

Petr Hajek

List of Publications by Year in descending order

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105
papers

2,299
citations

257101

24
h-index

253896

43
g-index

108
all docs

108
docs citations

108
times ranked

1486
citing authors

#	ARTICLE	IF	CITATIONS
1	Terminological difficulties in fuzzy set theoryâ€”The case of â€œIntuitionistic Fuzzy Setsâ€• Fuzzy Sets and Systems, 2005, 156, 485-491.	1.6	282
2	Mining corporate annual reports for intelligent detection of financial statement fraud â€” A comparative study of machine learning methods. Knowledge-Based Systems, 2017, 128, 139-152.	4.0	163
3	Two-stage consumer credit risk modelling using heterogeneous ensemble learning. Decision Support Systems, 2019, 118, 33-45.	3.5	112
4	Fake consumer review detection using deep neural networks integrating word embeddings and emotion mining. Neural Computing and Applications, 2020, 32, 17259-17274.	3.2	88
5	Feature selection in corporate credit rating prediction. Knowledge-Based Systems, 2013, 51, 72-84.	4.0	87
6	Municipal credit rating modelling by neural networks. Decision Support Systems, 2011, 51, 108-118.	3.5	79
7	Spam filtering using integrated distribution-based balancing approach and regularized deep neural networks. Applied Intelligence, 2018, 48, 3538-3556.	3.3	67
8	FORECASTING CORPORATE FINANCIAL PERFORMANCE USING SENTIMENT IN ANNUAL REPORTS FOR STAKEHOLDERSâ€™™ DECISION-MAKING. Technological and Economic Development of Economy, 2014, 20, 721-738.	2.3	62
9	R&D Cooperation and Knowledge Spillover Effects for Sustainable Business Innovation in the Chemical Industry. Sustainability, 2018, 10, 1064.	1.6	55
10	Municipal waste generation, R&D intensity, and economic growth nexus â€” A case of EU regions. Waste Management, 2020, 114, 124-135.	3.7	54
11	Visualising components of regional innovation systems using self-organizing mapsâ€”Evidence from European regions. Technological Forecasting and Social Change, 2014, 84, 197-214.	6.2	48
12	Interactions among energy consumption, CO ₂ , and economic development in European Union countries. Sustainable Development, 2020, 28, 723-740.	6.9	46
13	Deep learning-based exchange rate prediction during the COVID-19 pandemic. Annals of Operations Research, 2021, , 1-52.	2.6	43
14	Spam detection on social networks using cost-sensitive feature selection and ensemble-based regularized deep neural networks. Neural Computing and Applications, 2020, 32, 4239-4257.	3.2	42
15	Ozone prediction on the basis of neural networks, support vector regression and methods with uncertainty. Ecological Informatics, 2012, 12, 31-42.	2.3	40
16	Product backorder prediction using deep neural network on imbalanced data. International Journal of Production Research, 2023, 61, 302-319.	4.9	39
17	Comprehensive assessment of firm financial performance using financial ratios and linguistic analysis of annual reports. Journal of International Studies, 2017, 10, 96-108.	0.7	39
18	Combining bag-of-words and sentiment features of annual reports to predict abnormal stock returns. Neural Computing and Applications, 2018, 29, 343-358.	3.2	38

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19	A Profit Function-Maximizing Inventory Backorder Prediction System Using Big Data Analytics. IEEE Access, 2020, 8, 58982-58994.	2.6	35
20	COMPETITIVE ADVANTAGE ANALYSIS: A NOVEL METHOD FOR INDUSTRIAL CLUSTERS IDENTIFICATION. Journal of Business Economics and Management, 2012, 13, 344-365.	1.1	32
21	A Systematic Review of Blockchain Applications. IEEE Access, 2022, 10, 59155-59177.	2.6	31
22	Modelling innovation performance of European regions using multi-output neural networks. PLoS ONE, 2017, 12, e0185755.	1.1	29
23	Credit rating modelling by kernel-based approaches with supervised and semi-supervised learning. Neural Computing and Applications, 2011, 20, 761-773.	3.2	28
24	Tax Default Prediction Using Feature Transformation-Based Machine Learning. IEEE Access, 2021, 9, 19864-19881.	2.6	27
25	Intuitionistic fuzzy grey cognitive maps for forecasting interval-valued time series. Neurocomputing, 2020, 400, 173-185.	3.5	26
26	Configuration Paths to Efficient National Innovation Ecosystems. Technological Forecasting and Social Change, 2021, 168, 120787.	6.2	26
27	Adaptive Intuitionistic Fuzzy Inference Systems of Takagi-Sugeno Type for Regression Problems. International Federation for Information Processing, 2012, , 206-216.	0.4	25
28	Evaluating Sentiment in Annual Reports for Financial Distress Prediction Using Neural Networks and Support Vector Machines. Communications in Computer and Information Science, 2013, , 1-10.	0.4	25
29	Defuzzification methods in intuitionistic fuzzy inference systems of Takagi-Sugeno type: The case of corporate bankruptcy prediction. , 2014, , .		24
30	Efficiency of knowledge bases in urban population and economic growth – Evidence from European cities. Cities, 2014, 40, 11-22.	2.7	24
31	Review Spam Detection Using Word Embeddings and Deep Neural Networks. IFIP Advances in Information and Communication Technology, 2019, , 340-350.	0.5	24
32	IF-Inference Systems Design for Prediction of Ozone Time Series: The Case of Pardubice Micro-region. Lecture Notes in Computer Science, 2010, , 1-11.	1.0	22
33	Interval-valued fuzzy cognitive maps for supporting business decisions. , 2016, , .		21
34	Sustainability and Corporate Social Responsibility in the Text of Annual Reports – The Case of the IT Services Industry. Sustainability, 2018, 10, 4119.	1.6	21
35	Predicting Common Air Quality Index – The Case of Czech Microregions. Aerosol and Air Quality Research, 2015, 15, 544-555.	0.9	21
36	Credit rating analysis using adaptive fuzzy rule-based systems: an industry-specific approach. Central European Journal of Operations Research, 2012, 20, 421-434.	1.1	20

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37	Effectiveness of digital library services as a basis for decision-making in public organizations. <i>Library and Information Science Research</i> , 2015, 37, 346-352.	1.2	19
38	Predicting corporate investment/non-investment grade by using interval-valued fuzzy rule-based systems – A cross-region analysis. <i>Applied Soft Computing Journal</i> , 2018, 62, 73-85.	4.1	19
39	Combining weighted SMOTE with ensemble learning for the class-imbalanced prediction of small business credit risk. <i>Complex & Intelligent Systems</i> , 2023, 9, 3559-3579.	4.0	19
40	Forecasting performance of regional innovation systems using semantic-based genetic programming with local search optimizer. <i>Computers and Operations Research</i> , 2019, 106, 179-190.	2.4	18
41	Evaluating the economic value of a public service – the case of the Municipal Library of Prague. <i>Public Money and Management</i> , 2015, 35, 145-152.	1.2	17
42	Spam Filtering Using Regularized Neural Networks with Rectified Linear Units. <i>Lecture Notes in Computer Science</i> , 2016, , 65-75.	1.0	17
43	Modelling collaboration and innovation in creative industries using fuzzy set qualitative comparative analysis. <i>Journal of Technology Transfer</i> , 2019, 44, 981-1006.	2.5	17
44	Intuitionistic Fuzzy Neural Network: The Case of Credit Scoring Using Text Information. <i>Communications in Computer and Information Science</i> , 2015, , 337-346.	0.4	17
45	Modelling public library value using the contingent valuation method: The case of the Municipal Library of Prague. <i>Journal of Librarianship and Information Science</i> , 2015, 47, 43-55.	1.6	16
46	Comparison of Fuzzy Operators for IF-Inference Systems of Takagi-Sugeno Type in Ozone Prediction. <i>International Federation for Information Processing</i> , 2011, , 92-97.	0.4	15
47	Deep-learning model using hybrid adaptive trend estimated series for modelling and forecasting sales. <i>Annals of Operations Research</i> , 0, , .	2.6	15
48	Intuitionistic neuro-fuzzy network with evolutionary adaptation. <i>Evolving Systems</i> , 2017, 8, 35-47.	2.4	14
49	Snow avalanche hazard of the KrkonoÅ¡e National Park, Czech Republic. <i>Journal of Maps</i> , 2017, 13, 86-90.	1.0	14
50	Neural Networks with Emotion Associations, Topic Modeling and Supervised Term Weighting for Sentiment Analysis. <i>International Journal of Neural Systems</i> , 2021, 31, 2150013.	3.2	14
51	MINING RISK-RELATED SENTIMENT IN CORPORATE ANNUAL REPORTS AND ITS EFFECT ON FINANCIAL PERFORMANCE. <i>Technological and Economic Development of Economy</i> , 2020, 26, 1422-1443.	2.3	13
52	The economic value of library services for children: The case of the Czech public libraries. <i>Library and Information Science Research</i> , 2019, 41, 100963.	1.2	11
53	Modelling Knowledge Spillover Effects Using Moderated and Mediation Analysis – The Case of Czech High-Tech Industries. <i>Lecture Notes in Business Information Processing</i> , 2015, , 329-341.	0.8	11
54	Mining behavioural and sentiment-dependent linguistic patterns from restaurant reviews for fake review detection. <i>Technological Forecasting and Social Change</i> , 2022, 177, 121532.	6.2	10

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55	Library usage mining in the context of alternative costs. Library Hi Tech, 2017, 35, 558-576.	3.7	8
56	Spam Filtering in Social Networks Using Regularized Deep Neural Networks with Ensemble Learning. IFIP Advances in Information and Communication Technology, 2018, , 38-49.	0.5	8
57	Interpretable Fuzzy Rule-Based Systems for Detecting Financial Statement Fraud. IFIP Advances in Information and Communication Technology, 2019, , 425-436.	0.5	8
58	Interval-Valued Intuitionistic Fuzzy Cognitive Maps for Supplier Selection. Smart Innovation, Systems and Technologies, 2018, , 207-217.	0.5	8
59	Predicting Financial Distress of Banks Using Random Subspace Ensembles of Support Vector Machines. Advances in Intelligent Systems and Computing, 2015, , 131-140.	0.5	7
60	Interval-valued fuzzy cognitive maps with genetic learning for predicting corporate financial distress. Filomat, 2018, 32, 1657-1662.	0.2	7
61	Impact of GDP, Capital and Employment on Waste Generation-The Case of France, Germany and UK Regions. , 2017, , .		6
62	Opinion Mining of Consumer Reviews Using Deep Neural Networks with Word-Sentiment Associations. IFIP Advances in Information and Communication Technology, 2020, , 419-429.	0.5	6
63	Modelling Knowledge Management Processes Using Fuzzy Cognitive Maps. Lecture Notes in Business Information Processing, 2015, , 41-50.	0.8	5
64	Predicting Abnormal Bank Stock Returns Using Textual Analysis of Annual Reports â€“ a Neural Network Approach. Communications in Computer and Information Science, 2016, , 67-78.	0.4	5
65	The role of library user preferences in the willingness to read and pay for e-books: case of the Czech Republic. Electronic Library, 2021, 39, 639-660.	0.8	5
66	The Influence of Financial Sourcing and Collaboration on Innovative Company Performance: A Comparison of Czech, Slovak, Estonian, Lithuanian, Romanian, Croatian, Slovenian, and Hungarian Case Studies. Advances in Spatial Science, 2018, , 219-252.	0.3	5
67	Municipal Creditworthiness Modelling by Kohonenâ€™s Self-organizing Feature Maps and LVQ Neural Networks. Lecture Notes in Computer Science, 2008, , 52-61.	1.0	5
68	Predicting Corporate Credit Ratings Using Content Analysis of Annual Reports â€“ A Naïve Bayesian Network Approach. Lecture Notes in Business Information Processing, 2017, , 47-61.	0.8	5
69	The Role of Smart Economy in Developing Smart Cities. , 2021, , .		5
70	Municipal Creditworthiness Modelling by Kohonenâ€™s Self-Organizing Feature Maps and Fuzzy Logic Neural Networks. Lecture Notes in Computer Science, 2008, , 533-542.	1.0	4
71	Predicting the innovation activity of chemical firms using an ensemble of decision trees. , 2015, , .		4
72	Word Categorization of Corporate Annual Reports for Bankruptcy Prediction by Machine Learning Methods. Lecture Notes in Computer Science, 2015, , 122-130.	1.0	4

#	ARTICLE	IF	CITATIONS
73	Interval-Valued Intuitionistic Fuzzy Inference System for Supporting Corporate Financial Decisions. , 2018, , .		4
74	IVFCM-TOPSIS for Bank Credit Risk Assessment. Smart Innovation, Systems and Technologies, 2020, , 99-108.	0.5	4
75	Prediction of Air Quality Indices by Neural Networks and Fuzzy Inference Systems – The Case of Pardubice Microregion. Communications in Computer and Information Science, 2013, , 302-312.	0.4	4
76	Predicting Regional Credit Ratings Using Ensemble Classification with MetaCost. Advances in Intelligent Systems and Computing, 2019, , 332-342.	0.5	4
77	Neural intuitionistic fuzzy system with justified granularity. Neural Computing and Applications, 2022, 34, 19423-19439.	3.2	4
78	Comparing corporate financial performance and qualitative information from annual reports using self-organizing maps. , 2014, , .		3
79	Novel Multi-word Lists for Investors’ Decision Making. Lecture Notes in Computer Science, 2015, , 131-139.	1.0	3
80	Interval-valued intuitionistic fuzzy cognitive maps for stock index forecasting. , 2018, , .		3
81	An Optimized Hybrid Forecasting Model and Its Application to Air Pollution Concentration. Arabian Journal for Science and Engineering, 2020, 45, 9953-9975.	1.7	3
82	Municipal Creditworthiness Modelling by Kernel-Based Approaches with Supervised and Semi-supervised Learning. Communications in Computer and Information Science, 2009, , 35-44.	0.4	3
83	Modelling Loss Given Default in Peer-to-Peer Lending Using Random Forests. Smart Innovation, Systems and Technologies, 2020, , 133-141.	0.5	3
84	Predicting Firms’ Credit Ratings Using Ensembles of Artificial Immune Systems and Machine Learning – An Over-Sampling Approach. Lecture Notes in Computer Science, 2014, , 29-38.	1.0	3
85	A Comparative Study of Machine Learning Methods for Detection of Fake Online Consumer Reviews. , 2019, , .		3
86	Electricity Storage in Internet of Renewable Energy (IoRE) Domain for Sustainable Smart Cities. , 2020, , .		3
87	Municipal Creditworthiness Modelling by Radial Basis Function Neural Networks and Sensitive Analysis of Their Input Parameters. Lecture Notes in Computer Science, 2009, , 505-514.	1.0	2
88	Fuzzy cognitive maps based on text analysis for supporting strategic planning. , 2017, , .		2
89	Intelligent Prediction of Firm Innovation Activity – The Case of Czech Smart Cities. , 2018, , 123-136.		2
90	Integrating Sentiment Analysis and Topic Detection in Financial News for Stock Movement Prediction. , 2018, , .		2

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91	A novel methodology for surveying children for designing library services: A case study of the Municipal Library of Prague. <i>Journal of Librarianship and Information Science</i> , 2021, 53, 307-320.	1.6	2
92	Effect of GDP, Energy Consumption, and Material Consumption on Waste Generation: The Case of EU-28 Countries. <i>Eurasian Studies in Business and Economics</i> , 2020, , 73-85.	0.2	2
93	Air Quality Modeling by Fuzzy Sets and IF-Sets. <i>Advances in Environmental Engineering and Green Technologies Book Series</i> , 0, , 118-143.	0.3	2
94	Speech Emotion Recognition from Earnings Conference Calls in Predicting Corporate Financial Distress. <i>IFIP Advances in Information and Communication Technology</i> , 2022, , 216-228.	0.5	2
95	Assessing the Effect of Knowledge Management Initiatives on Stakeholder Objectives Using Fuzzy TOPSIS. <i>Lecture Notes in Business Information Processing</i> , 2015, , 60-70.	0.8	1
96	Learning Interval-Valued Fuzzy Cognitive Maps with PSO Algorithm for Abnormal Stock Return Prediction. <i>Lecture Notes in Computer Science</i> , 2017, , 113-125.	1.0	1
97	Intuitionistic Fuzzy Inference System with Genetic Tuning for Predicting Financial Performance. , 2018, , .		1
98	Effectiveness of Selected Knowledge-Based Determinants in Macroeconomics Development of EU 28 Economies. , 2018, , 69-83.		1
99	Intuitionistic Fuzzy Neural Network for Time Series Forecasting - The Case of Metal Prices. <i>IFIP Advances in Information and Communication Technology</i> , 2021, , 411-422.	0.5	1
100	The Effect of Text Preprocessing Strategies on Detecting Fake Consumer Reviews. , 2019, , .		1
101	Detecting Fake Online Reviews using Fine-tuned BERT. , 2021, , .		1
102	The Economic Value of Book Loans – The Case of the Municipal Library of Prague. <i>Libri</i> , 2016, 66, .	0.5	0
103	Innovation Environment in Europe – Efficiency Analysis Case Study. <i>Springer Series in Reliability Engineering</i> , 2020, , 47-60.	0.3	0
104	Modelling Innovation Paths of European Firms Using Fuzzy Balanced Scorecard. <i>Springer Series in Reliability Engineering</i> , 2020, , 35-46.	0.3	0
105	Bioenergy Electricity on Internet of Renewable Energy (IoRE) Framework for Sustainable Electricity Grid Integration in the European Union (EU). , 2020, , .		0