

BRNO UNIVERSITY OF TECHNOLOGY

VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

FACULTY OF INFORMATION TECHNOLOGY FAKULTA INFORMAČNÍCH TECHNOLOGIÍ

DEPARTMENT OF COMPUTER SYSTEMSÚSTAV POČÍTAČOVÝCH SYSTÉMŮ

IMPACT OF ROAD SURFACE CONDITION TO CAR ACCIDENTS

VPLY STAVU VOZOVKY NA AUTO NEHODY

TERM PROJECT SEMESTRÁLNÍ PROJEKT

AUTHOR AUTOR PRÁCE **SAMUEL DOBROŇ**

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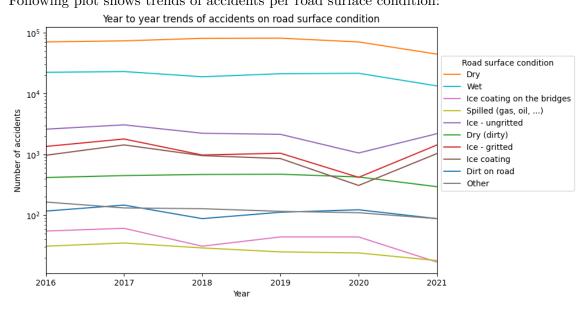
0.1 IMPACT OF ROAD SURFACE CONDITION TO CAR ACCIDENTS

The goal of this report is to provide interesting findings in analysis of impact of road surface condition to car accidents.

Surface condition	# of accidents
Dry	422 230
Wet	$120\ 498$
Ice - ungritted	$13\ 279$
Ice - gritted	7 018
Ice coating	5 553
Dry (dirty)	2 528
Other	739
Dirt on road	675
Ice coating on the bridges	252
Spilled (gas, oil,)	162

Table 1: Number of accidents

Simple table above clearly shows that most accidents happens on dry, road surfaces. However, average cost of total damages is highest for Spilled (gas, oil, ...) category, followed by Ice coating on the bridges. Those 2 facts may be affected by having tires optimized for dry road surfaces, as most of accidents happens in those conditions. Following plot shows trends of accidents per road surface condition:



Dry, Dry (dirty) and Wet categories have decreasing trend, which is of course, what society wants especially. Because dry and wet surface conditions have lower rate of fatal (one or more deaths) accidents (0.48 %) than icy surfaces accidents, that have increasing trend (within last 2 years); 0.29 % of those accidents have fatal end. However accidents on icy sufrace have slightly higher light injuries rate 19 % vs 18 %.