Stand-alone PC Column Joint," Ireland, 2023 (50% credits; with 1 co-patent inventor)
- "Stand-alone PC Column Joint," EU (UP), 2023 (50% credits; with 1 co-patent inventor)
- "Stand-alone PC Column Joint," U.S.A., 2022 (50% credits; with 1 co-patent inventor)
- "Stand-alone PC Column Joint," Korea, 2018 (50% credits; with 1 co-patent inventor)
- "Stand-alone PC Column Joint," PCT The International Patent System, 2018 (50% credits; with 1 co-patent inventor)
- "Tendon Spacer for Post-Tensioning System and Construction Method of Tendon Using the Same," Korea, 2018 (70% credits; with 2 co-patent inventors)
- "Wind Vibration Control System," PCT The International Patent System, 2017 (70% credits; with 1 co-patent inventor)
- "Wind Vibration Control System," Korea, 2018 (70% credits; with 1 co-patent inventor)
- "Streamline Shaped Post-Tensioned Anchor with Arched Gussets and Its Post-Tensioning Construction Method," Korea, 2018 (34% credits; with 3 co-patent inventors)
- "Device and Method for Separating Wedge," Korea, 2016 (70% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Mexico, 2022 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Brazil, 2022 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Spain, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," France, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Switzerland, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," UK, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Germany, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Italy, 2021 (50% credits; with 1 co-patent inventor)

- "System for Controlling of Prestressing Force in Post-Tension Method," Canada, 2021 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," EU, 2020 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Australia, 2020 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," China, 2020 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method Additional Claims," U.S.A., 2020 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," U.S.A., 2018 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," PCT The International Patent System, 2016 (50% credits; with 1 co-patent inventor)
- "System for Controlling of Prestressing Force in Post-Tension Method," Korea, 2016 (50% credits; with 1 co-patent inventor)
- "An Apparatus for Testing Impact Resistance," Germany, 2024 (70% credits; with 1 co-patent inventor)
- "An Apparatus for Testing Impact Resistance," PCT The International Patent System, 2016 (70% credits; with 1 co-patent inventor)
- "An Apparatus for Testing Impact Resistance," Korea, 2016 (70% credits; with 1 co-patent inventor)
- "Structure and Method for Connecting between Precast Column and In-situ Concrete Slab," Korea, 2014 (50% credits; with 4 co-patent inventors)
- "Anchor Nut," Thailand, 2020 (50% credits; with 1 co-patent inventor)
- "Anchor Nut," Korea, 2014 (50% credits; with 1 co-patent inventor)
- "Anchor Nut," PCT The International Patent System, 2013 (50% credits; with 1 co-patent inventor)

Software Registration

- "AI-Powered Building Interior Defect Detection Program," Korea, 2024 (50% credits; with 1 co-inventor)
- "Analysis Program for Concrete Members," Korea, 2017 (50% credits; with 1 co-inventor)
- "Script to Generate Shell Structures," Korea, 2015 (50% credits; with 1 co-inventor)

Design Registration

- "Reinforcing Bar Coupler (Design Patent)," US Design Patent, 2024 (50% credits; with 1 co-patent inventor)
- "A Set of Rebar Connector (Design Patent)," Korea, 2019 (50% credits; with 1 co-design patent inventor)

Plenary/Keynote Speeches for International Conferences

- Keynote Speech, "Maximizing Carbon Neutrality and Circularity," The 2025 International Conference on 6th Engineering Education and Innovation (ICEEI 2025), Jakarta, Indonesia, Dec. 2025.
- Keynote Speech, "The Fifth Construction Element: Recycled Plastics," International Forum of the National Assembly of Korea, Seoul, Korea, July 2025.
- Keynote Speech, "Innovative Wind Design for Skyscraper," The 2023 6th International Conference on Civil Engineering and Architecture (ICCEA 2024), Danang, Vietnam, Dec. 2024.
- Keynote Speech, "Performance Based Wind Design Using Computational and AI Techniques," The 2024 World Congress on Advances in Civil, Environmental, and Materials Research (ACEM24), Seoul, Korea, Aug. 20242.
- Keynote Speech, "Architecture and Architectural Engineering: Sharing Korean and Personal Experience," The 2023 6th International Conference on Civil Engineering and Architecture (ICCEA 2023), Bali, Indonesia, Dec. 2023.
- Plenary Speech, "Impact Resistance Performance of One-way and Two-way Unbonded Post-Tensioned Concrete Members," 2nd Edition of Civil, Architectural and Environmental Engineering Virtual (V-CAEE2023), May 2023.
- Keynote Speech, "VR/AR Application in Engineering Research and Education," The 2022 International

- Conference on 4th Engineering Education and Innovation (ICEEI 2022), Hanoi, Vietnam, Dec. 2022.
- Keynote Speech, "Applications of Remote & Real-Time Sensing, Artificial Intelligence, and Edge Computing in Structural/Wind Engineering," The 2022 World Congress on Advances in Civil, Environmental, and Materials Research (ACEM22), Seoul, Korea, Aug. 2022.
- Keynote Speech, "Minimizing Environmental Impact of Precast Concrete Construction," HABITechno5 International Conference, Adaptive Technology for Resilient Human Settlement, Bandung, Indonesia, Nov. 2021. (Virtual)
- Keynote Speech, "Seismic Resistance of Precast Concrete Structures with Pure Dry Connection," The 2021 World Congress on Advances in Structural Engineering and Mechanics (ASEM21), Seoul, Korea, Aug. 2021.
- Keynote Speech, "Structural Restoration of Mireuksaji Stone Pagoda, South Korea's Oldest and Largest Stone Pagoda," The 2021 4th International Conference on Civil Engineering and Architecture (ICCEA 2021), Seoul, Korea, July 2021.
- Keynote Speech, "Engineering Education and Innovation for Industry 4.0," The 2020 International Conference on 2nd Engineering Education and Innovation (ICEEI 2020), Compiègne, France, Sept. 2020. (Virtual)
- Keynote Speech, "Performance-Based Wind Design and Nonlinear Dynamic Modeling Approach," The 2020 Structures Congress (Structures20), Seoul, Korea, Aug. 2020.
- Plenary Speech, "New Models, Experiments, and Facilities for Impact Resistance of Concrete Structures," The 13th International Conference on Shock & Impact Loads on Structures (SI19), Guangzhou, China, Dec. 2019.
- Keynote Speech, "Education, Research & Practical Innovation of IoT Technology in Building Construction," The 2018 International Conference on Civil Engineering and Architecture (ICCEA 2018), Chengdu, China, Oct. 2018.
- Keynote Speech, "Computational Design of Anticlastic Membrane Tension Structures," The 2018 Structures Congress (Structures18), Incheon, Korea, Aug. 2018.
- Keynote Speech, "Recent Advances in Computational Design and Analysis of Unbonded Post-Tensioned Concrete Structures," The 2016 World Congress on Advances in Civil, Environmental, and Materials Research (ACEM16), Jeju, Korea, Sept. 2016.

Book Publications

- 1. Kang, T.H.-K., Lee, S.H., and Jones, C., "Next Generation Concrete Containment Vessels," STP-NU-098, ASME Standards Technology, LLC and American Society of Mechanical Engineers, New York, NY, 2025, 39 pp.
- 2. Kang, T.H.-K. et al., "ACI/PTI CODE-320-25: Post-Tensioned Structural Concrete—Code Requirements and Commentary," American Concrete Institute and Post-Tensioning Institute, Farmington Hills, MI, 2025, 702 pp.
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- Kang, T.H.-K., "Tests on Delamination Behavior in Curved Concrete Walls of CPTS (Containment Post-Tensioning System)," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Design, ACI Spring 2024 Convention, Philadelphia, PA, Nov. 2024.
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- 14. Kang, T.H.-K., "Structural Performance of Geopolymer Concrete: Bond, Flexural, Shear and Axial," ACF-HKCI Joint Workshop, Hong Kong Polytechnic University, Hong Kong, Nov. 2023. (Virtual)
- 15. Kang, T.H.-K., Kim, K., and Kim, M.K., "Seismic Performance of Two Tower Buildings with Skybridge," The Taiwan-Korea-Japan Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Taiwan, Dec. 2024, pp. 247-256.
- 16. Kang, T.H.-K., "Recent Development of Performance-Based Wind Design for Tall Buildings," Invited Seminar, Structures Seminar Series, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, Nov. 2023.
- 17. Kang, T.H.-K., "Shear Strength of One-Way Prestressed Concrete Members," Presentation, Joint ACI-ASCE Committee 423, Prestressed Concrete, ACI Fall 2023 Convention, Boston, MA, Oct. 2023.
- 18. Kang, T.H.-K., "Architecture and Architectural Engineering: Sharing Korean and Personal Experience," Invited Seminar, Goff Chair of Creative Architecture, Christopher C. Gibbs College of Architecture, University of Oklahoma, Norman, OK, Oct. 2023.
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- 21. Kang, T.H.-K., "New Models, Experiments, Facilities, and Analyses for Impact Resistance of Concrete Structures," Invited Technical Seminar, Computational Shock Physics Group, Engineering Science Center, Sandia National Laboratories, Albuquerque, NM, Mar. 2023.
- 22. Kang, T.H.-K., "Recent Development of Performance-Based Wind Design of Tall Buildings," Invited Seminar, Department of Civil and Environmental Engineering, University of California at Los Angeles, Los Angeles, CA, Nov. 2023.
- 23. Kang, T.H.-K., "Seismic Performance of Precast and Prefabricated Systems," Invited Presentation, 8th International Webinar and 7th TAFTASH Webinar, Isfahan, Iran, May 2022. (Virtual)
- Kang, T.H.-K., "Shear Design Method of Prestressed Concrete Members under ACI 318 Code Provisions," Presentation, PTI Committee D-20, Building Design, PTI 2022 Convention, San Diego, CA, Apr. 2022.
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- 27. Kang, T.H.-K., "Study on the Effects of UHPC on Longitudinal Rebar Design of Concrete Containments," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, 2021 BPV III-2 Joint Committee Virtual Meeting, Oct. 2021. (Virtual)
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- 29. Park, S., and Kang, T.H.-K., "Fire Performance of Post-Tensioned One-Way Slab," 2021 PTI Virtual Convention, Apr. 2021. (Virtual)
- 30. Shin, H., and Kang, T.H.-K., "Durability, Tensioning, and Installation Methods of Greased Sheathed-Strand (GSS) Tendon," 2021 PTI Virtual Convention, Apr. 2021. (Virtual)
- 31. Ahn, S.R., and Kang, T.H.-K., "Hard and Soft Projectile Impact Simulation of Prestressed Concrete Panels," ACI Virtual Concrete Convention 2021, Mar. 2021. (Virtual)
- 32. Kang, T.H.-K., "Recent Advances in Post-Tensioned Concrete Research," Invited Seminar, Department of Civil and Environmental Engineering, University of Western Ontario, London, Canada, Feb. 2021. (Virtual)
- 33. Kang, T.H.-K., "Non-Contact AI Education in Seoul National University (SNU)," Invited Presentation, The IEEE ProComm Japan 2020 Symposium, Tokyo, Japan, Dec. 2020. (Virtual)
- 34. Kang, T.H.-K., "Shear Design Method of Prestressed Concrete Members under ACI 318 Code Provisions," Presentation, Joint ACI-PTI Committee 320, Post-Tensioned Structural Concrete Code, ACI Fall 2020 Convention, Rayleigh, NC, Oct. 2020. (Virtual)
- 35. Kang, T.H.-K., "Post-Tensioning Outrigger System," Invited Seminar, INAEP, Campinas, Brazil, June 2020. (Virtual)
- 36. Kang, T.H.-K., "Shear Design Method of Prestressed Concrete Members under ACI 318 Code Provisions," Presentation, ACI Subcommittee 318T, Post-Tensioned Concrete, ACI Spring 2020 Convention, Rosemont/Chicago, IL, Mar. 2020. (Virtual)

- 37. Kang, T.H.-K., Kim, S., Park, W.-S., and Yun, H.-D., "Cyclic Testing and Shear Strength of RC Coupling Beams with (l_n/h) of 2," The Taiwan-Korea-Japan Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Hsinchu, Taiwan, Dec. 2019, pp. 247-256.
- 38. Kang, T.H.-K., and Alinejad, H., "Tall Building Design for Wind," Presentation, Kang-Lombardo Wind Engineering Workshop, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, July 2019.
- 39. Shin, H, and Kang, T.H.-K., "Effects of Individual Strand Tensile Force Deviation on Structural Behavior of Post-Tensioned Beams," 17th International Conference on Computing in Civil and Building Engineering (ICCCBE 2018), Tampere, Finland, June 2018.
- 40. Kang, T.H.-K., and Yoon, I.-S., "Corrosion Tests of Greased and/or Grouted Strands and Unbonded Single-Strand Tendons Covered with/without Grout," 2018 PTI Convention, Minneapolis, MN, May 2018.
- 41. Kang, T.H.-K., "Behavior of Unbonded PT Continuous Beams with Internal Tendons," 2019 PTI Convention, Seattle, WA, May 2019.
- 42. Kang, T.H.-K., "Education Exchange between Seoul National University, University of Tokyo and Hong Kong University of Science and Technology" Presentation, School of Engineering, Hong Kong University of Science and Technology, Hong Kong, China, Feb. 2019.
- 43. Kang, T.H.-K., and Park, J.-H., "Measurement after Application of Low-Force Jack (i.e., Equitension Jack or Initial Arrangement Jack from Actual Nuclear Containment Construction," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Materials, Fabrication & Examination, ACI Fall 2018 Convention, Las Vegas, NV, Oct. 2018.
- 44. Kang, T.H.-K., "Practical Research on the Design of Tall Buildings Built or Planned in New York City, Los Angles & Seoul," Invited Seminar, School of Civil Engineering, Nazarbayev University, Astana, Kazakhstan, Oct. 2018.
- 45. Kang, T.H.-K., "Reinforcement Detailing and Design for Knee Joints," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, Task Group on Beam-Column Connections, ACI Spring 2018 Convention, Salt Lake City, UT, Mar. 2018.
- 46. Kang, T.H.-K., "Aircraft Impact on Concrete Target Using Finite Element Analysis Software," Proceedings, 25th International Conference on Engineering and Technology, Computer, Basics and Applied Sciences, Tokyo, Japan, Feb. 2018.
- 47. Kang, T.H.-K., "AC495 Proposed New Acceptance Criteria for Cold-formed Steel Structural Beams with Steel Angle Anchors Acting Compositely with Cast-in-Place Concrete Slabs," Presentation, ICC-ES Evaluation Committee Hearing, Los Angeles, CA, Feb. 2018.
- 48. Hong, J.-K., and Kang, T.H.-K., "Computational Analysis of Aircraft Impact on Concrete Panel," 3rd International Conference on Recent Trends in Computer Science and Electronics (RTCSE'18), Bangkok, Thailand, Jan. 2018.
- 49. Kang, T.H.-K., "Improvements in PC Provisions," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Materials, Fabrication & Examination, ASME BPV Code Week, Phoenix, AZ, Nov. 2017.
- 50. Kang, T.H.-K., and Park, J.-H., "Mock-Up Tests of Unbonded Single Strand Tendons for CPTS," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Materials, Fabrication & Examination, ASME BPV Code Week, Phoenix, AZ, Nov. 2017.

- 51. Kang, T.H.-K., "Inconsistencies Regarding Prestressed Concrete Provisions in ACI-ASME 359 Code," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Materials, Fabrication and Examination, ACI Spring 2017 Convention, Detroit, MI, Mar. 2017.
- 52. Kang, T.H.-K., "Inconsistencies Regarding Prestressed Concrete Provisions in ACI-ASME 359 Code," Presentation, Joint ACI Committee 349, Concrete Nuclear Structures, Working Group A, Nuclear Structures–Materials, ACI Fall 2016 Convention, Philadelphia, PA, Oct. 2017.
- 53. Kang, T.H.-K., "Design and Analysis of Reinforced Concrete Structures and Tall Buildings," Invited Seminar, School of Civil Engineering, Harbin Institute of Technology, Harbin, China, Jan. 2017.
- 54. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures," Invited Seminar, Lyles School of Civil Engineering, Purdue University, West Lafayette, IN, Dec. 2016.
- 55. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures," Invited Seminar, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, Dec. 2016.
- 56. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures Fundamentals," Invited Seminar, Department of Civil Engineering and Construction, Bradley University, Peoria, IL, Dec. 2016.
- 57. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures," Invited Seminar, Department of Civil, Architectural & Environmental Engineering, Missouri University of Science and Technology, Rolla, MO, Nov. 2016.
- 58. Kang, T.H.-K., and Park, J.-H., "Full-Scale Mock-Up Tests of Nuclear Containment with HDPE-Coated Unbonded Tendons," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Materials, Fabrication & Examination, ASME BPV Code Week, St. Louis, MO, Nov. 2016.
- 59. Kang, T.H.-K., and Park, J.-H., "Unbonded Grouted Multistrand Tendons for PT Nuclear Containment Structures Installation and Grouting," Presentation, Joint PTI Committee, M-50, Bonded Tendon, PTI/ASBI Committee Meeting, Long Beach, CA, Nov. 2016.
- 60. Kang, T.H.-K., and Park, J.-H., "Full-Scale Mock-Up Tests of Nuclear Containment with HDPE-Coated Unbonded Tendons," Presentation, Joint ACI Committee 349, Concrete Nuclear Structures, Working Group B, Nuclear Structures—Design, ACI Fall 2016 Convention, Philadelphia, PA, Oct. 2016.
- 61. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures," Invited Seminar, Department of Civil & Environmental Engineering, Michigan State University, East Lansing, MI, Oct. 2016.
- 62. Kang, T.H.-K., "Computational Design of Unbonded Post-tensioned Concrete Structures," Invited Seminar, Department of Civil & Environmental Engineering, University of Michigan, Ann Arbor, MI, Oct. 2016.
- 63. Kang, T.H.-K., and Yoon, J.K., "High-Rise Belt Wall System with Post-Tensioned Slab," Invited Seminar, Rosenwasser/Grossman Consulting Engineers, P.C., New York, NY, July 2016.
- 64. Kang, T.H.-K., and Yoon, J.K., "High-Rise Belt Wall System with Post-Tensioned Slab," Invited Seminar, Magnusson Klemencic Associates, Seattle, WA, July 2016.

- 65. Kang, T.H.-K., "Mock-Up Tests of Containment Post-Tensioning System (CPTS) for Nuclear Prestressed Concrete Structures," Presentation, PTI Committee M-55, Grouting, PTI 2016 Convention, Long Beach, CA, Apr. 2016.
- 66. Kang, T.H.-K. "Design, Modeling, and Monitoring Considerations for PT Building Structures," 2016 PTI Convention, Long Beach, CA, Apr. 2016.
- 67. Kang, T.H.-K., "Mock-Up Tests of Containment Post-Tensioning System (CPTS) for Nuclear Prestressed Concrete Structures," Presentation, Joint ACI-ASME Committee 359, Concrete Containments for Nuclear Reactors, Working Group on Design, ACI Spring 2016 Convention, Milwaukee, WI, Apr. 2016.
- 68. Kang, T.H.-K., "Construction of Prestressed Concrete Nuclear Containments and Their Mock-Up Tests," Presentation, Joint ACI-ASCE Committee 423, Prestressed Concrete, ACI Spring 2016 Convention, Milwaukee, WI, Apr. 2015.
- 69. Kang, T.H.-K., "Practical Application of Self-Monitoring Unbonded Smart Tendons and Cost-Effective Anchors in a Real-World Post-Tensioned Building," Invited Seminar, Department of Civil & Environmental Engineering, National University of Singapore, Singapore, Feb. 2016.
- 70. Kang, T.H.-K., "Application of Novel Unbonded Smart Tendons and Anchors for Real-World Post-Tensioned Concrete Structures," Invited Seminar, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore, Feb. 2016.
- 71. Kang, T.H.-K. "Research on Extreme Loads and Materials/Structures under Extreme Loads," 2015–EXTREME International Colloquium on Engineering Structures for Extreme Loads, Department of Civil Engineering, Nanjing Tech University, Nanjing, China, Dec. 2015.
- 72. Kang, T.H.-K., "Development, Verification and Application of a New Unbonded Post-Tensioned Anchor for the In-situ Building Structures," Invited Seminar, Department of Civil Engineering, Nanjing Tech University, Nanjing, China, Nov. 2015.
- 73. Kang, T.H.-K., "Cyclic Tests of Monolithic Post-Tensioned Beam-Column Connections," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2015 Convention, Denver, CO, Nov. 2015.
- 74. Kang, T.H.-K., "Cyclic Tests of RC Slab-Column Connections with Shearbands," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2015 Convention, Denver, CO, Nov. 2015.
- 75. Kang, T.H.-K., "Study of Steel Link Beam to Precast Concrete Wall Connection in Fast-Track Construction," Presentation, ACI Committee 335, Composite and Hybrid Structures, ACI Fall 2015 Convention, Denver, CO, Nov. 2015.
- 76. Kang, T.H.-K., "Impact Resistance of RC, SFRC & UHPC Panels," 2015 China-Korea Bi-lateral Workshop on Structural Behavior under Extreme Loads (SBEL 2015), Changsha, China, Sept. 2015.
- 77. Kang, T.H.-K., Cho, A.S., and Kwon, B.U., "Performance of Post-Tensioned Anchors and Post-Tensioned Beam-Column Joints," The Taiwan-Korea-Japan Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Tokyo, Japan, Sept. 2015, pp. 247-256.
- 78. Gil Pérez, M., Sin, I., Kim, S., and Kang, T.H.-K., "Nonlinear Analysis of the Seoul Southwestern Baseball Dome," 11th Asian Pacific Conference on Shell and Spatial Structures (APCS 2015), Xi'an, China, May 2015.
- 79. Kang, T.H.-K., "Practical Research on the Design of Tall Building Built or Planned in New York City and Los Angeles," Invited Seminar, Cardno Haynes Whaley, Houston, TX, Apr. 2015.

- 80. Kang, T.H.-K., "Seismic Behavior of Reinforced, Precast, and Post-Tensioned Concrete Beam-Column Joints," Invited Special Seminar, Department of Civil & Environmental Engineering, University of Houston, Houston, TX, Apr. 2015.
- 81. Kang, T.H.-K., "Hybrid Effects of Carbon-Glass Fiber-Reinforced Polymer (FRP) Composites Combined with Concrete," Invited Seminar, College of Civil Engineering, Hunan University, Changsha, China, Apr. 2015.
- 82. Kang, T.H.-K. "Seismic Performance of Post-Tensioned Concrete Special Moment Frames," 2015 PTI Convention, Houston, TX, Apr. 2015.
- 83. Yoon, J.-K., and Kang, T.H.-K. "Post-Tensioned Transfer Slab in Vertically Irregular Building," 2015 PTI Convention, Houston, TX, Apr. 2015.
- 84. Kang, T.H.-K., Lee, J.D., Yoon, J.-K., and Shin, K.-J., "Viable Options as Possible Concrete Floor Systems for Basement Parking Structures," The 2014 International Conference of Engineering and Natural Science (ICENS 2015), Bangkok, Thailand, Jan. 2015.
- 85. Kang, T.H.-K., "Reinforced Slab-CFT Column Connections with Shearheads," Presentation, ACI Committee 335, Composite and Hybrid Structures, ACI Spring 2014 Convention, Reno, NV, Mar. 2014.
- 86. Kang, T.H.-K., "Modeling Parameters for Reinforced Concrete Slab-Column Connections," Session, Seismic Assessment of Existing Reinforced Concrete Buildings New Developments, Part 1 of 3, ACI Spring 2014 Convention, Reno, NV, Mar. 2014.
- 87. Kang, T.H.-K., "Updates of Activities: KCI and ACF 2014," Session, ACI International Forum, ACI Spring 2014 Convention, Reno, NV, Mar. 2014.
- 88. Kang, T.H.-K., "Seismic Behavior of Reinforced, Precast and Post-Tensioned Concrete Beam-Column Joints," Invited Seminar (Distinguished Lecture Series), College of Civil Engineering, Hunan University, Changsha, China, Dec. 2013.
- 89. Kang, T.H.-K., "Bi-Directional Lateral Behavior of Post-Tensioned Corner Slab-Column Connections," The Korea-Japan-Taiwan Joint Seminar on Earthquake Engineering for Building Structures (SEEBUS), Taipei, Taiwan, Nov. 2013.
- 90. Kang, T.H.-K., "Task Group Updates on Modeling Parameters of Slab-Column Connections," Presentation, ACI Committee 369, Seismic Repair and Rehabilitation, ACI Fall 2013 Convention, Phoenix, AZ, Oct. 2013.
- 91. Kang, T.H.-K., "Seismic Performance of Precast and Post-Tensioned Concrete Beam-Column Joints," Invited Seminar, Department of Civil and Architectural Engineering, City University of Hong Kong, Hong Kong, China, July 2013.
- 92. Kang, T.H.-K. "Corner Connections in PT Flat Plate Buildings," 2013 PTI Convention, Scottsdale, AZ, May 2013.
- 93. Kang, T.H.-K., Kim, Y., and Yoon, J. K., "Recent Developments of PT Research in Korea," 2013 PTI Convention, Scottsdale, AZ, May 2013.
- 94. Kang, T.H.-K., "Seismic Behavior of Headed Bars in Beam-Column Joints," Presentation, ACI Committee 318H, Seismic Provisions, ACI Fall 2012 Convention, Toronto, Canada, Oct. 2012.

- 95. Kang, T.H.-K., "Minimum Clear Spacing between Headed Bars in Beam-Column Joints," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2012 Convention, Toronto, Canada, Oct. 2012.
- 96. Kang, T.H.-K., "Practical Research in Tall High-Rise Buildings in the U.S.," Session, International-Level Research, Practice and Partnerships, Part 3 of 3 Mega-structures, ACI Fall 2012 Convention, Toronto, Canada, Oct. 2012 (Posted in ACI Web Session and YouTube).
- 97. Kang, T.H.-K., "A Need for Updates of ACI 318 Shearhead Provisions," Presentation, ACI Committee 335, Composite and Hybrid Structures, ACI Fall 2012 Convention, Toronto, Canada, Oct. 2012.
- 98. Kang, T.H.-K., "Shrinkage-Compensating Concrete," PTI Committee DC-20, Building Design, PTI 2011 Convention, Nashville, TN, May 2012.
- 99. Kang, T.H.-K. "Post-Tensioned Buildings in Korea," 2012 PTI Convention, Nashville, TN, May 2012.
- 100. Kang, T.H.-K., and Huang, Y., "Computer Modeling of Post-Tensioned Structures," 2012 4th International Conference on Computer Modeling and Simulation, Hong Kong, China, Feb. 2012.
- 101. Kang, T.H.-K., "Hybrid Effects of Carbon-Glass Fiber-Reinforced Polymer Sheets Combined with Concrete," Invited Seminar, Department of Civil and Environmental Engineering, Hong Kong University of Science and Technology, Hong Kong, China, Feb. 2012.
- 102. Kang, T.H.-K., and Tian, Y., "Issues with Slab-Column Connection Modeling," Presentation, ACI Committee 369, Seismic Repair and Rehabilitation, ACI Fall 2011 Convention, Cincinnati, OH, Oct. 2011.
- 103. Kang, T.H.-K., Backel, A., and Maingot, M., "Potential LEED Considerations for Post-Tensioned Concrete Structures," Session, Achieving Sustainability with Prestressed Concrete, ACI Fall 2011 Convention, Cincinnati, OH, Oct. 2011.
- 104. Kang, T.H.-K., and Park, H.-G., "Performance of Reinforced Concrete Slab-Column Connections with Shearbands," Session, Recent Development in Reinforced Concrete Slab Analysis, Design, and Serviceability, ACI Fall 2011 Convention, Cincinnati, OH, Oct. 2011.
- 105. Quickle, D., Weston, C., Ibrahim Ary, M., and Kang, T.H.-K "Shear Testing of Prestressed Concrete Beams Strengthened with CFRP," 2011 OTC Summer Symposium, Midwest City, OK, July 2011.
- 106. Kang, T.H.-K. "Repair and Retrofit of Concrete Beams Using Hybrid Carbon-Glass FRP Sheets," 2011 OTC Summer Symposium, Midwest City, OK, July 2011.
- 107. Kang, T.H.-K. "Ten Plus Years of Concrete Research Experience," Invited Seminar, Department of Civil and Environmental Engineering, University of Washington, Seattle, WA, May 2011.
- 108. Kang, T.H.-K. "Grout-Bonded versus Unbonded Post-Tensioning Tendon Behavior in Concrete," The Post-Tensioning Institute's Conference and Exhibition, Kansas City, KS, May 2011.
- 109. Kang, T.H.-K., "Slab-Column Connections Task Group Updates," Presentation, ACI Committee 369, Seismic Repair and Rehabilitation, ACI Spring 2011 Convention, Tampa, FL, Apr. 2011.
- 110. Kang, T.H.-K., and Ramseyer, C, "Flexural Behavior of Circular Concrete-Filled Tubes with and without End Caps," Presentation, ACI Committee 335, Composite and Hybrid Structures, ACI Spring 2011 Convention, Tampa, FL, Apr. 2011.

- 111. Kang, T.H.-K., "Seismic Performance of Reinforced Concrete Beam-Column Joints with Headed Bars," Invited Seminar, Department of Civil Engineering, University of Arkansas, Fayetteville, AR, Feb. 2011.
- 112. Kang, T.H.-K., and Huang, Y., "Practical Applications of FE Analysis of Unbonded PT Concrete Slabs," Session, Practical Applications of Numerical Analysis, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 113. Kang, T.H.-K., and Shin, M., "Seismic Design of Reinforced Concrete Beam-Column Knee Joints," Session, Seismic Performance of Concrete Joints and Connections, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 114. Ramseyer, C., Kang, T.H.-K. and Probst, A., "Precast Concrete-Filled Tube Beams for Sustainable Construction," Session, Hybrid Systems for Sustainable Construction, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 115. Shin, M., Kang, T.H.-K., LaFave, J.M., and Grossman, J.S., "Design and Behavior of a Reinforced Concrete High-Rise Tube Building with Belt Walls," Session, Research in Progress, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 116. Kang, T.H.-K. and Park, H.-G., "Behavior of Shearbands in RC Slab-Column Connections," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 117. Kang, T.H.-K., "Seismic Design of RC Beam-Column Knee Joints with Headed Bars," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 118. Kang, T.H.-K., "Flexural Strengths of Full-Scale Concrete-Filled Tubes without Axial Loads," Presentation, ACI Committee 335, Composite and Hybrid Structures, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 119. Kang, T.H.-K., "ACI 369 Task Group Slab-Column Connections and Frames," Presentation, ACI Committee 369, Seismic Repair and Rehabilitation, ACI Fall 2010 Convention, Pittsburgh, PA, Oct. 2010.
- 120. Kang, T.H.-K, Kim, W., and Van Zandt, M. "Development and Anchorage of Headed Bars in Concrete Bridges," 2010 OTC Summer Symposium, Oklahoma City, OK, July 2010.
- 121. Kim, W., and Kang, T.H.-K. "Assessment of Shear Strength of Steel Fiber-Reinforced Lightweight Concrete Beams," 2010 OTC Summer Symposium, Oklahoma City, OK, July 2010.
- 122. Turner, K., D'Abreau, J.-L., Bergen, J., and Kang, T.H.-K. "An Experimental Study of Prestressed Self-Consolidating Concrete Beams," 2010 OTC Summer Symposium, Oklahoma City, OK, July 2010.
- 123. Kang, T.H.-K., "Experimental Concrete Research for the Development of ACI Standards & Technological Innovation," Invited Seminar, Department of Civil Engineering, Case Western Reserve University, Cleveland, OH, June 2010.
- 124. Kang, T.H.-K, and Huang, Y. "Nonlinear and Code Analyses of Post-Tensioned Slab-Column Connections," The Post-Tensioning Institute's Conference and Exhibition, Dallas, TX, May 2010.
- 125. Kang, T.H.-K., Kim, W., Lam, K.M., Kim, K., and Van Zandt, M., "Relief of Reinforcing Steel Congestion in Highway Concrete Bridges," Poster Presentation, OTC RITA Site Visit Day 2010, Norman, OK, Mar. 2010.

- 126. Kim, W., and Kang, T.H.-K., "Relief of Reinforcing Congestion in Highway Bridges Using Steel Fibers, Headed Bars & Self-consolidating Concrete," Poster Presentation, Student Research and Performance Day 2010, Norman, OK, Mar. 2010.
- 127. Kang, T.H.-K., Kim, W., and Choi, D.-U., "Fundamentals and Applications of Hybrid Fiber-Reinforced Polymers Combined with Concrete," Session, Frontiers in the Use of Polymers in Concrete, ACI Spring 2010 Convention, Chicago, IL, Mar. 2010.
- 128. Kang, T.H.-K., "Brief Task Group Updates Headed Reinforcement in Joints," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Spring 2010 Convention, Chicago, IL, Mar. 2010.
- 129. Kang, T.H.-K. "Sustainable Cast-in-Place Post-Tensioned Buildings," Invited Talk, Oklahoma Chapter of ACI, Oklahoma City, OK, Dec. 2009.
- 130. Kang, T.H.-K., and Kim, W. "Lightweight Concrete Beams with Steel Fiber Reinforcement," Session, Research in Progress, ACI Fall 2009 Convention, New Orleans, LA, Nov. 2009.
- 131. Kang, T.H.-K., Kim, W, Lam, K.M., Van Zandt, M., Patel, S., and Badasci, J.P., "Relief of Reinforcing Congestion in Highway Bridges Using Steel Fibers, Headed Bars and Self-Consolidating Concrete," Poster Presentation, 2009 ODOT-OTC Research Day, Oklahoma City, OK, Oct. 2009.
- 132. Kang, T.H.-K., "Bond and Anchorage of Headed Bars in Reinforced Concrete Beam-Column Joints," NEES Parallel Sessions, Large-Scale Experimental Research, NEES 7th Annual Meeting: Seismic Mitigation in a Flat World, Honolulu, HI, June 2009.
- 133. Kang, T.H.-K., "Lateral Load Analysis and Design of PT Slab-Column Connections," Technical Session #2 Innovative PT Building/Parking Structure Design, The Post-Tensioning Institute's Conference and Exhibition, Portland, OR, May 2009.
- 134. Kang, T.H.-K., "Headed Bars Anchored in Reinforced Concrete Beam-Column Connections," Invited Seminar, Department of Civil, Environmental and Architectural Engineering, University of Kansas, Lawrence, KS, Apr. 2009.
- 135. Kang, T.H.-K., "Headed Bars Anchored in Beam-Column Connections," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2008 Convention, St. Louis, MO, Nov. 2008.
- 136. Kang, T.H.-K., "Headed Bars Anchored in Beam-Column Connections," Invited Seminar, Department of Civil, Architectural and Environmental Engineering, University of Texas, Austin, TX, Oct. 2008.
- 137. Kang, T.H.-K., "Headed Bars Anchored in Beam-Column Connections," Invited Seminar, Department of Civil Engineering, Texas A&M University, College Station, TX, Oct. 2008.
- 138. Kang, T.H.-K., Kim, W, Lam, K.M., Badasci, J.P., and Patel, S.M., "Relief of Steel Congestion in Beams and Bent Caps of Concrete Bridges," Poster Presentation, 2008 ODOT-OTC Research Day, Oklahoma City, OK, Oct. 2008.
- 139. Kang, T.H.-K., "Design Recommendations for PT Slab-Column Connections under Lateral Loads," Technical Session #2 Building Design, The Post-Tensioning Institute's Conference and Exhibition, St. Louis, MO, May 2008.
- 140. Martin, R.D., Pei, J.-S., and Kang, T.H.-K., "Estimation of Span-varying Stiffness and Prestressing Stress of a Real-World Prestressed Concrete Bridge Girder," Open Paper Session, ACI Spring 2008 Convention, Los Angeles, CA, Apr. 2008.

- 141. Kang, T.H.-K., "Review of Reversed Cyclic Tests of B-C Joints with Headed Bars," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Spring 2008 Convention, Los Angeles, CA, Apr. 2008.
- 142. Kang, T.H.-K., "Design and Applications of Headed Reinforcement in Joints and Connections," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2007 Convention, Fajardo, Puerto Rico, Oct. 2007.
- 143. Kang, T.H.-K., "Design and Applications of Headed Reinforcement in Joints and Connections," Presentation, ACI Committee 374, Performance-Based Seismic Design of Reinforced Buildings, ACI Fall 2007 Convention, Fajardo, Puerto Rico, Oct. 2007.
- 144. Kang, T.H.-K., "Seismic Performance Assessment and Modeling of Reinforced and Post-Tensioned Concrete Slab-Column Systems," Invited Seminar, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, IL, Apr. 2007.
- 145. Kang, T.H.-K., "Seismic Performance Assessment and Modeling of Reinforced and Post-Tensioned Concrete Slab-Column Systems," Invited Seminar, Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ, Feb. 2007.
- 146. Kang, T.H.-K., "Seismic Performance Assessment and Modeling of Reinforced and Post-Tensioned Concrete Slab-Column Systems," Invited Seminar, Department of Civil Engineering, North Dakota State University, Fargo, ND, Jan. 2007.
- 147. Kang, T.H.-K., "Mechanical Anchorage in Reinforced Concrete Exterior and Knee Joints," Presentation, ACI Committee 374, Performance-Based Seismic Design of Reinforced Buildings, ACI Fall 2006 Convention, Denver, CO, Nov. 2006.
- 148. Kang, T.H.-K., "ACI 352 Slab-Column Connection Report," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2006 Convention, Denver, CO, Nov. 2006.
- 149. Kang, T.H.-K., Wallace, J.W., and Elwood, K.J., "Dynamic Tests and Modeling of RC and PT Slab-Column Connections," 8th U.S. National Conference on Earthquake Engineering (8NCEE), San Francisco, CA, Apr. 2006.
- 150. Kang, T.H.-K., Kee, S.-H., Han, S.W., Lee, L.-H., and Wallace, J.W., "Interior Post-Tensioned Slab-Column Connections Subjected to Lateral Cyclic Loading," 8th U.S. National Conference on Earthquake Engineering (8NCEE), San Francisco, CA, Apr. 2006.
- 151. Kang, T.H.-K., and Wallace, J.W., "Drift Capacity Models and Shear Strength Degrading Models for Slab-Column Connections," 8th U.S. National Conference on Earthquake Engineering (8NCEE), San Francisco, CA, Apr. 2006.
- 152. Kang, T.H.-K., "Portions of the Beam-Column Joint Report (ACI 352R-02) in Need of Revision," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Fall 2005 Convention, Kansas City, MO, Nov. 2005.
- 153. Kang, T.H.-K., "Cyclic Behavior of Post-Tensioned Slab-Column Connections," Presentation, Joint ACI-ASCE Committee 352, Joints and Connections in Monolithic Concrete Structures, ACI Spring 2005 Convention, New York, NY, Apr. 2005.
- 154. Kang, T.H.-K., "Seismic Performance of Reinforced and Post-Tensioned Concrete Flat Plate Systems," Invited Seminar, Department of Civil and Environmental Engineering, Tufts University, Medford, MA, Nov. 2004.

155. Kang, T.H.-K., "Drift Capacity at Punching of Post-Tensioned Slab-Column Connections," Presentation, ACI Committee 374, Performance-Based Seismic Design of Reinforced Buildings, ACI Fall 2004 Convention, San Francisco, CA, Nov. 2004.

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