

Health Monitoring and Advanced Technologies Backbone for Bridge Evaluation and Maintenance Applications (\$6000)

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Internet-based applications offer a new opportunity for infrastructure evaluation and management systems that can utilize real-time data for decision making. Software applications under development at Oregon State University will help provide an overarching bridge management framework that deploys the latest wireless, database, visualization, and remote sensing technologies in field inspection, rating, and health monitoring, as illustrated in Fig. 1. At its core, this framework demands computational resources that can permit connections over the internet and can access interlaced information regarding route specific bridge and pavement conditions, as well as data mining applications to assess real-time truck weight and configurations operating on the network. The Kiewit Center is providing \$6000 for purchase of a new server, supporting software, and data storage hardware. This investment will enable OSU researchers to develop a new digital generation of transportation infrastructure operation and management approaches. Professor Michael Scott of the Department of Civil, Construction, and Environmental Engineering at Oregon State University is leading this research.

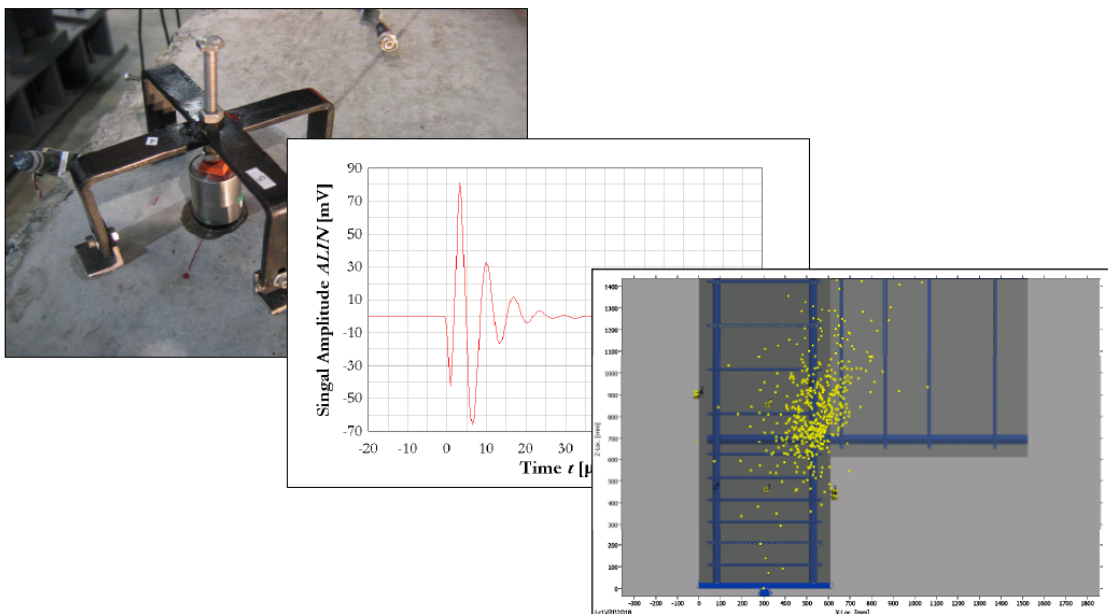


Figure 1 – Example of computationally intensive bridge health monitoring application using acoustic emission techniques (applied to bridge column-beam connections).