

Chee Kyeong Kim

152, Jukseon-ro, Suji-gu, Yongin-si, Gyeonggi-do, 16890, Korea
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EDUCATION

Seoul National University, Seoul, Korea (South)

PhD of Structural Engineering in Architectural Engineering, August, 1992.

- Dissertation: "Development of an Integrated System for Structural Engineering of Buildings Using Object-Oriented Design Method"

Seoul National University, Seoul, Korea (South)

Master of Structural Engineering in Architectural Engineering, February. 1988.

- Thesis: "A Study on the Development of Expert System for Preliminary Design"

Seoul National University, Seoul, Korea (South)

Bachelor of Engineering in Architectural Engineering, February. 1986.

RESEARCH AND TEACHING INTERESTS

Structural System Design of Hi-rise Building and Space Structure

Computational Mechanics and Structural Analysis of Building Structures

State Assessment and Evaluation of Building Structures

Computer-Aided Engineering

Integrated Structural Design System and Engineering Database

On-line Exchange of Engineering Information (STEP, IFC, CIC, CALS, XML)

PUBLICATION

International Academic Paper

Kim, C. K., Kim, Y. M., Kim, J. K., "Adaptive Newton-Raphson Method for Analysis of Structures with Material Nonlinearity Using Stiffness-Equivalent Load", Advances in Structural Engineering Vol.14, No.5, 2011.10.

Kim, Y. M., Kim, C. K., "Rough set based decision algorithm for determination of category of crack causes in reinforced concrete structures", Advances in Engineering Software, 2009. 3.

Kim, C. K., Kim, Y. M., "Concept of Equivalent Load for Stiffness and its Applications", ASCE Journal of Structural Engineering(ISBN:0733-9445), Vol.134 No.3, pp.458-465, 2008. 3.

Kim, C. K., Lee, J. C., Kim, Y. M., "Concept For TLG Object Modeling and Application to Structural Design of Buildings", ASCE Journal of Computing in Civil Engineering, Vol. 21, No. 4, 2007. 7.

Kim, Y. M., Kim, C. K., Hong, G. H., "Fuzzy set based crack diagnosis system for reinforced concrete structures", Computers and Structures, on-line published, 2007. 6.

Park, J., Moon, B., Min, K., Lee, S., Kim, C. K., "Cyclic loading test of friction-type reinforcing members upgrading wind-resistant performance of transmission towers", Engineering Structures, on-line published, 2007. 5.

Kim, Y. M., Kim, C. K., Hong, S.G., "Fuzzy Based State Assessment for Reinforced Concrete Building Structures", Engineering Structures, Vol. 28, No. 9, pp. 1286-1297, 2006. 7.

Kim, H. S., Lee, D. G., Kim, C. K., "Efficient Three-Dimensional Seismic Analysis of a High-Rise Building Structure with Shear Walls", Vol. 27, No. 6, pp. 963-976, 2005. 5.

Kim, C. K., Kim, H. S., Hwang, J. S. and Hong, S. M., "Stiffness Based Optimal Design of Tall Steel Frameworks Subject to Lateral Loading", Structural Optimization, Vol. 15, No. 3, pp. 180-185, 1998.

Hong, S. M., Kim, C. K., "Development of Integrated Information Management Expert System for Structural Engineering of Buildings", Microcomputers in Civil Engineering, 8(1), pp9~26, 1993.

Domestic Academic Paper

Hyun-Chul Choi, Chee-Kyeong Kim, Yun-Jae Lee, Si-Eun Lee “Development of 3-Dimensional Rebar Detail Design and Placing Drawing System”, Journal of the Computational Structural Engineering Institute of Korea volume 27 issue 4, 2014. 08.

Yun-Jae Lee, Chee-Kyeong Kim, Hyun-Chul Choi “Computational Optimization for RC Columns in Tall Buildings”, Journal of the Korea Concrete Institute volume 26 issue 3, 2014. 06.

Jong-Hyun Jung, Jae-Cheol Lee, Chee-Kyeong Kim “Representation of the Shape and Layout of Rebars using IFC at Construction Document Phase”, Journal of the Architectural Institute of Korea, volume 30 issue 1, 2014. 01.

Yeong-Min Kim, S. G. Lee, Hyun-Chul Choi, Chee-Kyeong Kim “case study on the field application of parametric design technique for optimization of outrigger system high-rise building structures”, Journal of the Architectural Institute of Korea, volume 28 issue 12, 2012. 12.

Ji-Hyun Kim, Min-Soo Kim, Jae-Cheol Lee, Jong-Hyun Jung, Chee-Kyeong Kim “Representation of standard steel connections using IFC”, Journal of the Architectural Institute of Korea, volume 28 issue 7, 2012. 07.

Jong-Hyun Jung, Chee-Kyeong Kim, Jae-Cheol Lee, Ji-Hyun Kim, Min-Soo Kim “Representation of rebar using ifc at schematic structural design stage”, Journal of the Architectural Institute of Korea, volume 28 issue 1, 2012. 01.

Chee-Kyeong Kim, Hyun-Chul Choi, Yeong-Min Kim “Selection of optimal structural system for complex-shaped super-tall building structural systems using parametric design technique”, Journal of the Architectural Institute of Korea, volume 28 issue 1, 2012. 01.

Chee-Kyeong Kim, Sang-Su Lee, Hyun-Chul Choi, Jae-Cheol Lee “A Study on Parametric Modeling for the Analysis of Irregular Large Space Structures”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2011.04.

Chee-Kyeong Kim, Yeong-Min Kim, Si-Eun Lee “Cost based alternative evaluation of high-rise building structural systems”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2011.04.

Chee-Kyeong Kim, Byung-Kwon Lee “Design and Implementation of the Quantity Surveying and Shop Drawing System for Structures”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2011.04.

Chee-Kyeong Kim, Jong-Hyun Jung “A Study on the Interface Module for Integrated Platform”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2011.04.

Chee-Kyeong Kim, C. H. Park, H. J. Kim “Generation 3D Structural Information Model by Recognition of 2D Drawings”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2011.04.

Yeong-Min Kim, Chee-Kyeong Kim “A Study on the Alternative Evaluation of the High-rise Building Structural System”, Journal of the Computational Structural Engineering Institute of Korea, volume 23 issue 4, 2010.8.

J. S. Lee, H. J. Kim, Chee-Kyeong Kim “Design and Implementation of ConiForm for the Construction Management of Structures”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2010.4.

Jong-Hyun Jung, Chee-Kyeong Kim “Integrated Design Platform and Standard Data Model for the Irregular-shaped High-Rise Buildings”, Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2010.4.

Sang-Su Lee, Hyun-Chul Choi, Chee-Kyeong Kim "A Study on Parametric Modeler to Generate Structural Analysis Model", Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2010.4.

C. H. Park, Chee-Kyeong Kim "Management of Design and Construction Information of Building Structures Based on IFC", Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2010.4.

Byung-Kwon Lee, Chee-Kyeong Kim "3D Rebar Placing and Drawing System", Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2010.4.

S. Y. Tak, G. H. Hong, Chee-Kyeong Kim, H. G Kim "Development of the Web-Based Safety Management System for the Specific Control Buildings", Journal

of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2009.4.

Byung-Kwon Lee, Chee-Kyeong Kim, G. J. Kim "Development of the Rebar Auto Placing System Using 3D Structural Information Model", Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, 2009.4.

Jae-Cheol Lee, Chee-Kyeong Kim, "Lateral Drift Control of High-rise Buildings using Partial Reanalysis Algorithm", Journal of the Academic Presentation Conference of the Computational Structural Engineering Institute of Korea, volume 22 issue 1, 2009. 2.

Chee-Kyeong Kim, G. H. Hong, Il Du Go, "Development Strategy for a Facilities Safety Management System Based on NGIS", Journal of the Computational Structural Engineering Institute of Korea, volume 21 issue 5, 2008. 10.

Chee-Kyeong Kim, Yeong-Min Kim, "New Nonlinear Analysis Algorithm Using Equivalent Load for Stiffness", Journal of the Computational Structural Engineering Institute of Korea, volume 20 issue 6, 2007. 12.

Chee-Kyeong Kim, Jae-Cheol Lee, "New Equivalent Static Analysis Method of Dynamic Behavior during Progressive Collapse", Journal of the Computational Structural Engineering Institute of Korea, volume 20 issue 3, 2007. 6.

Chee-Kyeong Kim, "Definition and Application of Equivalent Load for Stiffness", Journal of the Computational Structural Engineering Institute of Korea, volume 19 issue 3, 2006. 9.

Chee-Kyeong Kim, "Application of the Unstructured Finite Element to Longitudinal Vibration Analysis", Journal of the Computational Structural Engineering Institute of Korea, volume 19 issue 1, 2006.3

Chee-Kyeong Kim, Yeong-Min Kim, "Direct Control of Displacement Using Displacement and Resistance Force Contribution Factor", Journal of the Korean Association for Spatial Structures, volume 5 issue 3, 2005. 9.

Chee-Kyeong Kim, "An Efficient Partial Reanalysis Algorithm for the Locally Changed Structures", Journal of the Computational Structural Engineering Institute of Korea, volume 17 issue 4, 2004. 12.

Chee-Kyeong Kim, G. H. Hong, Yeong-Min Kim, "Design and Implementation of Safety Management Information System for RC Buildings", Journal of the Architectural Institute of Korea,, volume 18 issue 11, 2002. 11.

H. J. Lee, Chee-Kyeong Kim, H. S. Kim, "Lateral Drift Control and Resizing Technique for Tall Buildings using Lateral-Stiffness Influence Matrix", Journal of the Computational Structural Engineering Institute of Korea, volume 15 issue 2, 2002. 6.

Jong-Hyun Jung, Chee-Kyeong Kim, "Data Model for Preliminary Structural Design of Buildings", Journal of the Architectural Institute of Korea, volume 18 issue 4, 2002. 4.

Yeong-Min Kim, Chee-Kyeong Kim, G. H. Hong, Sung-Gul Hong, "Fuzzy based state assessment for reinforced concrete building structures Fuzzy Integral", Journal of the Architectural Institute of Korea, volume 17 issue 12, 2001. 12.

Yeong-Min Kim, Chee-Kyeong Kim, G. H. Hong, Sung-Gul Hong, "Decision Making Algorithm for Determination of Category of Crack Causes of Reinforced Concrete Structures Using Rough Set Theory", Journal of the Architectural Institute of Korea, volume 17issue 10, 2001. 10.

Yeong-Min Kim, Chee-Kyeong Kim, G. H. Hong, Sung-Gul Hong, "Computer-Assisted Crack Diagnosis System (CACDS) for Reinforced Concrete Structures Using Fuzzy Set Theory", Journal of the Architectural Institute of Korea, volume 17 issue 4, 2001. 4

Chee-Kyeong Kim, S. M. Hong "Modeling and Implementation of Structural Design Information Database in Object-Relational Framework", Journal of the Architectural Institute of Korea, volume 17 issue 2, 2001. 2.

Jae-Cheol Lee, Chee-Kyeong Kim, S. M. Hong, "Design and Application of Object Model for Systematic Management of Structural Design Information", Journal of the Architectural Institute of Korea, volume 16 issue 2, 2000. 2.

Chee-Kyeong Kim, "Design and Implementation of Engineering Database for Pre-Engineered Buildings", Journal of the Architectural Institute of Korea, volume 15 issue 8, 1999. 8.

Jae-Cheol Lee, Jong-Hyun Jung, Chee-Kyeong Kim, S. M. Hong, "Viewpoint / Layer based Data Model (V/L Model) for Integrated Computer Aided Structural

Design Systems”, Journal of the Architectural Institute of Korea, volume 15 issue 3, 1999. 3.

Hong-Woo Lee, Hae-Eun Song, Chee-Kyeong Kim, S. M. Hong, “A Study on the Two Level Formulation of Frame Design Procedure”, Journal of the Architectural Institute of Korea, volume 13 issue 11, 1997. 11.

Chee-Kyeong Kim, Jong-Hyun Jung, S. M. Hong, “A New Concept of Structural Design Processor Totally Assisting in the Editing Process of Structural Design Report”, Journal of the Architectural Institute of Korea, volume 13 issue 8, 1997. 8.

H. S. Kim, Chee-Kyeong Kim, J. S. Hwang, S. M. Hong, “Lateral Drift Control of Tall Buildings by Substructuring Sensitivity Analysis”, Journal of the Architectural Institute of Korea, volume 13 issue 4, 1997. 4.

Jong-Hyun Jung, Jae-Cheol Lee, Chee-Kyeong Kim, S. M. Hong, “A Strategy for the Object-Oriented Finite Element Programming focused on Expansibility”, Journal of the Architectural Institute of Korea, volume 11 issue 11, pp129~136, 1995. 11.

Chee-Kyeong Kim, S. M. Hong, “Tall Building Analysis Considering the Differential Column Shortening Dependent on the Construction and Loading Sequence”, Journal of the Architectural Institute of Korea, volume 11 issue 10, pp283~290, 1995. 10.

Chee-Kyeong Kim, J. S. Hwang, S. M. Hong, “Quantitative Lateral Drift Control of High-Rise Buildings Using the Lateral Stiffness-Sensitivity Analysis”, Journal of the Architectural Institute of Korea, volume 10 issue 11, pp299~306, 1994. 11.

Sun-Kuk Kim, Chee-Kyeong Kim, “Integrated Automation of Structural Design and Rebar Work in RC Structures”, Journal of the Architectural Institute of Korea, volume 10 issue 1, pp113~122, 1994. 1.

S. M. Hong, Myong-Jae Heo, Il Du Goh, Chee-Kyeong Kim, “Study on the Development of Integrated System for Structural Design of Buildings Using Object-Oriented Design Method”, Journal of the Architectural Institute of Korea, volume 8 issue 11, pp129~140, 1992. 11.

Chee-Kyeong Kim, S. M. Hong, “Development of an Integrated System for Structural Engineering of Buildings Using Object-Oriented Design Method (I) (Developed development concept and basic aspects)”, Journal of the Architectural Institute of Korea, volume 8 issue 1, pp171~179, 1992. 1.

S. M. Hong, Myong-Jae Heo, Il Du Goh, Chee-Kyeong Kim, "Study on the Structural Design Expert System with Artificial Intelligence", Journal of the Architectural Institute of Korea, volume 5 issue 4, pp113~122, 1989. 8.

PRESENTATIONS

International Academic conference presentations

Kim, C. K., Lee, S. E., "Design and Implementation of Integrated Structural Design System", EASEC-10, Bangkok, 2006. 8.

Kim, C. K., Lee, S. E., "Design and Implementation of Integrated Structural Design System", CTBUH 2004 Seoul Conference, 2004. 10.

Kim, C. K., Kim, Y. M., Hong, S. M., "Object-Relational Database for Structural Design Information of Buildings", EASEC-3, Singapore, 2001.

Kim, C. K., Lee, S. E., Hong, S. M., "A New Integrated Database Model for the Design and Construction Information of Building Structures", Int'l Conf on Construction Information Technology 2000, Hong Kong, 2000.

Kim, Chee Kyeong & Lee, Si Eun & Hong, Sung Mok, "Structural Design Processor : A New Approach to Computer-Integrated Structural Design System", 1st Int'l Conf on Advances in Structural Engineering & Mechanics, Korea, 1999.

Kim, Chee Kyeong & Lee, Si Eun, "MLG Database Model for Object-Oriented Modeling of Buildings in Relational Database Framework", Proceeding of 1st Conf. of New Technologies for Decision Making in Civil Engineering, Canada, 1998.

Kim, Chee Kyeong & Hong, Sung Mok, "TANiSys : A Computer-Integrated Engineering System for Low-Rise Metal Buildings", Proceeding of 1st Conf. of New Technologies for Decision Making in Civil Engineering, Canada, 1998.

Hwang Jae Seung, Kim Chee Kyeong, Kim Ho-Soo, Hong Sung Mok, "Quantitative Lateral Drift Control of High-Rise Buildings Using the Lateral Stiffness-Sensitivity Analysis", The 6th Int'l Conf. on Computing in Civil and Building Eng., pp1099~1104, 1995.

Kim Ho Soo, Hong Sung Mok, Kim Chee Kyeong, Min Kyung Won, "Transition Elements for the Numerical Modelling of Transition Regions of Coupled Wall Structures", The 3rd World Congress on Computational Mechanics, pp1852~1853, 1994.

Kim Chee Kyeong, Hong Sung Mok, "Object-Oriented Database for Integrated Structural Design System", International Conference on Computer Aided Engineering and Design, pp161~168, 1993.

Kim Chee Kyeong, Hong Sung Mok, "Development of an Integrated System for Structural Design of Buildings Using OODP Method", The 5th Int'l Conf. on Computing in Civil and Building Eng., pp521~528, 1993.

Hong Sung Mok, Kim Chee Kyeong, "Development of Integrated Information Management Expert System for Structural Engineering of Buildings", The 4th Int'l Conf. on Computing in Civil and Building Eng., p244, 1991. 7.

Domestic Academic conference presentations

Chee-Kyeong Kim, Y. C. Hwang, G. J. Kim "Equivalent Static Analysis of Progressive Collapse Using Equivalent Load for Stiffness", Symposium of Computational Structural Engineering Institute of Korea, volume 20 issue 1, 2007. 4.

Chee-Kyeong Kim, "Design and Implementation of Rebar Detailing DB and System in RC Buildings", Symposium of Computational Structural Engineering Institute of Korea, volume 20 issue 1, 2007. 4.

Chee-Kyeong Kim, Y. C. Hwang, "Improvement of Newton-Raphson Iteration Using ELS", Symposium of Korean Association for Spatial Structures, 2006. 5.

Chee-Kyeong Kim, D. I. Choi, "Partial Reanalysis Algorithm with Static Condensation", Symposium of Korean Association for Spatial Structures, 2006. 5.

Chee-Kyeong Kim, "New Non-iterative Non-incremental Nonlinear Analysis", Symposium of Computational Structural Engineering Institute of Korea, volume 19 issue 1, 2006. 4.

Chee-Kyeong Kim, Y. C. Hwang, "Construction of Web-based Structural Design Environment for Mid and Row-Rise Buildings", Symposium of Computational Structural Engineering Institute of Korea, volume 19 issue 1, 2006. 4.

Chee-Kyeong Kim, D. I. Choi, "Computer-Aided Drawing and Manufacturing of Rebars for RC Buildings", Symposium of Computational Structural Engineering Institute of Korea, volume 19 issue 1, 2006. 4.

Chee-Kyeong Kim, Yeong-Min Kim, Si-Eun Lee, "Form a Building Safety Management System Through the Life Cycle", Symposium of Korean Society of Hazard Mitigation, 2006. 2.

Chee-Kyeong Kim, Si-Eun Lee, "Development of Auto-Design Technology of Super Tall Building Structural System", Super Tall Building Construction Technology Development Research Result Presentation, 2005. 12.

Chee-Kyeong Kim, G. H. Hong, Jae-Ho Choi, "Requirement Analysis and Implementation of Building Safety Management System", Symposium of Korea Institute for Structural Maintenance and Inspection, 2004. 11.

J. W. Park, D. H. Lee, H. J. Lee, Chee-Kyeong Kim, H. S. Kim, "Study on Lateral Drift Control of Tall Tube Frames using Sensitivity Analysis", Journal of the Spring Symposium of the Architectural Institute of Korea, volume 22 issue 1, 2002. 4., pp.31-34

Chee-Kyeong Kim, G. H. Hong, "Data modeling for building safety management system development", Journal of the Architecture Institute of Korea Daejeon Chungnam Region, volume 9 issue 1, 2001. 11.

Yeong-Min Kim, Chee-Kyeong Kim, G. H. Hong, Sung-Gul Hong, "State Assessment of Reinforced Concrete Building Structures Using Fuzzy Integral", Journal of the Fall Symposium of the Architectural Institute of Korea, volume 21 issue 2, 2001. 10.

J. H. Kim, I. H. Kim, Chee-Kyeong Kim, Sung-Gul Hong, "Object-Oriented Finite Element Analysis Model considering the Expansibility of Solution Algorithm", Journal of the Fall Symposium of the Architectural Institute of Korea, volume 21 issue 2, 2001. 10.

J. W. Park, G. H. Hong, Chee-Kyeong Kim, "a study on the development of building safety management system in R.C building", Journal of the Spring Symposium of the Architectural Institute of Korea, volume 21 issue 1, 2001. 4.

Sang-Su Lee, Chee-Kyeong Kim, Jae-Cheol Lee, S. M. Hong, "Designing and Implementing Engineering Database for Pre-engineered Building System", Journal of the Fall Symposium of the Architectural Institute of Korea, volume 18 issue 2, 1998. 10.

Chee-Kyeong Kim, "A Basic Study for Computerization of Initial Design of Architectural structures", Journal of the Architecture Engineering of the Sunmoon University, 1998. 6.

Yeong-Min Kim, Jae-Cheol Lee, Jong-Hyun Jung, Chee-Kyeong Kim, Sung Mok Hong, "A Study on Three Dimensional Modeling of Architectural Structures", Journal of the Fall Symposium of the Architectural Institute of Korea, volume 16 issue 2, 1996. 10.

Jae-Cheol Lee, Jong-Hyun Jung, Chee-Kyeong Kim, Sung Mok Hong "Database for Computer Aided Structural Design of Floor Systems", Journal of the Spring Symposium of the Architectural Institute of Korea, volume 15 issue 1, pp45~50, 1995. 4.

Jong-Hyun Jung, Jae-Cheol Lee, Chee-Kyeong Kim, Sung Mok Hong, "Framework for the Finite Element Programming focused on Expansibility", Journal of the Spring Symposium of the Architectural Institute of Korea, volume 14 issue 1, pp369~372, 1994. 4.

Chee-Kyeong Kim, Sung Mok Hong, "Modeling of Building Structure for an Integrated Structural Design", Journal of the Symposium of the Computational Structural Engineering Institute of Korea, volume 6 issue 1, pp71~78, 1993.4

Chee-Kyeong Kim, Sung Mok Hong, "Study on the Development of a Program for the Check of Structural System", Journal of the Spring Symposium of the Architectural Institute of Korea, volume 9 issue 1, 1989.4

TEACHING AND ADVISING EXPERIENCE

- **Dankook University**
Professor at the College of Architecture, Architectural Engineering, 2014-present.
- **Sunmoon University**
Professor at the College of Engineering, Architectural Engineering, 1996-2014
- **Univ. of Washington**
Exchange Professor at the Univ. of Washington, Dept of Civil & Environmental Eng. 2003-2004

PROFESSIONAL EXPERIENCE

- **Super Tall Building Global R&D Center, Yongin, Korea (South)**
Vice President, December 2015-present.
- **Goyang-Si, Goyang, Korea (South)**
Member of the Architectural Design Review Committee, January 2015-present.
- **Public Procurement Service, Korea (South)**
Member of the Design Evaluation Committee, March 2010-February 2012.
- **Korea Institute of Construction Technology, Korea (South)**
Member of the Review of Results of Preliminary Reconstruction and Safety Diagnosis and Review Committee, August 2014-present.
- **Korea Infrastructure Safety and Technology Corporation, Korea (South)**
Member of the Green Building Certification Review Committee, January 2015-present.
- **Computational Structural Engineering Institute of Korea, Korea (South)**
Vice President of General Affairs, January 2016-present.
- **Architectural Institute of Korea, Korea (South)**
Structure Chief of Academic Journal Editorial Committee, April 2014-present.
- **Changminwoo Structure Consultant Corporation, Seoul, Korea (South)**
Leader of System Engineering Team, September 1992-February 1996.

AWARDS

- **Bronze Prize of Korea CAD/CAM Software Contest Exhibition**, 2002.03.
- **Computational Structural Engineering Institute of Korea Paper Prize**, 2005.04.
- **16th Excellent Science and Technology Paper Award**, Korean Federation of Science and Technology Societies, 2006.11.
- **2009 Construction Award of Architecture Institute of Korea**, 2009.04.

- **2010 Excellence Award of Land, Transportation and Maritime Affairs Competition**, 2010.06.
- **2010 Construction, Transportation, and Technology R&D Excellence Award**, 2011.03.
- **2011 Korean Agency for Technology and Standards Award**, 2011.
- **2012 Academic Award of Annual Symposium of Computational Structural Engineering Institute of Korea**, 2012.04.
- **2012 Excellence Award of Top 100 R&D of Korea Science and Technology Committee**, 2012.12.
- **2013 Ministry of Land Infrastructure and Transport Award, and Technology Grand Award**, 2013.02.
- **2017 National R&D Excellence Award top 100**, 2017.09.

INTELLECTUAL PROPERTY RIGHT

Patent Registration of Republic of Korea

- **No. 10-1583723** : Interactive synchronizing system of BIM digital model and Real construction site (2016.1.4.)
- **No. 10-062059** : A Re-Analysis Method for the Partially Changed Structures Using Adaptable Substructuring and its Executing Program (2006.8.29.)

Software and Computer Program Registration

- **Architectural Structural Design Integration System SDP2000**
Software registration of Republic of Korea, No. 2000-01-12-8439 (2000.12.21.)
- **Structural Design and Quantity Calculation Integrated System SDP**
Korea Software Copyright Committee, No. 2008-01-181-002865 (2008.6.10)
- **Structural Design Creation System of RC Building SDM4RC**
Korea Software Copyright Committee, No. 2008-01-181-002866 (2008.6.10)
- **Architectural Structural Framing Calculation Program**
Korea Copyright Commission, No. 2011-04-199-000400 (2011.01.24)
- **STRAUTO 1.0**
Korea Copyright Commission, No. 2011-01-199-000397 (2011.01.24)
- **Open type BIM Infrastructure Information Builder 1.0**
Korea Copyright Commission, No. 2011-01-199-000389 (2011.01.24)
- **StrCon**
Korea Copyright Commission, No. S-2011-012275 (2012.01.01)
- **StrElem**

Korea Copyright Commission, No. S-2011-012276 (2012.01.01)

- **Struss**

Korea Copyright Commission, No. S-2011-012277 (2012.01.01)

- **Builder Hub**

Detailed frame design system based on 3D BIM , 2015

- **ConiForm**

Construction management system based on 3D BIM, 2009

- **SDP2006**

Integrated System for Architectural Structural Design (Establishment and Commercialization of Venture Business), 2008

- **SDPShop**

Structural drawing (structural plan, member list, rebar drawing, process criterion)system, 2008

- **StArt2005**

Finite element structure analysis program, 2005

- **Safety4RC**

Precise structural safety diagnosis and evaluation system of reinforced concrete buildings, 2004

- **LatCon**

Super tall building lateral drift control program using layer stiffness influence matrix, 2002

- **ColShort**

Analysis program of columnar coaxial deformation of super tall building, 2001

- **TANiSys**

PEB Integration system of steel structure frame analysis and design (applied to Tantan Structural Engineering Corporation), 1999

- **GHouse**

Integrated system of European style green house structural design (applied to Rural Development Administration), 1996

RESEARCH EXPERIENCE

Dankook University, Yongin, Korea (South), Research Director, April 2017-present.

- Supervised an overall research of “Development of the Smart Field Platform for Planning and Managing Building Construction” sponsored by Institute for Information & communication Technology Promotion

Dankook University, Yongin, Korea (South), Research Director, July 2015-present.

- Supervised an overall research of “Development of Integrated Design Engineering Technology for Retractable Large Spatial Structures” sponsored by KAIA.

Dankook University, Yongin, Korea (South), Research Director, December 2015-present.

- Supervised an overall research of “Development of Super-tall Building Design and Construction Technologies for the Global Market” sponsored by Ministry of Land, Infrastructure, and Transport.

Dankook University, Yongin, Korea (South), Research Director, December 2014-March 2016.

- Supervised an overall research of “Development of Truss Structure Parametric Design Technique for HSA 600, 800 Steel Pipe” sponsored by POSCO corporation.

Sunmoon University, Asan, Korea (South), Research Director, December 2009-June 2015.

- Researcher of “Integrated Design Platform for the Irregular-shaped Structural System” reserach sponsored by Ministry of Land, Infrastructure, and Transport.

Sunmoon University, Asan, Korea (South), Research Director, August 2009-December 2009.

- Supervised an overall research of “Basic research service for building integrated management system of safety maintenance history of major facilities in Korea” sponsored by Korea Infrastructure Safety and Technology Corporation.

Sunmoon University, Asan, Korea (South), Research Director, August 2007-December 2009.

- Researcher of “Developing an online safety management system for each responsible entity of a specific management target facility” sponsored by National Institute for Disaster Prevention.

Sunmoon University, Asan, Korea (South), Research Director, August 2005-July 2008.

- Supervised overall system development of “Web-based middle and low floor building design and computerization of drawings” sponsored by Ministry of Construction and Transportation.

Sunmoon University, Asan, Korea (South), Research Director, May 2006-April 2007.

- Supervised an overall research of “Supplementation / improvement of condition evaluation program according to precise safety diagnosis of buildings” sponsored by Korea Infrastructure Safety Corp.

Sunmoon University, Asan, Korea (South), Research Director, January 2006-February 2006.

- Developed concept scope and detail information & scheduled “Planning project for large – scale space construction technology development project” research sponsored by Ministry of Construction and Transportation.

SKILLS

- Structural Analysis : Linear / nonlinear, static / dynamic analysis technology and many achievements using SAP2000, ADINA, ETABS, ABAQUS, ANSYS, MIDAS
- Structural Design : 5 years and 6 month experience as a Structural Engineer & 4 years of experience of structural design as structural system consultant professor in Changminwoo Consultant.
- Programming Language : FORTRAN, C++(MS Visual C++), BASIC(MS Visual Basic)
- S/W Engineering : UML(Rational Rose), IDEF0(AIOWin)
- Database : Design and build an relational database and an object-oriented database