Smartroad Tools™

An Early Warning System for Railway and Pavement Failure

Starting when we were engineering faculty at King Mongkut's University Thonburi (KMUTT) in Thailand, we developed a system to test and monitor railways, highways and other high-value earth-supported constructions for hidden damage.

Railways, airport runways, and highways all consist of carefully designed and built layers which ultimately rest on an earthen subgrade. Over time erosion, nearby construction, weather, seismic activity and other causes can weaken or create gaps in this foundation. There may be no sign of this on the surface, until a collapse occurs. This collapse causes expenses for immediate repair, as well as direct and indirect costs to the surrounding communities due to disruption of transport and damage to buildings. In some cases there can be environmental damage or human casualties.

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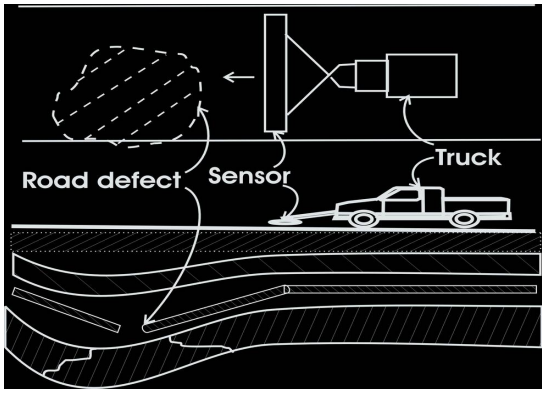

Previously there has been no practical way to monitor the condition of the earth supporting the infrastructure. We have invented a "smart" material which can be embedded underground during construction or reconstruction, and which provides an easy-to-use and inexpensive means to verify the integrity of the underlying earth.

In addition to railways, this technology is applicable to roads and highways, tunnels, airport runways, and possibly to flood prevention levees and oil and gas pipelines.

Current Status

We have been awarded hardware patents from the U.S. Patent Office, the European Patent Office, and the Thai Patent Office. Research results, which were presented in several conferences during 2014-2023 in the U.S., Europe, Thailand, China, Japan, and Korea support the practicality of this technology. Working prototypes have been created.

Smartroad Tools is represented in Thailand by Ant Engineering company in Bangkok

Our website ***www.smartroadtools.com*** (click on *News*) shows our current status. Please ask for more details or a prospectus.

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revised 2024-April-29