

**INTERNATIONAL WORKSHOP ON MICROPILES
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**INTRODUCTORY REMARKS FROM DR. OKAHARA
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PWRI Public Works Research Institute for the ministry of construction. We have a lot of facilities such as huge shaking beams, centrifuge testing, and so on. So in the future when we conduct experiments regarding micropile, these facilities can be utilized to confirm the performances of micropile. I'd like to appreciate Dr. Bruce and Dr. DiMillio for making all the preparations for this meaningful Workshop.

As you all might know well, the destructive earthquake hit the city of Kobe in 1995. It brought about catastrophic damages to many structures. Among them, viaducts suffered including girder falls, cracks of reinforced concrete piers, steel piers, large movement of foundation, liquefaction, and resulting land flow.

After this event, the retrofit of viaduct became very important. We have therefore developed effective various measures for the seismic retrofit of viaducts to increase strength and ductility. The developed retrofit measures of RC and steel piers, and base isolators of footings. for But it is generally expensive and sometimes difficult to strengthen them with conventional method. So far we have no experience of retrofit of existing foundations or new foundations. I believe micropile has good potential and cost-performance for the retrofit of existing and new foundations that were installed under severe road underground conditions.

I believe this workshop will help us not only develop international partnership on new micropile technology but also increase our personal relationship.