# Ikjin Lee

List of Publications by Year
in descending order

| | | |
|---|---|---|
| 86 papers | 2,605 citations | 201674 27 h-index |
| 87 all docs | 87 docs citations | 87 times ranked |

206112
48
g-index

1404
citing authors

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Idle vehicle relocation strategy through deep learning for shared autonomous electric vehicle system optimization. Journal of Cleaner Production, 2022, 333, 130055. | 9.3 | 17 |
| 2 | A bayesian model calibration under insufficient data environment. Structural and Multidisciplinary Optimization, 2022, 65, 1. | 3.5 | 1 |
| 3 | Statistical model calibration and design optimization under aleatory and epistemic uncertainty. Reliability Engineering and System Safety, 2022, 222, 108428. | 8.9 | 15 |
| 4 | Efficient sampling-based inverse reliability analysis combining Monte Carlo simulation (MCS) and feedforward neural network (FNN). Structural and Multidisciplinary Optimization, 2022, 65, 1. | 3.5 | 6 |
| 5 | Sampling-based weighted reliability-based design optimization. Structural and Multidisciplinary Optimization, 2022, 65, 1. | 3.5 | 3 |
| 6 | Design for shared autonomous vehicle (SAV) system employing electrified vehicles: Comparison of battery electric vehicles (BEVs) and fuel cell electric vehicles (FCEVs). Cleaner Engineering and Technology, 2022, 8, 100505. | 4.0 | 11 |
| 7 | Modeling of geometric uncertainties in topology optimization via the shift of design nodes. Structural and Multidisciplinary Optimization, 2022, 65, . | 3.5 | 5 |
| 8 | An expected uncertainty reduction of reliability: adaptive sampling convergence criterion for Kriging-based reliability analysis. Structural and Multidisciplinary Optimization, 2022, 65, . | 3.5 | 4 |
| 9 | 3D reconstruction of as-built model of plant piping system from point clouds and port information. Journal of Computational Design and Engineering, 2021, 8, 195-209. | 3.1 | 7 |
| 10 | Efficient high-dimensional metamodeling strategy using recursive decomposition coupled with sequential sampling method. Structural and Multidisciplinary Optimization, 2021, 63, 375-390. | 3.5 | 8 |
| 11 | Confidence-Based Design Optimization for a More Conservative Optimum Under Surrogate Model Uncertainty Caused by Gaussian Process. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, . | 2.9 | 20 |
| 12 | Optimization-based model calibration of marginal and joint output distributions utilizing analytical gradients. Structural and Multidisciplinary Optimization, 2021, 63, 2853-2868. | 3.5 | 6 |
| 13 | Error-lumped inverse uncertainty quantification of automotive heat exchangers (HEXs) using large-scale database from system level tests. Structural and Multidisciplinary Optimization, 2021, 64, 2709-2724. | 3.5 | 0 |
| 14 | Modeling, analysis, and optimization under uncertainties: a review. Structural and Multidisciplinary Optimization, 2021, 64, 2909-2945. | 3.5 | 37 |
| 15 | Optimal design of experiments for optimization-based model calibration using Fisher information matrix. Reliability Engineering and System Safety, 2021, 216, 107968. | 8.9 | 12 |
| 16 | Multi-resolution topology optimization using adaptive isosurface variable grouping (MTOP-aIVG) for enhanced computational efficiency. Structural and Multidisciplinary Optimization, 2021, 63, 1743-1766. | 3.5 | 8 |
| 17 | Efficient high-dimensional metamodeling strategy using selectively high-ordered kriging HDMR (SH-K-HDMR). Journal of Mechanical Science and Technology, 2021, 35, 5099-5105. | 1.5 | 2 |
| 18 | Determination of sample size for input variables in RBDO through bi-objective confidence-based design optimization under input model uncertainty. Structural and Multidisciplinary Optimization, 2020, 61, 253-266. | 3.5 | 7 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | Selective dimension reduction method (DRM) to enhance accuracy and efficiency of most probable point (MPP)–based DRM. Structural and Multidisciplinary Optimization, 2020, 61, 999-1010. | 3.5 | 6 |
| 20 | Shared autonomous electric vehicle design and operations under uncertainties: a reliability-based design optimization approach. Structural and Multidisciplinary Optimization, 2020, 61, 1529-1545. | 3.5 | 19 |
| 21 | Choice data generation using usage scenarios and discounted cash flow analysis. Journal of Choice Modelling, 2020, 37, 100250. | 2.3 | 2 |
| 22 | Pattern-free heliostat field layout optimization using physics-based gradient. Solar Energy, 2020, 206, 722-731. | 6.1 | 9 |
| 23 | Intelligent initial point selection for MPP search in reliability-based design optimization. Structural and Multidisciplinary Optimization, 2020, 62, 1809-1820. | 3.5 | 14 |
| 24 | Process of measurement error treatment using model selection and local intensive smoothing and application to refractive index estimation of water. Applied Physics B: Lasers and Optics, 2020, 126, 1. | 2.2 | 0 |
| 25 | Robust design optimization (RDO) of thermoelectric generator system using non-dominated sorting genetic algorithm II (NSGA-II). Energy, 2020, 196, 117090. | 8.8 | 46 |
| 26 | Reliability-based multi-scale design optimization of composite frames considering structural compliance and manufacturing constraints. Structural and Multidisciplinary Optimization, 2020, 61, 2401-2421. | 3.5 | 14 |
| 27 | Probabilistic analytical target cascading using kernel density estimation for accurate uncertainty propagation. Structural and Multidisciplinary Optimization, 2020, 61, 2077-2095. | 3.5 | 10 |
| 28 | Industrial issues and solutions to statistical model improvement: a case study of an automobile steering column. Structural and Multidisciplinary Optimization, 2020, 61, 1739-1756. | 3.5 | 14 |
| 29 | Deep Generative Design: Integration of Topology Optimization and Generative Models. Journal of Mechanical Design, Transactions of the ASME, 2019, 141, . | 2.9 | 190 |
| 30 | Design of a Broadband Solar Thermal Absorber Using a Deep Neural Network and Experimental Demonstration of Its Performance. Scientific Reports, 2019, 9, 15028. | 3.3 | 17 |
| 31 | Optimization of a heliostat field site in central receiver systems based on analysis of site slope effect. Solar Energy, 2019, 193, 175-183. | 6.1 | 12 |
| 32 | Discrete material selection and structural topology optimization of composite frames for maximum fundamental frequency with manufacturing constraints. Structural and Multidisciplinary Optimization, 2019, 60, 1741-1758. | 3.5 | 15 |
| 33 | Modified screening-based Kriging method with cross validation and application to engineering design. Applied Mathematical Modelling, 2019, 70, 626-642. | 4.2 | 32 |
| 34 | Reliability measure approach for confidence-based design optimization under insufficient input data. Structural and Multidisciplinary Optimization, 2019, 60, 1967-1982. | 3.5 | 20 |
| 35 | Selection of optimal target reliability in RBDO through reliability-based design for market systems (RBDMS) and application to electric vehicle design. Structural and Multidisciplinary Optimization, 2019, 60, 949-963. | 3.5 | 16 |
| 36 | Bio-inspired bimaterial composites patterned using three-dimensional printing. Composites Part B: Engineering, 2019, 165, 594-603. | 12.0 | 52 |

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| 37 | Wind farm layout optimization using genetic algorithm and its application to Daegwallyeong wind farm. JMST Advances, 2019, 1, 249-257. | 1.9 | 12 |
| 38 | A two-step optimization scheme based on equivalent stiffness parameters for forcing convexity of fiber winding angle in composite frames. Structural and Multidisciplinary Optimization, 2019, 59, 2111-2129. | 3.5 | 11 |
| 39 | Variable selection using Gaussian process regression-based metrics for high-dimensional model approximation with limited data. Structural and Multidisciplinary Optimization, 2019, 59, 1439-1454. | 3.5 | 20 |
| 40 | MPP-based approximated DRM (ADRM) using simplified bivariate approximation with linear regression. Structural and Multidisciplinary Optimization, 2019, 59, 1761-1773. | 3.5 | 13 |
| 41 | Modified augmented Lagrangian coordination and alternating direction method of multipliers with parallelization in non-hierarchical analytical target cascading. Structural and Multidisciplinary Optimization, 2018, 58, 555-573. | 3.5 | 13 |
| 42 | Determination of absorption coefficient of nanofluids with unknown refractive index from reflection and transmission spectra. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 213, 107-112. | 2.3 | 9 |
| 43 | Convergence Strategy for Parallel Solving of Analytical Target Cascading with Augmented Lagrangian Coordination. , 2018, , 117-132. | | 0 |
| 44 | Integrated design optimization of composite frames and materials for maximum fundamental frequency with continuous fiber winding angles. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 1084-1094. | 3.4 | 12 |
| 45 | Adaptive single-loop reliability-based design optimization and post optimization using constraint boundary sampling. Journal of Mechanical Science and Technology, 2018, 32, 3249-3262. | 1.5 | 15 |
| 46 | Efficient three-dimensional topology optimization of heat sinks in natural convection using the shape-dependent convection model. International Journal of Heat and Mass Transfer, 2018, 127, 32-40. | 4.8 | 35 |
| 47 | A Study on Computational Efficiency Improvement of Novel SORM Using the Convolution Integration. Journal of Mechanical Design, Transactions of the ASME, 2018, 140, . | 2.9 | 16 |
| 48 | Improved Sequential Optimization and Reliability Assessment for Reliability-Based Design Optimization. , 2018, , 289-298. | | 0 |
| 49 | Efficient Metamodeling Strategy Using Multivariate Linear Interpolation for High Dimensional Problems. , 2018, , 234-241. | | 0 |
| 50 | Topology optimization of heat sinks in natural convection considering the effect of shape-dependent heat transfer coefficient. International Journal of Heat and Mass Transfer, 2017, 109, 123-133. | 4.8 | 60 |
| 51 | Development of performance analysis model for central receiver system and its application to pattern-free heliostat layout optimization. Solar Energy, 2017, 153, 499-507. | 6.1 | 16 |
| 52 | Optimization of a direct absorption solar collector with blended plasmonic nanofluids. Solar Energy, 2017, 150, 512-520. | 6.1 | 63 |
| 53 | Bayesian inference of the flow resistivity of a sound absorber and the room's influence on the Sabine | 1.1 | 8 |
| 54 | Characterization of hardening behaviors of 4130 Steel, OFHC Copper, Ti6Al4V alloy considering ultra-high strain rates and high temperatures. International Journal of Mechanical Sciences, 2017, 131-132, 1117-1129. | 6.7 | 34 |

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| 55 | Reliability-Based Design Optimization (RBDO) for Electric Vehicle Market Systems. , 2017, , . | | 1 |
| 56 | Accuracy improvement of the most probable point–based dimension reduction method using the hessian matrix. International Journal for Numerical Methods in Engineering, 2017, 111, 203-217. | 2.8 | 14 |
| 57 | Reliability-oriented optimal design of intentional mistuning for a bladed disk with random and interval uncertainties. Engineering Optimization, 2017, 49, 796-814. | 2.6 | 10 |
| 58 | Post optimization for accurate and efficient reliability–based design optimization using second–order reliability method based on importance sampling and its stochastic sensitivity analysis. International Journal for Numerical Methods in Engineering, 2016, 107, 93-108. | 2.8 | 38 |
| 59 | Relaxed performance measure approach for reliability-based design optimization. Structural and Multidisciplinary Optimization, 2016, 54, 1439-1454. | 3.5 | 57 |
| 60 | Conservative reliability-based design optimization method with insufficient input data. Structural and Multidisciplinary Optimization, 2016, 54, 1609-1630. | 3.5 | 42 |
| 61 | Design Sensitivity Method for Sampling-Based RBDO With Varying Standard Deviation. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, . | 2.9 | 17 |
| 62 | Sequential optimization and reliability assessment based on dimension reduction method for accurate and efficient reliability-based design optimization. Journal of Mechanical Science and Technology, 2015, 29, 1349-1354. | 1.5 | 22 |
| 63 | Reliability analysis and reliability-based design optimization of roadway horizontal curves using a first-order reliability method. Engineering Optimization, 2015, 47, 622-641. | 2.6 | 50 |
| 64 | Probabilistic sensitivity analysis for novel second-order reliability method (SORM) using generalized chi-squared distribution. Structural and Multidisciplinary Optimization, 2014, 50, 787-797. | 3.5 | 29 |
| 65 | Reliability-Based Vehicle Safety Assessment and Design Optimization of Roadway Radius and Speed Limit in Windy Environments. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, . | 2.9 | 26 |
| 66 | Sampling-based approach for design optimization in the presence of interval variables. Structural and Multidisciplinary Optimization, 2014, 49, 253-266. | 3.5 | 23 |
| 67 | Second-order reliability method-based inverse reliability analysis using Hessian update for accurate and efficient reliability-based design optimization. International Journal for Numerical Methods in Engineering, 2014, 100, 773-792. | 2.8 | 75 |
| 68 | Equivalent target probability of failure to convert high-reliability model to low-reliability model for efficiency of sampling-based RBDO. Structural and Multidisciplinary Optimization, 2013, 48, 235-248. | 3.5 | 13 |
| 69 | Adaptive virtual support vector machine for reliability analysis of high-dimensional problems. Structural and Multidisciplinary Optimization, 2013, 47, 479-491. | 3.5 | 87 |
| 70 | Reply by the Authors to the Comment by H. Liang and M. Zhu. AIAA Journal, 2013, 51, 2989-2990. | 2.6 | 2 |
| 71 | Conservative Surrogate Model Using Weighted Kriging Variance for Sampling-Based RBDO. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, . | 2.9 | 34 |
| 72 | Comparison study between probabilistic and possibilistic methods for problems under a lack of correlated input statistical information. Structural and Multidisciplinary Optimization, 2013, 47, 175-189. | 3.5 | 16 |

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| 73 | A Novel Second-Order Reliability Method (SORM) Using Noncentral or Generalized Chi-Squared Distributions. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, . | 2.9 | 72 |
| 74 | Reliability-based design optimization with confidence level under input model uncertainty due to limited test data. Structural and Multidisciplinary Optimization, 2011, 43, 443-458. | 3.5 | 44 |
| 75 | Sampling-based RBDO using the stochastic sensitivity analysis and Dynamic Kriging method. Structural and Multidisciplinary Optimization, 2011, 44, 299-317. | 3.5 | 139 |
| 76 | Sampling-Based Stochastic Sensitivity Analysis Using Score Functions for RBDO Problems With Correlated Random Variables. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, . | 2.9 | 58 |
| 77 | Reliability-Based Design Optimization With Confidence Level for Non-Gaussian Distributions Using Bootstrap Method. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, . | 2.9 | 21 |
| 78 | Metamodeling Method Using Dynamic Kriging for Design Optimization. AIAA Journal, 2011, 49, 2034-2046. | 2.6 | 176 |
| 79 | Sampling-based RBDO using the stochastic sensitivity analysis and Dynamic Kriging method. , 2011, 44, 299. | | 1 |
| 80 | Identification of marginal and joint CDFs using Bayesian method for RBDO. Structural and Multidisciplinary Optimization, 2010, 40, 35-51. | 3.5 | 76 |
| 81 | System reliability-based design optimization using the MPP-based dimension reduction method. Structural and Multidisciplinary Optimization, 2010, 41, 823-839. | 3.5 | 51 |
| 82 | Comparison study between MCMC-based and weight-based Bayesian methods for identification of joint distribution. Structural and Multidisciplinary Optimization, 2010, 42, 823-833. | 3.5 | 10 |
| 83 | Sensitivity analyses of FORMâ€based and DRMâ€based performance measure approach (PMA) for reliabilityâ€based design optimization (RBDO). International Journal for Numerical Methods in Engineering, 2010, 82, 26-46. | 2.8 | 60 |
| 84 | Reduction of Ordering Effect in Reliability-Based Design Optimizatioin Using Dimension Reduction Method. AIAA Journal, 2009, 47, 994-1004. | 2.6 | 23 |
| 85 | Inverse analysis method using MPP-based dimension reduction for reliability-based design optimization of nonlinear and multi-dimensional systems. Computer Methods in Applied Mechanics and Engineering, 2008, 198, 14-27. | 6.6 | 167 |
| 86 | Dimension reduction method for reliability-based robust design optimization. Computers and Structures, 2008, 86, 1550-1562. | 4.4 | 157 |