

ICUS

NAGAI LAB.

[Infrastructure Technology and Management]

International Center for Urban Safety Engineering

Infrastructure Management for Developed Society

Civil Engineering Department

<http://www.nagai.iis.u-tokyo.ac.jp/>

Anchorage Performance of RC

As Japanese seismic design code is becoming more strict, larger amount of reinforcement must be placed in Reinforced Concrete (RC) structures at the joint part.

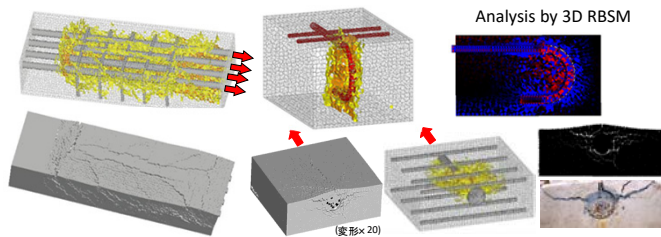


Problems

- Increase the fabrication time
- Poor concrete compaction may occur.

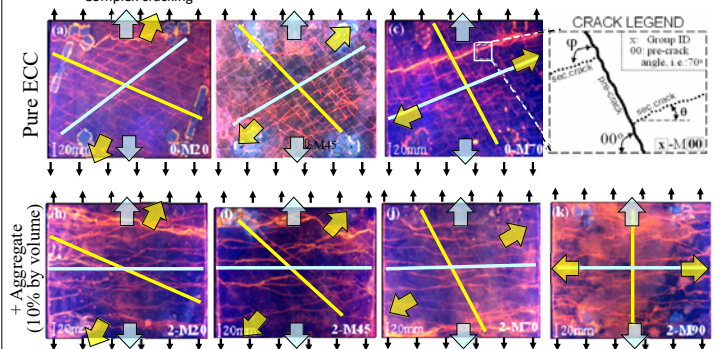
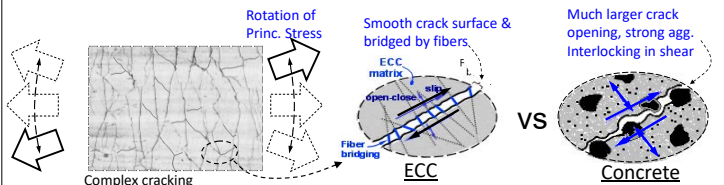
Stress condition in complex reinforcement arrangement

Numerical simulation can clarify
We aim to propose the rational design code



Mechanics of Fiber Reinforced Concrete under Principal Stress Rotation

Robust material against the principal stress rotation is developed by focusing the shear performance.

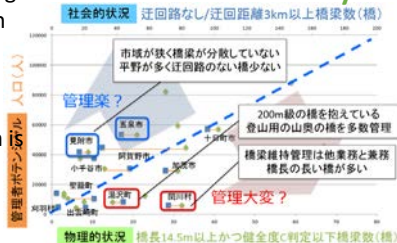


Control of cracking direction of HPPRC

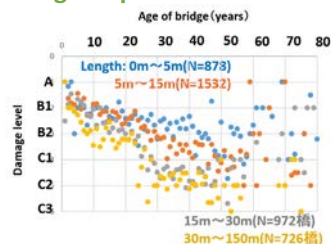
Infrastructure Management for Municipalities in Japan

Japan faces a problem of aging of infrastructure. Especially in municipalities, lack of human resources, technology and budget are pointed out. Rational maintenance system required.

Indexation analysis of maintenance system



Analysis of bridge inspection data

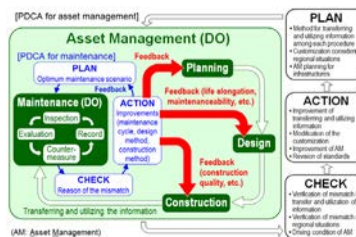


Calculation of roundabout route



International Expansion of Infrastructure Management

Asset management cycle



Simple monitoring of damaged bridge (Myanmar)



Seminar and demonstration of inspection (Thailand, Vietnam, Cambodia etc.)

