

PUBLICATIONS
(Up to and including 2021)
Alan Burns

1 Books

1. A. Burns and A.J. Wellings, *Analysable Real-Time Systems Programmed in Ada*, 513 pages, 2016.
2. A. Burns and A.J. Wellings, *Real-Time Systems and Programming Languages*, 4th edition, 602 pages, Addison Wesley, 2009.
3. A Burns and A. J. Wellings, *Concurrent and Real-Time Programming in Ada*, Cambridge University Press, 2007.
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5. A. Burns and A.J. Wellings, *Concurrency in Ada*, Cambridge University Press, 2nd Edition, 402 pages, 1998.
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9. A.Burns and G.L.Davies, *Concurrent Programming*, Addison Wesley, 377 pages, 1993.
10. A.Burns (editor), *Towards Ada 9X*, IOS Press, Studies in Computer and Communications Systems, 201 pages, 1992.
11. A.Burns and A.J. Wellings, *Real-Time Systems and Their Programming Languages*, Addison Wesley, 575 pages, 1990.
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2 Parts Of Books

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20. A. Burns and A.J. Wellings, Programming Execution-Time Servers and Supporting EDF Scheduling in Ada 2005, Handbook of Real-Time and Embedded Systems, Eds I. Lee, J.Y-T. Leug and S.H. Son, pp13-1–13-20, 2007.
21. A.J. Wellings and A. Burns, Real-Time Java, Handbook of Real-Time and Embedded Systems, Eds I. Lee, J.Y-T. Leug and S.H. Son, pp12-1–12-17, 2007.
22. A. Burns and G. Baxter, Time bands in System Structure, in Structure for Dependability, Eds D. Besnard, C Gacek and C.B. Jones, Springer, pp74-90, 2006.
23. M. Caccamo, T. Baker, A. Burns, G. Buttazzo and L. Sha, Real-Time Scheduling for Embedded Systems, Handbook of Networked and Embedded Systems, Birkhauser, pp173-195, 2005.
24. A. Burns, Real-Time Systems, Encyclopedia of Physical Science and Technology, Vol 14, pp45-54, Academic Press, 2002.
25. J. Byun, A. Burns, R. Davis and A.J. Wellings, A Worst-Case Behaviour Analysis for Hard Real-Time Transactions, in Real-Time Database Systems, eds Azer Bestavros, Kwei-Jay Lin and Sang Hyuk Son, Kluwer Academic Publishers, pp235-249, 1997.
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27. N.C. Audsley, A. Burns, R.I. Davis, K.W. Tindell and A.J. Wellings, Real-Time System Scheduling, in Predictably Dependable Computing Systems, eds B. Randell, J.-C. Laprie, H. Kopetz and B. Littlewood, ESPRIT Basic Research Series, Springer, pp41-52, 1995.
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3 Fully Reviewed papers

This section contains the titles of papers that are either published in referred journals or are referred conference papers that have appeared in archived proceedings.

33. S. Baruah, A. Burns and Y. Wu, Optimal Synthesis of IDK-Cascades, Proc. 29th International Conference on Real-Time Networks (RTNS), pp184-191, 2021.
34. A. Burns and R.I. Davis, Schedulability Analysis for Adaptive Mixed Criticality Systems with Arbitrary Deadlines and Semi-Clairvoyance, IEEE Real-Time Systems Symposium (RTSS), 2020.
35. S. Zhao, X. Dai, I. Bate, A. Burns and W. Chang, DAG Scheduling and Analysis on Multiprocessor Systems: Exploitation of Parallelism and Dependency, IEEE Real-Time Systems Symposium (RTSS), 2020.
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37. J. Harbin, A. Burns, R.I. Davis, L.S. Indrusiak, I. Bate, and D. Griffin, The AirTight Protocol for Mixed Criticality Wireless CPS, ACM Trans. Cyber-Physical Systems, Vol 4, No 2, pp19:1-19:28, 2020.
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39. S. Zhao, J. Garrido, R. Wei, A. Burns, A. Wellings and J.A. de la Puente, A Complete Run-time Overhead-aware Schedulability Analysis for MrsP under Nested Resources, Journal of Systems and Software, Elsevier, Vol 159, pp110449, 2020.
40. S. Baruah and A. Burns, Expressing Survivability Considerations in Mixed-Criticality Scheduling Theory, Journal of Systems Architecture, Vol 109, Oct, pp101755, 2020.
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42. W. Chang, R. Wei, S. Zhao, A.J. Wellings, J. Woodcock and A. Burns, Development Automation of Real-Time Java: Model-Driven Transformation and Synthesis, Transactions on Embedded Computing Systems, Vol 19, No 5, Nov, 2020.
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45. K. Agrawal, S. Baruah and A. Burns, The Safe and Effective Use of Learning-Enabled Components in Safety-Critical Systems, pp7:1-7:20, Vol 165, 32nd Euromicro Conference on Real-Time Systems (ECRTS), 2020.
46. P. Dong, Z. Jiang, A. Burns, Y. Ding, and J. Ma, Build Real-Time Communication for Hybrid Dual-OS System, Journal of Systems Architecture, Elsevier, Vol 107, pp101774, 2020.
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48. S. Baruah and A. Burns, Incorporating Robustness and Resilience into Mixed-Criticality Scheduling Theory, Proc. 22nd IEEE International Symposium on Real-Time Distributed Computing (ISORC), 2019.
49. X. Dai and A. Burns, Period Adaptation of Real-Time Control Tasks with Fixed Priority Scheduling, Proc. Ada Europe, 2019.
50. X. Dai, W. Chnag, S. Zhao and A. Burns, A Dual-Mode Strategy for Performance-Maximisation and Resource-Efficient CPS Design, ACM Trans. Embed. Comput. Syst., Vol 18, No 5s, pp85:1–85:20, 2019. (Proc EM-SOFT), 2019.
51. H. Xu and A. Burns, A Semi-Partitioned Model for Mixed Criticality Systems, Journal of Systems and Software, Vol 150, pp51-63, 2019.
52. C. Deutschbein and T. Fleming and A. Burns and S. Baruah, Multi-core Cyclic Executives for Safety-Critical Systems, Science of Computer Programming, Vol 172, pp102-116, 2019.
53. B. Nikoli, S. Tobuschat, L.S. Indrusiak and A. Burns, Real-time Analysis of Priority-Preemptive NoCs with Arbitrary Buffer Sizes and Router Delays, Real-Time Systems Journal, Vol 55, No 1, pp63-105, 2019.
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58. R.I. Davis, S. Altmeyer and A. Burns, Mixed Criticality Systems with Varying Context Switch Costs, Proc. IEEE Real-Time and Embedded Technology and Applications, RTAS, 2018.
59. L. Soares Indrusiak, A. Burns and B. Nikolic, Buffer-aware bounds to multi-point progressive blocking in priority-preemptive NoCs, Proc. Design, Automation and Test in Europe Conference, DATE, 219-224, 2018.
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