

Non-invasive Sensor update



MDSS
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MDSS

- Requirement for real-time data, especially of actual surface pavement conditions
- For both operational use and as key performance indicator of winter maintenance
- Non-invasive sensors designed for fixed use
- However, due to popular demand.....



DSC111 Installed to a Bicycle Carrier on the Trailer Hook

Mobile DSC111 Objective:

Check performance of DSC111 as a mobile friction meter and surface state measurement device

Reference measurements:

...Of friction against decelerometer and lock braking methods, while driving in different road surface conditions

...Of surface state measurements against fixed DSC111 instruments and human observer



Highway E12, Vantaa Martinlaakso 06.03.2006

- light snow fall, air temperature about 21 °F
- wheel tracks fairly slippery, in between almost dry



RING III, Vantaa 06.03.2006

- light snow fall, air temperature about 21 °F
- wheel tracks not slippery, in between almost dry

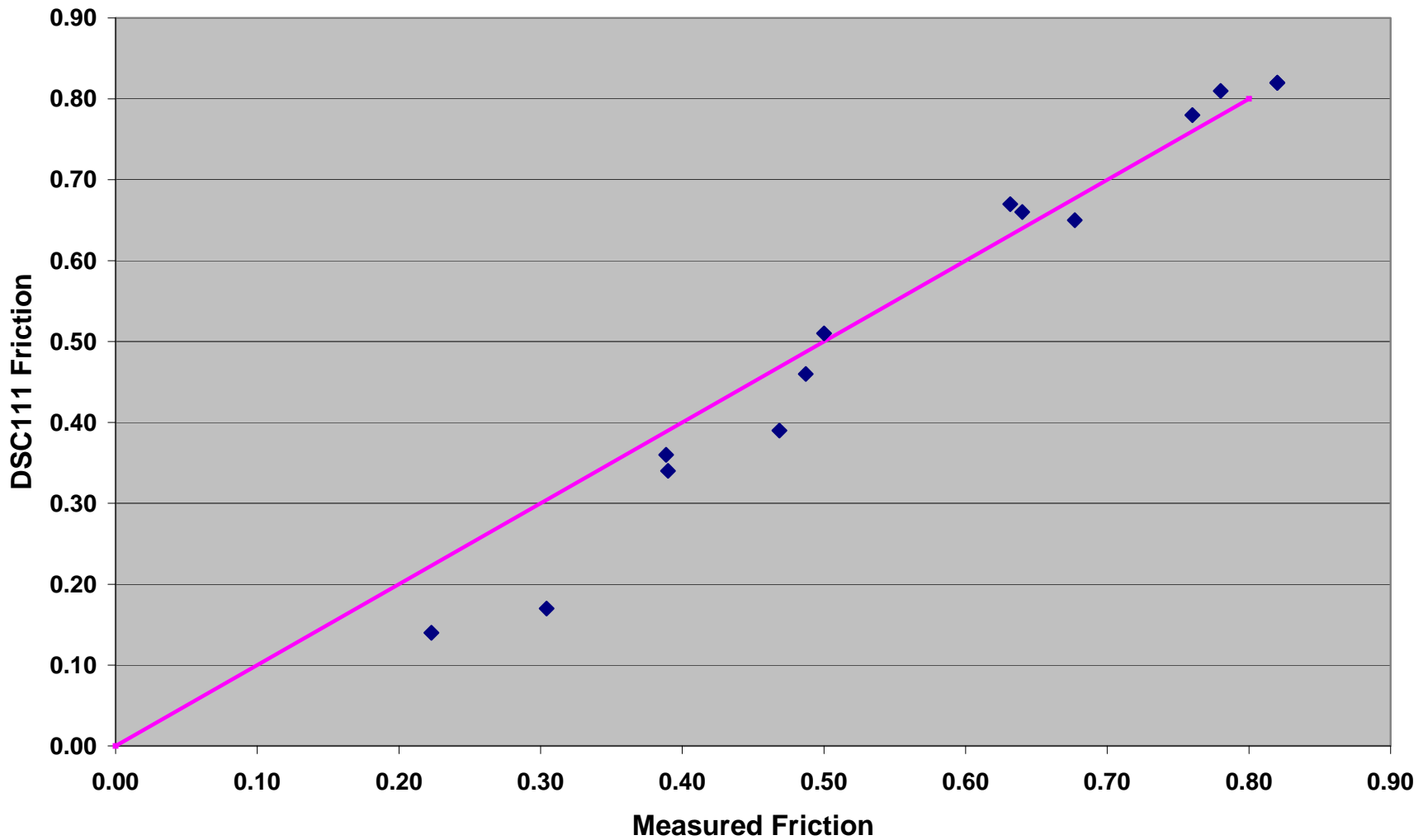


A side Road, Vantaa Pakkalantie 06.03.2006

- light snow fall, air temperature about 21 °F
- slushy condition, friction medium



Comparison of Deceleration measurements and DSC111



Conclusion

DSC111 as a Friction Meter

- measures reliably the reduction of friction due to ice, snow or frost
- accuracy in the order of $\pm 10\%$ in friction units
- Resolution of circa 100 yards at 40 MPH

