Martin E Trngren

List of Publications by Citations

107 papers	1,597 citations	18 h-index	37 g-index
129 ext. papers	2,013 ext. citations	2.1 avg, IF	5.26 L-index

#	Paper	IF	Citations
107	Current status and advancement of cyber-physical systems in manufacturing. *Journal of Manufacturing Systems*, **2015**, 37, 517-527	9.1	544
106	Vehicle Applications of Controller Area Network **2005**, 741-765		68
105	Cyber-physical system design contracts **2013**,		59
104	Fundamentals of Implementing Real-Time Control Applications in Distributed Computer Systems. *Real-Time Systems*, **1998**, 14, 219-250	1.3	56
103	Integrating viewpoints in the development of mechatronic products. *Mechatronics*, **2014**, 24, 745-762	3	50
102	A functional reference architecture for autonomous driving. *Information and Software Technology*, **2016**, 73, 136-150	3.4	47
101	A Functional Architecture for Autonomous Driving **2015**,		43
100	Viewpoints, formalisms, languages, and tools for cyber-physical systems **2012**,		42
99	Digitalizing Swedish industry: What is next?. *Computers in Industry*, **2019**, 105, 153-163	11.6	37
98	A characterization of integrated multi-view modeling in the context of embedded and cyber-physical systems **2013**,		33
97	MODIFI: A MODel-Implemented Fault Injection Tool. *Lecture Notes in Computer Science*, **2010**, 210-222	0.9	31
96	What is embedded systems and how should it be taught?---results from a didactic analysis. *Transactions on Embedded Computing Systems*, **2005**, 4, 633-651	1.8	28
95	A reference architecture for cooperative driving. *Journal of Systems Architecture*, **2013**, 59, 1095-1112	5.5	27
94	How to Deal with the Complexity of Future Cyber-Physical Systems?. *Designs*, **2018**, 2, 40	1.8	26
93	Modelling Support for Design of Safety-Critical Automotive Embedded Systems. *Lecture Notes in Computer Science*, **2008**, 72-85	0.9	23
92	Complexity Challenges in Development of Cyber-Physical Systems. *Lecture Notes in Computer Science*, **2018**, 478-503	0.9	20
91	. *IEEE Robotics and Automation Magazine*, **2001**, 8, 20-26	3.4	20

90	11 The EAST-ADL Architecture Description Language for Automotive Embedded Software. *Lecture Notes in Computer Science*, **2010**, 297-307	0.9	19
89	Integrating safety analysis into the model-based development toolchain of automotive embedded systems **2010**,		18
88	Model-Implemented Fault Injection for Hardware Fault Simulation **2010**,		15
87	Structuring Safety Requirements in ISO 26262 Using Contract Theory. *Lecture Notes in Computer Science*, **2013**, 166-177	0.9	15
86	Managing Complexity of Automotive Electronics Using the EAST-ADL **2007**,		14
85	The AIDA toolset for design and implementation analysis of distributed real-time control systems. *Microprocessors and Microsystems*, **2004**, 28, 163-182	2.4	14
84	Strategies and considerations in shaping cyber-physical systems education. *ACM SIGBED Review*, **2017**, 14, 53-60	1.3	13
83	Semi-Automatic FMEA Supporting Complex Systems with Combinations and Sequences of Failures. *SAE International Journal of Passenger Cars - Mechanical Systems*, **2009**, 2, 791-802	0.3	13
82	Education and training challenges in the era of Cyber-Physical Systems **2015**,		12
81	Security-aware development of cyber-physical systems illustrated with automotive case study **2016** ,		11
80	Model-Based Development of Automotive Embedded Systems. *Industrial Information Technology Series*, **2008**, 258-309		10
79	Model-Based Safety Engineering of Interdependent Functions in Automotive Vehicles Using EAST-ADL2. *Lecture Notes in Computer Science*, **2010**, 332-346	0.9	10
78	Model-Based Systems Engineering Tool-Chain for Automated Parameter Value Selection. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, **2021**, 1-15	7.3	9
77	Safe Stop Trajectory Planning for Highly Automated Vehicles: An Optimal Control Problem Formulation **2018**,		9
76	An Investigation of Functionalities of Future Tool-chain for Aerospace Industry. *Incose International Symposium*, **2017**, 27, 1408-1422	0.4	8
75	Verifying system behaviors in EAST-ADL2 with the SPIN model checker **2010**,		8
74	Integrating safety analysis into the model-based development toolchain of automotive embedded systems. *ACM SIGPLAN Notices*, **2010**, 45, 125-132	0.2	8
73	Experiences from large embedded systems development projects in education, involving industry and research. *ACM SIGBED Review*, **2007**, 4, 55-63	1.3	8

72	Towards Improving Dependability of Automotive Systems by Using the EAST-ADL Architecture Description Language. *Lecture Notes in Computer Science*, **2007**, 39-65	0.9	8
71	Adaptive Trajectory Planning and optimization at Limits of Handling **2019**,		8
70	Design Ontology in a Case Study for Cosimulation in a Model-Based Systems Engineering Tool-Chain. *IEEE Systems Journal*, **2020**, 14, 1297-1308	4.3	8
69	Trends in preparing cyber-physical systems engineers. *Cyber-Physical Systems*, **2019**, 5, 65-91	1.1	7
68	Towards integration of CPS and systems engineering in education **2016**,		7
67	On the modeling and generation of service-oriented tool chains. *Software and Systems Modeling*, **2014**, 13, 461-480	1.9	7
66	How should embedded systems be taught?. *ACM SIGBED Review*, **2005**, 2, 34-39	1.3	7
65	Cyber-physical systems research and education in 2030: Scenarios and strategies. *Journal of Industrial Information Integration*, **2021**, 21, 100192	7	7
64	From EAST-ADL to AUTOSAR Software Architecture: A Mapping Scheme. *Lecture Notes in Computer Science*, **2011**, 328-335	0.9	6
63	Empirical-Evolution of Frameworks Supporting Co-simulation Tool-Chain Development. *Advances in Intelligent Systems and Computing*, **2018**, 813-828	0.4	6
62	Tool Integration beyond Wasserman. *Lecture Notes in Business Information Processing*, **2011**, 270-281	0.6	6
61	Qualifying Software Tools, a Systems Approach. *Lecture Notes in Computer Science*, **2012**, 340-351	0.9	6
60	A Case Study on Achieving Fair Data Age Distribution in Vehicular Communications **2017**,		5
59	**2016**,		5
58	High-Level Specification and Code Generation for Service-Oriented Tool Adapters **2012**,		5
57	A Timed Automata-Based Method to Analyze EAST-ADL Timing Constraint Specifications. *Lecture Notes in Computer Science*, **2012**, 303-318	0.9	5
56	The Role of Competence Networks in the Era of Cyber-Physical Systems Promoting Knowledge Sharing and Knowledge Exchange. *IEEE Design and Test*, **2020**, 37, 8-15	1.4	5
55	Ontological reasoning for consistency in the design of cyber-physical systems **2016**,		5

54	A Service-Oriented Tool-Chain for Model-Based Systems Engineering of Aero-Engines. *IEEE Access*, **2018**, 6, 50443-50458	3.5	5
53	Architecture Challenges for Intelligent Autonomous Machines. *Advances in Intelligent Systems and Computing*, **2016**, 1669-1681	0.4	4
52	ATRIUM Architecting under uncertainty: For ISO 26262 compliance **2017**,		4
51	Functional Safety and Evolvable Architectures for Autonomy **2017**, 547-560		4
50	The discourse on tool integration beyond technology, a literature survey. *Journal of Systems and Software*, **2015**, 106, 117-131	3.3	4
49	Experience on applying software architecture recovery to automotive embedded systems **2014**,		4
48	Pre-Crash Vehicle Control and Manoeuvre Planning: A Step Towards Minimizing Collision Severity for Highly Automated Vehicles **2019**,		4
47	Architecting Safety Supervisors for High Levels of Automated Driving **2018**,		4
46	A literature review on obsolescence management in COTS-centric cyber physical systems. *Procedia Computer Science*, **2019**, 153, 135-145	1.6	3
45	Experiences and reflections on three years of CPS summer schools within EIT digital **2016**,		3
44	**2018**,		3
43	Towards curricula for Cyber-Physical Systems **2014**,		3
42	**2017**,		3
41	Tool Integration, from Tool to Tool Chain with ISO 26262 **2012**,		3
40	Supporting an Automotive Safety Case through Systematic Model Based Development - the EAST-ADL2 Approach **2008**,		3
39	Real-time control of physically distributed systems. *Computers and Electrical Engineering*, **1992**, 18, 51-72	4.3	3
38	Autonomic Middleware for Automotive Embedded Systems **2009**, 169-210		3
37	A domain-specific modeling approach supporting tool-chain development with Bayesian network models. *Integrated Computer-Aided Engineering*, **2020**, 27, 153-171	5.2	3

36	Probabilistic Inference of Fault Condition of Cyber-Physical Systems Under Uncertainty. *IEEE Systems Journal*, **2020**, 14, 3256-3266	4.3	2
35	**2013**,		2
34	Analyzing semantic relationships between multiformalism models for inconsistency management **2015**,		2
33	Self configuration of dependent tasks for dynamically reconfigurable automotive embedded systems **2008**,		2
32	Tool supporting the co-design of control systems and their real-time implementation: Current status and future directions **2006**,		2
31	Tuning Permissiveness of Active Safety Monitors for Autonomous Systems. *Lecture Notes in Computer Science*, **2018**, 333-348	0.9	2
30	AD-EYE: A Co-Simulation Platform for Early Verification of Functional Safety Concepts		2
29	A Tool Integration Language to Formalize Co-simulation Tool-Chains for Cyber-Physical System (CPS). *Lecture Notes in Computer Science*, **2018**, 391-405	0.9	2
28	Generic Fault Modelling for Fault Injection. *Lecture Notes in Computer Science*, **2011**, 287-296	0.9	2
27	On Integrating EAST-ADL and UPPAAL for Embedded System Architecture Verification. *Embedded Systems*, **2014**, 85-99		2
26	A Functional Brake Architecture for Autonomous Heavy Commercial Vehicles **2016**,		2
25	A Data-Driven Method Towards Minimizing Collision Severity for Highly Automated Vehicles. *IEEE Transactions on Intelligent Vehicles*, **2021**, 1-1	5	2
24	Experience from Introducing Systems Engineering in an Academic Environment Using an Industry Training Course. *Incose International Symposium*, **2018**, 28, 245-259	0.4	2
23	Towards a taxonomy of technical debt for COTS-intensive cyber physical systems. *Procedia Computer Science*, **2019**, 153, 108-117	1.6	1
22	The Need for a Confidence View of CPS Support Environments (Fast Abstract) **2015**,		1
21	A Cost-Efficiency Model for Tool Chains **2012**,		1
20	An Executable Design Decision Representation Using Model Transformations **2010**,		1
19	Lessons Learned from Model Based Development of a Distributed Embedded Automotive Control System **2004**,		1

18	7.1.1 Integrating Views in a Multi-view Modelling Environment. *Incose International Symposium*, **2005**, 15, 974-988	0.4	1
17	Connected things connecting Europe. *Communications of the ACM*, **2019**, 62, 46-46	2.5	1
16	Uncertainty Management in Situation Awareness for Cyber-Physical Systems **2020**,		1
15	Intelligent Transport Systems - The Role of a Safety Loop for Holistic Safety Management. *Lecture Notes in Computer Science*, **2014**, 3-10	0.9	1
14	17 Towards Model-Based Engineering of Self-configuring Embedded Systems. *Lecture Notes in Computer Science*, **2010**, 345-353	0.9	1
13	Educating embedded systems hackers. *ACM SIGBED Review*, **2017**, 14, 8-15	1.3	0
12	Introducing distributed control in mobile machines based on hydraulic actuators. *Mechatronics*, **1994**, 4, 139-157	3	0
11	Traction Adaptive Motion Planning and Control at the Limits of Handling. *IEEE Transactions on Control Systems Technology*, **2021**, 1-17	4.8	0
10	Security Awareness in the Internet of Everything. *Advances in Computer and Electrical Engineering Book Series*, **2019**, 272-301	0.3	0
9	Systems Engineering and Architecting for Intelligent Autonomous Systems **2017**, 313-351		
8	Requirements Engineering for Control and Computing Systems at large research facilities: Process implementation and a case study. *Incose International Symposium*, **2015**, 25, 68-82	0.4	
7	THE EFFECT OF RANDOMLY TIME-VARYING SAMPLING AND COMPUTATIONAL DELAY. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2005**, 38, 209-218		
6	Competence Networks in the Era of CPS Lessons Learnt in the ICES Cross-Disciplinary and Multi-domain Center. *Lecture Notes in Computer Science*, **2020**, 264-283	0.9	
5	Security Awareness in the Internet of Everything **2022**, 1-30		
4	Architecture and Safety for Autonomous Heavy Vehicles: ARCHER **2017**, 571-581		
3	Component-Based Development **2013**, 179-212		
2	Architecture Exploration **2013**, 145-178		
1	A Permissioned Blockchain Based Feature Management System for Assembly Devices. *IEEE Access*, **2020**, 8, 183378-183390	3.5	