Paris C Avgeriou

List of Publications by Year
in descending order

188 papers	4,383 citations	147786 31 h-index	155644 55 g-index
194 all docs	194 docs citations	194 times ranked	1889 citing authors

#	Article	IF	Citations
1	A systematic mapping study on technical debt and its management. Journal of Systems and Software, 2015, 101, 193-220.	4.5	466
2	Variability in Software Systemsâ€"A Systematic Literature Review. IEEE Transactions on Software Engineering, 2014, 40, 282-306.	5.6	180
3	A comparative study of architecture knowledge management tools. Journal of Systems and Software, 2010, 83, 352-370.	4.5	155
4	The financial aspect of managing technical debt: A systematic literature review. Information and Software Technology, 2015, 64, 52-73.	4.4	133
5	Using Patterns to Capture Architectural Decisions. IEEE Software, 2007, 24, 38-45.	1.8	125
6	Identifying, categorizing and mitigating threats to validity in software engineering secondary studies. Information and Software Technology, 2019, 106, 201-230.	4.4	125
7	VxBPEL: Supporting variability for Web services in BPEL. Information and Software Technology, 2009, 51, 258-269.	4.4	102
8	10 years of software architecture knowledge management: Practice and future. Journal of Systems and Software, 2016, 116, 191-205.	4.5	101
9	A documentation framework for architecture decisions. Journal of Systems and Software, 2012, 85, 795-820.	4.5	87
10	How do architecture patterns and tactics interact? A model and annotation. Journal of Systems and Software, 2010, 83, 1735-1758.	4.5	86
11	Tool Support for Architectural Decisions. , 2007, , .		85
12	Documenting after the fact: Recovering architectural design decisions. Journal of Systems and Software, 2008, 81, 536-557.	4.5	79
13	Enriching software architecture documentation. Journal of Systems and Software, 2009, 82, 1232-1248.	4.5	79
14	A systematic mapping study on the combination of software architecture and agile development. Journal of Systems and Software, 2016, 111, 157-184.	4.5	79
15	Variability in quality attributes of service-based software systems: A systematic literature review. Information and Software Technology, 2013, 55, 320-343.	4.4	66
16	Past and future of software architectural decisions â€" A systematic mapping study. Information and Software Technology, 2014, 56, 850-872.	4.4	64
17	Application of knowledge-based approaches in software architecture: A systematic mapping study. Information and Software Technology, 2013, 55, 777-794.	4.4	60
18	The Effect of GoF Design Patterns on Stability: A Case Study. IEEE Transactions on Software Engineering, 2015, 41, 781-802.	5.6	58

#	Article	IF	Citations
19	An Overview and Comparison of Technical Debt Measurement Tools. IEEE Software, 2021, 38, 61-71.	1.8	57
20	A comparative study of challenges in integrating Open Source Software and Inner Source Software. Information and Software Technology, 2011, 53, 1319-1336.	4.4	56
21	First workshop on sharing and reusing architectural knowledge. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2006, 31, 32-36.	0.7	49
22	Empirically-grounded reference architectures. , 2011, , .		48
23	A systematic literature review on methods that handle multiple quality attributes in architecture-based self-adaptive systems. Information and Software Technology, 2017, 90, 1-26.	4.4	48
24	Quality attributes and quality models for ambient assisted living software systems: A systematic mapping. Information and Software Technology, 2017, 82, 121-138.	4.4	48
25	Key factors for adopting inner source. ACM Transactions on Software Engineering and Methodology, 2014, 23, 1-35.	6.0	45
26	Leveraging Architecture Patterns to Satisfy Quality Attributes. Lecture Notes in Computer Science, 2007, , 263-270.	1.3	45
27	Architectural knowledge and rationale. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2007, 32, 41-46.	0.7	43
28	How do developers fix issues and pay back technical debt in the Apache ecosystem?. , 2018, , .		43
29	Modeling architectural patterns using architectural primitives. , 2005, , .		41
30	A mapping study on design-time quality attributes and metrics. Journal of Systems and Software, 2017, 127, 52-77.	4.5	40
31	Reducing Friction in Software Development. IEEE Software, 2016, 33, 66-73.	1.8	36
32	Difficulty of Architectural Decisions â€" A Survey with Professional Architects. Lecture Notes in Computer Science, 2013, , 192-199.	1.3	35
33	A survey on quality attributes in service-based systems. Software Quality Journal, 2016, 24, 271-299.	2.2	33
34	A practice-driven systematic review of dependency analysis solutions. Empirical Software Engineering, 2011, 16, 544-586.	3.9	32
35	Does decision documentation help junior designers rationalize their decisions? A comparative multiple-case study. Journal of Systems and Software, 2013, 86, 1545-1565.	4.5	31
36	The Evolution of Technical Debt in the Apache Ecosystem. Lecture Notes in Computer Science, 2017, , 51-66.	1.3	31

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37	Architectural Debt Management in Value-Oriented Architecting. , 2014, , 183-204.		30
38	Decision-Centric Architecture Reviews. IEEE Software, 2014, 31, 69-76.	1.8	30
39	Guest Editors' Introduction: Software Architecture: Framing Stakeholders' Concerns. IEEE Software, 2010, 27, 20-24.	1.8	28
40	Forces on Architecture Decisions - A Viewpoint. , 2012, , .		28
41	Software metrics fluctuation: a property for assisting the metric selection process. Information and Software Technology, 2016, 72, 110-124.	4.4	27
42	A catalog of architectural primitives for modeling architectural patterns. Information and Software Technology, 2008, 50, 1003-1034.	4.4	26
43	Architectural Technical Debt Identification Based on Architecture Decisions and Change Scenarios. , 2015, , .		26
44	Mature Architecting - A Survey about the Reasoning Process of Professional Architects. , 2011, , .		25
45	Identifying Extract Method Refactoring Opportunities Based on Functional Relevance. IEEE Transactions on Software Engineering, 2017, 43, 954-974.	5.6	25
46	Requirements Reasoning for Distributed Requirements Analysis Using Semantic Wiki. , 2009, , .		24
47	Architecting systems of systems: A tertiary study. Information and Software Technology, 2020, 118, 106202.	4.4	24
48	Uncertainty in Self-adaptive Systems: A Research Community Perspective. ACM Transactions on Autonomous and Adaptive Systems, 2020, 15, 1-36.	0.8	24
49	A framework for managing interest in technical debt. , 2018, , .		23
50	Variability in software architecture. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2011, 36, 30-32.	0.7	22
51	Constraints for the design of variability-intensive service-oriented reference architectures â€" An industrial case study. Information and Software Technology, 2013, 55, 428-441.	4.4	22
52	Architecture Sustainability [Guest editors' introduction]. IEEE Software, 2013, 30, 40-44.	1.8	22
53	The Perception of Technical Debt in the Embedded Systems Domain: An Industrial Case Study. , 2016, , .		22
54	Industrial Implementation of a Documentation Framework for Architectural Decisions. , 2014, , .		20

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55	Empirical evaluation of a process to increase consensus in group architectural decision making. Information and Software Technology, 2016, 72, 31-47.	4.4	20
56	Pattern-Based Architecture Reviews. IEEE Software, 2011, 28, 66-71.	1.8	19
57	Wishes and Boundaries for a Software Architecture Knowledge Community. , 2008, , .		18
58	The notion of variability in software architecture. , 2011, , .		18
59	Size and cohesion metrics as indicators of the long method bad smell. , 2015, , .		18
60	An Overview of Software Engineering Approaches to Service Oriented Architectures in Various Fields. , 2009, , .		17
61	On the impact of fault tolerance tactics on architecture patterns. , 2010, , .		17
62	Introducing a Ripple Effect Measure: A Theoretical and Empirical Validation. , 2015, , .		17
63	Investigating the effect of design patterns on energy consumption. Journal of Software: Evolution and Process, 2017, 29, e1851.	1.6	17
64	Pattern-Driven Architectural Partitioning: Balancing Functional and Non-functional Requirements. , 2007, , .		16
65	Incorporating fault tolerance tactics in software architecture patterns. , 2008, , .		16
66	Handling Variability in Software Architecture: Problems and Implications. , 2011, , .		16
67	A Decision Model for Cyber-Foraging Systems. , 2016, , .		16
68	Technical debt in MDE. , 2016, , .		16
69	What can violations of good practices tell about the relationship between GoF patterns and run-time quality attributes?. Information and Software Technology, 2019, 105, 1-16.	4.4	16
70	Sharing the Architectural Knowledge of Quantitative Analysis. Lecture Notes in Computer Science, 2008, , 220-234.	1.3	16
71	Analysis of Architecture Pattern Usage in Legacy System Architecture Documentation. , 2008, , .		15
72	Capturing tacit architectural knowledge using the repertory grid technique (NIER track). , 2011, , .		15

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73	An Architecture for Open Learning Management Systems. Lecture Notes in Computer Science, 2003, , 183-200.	1.3	15
74	Sharing and Reusing Architectural Knowledge--Architecture, Rationale, and Design Intent. , 2007, , .		14
75	Architecting as decision making with patterns and primitives. , 2008, , .		14
76	Tools and Technologies for Architecture Knowledge Management. , 2009, , 91-111.		14
77	An Embedded Multiple-Case Study on OSS Design Quality Assessment across Domains. , 2013, , .		14
78	A Method for Assessing Class Change Proneness. , 2017, , .		14
79	An Enhanced Architectural Knowledge Metamodel Linking Architectural Design Decisions to other Artifacts in the Software Engineering Lifecycle. Lecture Notes in Computer Science, 2011, , 303-318.	1.3	14
80	Architectural patterns for collaborative applications. International Journal of Computer Applications in Technology, 2006, 25, 86.	0.5	13
81	Analyzing the Actual Execution of a Large Software-Intensive System for Determining Dependencies. , 2008, , .		13
82	Software service engineering: Tenets and challenges. , 2009, , .		13
83	From collective knowledge to intelligence. , 2010, , .		13
84	The supportive effect of patterns in architecture decision recovery†€" A controlled experiment. Science of Computer Programming, 2012, 77, 551-576.	1.9	13
85	An industrial case study on an architectural assumption documentation framework. Journal of Systems and Software, 2017, 134, 190-210.	4.5	13
86	Assessing code smell interest probability. , 2017, , .		13
87	Can Clean New Code Reduce Technical Debt Density?. IEEE Transactions on Software Engineering, 2022, 48, 1705-1721.	5.6	13
88	Qualitative Analysis of the Impact of SOA Patterns on Quality Attributes. , 2012, , .		12
89	A survey on software architectural assumptions. Journal of Systems and Software, 2016, 113, 362-380.	4.5	12
90	Assumptions and their management in software development: A systematic mapping study. Information and Software Technology, 2018, 94, 82-110.	4.4	12

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91	Modelling Web-Based Instructional Systems. Journal of Information Technology Education:Research, 0, 1, 025-042.	0.0	12
92	A top-down strategy to reverse architecting execution views for a large and complex software-intensive system: An experience report. Science of Computer Programming, 2011, 76, 1098-1112.	1.9	11
93	Investigating Instability Architectural Smells Evolution: An Exploratory Case Study. , 2019, , .		11
94	Rationale management challenges in requirements engineering. , 2010, , .		10
95	Architecture viewpoints for documenting architectural technical debt. , 2016, , 85-132.		10
96	Decision architect â€" A decision documentation tool for industry. Journal of Systems and Software, 2016, 112, 181-198.	4.5	10
97	Reusability Index: A Measure for Assessing Software Assets Reusability. Lecture Notes in Computer Science, 2018, , 43-58.	1.3	10
98	Quality attribute trade-offs in the embedded systems industry: an exploratory case study. Software Quality Journal, 2020, 28, 505-534.	2.2	10
99	Exploring the Relation between Technical Debt Principal and Interest: An Empirical Approach. Information and Software Technology, 2020, 128, 106391.	4.4	10
100	Agilo: A Highly Flexible Groupware Framework. Lecture Notes in Computer Science, 2005, , 49-56.	1.3	10
101	The Evolution of Design Pattern Grime: An Industrial Case Study. Lecture Notes in Computer Science, 2017, , 165-181.	1.3	10
102	Collaborative Software Architecting Through Knowledge Sharing. , 2010, , 343-367.		10
103	An empirical study on self-fixed technical debt. , 2020, , .		10
104	Towards using architectural knowledge. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2009, 34, 27-30.	0.7	9
105	Advanced quality prediction model for software architectural knowledge sharing. Journal of Systems and Software, 2011, 84, 786-802.	4.5	9
106	A topâ€down approach to construct execution views of a large softwareâ€intensive system. Journal of Software: Evolution and Process, 2013, 25, 233-260.	1.6	9
107	Investigating Quality Trade-offs in Open Source Critical Embedded Systems. , 2015, , .		9
108	Technical Debt. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2016, 41, 38-41.	0.7	9

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109	Exploring Web Search Engines to Find Architectural Knowledge. , 2021, , .		9
110	A Financial Approach for Managing Interest in Technical Debt. Lecture Notes in Business Information Processing, 2016, , 117-133.	1.0	9
111	The Importance of Architectural Knowledge in Integrating Open Source Software. International Federation for Information Processing, 2011, , 142-158.	0.4	9
112	Understanding software architecture erosion: A systematic mapping study. Journal of Software: Evolution and Process, 2022, 34, .	1.6	9
113	An industrial case study on variability handling in large enterprise software systems. Information and Software Technology, 2015, 60, 16-31.	4.4	8
114	Empirical studies on software traceability: A mapping study. Journal of Software: Evolution and Process, 2021, 33, e2294.	1.6	8
115	Identifying self-admitted technical debt in issue tracking systems using machine learning. Empirical Software Engineering, 2022, 27, .	3.9	8
116	Sharing architecture knowledge through models: quality and cost. Knowledge Engineering Review, 2009, 24, 225-244.	2.6	7
117	Quantifying software architecture quality report on the first international workshop on software architecture metrics. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2014, 39, 32-34.	0.7	7
118	Architectural Assumptions and Their Management in Industry â€" An Exploratory Study. Lecture Notes in Computer Science, 2017, , 191-207.	1.3	7
119	Correlating Pattern Grime and Quality Attributes. IEEE Access, 2018, 6, 23065-23078.	4.2	7
120	Evolution of technical debt remediation in Python: A case study on the Apache Software Ecosystem. Journal of Software: Evolution and Process, 2021, 33, e2319.	1.6	7
121	Guidelines for Managing Threats to Validity of Secondary Studies in Software Engineering. , 2020, , 415-441.		7
122	The GRIFFIN Collaborative Virtual Community for Architectural Knowledge Management. , 2010, , 195-217.		7
123	Modeling Architectural Patternsâ€™ Behavior Using Architectural Primitives. Lecture Notes in Computer Science, 2008, , 164-179.	1.3	6
124	Selecting a High-Quality Central Model for Sharing Architectural Knowledge. , 2008, , .		6
125	Defining and documenting execution viewpoints for a large and complex software-intensive system. Journal of Systems and Software, 2011, 84, 1447-1461.	4.5	6
126	An exploratory case study on reusing architecture decisions in software-intensive system projects. Journal of Systems and Software, 2018, 144, 60-83.	4.5	6

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127	Evolution of the Unix System Architecture: An Exploratory Case Study. IEEE Transactions on Software Engineering, 2021, 47, 1134-1163.	5.6	6
128	Understanding Architecture Erosion: The Practitioners' Perceptive. , 2021, , .		6
129	Architectural design decisions that incur technical debt — An industrial case study. Information and Software Technology, 2021, 139, 106669.	4.4	6
130	Does it matter who pays back Technical Debt? An empirical study of self-fixed TD. Information and Software Technology, 2022, 143, 106738.	4.4	6
131	A mapping study on documentation in Continuous Software Development. Information and Software Technology, 2022, 142, 106733.	4.4	6
132	Modeling architectural patterns using architectural primitives. ACM SIGPLAN Notices, 2005, 40, 133-146.	0.2	5
133	Defining execution viewpoints for a large and complex software-intensive system. , 2009, , .		5
134	Organizing a software architecture body of knowledge. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2010, 35, 37-40.	0.7	5
135	A Variability Viewpoint for Enterprise Software Systems. , 2012, , .		5
136	Assessing Change Proneness at the Architecture Level: An Empirical Validation. , 2017, , .		5
137	Evaluation of a process for architectural assumption management in software development. Science of Computer Programming, 2018, 168, 38-70.	1.9	5
138	Design and Evaluation of a Process for Identifying Architecture Patterns in Open Source Software. Lecture Notes in Computer Science, 2011, , 147-163.	1.3	5
139	On the evolution and impact of architectural smells—an industrial case study. Empirical Software Engineering, 2022, 27, 1.	3.9	5
140	Third international workshop on sharing and reusing architectural knowledge (SHARK 2008). , 2008, , .		4
141	Supporting Variability Through Agility to Achieve Adaptable Architectures. , 2014, , 139-159.		4
142	SOA in Variability-Intensive Environments: Pitfalls and Best Practices. IEEE Software, 2014, 31, 77-84.	1.8	4
143	Architectural decision-making as a financial investment: An industrial case study. Information and Software Technology, 2021, 129, 106412.	4.4	4
144	Naive Architecting - Understanding the Reasoning Process of Students. Lecture Notes in Computer Science, 2010, , 24-37.	1.3	4

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145	The Role of Quality Attributes in Service-Based Systems Architecting: A Survey. Lecture Notes in Computer Science, 2013, , 200-207.	1.3	4
146	The Risk of Generating Technical Debt Interest: A Case Study. SN Computer Science, 2021, 2, 1.	3.6	4
147	On the relation between architectural smells and source code changes. Journal of Software: Evolution and Process, 0, , e2398.	1.6	4
148	A Survey on the Interplay between Software Engineering and Systems Engineering during SoS Architecting. , 2020, , .		4
149	Do practitioners intentionally self-fix Technical Debt and why?. , 2021, , .		4
150	Hypermedia design for the mobile era. International Journal of Mobile Communications, 2004, 2, 271.	0.3	3
151	CRITON: A Hypermedia Design Tool. Multimedia Tools and Applications, 2005, 27, 5-21.	3.9	3
152	Constructing a Resource Usage View of a Large and Complex Software-Intensive System. , 2009, , .		3
153	Variability in Web Services. , 2013, , 269-278.		3
154	Validating and Improving a Knowledge Acquisition Approach for Architectural Decisions. International Journal of Software Engineering and Knowledge Engineering, 2014, 24, 553-589.	0.8	3
155	Variability in software architecture. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2014, 39, 33-34.	0.7	3
156	Lightweight Evaluation of Software Architecture Decisions. , 2014, , 157-179.		3
157	Towards bridging the twin peaks of requirements and architecture. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2014, 39, 30-31.	0.7	3
158	REI: An integrated measure for software reusability. Journal of Software: Evolution and Process, 2019, 31, e2216.	1.6	3
159	System- and Software-level Architecting Harmonization Practices for Systems-of-Systems : An exploratory case study on a long-running large-scale scientific instrument. , 2021, , .		3
160	Reducing Architectural Knowledge Vaporization by Applying the Repertory Grid Technique. Lecture Notes in Computer Science, 2011, , 244-251.	1.3	3
161	Modeling learning technology systems as business systems. Software and Systems Modeling, 2003, 2, 120-133.	2.7	2
162	The use of pattern participants relationships for integrating patterns: a controlled experiment. Software - Practice and Experience, 2013, 43, 807-833.	3.6	2

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163	Second International Workshop on Software Architecture and Metrics (SAM 2015). , 2015, , .		2
164	Integrating Agile Practices into Architectural Assumption Management. , 2019, , .		2
165	The Perception of Architectural Smells in Industrial Practice. IEEE Software, 2021, 38, 35-41.	1.8	2
166	Exploring the Relation Between Co-changes and Architectural Smells. SN Computer Science, 2021, 2, 1.	3.6	2
167	The temporality of technical debt introduction on new code and confounding factors. Software Quality Journal, 2022, 30, 283-305.	2.2	2
168	System and software architecting harmonization practices in ultra-large-scale systems of systems: A confirmatory case study. Information and Software Technology, 2022, 150, 106984.	4.4	2
169	Web engineering: new discipline, new educational challenges. Information Services and Use, 2000, 20, 95-108.	0.2	1
170	Evolution Through Architectural Reconciliation. Electronic Notes in Theoretical Computer Science, 2005, 127, 165-181.	0.9	1
171	First International Workshop on Variability in Software Architecture (VARSA 2011). , 2011, , .		1
172	Workshop on SHAring and Reusing architectural Knowledge. , 2011, , .		1
173	A Process Framework for Embedded Systems Engineering. , 2014, , .		1
174	An Exploratory Study on Architectural Knowledge in Issue Tracking Systems. Lecture Notes in Computer Science, 2021, , 117-133.	1.3	1
175	Mining Relationships between the Participants of Architectural Patterns. Lecture Notes in Computer Science, 2010, , 401-408.	1.3	1
176	Using Pattern-Based Architecture Reviews to Detect Quality Attribute Issues - An Exploratory Study. Lecture Notes in Computer Science, 2013, , 168-194.	1.3	1
177	A metric for quantifying the ripple effects among requirements. Software Quality Journal, 2022, 30, 853-883.	2.2	1
178	Fourth international workshop on sharing and reusing architectural knowledge (SHARK 2009). , 2009, , .		0
179	Workshop for E-government via Software Services (WeGovS2 2009). , 2009, , .		0
180	Modeling the variability of architectural patterns. , 2010, , .		0

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181	Fifth International Workshop on Sharing and Reusing Architectural Knowledge (SHARK 2010). , 2010, , .		0
182	Second international workshop on variability in software architecture. , 2012, , .		0
183	2nd International workshop on the twin peaks of requirements and architecture (TwinPeaks 2013). , 2013, , .		0
184	Toward Simpler, not Simplistic, Quantification of Software Architecture and Metrics. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2015, 40, 43-46.	0.7	0
185	Technical Debt in Agile Development. Software Engineering Notes: an Informal Newsletter of the Special Interest Committee on Software Engineering / ACM, 2017, 42, 18-21.	0.7	0
186	A mapping study on design-time quality attributes and metrics (journal-first abstract). , 2018, , .		0
187	Design Approaches for Critical Embedded Systems: A Systematic Mapping Study. Communications in Computer and Information Science, 2018, , 243-274.	0.5	0
188	Workshop on Variability in Software Product Line Architectures (VARI-ARCH 2010). , 2010, , .		0