**INTERFERENCE EFFECTS ON LOCAL PEAK PRESSURES OF TWO ADJACENT TALL BUILDINGS**

**Introduction**

High-rise apartment buildings are most commonly built together in groups, and damage to claddings of such buildings is increasing due to interference effects of adjacent buildings under strong winds.

Few codes have referred to wind-induced interference effects on wind loads on buildings (Briefly accommodate wind loads with effects of neighboring tall buildings).

Main reasons:

1. Complex nature of the problem
2. Scarcity of adequate experimental data
3. Limitation conditions

**Objective**

The main aim of this study is to tackle the problem of interference for local peak pressures on a tall building in order to establish a generalized set of guidelines.
**Flow visualization around two identical tall buildings**

**Objective**

To obtain further information and understanding on the interference mechanism for **enhanced local peak pressures on building cladding** for worst wind directions in tandem and oblique arrangements.

Simultaneous pressure measurements and flow visualization using dynamic particle image velocimetry (DPIV).

<table>
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<tr>
<th>Equipment</th>
<th>System configuration</th>
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| High-speed digital video camera | Frame rate : 4800frame / sec  
Number of pixels : 800×600 pixels |
| Double pulse laser      | Wavelength : 532nm  
Repetition rate : 1000Hz |
| Particle generator      | Particle diameter : 1µm |

Contact

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**Professional Interest:**

Interference mechanism and interference effects on local peak pressures for grouped tall buildings, bluff body aerodynamics of tall buildings and wind tunnel experiments. With a strong understanding of the local peak pressures and overall wind loads on grouped tall buildings due to interference, I wish to apply this knowledge to the solution of practical problems in field and laboratory researches, such as design of structure and component and cladding of grouped tall buildings due to interference.

**Qualifications**

National Technical Qualification Certificate (Building Engineer License, Korea)