

Truck-safe bamboo bridge opens in China

December 12 2007



The 10 meter long modern bamboo bridge under 8 ton traffic loading testing.
Credit: Yan Xiao

In China bamboo is used for furniture, artwork, building scaffolding, panels for concrete casting and now, truck bridges.

Yan Xiao, a professor at the University of Southern California Viterbi School of Engineering is the designer of a new span in the village of Leiyang, Hunan Province, which formally opens for traffic December 12.

Made from pre-fabricated structural elements, the bridge was erected within a week by a team of eight workers without heavy construction equipment. While traffic on the Leiyang bridge will be limited to the 8-ton design capacity, preliminary tests on a duplicate bridge erected on

the campus of Hunan University have shown much higher strength – tests are continuing.

The new bridge is the latest installment in research on structural bamboo being carried on by Xiao, who in addition to his appointment at the USC Sonny Astani Department of Civil and Environmental Engineering holds an appointment at the College of Civil Engineering of the Hunan University, China.

Last year, Xiao demonstrated a high capacity bamboo footbridge, which was a featured attraction at a recent conference organized by Xiao in Changsha, China.

Prof. Xiao expects his modern bamboo bridge technology to be widely used in pedestrian crossing, large number of bridges in rural areas in China, as an environmental friendly and sustainable construction material. Besides bridges, Xiao's team has also built a mobile house using similar technology they developed.

Meanwhile, they are also constructing a prototype 250 square meter, two-story single-family house, similar to the lightweight wood frame houses widely built in California, where Dr. Xiao lives.

Source: University of Southern California

Citation: Truck-safe bamboo bridge opens in China (2007, December 12) retrieved 25 April 2024 from <https://phys.org/news/2007-12-truck-safe-bamboo-bridge-china.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.