

## Research project and supervisory team

<b>Supervisory Team</b>	<a href="#">Prof. Xu Sun</a> ; <a href="#">Dr. Deng Wu</a>
<b>Short introduction &amp; description of research project</b>	<p>The project aims to develop a suite of intelligent data-driven approaches in the transformation of the traditional manufacturing paradigm to smart manufacturing. It could empower today's car manufacturers to adopt data-driven strategies to enhance the customer experience, ensure road safety and ultimately stand out in the fierce competition automotive market.</p> <p>The specific objectives include:</p> <ul style="list-style-type: none"><li>a. Construct new data-driven models that can predict/explain the relationships between different user, task and environment variables as they relate to automated vehicle design characteristics. There has been an emphasis on how from a technological perspective the status of the driver (e.g. emotions, fatigue, motion sickness system use) can be monitored and predicted– especially in real-time.</li><li>b. Develop intelligent algorithms and data warehouse technologies that researchers and practitioners can use to profile users, prepare automated vehicles (AVs) for a smooth transition between roles and calibrate user trust for AVs.</li><li>c. Develop a new data-driven vehicle concept that demonstrates the ultimate user experience by showcasing the novel adaptive Human Machine Interfaces (HMIs) developed within the research theme.</li></ul> <p>There is a focus is to explore how a driver profile, specifically within an automated driving context and generated based upon driver status, can be used to inform intelligent adaptations of the HMIs.</p>
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