

Youngguk Seo

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I. EDUCATION AND EXPERIENCE

A. Education

- North Carolina State University, Ph.D., Transportation Materials, 08.2003
- Seoul National University, M.S., Structural Engineering, 02.1996
- University of Seoul, B.E., Civil Engineering, *Summa Cum Laude*, 02.1993

B. Experience

B.1 Academic positions

- Associate Professor, Kennesaw State University, 08.2020 – present
- Assistant Professor, Kennesaw State University, 08.2014 – 07.2020
- Adjunct Professor, Kyonggi University, Korea, 03.2009 – 02.2010
- Part-time Lecturer, Kyonggi University, Korea, 08.2006 – 03.2009

B.2 Research positions

- Director, Georgia Pavement and Transportation Research Center, 09. 2019 – present
- Pavement Engineer, Turner Fairbank Highway Research Center, FHWA-SES Group, 02.2013 – 08.2014
- Deputy Research Director, Korea Expressway Corporation, 02.2006 – 02.2013
- Researcher, Korea Expressway Corporation, 02.1996 – 02.2006
- Postdoc Research Associate, North Carolina State University, 08.2003 – 04.2004
- Graduate Research Assistant, North Carolina State University, 01.2000 – 08.2003
- Graduate Research Assistant, Seoul National University, 03.1994 – 02.1996

B.3 Affiliated positions

- Brain Pool Scholar, Korean Federation of Science and Technology Societies, 05.2015 – 08.2015
- Visiting Scholar, Korea Institute of Construction Technology, 10.2015 – 03.2016
- Visiting Scholar, Korea Institute of Construction Technology, 01.2007 – 02.2007
- Civil Engineer, Massachusetts Institute of Technology, 10.1997 – 12.1997

II. HONORS AND AWARDS

- Outstanding Early Career Faculty Award. KSU Foundation, 11.2018
- Brain Pool Program Award, KOFST, 05.2015
- KSCE Award, Korean Society of Civil Engineers, No. 2010-257, 01.2011
- Best Paper Award, Korean Society of Civil Engineers, No. 2008-120, 10.2008

- Best Paper Award, Korean Society of Road Engineers, No. 08-20, 10.2008
- Best Young Researcher Award, Korean Society of Civil Engineers, No. 346, 01.2007
- Best Researcher Award, Ministry of Construction and Transportation, 04.2006
- Ward K. Parr/Association of Asphalt Paving Technologists Scholarship, 07.2002

III. SCHOLARSHIP

A Research Grants

A.1 External – \$350,450 (since 2014)

- Optimizing Winter Roadway Treatment for Georgia Pavements, PI, Georgia Department of Transportation, PI, RP 18-28 (A subcontract), \$60,000, 2019-2020
- Full Depth Pavement Reclamation: Performance assessment and recommendations for best performance, Co-PI, Georgia Department of Transportation RP 18-22, \$89,998, 2018-2019.
- Best Policies and Regulations for Performance Enhancement of Highway Pavement in Korea, PI, Korea Expressway Corporation, \$40,000, 2016-2017.
- Development of Materials and Construction Technology for Cool and Porous Pavement, PI, Seoul Metropolitan Government, \$20,000, 2015-2016.
- Energy Harvesting Technologies for Road Pavement, PI (Brain Pool Scholar at KICT), Korean Federation of Science and Technology Societies, \$21,000, 05.2015-08.2015.
- Effects of Reclaimed Asphalt Pavement (RAP) Contents and Sources on Dynamic Modulus (E^*) and Fatigue Performance of Asphalt Mixtures in Georgia, Co-PI, Georgia Department of Transportation RP 14-12, \$127,500, 2014-2016.

A.2 Internal

- A Graphene-OGFC composite to heal the micro-cracks in interstate highways, PI, OVPR Award - FY20 OVPR Pilot/Seed Grant, \$11,526, 2019-2020.
- Do our winter snow and ice control shorten the life of road pavements? PI, OVPR Award - FY19 OVPR Pilot/Seed Grant, \$14,979, 2018-2019.
- The effect of anti-icing treatment on the premature failure of OGFC at cold temperature, PI, SPCEET special project, \$15,000, 2018.
- Road roughness measurement and mapping using a smartphone-based crowdsourcing technology, PI, SPCEET, \$27,500, 2017.

B Special Research Projects (as an invited guest researcher)

- Fatigue Cracking: An experimental and numerical synthesis from the mid-1990 to 2016, AAPT, Contributor to Section 5.2.5 of the final report, 2016.
- Survey for Evaluation Methods and Current Status of the Report Card for America's Infrastructure and Recommendations for the Development of the Korea Report

Card, KICT, Pavement Contributor, 2015-2016.

C Publication

C.1 Peer-reviewed Journals

- Seo, Y. and U.J. Seo. Geothermal energy supply model for horticulture greenhouses near expressway interchanges (under review).
- Kwon, J., Seo, Y., Kapler, A., and Yang, Y. Best practice for full depth reclamation in Georgia (under review).
- Seo, Y., J.H. Kim, and U.J. Seo. Eco-friendly snow melting systems developed for modern expressways, *ASTM Journal of Testing and Evaluation* 47(5): 3432–3447 (9/10. 2019)
- Seo, Y., U.J. Seo, and J.H. Kim. Economic feasibility of ground source heat pump system deployed in expressway service area. *Geothermics* 76: 220-230 (07.2018)
- H.J. Oh, Y.K. Cho, Seo, Y., and S.M. Kim. Experimental analysis of curling behavior of continuously reinforced concrete pavement, *Construction and Building Materials*, 128: 57-66 (12.2016)
- H.J. Oh, Y.K. Cho, Seo, Y., and S.M. Kim. Experimental evaluation of longitudinal behavior of continuously reinforced concrete pavement depending on base type, *Construction and Building Materials* 114: 374-382 (07.2016)
- Seo, Y. and S.M. Kim. Estimation of greenhouse gas emissions from road traffic: A case study in Korea. *Renewable and Sustainable Energy Reviews* 28: 777-787 (12.2013)
- Seo, Y. and S.M. Kim. Estimation of greenhouse gas emitted from road constructions in Korea. *Renewable and Sustainable Energy Reviews* 26: 625-631 (07.2013)
- Seo, Y., S.M. Kim and J.H. Lee. Operation of the first full-scale road test facility in Korea and lessons learned from 8 years of experience. *KSCE, Journal of Civil Engineering* 17(5): 1023-1029 (08.2013)
- Seo, Y. and S.M. Kim. Longitudinal cracking at transverse joints caused by dowel bars in jointed concrete pavements. *KSCE, Journal of Civil Engineering* 17(2): 395-402 (05.2013)
- Seo, Y., C. Baek, and Y.R. Kim. Fatigue crack characterization of asphalt concrete pavement on bridge deck. *ASTM, Journal of Testing and Evaluation* 40(6): 1-15 (09.2012)
- Seo, Y. and J.H. Lee. Development of strain gauge installation methods for asphalt concrete pavement and their in-site validations. *ASCE, Journal of Transportation Engineering* 138(6): 690-699 (07.2012)
- Seo, Y., J.Y. Eum, B.S. Ku, J.G. Lee, Y. Kong, and H.J. Kang. Low carbon technology in the transport and construction sectors in Korea. *Road Engineering Association of Asia & Australia (REAAA) Journal* 17: 66-75 (03.2012)
- Seo, Y., U.J. Seo, J.Y. Eum and S.J. Lee. Development of geothermal snow

- melting system for highway overlays in Korea. *ASTM, Journal of Testing and Evaluation* 39(4): 592-602 (07.2011)
- Seo, Y. A full-scale in-situ evaluation of strain anisotropy at highway flexible pavements. *ASTM, Journal of Testing and Evaluation* 38(4): 383-389 (07.2010)
 - S.Y. Lee, Seo, Y., and Y.R. Kim. Effect of hydrated lime on dynamic modulus of asphalt- aggregate mixtures in the state of North Carolina. *KSCE, Journal of Civil Engineering* 14(6): 829-837 (11.2010)
 - Seo, Y., U.Y. Jeong, and J.S. Cho. Simplified finite element dynamic analysis for cable-supported structures subjected to seismic motions. *KSCE, Journal of Civil Engineering* 14(4): 579-588 (07.2010)
 - J. Lee, Seo, Y., and Y.R. Kim. Nondestructive fatigue damage analysis of a thin asphalt concrete course using the wavelet correlation method. *ASTM, Journal of Testing and Evaluation* 38(3): 324-331 (05.2010)
 - H. Yeo, Seo, Y., Y.C. Suh, and J.H. Jeong. Performance indicator and threshold value of national highway jointed concrete pavements. *Journal of KSCE* 30(30D): 279-288 (05. 2010)
 - Seo, Y. Distress evolution in highway flexible pavements: a 5-year study at the KHC test road. *ASTM, Journal of Testing and Evaluation* 38(1): 32-41 (01.2010)
 - Seo, Y. Application of pay adjustment regulation for highway flexible pavements. *Journal of KSRE* 11(3): 1-15 (09.2009)
 - J.H Choi, Seo, Y., and Y.C. Suh. Validation of permanent deformation model for flexible pavement using accelerated pavement testing. *Journal of KSCE* 29(4D): 491-497 (07.2009)
 - S.W. Park, K.Y. Hwang, M.K. Jeong, and Seo, Y. Evaluation of traffic load and moisture- induced nonlinear in-situ stress on pavement foundation layers. *Journal of KGS* 25(7): 47- 54 (07.2009)
 - D.J. Yun, Seo, Y., and S.M. Kim. Numerical analysis of T-shape cracking in jointed concrete pavements. *Journal of KSRE* 11(2): 141-149 (06.2009)
 - Seo, Y., C.M. Baek, Y.R. Kim, and J.H Lim. ViscoElastic Continuum Damage (VECD) Finite Element (FE) analysis on asphalt pavements. *Journal of KSCE* 28(6D): 809-817 (11.2008)
 - Y.R. Kim, S. Joon Lee, Seo, Y., and Omar El-Haggan. Determination of price reduction factors for density deficient asphalt pavements. *ASTM, Journal of Testing and Evaluation* 36(4): 335-344 (07.2008)
 - M.H. Jo, N. Kim, and Seo, Y. Asphalt concrete pavement response to moving load and viscoelastic property. *Journal of KSCE* 28(4D): 485-492 (07.2008)
 - Seo, Y. and Y.R. Kim. Using acoustic emission to monitor fatigue damage and healing in asphalt concrete. *KSCE, Journal of Civil Engineering* 12(4): 237-243 (04.2008)
 - D.S. Cho, Seo, Y., and T. M. Choi. Field evaluation of tire-road noise using a new close proximity method. *ASTM, Journal of Testing and Evaluation* 36(1): 1-7 (01.2008)
 - Underwood B. Shane, Y.R. Kim, Seo, Y., and K.H. Lee. Development of ViscoElastoPlastic Continuum Damage (VEPCD) model for response prediction of

- HMA's under tensile loading. *Journal of KSCE* 28(1D): 45-55 (01.2008)
- Seo, Y. and S.M. Kwon. Performance evaluation of asphalt concrete pavements at Korea Expressway Corporation Test Road. *Journal of KSCE* 28(1D): 35-43 (01.2008)
 - Seo, Y., Omar El-Haggan, Mark King, S. Joon Lee, and Y.R. Kim. Air void models for the dynamic modulus, fatigue cracking, and rutting of asphalt concrete. *ASCE, Journal of Materials in Civil Engineering* 19(10): 874-883 (10.2007)
 - Seo, Y. A design guide to minimize frost heave in unbound pavement layers over box culverts. *Journal of KSRE* 9(3): 111-121 (09.2007)
 - G.H. Chehab, Seo, Y., and Y.R. Kim. Viscoelastoplastic damage characterization of asphalt-aggregate mixtures using digital image correlation. *ASCE, International Journal of Geomechanics* 7(2): 111-118 (04.2007)
 - S. Joon Lee, Seo, Y., Y.R. Kim. Validation of material-level performance models: using the third-scale model mobile loading simulator. *Journal of Transportation Research Board* 1949: 75-82 (12.2006)
 - Seo, Y. and K.H. Lee. Behavior of asphalt pavement subjected to a moving vehicle I: the effect of vehicle speed, axle-weight, and tire inflation pressure. *Journal of KSCE* 26(5D): 831-838 (09.2006)
 - M.H. Jo, N. Kim, J.H. Jeong, and Seo, Y. Pavement response in flexible pavement using nonlinear tire contact pressure and measured tire contact area. *Journal of KSCE* 26(4D): 601-608 (07.2006)
 - Seo, Y., Y.R. Kim, and Z. Zhang. Laboratory evaluation of CCM parameters for mode-I cracks in HMA's. *KSCE, Journal of Civil Engineering* 10(3): 201-206 (05.2006)
 - Seo, Y., S.M. Kwon, and J.H. Lee. Field evaluation of traffic wandering effect on asphalt pavement responses. *Journal of KSCE* 26(3D): 453-459 (05.2006)
 - Y.R. Kim, Seo, Y., Mark King, and Mostafa Momen. Dynamic modulus testing of asphalt concrete in indirect tension mode. *Journal of Transportation Research Board* 1891: 163- 173. (12.2004)
 - Seo, Y., Y.R. Kim, R.A. Schapery, M.W. Witczak, and Ramon Bonaquist. A study of crack- tip deformation and crack growth in asphalt concrete in asphalt concrete using fracture mechanics. *Journal of the Association of Asphalt Paving Technologists* 73: 697-730 (03.2004)
 - Seo, Y., Y.R. Kim, M. W. Witczak, Ramon Bonaquist. Application of digital image correlation method to mechanical testing of asphalt-aggregate mixtures. *Journal of Transportation Research Board* 1789: 162-172 (12.2002)

C.2 Book Chapter

- Chapter 5 of *Modeling of Asphalt Concrete*, Y.R. Kim, Seo, Y. and M. Momen, pp. 121-138, McGraw-Hill, ISBN 9780071464628, 2009

C.3 Patents

- Seo, Y. and J.Y. Eum. Freeze Preventing Apparatus of Road and Construction Method; Patent 10-1334228, Korea Intellectual Property Rights and

- Information Service (KIPRIS, <http://eng.kipris.or.kr>)
- Seo, Y. and J.Y. Eum. Freeze Prevention Apparatus and Construction Method of Outside Road Surface of Tunnel, Patent IO-1328067, Korea Intellectual Property Rights and Information Service (KIPRIS, <http://eng.kipris.or.kr>)
- Seo, Y. and J.Y. Eum. Snow-melting Road Paving Structure and Snow Melting Road Paving Method, Patent 10-1241342, Korea Intellectual Property Rights and Information Service (KIPRIS, <http://eng.kipris.or.kr>)

C.4 Presentations

- Seo, Y. Best practice for gull depth reclamation in Georgia, US-Korea Conference 2019. KSEA, Hyatt Regency O'Hare, Chicago (14-17 Aug. 2019)
- Seo, Y. Performance and Economy of Eco-Melting on Roads, US-Korea Conference 2018. KSEA, St. Johns University in New York, New York (1-5 Aug. 2018)
- Seo, Y., N. Gibson, X. Li, A. Adriescu. Full-Scale and laboratory fatigue cracking performance of combined High Recycle and Warm Mix Asphalt Pavements, GDOT EXPO, Georgia (5 Oct. 2017)
- Seo, Y. Full field temperature curling evaluation of Continuously Reinforced Highway Concrete Pavement, ASCE-T&DI International Conference on Highway Pavements and Airfield Technology, Philadelphia (27-30 Aug. 2017)
- Seo, Y. Experimental Evaluation of Longitudinal Behavior of CRCP Depending on Base Type, US-Korea Conference 2016. KSEA, Dallas, Texas (10-13 Aug. 2016)
- Nelson Gibson, Seo, Y., Xinjun Lee, and Adrian Adriescu. Full-scale and laboratory fatigue cracking performance of combined high-recycle and warm mix asphalt pavements. 2014 FAA Worldwide Airport Technology Transfer Conference, New Jersey, USA (08.2014)
- Seo, Y., U.J. Seo, and K.S. Mun. Feasibility of geothermal energy-based business on highways. Proceedings of the 2012 KSCE Conference, pp. 1554-1557 (10.2012)
- Seo, Y., U.J. Seo, and J.Y. Eum. Operation efficiency of bridge deck snow melting system. Proceedings of the 2011 KSCE Conference, pp. 1400-1403 (11.2011)
- Seo, Y., S.Y. Lee, and Y.R. Kim. Effect of Hydrated Lime on Dynamics Modulus of Asphalt Aggregate Mixture in the State of North Carolina. Proceedings of the 2010 KSCE Conference. pp. 1546-1549 (10.2010)
- Seo, Y., J.Y. Eum, K.H. Lee, and J.H. Kim. Field validation of geothermal snow melting system and its application to highway. Proceedings of the 2010 KSRE conference, pp. 53-56 (10.2010)
- Seo, Y., U.J. Seo, J.Y. Eum, and B.C. Kim. Pilot test of geo-thermal snow melting system for concrete pavements. Proceedings of the 2010 KSCE Conference, pp. 465-469 (10.2010)
- S.M. Kim, D.J. Yun, and Seo, Y. Numerical analysis of longitudinal crack occurrence at joint in doweled jointed concrete pavements. Proceedings of the 2009 KSRE Conference, pp. 513-518 (11.2009)
- Seo, Y., J.H. Jang, K.H. Lee, S.H. Kim, and J. Y. Eum. Development of Korea Expressway Corporation Test Road database. Proceedings of the 2009 KSCE

- Conference, pp. 43-44 (11.2009)
- Seo, Y., and S.C. Cho. Implementation of pay adjustment regulation for overlays. Proceedings of the 2009 KSRE Conference, pp. 53-57 (11.2009)
 - Seo, Y. Low-carbon green technologies in the road industry in Korea. The 8th Heads of Road Authorities (HORA) Meeting, Inchon, Korea (09.2009)
 - Tranggono M. and Seo, Y. Evaluation of elastic modulus properties of flexible pavement at Korea Expressway Corporation Test Road, Proceedings of the 13th REAAA conference, Seoul, Korea (09.2009)
 - Seo, Y., S.M. Kwon, I.S. Han, and H.S. Jeong. Distress evolution survey of flexible pavements at Korea Expressway Corporation Test Road (KECTR). Proceedings of the 2008 KSRE Conference, pp. 131-135 (10.2008)
 - M.H. Jo, C.W. Park, Seo, Y., and N. Kim. Evaluation of moving load and wandering effects on asphalt concrete pavement behavior. Proceedings of the 2008 KSCE Conference, pp. 125-130 (10.2008)
 - Seo, Y., S.M. Kwon, and K.H. Lee. Experimental evaluation of pavement performance: Korea Expressway Corporation test road. Proceedings of the 6th international Conference on Road and Airfield Pavement Technology, Sapporo, Japan, pp. 291-299 (07.2008)
 - M.H. Jo, N. Kim, and Seo, Y. Effect of viscoelastic properties and vehicle speeds on flexible pavement behaviors. Proceedings of the 2007 KSCE Conference, pp. 1865-1868 (10.2007)
 - Kim, Y.R., S.J. Lee, Seo, Y., and O. El-Haggan. A mechanistic approach to determine price reduction factors for density-deficient asphalt pavements. Proceedings of the 2006 Airfield and Highway Pavement Specialty Conference, Atlanta, Georgia, USA. pp. 1018- 1029 (05.2006)
 - Seo, Y., and K.H. Lee. Experimental evaluation of the responses of flexible pavements subjected 3-axle truck loads. Proceedings of the 2006 KSRE Conference, pp. 223-228 (10.2006)
 - S.J. Lee, Seo, Y., and Y.R. Kim. Performance prediction of asphalt concrete pavements loaded by MMLS3 using material-level laboratory test methods and performance model. Proceedings of the 10th International on Asphalt Pavements, ICAP, Quebec, Canada (08.2006)
 - Y.R. Kim, S.J. Lee, Seo, Y., and O. El-Haggan. Determination of price reduction factors for density deficient asphalt pavements. Roads to Global Society, Proceedings of the First International Road and Traffic Conference, Seoul, Korea, pp. 131-144 (07.2005)
 - S.J. Lee, Seo, Y., and Y.R. Kim. Validation of mechanistic performance models using the third scale model mobile loading simulator. Proceedings of the 5th International Conference on Road and Airfield Pavement Technology, Seoul, Korea, pp. 1036-1044 (05.2005)
 - S.M. Kwon, C.Y. Park, and Seo, Y. A pilot test for the investigation of wandering effect on pavement responses. Proceedings of the 2005 KSCE Conference, pp. 3852-3855 (10.2005)

- Seo, Y. Digital Image Correlation and its application for material characterization of HMA. Proceedings of the 2004 KSRE Conference, pp. 115-122 (10.2004)
- Seo, Y. and Y.R. Kim. The mechanical testing of asphalt concrete mixtures using digital image correlation. Proceedings of the 5th International RILEM Conference on Cracking in Pavements, France, pp. 155-162 (05.2004)
- U.Y. Jeong, J.S. Cho, and Seo, Y. Linear elastic analysis of a suspension bridge. Proceedings of the 1999 KSCE Conference, pp. 35-38 (10.1999)
- J.S. Cho, U.Y. Jeong, and Seo, Y. Development of design technique for suspension bridges using influence surface. Proceedings of the 1999 COSEIK Conference, pp. 119- 126 (10.1999)
- Seo, Y., U.Y. Jeong, and J.S. Cho. Seismic analysis of cable-supported bridges. Proceedings of the 1999 COSEIK Conference, pp. 233-240 (10.1999)
- Seo, Y. and S.D. Kwon. Dynamic modelling of a bridge subject to a moving vehicular load. Proceedings of the 1998 KSCE Conference, pp. 451-454 (10.1998)

C.5 Invited talks

- Seo, Y. Current status report on Asian Highway (AH) road pavements. Invited presentation at the workshop on the KEC-UNESCAP collaboration program for AH development. Expressway and Transportation Research Institute, Korea (07.2015)
- Seo, Y. Inside Turner Fairbank Highway Research Center. Korea Institute of Construction and Technology (KICT), Ilsan, Korea (05.2015)
- Seo, Y. Turner Fairbank Highway Research Center of FHWA. Graduate School of Chung- Ang University (CAU), Seoul, Korea (06.2015)
- Seo, Y. Full-scale and laboratory fatigue cracking performance of combined high-recycle and warm mix asphalt pavements. Korea Institute of Construction and Technology (KICT), Ilsan, Korea (07.2015)
- Seo, Y. Inverted Base Project. Pavement Research Advisory Committee Meeting, Virginia Center for Transportation Innovation and Research, Charlottesville, VA, USA (04.2013)
- Seo, Y. Introduction of highway maintenance management in Korea. Asian Development Bank (ADB) Transport Forum 2012, Manila, Philippines (11.2012)

IV. EDUCATION

A. Teaching interests

A.1 Courses at KSU

- Engineering Mechanics-Statics, ENGR 2214
- Strength of Materials and Lab, ENGR 3131 and 3132
- Fluid Mechanics, ENGR 3343
- Materials of Construction and Lab, CE 3501 and 3502
- Adv. Design and Construction of Flexible and Rigid Pavement, CE 6204

- Pavement Engineering, CE 4706 and CE 6633

A.2 Courses at other institutes

- Kyonggi University: Construction Materials (Fall 2009, Fall 2005); Inelasticity of Construction Materials (Spring 2009); Case Studies on Infrastructures, (Spring 2009); Seminar on Construction 1 and 2 (Fall 2008, Spring 2007, Spring 2008, Spring 2006), Seminar on Road Engineering (Fall 2008); Construction Statistics, (Fall 2007); Road Materials and Design (Fall 2007); Construction Management (Fall 2006)
- Inha University: Design of Asphalt Pavement (Spring 2007)
- Seong University: Theory of Asphalt Mixture (Fall 2006, Fall 2005)
- Chung-Ang University: Pavement Materials Engineering (Fall 2005)

A.3 Laboratory manuals, instructional materials developed

Online courses developed

- Pavement Engineering (CE 6633 and CE 4706) for Spring 2018
- Advanced Design and Construction of Flexible Pavement (CE 6204) for Spring 2016

Courses updated

- Construction of Materials Lab (CE 3502) for Fall 2015
- Construction of Materials (CE 3502) for Fall 2015

B. Student Research Advising

B.1 At Kennesaw State University

- RyuJin Pyo, Optimizing Winter Roadway Treatment for Georgia Pavements, Faculty Advisor for Undergraduate Research and Direct Study (Fall 2019 – Fall 2020)
- Ahmed Sami Hassan, Utilization of high percentage of fly ash in silt soils to enhancing the engineering properties for subgrade usage, Thesis Committee Member and Faculty Advisor, MSCE (Spring 2018)
- Keerith Giramaji, Faculty Advisor for Graduate Research, Graduate College (Fall 2017 – Spring 2018)
- Clint Morris, Faculty Advisor for Undergraduate Research (Summer 2017)
- William Silloway, Faculty Advisor for Undergraduate Research (Summer 2017)
- Harish Siripothu, Faculty Advisor for Graduate Research (Summer 2017)
- Shruthi Rajuri, Faculty Advisor for Graduate Research (Summer 2016)
- Pe-tsekme Afi Lakte, Effect of Reclaimed Asphalt Pavement (RAP) Contents on Dynamics (E*) of Asphalt Mixtures - A case Study of Georgia, Thesis Committee Member, MSCE (Spring 2016)
- Andrew K Raessler, Warrant Criteria for Left Turn Treatments, Thesis Committee Member, MSCE (Spring 2016)

- Lucas Castro, International Internship Programs for Brazilian Student, Summer Research (Summer 2015)

B.2 At Other Institutions

- Myung-Hwan Cho, Thesis Committee Member, Ph.D. Civil Engineering at Kyonggi University, Korea (Spring 2010)

V. SERVICE

A. Service to KSU/SPSU

- Department Faculty Council (DFC), Member, Department of Civil and Construction Engineering (01 September 2019 – present)
- College Awards Committee, Department Representative, SP College of Engineering and Engineering Technology (01 September 2019 – present)
- Faculty Search Committee, Committee Member, Transportation Engineering, Department of Civil and Construction Engineering (01 Oct. 2018 – 31 Jul 2019)
- Presidential Commission on Sustainability, University Standing Committee (11.2017 – 01 November 2019)
- Faculty Awards Committee, SP college of E and ET representative, University Standing Committee (07.2016 – 07.2018)
- Course lead professor, Pavement Engineering (01.2016-present)
- Course lead professor, Engineering Graphics (01.2018-present)
- Course lead professor, Materials of Construction (01.2015 – 12.2015)
- Faculty Search Committee, Committee Chair, Geotechnical Engineering, Department of Civil and Construction Engineering (01 Feb. 2016 – 31 May 2016)
- Research Committee, Chair, Ad-hoc Department Committee (01 Sep. 2015 – 31 Mar 2016)
- FE Exam Committee, Chair, Ad-hoc Department Committee (01 Sep. 2015 – 15 Jan 2016)
- FE Exam Committee, Member, Ad-hoc Department Committee (15 Jan. 2016 - present)
- Program Documents Committee, Member, Ad-hoc Department Committee (01 Sep. -31 Aug. 2015)
- MOU with Seoul Metropolitan Government (SMG) of Korea, served as a liaison between SMG and VP for Research Office of KSU, Kennesaw State University (30 June 2015)
- Science Olympiad, Judge for Geologic Mapping Competition, Marietta campus of KSU (28 February 2015)
- Women and STEAM Workshop, Student Center, SPSU (11 November 2014)
- SPSU Preview Day and Open House (1 November 2014)

B. Service to the profession

- Chair, US-Korea Conference (UKC) 2020, Civil, Environmental, Architecture (CEA), <https://ukc.ksea.org/ukc2020/technical-symposiums/civil-environmental-architecture-cea/> (2020)
- Journal Topic Editor, Sustainability, Journal Topic Board, MDPI, Switzerland, https://www.mdpi.com/journal/sustainability/topic_editors (2020-present)
- Member, International Society for Asphalt Pavement (ISAP), Technical Committee, Work Group-7 Energy Harvesting (2015-present)
- Member, New Construction Technology Review Committee, Technology Certification Center, Korea Agency for Infrastructure Technology Advancement, Korea (2012-present)
- Member, Evaluation Committee, Resources Circulation Industry Promotion Association (RIPA) (2008-2012)
- Member, Technical Sub- Committee (TC-2), The Road Engineering Association of Asia & Australasia (REAAA) (2011-2015)
- Associate Editor Journal of Korean Society of Road Engineers (2005-2013)
- International Division Chair, Magazine of Korean Society of Road Engineers (2013- present)
- Associate Editor, Journal of Korean Society of Civil Engineers (2009-2014)

VI. PROFESSIONAL GROWTH AND DEVELOPMENT

A. Workshop, Seminar & Conference

- Fall Grant Conference, National Science Foundation, New Orleans, LA (November 8 – 9, 2018)
- Research Development Workshop for Tenure-Track Faculty, SPCEET, (June 12, 2018)
- Monthly Web Meeting, TRB Washington DC, Accelerated Pavement Testing International Alliance Subcommittee-AFD40(2) (May 11-13, 2017)
- SAS Grant Training, Owl Train, Kennesaw State University (May 12, 2016)
- ACI Georgia Chapter, Formwork: what's the big deal? Kennesaw State University (February 26, 2016)
- Engineering Week, Emory's Water Hub, Student center Ballroom, Kennesaw State University (February 24, 2016)
- PeopleAdmin Training Session, Marietta, Kennesaw State University (January 27, 2016)
- Distance Learning Program Workshop, Kennesaw State University (August 14, 2015)
- Digital Measure Training, Kennesaw State University (December 4, 2015)
- Research Grant Developing Workshop, Overview of the Grant Proposal Process at KSU, Kennesaw State University (September 15, 2015)
- Development of Bicycle Road Design and Construction. KICT-CAU Joint Seminar, Seoul, Korea (June 5, 2015)
- Mechanistic-Empirical Design Guide Training, Georgia Department of

- Transportation (April 2015)
- Developing a Grant Budget, Grant Writing Institute Workshop organized by Kennesaw State University Research and Service Foundation, Inc. (December 18, 2014)
- Scholarship of Teaching and Learning (SOTL) Workshop (October 22, 2014)
- GTI/UTC GDOT Research Workshop (September 23, 2014)
- Research Works at the 16th Annual SPSU Authors' Reception (October 29, 2014)
- FIDIC-KENCA Accredited Training Program, International Federation of Consulting Engineers (FIDIC) and Korea Engineering and Consulting Association (KENCA) (May – October 2012)

B. Consulting Activities

- The impact of the 4th Industrial Revolution on the Construction Policy, Korea Institute of Construction and Technology (KICT) (December 2018)
- Quality recognition and comparison of infrastructure in US and Korea for the development of SOC report card and strategic safety system in Korea, KICT (December 2015)
- Organizational Capacity and Role Review on American Association of State Highway and Transportation Officials (AASHTO) submitted to Korea Expressway Corporation (KEC) (October 2015)
- Operations report of the test tracks in US submitted to KEC, Korea (June 2015)
- A new technical and operational approach for KEC test road submitted to KEC (June 2015)
- Asphalt concrete pavement anti-stripping agents submitted to KEC (June 2015)
- Warm mix asphalt pavements and application of mechanistic empirical pavement design guide submitted to KEC (June 2015)
- Guidelines for production of recycled asphalt pavement mixtures submitted to KEC (June 2015)
- Maintenance strategies for asphalt pavements on highways submitted to KEC (July 2015)
- Performance of asphalt pavements in low temperature regions submitted to KEC (July 2015)
- Research outcomes generated from test tracks worldwide submitted to KEC (July 2015)
- Reflective cracking in asphalt layers placed over old concrete pavements submitted to KEC (July 2015)
- Field performance evaluation of Georgia pavements for a research project entitled "GDOT Forensic Guide for Georgia's Pavements (2014-2016)
- Snow melting road system analysis and design consulting for Korea Institute of Construction Technology, Korea (November 2014)

C. Professional Affiliations

- The Korean-American Society of Civil and Environmental Engineers (KSCEE)
- Korean-American Scientists and Engineers Association (KSEA)
- American Society of Civil Engineers (ASCE)
- Korean Society of Civil Engineers (KSCE)
- Korean Society of Road Engineers (KSRE)
- The Road Engineering Association of Asia & Australasia (REAAA)