

# Stoyan Stoyanov

## List of Publications by Year in descending order

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Version: 2024-02-01

71  
papers

438  
citations

1040056

9  
h-index

940533

16  
g-index

71  
all docs

71  
docs citations

71  
times ranked

380  
citing authors

#	ARTICLE	IF	CITATIONS
1	Prognostic and health management for engineering systems: a review of the data-driven approach and algorithms. Journal of Engineering, 2015, 2015, 215-222.	1.1	61
2	Prognostics and Health Monitoring of High Power LED. Micromachines, 2012, 3, 78-100.	2.9	37
3	Optimisation modelling for thermal fatigue reliability of lead-free interconnects in fine-pitch flip-chip packaging. Soldering and Surface Mount Technology, 2009, 21, 11-24.	1.5	25
4	A review of data-driven prognostics in power electronics. , 2012, , .		23
5	Data driven approach to quality assessment of 3D printed electronic products. , 2015, , .		21
6	Design, manufacture and test for reliable 3D printed electronics packaging. Microelectronics Reliability, 2018, 85, 109-117.	1.7	20
7	Data driven prognostics for predicting remaining useful life of IGBT. , 2016, , .		16
8	Predictive analytics methodology for smart qualification testing of electronic components. Journal of Intelligent Manufacturing, 2019, 30, 1497-1514.	7.3	16
9	Machine learning for additive manufacturing of electronics. , 2017, , .		15
10	Modelling methodology for thermal analysis of hot solder dip process. Microelectronics Reliability, 2013, 53, 1055-1067.	1.7	14
11	No-flow underfill flip chip assembly – an experimental and modeling analysis. Microelectronics Reliability, 2002, 42, 1205-1212.	1.7	13
12	Computational modelling for reliable flip-chip packaging at sub-100µm pitch using isotropic conductive adhesives. Microelectronics Reliability, 2007, 47, 132-141.	1.7	10
13	Modelling and prototyping the conceptual design of 3D CMM micro-probe. , 2008, , .		10
14	Fusion Approach for Prognostics Framework of Heritage Structure. IEEE Transactions on Reliability, 2011, 60, 3-13.	4.6	10
15	Prognostics of automotive electronics with data driven approach: A review. , 2016, , .		10
16	Comparative Reliability of Inkjet-Printed Electronics Packaging. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 351-362.	2.5	9
17	A comparison study of the prognostics approaches to Light Emitting Diodes under accelerated aging. , 2012, , .		8
18	Prognostics and reliability assessment of light emitting diode packaging. , 2011, , .		7

#	ARTICLE	IF	CITATIONS
19	Similarity approach for reducing qualification tests of electronic components. Microelectronics Reliability, 2016, 67, 111-119.	1.7	7
20	Developing Computational Intelligence for Smart Qualification Testing of Electronic Products. IEEE Access, 2020, 8, 16922-16933.	4.2	7
21	“System in package technology” design for manufacture challenges. Circuit World, 2007, 33, 36-46.	0.9	5
22	Predictive reliability and prognostics for electronic components: Current capabilities and future challenges. , 2008, , .		5
23	Modelling and testing the impact of hot solder dip process on leaded components. , 2012, , .		5
24	Multi-physics models and condition-based monitoring for 3D-Printing of electronic packages. , 2017, , .		5
25	Thermomechanical Analysis of Conformally Coated QFNs for High-Reliability Applications. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 2210-2218.	2.5	5
26	Smearred shell modelling approach for structural analysis of heritage composite structures “ An application to the Cutty Sark conservation. Computers and Structures, 2010, 88, 649-663.	4.4	4
27	Thermal modelling and optimisation of hot solder dip process. , 2012, , .		4
28	Thermo-mechanical sub-modelling of BGA components in PCB reflow. , 2013, , .		4
29	Modelling the impact of refinishing processes on COTS components for use in aerospace applications. Microelectronics Reliability, 2015, 55, 1271-1279.	1.7	4
30	Modelling methodologies for assessment of 3D inkjet-printed electronics. , 2016, , .		4
31	Predictive modelling for 3D inkjet printing processes. , 2016, , .		4
32	Numerical modelling methodology for design of miniaturised integrated products - an application to 3D CMM micro-probe development. , 2010, , .		3
33	Integration of analytical techniques in stochastic optimization of microsystem reliability. Microelectronics Reliability, 2011, 51, 936-945.	1.7	3
34	Reliability Assessment of QFN Components for Aerospace Applications. , 2016, , .		3
35	Co-Simulation and modelling for heterogeneous integration of high-tech electronic systems. , 2017, , .		3
36	Modelling the impact of conformal coating penetration on QFN reliability. , 2017, , .		3

#	ARTICLE	IF	CITATIONS
37	Data Driven Predictive Model to Compact a Production Stop-on-Fail Test Set for an Electronic Device. , 2018, , .		3
38	Reliability Impact of Assembly Materials for Micro-BGA Components in High Reliability Applications. , 2020, , .		3
39	Deep Learning Modelling for Composite Properties of PCB Conductive Layers. , 2022, , .		3
40	Reliability Analysis of SiP Structures. , 2007, , .		2
41	Modelling and optimisation study on the fabrication of nano€structures using imprint forming process. Engineering Computations, 2011, 28, 93-111.	1.4	2
42	Assessment of refinishing processes for electronic components in high reliability applications. , 2013, , .		2
43	Application of Kriging and Radial Basis Function for Reliability Optimization in Power Modules. Journal of Electronic Packaging, Transactions of the ASME, 2013, 135, .	1.8	2
44	Hot nitrogen deballing of Ball Grid Arrays. , 2014, , .		2
45	Statistical analysis of the impact of refinishing process on leaded components. Microelectronics Reliability, 2015, 55, 424-431.	1.7	2
46	Packaging Challenges and Reliability Performance of Compound Semiconductor Focal Plane Arrays. , 2019, , .		2
47	Computational Approach for Reliable and Robust System-in-Package Design. , 2007, , .		1
48	Risk mitigation framework for a robust design process. , 2008, , .		1
49	Design for reliability methodology for micro laser welding of pigtail fibres. , 2009, , .		1
50	Fusion approach for predictive maintenance of heritage structures. , 2010, , .		1
51	Thermo-mechanical impact of laser-induced solder ball attach process on ball grid arrays. , 2014, , .		1
52	Buckling analysis on the hull of the historic paddle steamer â€Medway Queenâ€™. Ships and Offshore Structures, 2014, 9, 643-654.	1.9	1
53	Similarity based reliability qualification of electronic components. , 2015, , .		1
54	Vulnerability study of hot solder dipped COTS components. , 2016, , .		1

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55	Data-driven prognostics for smart qualification testing of electronic products. , 2017, , .		1
56	Numerical Analysis of the Design and Manufacture of Inkjet Printed Electronics Packaging. , 2018, , .		1
57	Data Driven Prognostics for Failure of Power Semiconductor Packages. , 2018, , .		1
58	Characterization and Validation Techniques for Thermo-Mechanical Models of Electronic Packages and Assemblies. , 2019, , .		1
59	Corrections to "Ultra-fine pitch stencil printing for a low cost and low temperature flip-chip assembly process". IEEE Transactions on Components and Packaging Technologies, 2007, 30, 359-359.	1.3	0
60	Design for Reliability for Wafer Level System in Package. , 2008, , .		0
61	Modelling the Nano-Imprint Forming process for the production of miniaturised 3D structures. , 2008, , .		0
62	Minimising the risk of defects in nano-imprint forming. , 2008, , .		0
63	Modelling and process capability analysis of Focused Ion Beam. , 2009, , .		0
64	Reduced order modelling for risk mitigation in design of miniaturised/integrated products. , 2010, , .		0
65	Model assisted process control in micro- and nano-fabrication using Focused Ion Beam. , 2011, , .		0
66	Experimental and modelling study on the effects of refinishing lead-free microelectronic components. , 2012, , .		0
67	Study of impact of thermal refinishing process on reliability of COTS components. , 2014, , .		0
68	Modelling the 3D-printing process for electronics packaging. , 2016, , .		0
69	Data analytics approach for optimal qualification testing of electronic components. , 2018, , .		0
70	Experimental and Modeling Study on Delamination Risks for Refinished Electronic Packages Under Hot Solder Dip Loads. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 502-515.	2.5	0
71	Reliability Optimisation and Lifetime Modelling of micro-BGA Assemblies in Harsh Environment Applications. , 2021, , .		0