

Dr.-Ing. Florian Göbe



**Research Assistant and PhD student until 11/2017.
Since 12/2017: Exist Research Transfer (BMW) [Arttest](#)**

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Teaching

2017

- [Embedded Systems](#) (Lecture)

2016

- [Introduction to Embedded Systems](#) (Lecture)

2015

- [Introduction to Embedded Systems](#) (Lecture)

2014

- [Introduction to Embedded Systems](#) (Lecture)

2014

- [Introduction to Embedded Systems](#) (Lecture)
- [Synthese und Implementierung von Steuerungen für ereignisdiskrete Systeme](#) (Seminar)

Supervised Theses

- [Entwicklung einer Simulations- und Debuggingumgebung für Bilderkennungsverfahren im Bereich autonomer Mobilität](#)
- [Ansteuerung von SPS-Timern und erweiterte Codegenerierung für ein Werkzeug zur Synthese von ereignisdiskreten Überwachern](#)
- [Evaluation von Synthesetools für Steuerungssoftware im Bereich der Automatisierungstechnik](#)

- Carolo Cup 2014 (<http://galaxis.rwth-aachen.de/>)

Other Projects

- Carolo Cup 2014 (<http://galaxis.rwth-aachen.de/> - German webpage)

Publications

[Gob19]

[PDFBIB](#)

Göbe, F., "Runtime supervision of PLC programs using discrete-event systems", PhD Thesis, Aachen, 2019.

Runtime supervision of PLC programs using discrete-event systems

Bibtex entry :

```
@phdthesis { Gob19,  
  author = { G{"o}be, Florian },  
  othercontributors = { Kowalewski, Stefan and Lunze, Jan },  
  title = { Runtime supervision of PLC programs using discrete-event  
    systems },  
  publisher = { RWTH Aachen University, Department of Computer  
Science },  
  school = { RWTH Aachen University },  
  pages = { 1 Online-Ressource (xi, 170 Seiten) : Illustrationen,  
    Diagramme },  
  series = { Achener Informatik-Berichte },  
  year = { 2019 },  
  address = { Aachen },  
  doi = { 10.18154/RWTH-2019-11022 },  
  typ = { PUB:(DE-HGF)11 },  
  reportid = { RWTH-2019-11022 },  
  cin = { 122810 / 120000 },
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url = {
http://publications.rwth-aachen.de/record/773311/files/773311.pdf },
}
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[GAK18]

[PDFBIB](#)

Göbe, F., Aydin, S., and Kowalewski, S., "Applicability of supervisory control theory for the supervision of PLC programs", in *Proc. 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus*, [Piscataway, NJ], 2018 in *IEEE International Conference on Emerging Technologies and Factory Automation-ETFA, IEEE*, p. 8.

Applicability of supervisory control theory for the supervision of PLC programs

Bibtex entry :

```
@inproceedings { GAK18,
  author = { Göbe, Florian and Aydin, Selin and Kowalewski, Stefan },
  title = { Applicability of supervisory control theory for the supervision of PLC programs },
  booktitle = { 2017 22nd IEEE International Conference on Emerging Technologies and Factory Automation : September 12-15, 2017, Limassol, Cyprus / ABB, IEEE, IES, University of Cyprus },
  publisher = { IEEE },
  pages = { 8 Seiten },
  series = { IEEE International Conference on Emerging Technologies and
Factory Automation-ETFA },
  year = { 2018 },
  address = { [Piscataway, NJ] },
  organization = { 22nd IEEE International Conference on Emerging Technologies
and Factory Automation, Limassol (Cyprus), 2017-09-12 - 2017-09-15 },
  doi = { 10.1109/ETFA.2017.8247575 },
  typ = { PUB:(DE-HGF)7 },
  reportid = { RWTH-2018-223454 },
  cin = { 122810 / 120000 },
  url = { http://publications.rwth-aachen.de/record/722221 },
}
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[GNK16]

[PDFBIB](#)

Göbe, F., Ney, O., and Kowalewski, S., "Reusability and Modularity of Safety Specifications for Supervisory Control", in *Proc. 2016 IEEE 21st International Conference on Emerging Technologies and Factory Automation (ETFA) : September 6-9, 2016 Berlin, Germany / IEEE, IES, Fraunhofer IOSB-INA, InIT*, Piscataway, NJ, 2016, *IEEE*, pp. 1-8.

Reusability and Modularity of Safety Specifications for Supervisory Control

Bibtex entry :

```
@inproceedings { GNK16,  
  author = { G{"o}be, Florian and Ney, Oliver and Kowalewski, Stefan  
},  
  title = { Reusability and Modularity of Safety Specifications for  
Supervisory Control },  
  booktitle = { 2016 IEEE 21st International Conference on Emerging  
Technologies and Factory Automation (ETFA) : September 6-9,  
2016 Berlin, Germany / IEEE, IES, Fraunhofer IOSB-INA, InIT },  
  publisher = { IEEE },  
  pages = { 1-8 },  
  year = { 2016 },  
  address = { Piscataway, NJ },  
  organization = { 21st International Conference on Emerging  
Technologies and  
Factory Automation, Berlin (Germany), 2016-09-06 -  
2016-09-09 },  
  doi = { 10.1109/ETFA.2016.7733498 },  
  typ = { PUB:(DE-HGF)7 },  
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  url = { http://publications.rwth-aachen.de/record/681312 },  
}
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[GTN+16]

[PDFBIB](#)

Göbe, F., Timmermanns, T., Ney, O., and Kowalewski, S., "Synthesis Tool for Automation Controller Supervision", in *Proc. 2016 13th International Workshop on Discrete Event Systems (WODES) : May 30-June 1, 2016, Xi'an, China / edited by Christos G. Cassandras, Alessandro Giua, Zhiwu Li ; sponsored by IEEE - Control Systems Society, Piscataway, NJ, 2016, IEEE, pp. 424-431.*

Synthesis Tool for Automation Controller Supervision

Bibtex entry :

```
@inproceedings { GTN+16,  
  author = { G{"o}be, Florian and Timmermanns, Thomas and Ney,  
Oliver  
and Kowalewski, Stefan },  
  title = { Synthesis Tool for Automation Controller Supervision },  
  booktitle = { 2016 13th International Workshop on Discrete Event  
Systems  
(WODES) : May 30-June 1, 2016, Xi'an, China / edited by  
Christos G. Cassandras, Alessandro Giua, Zhiwu Li ;
```

```

    sponsored by IEEE - Control Systems Society },
    publisher = { IEEE },
    pages = { 424-431 },
    year = { 2016 },
    address = { Piscataway, NJ },
    organization = { 2016 13th International Workshop on Discrete Event
Systems
    (WODES), Xi'an (Peoples R China), 2016-05-30 - 2016-06-01 },
    doi = { 10.1109/WODES.2016.7497883 },
    typ = { PUB:(DE-HGF)7 },
    reportid = { RWTH-2016-11199 },
    cin = { 122810 / 120000 },
    url = { http://publications.rwth-aachen.de/record/679437 },
}

```

[JGN14]

[PDFBIB](#)

Jansen, C., Göbe, F., and Noll, T., "Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs" Cham [u.a.]: Springer, 2014, vol. 8571, pp. 65-80.

Generating Inductive Predicates for Symbolic Execution of Pointer-Manipulating Programs

Bibtex entry :

```

@inbook { JGN14,
    author = { Jansen, Christina and G{"o}be, Florian and Noll, Thomas
},
    title = { Generating Inductive Predicates for Symbolic Execution of
    Pointer-Manipulating Programs },
    booktitle = { Graph transformation : 7th international conference,
ICGT
    2014, held as part of STAF 2014, York, UK, July 22 - 24,
    2014 ; proceedings / Holger Giese ... (eds.) },
    publisher = { Springer },
    pages = { 65-80 },
    volume = { 8571 },
    series = { Lecture notes in computer science },
    year = { 2014 },
    address = { Cham [u.a.] },
    doi = { 10.1007/978-3-319-09108-2_5 },
    typ = { PUB:(DE-HGF)8 },
    reportid = { RWTH-CONV-206171 },
    cin = { 120000 / 122810 },
    url = { http://publications.rwth-aachen.de/record/444215 },
}

```

[SGW+11]

[PDFBIB](#)

Stollenwerk, A., Göbe, F., Walter, M., Arens, J., Kopp, R., and Kowalewski, S., "Smart Data

Provisioning for Model-Based Generated Code in an Intensive Care Application", in *Proc. 3rd Joint Workshop On High Confidence Medical Devices, Software, and Systems & Medical Device Plug-and-Play Interoperability : HCMDSS/MDPnP 2011 ; in conjunction with CPSweek 2011 ; April 11, 2011 Chicago, USA, Chicago, 2011, HCMDSS/MDPnP 2011 ; in conjunction with CPSweek 2011 ; April 11, 2011 Chicago, USA*, p. 8.

Smart Data Provisioning for Model-Based Generated Code in an Intensive Care Application

Bibtex entry :

```
@inproceedings { SGW+11,  
  author = { Stollenwerk, André and G{"o}be, F. and Walter, Marian  
and  
  Arens, Jutta and Kopp, R{u}dger and Kowalewski, Stefan },  
  title = { Smart Data Provisioning for Model-Based Generated Code in  
an  
  Intensive Care Application },  
  booktitle = { 3rd Joint Workshop On High Confidence Medical  
Devices,  
  Software, and Systems & Medical Device Plug-and-Play  
Interoperability : HCMDSS/MDPnP 2011 ; in conjunction with  
CPSweek 2011 ; April 11, 2011 Chicago, USA },  
  publisher = { HCMDSS/MDPnP 2011 ; in conjunction with CPSweek 2011  
; April  
  11, 2011 Chicago, USA },  
  pages = { 8 S. },  
  year = { 2011 },  
  address = { Chicago },  
  typ = { PUB:(DE-HGF)8 },  
  reportid = { RWTH-CONV-006017 },  
  cin = { 611010 / 122810 },  
  url = {  
http://www.seas.upenn.edu/~rahulm/Shared/HCMDSS/hcmdss11_aachen.pdf },  
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