Hello Lisboa!
29.03.2023

SdV Education - Talent Pipeline & Open Innovation
@ 42 Wolfsburg
Software engineering in automotive and mobility ecosystems

Agenda & Activation

- Study Program
- SdV Partnership

- Who is interested to explore to be a Fellow or Partner?
- What ideas do you have for Lab Space or Projects?
- What questions & feedback do you have for us?
Software Engineering in Automotive and Mobility Ecosystems

Overview

• Open Education curriculum and Open Innovation ecosystem.

• **100% hands-on project-based peer learning**, providing practical skills and experience

• Designed for: Students with a **bachelor in CS or related** field & professionals who are looking to reskill or upskill

• Our Learning Objects are PiRacers

EMBEDDED SYSTEMS

AUTONOMOUS DRIVING

MOBILITY ECOSYSTEMS
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Structure

- 3 modul curriculum each spanning 4-6 months.
- designed to be flexible to tailor to learning interests and career goals.
- SEA:ME Learning Management System implemented on GitHub
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Open Innovation - Community of Practice

- Knowledge sharing & networking of experts, fellows, and pro bonos from industry & academia.
  - Tech talks - SEA:ME Speakers series
  - Workshops - Knowledge sharing sessions by fellow experts
- Co-creation of real-world industry projects as study content
- Open innovation, research activities
- Mentoring for students
- Events organized by the community - Hackathons, Fellows gathering.

- Flexible commitment - 2 h/month to 8 h/week

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Core contributing fellows

• Embedded Systems Module
  ○ Torsten Wylegala (VW Academy)
  ○ Dr. Oliver Hartkopp (VW)
  ○ Prof. Volker von Holt (University of Ostfalia)

• Autonomous Driving Module
  ○ Dr. Silviu Homoceanu (Deltia)
  ○ Dr. Sascha Saralajew (NEC Labs)
  ○ David Wachter (MicroNova)
  ○ Guido Birkenfeld (msg DAVID)

• Mobility Ecosystems
  ○ Mario Ortegon (MSFT)
  ○ Fabian Toepel (MSFT)
  ○ Yannick Weißflog (IAV)
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Partner Benefits

- Attract & win top talent for your organization
- Promote adoption of your SdV projects through training community
- Use OERs in your organization and with clients
- Allow peers and clients a hands-on experience with your SdV tech in our Lab Space
- Develop relationships with different stakeholder experts (trusted relationships, planning, biz)
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About us

- Max Senges (CEO, 42 Wolfsburg/Berlin)
- Pratik Prajapati (Curriculum Lead)
- Tim Kremser (Project Manager)
- Joseph Sühr (Partnership Manager)
- Aleksandr Artemov (Learning Facilitator)
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Outlook! - SEA:ME Lab Space = a SdV Home Base

• 1:10 scale road model for hands-on automotive software engineering projects
• Workshop area for R&D work on real cars, 1:2 scale cars, go-karts, etc.
• Tech area with 30 workstations equipped with necessary hardware
• Outdoor mobility solution hub space for experimenting with new ideas and technologies
• Social gathering spaces for networking, collaboration, and community-building, indoor event spaces, meeting rooms, etc.
• An inventory room for storing and organizing project materials, tools, and equipment.
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Partnership Outlook - VWGK & Kookmin University(KMU)

• 10 students from KMU participate in SEA:ME every year from 2023 to 2025.
• KMU leading Korean Future Car University Research Consortium
• Planning SEA:ME Rollout in KR starting in 2023
• Outlook:
  ○ Medium scale Prototyping (autonomous driving + driving simulator program)
  ○ Full scale car projects - self-driving Käfer (electrified & autonomous driving VW Beetle)
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Partnership Goals - SdV at SEA:ME

- Open source projects SdV → peer-training materials
- Sharing knowledge on tools used and developed
- Joint grant proposals/research
- Joint events
- Sharing internship / job opportunities
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Fellow Conditions & Practices - SdV at SEA:ME

- **Time Investment**: min 1-2h per month for peer reviews or mentoring meetings → some Fellows make it their 20% project and collaborate a day per week
- **Entrepreneurial volunteer role** but you can access small grants and bootstrap proposals that get funded by partners.

**Fellow Activities**
- Co-create peer-learning projects (for your SdV project)
- Record how-to videos
- Distill knowledge base
- Facilitate community of interest (across SdV & SEA:ME)
- Evolve documentation
- Bring OERs to company trainings (spread with partners)
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Partnership Outlook - SdV at SEA:ME

• Current Partners
  ○ Microsoft
  ○ CARIAD
  ○ MBition
  ○ T-Systems
  ○ Bosch
  ○ Capgemini
  ○ Digiteq Automotive
  ○ MicroNova
  ○ msg DAVID

• Everybody is welcome - who is interested?
Join us tomorrow at 14:00 for Open Collaboration 42 Wolfsburg workshop

We welcome you to

○ Propose themes for the session tomorrow!

○ Examples:
  ■ peer-learning **Leda + Velocitas**: A simple dashboard that displays real-time data from sensors on the vehicle, such as speed, temperature, and battery level.
  ■ peer-learning **ArchE + SommR**: A simple control system that communicates between different ECUs using the SomeIP protocol and is modeled using the ArchE tool.
Thank you & Discussion.

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Make sure to follow our channels to stay up-to-date