

## Dharamveer Singh

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### EDUCATION

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|-------------|--|------------------|
| 2008 - 2011 | University of Oklahoma                     | Norman, OK, USA  |
|             | <i>Ph.D./Civil Engineering</i>             |                  |
| 2002 - 2004 | Indian Institute of Technology             | Kharagpur, India |
|             | <i>M. Tech./Transportation Engineering</i> |                  |
| 1996 - 2000 | M.B.M. Engineering College                 | Jodhpur, India   |
|             | <i>B.E./Civil Engineering</i>              |                  |

### PUBLICATIONS

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#### Refereed Journal Papers:

- (1) Ashish, P.K., and Singh, D.V., and Bohm, S.(2017) “*Investigation on influence of nanoclay modification on rheological performance of asphalt binder.*” International Journal of Road Materials and Pavement Design, Taylor and Francis, Volume: 18, Issue: 5
- (2) Rajan, B., and Singh, D.V. (2017) “*Understanding Influence of Crushers on Shape Characteristics of Fine Aggregates Based on Digital Image and Conventional Techniques.*” Journal of Construction and Building Materials, Volume 150, pp. 833-843.
- (3) Singh, D.V., Ashish, P.K., Kataware, A., and Habal, A. (2017) “*Evaluating Performance of PPA-and-Elvaloy-Modified Binder Containing WMA Additives and Lime Using MSCR and LAS Tests*” ASCE Journal of Materials in Civil Engineering, Vol. 29, No. 8, pp.1-11.
- (4) Aniket Kataware, and Singh, D.V. (2017) “*Evaluating Effectiveness of WMA Additives for Polymer Modified Binder Based on Viscosity, Superpave PG, Rutting and Fatigue Performance.*” Construction & Building Materials, Volume 146, pp. 436-444.
- (5) Habal, A., and Singh, D.V. (2017) “*Moisture Damage Resistance of GTR-Modified Asphalt Binders Containing WMA Additives Using the Surface Free Energy Approach*” ASCE, Performance of Constructed Facilities, Volume 31, Number 7.
- (6) Rajan, B., and Singh, D.V. (2017) “*Comparison of Shape Parameters and Laboratory Performance of Coarse Aggregates Produced from Different Types of Crushing Operation.*” ASCE's Journal of Materials in Civil Engineering, Volume 27, Number 7.
- (7) Aditya, Das and Singh, D.V. (2017) “*Investigation of Rutting, Fracture and Thermal Cracking Behavior of Asphalt Mastic Containing Basalt and Hydrated Lime Fillers*” Elsevier, Construction & Building Materials, Volume 141, pp.442-452.

- (8) Kataware, A., Singh, D.V. (2017) “*A Study on rutting susceptibility of asphalt binders at high stresses using MSCR test,*” Springer, Innovative Infrastructure Solutions, Volume 2, Issue 4, pp.1-9.
- (9) Xu, S., Xiao, F., Amirkhanian, S., Singh, D.V. (2017)“*Moisture Characteristics of Mixtures with Warm Mix Asphalt Technologies –A Review,*” Elsevier, Construction & Building Materials, Volume 142, pp. 148-161.
- (10) Singh, D.V., Sawant, D., and Xiao, F. (2017)“ *High and intermediate temperature performance evaluation of crumb rubber modified binders with RAP* ” Elsevier, Transportation Geotechnics, 10, pp.13-21.
- (11) Hossain, N., Singh, D.V., and Zaman, M. (2016) “*Sensitivity of Traffic Input Parameters on Rutting Performance of a Flexible Pavement Using Mechanistic Empirical Pavement Design Guide*” International Journal of Pavement Research and Technology, Volume 9, Issue 6, pp. 450-459.
- (12) Maji, A., Singh, D.V., and Chawla, H. (2016). “*Developing Probabilistic Approach for Asphaltic Overlay Design by Considering Variability of Input Parameters,*” Journal of Innovative Infrastructure Solutions, Springer, 1:43, pp.1-11.
- (13) Singh, D.V., and Girimath, S. (2016) “*Investigation of rheological properties and Superpave PG of PMB mixed with reclaimed asphalt pavement binders,*” Journal of Construction and Building Materials, Volume 126, pp.834-842.
- (14) Singh, D.V., and Sawant, D. (2016) “*Understanding Effects of RAP on Rheological Performance and Chemical Composition of SBS Modified Binder Using Series of Laboratory Tests,*” International Journal of Pavement Research and Technology, Vol. 9, Issue 3, pp. 178-189.
- (15) Ghabchi, R., Barman, M., Singh, D., Zaman, M., and Mubarak, M. (2016)“*Comparison of Laboratory Performance of Asphalt Mixes Containing Different Proportions of RAS And RAP,*” Elsevier Journal of Construction and Building Materials, Volume 124, pp. 343-351.
- (16) Singh, D.V., and Kataware, A. (2016) “*Comparison of Different Rheological Parameters for Rutting Susceptibility of SBS+WMA Modified Binders,*” Journal of Innovative Infrastructure Solutions, Springer 1:28, DOI 10.1007/s41062-016-0026-7
- (17) Barman, M., Nazari, M., Imran, A., Commuri, S., Zaman, M., Beainy, F., Singh, D.V, (2016) “*Quality Control of Subgrade Soil Using Intelligent Compaction*” An Innovative Infrastructure Solutions (April 2016).
- (18) Singh, D.V., and Girimath, S. (2016) “*Influence of RAP Sources and Proportions on Fracture and Low Temperature Cracking Performance of Polymer Modified Binder,*” Journal of Construction and Building Materials, Volume 120, pp.10-18.
- (19) Ghabchi, R., Singh, D.V., Zaman, M., Hossain, Z. (2016).“*Laboratory Characterization of Asphalt Mixes Containing RAP and RAS,*” International Journal of Pavement Engineering, Vol. 17, No. 9, 829–846, <http://dx.doi.org/10.1080/10298436.2015.1022778>
- (20) Mallick, R., Singh, D.V., and Veeraragavan, A. (2016) “*Extension of asphalt pavement life by reduction of temperature,*” Journal Transportation in Developing Economies, Springer Publication, 2:7, DOI 10.1007/s40890-016-0013-x
- (21) Hossain, N., Singh, D., and Zaman, M. (2016). “*Enhancing Rutting Prediction of the Mechanistic-Empirical Pavement Design Guide by using Data from a Field Test Section in Oklahoma*”, Transportation Research Record: Journal of the TRB, No 2590. TRB of the National Academies, Washington, D.C. pp. 28-36.

- (22) Ghabchi, R., Singh, D.V., Zaman, M., Hossain, Z. (2016). "Micro-Structural Analysis of Moisture-Induced Damage Potential of Asphalt Mixes Containing RAP," ASTM, Journal of Testing and Evaluation, Vol. 44, No. 1.
- (23) Ashish, P.K., and Singh, D.V., and Bohm, S. (2016). "Evaluation of rutting, fatigue and moisture damage performance of nanoclay modified asphalt binder," Journal of Construction and Building Materials, Elsevier, Volume 113, pp. 341-350.
- (24) Habal, A., and Singh, D.V. (2016). "Comparison of Wilhelmy Plate and Sessile Drop Methods to Rank Moisture Damage Susceptibility of Asphalt - Aggregates Combinations," Journal of Construction and Building Materials, Elsevier, Volume 113, pp. 351-358.
- (25) Kataware, A., Singh, D.V., (2015) "Rheological Performance of Asphalt Binders Under Different Creep and Recovery Periods in MSCR Test," International Journal of Pavement Research and Technology, Volume 8, No. 6, pp.410-418
- (26) Hossain, N., Singh, D.V., Zaman, M. (2015) "Development of Rut Prediction Models from an Instrumented In-Service Test Section on Interstate-35," International Journal of Pavement Research and Technology, Volume 8, No. 5, pp. 305-314.
- (27) Ghabchi, R., Singh, D.V., Zaman, M. (2015). "Laboratory evaluation of stiffness, low-temperature cracking, rutting, moisture damage, and fatigue performance of WMA mixes," Road Materials and Pavement Design, Vol. 16, No. 2, pp. 334-357.
- (28) Singh, D.V., Fares, B., Commuri, S., and Zaman, M. (2015). "Measurement of Effective Modulus of a Multi-layer HMA Pavement," ASTM Journal of Testing and Evaluation, Volume 43 Issue 2.
- (29) Ghabchi, R., Kazmee, H., Zaman, M., Singh, D.V. (2015) "Effect of Aggregate Gradation and Shape Parameters on Laboratory Measured Permeability of Aggregates Bases," ASCE, International Journal of Geo-mechanics, Vol. 15, No. 4.
- (30) Beainy, F., Singh, D.V., Commuri, S., Zaman, M. (2014). "Achievable Quality During the Compaction of Asphalt Pavement," International Journal of Pavement Research and Technology (IJPRT), Volume 7, Issue 5, pp. 317-323
- (31) Ghabchi, R., Singh, D.V., Zaman, M. (2014). "Evaluation of Moisture Susceptibility of Asphalt Mixes Containing RAP and Different Types of Aggregates and Asphalt Binders Using the Surface Free Energy Method," Construction & Building Materials, Elsevier Publication, Vol. 73, pp. 479-489.
- (32) Ghabchi, R., Singh, D.V., Zaman, M., Tian, Q. (2013) "Mechanistic Evaluation of Effect of WMA-Additives on Wettability and Moisture Susceptibility Properties of Asphalt Mixes," ASTM, Journal of Testing and Evaluation, Vol. 41, No. 6, 2013.
- (33) Singh, D.V., Zaman, M., and Commuri, S. (2013) "Artificial Neural Network Modeling of Dynamic Modulus Using Aggregate Shape Properties," ASCE, Journal of Materials in Civil Engineering, Vol. 25, No.1, pp.54-62.
- (34) Singh, D.V., Zaman, M., and Commuri, S. (2013). "Effects of Production and Sample Preparation Methods on Aggregate Shape Parameters," International Journal of Pavement Engineering, Vol. 14, Issue: 2, pp. 154-175.
- (35) Singh, D.V., Zaman, M., and White, L.(2012) "Neural Network Modeling of 85<sup>th</sup> Percentile Speed for Two-Lane Rural Highways," Transportation Research Record: Journal of the Transportation Research Board (TRB), Vol. 2301, pp.17-27.
- (36) Singh, D.V., Zaman, M., and Commuri, S. (2012). "Inclusion of Aggregate

- Angularity, Texture, and Form in Estimating Dynamic Modulus of Asphalt Mixes,*" International Journal of Road Materials and Pavement Design (RMPD), Vol. 13, Issue: 2, pp. 327-344.
- (37) Singh, D.V., Zaman, M., and Commuri, S. (2012). "Comparison of Shape Parameters for Selected Coarse Aggregates in Oklahoma," ASTM Journal of Testing and Evaluation, Vol. 40, Issue: 3, pp. 409-426.
- (38) Singh, D.V., Zaman, M., and Commuri, S. (2012). "A Laboratory Investigation into the Effect of Long-Term Oven Aging on RAP Mixes Using Dynamic Modulus Test," International Journal of Pavement Research and Technology (IJPRT), Vol.5, Issue: 3, pp. 142-152.
- (39) Singh, D.V., Zaman, M., and Commuri, S. (2012). "Evaluation of Dynamic Modulus of Modified and Unmodified Asphalt Mixes for Different Input Levels of the MEPDG," International Journal of Pavement Research and Technology (IJPRT), Vol.5, Issue: 1, pp. 1-11.
- (40) Singh, D.V., Zaman, M., and Commuri, S. (2011). "Evaluation of Predictive Models for Estimating Dynamic Modulus of Hot-Mix Asphalt in Oklahoma," Transportation Research Record: Journal of the Transportation Research Board (TRB), Vol. 2210, pp.57-72.
- (41) Singh, D.V., Zaman, M., and Commuri, S. (2011). "Evaluation of Measured and Estimated Dynamic Moduli for Selected Asphalt Mixes," Journal of ASTM International (JAI), Vol. 8, No.9, 19 pages, DOI: 10.1520/JAI103535.
- (42) Singh, D.V., Mai, A.T., Beainy, A.F., Commuri, S., and Zaman, M.M. (2011). "In-Situ Assessment of Stiffness during Construction of an HMA Pavement," International Journal of Pavement Research and Technology (IJPRT), Vol.4, Issue: 3, pp. 131-139.

#### **National Journals:**

- (1) Kataware, A., Singh, D.V. (2017). "Evaluation of Mixing and Compaction Temperatures of Modified and Unmodified Asphalt Binders," IRC, Indian Highways, Vol. 45, No. 6, pp. 18-27.
- (2) Kataware, A., Singh, D.V. (2016) "Performance Evaluation of Polymer and Crumb Rubber Modified Binders in Multiple Stress Creep Recovery Test," IRC, Indian Highways, Vol. 44, No. 6, pp 21-32.
- (3) Chitragar, F. S., and Singh, D.V. (2016) "Evaluation of Fracture Resistance of Asphalt Mixes Containing Recycled Asphalt Pavement Using Semi-Circular Bending Test," Indian Road Congress, Indian Highway, Vol. 44, Issue: 1, pp.17-22.
- (4) Singh, D.V. (2010). "Influence of Compaction Level, Moisture Content, and Atterberg Limits on Strength of Subgrade Soils", International Journal of Earth Sciences and Engineering (IJEE) (ISSN 0974-5904), Vol.03, No. 01SPL, pp.70-75.
- (5) Yadu, L.K., Tripathi, R.K., Singh, D.V. (2011). "Laboratory Performance Evaluation of Stabilized Black Cotton Soil with Rice Husk Ash," Journal of Chhattisgarh Swami Vivekanand Technical University (CSVTU), Vol. 4, No. 1, pp. 50-55, (ISSN 0974-8725).
- (6) Singh, D.V., Reddy, K.S., and Yadu, L.K. (2011). "Moisture and Compaction Based Statistical Model for Estimating CBR of Subgrade Soils," International Journal of Earth Sciences and Engineering (IJEE) (ISSN 0974-5904), Vol.04, No. 06SPL, pp.100-103.
- (7) Yadu, L.K., Tripathi, R.K., and Singh, D.V. (2011). "Comparison of Fly Ash and Rice Husk Ash Stabilized Black Cotton Soil," International Journal of Earth Sciences and Engineering (IJEE) (ISSN 0974-5904), Vol.04, No. 06SPL, pp.42-45.

**Refereed Journal Papers (Accepted):**

- (1) Ashish, P.K., Singh, D.V. "Investigation on High and Intermediate Temperature Performance of Asphalt Binder Containing Carbon Nano Tube using Different Rheological Approaches," ASCE Journal of Materials in Civil Engineering (June, 2017)
- (2) Habal, A., and Singh, D.V. "Moisture Sensitivity of Asphalt Mixes Based on Surface Chemistry of Aggregates and Asphalt Binders," Submitted to IRC (August, 2015).
- (3) Gandhi, A., Carter, A., and Singh, D.V. Rheological behavior of cold recycled asphalt materials with different contents of recycled asphalt pavements", Journal of Innovative Infrastructure Solutions, Springer (IISS Journal) (June, 2017).

**Books /Book Chapter Publication:**

- (1) Singh, D.V., Zaman, M., White, L. (2012). "Development of Neural Network Models for Estimation of Traffic Speed on Rural Highways," In a book titled "Artificial Neural Network Modeling in Engineering," Editor: Ahmed El-Shafie, Publisher: iConcept Press Ltd., Australia, ISBN: 978-14775548-7-6.
- (2) Dharamveer Singh (2011). "A Laboratory Investigation and Modeling of Dynamic Modulus of Asphalt Mixes for Pavement Applications," ProQuest Publication, USA, pp. 317, ISBN No. 978-1-2670-4598-0, Publication Number: AAT 3482750, URL: <http://proquest.umi.com/pqdlink?did=2536571561&Fmt=7&clientId=79356&RQT=309&VName=PQD>

**ASCE GSP Book Edited**

- (1) *Geotechnical Special Publication (GSP) 262 "Innovative and Sustainable Solutions in Asphalt Pavements,"* Edited by Dharamveer Singh, Chichun Hu, Jan, Valentin, and Zhen, Leo, ASCE, GSP 262, Fourth Geo-China International Conference, July 25-27, Shandong, China, ISBN 978-0-7844-8005-2, 2016
- (2) *Geotechnical Special Publication (GSP) 244 "Application of Nanotechnology in Pavements, Geological Disasters, and Foundation Settlement Control Technology,"* Edited by Dharamveer Singh, Lubinda F. Walubita, Jeongho Oh, and Kun Li, ASCE, GSP 244, Geo-Hubei 2014 International Conference on Sustainable Civil Infrastructure; July 20-22, 2014, China, ISBN: 978-0-7844-1359-3 (CD-Rom), 2014

**ASCE Books Chapters (Geotechnical Special Publications):**

- (1) Habal, A., and Singh, D.V. (2016) "Moisture Susceptibility of Crumb Rubber Modified Binder Containing WMA Additives Using Surface Free Energy Approach," *GeoChina Conference*, ASCE, GSP 262, Fourth Geo-China International Conference, July 25-27, Shandong, China, 2016 Edited by Dharamveer Singh, Chichun Hu, Jan, Valentin, and Zhen, Leo, ISBN 978-0-7844-8005-2
- (2) Kataware, A., and Singh, D.V. (2016) "Evaluating Rutting Performance of Polymer Modified Binder Containing WMA Additives Using Different Rheological

- Parameters,” ASCE, GSP: 258, Fourth Geo-China International Conference, July 25-27, Shandong, China, ISBN: 978-0-7844-8001-4, Edited by: Hadi Khabbaz, Zahid Hossain, Boo Hyun Nam, and Xianhua Chen.*
- (3) Ashish, K.P., and Singh, D.V. (2016) “*A Study on Rheological Performance of Nanoclay Modified Asphalt Binder Using Brookfield Viscometer and Dynamic Shear Rheometer,*” *ASCE, GSP: 268, Fourth Geo-China International Conference, July 25-27, Shandong, China, ISBN: 978-0-7844-8011-3, Edited by: Lubinda F Walubita, Irina Holleran, and Aaron D. Mwanza*
  - (4) Singh, D.V., Beainy, F., Zaman, M., Commuri, S. (2014). “*Application Of Intelligent Compaction Technology For Estimation Of Effective Modulus For A Multilayered Asphalt Pavement,*” *Geo-Hubei 2014 International Conference on Sustainable Civil Infrastructure; July 20-22, 2014, China, GSP 249: Recent Developments in Evaluation of Pavements and Paving Materials Geo-Hubei 2014, Edited by Rafiqul A. Tarefder, Jiong Hu, Musharraf Zaman, and Dar-Hao Chen, ISBN (print): 978-0-7844-7849-3, Publisher: American Society of Civil Engineers*
  - (5) Singh, D.V., Zaman, M., Commuri, S. (2013). “*Comparison of Morphological Properties of Different Types of Coarse Aggregates,*” *Air Field and Highway Pavements Conference, 2013, Edited by Imad L. Al-Qadi and Scott Murrell, (ISBN: 978-0-7844-1300-5), Transportation and Development Institute, Los Angeles, California, USA. doi: 10.1061/9780784413005.106*
  - (6) Ghabchi, R., Singh, D.V., Zaman, M., Tian, Q. (2013). “*A Laboratory Study of Warm Mix Asphalt for Moisture Damage Potential Using Surface Free Energy Method,*” *Air Field and Highway Pavements Conference, 2013, Edited by Imad L. Al-Qadi and Scott Murrell, (ISBN: 978-0-7844-1300-5), Transportation and Development Institute, Los Angeles, California, USA. doi: 10.1061/9780784413005.006*
  - (7) Singh, D.V., Zaman, M., and Commuri, S. (2011). “*Effects of Long Term Oven Aging on Dynamic Modulus of Hot Mix Asphalt,*” *ASCE Geotechnical Special Publication No. 211, Edited by J. Han and D. E. Alzamora, (ISBN 978-0-7844-1165-0), Reston, VA, USA, pp. 4773-4781.*
  - (8) Singh, D.V., Ghabchi, R., Laguros, J.G., and Zaman, M.M. (2010). “*Laboratory Performance Evaluation of Stabilized Sulfate Containing Soil with Lime and Class C Fly Ash,*” *ASCE Geotechnical Special Publication No. 199, Edited by Dante Fratta, Anand J. Puppala and Balasingam Muhunthan (ISBN 978-0-7844-1095-0), Reston, VA, USA, pp. 757-766.*

### Technical Magazine

- (1) Dharamveer Singh (2012). “*A Laboratory Investigation and Modeling of Dynamic Modulus of Asphalt Mixes for Pavement Applications,*” *Geotechnical News, Volume 30, Number 2, Bitech Publishers Ltd., B.C., Canada (Ph.D. dissertation abstract published)*

### Conference Papers:

- (1) Maji, A., Singh, D.V., and Chawla, H. “*Reliability Based Mechanistic Empirical Design Method for Asphaltic Overlay from Falling Weight Deflectometer,*” *Fourth Geo-China International Conference, July 25-27, Shandong, China,*
- (2) Apparao G., Fahd B, Sara B., Alan C, Nicolas B., (2016) “*Double coating of full depth reclamation materials,*” *6th Euro Asphalt & Euro Bitumen Congress (E&E Congress,2016), 1-3 June, 2016, Prague, Europe.*

- (3) Habal, A., and Singh, D.V. (2016) “*Moisture Damage Potential of Aggregate and Asphalt Binder System Based on Surface Free Energy Concept,*” *Conference on Sustainable Asphalt Pavements for Developing Countries, March 11-12, 2016, Organized at Central Road Research Institute, New Delhi, India*
  - (4) Rajan, B., and Singh, D.V. (2016) “*Application of Digital Image Technique to Quantify Change in Aggregate Shape Characteristics after Impact and Los Angeles Test,*” *Conference on Sustainable Asphalt Pavements for Developing Countries, March 11-12, 2016, Organized at Central Road Research Institute, New Delhi, India*
  - (5) Habal, A., and Singh, D.V. (2016) “*Comparison of Wilhelmy Plate and Sessile Drop Methods to Evaluate Moisture Susceptibility of Asphalt Mixes,*” *Transportation Research Board (TRB) 95th Annual Meeting, January 10–14, 2016, Washington, D.C*
  - (6) Hossain, N., Singh, D., and Zaman, M. (2016). “*Enhancing Rutting Prediction of the Mechanistic-Empirical Pavement Design Guide by using Data from a Field Test Section in Oklahoma,*” *Transportation Research Board (TRB) 95th Annual Meeting, January 10–14, 2016, Washington, D.C*
  - (7) Singh, D.V. (2015). “*Recycling and Warm Mix Asphalt Techniques for Construction of Sustainable Pavements,*” “*International Conference on Advances in Highway Engineering & Transportation Systems 2015*” from 10th to 12th August 2015 in Colombo, Sri Lanka.
  - (8) Singh, D.V. (2015). “*Technologies for Construction of Sustainable Flexible Pavements,*” *National conference on Emerging Trends on Sustainable Construction Held on July 24 & 25, 2015, Christ University, Bangalore*
  - (9) Mallick, R., Singh, D.V., and Veeraragavan, A. “*Extension of asphalt pavement life by reduction of temperature,*” *CTRG 2015, Kolkata, Dec. 2015*
  - (10) Barman, M., Ghabchi, R., Singh, D.V., Zaman, M., and Commuri, S. Commuri (2015). *A Comparative Evaluation of Three Different Fatigue Test Methods of Asphalt Mixes,* CTRG 2015, Kolkata.
  - (11) Apparao G., Julien K., Alan C., Dharamveer S., “*Formulation et caractérisation des enrobés recyclés à froid,*” *The Colloque GRINCH 2015, 2015, University of Laval, 25-26, May, 2015, Quebec, Canada,*
  - (12) Apparao G., Julien K., Alan C., Dharamveer S., “*Impact of Laboratory Curing Condition on Tensile Strength of Cold Recycled Bituminous Mixtures with Bitumen Emulsion,*” *The 22nd Annual Civil Engineering Conference (CEGSS), 2015, McGill University, 8th June, 2015, Montreal, Canada. pp. 5.*
  - (13) Apparao G., Julien K., Alan C., Dharamveer S., “*Study of the Use of Confining Pressure When Measuring the Complex Modulus of Full-Depth Reclamation Materials,*” *Proceedings of 60th Annual Conference of the Canadian Technical Asphalt Association (CTAA), , 2015, 15-18 November, 2015, Ottawa, Canada. Pp. 413-432*
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- (14) Chitragar, S., Singh, D.V. (2015). “*Evaluation of Fracture Resistance of WMA Mixes Using Semi-Circular Bending Test,*” *6th International Conference, Bituminous Mixtures and Pavements, Thessaloniki, Greece, Hyatt Regency Hotel, 10-12 June 2015, Taylor and Francis Group, London, ISBN: 978-1-138-02866-1*
  - (15) Kataware, A., Singh, D.V. (2015). “*Performance of polymer and crumb rubber modified asphalt binders subjected to high stresses in multi stress creep recovery test,*” *6th International Conference, Bituminous Mixtures and Pavements, Thessaloniki, Greece, Hyatt Regency Hotel, 10-12 June 2015. Taylor and Francis Group, London, ISBN: 978-1-138-02866-1*
  - (16) Chitragar, S., Singh, D.V. “*Evaluation of Moisture, Rutting, and Fracture*

- Performances of Recycled Asphalt Mixes*,” 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, 10-12 December 2014, Mumbai, India
- (17) Singh, D.V. “*Emerging Technologies for Construction and Quality control of Pavements*,” Invited Presentation, at 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, 10-12 December 2014, Mumbai, India
- (18) Barman, M., Imran, S.A., Nazari, M, Commuri, S., Zaman, M., and Singh, D.V. “*Continuous Monitoring of Subgrade Stiffness During Compaction*,” 11th Transportation Planning and Implementation Methodologies for Developing Countries, TPMDC 2014, 10-12 December 2014, Mumbai, India
- (19) Barman, M., Ghabchi, R., Singh, D.V., Zaman, M., and Commuri, S. , and Hobson K. (2014) “*Evaluation of fatigue resistance of asphalt mixes using Four Point Beam Fatigue and Semi-Circular Bend test methods*,” 14<sup>th</sup> International Conference of the International Association for Computer Methods and Advances in Geomechanics (14IACMAG), Kyoto, Japan, September 22-25, 2014, Computer Methods and Recent Advances in Geomechanics, Taylor and Francis Group London, ISBN: 978-1-138-00148-0, Edited By: Oka, Murakami, Uzuoka and Kimoto, pp. 459-464.
- (20) Ghabchi, R., Singh, D. V., and Zaman, M. (2014). “Effects of RAP Binder on Moisture-Induced Damage Potential of Asphalt Mixes with Limestone Aggregates,” Proceedings of 14th IACMAG International Conference, Computer Methods and Recent Advances in Geomechanics, September 2014, pp. 453 – 458, Kyoto, Japan.
- (21) Hossain, N., Singh, D.V., Zaman, M., and Rassel, S.M. “*Local calibration of MEPDG rut models: Oklahoma’s experience from an instrumented pavement section*,” 14<sup>th</sup> International Conference of the International Association for Computer Methods and Advances in Geomechanics (14IACMAG), Kyoto, Japan, September 22-25, 2014, Computer Methods and Recent Advances in Geomechanics, Taylor and Francis Group London, ISBN: 978-1-138-00148-0, Edited By: Oka, Murakami, Uzuoka and Kimoto, pp. 135-140.
- (22) Barman, M., Nazari, M., Imran, A., Commuri, S., Zaman, M., Singh, D.V, (2014). “*Application of Intelligent Compaction Technique in Real-Time Evaluation of Compaction Level During Construction of Subgrade*” Transportation Research Board, 93<sup>rd</sup> Annual Meeting, Washington, D.C. (***Accepted for Lecture session***)
- (23) Ghabchi, R., Singh, D.V., Zaman, M. (2013). “*A Laboratory Study to Evaluate Moisture Susceptibility of Warm Mix Asphalt Using Surface Free Energy Method*,” Volume 104, Pages 29–38, Procedia - Social and Behavioral Sciences, Elsevier Publisher, UK, 2nd Conference of Transportation Research Group of India (CTRG), Dec. 12-15, Agra, India.
- (24) Hossain, N., Singh, D.V., Zaman, M. (2013). “*Dynamic Modulus-Based Field Rut Prediction Model From an Instrumented Pavement Section*,” Volume 104, Pages 129–138, Procedia - Social and Behavioral Sciences, Elsevier Publisher, UK, 2nd Conference of Transportation Research Group of India (CTRG), Dec. 12-15, Agra, India.
- (25) Hossain, N., Solanki, P., Zaman, M., Muralee, K.K., Singh, D.V. (2013). “*Development of Field Rut Prediction Models from an Instrumented Test Section on Interstate-35*,” Transportation Research Record 93<sup>rd</sup> Annual Meeting, CD-



- ROM Publication, January 13-17, Washington, D.C.
- (26) Ghabchi, R., Singh, D.V., Zaman, M., Tian, Q. (2012). "Evaluation of Moisture Damage Potential of Advera Modified Warm Mix Asphalt Using Surface Free Energy Approach," Paper Submitted to 10<sup>th</sup> Conference on Transportation Planning and Implementation Methodologies for Developing Countries, Dec. 12-14, 2012, Indian Institute of Technology, Bombay, India.
  - (27) Singh, D.V., Zaman, M., and White, L. (2012). "Neural Network Modeling of 85<sup>th</sup> Percentile Speed for Two-Lane Rural Highways," Paper No. 12-0876, Transportation Research Record 92<sup>nd</sup> Annual Meeting, CD-ROM Publication, January 22-26, Washington, D.C.
  - (28) Singh, D.V., Zaman, M., and Commuri, S. (2012). "Comparison of Shape Parameters for Different Types and Sizes of Coarse Aggregates for Pavement Applications," Paper No. 12-0758, Transportation Research Record 92<sup>nd</sup> Annual Meeting, CD-ROM Publication, January 22-26, Washington, D.C.
  - (29) Stroup-Gardiner, M., Singh, D.V. (2012). "Using Automated Pavement Condition Measurements to Indicate Appropriate Pavement Preservation and Maintenance Options," TRB/AASHTO 2012 Pavement Management Conference, Published in Transportation Research Board, E-Circular, No. 163 (E-C163), pp.3-12.
  - (30) Beainy, F., Singh, D.V., Gadigota, H., Imran, A., Commuri, S., and Zaman, M. (2011). "Intelligent Compaction of Asphalt Pavements and Soil Subgrade," 2<sup>nd</sup> Annual Summer Symposium, Oklahoma Transportation Center, Oklahoma.
  - (31) Singh, D.V., Zaman, M., and Commuri, S. (2011). "Laboratory Performance Evaluation of Hot Mix Asphalt Mixes with RAP," presented at International Symposium on Testing and Specification of Recycled Materials for Sustainable Geotechnical Construction, Feb. 2-4, Baltimore, Maryland.
  - (32) Singh, D.V., Zaman, M., and Commuri, S. (2011). "Evaluation of Predictive Models for Estimating Dynamic Modulus of HMA Mixes Used in Oklahoma," Transportation Research Record 90<sup>th</sup> Annual Meeting, CD-ROM Publication, Paper No. 11-3885, Washington, D.C.
  - (33) Singh, D.V., Zaman, M., and Commuri, S. (2011). "Comparison of Hierarchical Levels of MEPDG for Predicting Dynamic Modulus of Asphalt Mix," Proceeding of 13<sup>th</sup> International Conference of International Association for Computer Methods and Advances in Computational Mechanics (LACMAG2011), Melbourne, Australia May 9-11.
  - (34) Singh, D.V., Reddy, K.S., and Yadu, L.K. (2011). "Moisture and Compaction Based Statistical Model for Estimating CBR of Subgrade Soils," International Conference on Advances in Civil Engineering (ACE-2011), K L University, Vijayawada, India, 21-23 October 2011.
  - (35) Yadu, L.K., Tripathi, R.K., and Singh, D.V. (2011). "Comparison of Fly Ash and Rice Husk Ash Stabilized Black Cotton Soil," International Conference on Advances in Civil Engineering (ACE-2011), K L University, Vijayawada, India, 21-23 October 2011.
  - (36) Yadu, L.K., Singh, D.V., and Tripathi, R.K. (2011). "Strength Characteristics of Rice Husk Ash Stabilized Black Cotton Soil," International Conference on Advances in Materials and Techniques for Infrastructure Development (AMTID 2011), Paper No. T022, National Institute of Technology, Calicut, India, 22-24 June 2011.
  - (37) Singh, D.V., Zaman, M., and Commuri, S. (2010). "Effect of Sample

- Preparation Method on Aggregate Shape Characteristics,” Proc. 61<sup>st</sup> Highway Geology Symposium, Oklahoma City.*
- (38) Singh, D.V., Mai, A.T., Beainy, A.F., Commuri, S., and Zaman, M.M. (2010). “*In Situ Measurement of the Stiffness during the Construction of a HMA Pavement,*” Transportation Research Record 89<sup>th</sup> Annual Meeting, CD-ROM Publication, Paper No. 10-3533, January 10-14, Washington, D.C.
- (39) Singh, D.V., Reddy, K.S., and Yadu, L.K. (2010). “*Characterization of Fine Grained Subgrade Soils for Pavement Design,*” International Conference on Developments in Road Transportation (DST 2010). National Institute of Technology, Rourkela, India.
- (40) Singh, D.V. (2009). “*Influence of Compaction Level, Moisture Content and Atterberg Limits on Strength of Subgrade Soils,*” Proceeding of International Conference on Advances in Concrete, Structural and Geotechnical Engineering (ACSGE-2009), BITS-Pilani, India, 25-27 October, 2009, CD proceedings, Paper No. DHA\_G023.
- (41) Hossain, Z., Singh, D.V., Buddhala, A., Zaman, M.M, and O’Rear, E. (2008). “*Rheological Properties of WMA Additives and Anti-stripping Agent Modified Performance Grade Binder,*” 45<sup>th</sup> Petersen Asphalt Research Conference, July 14-16, Laramie, Wyoming.
- (42) Singh, D.V., and Sarkar, A.K. (2007). “*Inset Image of Locally Available Materials For Pavement Construction in Rajasthan,*” Proceedings of the National Conference on Emerging Technology and Development in Civil Engineering, Govt. College of Engineering, Amravati, India, 23-24 March, pp. VI: 9-14.
- (43) Singh, D.V., and Sarkar, A.K. (2007). “*Design Mechanism for Unconventional Pavement Construction Alternatives- Review & Future Need,*” Proceedings of the National Conference on Civil Engineering: Advancement and Challenges, M.M.E.C. Mullana, Ambala, India, 9-10 March, pp.395-398.

### Reports:

- (1) Ghabchi, R., Zaman, M., Barman, Singh, D. V., and Boeck, D. (2015). “*Fatigue Performance of Asphalt Pavements Containing RAS and RAP,*” Final Report, Submitted to: Oklahoma Department of Transportation, January 2015, (pp. 119).
- (2) Hossain, N., Singh, D.V., Zaman, M., Alam, R., Shazzad, S.M.R. and Timm, D. (2015). “*Field performance monitoring and modeling of instrumented pavement on I-35 in McClain county (Phase 2),*” Final Report: FHWA-OK-15-02, Submitted to: Oklahoma Department of Transportation (pp.55)
- (3) Solanki, P., Hossain, N., Breidy, M., Singh, D.V., Zaman, M., Muraleetharan, M., and Timm, D. (2013). “*Field Performance Monitoring and Modelling of Instrumented Pavement on I-35 in McClain County,*” ODOT SP&R Item No. 2200, Submitted to Oklahoma Department of Transportation, Oklahoma
- (4) Ghabchi, R., Zaman, M., Bulut, R., Koc, M., and Singh, D. (2013). “*WMA Pavements in Oklahoma: Moisture Damage and Performance Issues,*” Final Report, Submitted to: Oklahoma Transportation Center (OkTC), 2601 Liberty Parkway, Suite 110, Midwest City, Oklahoma 73110.
- (5) Hossain, Z., Zaman, M., Solanki, P., Ghabchi, R., Singh, D., Adje, D. and Lewis, S. (2013). “*Implementation of MEPDG for Asphalt Pavements with RAP,*” Final Report, Submitted to: Oklahoma Transportation Center

- (OkTC), 2601 Liberty Parkway, Suite 110, Midwest City, Oklahoma 73110.
- (6) Commuri, S., Zaman, M., Barman, M., Nazari, M., Imran, A., Beainy, F., and Singh, D.V., (2013). “*Real-time measurement of quality during the compaction of subgrade soils,*” Oklahoma Transportation Center, Report No. OTCREOS10.1-11-F, Oklahoma, USA. Oklahoma Transportation Center, Oklahoma, USA.
  - (7) Commuri, S., Zaman, M., Beainy, F., Singh, D.V., Nazari, M., Imran, A., and Barman, M. (2013). “*Pavement Evaluation Using a Portable Lightweight Deflectometer,*” Oklahoma Transportation Center, Report No. OTCREOS11.1-14-F, Oklahoma, USA.
  - (8) Annual Report: “*Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McClain County: Phase II,*” (Research Team: Musharraf Zaman, Dharamveer Singh, Nur Hossain), Submitted October, 2013, Oklahoma Department of Transportation, Oklahoma
  - (9) Annual Report: “*Recommended Fatigue Test for Oklahoma Department of Transportation,*” (Research Team: Musharraf Zaman, Sesh Commuri, Dharamveer Singh, Manik Barman, Rouzbeh Ghabchi), Submitted October, 2013, Oklahoma Department of Transportation, Oklahoma
  - (10) Annual Report: “*Fatigue Performance of Asphalt Pavements Containing RAS and RAP*” (Research Team: Musharraf Zaman, Dharamveer Singh, Manik Barman, Rouzbeh Ghabchi), Submitted October, 2013, Oklahoma Department of Transportation, Oklahoma
  - (11) Beainy, F., Singh, D.V., Commuri, S., Zaman, M. (2013). “*New Asphalt Mix Design Program for Oklahoma Department of Transportation (ODOT),*” Oklahoma Department of Transportation, Oklahoma, USA.
  - (12) Commuri, S., Zaman, M., Singh, D.V., Mai, A., and Beainy, F. (2011). “*Continuous Real Time Measurement of Pavement Quality during Construction,*” Oklahoma Transportation Center, Report No. OTCREOS7.1-10-F, Oklahoma, USA.
  - (13) Singh, D.V., Zaman, M., and White, L. (2011). “*Modeling of 85<sup>th</sup> Percentile Speed for Rural Highways For Enhanced Traffic Safety,*” Oklahoma Department of Transportation, Final Report - FHWA-OK-11-07, Oklahoma, USA.
  - (14) Singh, D.V., Zaman, M., and White, L. (2010). “*Modeling of 85<sup>th</sup> Percentile Speed for Rural Highways For Enhanced Traffic Safety,*” Oklahoma Department of Transportation, Annual Report - FHWA-OK-11-07, Oklahoma, USA
  - (15) Annual Report for Project Titled (2009). “*Continuous Real Time Measurement of Pavement Quality during Construction,*” Submitted to Oklahoma Department of Transportation, Oklahoma, USA.
  - (16) Annual Report for Project Titled (2008). “*Intelligent Asphalt Compaction Analyzer Phase I Progress Report,*” Highways for life Technology Partnerships Program, Submitted to Federal Highway Administration Washington, D.C., USA.

#### **Poster Presentations:**

- (1) Ghabchi, R., Singh, D., Zaman, M., Hossain, Z., and Solanki, P. (2013). “*Effects of Using High Amounts of RAP in Asphalt Mixes as a Green Pavement Technology,*” ODOT-OTC Research Day, Department of Transportation, Oklahoma. (**Awarded 1<sup>st</sup> Prize**).
- (2) Ghabchi, R., Singh, D., Zaman, M., Hossain, Z., Solanki, P., and Adje, D. (2013). “*Sustainable Transportation: Use of High Amounts of Recycled Asphalt*

- Materials in Green Pavement Technology*,” Student Research and Performance Day, March 8, 2013, Graduate College, National Weather Center, University of Oklahoma, Norman, OK (***Award Winning Poster Presentation: 1st place, also won the McNair’s Choice***).
- (3) Nazari, M., Barman, M., Singh, D., Cummuri, S., and Zaman, M. (2013). “*Characterization of Resilient Modulus for Chemically Stabilized Pavement Subgrade*” Graduate Program Information Symposium, University of Oklahoma.
  - (4) Barman, M., Ghabchi, R., Singh, D.V., Zaman, M., and Cummuri, S. (2013). “*Evaluation of Fatigue Performance Testing Procedures Using Virgin and Reclaimed Asphalt Mixes*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.
  - (5) Ghabchi, R., Singh, D., Zaman, M., Koc, M., Bulut, R., Cross, S., and Tian, Q. (2013). “*Microstructural Characterization of Moisture-Induced Damage in Warm Mix Asphalt*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.
  - (6) Ghabchi, R., Singh, D., Zaman, M., and Tian, Q. (2013). “*A Laboratory Study of Warm Mix Asphalt for Moisture Damage Potential Using Surface Free Energy Method*,” Airfield & Highway Pavement Conference: Sustainable and Efficient Pavements, Transportation & Development Institute of ASCE, Los Angeles, California, June 9-12, 2013 (Oral Presentation).
  - (7) Singh, D.V., Hossain, N., Zaman, M., Muralee, K.K., Solanki, P., Breidy, M. (2012). “*Fatigue and Rut Behavior of an Instrumented Pavement Under Vehicular Traffic*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.
  - (8) Ghabchi, R., Singh, D.V., Tian, Q., and Zaman, M. (2012). “*Mechanistic Approach for Evaluation of Moisture Damage Potential of Green Pavement Technologies*,” ASCE, Geo-Congress, Oakland, California, March 25-29.
  - (9) Ghabchi, R., Singh, D.V., Tian, Q., and Zaman, M. (2012). “*Moisture Susceptibility Evaluation of Warm Mix Asphalt*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma. (***Awarded 2<sup>nd</sup> Prize***).
  - (10) Ghabchi, R., Singh, D.V., Tian, Q., and Zaman, M. (2012). “*Environmentally Friendly Asphalt Technologies for Pavement Applications: Advantages and Technical Challenges*,” Student Research and Performance Day, University of Oklahoma.
  - (11) Ghabchi, R., Singh, D., Adje, D., Autrey, J., Zaman, M., Hossain, Z., Lewis, S. and Solanki, P. (2012). “*Effect of High RAP Contents on Mechanistic Properties of HMA*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.
  - (12) Singh, D.V., Zaman, M., and Commuri, S. (2012). “*Comparison of Shape Parameters for Different Types and Sizes of Coarse Aggregates for Pavement Applications*,” Transportation Research Record 92<sup>nd</sup> Annual Meeting, CD-ROM Publication, January 22-26, Washington, D.C.
  - (13) Bulat, R., Zaman, M., Cross, S.A., Ghabchi, R., Tian, Q., Singh, D.V., Koc, M. (2011) “*Green Pavement Technology: Warm Mix Asphalt Moisture Susceptibility Evaluation Using Surface Free Energy Approach*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma (***Awarded 1<sup>st</sup> Prize***).
  - (14) Zaman, M., Hossain, Z., Lewis, S., Solanki, P., Adje, D., Singh, D.V., Ghabchi, R., Autrey, J., Lewis, C. (2011). “*Local Calibration of the Mechanistic-Empirical Pavement Design Guide (MEPDG) for Asphalt Pavements with RAP*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.

- (15) Singh, D.V., Zaman, M., and Commuri, S. (2011). "*Application of AIMS to Identify Change in Aggregate Shape Characteristics*," Student Research and Performance Day, University of Oklahoma.
- (16) Singh, D.V., Zaman, M., and Commuri, S. (2011). "*Use of Aggregate Imaging System (AIMS) for Measuring the Aggregate Shape Parameters*," BGSA Graduate Student Research Symposium, University of Oklahoma.
- (17) Singh, D.V., Commuri, S., and Zaman, M. (2010). "*Continuous Real-Time Measurement of Pavement Quality During Construction*," ODOT-OTC Research Day, Department of Transportation, Oklahoma. (**Awarded 1<sup>st</sup> Prize**).
- (18) Singh, D.V., Ghabchi, R., Laguros, J.G., and Zaman, M.M. (2010). "*Improvement of Subgrade Soil Properties Using Chemical Stabilization: A Case Study*," BGSA Graduate Student Research Symposium, University of Oklahoma. (**Awarded 2<sup>nd</sup> Prize**).
- (19) Singh, D.V., Ghabchi, R., Laguros, J.G., and Zaman, M.M. (2010). "*Stabilization of Sulfate Containing Soil For Construction Of Pavements*" Student Research and Performance Day, Graduate College, University of Oklahoma.
- (20) Singh, D.V., Commuri, S., and Zaman, M. (2010). "*Measurement of Stiffness of Pavement Using Intelligent Asphalt Compaction Analyzer*," Student Research and Performance Day, University of Oklahoma.
- (21) Singh, D.V., Mai, A.T., Beainy, A.F., Commuri, S., and Zaman, M.M. (2010) "*In Situ Measurement of the Stiffness During the Construction of a HMA Pavement*," 89th Annual Meeting, Transportation Research Record, Washington, D.C.
- (22) Singh, D.V., Mai, A., Fares, B., Commuri, S., Zaman, M. (2009) "*In Situ Measurement of Stiffness During Construction of HMA Pavements*," ODOT-OTC Research Day, Oklahoma Department of Transportation, Oklahoma City, Oklahoma.
- (23) Singh, D.V., Commuri, S., and Zaman, M. (2009) "*Measurement of Compaction Level of Pavement by Intelligent Asphalt Compaction Analyzer (IACA)*," Student Research and Performance Day, University of Oklahoma.

#### **Invited Presentations:**

- (1) Singh, D.V. (2016), "Assessment of Moisture Damage Potential of Asphalt-Aggregate System Using Surface Free Energy," Tongji University, China.
- (2) Singh, D.V. (2015). "Utilization of Recycled Asphalt Pavement Materials for Sustainable Construction," 7th Annual India Road Conference, November 5, Four Seasons, Worli, Mumbai
- (3) Singh, D.V. (2014). "Bituminous Mix Design and Desirable Properties," at One Day Workshop on Bituminous Mix Technologies, Department of Civil Engineering, Darshan Institute of Engineering and Technology, Rajkot, August 30, India.
- (4) Singh, D.V. (2013). "*Emerging Materials and Technologies for Construction of Sustainable Highways*" at 1st Build Jharkhand Summit organized by Government of Jharkhand, Ranchi, Jharkhand, October 30-31, 2013.
- (5) Singh, D.V. (2013). "*Emerging Technologies and Test Methods for Construction of Sustainable Pavements in Cold Regions*" Border Roads Organization, Tech Seminar, GREF Center, Pune, July 18-19, 2013.
- (6) Singh, D.V. (2013). "*Emerging Green Technologies for Sustainable Construction of*

- Highways-Plan to Move Forward*,” Infrastructure Outlook 2013, Organized by Bricca Consulting, The Hotel Lalit, Mumbai, July 1-2, 2013.
- (7) Singh, D.V. (2013). “*Design and Performance of Hot Mix Asphalt with High RAP Contents*,” at a National Workshop on New and Alternate Pavement Materials, Central Road Research Institute (CRRI), New Delhi, March 20-21, 2013.
  - (8) Zaman, M., Solanki, P., Adje, D., Zahid, H., Singh, D.V., Ghabchi, R., Lewis, S. (2012). “*Design, Construction and Performance of a Pavement Test Section with High Reclaimed Materials*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma, October, 2012.
  - (9) Zaman, M., Zahid, H., Ghabchi, R., Singh, D.V., Lewis, S. (2012). “*Use of High RAP Contents in Hot Mix Asphalt Pavement*,” RAP Workshop, Oklahoma Department of Transportation, September, 2012.
  - (10) Beainy, F., Singh, D.V., Gadigota, H., Imran, A., Commuri, S., and Zaman, M. (2011). “*Continuous Real-time Measurement of Compaction Quality During the Construction of Full-Depth Asphalt Pavements*,” ODOT-OTC Research Day, Department of Transportation, Oklahoma.
  - (11) Singh, D.V. (2011). “*Use of Aggregate Imaging System for Measurement of Aggregate Shape Parameters*,” Presented to Oklahoma Aggregate Association (OKAA) Specification Committee, Oklahoma.
  - (12) Singh, D.V. (2011). “*Intelligent Asphalt Compaction Analyzer*,” presented to DOTs officials, Carson Engineering Center Conference, University of Oklahoma.
  - (13) Singh, D.V. (2010). “*Stiffness Modulus for HMA and Soils*,” Presented to Director, and Chief Project Manager, Volvo Road Machinery, USA. Devon Energy Center, University of Oklahoma.
  - (14) Singh, D.V. (2010). “*Laboratory Performance Evaluation of Stabilized Sulfate Containing Soil with Lime and Class C Fly Ash*,” GeoFlorida Conference, Florida.
  - (15) Singh, D.V. (2010). “*Intelligent Asphalt Compaction Analyzer*,” presented to Texas DOTs officials, Carson Engineering Center Conference Room, University of Oklahoma.
  - (16) Singh, D.V. (2009). “*Use of Aggregate Imaging System (AIMS)*,” Presented for Creating Critical Connections in Math & Science Through Engineering (C3[M+S]-E) for Research and K-12 Outreach Program, Sarkeys Energy Center, University of Oklahoma, Norman.
  - (17) Singh, D.V. (2009). “*Modeling of 85th Percentile Speed for Rural Highways for Enhanced Traffic Safety*,” Presented to Research Panel at Planning and Research Division, Oklahoma Department of Transportation.
  - (18) Singh, D.V. (2009). “*Measurement of Compaction Level of Pavement by Intelligent Asphalt Compaction Analyzer (LACA)*,” Presented on Student Research and Performance Day, National Weather Center, University of Oklahoma, USA
  - (19) Singh, D.V. (2009). “*Predicting Stiffness Modulus of Hot Mix Asphalt*,” Presented to Technical Team from Volvo Road Machinery, USA. Carson Engineering Center Conference Room, University of Oklahoma, March 2009.
  - (20) Singh, D.V. (2006). “*Bituminous and Locally Available Materials for Pavement Construction*,” in Training Program for Assistant Engineers and Junior Engineers of Rajasthan under “Prime Minister Village Road Program (PMGSY) sponsored by NRRDA New Delhi”. Birla Institute of Technology and Science – Pilani, Rajasthan, India, Oct.2005- March

2006.

- (21) Singh, D.V. (2005). “*Characterization of Pavement Materials-An Introduction,*” in Intensive Teaching Workshop (ITW) at BITS, Pilani, March, 2005.
- (22) Singh, D.V. (2005). “*Laboratory Test on Aggregate Base Materials,*” in Intensive Teaching Workshop (ITW) at BITS, Pilani, March, 2005.

## RESEARCH PROPOSALS

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- (1). “*State-of-the-art Research Facility for Sustainable Materials and Technologies in Civil Engineering Applications*” Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST) Program (2014 - 2019)(one of the Co-PIs), Budget: INR, 500,00,000.
- (2). “*Evaluation of Moisture Damage potential of asphalt mixes using surface free energy,*” DST, Budget INR: 42.787 Lakhs (2015 – 2018). (PI: Dharamveer Singh)
- (3). “*Characterize Low Temperature Cracking Potential of Adhesive Materials,*” Department Research Infrastructure Fund Committee (DRIFC), Civil Engineering Department, IIT Bombay (INR 62.41 Lakhs) (Investigators: Dharamveer Singh, and Prof. Prakash Nanthagopalan) (Procurement of RTFO, PAV, and BBR) (October 2014).
- (4). “*Procurement of Laser Particle size and shape analyzer TGA-DSC thermal analyzer system.*” Department Research Infrastructure Fund Committee (DRIFC), Civil Engineering Department, IIT Bombay (INR: 68 Lakhs) (March 2014). (Investigators: Prof. Prakash Nanthagopalan, Prof. Ashish Juneja and Dharamveer Singh)
- (5). “*A Laboratory Study to Evaluate Rutting and Fatigue Performances of Unmodified and Modified Bitumen,*” IRCC, Indian Institute of Technology, Bombay (2013-2016), Budget INR: 32 Lakhs (PI: Dharamveer Singh)
- (6). “*Effects of Reclaimed Asphalt Pavement (RAP) on Rheological Properties of Asphalt Binders,*” CSIR, India (INR: 19 Lakhs) (PI: Dharamveer Singh)
- (7). “*Field Performance Monitoring and Modeling of Instrumented Pavement on I-35 in McClain County: Phase II,*” Funded by ODOT, Budget: \$98, 662 (PI: Zaman, M., Co-PI: Singh, D.V. (2012-2013).
- (8). “*Recommended Fatigue Test for Oklahoma Department of Transportation,*” Funded by ODOT, Budget: \$462, 728 (Investigators: Zaman, M., Singh, D.V, and Commuri, S.( 2012-2015).
- (9). “*Fatigue Performance of Asphalt Pavements Containing RAS and RAP,*” Funded by ODOT, Budget: \$225, 275 (Investigators: Zaman, M., Ghabchi, R., Singh, D.V, Boeck, D.L.) (2012-2014).
- (10). “*New Asphalt Mix Design Program for Oklahoma Department of Transportation (ODOT),*” Funded by ODOT, Budget: \$89, 995 (Investigators: Commuri, S., Zaman, M., Singh, D.V., Fares, B. (2011-2012).
- (11). “*Modeling of 85<sup>th</sup> Percentile Speed for Rural Highways for Enhanced Traffic Safety: Implementation of Developed Neural Network Models,*” Submitted to ODOT, Budget: \$49, 905 (Investigators: Zaman, M. M., Singh, D.V. (2011)

#### MANUSCRIPT REVIEWER

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- International Journal of Pavement Engineering (IJPE)
- International Journal of Geo-mechanics (IJOG), ASCE
- Journal of Testing and Evaluation (JOTE), ASTM
- Journal of Performance of Constructed Facilities, ASCE
- Journal on Materials in Civil Engineering, ASCE
- Canadian Journal of Civil Engineering
- International Journal of Pavement Research and Technology (IJPRT)
- Building and Construction Material, Elsevier
- Journal of Solid Waste Technology and Management
- Innovative Infrastructure Solutions
- ASTM, Advances in Civil Engineering Materials
- Elsevier, Journal of Cleaner Production

#### AWARDS AND HONORS

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- Editorial Board Member, Elsevier, International Journal of Pavement Research and Technology,
- Associate Editor of Innovative Infrastructure solutions, Springer Publisher (<http://www.innovative-infrastructure-solutions.com/>)
- Editor, Geotechnical Special Publication (GSP) 244 “Application of Nanotechnology in Pavements, Geological Disasters, and Foundation Settlement Control Technology,” ASCE, GSP 244, Geo-Hubei 2014 International Conference on Sustainable Civil Infrastructure; July 20-22, 2014, China, ISBN: 978-0-7844-1359-3 (CD-Rom), 2014