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Developing and Implementing Fleet Safety Interventions to Reduce Harm: Where to from Here?

DAVEY Jeremy, FREEMAN James, WISHART Darren & ROWLAND Bevan (1948)

Risk Assessment in Work-Related Fleet Driving Settings: Can Self-Report Questionnaires be Used to Predict Crash Involvement?

FREEMAN James, DAVEY Jeremy, WISHART Darren & ROWLAND Bevan (1957)

Lessons Learned from Scrap-Metal Fires and Accidents during Transportation

KOSEKI Hiroshi, YAMAZAKI Yukimi, WAKAKURA Masahide & TERAZONO Atsushi (1964)

Optimized Layout of Aircraft Joystick Based on Human Model

ZHANG Lei, WANG Rui, ZHUANG Damin & YAN Yinxue (1968)

Study on Influence and Induction of Accidents in Urban Road Network

WEI Lianyu & LIU Zhaowei (1973)

Analysis of Train Derailment and Limit Value of Lateral Rigidity for Deck Steel Plate Girder Bridge

ZHOU Zhihui & ZENG Qingyuan (1977)

Analysis of Driving Fatigue Factors and Mechanism Based on Safety Ergonomics

JING Guoxun, DUAN Zhenwei & YANG Yuan (1981)

Analysis of Surface Roughness on Aircraft Icing Accretion

HUO Xiheng, CHANG Shinan & HONG Haihua (1987)

Study on Urban Rail Transit Construction Safety and Countermeasures

LU Ming & WANG Yingjie (1993)

Research on Traffic Accident and Braking Safe Performances of Interurban Coach

XU An & QIAO Xiangming (1998)

Study on the Model for Bird's-eye-photo GeometryCorrection of Traffic Accident Scene

TAN Lidong, XU Hongguo, ZHANG Mingheng & YANG Jian (2002)

Study on Phase Sequence at Intersection Based on Traffic Conflict

HE Yaqin, DING Weidong & FANG Man (2008)

Study on Ground Holding Problem Based on Production-Inventory Model

YUE Rentian, ZHAO Yifei & WANG Fei (2011)

Run-off-Road Accident Prediction Model for Two-Lane Highway

LI Changcheng, ZHANG Gaoqiang & LI Wei (2016)

Simulating Spatiotemporal Features of Pedestrians-Vehicle Interaction

MA Jian, SONG Weiguo, XIAO Xiukun, LIAO Guangxuan & LO Siuming (2021)

Study on Allowable Lateral Deviation of the Center of Gravity of Goods Based on Wheel Unloading Rate

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Icing Numerical Simulation and Verification of AEDC Method

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Aviation Accident-Causing Model Based on OperationOrganization and Its Application

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Qualitative Study on Civil Aviation Safety Culture and Safety Performance of China

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Design Method for Safety Improvement of Accident-Prone Highway Based on Traffic Ergonomics and the Policy of Forgiveness Highway

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Comparative Study of Driver's Reaction to Road Hazards Based on Driving Simulation: Drivers in Hengyang versus Drivers in Beijing

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Study on Minimum Safe Distance between Railway Out-of-Gauge Goods and Structures

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Study on Tourism Traffic Safety Information System Based on 3S

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