Kwang Y Lee

List of Publications by Year
in descending order

171 papers	4,537 citations	147801 31 h-index	123424 61 g-index
181 all docs	181 docs citations	181 times ranked	3763 citing authors

#	Article	IF	Citations
1	An Improved Particle Swarm Optimization for Nonconvex Economic Dispatch Problems. IEEE Transactions on Power Systems, 2010, 25, 156-166.	6.5	501
2	Determining PV Penetration for Distribution Systems With Time-Varying Load Models. IEEE Transactions on Power Systems, 2014, 29, 3048-3057.	6.5	247
3	An Improved Multi-Objective Harmony Search for Optimal Placement of DGs in Distribution Systems. IEEE Transactions on Smart Grid, 2013, 4, 557-567.	9.0	244
4	Economic Load Dispatch—A Comparative Study on Heuristic Optimization Techniques With an Improved Coordinated Aggregation-Based PSO. IEEE Transactions on Power Systems, 2009, 24, 991-1001.	6.5	212
5	A New Quantum-Inspired Binary PSO: Application to Unit Commitment Problems for Power Systems. IEEE Transactions on Power Systems, 2010, 25, 1486-1495.	6.5	203
6	Data-driven oxygen excess ratio control for proton exchange membrane fuel cell. Applied Energy, 2018, 231, 866-875.	10.1	173
7	Coordinated Distributed MPC for Load Frequency Control of Power System With Wind Farms. IEEE Transactions on Industrial Electronics, 2017, 64, 5140-5150.	7.9	141
8	Quantum-Inspired Evolutionary Algorithm for Real and Reactive Power Dispatch. IEEE Transactions on Power Systems, 2008, 23, 1627-1636.	6.5	121
9	Large-Scale PV Plant With a Robust Controller Considering Power Oscillation Damping. IEEE Transactions on Energy Conversion, 2013, 28, 106-116.	5.2	118
10	On Tuning and Practical Implementation of Active Disturbance Rejection Controller: A Case Study from a Regenerative Heater in a 1000 MW Power Plant. Industrial & Engineering Chemistry Research, 2016, 55, 6686-6695.	3.7	118
11	Data-driven modeling and predictive control for boiler—turbine unit using fuzzy clustering and subspace methods. ISA Transactions, 2014, 53, 699-708.	5.7	91
12	Autonomous Battery Swapping System and Methodologies of Electric Vehicles. Energies, 2019, 12, 667.	3.1	67
13	An Ensemble Framework for Day-Ahead Forecast of PV Output Power in Smart Grids. IEEE Transactions on Industrial Informatics, 2019, 15, 4624-4634.	11.3	67
14	Wind speed forecasting using deep neural network with feature selection. Neurocomputing, 2020, 397, 393-403.	5.9	66
15	Fuzzy modeling and predictive control of superheater steam temperature for power plant. ISA Transactions, 2015, 56, 241-251.	5.7	65
16	Fuzzy modeling and stable model predictive tracking control of large-scale power plants. Journal of Process Control, 2014, 24, 1609-1626.	3.3	62
17	Direct energy balance based active disturbance rejection control for coal-fired power plant. ISA Transactions, 2017, 70, 486-493.	5.7	62
18	Distributed model predictive control for load frequency control with dynamic fuzzy valve position modelling for hydro—thermal power system. IET Control Theory and Applications, 2016, 10, 1653-1664.	2.1	57

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19	Optimal disturbance rejection for PI controller with constraints on relative delay margin. ISA Transactions, 2016, 63, 103-111.	5.7	55
20	The mutual benefits of renewables and carbon capture: Achieved by an artificial intelligent scheduling strategy. Energy Conversion and Management, 2021, 233, 113856.	9.2	52
21	A Thermal Unit Commitment Approach Using an Improved Quantum Evolutionary Algorithm. Electric Power Components and Systems, 2009, 37, 770-786.	1.8	51
22	An Adaptive Dynamic Matrix Control With Fuzzy-Interpolated Step-Response Model for a Drum-Type Boiler-Turbine System. IEEE Transactions on Energy Conversion, 2011, 26, 393-401.	5.2	49
23	An Effective Nonlinear Multivariable HMPC for USC Power Plant Incorporating NFN-Based Modeling. IEEE Transactions on Industrial Informatics, 2016, 12, 555-566.	11.3	45
24	Steam power plant configuration, design, and control. Wiley Interdisciplinary Reviews: Energy and Environment, 2015, 4, 537-563.	4.1	43
25	Impact Analysis of Wind Farms in the Jeju Island Power System. IEEE Systems Journal, 2012, 6, 134-139.	4.6	41
26	Reinforced coordinated control of coal-fired power plant retrofitted with solvent based CO_2 capture using model predictive controls. Applied Energy, 2019, 238, 495-515.	10.1	37
27	Wide‐area measurement signal‐based stabiliser for large‐scale photovoltaic plants with high variability and uncertainty. IET Renewable Power Generation, 2013, 7, 614-622.	3.1	35
28	Coordinated Control Strategy of PMSG and Cascaded H-Bridge STATCOM in Dispersed Wind Farm for Suppressing Unbalanced Grid Voltage. IEEE Transactions on Sustainable Energy, 2021, 12, 349-359.	8.8	35
29	Hierarchical Decomposition for Betweenness Centrality Measure of Complex Networks. Scientific Reports, 2017, 7, 46491.	3.3	34
30	Differential Evolution and its Applications to Power Plant Control. , 2007, , .		33
31	Multi-Objective Evolutionary Programming for Economic Emission Dispatch problem. , 2008, , .		32
32	Pareto-Optimal Design of Damping Controllers Using Modified Artificial Immune Algorithm. IEEE Transactions on Systems, Man and Cybernetics, Part C: Applications and Reviews, 2011, 41, 240-250.	2.9	32
33	Robust ESS-Based Stabilizer Design for Damping Inter-Area Oscillations in Multimachine Power Systems. IEEE Transactions on Power Systems, 2016, 31, 1395-1406.	6.5	32
34	Small-Disturbance Angle Stability Control With High Penetration of Renewable Generations. IEEE Transactions on Power Systems, 2014, 29, 1463-1472.	6.5	31
35	Quasi-min-max Fuzzy MPC of UTSG Water<newline/> Level Based on Off-Line Invariant Set. IEEE Transactions on Nuclear Science, 2015, 62, 2266-2272.	2.0	31
36	Effects of fractional-order PI controller on delay margin in single-area delayed load frequency control systems. Journal of Modern Power Systems and Clean Energy, 2019, 7, 380-389.	5.4	31

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37	A Combined Voltage Control Strategy for Fuel Cell. Sustainability, 2017, 9, 1517.	3.2	30
38	Fuzzy Fault Diagnosis and Accommodation System for Hybrid Fuel-Cell/Gas-Turbine Power Plant. IEEE Transactions on Energy Conversion, 2010, 25, 1187-1194.	5.2	29
39	Nonlinear dynamic analysis and control design of a solvent-based post-combustion CO_2 capture process. Computers and Chemical Engineering, 2018, 115, 397-406.	3.8	29
40	A Multiagent-System-Based Intelligent Reference Governor for Multiobjective Optimal Power Plant Operation. IEEE Transactions on Energy Conversion, 2008, 23, 1082-1092.	5.2	28
41	Suitability of PV and Battery Storage in EV Charging at Business Premises. IEEE Transactions on Power Systems, 2018, 33, 4382-4396.	6.5	28
42	Large-scale wind farm control using distributed economic model predictive scheme. Renewable Energy, 2022, 181, 581-591.	8.9	27
43	Data€driven modelling of a doubly fed induction generator wind turbine system based on neural networks. IET Renewable Power Generation, 2014, 8, 849-857.	3.1	26
44	A New Quantum-Inspired Binary PSO for Thermal Unit Commitment Problems. , 2009, , .		25
45	Data-Driven Disturbance Rejection Predictive Control for SCR Denitrification System. Industrial & Engineering Chemistry Research, 2016, 55, 5923-5930.	3.7	25
46	Iterative Learning Model Predictive Control Based on Iterative Data-Driven Modeling. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3377-3390.	11.3	24
47	Design and control of a grid-connected three-phase 3-level NPC inverter for Building Integrated Photovoltaic systems. , 2012, , .		23
48	Decentralized Fuzzy MPC on Spatial Power Control of a Large PHWR. IEEE Transactions on Nuclear Science, 2016, 63, 2343-2351.	2.0	23
49	Flexible operation of coal fired power plant integrated with post combustion CO_2 capture using model predictive control. International Journal of Greenhouse Gas Control, 2019, 82, 138-151.	4.6	23
50	Robust Model Predictive Iterative Learning Control for Iteration-Varying-Reference Batch Processes. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 4238-4250.	9.3	22
51	An Intelligent Power Plant Fault Diagnostics for Varying Degree of Severity and Loading Conditions. IEEE Transactions on Energy Conversion, 2010, 25, 546-554.	5.2	21
52	A Bidding-Based Peer-to-Peer Energy Transaction Model Considering the Green Energy Preference in Virtual Energy Community. IEEE Access, 2021, 9, 87410-87419.	4.2	21
53	Spatio-temporal wind speed prediction based on Clayton Copula function with deep learning fusion. Renewable Energy, 2022, 192, 526-536.	8.9	20
54	Stochastic Dynamic AC Optimal Power Flow Based on a Multivariate Short-Term Wind Power Scenario Forecasting Model. Energies, 2017, 10, 2138.	3.1	19

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55	Impact of Demand and Price Uncertainties on Customer-side Energy Storage System Operation with Peak Load Limitation. Electric Power Components and Systems, 2015, 43, 1872-1881.	1.8	18
56	Maximum Power Point Tracking and Voltage Regulation of Two-Stage Grid-Tied PV System Based on Model Predictive Control. Energies, 2020, 13, 1304.	3.1	18
57	Closure to Discussion on â€œEconomic Load Dispatchâ€"A Comparative Study on Heuristic Optimization Techniques With an Improved Coordinated Aggregation-Based PSOâ€. IEEE Transactions on Power Systems, 2010, 25, 591-592.	6.5	17
58	Optimal Load-Tracking Operation of Grid-Connected Solid Oxide Fuel Cells through Set Point Scheduling and Combined L1-MPC Control. Energies, 2018, 11, 801.	3.1	16
59	Resilient wideâ€area multiâ€mode controller design based on Bat algorithm for power systems with renewable power generation and battery energy storage systems. IET Generation, Transmission and Distribution, 2019, 13, 1884-1894.	2.5	16
60	Fuel cell humidity modeling and control using cathode internal water content. International Journal of Hydrogen Energy, 2021, 46, 9905-9917.	7.1	16
61	A control configuration of wind farm for load-following and frequency support by considering the inertia issue. , 2011, , .		15
62	Adjustable Robust Optimization Algorithm for Residential Microgrid Multi-Dispatch Strategy with Consideration of Wind Power and Electric Vehicles. Energies, 2018, 11, 2050.	3.1	15
63	A Comparison of the Dynamic Performance of Conventional and Ternary Pumped Storage Hydro. Energies, 2019, 12, 3513.	3.1	15
64	Adaptive Elitist Genetic Algorithm With Improved Neighbor Routing Initialization for Electric Vehicle Routing Problems. IEEE Access, 2021, 9, 16661-16671.	4.2	15
65	Maximizing Network Resilience against Malicious Attacks. Scientific Reports, 2019, 9, 2261.	3.3	14
66	Power-carbon coordinated control of BFG-fired CCGT power plant integrated with solvent-based post-combustion CO_2 capture. Energy, 2021, 226, 120435.	8.8	14
67	Neural network based superheater steam temperature control for a large-scale supercritical boiler unit. , 2011, , .		13
68	Analysis of the pareto front of a multi-objective optimization problem for a fossil fuel power plant. , 2008, , .		12
69	Contribution of PV systems with ultra capacitor energy storage on inter-area oscillation. , 2011, , .		12
70	Stochastic Unit Commitment of Wind-Integrated Power System Considering Air-Conditioning Loads for Demand Response. Applied Sciences (Switzerland), 2017, 7, 1154.	2.5	12
71	Incomplete information oriented optimal scheduling of multi-energy hub systems with thermal energy storage. Journal of Energy Storage, 2021, 42, 103062.	8.1	12
72	Stacked Auto-Encoder Modeling of an Ultra-Supercritical Boiler-Turbine System. Energies, 2019, 12, 4035.	3.1	11

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73	Design of Power System Stabilizer Using Immune Algorithm. , 2007, , .		10
74	Voltage transient analysis of a PMSG wind power system using controller-hardware-in-the loops. , 2011, , .		10
75	A self-adaptive fuzzy PI controller of power conditioning system for hybrid fuel-cell/turbine power plant. , 2011, , .		10
76	Stable model predictive control based on TS fuzzy model with application to boiler-turbine coordinated system. , 2011, , .		10
77	A modified Shuffled Frog Leaping algorithm for nonconvex Economic Dispatch problem. , 2012, , .		10
78	Comprehensive comparison of FACTS devices for exclusive loadability enhancement. IEEJ Transactions on Electrical and Electronic Engineering, 2013, 8, 7-18.	1.4	10
79	Linear Formulation for Short-Term Operational Scheduling of Energy Storage Systems in Power Grids. Energies, 2017, 10, 207.	3.1	10
80	Nonlinear Predictive Control for a Boilerâ€"Turbine Unit Based on a Local Model Network and Immune Genetic Algorithm. Sustainability, 2019, 11, 5102.	3.2	10
81	Dynamic optimal power flow with cross entropy covariance matrix adaption evolutionary strategy for systems with electric vehicles and renewable generators. International Journal of Energy Research, 2021, 45, 10869-10881.	4.5	10
82	A study on wind speed prediction using artificial neural network at Jeju Island in Korea. , 2009, , .		9
83	Design and Implementation of a Last-Mile Optical Network for Distribution Automation. IEEE Transactions on Power Delivery, 2009, 24, 1198-1205.	4.3	9
84	An Efficient Iterative Learning Predictive Functional Control for Nonlinear Batch Processes. IEEE Transactions on Cybernetics, 2022, 52, 4147-4160.	9.5	9
85	Implementation of GCPSO for Multi-objective VAr Planning with SVC and Its Comparison with GA and PSO. , 2007, , .		8
86	Closure to discussion of â€œAn improved particle swarm optimization for nonconvex economic dispatch problemsâ€. IEEE Transactions on Power Systems, 2010, 25, 2010-2011.	6.5	8
87	Design of robust power oscillation damping controller for large-scale PV plant. , 2012, , .		8
88	An improved Predictive Optimal Controller with elastic search space for steam temperature control of large-scale supercritical power unit. , 2012, , .		8
89	A Sustainable Power Plant Control Strategy Based on Fuzzy Extended State Observer and Predictive Control. Sustainability, 2018, 10, 4824.	3.2	8
90	Iterative tuning of modified uncertainty and disturbance estimator for time-delay processes: A data-driven approach. ISA Transactions, 2019, 84, 164-177.	5.7	8

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91	Deep-learning modeling and control optimization framework for intelligent thermal power plants: A practice on superheated steam temperature. Korean Journal of Chemical Engineering, 2021, 38, 1983-2002.	2.7	8
92	Supplementary Control of Air–Fuel Ratio Using Dynamic Matrix Control for Thermal Power Plant Emission. Energies, 2020, 13, 226.	3.1	8
93	An Adaptive Dynamic Matrix Control of a Boiler-Turbine System Using Fuzzy Inference. , 2007, , .		7
94	Interface of a fuel cell distributed generator with distribution system network. , 2009, , .		7
95	A comprehensive survey on multi-objective evolutionary optimization in power system applications. , 2010, , .		7
96	Modeling, operation and control of wind turbine with direct drive PMSG connected to power grid. , 2014, , .		7
97	Hybrid cross entropy–cuckoo search algorithm for solving optimal power flow with renewable generators and controllable loads. Optimal Control Applications and Methods, 2023, 44, 508-532.	2.1	7
98	Long-Term Load Forecasting Using System Type Neural Network Architecture. , 2007, , .		6
99	Design of a supplementary controller for SVC using hybrid real immune algorithm and local search. , 2008, , .		6
100	Voltage stability improvement by multi-objective placement of SVC using modified artificial immune network algorithm. , 2009, , .		6
101	An optimal reference governor with a neural network combined model for hybrid Fuel-Cell/Gas-Turbine. , 2010, , .		6
102	Multi-agent system based intelligent distributed control system for power plants. , 2011, , .		6
103	Impact of Road-Block on Peak-Load of Coupled Traffic and Energy Transportation Networks. Energies, 2018, 11, 1776.	3.1	6
104	Impact of wind power generation in the Korea-Jeju power system. , 2008, , .		5
105	New efficient reserve rate index of power system including renewable energy generators. , 2010, , .		5
106	Implementation of a multi-agent system for optimized multiobjective power plant control. , 2010, , .		5
107	Modeling and simulation of a power conditioning system for the hybrid fuel-cell/turbine power plant. , 2011, , .		5
108	Optimal scheduling of distributed energy resources by modern heuristic optimization technique. , 2017, , .		5

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109	Optimal Dispatching of Active Distribution Networks Based on Load Equilibrium. Energies, 2017, 10, 2003.	3.1	5
110	Robust Estimation and Tracking of Power System Harmonics Using an Optimal Finite Impulse Response Filter. Energies, 2018, 11, 1811.	3.1	5
111	An Economic Penalty Scheme for Optimal Parking Lot Utilization with EV Charging Requirements. Energies, 2020, 13, 6155.	3.1	5
112	In-depth characteristic analysis and wide range optimal operation of fuel cell using multi-model predictive control. Energy, 2021, 234, 121226.	8.8	5
113	Low-order robust damping controller design for large-scale PV power plants. , 2014, , .		4
114	Nonlinearity Analysis and Multi-Model Modeling of an MEA-Based Post-Combustion CO_2 Capture Process for Advanced Control Design. Applied Sciences (Switzerland), 2018, 8, 1053.	2.5	4
115	Water Pump Control: A Hybrid Data-Driven and Model-Assisted Active Disturbance Rejection Approach. Water (Switzerland), 2019, 11, 1066.	2.7	4
116	Network and Reserve Constrained Economic Analysis of Conventional, Adjustable-Speed and Ternary Pumped-Storage Hydropower. Energies, 2020, 13, 4140.	3.1	4
117	A Hierarchical Peer-to-Peer Energy Transaction Model Considering Prosumerâ€™s Green Energy Preference. International Journal of Control, Automation and Systems, 2021, 19, 311-317.	2.7	4
118	Fundamentals of Tabu Search. , 0, , 101-122.		3
119	Real-Time Based Agent Architecture for Power Plant Control. , 2009, , .		3
120	Modeling and analysis of a grid-connected wind energy conversion system using PSCAD/EMTDC. , 2010, , .		3
121	An optimal reference governor for hybrid Fuel-Cell/Gas-Turbine as a distributed generation source. , 2010, , .		3
122	Multi-Agent System implementation in JADE environment for power plant control. , 2013, , .		3
123	Wind Speed Prediction with high efficiency convex optimization Support Vector Machine. , 2014, , .		3
124	Decentralized PI control with improved disturbance observer for power plant fluidized bed combustor. , 2015, , .		3
125	Heuristic optimization for wind energy integrated optimal power flow. , 2015, , .		3
126	Disturbance rejection of superheated steam temperature in a utility boiler: A cascaded disturbance observer based control solution. , 2016, , .		3

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127	Disturbance rejection of peak current-mode control for bidirectional battery charging. , 2016, , .		3
128	Control of ultra-supercritical once-through boiler-turbine unit using MPC and ESO approaches. , 2017, , .		3
129	Improving Simultaneous Cooling and Power Load-Following Capability for MGT-CCP Using Coordinated Predictive Controls. Energies, 2019, 12, 1180.	3.1	3
130	The NR-EGA for the EVRP Problem with the Electric Energy Consumption Model. Energies, 2022, 15, 3681.	3.1	3
131	Design of supplementary controller for HVDC using Memetic Algorithm with population management. , 2008, , .		2
132	Fundamentals of Ant Colony Search Algorithms. , 0, , 89-100.		2
133	Model augmentation for hybrid fuel-cell/gas turbine power plant. , 2009, , .		2
134	Distributed Discrete Event and Pseudo Real-Time Combined Simulation for Multi-Agent Controlled Power Plants. , 2009, , .		2
135	Superheater steam temperature control for a 300MW boiler unit with Inverse Dynamic Process Models. , 2010, , .		2
136	Power system stabilization using brain emotional learning based intelligent controller. , 2011, , .		2
137	Generator maintenance scheduling considering minimization of CO_2 emissions. , 2011, , .		2
138	Dynamic model analysis and control of a grid connected wind energy system integrated with a super-capacitor bank. , 2013, , .		2
139	Smart energy storage system for integration of PMSG-based wind power plant. , 2015, , .		2
140	Characterization of charging load for a large number of EV units in distribution grids. , 2017, , .		2
141	An improved penalty-factor based attractive and repulsive particle swarm optimization for nonconvex economic dispatch problems. , 2017, , .		2
142	Optimal Placement of Distributed Generations with Semidefinite Optimization Technique. , 2018, , .		2
143	Multi-Objective Optimization of Steam Power System Under Demand Uncertainty. IEEE Access, 2021, 9, 113130-113142.	4.2	2
144	Applications to System Planning. , 0, , 285-335.		1

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145	Genetic Algorithms for Solving Optimal Power Flow Problems. , 0, , 471-500.		1
146	Overview of Applications in Power Systems. , 0, , 235-259.		1
147	Power System Controls. , 0, , 403-469.		1
148	Approximate Loading Margin Methods Using Artificial Neural Networks in Power Systems. , 2009, , .		1
149	Incorporated Multi-Stage Nash Equilibriums for the Generation Allocation Problem Considering Ramp Rate Effects. , 2009, , .		1
150	Once-through boiler steam temperature control using Dynamic Matrix Control technique. , 2010, , .		1
151	Pareto optimization with reverse normal-boundary intersection for power plant models. , 2010, , .		1
152	A wind farm configuration for load-following control and its application to primary frequency support. , 2011, , .		1
153	Modeling and control of power conditioning system for grid-connected Fuel Cell power plant. , 2013, , .		1
154	Neural network inverse models of supercritical boiler unit for intelligent coordinated controller design. , 2014, , .		1
155	Improved artificial bee colony based on orthognal learning for optimal power flow. , 2015, , .		1
156	Modified optimal power flow on storage devices and wind power integrated system. , 2016, , .		1
157	A wind power integrated system based on a controllably inductive filtering and compensation method. , 2017, , .		1
158	A Robust Mixed-Integer Second-Order Cone Programming for Service Restoration of Distribution Network. , 2018, , .		1
159	Hybrid Systems. , 0, , 525-562.		0
160	Application of Evolutionary Technique to Power System Vulnerability Assessment. , 0, , 261-284.		0
161	Applications to Power System Scheduling. , 0, , 337-402.		0
162	Fuzzy Systems. , 0, , 147-170.		0

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163	An Interactive Compromise Programming-Based Multiobjective Approach to FACTS Control. , 0, , 501-523.		0
164	Regional grouping of an interconnected transmission system using the sequential clustering technique. , 2009, , .		0
165	Short-Term Load Forecasting Using Semigroup Based System-Type Neural Network. , 2009, , .		0
166	Neural network based loading margin approximation for static voltage stability in power systems. , 2010, , .		0
167	Web-based online real time reliability information system for composite power systems including wind turbine generators. , 2011, , .		0
168	Fuzzy modeling and control of boiler-turbine unit using clustering and subspace method. , 2013, , .		0
169	On performance recovery and bumpless switch of disturbance observer based control. , 2015, , .		0
170	Accommodation Capacity for Wind Farm Based on the Static Security Constraints in Bulk Power Systems. , 2018, , .		0
171	Stochastic model predictive control based on multiâ€step control strategy for discrete nonlinear systems. International Journal of Robust and Nonlinear Control, 0, , .	3.7	0