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 Büro: Raum 2302 (Gebäude H/Hauptbau)



Forschungsgebiete

- Analyse von SPS-Programmen während der Eingabe (Statische Analyse)
- Inkrementelle statische Analyse
- Software-SPS
- IEC-61131 Sprachen
- Entwicklungsumgebungen für SPS-Programme auf mobilen Geräten
- Ausführung und Simulation von SPS-Programmen auf [RTAndroid](#)

Lehre

Semester	Titel	Art
Sommersemester 13	Praktikum Systemprogrammierung	P
Wintersemester 13/14	Praktikum Systemprogrammierung	P
Sommersemester 14	Praktikum Systemprogrammierung	P
	SPOS xt: Exploring embedded applications	P
Wintersemester 14/15	Praktikum Systemprogrammierung	P
	Ausgesuchte Themen zur Eingebetteten Software	S
Sommersemester 15	Ausgesuchte Themen zur Eingebetteten Software	S
Wintersemester 15/16	Eingebettete Signalverarbeitung in Medizintechnik & eMobilität	S
	Formale und semiformale Methoden für eingebettete Software	S
	Modellbasiertes Testen & Analyse eingebetteter Software	S
Sommersemester 16	Eingebettete Software in Medizintechnik & eMobilität	S
	Formale und semiformale Methoden für eingebettete Software	S
	Modellbasiertes Testen & Analyse eingebetteter Software	S
Wintersemester 16/17	Eingebettete Software in Medizintechnik & eMobilität	S
	Formale und semiformale Methoden für eingebettete Software	S
	Modellbasiertes Testen & Analyse eingebetteter Software	S

Sommersemester 17	Eingebettete Software in Medizintechnik & eMobilität	S
	Formale und semiformale Methoden für eingebettete Software	S
	Modellbasiertes Testen & Analyse eingebetteter Software	S
Wintersemester 17/18	Cyber-Physische Systeme in Medizintechnik und Mobilität	S
	Formale und semiformale Methoden für eingebettete Software	S
	Modellbasiertes Testen & Analyse eingebetteter Software	S

Sommerfest 2014

Absolventenveranstaltung für Informatiker, die von der Fachgruppe Informatik der RWTH Aachen ausgerichtet und vom Lehrstuhl Informatik 11 organisiert wird. <http://www.sommerfest-informatik.de>

- Zentraler Ansprechpartner
- Planung und Organisation

Veröffentlichungen

[OK18]

[PDFBIB](#)

Obster, M. and Kowalewski, S., "A live static code analysis architecture for PLC software", 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. 4.

A live static code analysis architecture for PLC software

Bibtex entry :

```
@inproceedings { OK18,
  author = { Obster, Mathias and Kowalewski, Stefan },
  title = { A live static code analysis architecture for PLC software
},
  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 = { 4 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 },
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url = { http://publications.rwth-aachen.de/record/722219 },
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[UVS+18]

[PDFBIB](#)

Ulewicz, S., Vogel-Heuser, B., Simon, H., Bohlender, D., Obster, M., and Kowalewski, S., "A priori test coverage estimation for automated production systems : Using generated behavior models for coverage calculation", 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. 4.

A priori test coverage estimation for automated production systems : Using generated behavior models for coverage calculation

Bibtex entry :

```

@inproceedings { UVS+18,
  author = { Ulewicz, Sebastian and Vogel-Heuser, Birgit and Simon,
    Hendrik and Bohlender, Dimitri and Obster, Mathias and
    Kowalewski, Stefan },
  title = { A priori test coverage estimation for automated
production
systems : Using generated behavior models for coverage
calculation },
  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 = { 4 Seiten },
  series = { IEEE International Conference on Emerging Technologies
and
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  year = { 2018 },
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and Factory Automation, Limassol (Cyprus), 2017-09-12 -
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}

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[KKO+15]

[PDFBIB](#)

Kowalewski, S., Kalkov, I., Obster, M., and Thönnessen, D., "Echtzeiterweiterung für Android: SPS inside", *IEE - Elektrische Automatisierung + Antriebstechnik*, pp. 58-61, 2015

Echtzeiterweiterung für Android: SPS inside

Bibtex entry :

```
@article { KKO+15,
  author = { Kowalewski, Stefan and Kalkov, Igor and Obster, Mathias
and
  Th{"o}nnessen, David },
  title = { Echtzeiterweiterung f{"u}r Android: SPS inside },
  journal = { IEE - Elektrische Automatisierung + Antriebstechnik },
  publisher = { IEE },
  pages = { 58-61 },
  year = { 2015 },
  issn = { 1434-2898 },
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  url = { http://publications.rwth-aachen.de/record/752275 },
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[OKK14]

[PDFBIB](#)

Obster, M., Kowalewski, S., and Kalkov, I., "Development and Execution of PLC Programs on Real-Time Capable Mobile Devices", in *Proc. 2014 IEEE [International Conference on] Emerging Technologies and Factory Automation (ETFA 2014) : Barcelona, Spain, 16 - 19 September 2014 / [co-sponsored by Universitat Politècnica de Catalunya - Barcelona Tech (UPC); IEEE Industrial Electronics Society]*, Piscataway, NJ, 2014, IEEE, p. 8.

Development and Execution of PLC Programs on Real-Time Capable Mobile Devices

Bibtex entry :

```
@inproceedings { OKK14,
  author = { Obster, Mathias and Kowalewski, Stefan and Kalkov, Igor
},
  title = { Development and Execution of PLC Programs on Real-Time
Capable Mobile Devices },
  booktitle = { 2014 IEEE [International Conference on] Emerging
Technologies and Factory Automation (ETFA 2014) : Barcelona,
Spain, 16 - 19 September 2014 / [co-sponsored by Universitat
Politècnica de Catalunya - Barcelona Tech (UPC); IEEE
Industrial Electronics Society] },
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publisher = { IEEE },
pages = { 8 Seiten },
year = { 2014 },
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    Technologies and Factory Automation, Barcelona (Spain),
    2014-09-16 - 2014-09-19 },
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