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<b>Title of presentation</b> Remote driving options as a fallback system for automated trains	<b>Institution</b> Technische Universität Berlin
<b>Please highlight workshop topic(s) your paper is relevant for</b>  <input type="checkbox"/> <b>Automation, Train control systems</b>	
<b>Abstract</b>  <p>Increasing level of automation raises questions for human`s role in future transport systems. The aim of this study is to examine different Human-Machine-Interface strategies for the remote operation of automated trains as a fallback solution for high grades of operation. For the concept design, several existing HMI strategies are taken into consideration in order to identify alternative methods and good practices in the rail automation domain. An HMI prototype will be developed based on two iterative user testing phases. In the test scenario, the participants are located in a remote control center and requested to drive the train manually after a system failure. The developed HMI strategies will be tested by train drivers, signallers and railway students. The first phase includes a pilot test with 10 participants using an HMI prototype with two different haptic control devices. The graphical user interface, operational information and functionalities will be optimized based on the user feedback and performance measures. The preliminary results of the first phase point to several good practices and additional information sources or functionalities. The findings of the study will be beneficial for identifying the requirements and preferences of users and operators in automated rail systems in order to increase the acceptance and awareness of future systems.</p>	