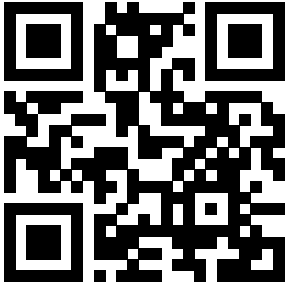# Curriculum Vitae

Chang Seok Lee, Ph.D.

Assistant Professor, Honam University

Department of Architecture

112, Honamdae-gil, Gwangsan-gu, Gwangju, Republic of Korea 62399

✉ hpsonic@hanyang.ac.kr

ⓘD 0000-0002-8205-8147

🌐 https://mtsonicc.github.io/

🜚 https://github.com/mtsonicc/

Education

2012–2018	**Hanyang University, Seoul, Republic of Korea**
	Doctor of Philosophy
	Thesis: Analytical model for non-ductile moment frames with masonry infill walls and retrofit method using friction dampers
2006–2012	**Hanyang University, Seoul, Republic of Korea**
	Bachelor of Engineering

Employment History

2024–present	**Honam University, Gwangju, Republic of Korea**
	Assistant Professor
2021–2024	**Hanyang University, Seoul, Republic of Korea**
	Research Assistant Professor
2018–2021	**Hanyang University, Seoul, Republic of Korea**
	Postdoctoral Researcher

Member of Scientific Committee

2022/12–present	**Korea Concrete institute Committee**: Slabs and Walls
2023/01–2024/12	**Korea Concrete institute Committee**: Terminology

Awarded Research & Industry Grants

2021/06–2024/05	**National Research Foundation of Korea**: Basic Science Research Program (70 Million Won/year)

Technical Skills and Interests

Developer Tools	C, C++, TCL, Python, Matlab
Software Skills	OpenSees, MIDAS-GEN, SAP2000, LaTeX
Areas of Interest	Seismic performance assessment, Numerical simulation, Hysteretic model

Teaching

2023/09–2023/12	**Hanyang University, Republic of Korea**
	Structural Reliability and Risk (Instructor, 3-hr/week)
2023/03–2023/06	**Hanyang University, Republic of Korea**
	Reinforced Concrete Engineering (Instructor, 3-hr/week)
2022/03–2022/06	**Hanyang University, Republic of Korea**
	Engineering Mechanics (Instructor, 3-hr/week)
2021/09–2022/02	**Andong National University, Republic of Korea**
	Dynamics of Structures (Instructor, 3-hr/week)
2019/09–2019/12	**Institute for Future Talents, Hanyang University, Republic of Korea**
	Reinforced Concrete (Instructor, 3-hr/week)
2019/08–2019/10	**Institute for Future Talents, Hanyang University, Republic of Korea**
	Structural Analysis (Instructor, 6-hr/week)
2019/05–2019/08	**Institute for Future Talents, Hanyang University, Republic of Korea**
	Structural Analysis (Instructor, 3-hr/week)
2019/03–2019/06	**Dongyang Mirae University, Republic of Korea**
	Reinforced Concrete (Instructor, 6-hr/week)
2018/09–2018/12	**Institute for Future Talents, Hanyang University, Republic of Korea**
	Reinforced Concrete (Instructor, 3-hr/week)

Publications : SCIE (Science Citation Index Expanded)

1. Lee CS, Mangalathu S, Jeon JS, **2024**, Machine learning–assisted drift capacity prediction models for reinforced concrete columns with shape memory alloy bars. *Computer-Aided Civil and Infrastructure Engineering*, **39**(4):595–616; DOI: `10.1111/mice.13112`.

2. Park Y, Lee CS, Jeon JS, **2024**, Hysteretic model parameters for seismic performance assessment of cyclically degraded reinforced concrete columns. *Soil Dynamics and Earthquake Engineering*, **179**:108519; DOI: `10.1016/j.soildyn.2024.108519`.

3. Lee CS, Jeon JS, **2023**, Risk-based seismic design of diagonal self-centering shape-memory alloy wire-based bracing system in multi-column bent bridges. *Engineering Structures*, **289**:116295; DOI: `10.1016/j.engstruct.2023.116295`.

4. Lee CS, Jeon JS, **2023**, Seismic risk-based optimization of tension-only shape-memory alloy device for steel moment-resisting frames. *Engineering Structures*, **296**:116976; DOI: `10.1016/j.engstruct.2023.116976`.

5. Shturmin S, Lee CS, Jeon JS, **2023**, Lumped plasticity model for simulating the inelastic earthquake response of CFT columns. *Journal of Constructional Steel Research*, **211**:108196; DOI: `10.1016/j.jcsr.2023.108196`.

6. Lee CS, Choi E, Jeon JS, **2022**, Estimating the plastic hinge length of rectangular concrete columns reinforced with NiTi superelastic shape memory alloys. *Engineering Structures*, **252**:113641; DOI: `10.1016/j.engstruct.2021.113641`.

7. Lee CS, Jeon JS, **2022**, Drift limit state predictions of rectangular reinforced concrete columns with superelastic shape memory alloy rebars. *Journal of Building Engineering*, **54**:104546; DOI: `10.1016/j.jobe.2022.104546`.

8. Lee CS, Jeon JS, **2022**, Phenomenological hysteretic model for superelastic NiTi shape memory alloys accounting for functional degradation. *Earthquake Engineering & Structural Dynamics*, **51**(2):277–309; DOI: `10.1002/eqe.3566`.

9. Lee CS, Jeon JS, **2022**, Probabilistic residual deformation prediction model for rectangular reinforced concrete columns. *Earthquake Engineering & Structural Dynamics*, **51**(9):1994–2015; DOI: `10.1002/eqe.3650`.

10. Alvi MH, Lee CS, Jeon JS, **2021**, Model development and seismic performance evaluation of rectangular reinforced concrete columns with short lap splices in existing building frames. *Engineering Structures*, **245**:112922; DOI: `10.1016/j.engstruct.2021.112922`.

11. Han SW, Lee CS, Cho ES, **2021**, Modeling parameters and acceptable plastic chord rotations for diagonally reinforced concrete coupling beams. *Journal of Building Engineering*, **44**:102650; DOI: `10.1016/j.jobe.2021.102650`.

12. Lee CS, Han SW, **2021**, An Accurate Numerical Model Simulating Hysteretic Behavior of Reinforced Concrete Columns Irrespective of Types of Loading Protocols. *International Journal of Concrete Structures and Materials*, **15**(1):5; DOI: `10.1186/s40069-020-00446-5`.

13. Lee CS, Jeon JS, **2021**, Adaptive hysteretic model for reinforced concrete columns including variations in axial force and shear span length. *Earthquake Engineering & Structural Dynamics*, **50**(15):4001–4031; DOI: `10.1002/eqe.3543`.

14. Lee CS, Park Y, Jeon JS, **2021**, Model parameter prediction of lumped plasticity model for nonlinear simulation of circular reinforced concrete columns. *Engineering Structures*, **245**:112820; DOI: `10.1016/j.engstruct.2021.112820`.

15. Han SW, Koh H, Lee CS, **2020**, Fragility functions of different groups of diagonally reinforced concrete coupling beams (DRCBs). *Bulletin of Earthquake Engineering*, **18**(1):165–187; DOI: `10.1007/s10518-019-00693-2`.

16. Han SW, Lee CS, **2020**, Cyclic behavior of lightly reinforced concrete moment frames with partial- and full-height masonry walls. *Earthquake Spectra*, **36**(2):599–628; DOI: `10.1177/8755293019899960`.

17. Han SW, Lee CS, **2020**, Cyclic behavior of RC OMF beam-corner column joints under unidirectional and bidirectional loadings. *Engineering Structures*, **224**:111304; DOI: `10.1016/j.engstruct.2020.111304`.

18. Han SW, Koh H, Lee CS, **2019**, Accurate and Efficient Simulation of Cyclic Behavior of Diagonally Reinforced Concrete Coupling Beams. *Earthquake Spectra*, **35**(1):361–381; DOI: `10.1193/060717EQS108M`.

19. Han SW, Lee CS, Paz Zambrana MA, Lee K, **2019**, Calibration Factor for ASCE 41-17 Modeling Parameters for Stocky Rectangular RC Columns. *Applied Sciences*, **9**(23):5193; DOI: `10.3390/app9235193`.

20. Lee CS, Han SW, **2019**, Cyclic behaviour of lightly-reinforced concrete columns with short lap splices subjected to unidirectional and bidirectional loadings. *Engineering Structures*, **189**:373–384; DOI: `10.1016/j.engstruct.2019.03.108`.

21. Han SW, Kang JW, Lee CS, **2018**, Cyclic behavior of diagonally reinforced slender HPFRCC coupling beams with reduced diagonal and transverse reinforcement. *Composite Structures*, **206**:550–562; DOI: `10.1016/j.compstruct.2018.08.079`.

22. Han SW, Kang JW, Lee CS, **2018**, Seismic Behavior of Slender HPFRCC Coupling Beams with Limited Transverse Bars. *Earthquake Spectra*, **34**(1):77–98; DOI: `10.1193/021116EQS030M`.

23. Han SW, Lee CS, Han CH, Moon KH, **2018**, Cyclic behaviour of slender diagonally reinforced coupling beams with various amounts of transverse reinforcement. *Magazine of Concrete Research*, **70**(13):671–684; DOI: `10.1680/jmacr.16.00429`.

24. Lee CS, Han SW, **2018**, Computationally effective and accurate simulation of cyclic behaviour of old reinforced concrete columns. *Engineering Structures*, **173**:892–907; DOI: `10.1016/j.engstruct.2018.07.020`.

25. Lee CS, Sung MS, Han SW, Jee HW, **2018**, Computationally Efficient and Accurate Simulation of Cyclic Behavior for Rectangular HSS Braces. *International Journal of Steel Structures*, **18**(4):1125–1138; DOI: `10.1007/s13296-018-0071-5`.

26. Moon KH, Han SW, Lee CS, **2017**, Seismic retrofit design method using friction damping systems for old low- and mid-rise regular reinforced concrete buildings. *Engineering Structures*, **146**:105–117; DOI: `10.1016/j.engstruct.2017.05.031`.

27. Han SW, Lee CS, Kwon HW, Lee KH, Shin MS, **2015**, Behaviour of fibre-reinforced beams with diagonal reinforcement. *Magazine of Concrete Research*, **67**(24):1287–1300; DOI: `10.1680/macr.14.00194`.

28. Han SW, Lee CS, Shin M, Lee K, **2015**, Cyclic performance of precast coupling beams with bundled diagonal reinforcement. *Engineering Structures*, **93**:142–151; DOI: `10.1016/j.engstruct.2015.03.034`.

29. Han SW, Lee CS, **2014**, Evaluation of punching shear strength of voided transfer slabs. *Magazine of Concrete Research*, **66**(21):1116–1128; DOI: `10.1680/macr.14.00080`.

30. Han SW, Lee CS, Kwon HW, **2013**, Seismic performance evaluation for gravity-designed flat plate frames. *Magazine of Concrete Research*, **65**(18):1110–1127; DOI: `10.1680/macr.13.00110`.

Publications : KCI (Korea Citation Index)

1. Lee CS, Jeon JS, **2021**, Hysteretic Model for Superelastic NiTi Shape Memory Alloys. *Journal of Korean Society of Steel Construction*, **33**(6):373–381; DOI: `10.7781/kjoss.2021.33.6.373`.

2. Han JM, Lee CS, Han SW, **2020**, Load-displacement Response of Gravity Load Designed Reinforced Concrete Moment Frames with Various Height of Masonry Infill Walls. *Journal of the Earthquake Engineering Society of Korea*, **24**(1):39–47; DOI: `10.5000/EESK.2020.24.1.039`.

3. Han SW, Chang YS, Lee CS, **2020**, Testing of RC Corner Beam-column Joints under Bidirectional Loading. *Journal of the Earthquake Engineering Society of Korea*, **24**(4):189–196; DOI: `10.5000/EESK.2020.24.4.189`.

4. Lee CS, Park YS, Han SW, **2020**, Bidirectional Lateral Loading of RC Columns with Short Lap Splices. *Journal of the Earthquake Engineering Society of Korea*, **24**(1):19–27; DOI: `10.5000/EESK.2020.24.1.019`.

5. Lee CS, Han SW, **2019**, Development of Model Parameter Prediction Equations for Simulating Load-deformation Response of Non-ductile RC Columns. *Journal of the Earthquake Engineering Society of Korea*, **23**(2):119–129; DOI: `10.5000/EESK.2019.23.2.119`.

6. Lee CS, Han SW, Koh H, **2019**, Drift Ratio-based Fragility Functions for Diagonally Reinforced Concrete Coupling Beams. *Journal of the Earthquake Engineering Society of Korea*, **23**(2):131–140; DOI: `10.5000/EESK.2019.23.2.131`.

7. Koh H, Han SW, Lee CS, **2018**, Efficient Simulation of Hysteretic Behavior of Diagonally Reinforced Concrete Coupling Beams. *Journal of the Earthquake Engineering Society of Korea*, **22**(2):95–101; DOI: `10.5000/EESK.2018.22.2.095`.

8. Lee CS, Heo CD, Koh H, Han SW, **2018**, Cyclic Behavior of Existing RC Columns with Lap Splices under Biaxial Bending. *Journal of the Korea Concrete Institute*, **30**(5):473–480; DOI: `10.4334/JKCI.2018.30.5.473`.

9. Koh H, Han SW, Heo CD, Lee CS, **2017**, Calibration of Parameters for Predicting Hysteretic Behavior of Diagonally Reinforced Concrete Coupling Beams. *Journal of the Earthquake Engineering Society of Korea*, **21**(6):303–310; DOI: `10.5000/EESK.2017.21.6.303`.

10. Lee Cs, Han SW, Ko G, **2017**, Calibration Methodology for Predicting Hysteretic Behavior of Reinforced Concrete Columns Failed in Shear. *Journal of the Earthquake Engineering Society of Korea*, **21**(1):41–48; DOI: `10.5000/EESK.2017.21.1.041`.

11. Han SW, Kim JY, Moon KH, Lee CS, Kim HJ, Lee KS, **2014**, Seismic Behavior of Reinforced Concrete Moment Frames Retrofitted by Toggle Bracing System with High Density Friction Damper. *Journal of the Earthquake Engineering Society of Korea*, **18**(3):133–140; DOI: `10.5000/EESK.2014.18.3.133`.

12. Moon KH, Jeon YR, Lee CS, Han SW**, 2012**, Evaluation of Performance of Korean Existing School Buildings with Masonry Infilled Walls Against Earthquakes. *Journal of the Earthquake Engineering Society of Korea*, **16**(6):37–46; DOI: `10.5000/EESK.2012.16.6.037`.