

RESEARCH in Progress**Investigating New Technologies
to Reduce Instances of
Driver Distraction***Haptic Interface for Vehicular Touch Screens*

Touch screens, so familiar now as the interface to smart phones and tablets, are increasingly showing up on the instrument panels of automobiles. This trend raises concerns that drivers will more frequently and for longer periods of time glance away from the road in order to complete even simple tasks, such as adjusting temperature settings or selecting a radio station. One potential way to mitigate this form of distraction is to provide haptic (tactile) feedback, enabling drivers to complete tasks more easily without looking at the screen.

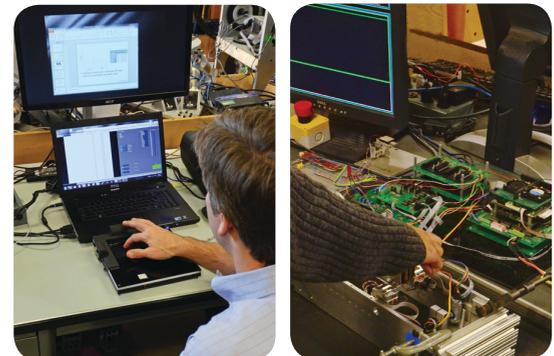
Professors J. Edward Colgate and Michael Peshkin have developed a number of novel technologies for providing haptic feedback on a touch screen. What interests them is altering the physics of the glass surface of a touch screen in order to create the perception by a user that his or her fingertips have engaged and can move a control element—a sliding bar or turnable knob. For instance, one version of the haptic touch screen—by modulating and localizing minute vibrations of the glass surface—creates the impression that a specific area of the smooth screen is “sticky” or produces more friction on the fingertip. The screen control technology, sensing where the

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**CCITT Co-Hosts the 2nd
International Conference on
Evacuation Modeling and
Management (ICEM 2012)**

Research funded through CCITT contributes to keynote address on Humanitarian Logistics

ICEM 2012 attracted 70-plus participants from 10 countries and over 40 institutions to Northwestern's Evanston campus on August 12-15, 2012. One of the two Conference keynote addresses provided a



Top photo: CCITT director Bret Johnson (sitting in front of a haptic screen prototype) with professor Ed Colgate (center), and graduate student Joe Mullenbach in the McCormick Engineering Haptics Lab. *Lower right photo:* Colgate explained that the touch screen research has required that the lab also discover some counter-intuitive effects in touch perception—what we think we are feeling with our fingertips—through the set up of basic small test platforms and studies.

valuable overview, including recent progress, in the emerging multi-disciplinary field of humanitarian logistics—work being led at NU by professors Irina Dolinskaya and Karen Smilowitz.

An Introduction to Humanitarian Logistics

In her opening remarks to the Conference attendees, presenter Smilowitz summarized the requirements, the engineering principles, and the opportunities evident to practitioners in this field. She noted that the

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