

Workshop for Automotive Software Systems Engineering Education

Monday, 9 November 2020, 10am-1am

Workshop at the 32nd IEEE International Conference on
Software Engineering Education & Training (CSEE&T 2020)

Agenda

10.00-10.15	Welcome
10.15-10.45	<i>Norbert Englisch, René Bergelt and Wolfram Hardt: An Educational Platform for Automotive Software Development and Test</i>
10.45-11.15	<i>Ralf Reißing and Yvonne Sedelmaier: Towards a Competence Profile for Automotive Software Engineering</i>
11.15-11.20	Break
11.20-11.30	Introduction "Parallel Discussions"
11.30-12.00	Parallel Discussions: Group A discusses: Expectations and Requirements on Automotive Software Engineers (Mapping of Experiences and Requirements) Group B discusses: Design of Automotive Software Engineering Courses (Mapping of Experiences and Course Formats)
12.00-12.15	Presentation of Preliminary Results of Group A and Group B
12.15-12.35	Parallel Discussions: Group A maps Requirements to Course Formats Group B maps Course Formats to Requirements
12.35-13.00	Presentation of Workshop Results Mapping of Requirements on Automotive Software Engineers and Design of Automotive Software Engineering Courses

10.15am

*Norbert Englisch, René Bergelt and
Wolfram Hardt*

An Educational Platform for Automotive
Software Development and Test

10.45am

Ralf Reißing and Yvonne Sedelmaier

Towards a Competence Profile for
Automotive Software Engineering

Parallel Discussion

First Round (11.30am)


- Group A discusses in Channel 1: Expectations and Requirements on Automotive Software Engineers (Mapping of Experiences and Requirements)
- Group B discusses in Channel 2: Design of Automotive Software Engineering Courses (Mapping of Experiences and Course Formats)
- Link to the Documents: <https://drive.google.com/drive/folders/1zTQ2lNqO1W6yd1HfYqmJ1VysDQPXAALU>


Parallel Discussion


First Round: Documents Overview


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 Group A




 Group A.drawio



 Group B



 Group B.drawio



Parallel Discussion

First Round: Group A Table



Group A ☆ 📁 ☁

Datei Bearbeiten Ansicht Einfügen Format Daten Tools Add-ons Hilfe Letzte Änderung vor wenigen Sekunden



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Parallel Discussion

First Round: Group A Targets

- Think about your own experiences, from which requirements for Automotive Software Engineers (abbr. "ASE") can be derived.
- Group requirements within experiences.
- *Experiences* can be stories or statements.
- Define *requirements* for the ASEs.
- *Requirements* should be atomic.

Experiences	Requirements
Overview of the AUTOSAR standard is missing due to its complexity and size.	Any Automotive Software Engineer (ASE) must know about AUTOSAR modeling language.
	Any ASE must be able to model and configure an AUTOSAR system on System Level (in an appropriate tool).
	Any ASE must be able to read and understand any given AUTOSAR Basic Software Configuration (in an appropriate tool).

Parallel Discussion

First Round: Group B Table



Group B ☆ 📁 ☁

Datei Bearbeiten Ansicht Einfügen Format Daten Tools Add-ons Hilfe

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Parallel Discussion

First Round: Group B Targets

- Think about your own teaching experiences, in which specific teaching best practices, innovations or formats were successful.
- Group best practices etc. within experiences.
- *Experiences* can be stories, situations or contexts.
- Define/Explain *teaching best practices/innovations/formats* shortly.

Experiences	Course Design Best Practices/Innovations/Formats
	Setup of remote access to lab computers with connected ECUs.
ECU implementation in the context of an online course.	Video stream of the ECU per computer to show ECU reactions (in this case: LED state).
	Local staff member in the lab is necessary to solve any problems.

First Round: Time Table

11.30-11.35 Brainstorming: Fill in your experiences and requirements/best practices

11.35-11.45 Short discussion of the tables within each group

11.45-11.50 Second brainstorming within each group: comments and reflections about the collected content, additional experiences and requirements/best practices

11.50-12.00 Clustering and sorting within each group

12.00am

Presentation of Preliminary Results of the Discussion Groups

Parallel Discussion

Second Round (12.15am)



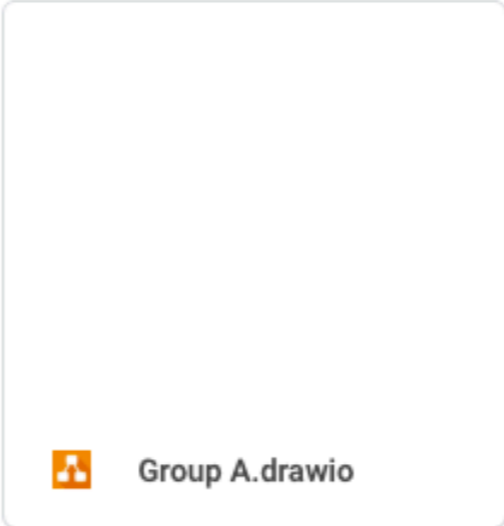



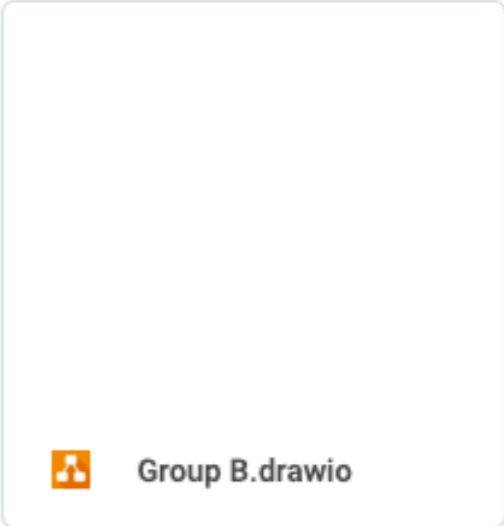

- Group A maps requirements to teaching best practices, innovations or formats.
- Group B maps teaching best practices, innovations or formats to requirements.
- Link to the Documents: <https://drive.google.com/drive/folders/1zTQ2INqO1W6yd1HfYqmJ1VysDQPXAALU>

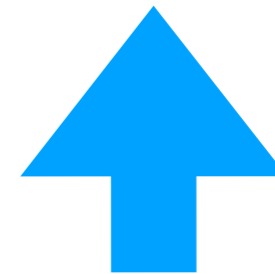
Parallel Discussion

First Round: Documents Overview

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12.35am

Presentation of Workshop Results