

2018 UTRAC Selected Research Projects Pending FHWA Approval

Group 1 - Materials and Pavements

Number	Name	Source	UDOT Champion	Research PM
18.01.01	Validating AASHTO PP-84 paste volume limits for shrinkage mitigation in UDOT concrete mixes	USU	Bryan Lee	Kevin Nichol
18.01.02	Forensic Investigation of the Value added to the Pavement Section by Geogrids	UU	Steven Anderson	Kevin Nichol
18.01.04	IDEAL Test, a simplified test for fatigue cracking that can be easily adopted	UU	Howard Anderson	David Stevens

Group 2 - Maintenance

Number	Name	Source	UDOT Champion	Research PM
18.02.01	Power Plant Causing Icing Issues on I-15 in Utah County	UDOT	Brent Schvaneveldt	Kevin Nichol
18.02.03	Transition Between Asphalt and Concrete Pavements Section	UDOT	Kendall Draney	Kevin Nichol
18.02.04	Investigating the Feasibility of Introducing Alternative Fuel Vehicles into Maintenance Fleet	USU	Kevin Griffin	Kevin Nichol
18.02.05	Strategic Deployment of Road Weather Information System (RWIS) Stations in Utah	USU	Kevin Griffin	Kevin Nichol
18.02.07	Use of Connected/Autonomous Vehicle in the Snow/Ice Performance Measure	UDOT	Ryan Ferrin	Kevin Nichol
18.02.08	Drone based LiDAR	UDOT	Ryan Ferrin	Kevin Nichol

Group 3 - Traffic Management & Safety

Number	Name	Source	UDOT Champion	Research PM
18.03.01	Multi-Stage Algorithm for Detection-Error Identification and Data Screening	UU	Kelly Burns	Kevin Nichol
18.03.02	Transit Signal Progression Algorithm for Supporting Redwood Road TSP Implementation	UU	Blaine Leonard	Kevin Nichol
18.03.03	Evaluating the Quality of Signal Operations Using Signal Performance Measures	BYU	Mark Taylor/Jamie Mackey	Kevin Nichol
18.03.04	The Impact of Demographics on Crash Risk in Diverse Utah Communities	Active Planning	Robert Miles	Vincent Liu
18.03.05	Evaluation Criteria for Safe Routes to School Projects	Active Planning	Robert Miles	Vincent Liu
18.03.08	Hybrid School Zone and Standard Crosswalks - Literature Review	RSG	Jesse Sweeten	Kevin Nichol
18.03.09	A Sensitivity Analysis of Benefits of DSRC on UTA Bus Operation Using Probe Vehicles	BYU	Blaine Leonard	Vincent Liu
18.03.14	Identification of Wildlife-Vehicle Conflict Priority Hotspots in Utah	Independent Consultant	Robert Miles	Kevin Nichol

Group 4 - Structures & Geotechnical

Number	Name	Source	UDOT Champion	Research PM
18.04.01	Development and Pilot Testing of a Geotechnical Geodatabase to Improve Understanding of Shallow Subsurface Conditions	Utah Geological Survey	Ari Menitove	David Stevens
18.04.04	Behavior of Reinforced and Unreinforced Lightweight Cellular Concrete for Retaining Walls	BYU	Darin Sjoblom	David Stevens
18.04.06	Bridge Deck Testing Method Evaluation	UDOT	Rebecca Nix	David Stevens

Group 5 - Preconstruction

Number	Name	Source	UDOT Champion	Research PM
18.05.02	UDOT File Retention Schedules	UDOT	Ivan Hartle	Vincent Liu

Group 6 - Planning

Number	Name	Source	UDOT Champion	Research PM
18.06.02	Utilizing archived traffic signal performance measures for pedestrian planning & analysis	USU	Heidi Goedhart & Mark Taylor	Kevin Nichol
18.06.04	Understanding Connected and Automated Vehicles' Impacts on Transportation Planning	UU	Jordan Backman	Kevin Nichol
18.06.08	Airports as Connected Activity Centers	UU	Clint Harper	Kevin Nichol

Group 7 - Performance Management/Data Analytics

Number	Name	Source	UDOT Champion	Research PM
18.07.02	Using Automated Signal Performance Measure Data to Supplement Short-duration Counts	RSG	Nicolas Virgen	Kevin Nichol
18.07.03	Addressing Big Data Biases	RSG	Eric Rasband	Kevin Nichol
18.07.04	Using Pavement Texture Data to Screen and Target Annual Skid Number Assessment	Parametrix	Abdul Wakil	Vincent Liu

Group 8 - Public Transportation

Number	Name	Source	UTA Champion	Research PM
18.08.01	Toward a Holistic Understanding of the UTA Passenger Experience	UU	G.J. LaBonty	UTA
18.08.05	The Connection between Investments in Bus Stops, Ridership, and ADA Accessibility	UU	Hal Johnson	Vincent Liu
18.08.07	Can transit service affect poverty and unemployment?	UU	Kerry Doane	UTA