

301 Dillman Hall  
Michigan Tech University  
Houghton, MI 49931-1295  
906.487.3154 906.487.1620 (fax) www.misti.mtu.edu



**MiSTI**

Materials in Sustainable Transportation Infrastructure

## NEWS RELEASE

### **Lutch Selected a 09UTC-MiSTI Student of the Year**

The University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) has selected Russell Lutch as their 09 Student of the Year. The UTC Student of the Year receives a \$1,000.00 award, travel and registration expense reimbursement to attend the annual Transportation Research Board conference in Washington D.C. and a certificate from the US Department of Transportation.

As one of the first students funded in collaboration between Michigan Tech's Rail Transportation Program and the UTC-MiSTI, Russ was tasked with evaluating the sustainable use of concrete ties in arctic conditions. He participated as a graduate student mentor in the 2009 UTC-MiSTI Summer Scholars Program, co-advising an undergraduate team investigating the material and life-cycle assessment of cross-tie alternatives for rail applications. For his graduate work, Russ investigated railroad track structure, focusing on pre-stressed concrete railroad ties for heavy haul freight transportation. Deterioration of the rail seat is a prevalent failure mechanism of concrete ties used for this application. His study is a part of the project "Synthesis of Railroad Engineering Best Practices in Deep Seasonal Frost and Permafrost Areas," sponsored through the University of Alaska at Fairbanks and conducted under Michigan Tech's Rail Transportation Program.

Russ was an active participant in graduate scholarship, presenting at the 14th ASCE Cold Regions Engineering Conference, "*Causes and Preventative Methods for Rail Seat Abrasion in North America's Railroads*" and at the 2009 American Railway Engineering & Maintenance of Way Association (AREMA) Conference, "*Pre-stressed Concrete Railroad Ties in North America.*"

Upon the completion of his MS in Civil Engineering, Russ will begin his professional career in January 2010 as a structural engineer with Kiewit Construction Company (KECo) in Omaha, Nebraska.

*January 8, 2010*