## Advanced Infrastructure Design and Maintenance Engineering Research Laboratory, Department of Civil Engineering, Division of Global Architecture

## **Research Area**

- 1. Design method of infrastructures constructed various types of structures. (New materials and new structural systems)
- 2. Maintenance of infrastructures (Nondestructive inspection and real-time monitoring)
- 3. Management of infrastructures (Lifecycle management and Asset management)



Subject structural types of researches

Design		Construction	Maintenance
Fracture mechanism Non Durability Fatigue Application of new materi Development of new struc	d al	estructive insp Is ural system	ection, Real-time Monitoring Repair, Retrofit Life cycle management Asset management

Research area Lab. Page http://civil-bridge.sakura.ne.jp/5kouza/Home.html

## **Research Topics**

- 1. Nondestructive inspections and monitoring technology (Fig.1, Fig.2)
- 2. Development of new style bridges applied new materials and structural system (Fig.3, Fig.4)
- 3. Evaluation of performances of existing structures and development of new evaluating method (Fig.5, Fig.6)



Fig.1 Inspection with robot



Fig.3 Aluminum girder



Fig.5 Wheel load running test

Staff

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Fig.2 Inspection robot (Dr.Impact)



Fig.4 Aluminum Deck



Fig.6 Development of new test method