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STRUCTURAL ENGINEERING / EARTHQUAKE ENGINEERING

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[\[PDF \(1010K\)\]](#) [\[References\]](#)**MODELING EFFECTS OF FUNCTIONAL IMPAIRMENT AFTER SEISMIC DAMAGE TO ROAD NETWORKS**Gaku SHOJI¹⁾ and Takaaki FUEKI²⁾

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We developed a model for evaluating the effects of functional impairment of road networks due to seismic damage, based on the data from the 1995 Hyogo-ken Nambu Earthquake. The effects of functional impairment of road networks on various sectors were analyzed to clarify the relationship between functional impairment of road networks due to a seismic event and seismic damage to road networks. Functional impairment due to seismic structural damage to road networks was modeled as a functional impairment matrix. Combining the model of seismic damage effects with the functional impairment matrix, we assessed the cost of the functional impairment associated with the Hanshin Expressway Route 3.

Key Words: road networks, seismic disaster, seismic damage, functional impairment, 1995 Hyogo-ken Nambu Earthquake

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