Workshop programme

28th Oct 2021 9:00- 17:00 CEST

FUTURE MOBILITY VALUE OF DATA & TRUST IN AI

Theme Development Workshop

95.41

Identify common goals between academia and the mobility & transportation sector as well as other relevant stakeholders, and define promising approaches for European research and innovation in Trustworthy Al.

Organising Committee



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Due to Covid 19 the workshop will be held online with a mixed programme of presentations and in-depth discussions about specific sub-topics in smaller groups (Breakout sessions). This gives you the opportunity to discuss with selected experts and contribute to the strategic research and innovation agenda for AI in Europe.

09:00 - 09:15	Welcome & Objectives
09:15 – 09:45	Trustworthy Al for Future Mobility Dr. Müller - DFKI GmbH
09:45 – 10:15	Safe, secure and transparent AI: Thoughts out of an industrial perspective Dr. Götz - ZF Group
10:15 – 10:30	Coffee Break & Socialising
10:30 - 12:00	Parallel Breakout sessions
12:00 – 13:00	Plenary presentation of key findings from the Breakout sessions
13:00 - 14:00	Lunch break & Socialising
14:00 – 14:30	Explainability and Trust - The key acceptance factors of Al in automotive industry Dr. Hilbert - VW Data:Lab Munich
14:30 – 16:00	Parallel Breakout sessions
16:00 – 16:15	Coffee Break & Socialising
16:15 – 17:00	Plenary presentation of key findings from the Breakout session
17:00 - 17:30	Closing & Socialising

<u>Please register here.</u>







Breakout session 1: Trustworthy Al for Future Mobility

With this session, we would like to initially define the strategic challenges and derive relevant major topics for Trustworthy AI from the perspective of future mobility.

Breakout session 2:

Expl. Al for time series & verification approaches

Today Explainable AI approaches are used without knowing if they are appropriate for our data and model. This session will discuss the challenges of transferring theory to industrial applications due to theoretical limitations and lack of verification algorithms.

Breakout session 3: Estimating the value of data

The volume of data is increasing exponentially. But not all data has the same value for different stakeholders. To determine this value, a very efficient process is needed. This breakout session will therefore answer the following question: How can the value of data be estimated?

Breakout session 4:

Towards standardisation & certification of AI

For non-machine-learning components, standard processes and methods exist to prove safety, but for machine-learning components, corresponding standardisation and validation processes still need to be developed and certified. This session will discuss the challenges in this context of camera sensor-based algorithms.

Breakout session 5:

Al expertise in Future Mobility

The mobility & transportation sector faces several challenges in attracting talents and empowering their employees to provide AI-based solutions. What are the specific needs for AI training and upskilling programmes, and how can these needs be aligned with academic activities and doctoral programmes?

Breakout session 7: Reliable Confidence Measure

Currently used deep learning methods do not produce sensible confidence. Therefore, the reliability of deep learning methods in safety critical use cases cannot be assessed and trusted. This problem is further exacerbated in the presence of adversarial attacks. In this breakout session we will discuss reliable confidence measures to handle these challenges.

Breakout session 8:

Machine Learning in the context of personal data and GDPR

This breakout session will discuss the possibility of enriching machine learning with personal data based on GDPR. In particular, the question of how to protect individuals but use the information to create humancentred Al applications is of importance in this context.

Breakout session 9: Al sensitivity analysis for time series

For the application of AI in safety-critical situations, it is important to know the influence of input signals on an output. In this session, a first analysis of existing time series data in automotive applications will be done to define safety levels, safety integrity levels and the safety criticality of the current situation.

Breakout session 10: Al for energy autonomous assets

In the transport and logistics sector, there are many moving goods without power supply. More and more of these assets are connected via (battery-powered) IoT devices to collect their positions and data. However, data transmission is a major challenge here. Accordingly, this breakout session will discuss the opportunities and challenges for the use of Al under such conditions.

We invite the community to suggest further topics of interest for the breakout sessions. Please use the <u>online application form</u> for your suggestions.

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