

PUNYASLOK RATH

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EDUCATION

University of Missouri at Columbia, MO, U.S.A.

Aug '17 - Present

Ph.D. in Civil and Environmental Engineering (Pavement Engineering)

University of Illinois at Urbana-Champaign, IL, U.S.A.

Aug '15 – Aug '17

M.S. in Civil and Environmental Engineering (Pavement Engineering)

(3.88/4.00)

WORK EXPERIENCE

Graduate Research Assistant (Ph.D.) | Dr. William G. Buttlar, UMC

Jun '18 – Present

Graduate Research Assistant (M.S. & Ph.D.) | Dr. William G. Buttlar, UIUC

Jan '16 – May '18

- Completed M.S. and started in the Ph.D. program at UIUC; transferred to UMC to continue Ph.D.
- Areas of focus – using ground tire rubber in pavements, simple performance tests for asphalt mixtures, thermal cracking research, smart pavements

Editor-in-Chief | Internshala, India (a service sector start-up; among top 600 websites in India)

Oct '15 – Apr '16

- Responsibilities included, but were not limited to, editing and publishing articles, organizing national-level PR events

PUBLICATIONS & PRESENTATIONS

- Rath, P., H. Majidifard, B. Jahangiri, W. G. Buttlar. Recent Advances in Ground Tire Rubber Recycling in Midwest Pavements. Submitted to *Association of Asphalt Paving Technologists (AAPT)*, 2019.
- Rath, P., W. G. Buttlar. Performance Analysis of Asphalt Mixtures Modified with Ground Tire Rubber and Recycled Materials. *Construction and Building Materials*, 2018.
- Wang, He, P. Rath, W.G. Buttlar. Recycled Asphalt Shingle Modified Asphalt Mixture Design and Performance Evaluation. *Construction and Building Materials*, 2018.
- Buttlar, W.G., P. Rath, E. V. Dave, H. Majidifard, H. Wang. Relating DC(T) Fracture Energy to Field Cracking Observations and Recommended Specification Thresholds for Performance-Engineered Mix Design. *Transportation Research E-Circular*, 2018.
- Buttlar, W.G., P. Rath. Illinois Tollway I-88 Ground Tire Rubber Test Sections: Laboratory Mix Designs & Performance Testing. *Illinois Tollway*, 2017.
- Alavi, M.Z., P. Rath, W.G. Buttlar. Comparison of ILLI-TC and TCAP Models for Thermal Cracking Analysis in Asphalt Pavements. Poster presentation at *93rd Transportation Research Board Conference*, 2017.
- Rath, P., S. Mondal. Optimization of Waste Materials for Sub-Base Layer of Flexible Pavements. *International Journal of Emerging Technology and Advanced Engineering*, December 2014.

PROJECTS

- Lead student in an ongoing project sponsored by Asphalt Plus LLC., Chicago, to analyze and develop rubber modifier products to be used in asphalt pavements for their betterment
- Co-lead student in Illinois Tollway's ongoing project to develop performance-based specifications for asphalt mixtures helping IL-Tollway to have better quality measures in place for asphalt mixtures
- Lead student in Illinois Tollway's project for characterizing new rubber modifier products based on high- and low-temperature performance used in Chicagoland

LEADERSHIP & ACTIVITIES

- Member of **American Society of Civil Engineers** and **Institute of Transportation Engineers**, University of Illinois at Urbana-Champaign Chapter
- Certificate for **Outstanding Contribution in Humanity Service Projects** by International Association of Lions Clubs
- Certificate for recognition of efforts in **Organizing Committee**, multiple events at undergraduate college level, India
- Published multiple non-technical articles across various online publishing platforms

SKILLS

- Pavement ME, MnLayer, AutoCAD, ANSYS, MATLAB (Working Knowledge)
- Languages: English (Fluent), Hindi (Fluent), Odia (Native), Bengali (Basic)