





Open Ph.D. Position!



Clean Air

Passenger cabin air quality represents an important requirement for people's well being and health. Modern cars are equipped with extensive air control and filter systems that require complex sensor systems and control. With increasing digitalization that involves navigation systems, digital services and and web-based features, enhanced opportunities come up, which enable predictive and more accurate control of passenger cabin air quality. This allows the design of more effective mechatronics systems, leading to better air quality control under consideration of both live data and historical data sources. The research project targets to the development of new technologies, which are able to improve passenger cabin air quality and at the same time reduce hardware-effort by integration of smart data based systems.

Research project tasks

- Study of the state-of-the-art of automotive passenger cabin air quality control systems.
- Identification of parameters and influencing factors based on existing air quality measurement and test data.
- Development of a Matlab Simulink simulation model of a comprehensive air quality control system, including sensors, actuators and control.
- Development of new approaches for improved, data-based air quality control. Evaluation of the potentials by use of simulation and discussion with experts.
- Experimental investigation of selected technologies to support simulation and evaluation.
- Documentation and presentation of the work.

Duration:	3 years
Language:	German and / or English
Employment:	Full employment as Scientific Project Researcher at the Institute of Automotive Engineering for a duration of 3 years. Salary according to the collective contract: € 3.277,30 / 14 x per year.
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