

Supplementary Materials: Design and Simulation of the Robust ABS and ESP Fuzzy Logic Controller on the Complex Braking Maneuvers

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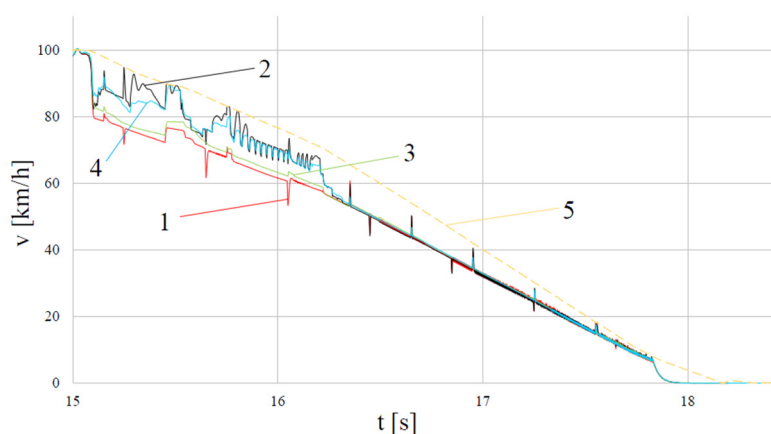


Figure S1. Straight split- μ road with a half wet-half dry surface profile velocity curves: 1—FL wheel velocity, 2—FR wheel velocity, 3—RL wheel velocity, 4—RR wheel velocity, 5—vehicle velocity.

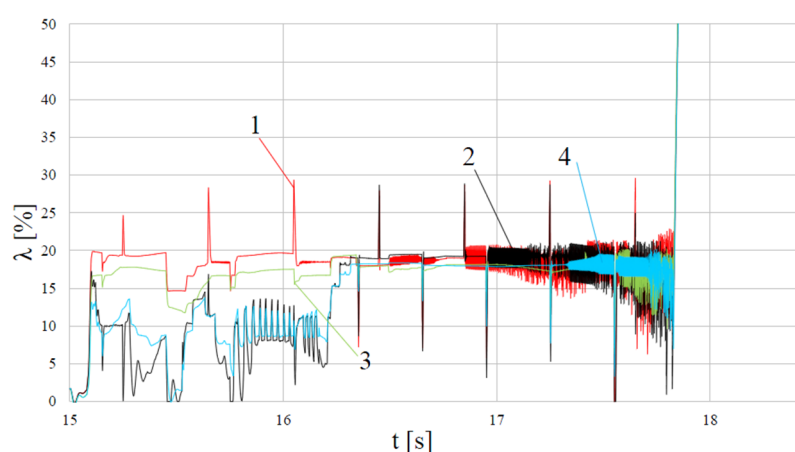


Figure S2. Straight split- μ road with a half wet-half dry surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.

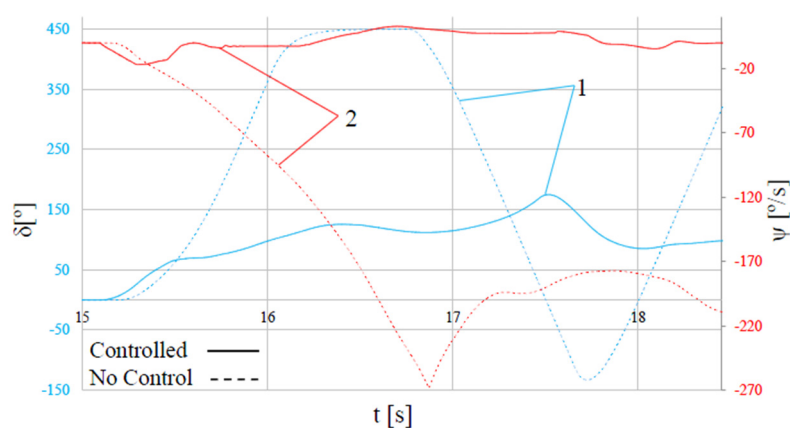


Figure S3. Straight split- μ road with a half wet-half dry surface profile angle curves: 1—steering wheel angle δ , 2—yaw rate ψ .

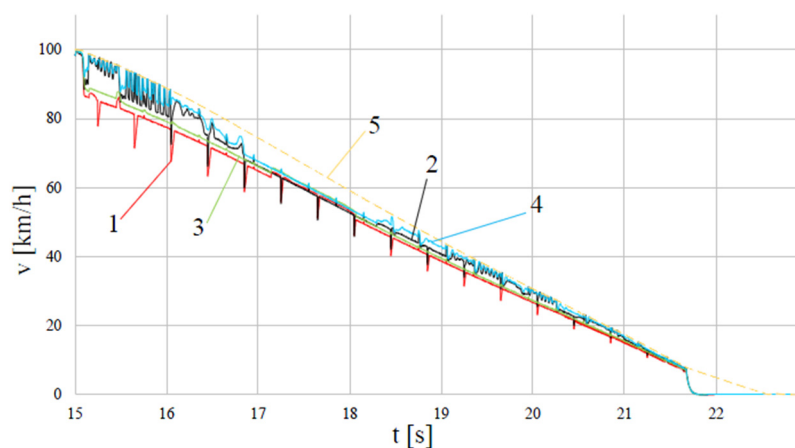


Figure S4. Straight split- μ road with a half icy-half wet surface profile velocity curves: 1—front left wheel, 2—front right wheel, 3—rear left wheel, 4—rear right wheel, 5—vehicle.

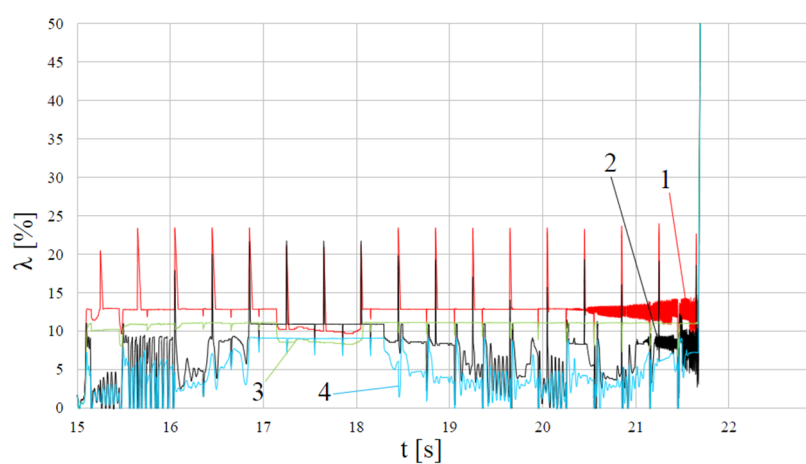


Figure S5. Straight split- μ road with a half icy-half wet surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.

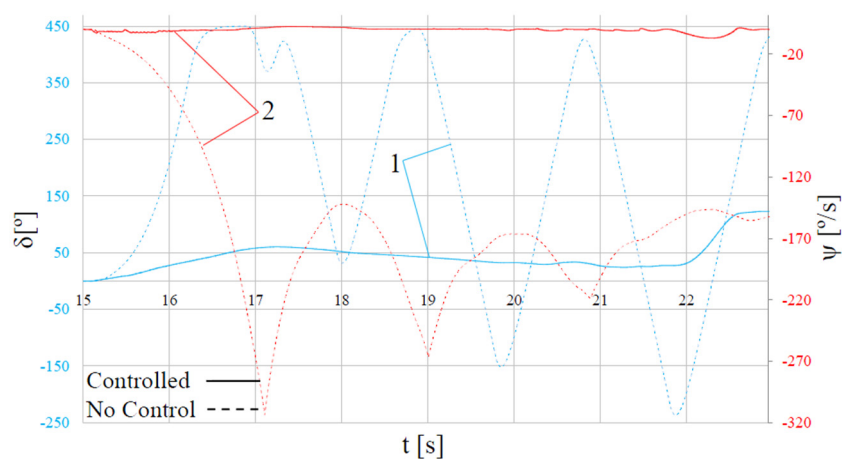


Figure S6. Straight split- μ road with a half icy-half wet surface profile angle curves: 1—steering wheel angle δ , 2—yaw rate ψ .

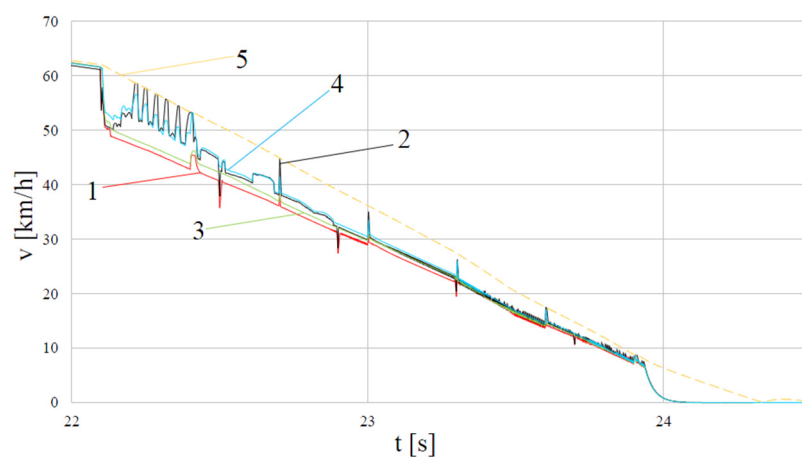


Figure S7. Curved split- μ road with a half wet-half dry surface profile velocity curves: 1—front left wheel, 2—front right wheel, 3—rear left wheel, 4—rear right wheel, 5—vehicle.

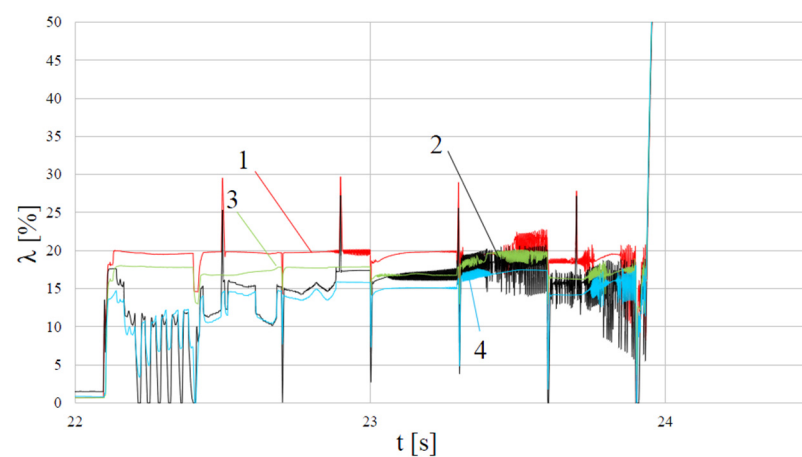


Figure S8. Curved split- μ road with a half wet-half dry surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.

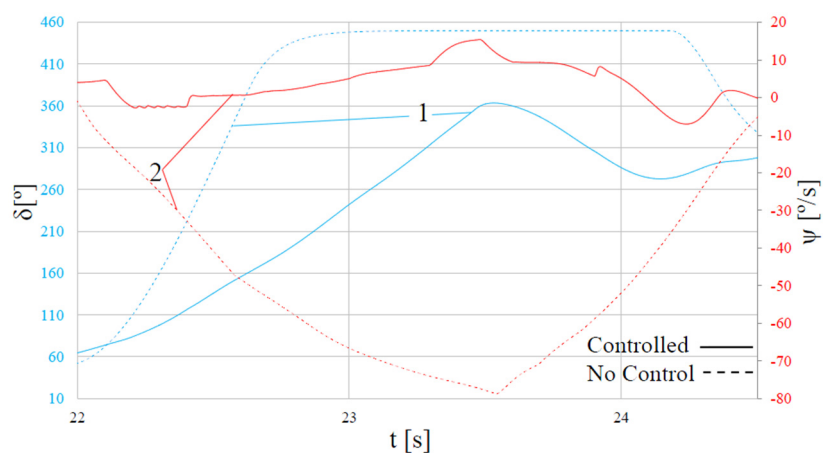


Figure S9. Curved split- μ road with a half wet-half dry surface profile angle curves: 1—steering wheel angle δ , 2—yaw rate ψ .

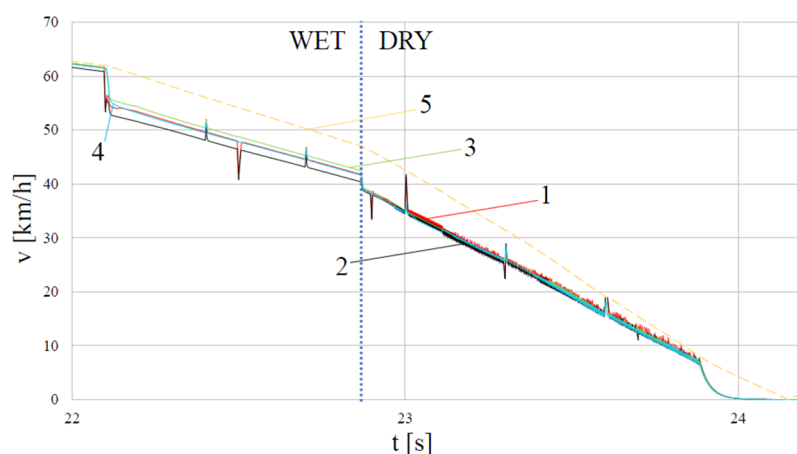


Figure S10. Curved even road with wet-dry surface profile velocity curves: 1—front left wheel, 2—front right wheel, 3—rear left wheel, 4—rear right wheel, 5—vehicle.

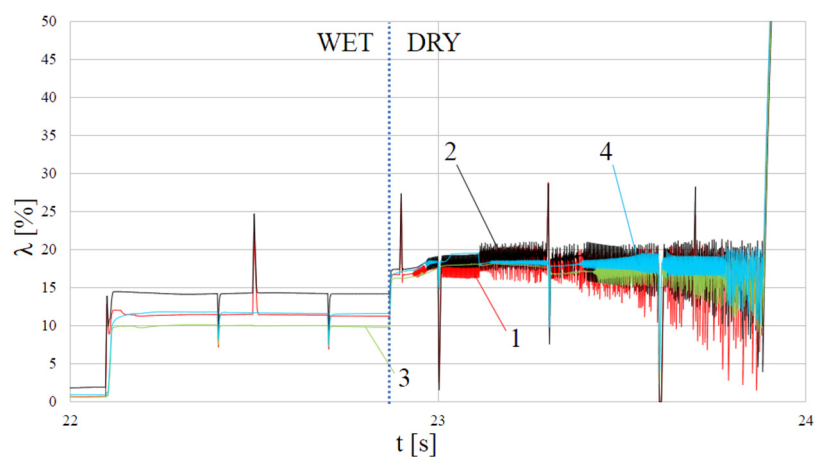


Figure S11. Curved even road with wet-dry surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.

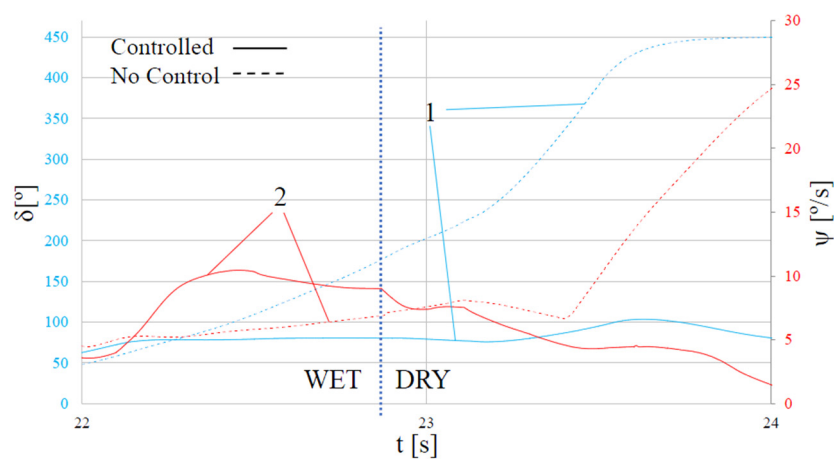


Figure S12. Curved even road with wet-dry surface profile angle curves: 1—steering wheel angle δ , 2—yaw rate ψ .

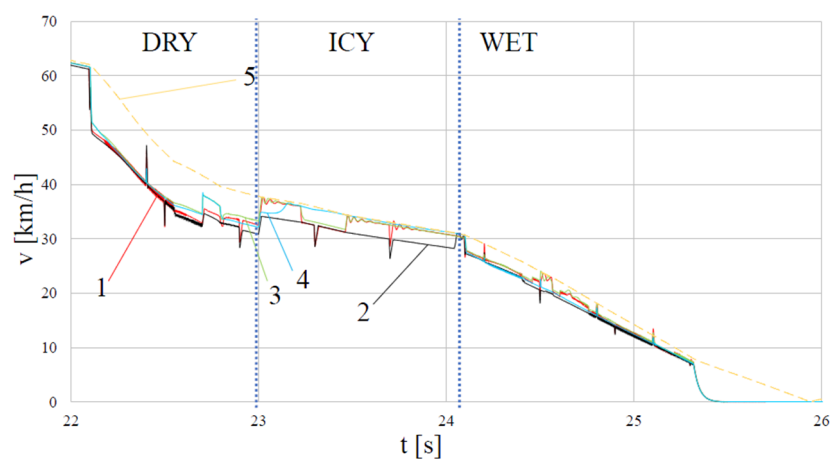


Figure S13. Curved even road with dry-icy-wet surface profile velocity curves: 1—front left wheel, 2—front right wheel, 3—rear left wheel, 4—rear right wheel, 5—vehicle.

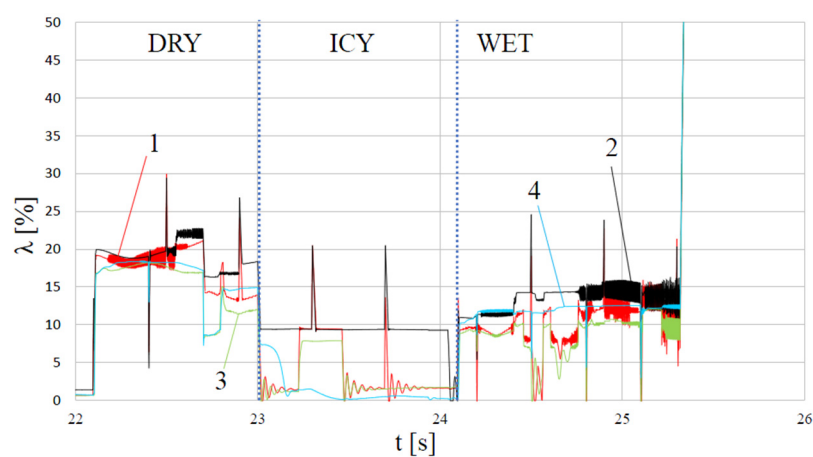


Figure S14. Curved even road with dry-icy-wet surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.

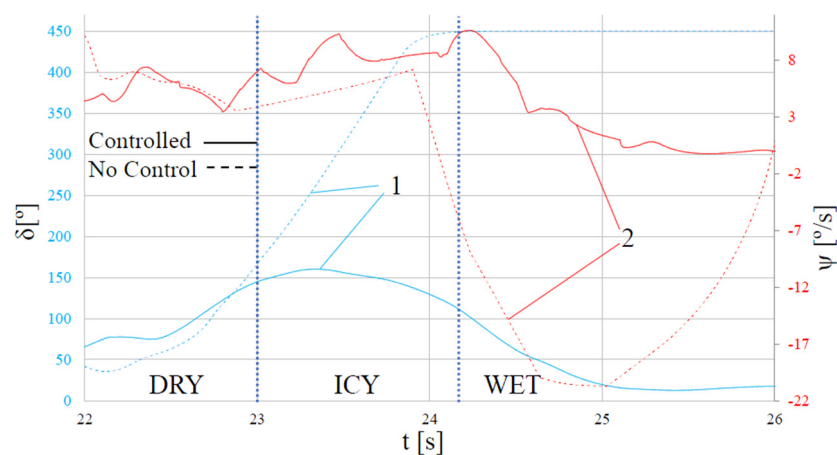


Figure S15. Curved even road with dry-icy-wet surface profile angle curves: 1—steering wheel angle δ , 2—yaw rate ψ .

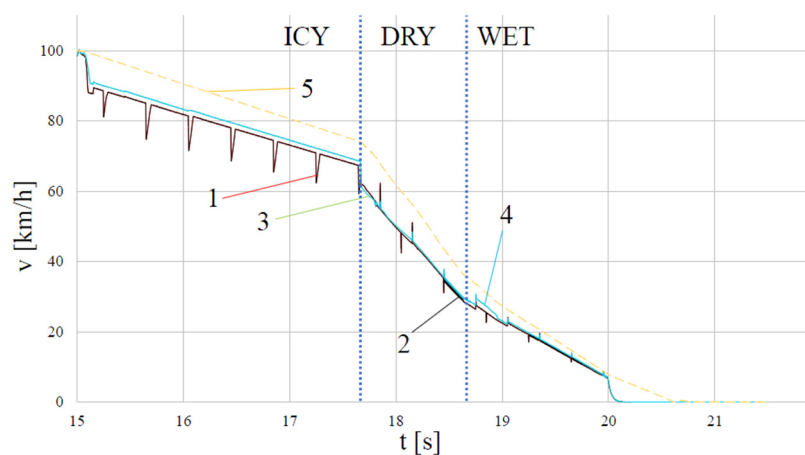


Figure S16. Straight even road with icy-dry-wet surface profile velocity curves: 1—front left wheel, 2—front right wheel, 3—rear left wheel, 4—rear right wheel, 5—vehicle.

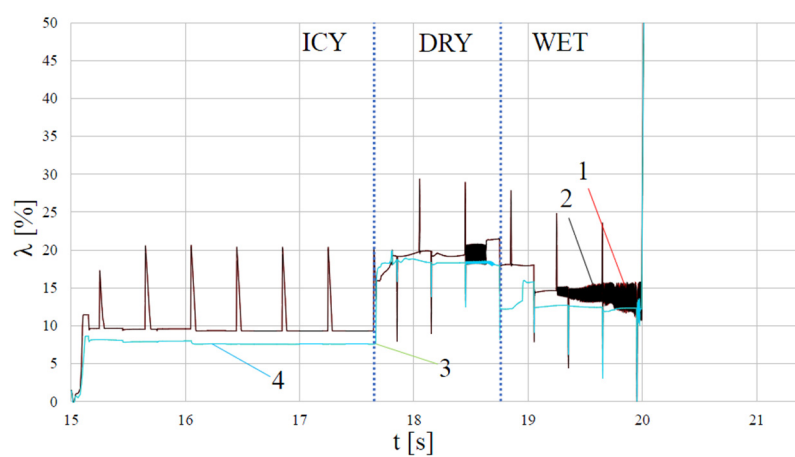


Figure S17. Straight even road with icy-dry-wet surface profile wheel slip curves: 1—front left, 2—front right, 3—rear left, 4—rear right.