

Draft 09/01/2009

(Questions? Concerns? Contact Gail McMillan, Director of the Digital Library and Archives at Virginia Tech's University Libraries: gailmac@vt.edu)

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Virginia Tech ETD Fair Use Analysis Results

This is not a replacement for professional legal advice but an effort to assist you in making a sound decision.

Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-1: Construction of a radial pneumatic tire. Adapted from S. Taheri, Tire mechanics. Lecture Notes Virginia Tech, Spring 2013.

Report generated on: 04-20-2016 at : 14:54:08

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

Factor 3

Your consideration of the amount and substantiality of your use of the copyrighted work weighs: *in favor of fair use*

Factor 4

Your consideration of the effect or potential effect on the market after your use of the copyrighted work weighs: *in favor of fair use*

Based on the information you provided, your use of the copyrighted work weighs: *in favor of fair use*



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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-2: Three Zone Concept. Adapted from Allbert, B., "Tires and Hydroplaning," SAE Technical Paper 680140, 1968,p 4, doi:10.4271/680140.

Report generated on: 04-20-2016 at : 15:00:19

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

Factor 3

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-3: Model of a coupled problem of a tire and water film . Adapted from Okano, T. and M. Koishi. Hydroplaning Simulation using MSC. Dytran. in Proceedings of the 3rd European LS-DYNA Users Conference. 2001. Paris, France.

Report generated on: 04-20-2016 at : 15:01:44

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

Factor 3

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-4: Comparison of simulation results with the NASA hydroplaning equation . Adapted from Gunaratne, M. and Q. Lu, Hydroplaning on Multi Lane Facilities. 2012: Florida department of transportation.

Report generated on: 04-20-2016 at : 15:04:29

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-5: Influence of wheel load, water film thickness on hydroplaning speed. Adapted from Gunaratne, M. and Q. Lu, Hydroplaning on Multi Lane Facilities. 2012: Florida department of transportation.

Report generated on: 04-20-2016 at : 15:05:06

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-6: Influence of inflation pressure and water film thickness on hydroplaning speed. Adapted from Gunaratne, M. and Q. Lu, Hydroplaning on Multi Lane Facilities. 2012: Florida department of transportation.

Report generated on: 04-20-2016 at : 15:05:36

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-7: Influence of wheel load, water film thickness on hydroplaning speed of truck tires. Adapted from Gunaratne, M. and Q. Lu, Hydroplaning on Multi Lane Facilities. 2012: Florida department of transportation.

Report generated on: 04-20-2016 at : 15:08:59

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-8: Comparison of hydroplaning speed of different tire-tread groove patterns. Adapted from Fwa, T.F., Kumar, A., and Ong, G. P. , Effectiveness of Tire-Tread patterns in Reducing the Risk of Hydroplaning. Transportation Research Record: Journal of the Transportation Research Board, 2009.

Report generated on: 04-20-2016 at : 15:22:58

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-9: Influence of groove inclination angle on hydroplaning speed. Adapted from Fwa, T.F., Kumar, A., and Ong, G. P. , Effectiveness of Tire-Tread patterns in Reducing the Risk of Hydroplaning. Transportation Research Record: Journal of the Transportation Research Board, 2009.

Report generated on: 04-20-2016 at : 15:30:15

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-10: Deformation at the leading edge. Adapted from Seta, E., Hydroplaning analysis by FEM and FVM: effect of tire rolling and tire pattern on hydroplaning. Tire Sci. Technol., 2000. 28(3): p. 140-156.

Report generated on: 04-20-2016 at : 15:27:48

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-11: ABS activity on dry (a) and wet pavement surfaces (b). Adapted from Metz, L., Hydroplaning behaviour during Steady- State Cornering. SAE International Journal of Materials and Manufacturing, 2011

Report generated on: 04-20-2016 at : 15:34:58

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-12: ABS activity with reduced inflation pressure of 103.42 kPa (15 psi) .Adapted from Metz, L., Hydroplaning behaviour during Steady- State Cornering. SAE International Journal of Materials and Manufacturing, 2011

Report generated on: 04-20-2016 at : 15:37:52

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

Factor 3

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 2-13: Frictional force versus vehicle speed at braking: (a) wet road (b) dry road .Adapted from Cho, J.R, A wet-road braking distance estimate utilizing the hydroplaning analysis of patterned tire. International journal of numerical methods in Engineering, 2007.

Report generated on: 04-20-2016 at : 15:40:08

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 3-1: Lagrangian, Eulerian and ALE description. Adapted from Donea, J., Arbitrary Lagrangian–Eulerian Methods. Encyclopedia of Computational Mechanics, Nov 2004

Report generated on: 04-20-2016 at : 18:04:05

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

Your consideration of the nature of the copyrighted work you used weighs: *in favor of fair use*

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Name: Sankar Mahadevan

Description of item under review for fair use: Figure 3 9: Calspan test data. Adapted from Salaani, M., Measurement and Modeling of Tire Forces on a Low Coefficient Surface in SAE World Congress. 2006

Report generated on: 04-20-2016 at : 17:37:58

Based on the information you provided:

Factor 1

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Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Table 2-1: Groove dimensions studied. Adapted from Ong, G., Fwa, T. F., Transverse pavement grooving against hydroplaning, I: simulation model. Journal of Transportation Engineering, 2006. 132(6): p. 441-448.

Report generated on: 04-20-2016 at : 20:14:20

Based on the information you provided:

Factor 1

Your consideration of the purpose and character of your use of the copyright work weighs: *in favor of fair use*

Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Table 2-2 : Comparison of grooving measures . Adapted from Ong, G. and Fwa, T.F., Part 3: Pavement Surface Properties-Vehicle Interaction: Analysis of Effectiveness of Longitudinal Grooving Against Hydroplaning. Transportation Research Record: Journal of the Transportation Research Board, 2006(1949): p. 113-125

Report generated on: 04-20-2016 at : 20:18:00

Based on the information you provided:

Factor 1

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Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Table 2-3: Tire grooving vs pavement grooving effectiveness. Adapted from Fwa, T.F., Kumar. A., Ong, G.P., Relative effectiveness of grooves in tire and pavement in reducing vehicle hydroplaning risk. Transportation Research Record, 2010. 2155: p. 73-81.

Report generated on: 04-20-2016 at : 20:21:06

Based on the information you provided:

Factor 1

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Factor 2

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Name: Sankar Mahadevan

Description of item under review for fair use: Table 2-4: Factors influencing friction. Adapted from Tires and Hydroplaning. SAE Paper 680140, 1968.

Report generated on: 04-20-2016 at : 20:26:21

Based on the information you provided:

Factor 1

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