

# Dr.-Ing. Falk Salewski

From 2004 to 2008 I worked at the Embedded Software Laboratory at RWTH Aachen. My research focus was on the safety and reliability in embedded real-time systems on the one hand and the different hardware platforms used in embedded systems on the other hand. Within the scope of my doctoral thesis, I studied the influence of these different hardware platforms on the according software with respect to safety and reliability. In this context, different empirical evaluations were an important part of my work.

## Contact

salewski [at] embedded.rwth-aachen [dot] de

## Projects & Activities

- FAT-Project Reliability of Automotive Embedded Systems
- Systematic Hardware Platform Selection (SHPS)
- Experimental Vehicle Automotive Software Design
- Program committees:
  - IEEE 3rd International Symposium on Industrial Embedded Systems (SIES 2008)
  - 4th. Workshop on Embedded System Education (WESE 2008)
  - International Conference on Advances in Electronics and Micro-electronics (ENICS 2008)
  - International Workshop on Reconfigurable Computing Education (RC education 2008)
  - 3rd. Workshop on Embedded System Education (WESE 2007)
  - International Workshop on Reconfigurable Computing Education (WRCE 2007)
  - First International Workshop on Reconfigurable Computing Education (RC education 2006)

## Publications

[BBD+11]

[PDFBIB](#)

Beckschulze, E., Boymanns, D., Dülks, R., Gatterdam, T., Kowalewski, S., Lang, M., Salewski, F., and Siegbert, T., "Zuverlässigkeit von automotive embedded Systems", 2011.

# Zuverlaessigkeit von automotive embedded Systems

## Bibtex entry :

```
@techreport { BBD+11,  
  author = { Beckschulze, Eva and Boymanns, David and D{"u}lks,  
  Ramon  
    and Gatterdam, Thomas and Kowalewski, Stefan and Lang, M.  
    and Salewski, Falk and Siegbert, Thomas },  
  title = { Zuverlaessigkeit von automotive embedded Systems },  
  volume = { 231 },  
  series = { FAT-Schriftenreihe },  
  year = { 2011 },  
  typ = { PUB:(DE-HGF)29 },  
  reportid = { RWTH-CONV-236311 },  
  cin = { 122810 / 120000 },  
  url = { https://d-nb.info/1053546777/34 },  
}
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[ASK09]

[PDFBIB](#)

Armoush, A., Salewski, F., and Kowalewski, S., "Design pattern representation for safety-critical embedded systems", *Journal of software engineering and applications : JSEA*, vol. 2, iss. 1, pp. 1-12, 2009

## Design pattern representation for safety-critical embedded systems

## Bibtex entry :

```
@article { ASK09,  
  author = { Armoush, Ashraf and Salewski, Falk and Kowalewski,  
  Stefan },  
  title = { Design pattern representation for safety-critical  
  embedded  
    systems },  
  journal = { Journal of software engineering and applications : JSEA  
  },  
  publisher = { Scientific Research Publ. },  
  pages = { 1-12 },  
  volume = { 2 },  
  number = { 1 },  
  year = { 2009 },  
  issn = { 1945-3116 },  
  doi = { 10.4236/jsea.2009.21001 },  
  typ = { PUB:(DE-HGF)16 },  
  reportid = { RWTH-CONV-013185 },  
  cin = { 122810 / 120000 },  
  url = { http://www.scirp.org/journal/jsea },
```

}

[BSK09]

[PDFBIB](#)

Beckschulze, E., Salewski, F., and Kowalewski, S., "A Comparison of Dual-Core Approaches for Safety-Critical Automotive Applications", in *Proc. Safety-critical systems, 2009 : [held during the SAE 2009 world congress, held April 20 - 23, 2009 in Detroit, Michigan, USA] / SAE International, Warrendale, Pa., 2009* in SAE-SP, SAE Intern., pp. 209-216.

## A Comparison of Dual-Core Approaches for Safety-Critical Automotive Applications

### Bibtex entry :

```
@inproceedings { BSK09,
  author = { Beckschulze, Eva and Salewski, Falk and Kowalewski,
Stefan },
  title = { A Comparison of Dual-Core Approaches for Safety-Critical
Automotive Applications },
  booktitle = { Safety-critical systems, 2009 : [held during the SAE
2009
  world congress, held April 20 - 23, 2009 in Detroit,
Michigan, USA] / SAE International },
  publisher = { SAE Intern. },
  pages = { 209-216 },
  series = { SAE-SP },
  year = { 2009 },
  address = { Warrendale, Pa. },
  organization = { Safety-critical systems, Detroit (USA), 2009-04-20
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  2009-04-23 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-CONV-191094 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/120032 },
}
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[DSK09]

[PDFBIB](#)

Duelks, R., Salewski, F., and Kowalewski, S., "A real-time test and simulation environment based on standard FPGA hardware", in *Proc. Proceedings / 2009 Testing: Academic and Industrial Conference Practice and Research Techniques : TAIC PART 2009 ; 4-6 September 2009 Cumberland Lodge, Windsor, United Kingdom, Los Alamitos, Calif, 2009, IEEE Computer Society, pp. 197-204.*

## A real-time test and simulation environment based on standard FPGA hardware

## Bibtex entry :

```
@inproceedings { DSK09,
  author = { Duelks, Ramona and Salewski, Falk and Kowalewski, Stefan
},
  title = { A real-time test and simulation environment based on
standard FPGA hardware },
  booktitle = { Proceedings / 2009 Testing: Academic and Industrial
Conference Practice and Research Techniques : TAIC PART 2009
; 4-6 September 2009 Cumberland Lodge, Windsor, United
Kingdom },
  publisher = { IEEE Computer Society },
  pages = { 197-204 },
  year = { 2009 },
  address = { Los Alamitos, Calif },
  organization = { 2009 Testing :Academic and Industrial Conference
Practice
and Research Techniques : TAIC PART 2009, Cumberland Lodge,
Windsor (UK), 2009-09-04 - 2009-09-06 },
  doi = { 10.1109/TAICPART.2009.24 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-197239 },
  cin = { 120000 / 122810 },
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}
```

[ASK08]

[PDFBIB](#)

Armoush, A., Salewski, F., and Kowalewski, S., "A hybrid fault tolerance method for recovery block with a weak acceptance test", in *Proc. Proceedings of the 5th International Conference on Embedded and Ubiquitous Computing : EUC 2008 ; December 17-20, 2008, Shanghai, China / Spons. by: IEEE Computer Society Technical Committee on Scalable Computing (TCSC)*. - Vol. 1, Los Alamitos, Calif., 2008, IEEE Computer Society, pp. 484-491.

## A hybrid fault tolerance method for recovery block with a weak acceptance test

### Bibtex entry :

```
@inproceedings { ASK08,
  author = { Armoush, Ashraf and Salewski, Falk and Kowalewski,
Stefan },
  title = { A hybrid fault tolerance method for recovery block with a
weak acceptance test },
  booktitle = { Proceedings of the 5th International Conference on
Embedded
and Ubiquitous Computing : EUC 2008 ; December 17-20,
2008, Shanghai, China / Spons. by: IEEE Computer Society
Technical Committee on Scalable Computing (TCSC). - Vol. 1 },
  publisher = { IEEE Computer Society },
```

```

pages = { 484-491 },
year = { 2008 },
address = { Los Alamitos, Calif. },
organization = { 5. International Conference on Embedded and
Ubiquitous
    Computing, Shanghai (Peoples R China), 2008-12-17 -
    2008-12-20 },
doi = { 10.1109/EUC.2008.102 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-171798 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/98742 },
}

```

[ASK08a]

[PDFBIB](#)

Armoush, A., Salewski, F., and Kowalewski, S., "Effective pattern representation for safety critical embedded systems", in *Proc. CSSE 2008 : International Conference on Computer Science and Software Engineering ; Proceedings ; 12-14 December 2008 • Wuhan, Hubei, China. - Vol. 4*, Los Alamitos, Calif., 2008, IEEE Computer Society, pp. 91-97.

## Effective pattern representation for safety critical embedded systems

### Bibtex entry :

```

@inproceedings { ASK08a,
  author = { Armoush, Ashraf and Salewski, Falk and Kowalewski,
Stefan },
  title = { Effective pattern representation for safety critical
embedded systems },
  booktitle = { CSSE 2008 : International Conference on Computer
Science and
    Software Engineering ; Proceedings ; 12-14 December 2008 •
    Wuhan, Hubei, China. - Vol. 4 },
  publisher = { IEEE Computer Society },
  pages = { 91-97 },
  year = { 2008 },
  address = { Los Alamitos, Calif. },
  organization = { International Conference on Computer Science and
Software
    Engineering, Wuhan, Hubei (Peoples R China), 2008-12-12 -
    2008-12-14 },
  doi = { 10.1109/CSSE.2008.739 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171799 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98743 },
}

```

[ASK08b]

[PDFBIB](#)

Armoush, A., Salewski, F., and Kowalewski, S., "Recovery block with backup voting : a new pattern with extended representation for safety critical embedded systems", in *Proc. 11th International Conference on Information Technology : ICIT 2008 ; Proceedings ; December 17-20, 2008, Bhubaneswar, India / Edited by B. S. Panda and Abhaya Nayak. Organized by Orissa Information Technology Society ...*, Los Alamitos, Calif., 2008, IEEE Computer Society, pp. 232-237.

## Recovery block with backup voting : a new pattern with extended representation for safety critical embedded systems

### Bibtex entry :

```
@inproceedings { ASK08b,
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  booktitle = { 11th International Conference on Information Technology : ICIT 2008 ; Proceedings ; December 17-20, 2008, Bhubaneswar, India / Edited by B. S. Panda and Abhaya Nayak. Organized by Orissa Information Technology Society ... },
  publisher = { IEEE Computer Society },
  pages = { 232-237 },
  year = { 2008 },
  address = { Los Alamitos, Calif. },
  organization = { 11. International Conference on Information Technology, Bhubaneswar (India), 2008-12-17 - 2008-12-20 },
  doi = { 10.1109/ICIT.2008.60 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171800 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98744 },
}
```

[BSS+08]

[PDFBIB](#)

Beckschulze, E., Salewski, F., Siegbert, T., and Kowalewski, S., "Fault handling approaches on dual-core microcontrollers in safety-critical automotive applications", in *Proc. Leveraging applications of formal methods, verification and validation : third international symposium, ISoLA 2008, Porto Sani, Greece, October 13 - 15, 2008 ; proceedings / Tiziana Margaria ... (ed.)*, Berlin [u.a], 2008 in *Communications in computer and information science*, Springer, pp. 82-92.

# Fault handling approaches on dual-core microcontrollers in safety-critical automotive applications

## Bibtex entry :

```
@inproceedings { BSS+08,  
  author = { Beckschulze, Eva and Salewski, Falk and Siegbert, Thomas  
and  
  Kowalewski, Stefan },  
  title = { Fault handling approaches on dual-core microcontrollers  
in  
  safety-critical automotive applications },  
  booktitle = { Leveraging applications of formal methods,  
verification and  
  validation : third international symposium, ISoLA 2008,  
Porto Sani, Greece, October 13 - 15, 2008 ; proceedings /  
  Tiziana Margaria ... (ed.) },  
  publisher = { Springer },  
  pages = { 82-92 },  
  series = { Communications in computer and information science },  
  year = { 2008 },  
  address = { Berlin [u.a.] },  
  organization = { Leveraging applications of formal methods,  
verification and  
  validation : 3. international symposium, Porto Sani  
  (Greece), 2008-10-13 - 2008-10-15 },  
  doi = { 10.1007/978-3-540-88479-8_7 },  
  typ = { PUB:(DE-HGF)8 },  
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  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/98522 },  
}
```

[Sal08]

[PDFBIB](#)

Salewski, F., "Empirical evaluations of safety critical embedded systems", PhD Thesis, Aachen, 2008.

## Empirical evaluations of safety critical embedded systems

## Bibtex entry :

```
@phdthesis { Sal08,  
  author = { Salewski, Falk },  
  othercontributors = { Kowalewski, Stefan },  
  title = { Empirical evaluations of safety critical embedded systems  
},  
  publisher = { Publikationsserver der RWTH Aachen University },
```

```
pages = { X, 175 S. : graph. Darst. },
series = { Aachener Informatik-Berichte },
year = { 2008 },
address = { Aachen },
typ = { PUB:(DE-HGF)11 },
reportid = { RWTH-CONV-145380 },
cin = { 120000 / 122810 },
url = {
http://publications.rwth-aachen.de/record/459474/files/Salewski_Falk.pdf
},
}
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[SK08]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "The effect of real-time software reuse in FPGAs and microcontrollers with respect to software faults", in *Proc. 2008 International Symposium on Industrial Embedded Systems : [SIES'2008] ; La Grande Motte, France, 11 - 13 June 2008 / IEEE*, Piscataway, NJ, 2008, IEEE, pp. 141-148.

## The effect of real-time software reuse in FPGAs and microcontrollers with respect to software faults

### Bibtex entry :

```
@inproceedings { SK08,
  author = { Salewski, Falk and Kowalewski, Stefan },
  title = { The effect of real-time software reuse in FPGAs and
microcontrollers with respect to software faults },
  booktitle = { 2008 International Symposium on Industrial Embedded
Systems
: [SIES'2008] ; La Grande Motte, France, 11 - 13 June 2008 /
IEEE },
  publisher = { IEEE },
  pages = { 141-148 },
  year = { 2008 },
  address = { Piscataway, NJ },
  organization = { 2008 International Symposium on Industrial
Embedded Systems,
La Grande Motte (France), 2008-06-11 - 2008-06-13 },
  doi = { 10.1109/SIES.2008.4577692 },
  typ = { PUB:(DE-HGF)8 },
  reportid = { RWTH-CONV-171803 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/98747 },
}
```

[SK08a]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "Hardware/software design considerations for automotive embedded systems", *IEEE transactions on industrial informatics*, vol. 4, iss. 3, pp. 156-163,



2008

## Hardware/software design considerations for automotive embedded systems

### Bibtex entry :

```
@article { SK08a,  
  author = { Salewski, Falk and Kowalewski, Stefan },  
  title = { Hardware/software design considerations for automotive  
    embedded systems },  
  journal = { IEEE transactions on industrial informatics },  
  publisher = { IEEE },  
  pages = { 156-163 },  
  volume = { 4 },  
  number = { 3 },  
  year = { 2008 },  
  address = { New York, NY },  
  issn = { 1551-3203 },  
  doi = { 10.1109/TII.2008.2002919 },  
  typ = { PUB:(DE-HGF)16 },  
  reportid = { RWTH-CONV-012502 },  
  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/131366 },  
}
```

[ST08]

[PDFBIB](#)

Salewski, F. and Taylor, A., "Systematic considerations for the application of FPGAs in industrial applications", in *Proc. 2008 IEEE International Symposium on Industrial Electronics : [ISIE 2008] ; Cambridge, United Kingdom, 30 June - 2 July 2008. - Vol. 4*, Piscataway, NJ, 2008, IEEE, pp. 2009-2015.

## Systematic considerations for the application of FPGAs in industrial applications

### Bibtex entry :

```
@inproceedings { ST08,  
  author = { Salewski, Falk and Taylor, Adam },  
  title = { Systematic considerations for the application of FPGAs in  
    industrial applications },  
  booktitle = { 2008 IEEE International Symposium on Industrial  
    Electronics  
      : [ISIE 2008] ; Cambridge, United Kingdom, 30 June - 2 July  
      2008. - Vol. 4 },  
  publisher = { IEEE },  
  pages = { 2009-2015 },  
  year = { 2008 },
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address = { Piscataway, NJ },
organization = { 2008 IEEE International Symposium on Industrial
Electronics,
    Cambridge (UK), 2008-06-30 - 2008-07-02 },
doi = { 10.1109/ISIE.2008.4677068 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-171801 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/98745 },
}
```

[CSK+07]

[PDFBIB](#)

Chen, X., Salewski, F., Kowalewski, S., and Spisic, K., "Concept and prototyping of a fault management framework for automotive safety relevant systems"Renningen: expert Verl., 2007, vol. 82.

## Concept and prototyping of a fault management framework for automotive safety relevant systems

### Bibtex entry :

```
@inbook { CSK+07,
    author = { Chen, Xi and Salewski, Falk and Kowalewski, Stefan and
        Spisic, Kresimir },
    title = { Concept and prototyping of a fault management framework
for
        automotive safety relevant systems },
    booktitle = { Moderne Elektronik im Kraftfahrzeug II : Systeme von
morgen
        - technische Innovationen und Entwicklungstrends ; und 19
        Tabellen / Hrsg.: Bernard B{"a"}ker },
    publisher = { expert Verl. },
    volume = { 82 },
    series = { Haus der Technik - Fachbuchreihe },
    year = { 2007 },
    address = { Renningen },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-CONV-101338 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/89875 },
}
```

[SK07]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "Achieving highly reliable embedded software : an empirical evaluation of different approaches"Berlin [u.a.]: Springer, 2007, vol. 4680, pp. 270-275.

# Achieving highly reliable embedded software : an empirical evaluation of different approaches

## Bibtex entry :

```
@inbook { SK07,  
  author = { Salewski, Falk and Kowalewski, Stefan },  
  title = { Achieving highly reliable embedded software : an  
empirical  
  evaluation of different approaches },  
  booktitle = { Computer safety, reliability, and security : 26th  
International Conference, SAFECOMP 2007, Nuremberg, Germany,  
September 18-21, 2007 ; proceedings / Francesca Saglietti ;  
Norbert Oster (Eds.) },  
  publisher = { Springer },  
  pages = { 270-275 },  
  volume = { 4680 },  
  series = { Lecture notes in computer science },  
  year = { 2007 },  
  address = { Berlin [u.a.] },  
  doi = { 10.1007/978-3-540-75101-4_26 },  
  typ = { PUB:(DE-HGF)7 },  
  reportid = { RWTH-CONV-101607 },  
  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/90177 },  
}
```

[SK07a]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "Testing Issues in Empirical Reliability Evaluation of Embedded Real-Time Systems", in *Proc. Proceedings Work-in-Progress-Session of the 13th Real Time and Embedded Technology and Applications Symposium : 3-6 April, 2007, Bellevue, Washington / ed. by Chenyang Lu*, [s.l.], 2007 in Technical Report WUCSE, pp. 48-51.

## Testing Issues in Empirical Reliability Evaluation of Embedded Real-Time Systems

## Bibtex entry :

```
@inproceedings { SK07a,  
  author = { Salewski, Falk and Kowalewski, Stefan },  
  title = { Testing Issues in Empirical Reliability Evaluation of  
Embedded Real-Time Systems },  
  booktitle = { Proceedings Work-in-Progress-Session of the 13th Real  
Time  
and Embedded Technology and Applications Symposium : 3-6  
April, 2007, Bellevue, Washington / ed. by Chenyang Lu },  
  pages = { 48-51 },  
  series = { Technical Report WUCSE },
```

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year = { 2007 },
address = { [s.l.] },
organization = { 13. Real Time and Embedded Technology and
Applications
Symposium, Bellevue (USA), 2007-04-03 - 2007-04-06 },
typ = { PUB:(DE-HGF)7 },
reportid = { RWTH-CONV-188513 },
cin = { 120000 / 122810 },
url = { http://publications.rwth-aachen.de/record/117072 },
}
```

[SK07b]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "The effect of hardware platform selection on safety-critical software in embedded systems : empirical evaluations", in *Proc. 2007 International Symposium on Industrial Embedded Systems : Costa da Caparica, [Lisbon], Portugal, 4 - 6 July 2007 ; [SIES'2007] / IEEE / IEEE Computer Society Press, Piscataway, NJ, 2007, IEEE, pp. 78-85.*

## The effect of hardware platform selection on safety-critical software in embedded systems : empirical evaluations

### Bibtex entry :

```
@inproceedings { SK07b,
author = { Salewski, Falk and Kowalewski, Stefan },
title = { The effect of hardware platform selection on safety-
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software in embedded systems : empirical evaluations },
booktitle = { 2007 International Symposium on Industrial Embedded
Systems
: Costa da Caparica, [Lisbon], Portugal, 4 - 6 July 2007 ;
[SIES'2007] / IEEE / IEEE Computer Society Press },
publisher = { IEEE },
pages = { 78-85 },
year = { 2007 },
address = { Piscataway, NJ },
organization = { International Symposium on Industrial Embedded
Systems,
Costa da Caparica (Portugal), 2007-07-04 - 2007-07-06 },
doi = { 10.1109/SIES.2007.4297320 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188516 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117075 },
}
```

[SK07c]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "Hardware platform design decisions in embedded systems : a systematic teaching approach", *ACM SIGBED review*, vol. 4, iss. 1, pp. 27-35, 2007

## Hardware platform design decisions in embedded systems : a systematic teaching approach

### Bibtex entry :

```
@article { SK07c,  
  author = { Salewski, Falk and Kowalewski, Stefan },  
  title = { Hardware platform design decisions in embedded systems :  
a  
  systematic teaching approach },  
  journal = { ACM SIGBED review },  
  publisher = { Association for Computing Machinery },  
  pages = { 27-35 },  
  volume = { 4 },  
  number = { 1 },  
  year = { 2007 },  
  address = { New York, NY },  
  issn = { 1551-3688 },  
  organization = { Special Issue on the Second Workshop on Embedded  
System  
  Education },  
  doi = { 10.1145/1217809.1217814 },  
  typ = { PUB:(DE-HGF)16 },  
  reportid = { RWTH-CONV-038217 },  
  cin = { 122810 / 120000 },  
  url = { http://publications.rwth-aachen.de/record/160044 },  
}
```

[SSK07]

[PDFBIB](#)

Schlich, B., Salewski, F., and Kowalewski, S., "Applying model checking to an automotive microcontroller application", in *Proc. 2007 International Symposium on Industrial Embedded Systems : Costa da Caparica, [Lisbon], Portugal, 4 - 6 July 2007 ; [SIES'2007] / IEEE / IEEE Computer Society Press, Piscataway, NJ, 2007, IEEE*, pp. 209-216.

## Applying model checking to an automotive microcontroller application

### Bibtex entry :

```
@inproceedings { SSK07,  
  author = { Schlich, Bastian and Salewski, Falk and Kowalewski,  
Stefan },  
  title = { Applying model checking to an automotive microcontroller  
  application },  
  booktitle = { 2007 International Symposium on Industrial Embedded
```

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Systems
    : Costa da Caparica, [Lisbon], Portugal, 4 - 6 July 2007 ;
    [SIES'2007] / IEEE / IEEE Computer Society Press },
publisher = { IEEE },
pages = { 209-216 },
year = { 2007 },
address = { Piscataway, NJ },
organization = { International Symposium on Industrial Embedded
Systems,
    Costa da Caparica (Portugal), 2007-07-04 - 2007-07-06 },
doi = { 10.1109/SIES.2007.4297337 },
typ = { PUB:(DE-HGF)8 },
reportid = { RWTH-CONV-188512 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117071 },
}
```

[ST07]  
[PDFBIB](#)

Salewski, F. and Taylor, A., "Fault handling in FPGAs and microcontrollers in safety-critical embedded applications : a comparative survey", in *Proc. Proceedings / 10th Euromicro Conference on Digital System Design: Architectures, Methods and Tools : DSD 2007 ; 29 - 31 August 2007, Lübeck, Germany / European Organisation for Information Technology and Microelectronics. ed. by Hana Kubátová*, Los Alamitos, Calif. [u.a.], 2007, IEEE Computer Soc., pp. 124-131.

## Fault handling in FPGAs and microcontrollers in safety-critical embedded applications : a comparative survey

### Bibtex entry :

```
@inproceedings { ST07,
    author = { Salewski, Falk and Taylor, Adam },
    title = { Fault handling in FPGAs and microcontrollers in
safety-critical embedded applications : a comparative survey },
    booktitle = { Proceedings / 10th Euromicro Conference on Digital
System
    Design: Architectures, Methods and Tools : DSD 2007 ; 29 -
31 August 2007, L{"u}beck, Germany / European Organisation
for Information Technology and Microelectronics. ed. by Hana
Kubátová },
    publisher = { IEEE Computer Soc. },
    pages = { 124-131 },
    year = { 2007 },
    address = { Los Alamitos, Calif. [u.a.] },
    organization = { 10. Euromicro Conference on Digital System Design:
    Architectures, Methods and Tools, L{"u}beck (Germany),
2007-08-29 - 2007-08-31 },
    doi = { 10.1109/DSD.2007.4341459 },
    typ = { PUB:(DE-HGF)8 },
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reportid = { RWTH-CONV-188509 },
cin = { 122810 / 120000 },
url = { http://publications.rwth-aachen.de/record/117068 },
}
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[SK06]

[PDFBIB](#)

Salewski, F. and Kowalewski, S., "Exploring the differences of FPGAs and microcontrollers for their use in safety-critical embedded applications", in *Proc. 2006 International Symposium on Industrial Embedded Systems : Antibes Juan-Les-Pins, France, 18 - 20 October 2006 / IEEE*, Piscataway, NJ, 2006, IEEE Service Center.

## Exploring the differences of FPGAs and microcontrollers for their use in safety-critical embedded applications

### Bibtex entry :

```
@inproceedings { SK06,
  author = { Salewski, Falk and Kowalewski, Stefan },
  title = { Exploring the differences of FPGAs and microcontrollers
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  : Antibes Juan-Les-Pins, France, 18 - 20 October 2006 / IEEE },
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[SWK06]

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Salewski, F., Wilking, D., and Kowalewski, S., "The effect of diverse hardware platforms on n-version programming in embedded systems : an empirical evaluation", in *Proc. 3rd Workshop on Dependable Embedded Systems : the workshop was held on October 1st, 2006 at the University of Leeds ; Final Proceedings - November 16th / Ed. by Raimund Kirner ...*, Vienna, 2006 in Vienna University of Technology : Technical Report, University of Technology, Real-Time Systems Group, pp. 61-66.

## The effect of diverse hardware platforms on n-version

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## Bibtex entry :

```
@inproceedings { SWK06,
  author = { Salewski, Falk and Wilking, Dirk and Kowalewski, Stefan
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Final Proceedings - November 16th / Ed. by Raimund Kirner
... },
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  year = { 2006 },
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[SK05]

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### Bibtex entry :

```
@inproceedings { SK05,
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  booktitle = { Zuverl{"a}ssigkeit in eingebetteten Systemen : Ada
Deutschland Tagung 2005, 13. und 14. Oktober 2005,
Rheinische-Westf{"a}lische Technische Hochschule Aachen /
Verant.: Gesellschaft f{"u}r Informatik, Fachgruppe Ada
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    Deutschland ... Hubert B. Keller ... (Hrsg.) },
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Ada
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    2005-10-14 },
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[SK05a]

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### Bibtex entry :

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@article { SK05a,
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  journal = { Softwaretechnik-Trends },
  publisher = { K{"o}llen },
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03_Salewski_Kowalewski.pdf },
}

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# Diverse hardware platforms in embedded systems lab courses: A way to teach the differences

## Bibtex entry :

```
@article { SWK05,  
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  title = { Diverse hardware platforms in embedded systems lab courses:  
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  journal = { ACM SIGBED review },  
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