



# Special Session on Dependability in the IoT and Industry 4.0

**February 26 – 28, 2018 (MMB 2018)**

**February XX, 2018 (Special Session)**

University of Erlangen-Nürnberg, Germany

[http://www.mmb2018.de/sp\\_sess\\_iiot.html](http://www.mmb2018.de/sp_sess_iiot.html)

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The rapidly growing Internet of Things will become a global super-infrastructure connecting smart devices across all application domains. Within, the continuous functioning of an unprecedented number of interacting components and the services they provide will be indispensable for the sustainable success of our industry and society. This special session puts a focus on dependability aspects in the design, implementation, test, and operation of IoT devices in Industry 4.0: Real-time control and communication, safety demands, security issues, and long-term maintenance concepts are just a few examples for the challenges to be expected in smart production for any industrial sector.

**Goals and Audience.** The goal of this special session is to survey fundamental and applied aspects of dependability in the Internet of Things and Industry 4.0, as well as to identify novel opportunities and research directions in related areas.

**Topics.** The session will host both invited and contributed papers ranging from technological foundations to current research directions. Topics include but are not limited to:

- General Dependability Aspects for IoT Systems (real-time, safety, security, maintenance)
- Application-Specific Hardware (adaptive platforms, reconfigurable logic, etc.)
- Design of IoT Middleware and Distributed Services (dynamic composition, programming paradigms, fault-tolerance, self-x, big data processing, etc.)
- Design of IoT Application Software (standards, frameworks, interaction, etc.)
- Dependable Communication and I/O (wired and wireless, self-organization, etc)
- Formal methods (verification, validation, etc.)
- Tooling and Case Studies for Dependable Systems
- Dependability in specific Application Domains (Automotive, Avionics, Rail, Space, Medicine, etc.)

**Submission.** Authors should prepare their papers according to the provided template (Springer LNCS style). Full papers are limited to 15 pages and reports to 8 pages, including text, references, tables, and figures. Original contributions shall be submitted online and will receive at least 3 reviews.

**Publication.** All accepted papers will be published in the MMB 2018 conference proceedings and the authors will be given the opportunity to present their work during the conference.

**Important Dates.**

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| • Submission Deadline:           | 06.10.2017 |
| • Notification:                  | 08.12.2017 |
| • Registration and Camera Ready: | 12.01.2018 |
| • Special Session:               | XX.02.2018 |

**Organization and Committee.** The special session is organized by the Embedded Automotive Systems Group (EAS) at Graz University of Technology. Co-Chairs:

- Marcel Baunach, TU Graz, AT
- Boudewijn Haverkort, University of Twente, NL

