

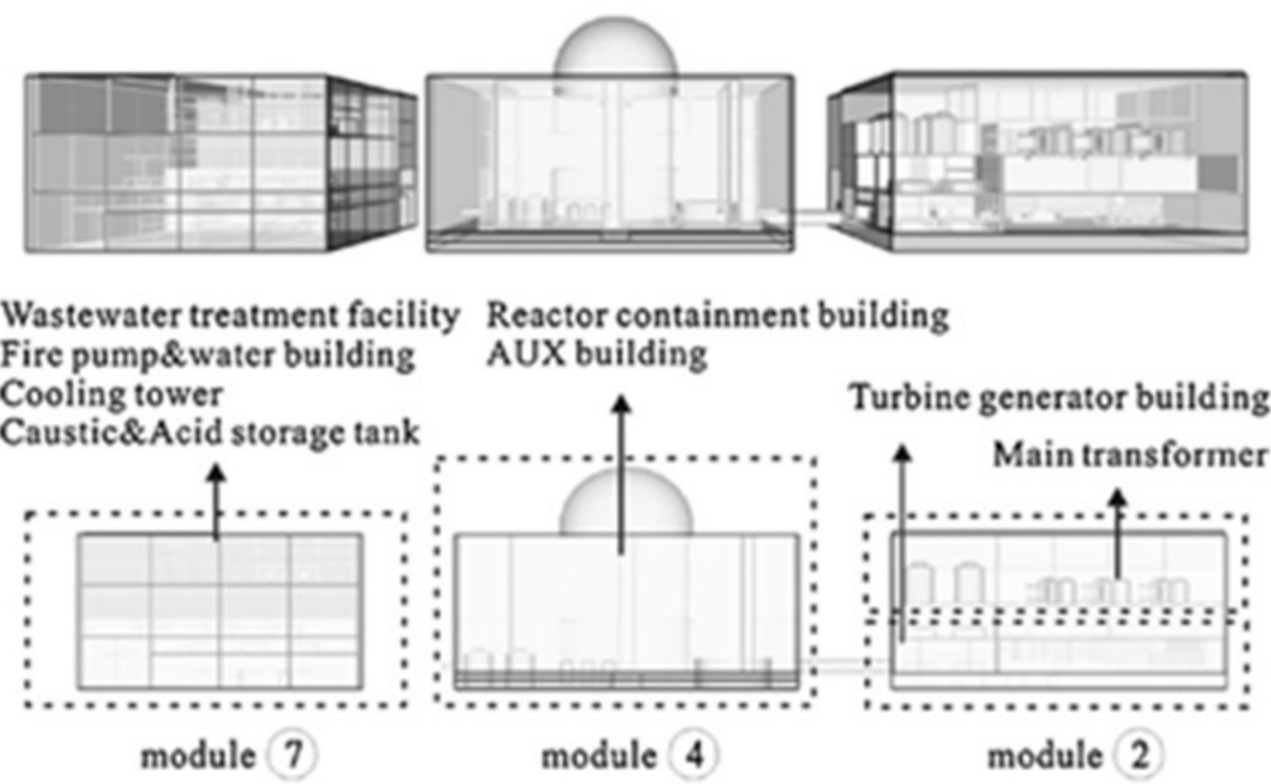
Structural Systems

CMSS Computational Mechanics and Structural Systems Lab
 Professor Phill-Seung Lee

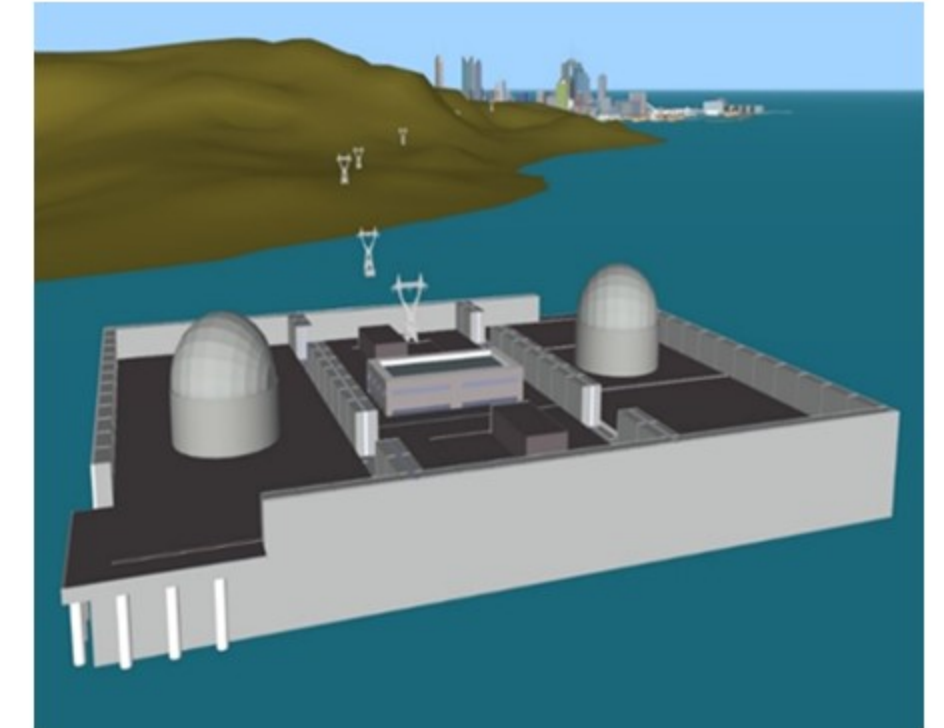
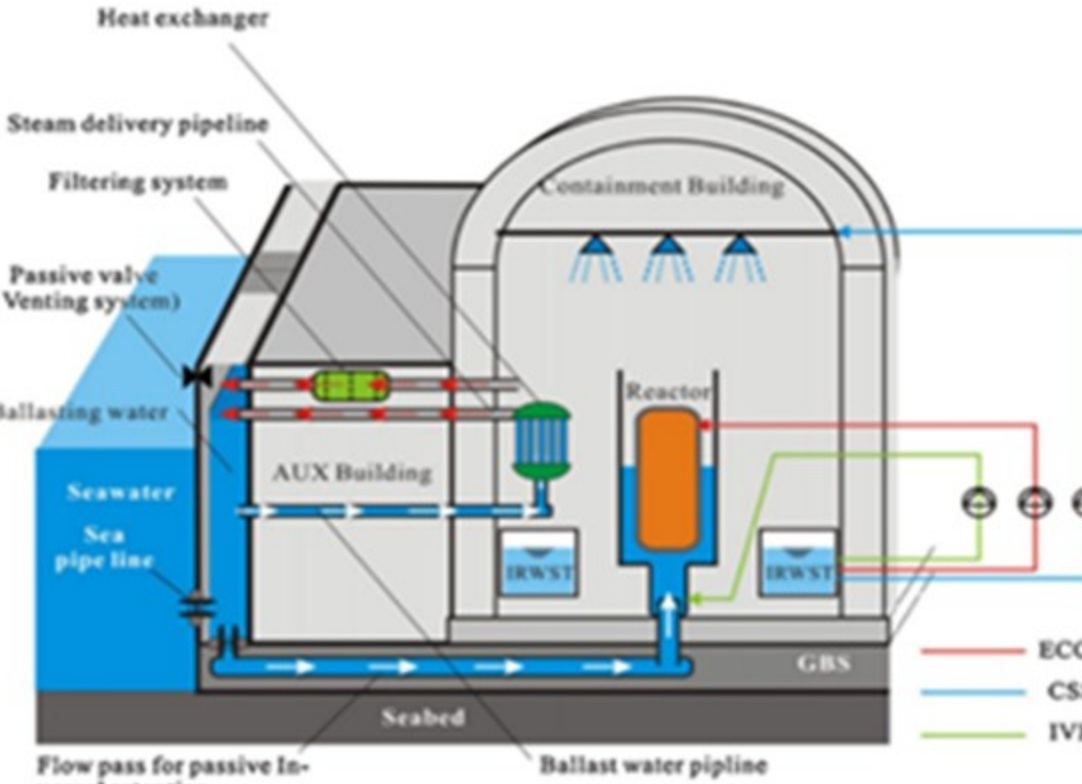
Ocean nuclear power plants (ONPP)

Gravity-based ocean nuclear power plants

Kihwan Lee, Kang-Heon Lee (2012)



<Gravity-based ONPP module and its passive cooling system>

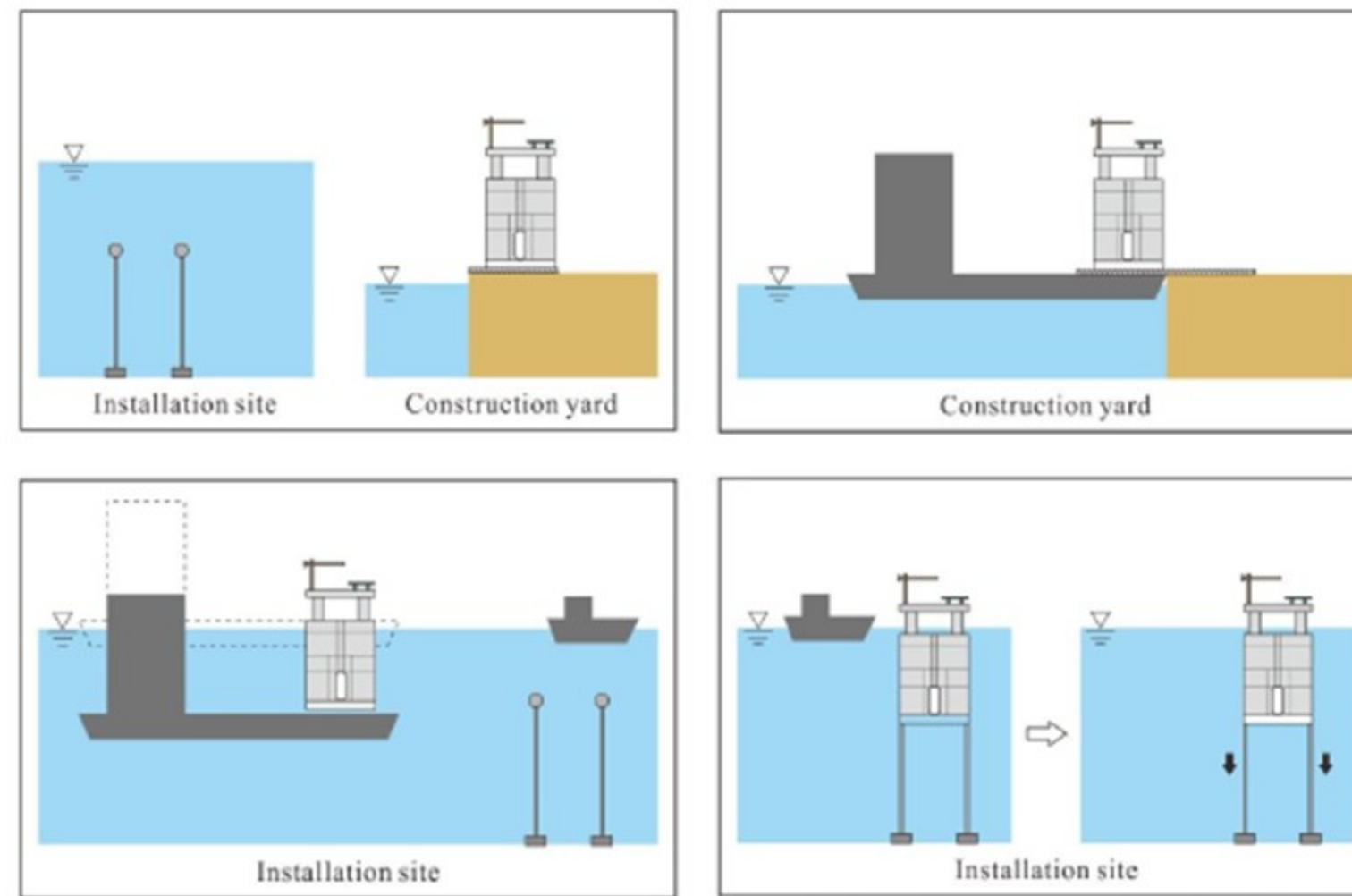
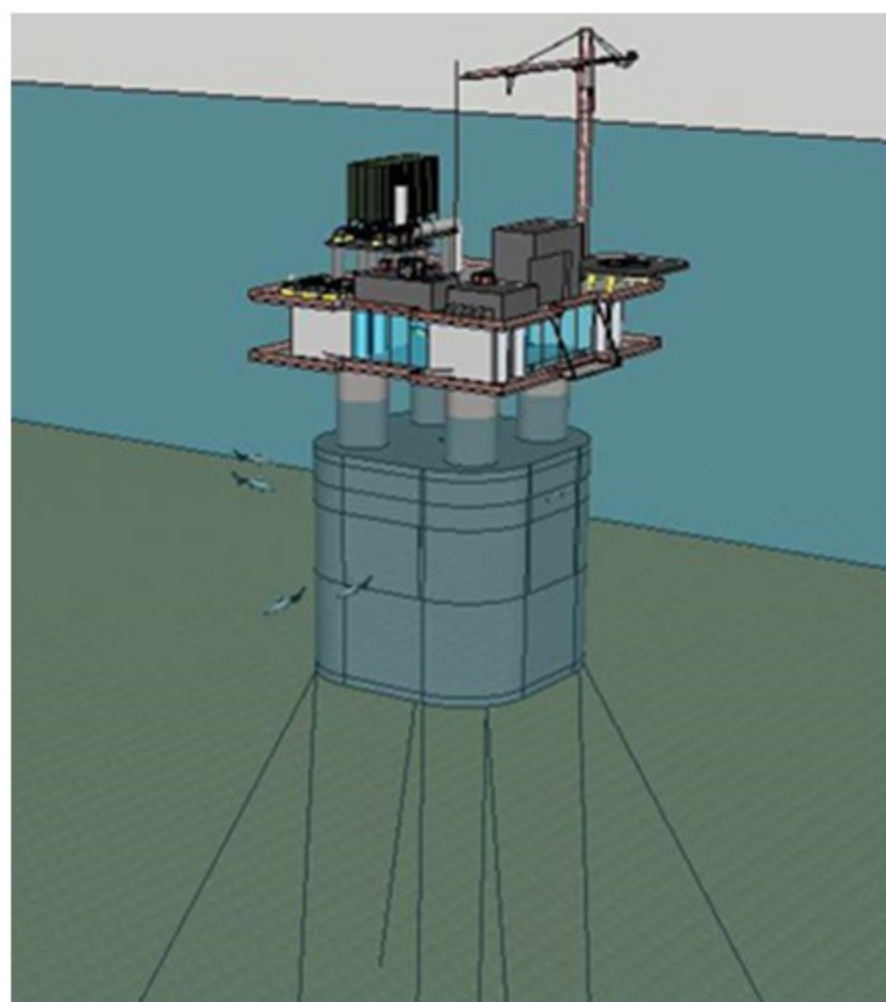


<GBS type ONPP>

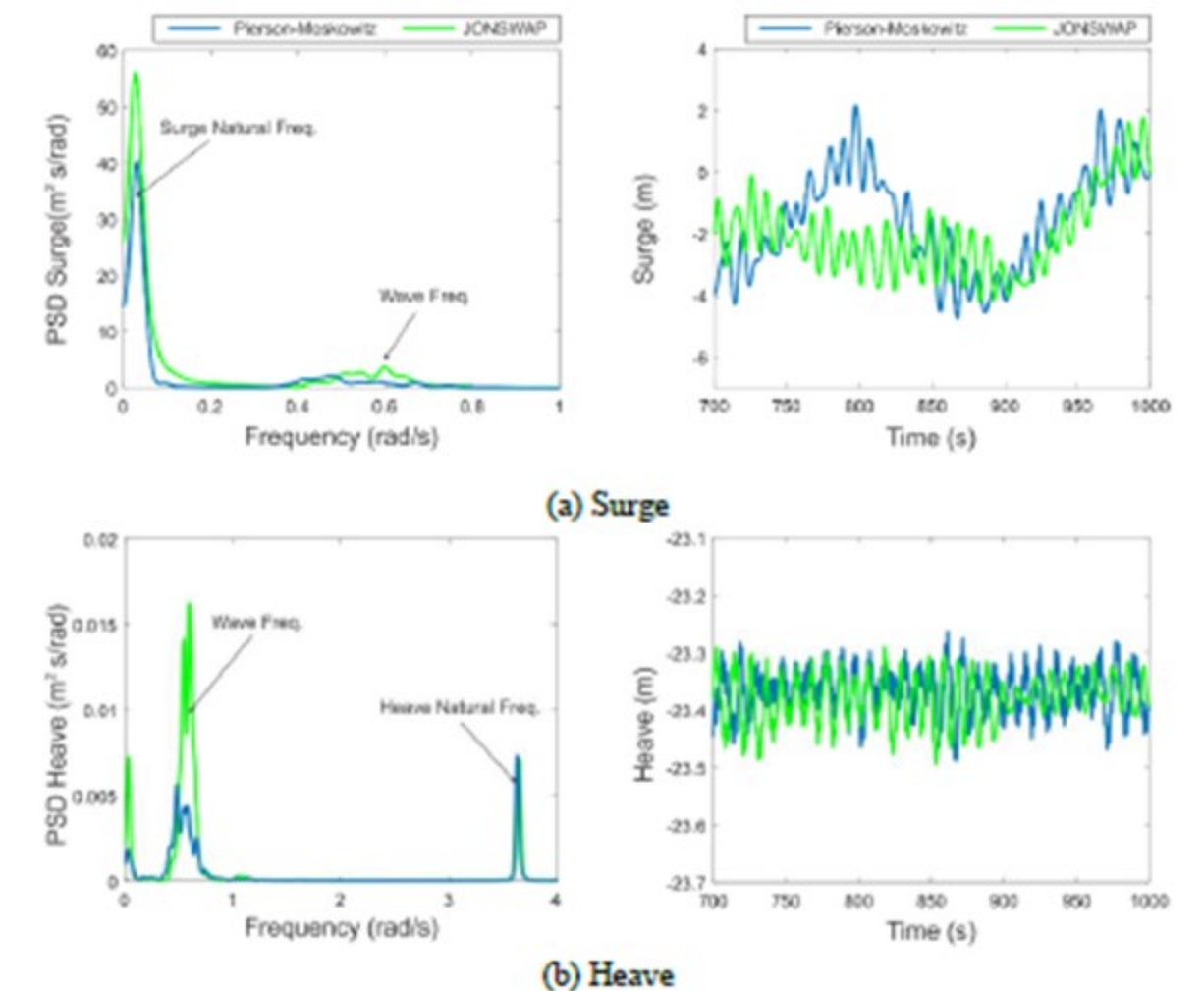
- We proposed an innovative concept for offshore nuclear power plants (ONPP) with enhanced safety features and the design concept of a nuclear power plant mounted on gravity-based structures (GBSs).

Floating nuclear power plants

Jae-Min Kim, Chaemin Lee (2017)



<Floating nuclear power plant and its construction procedure>

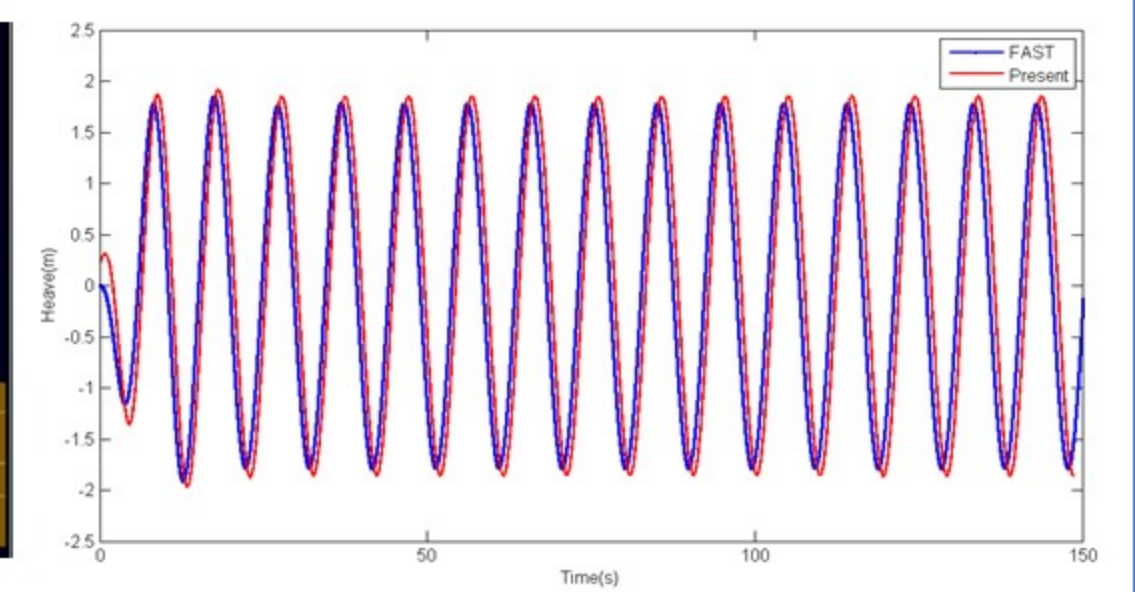
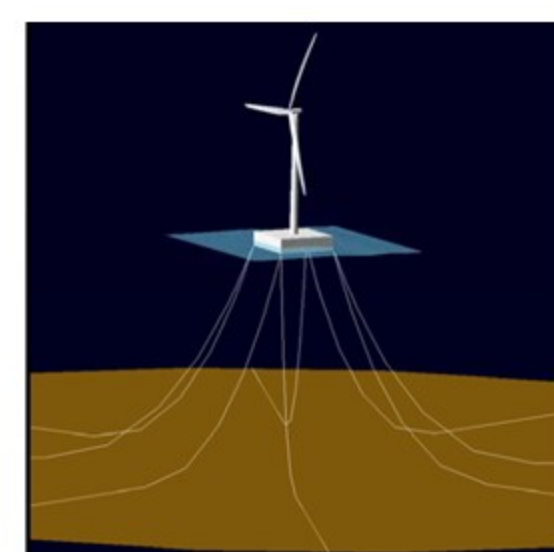
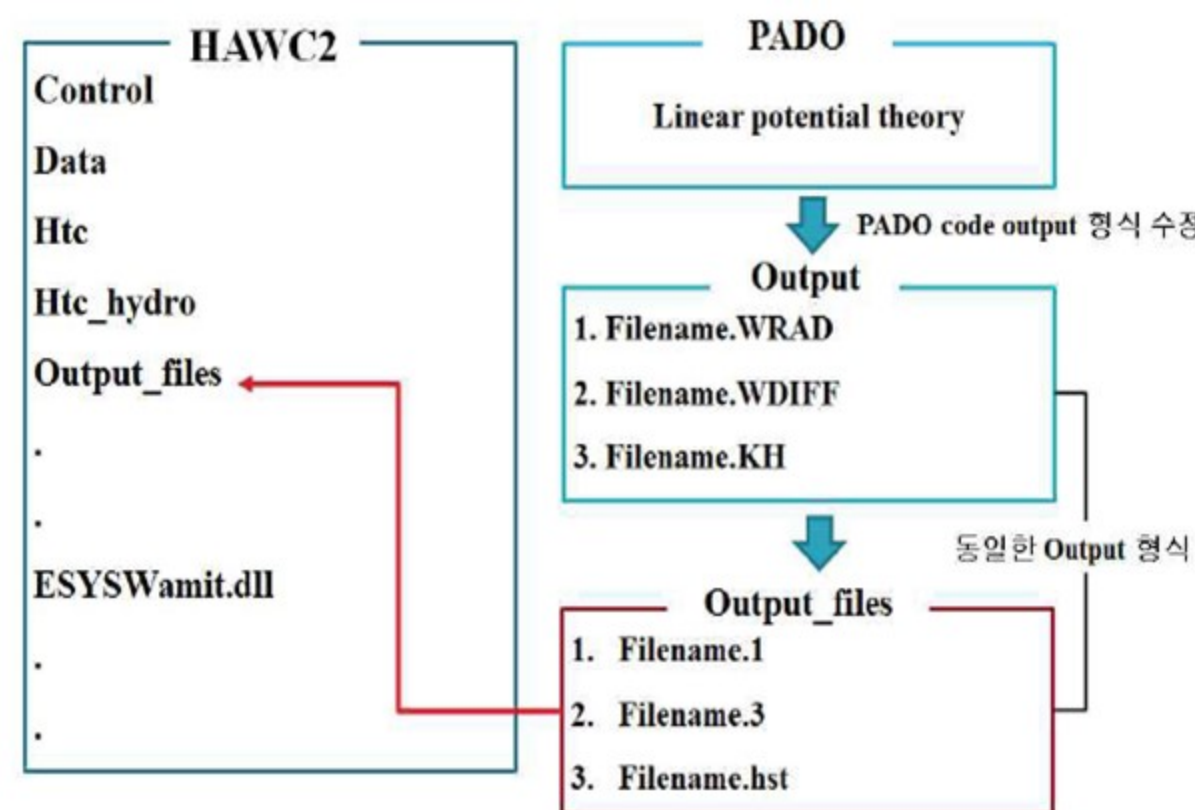
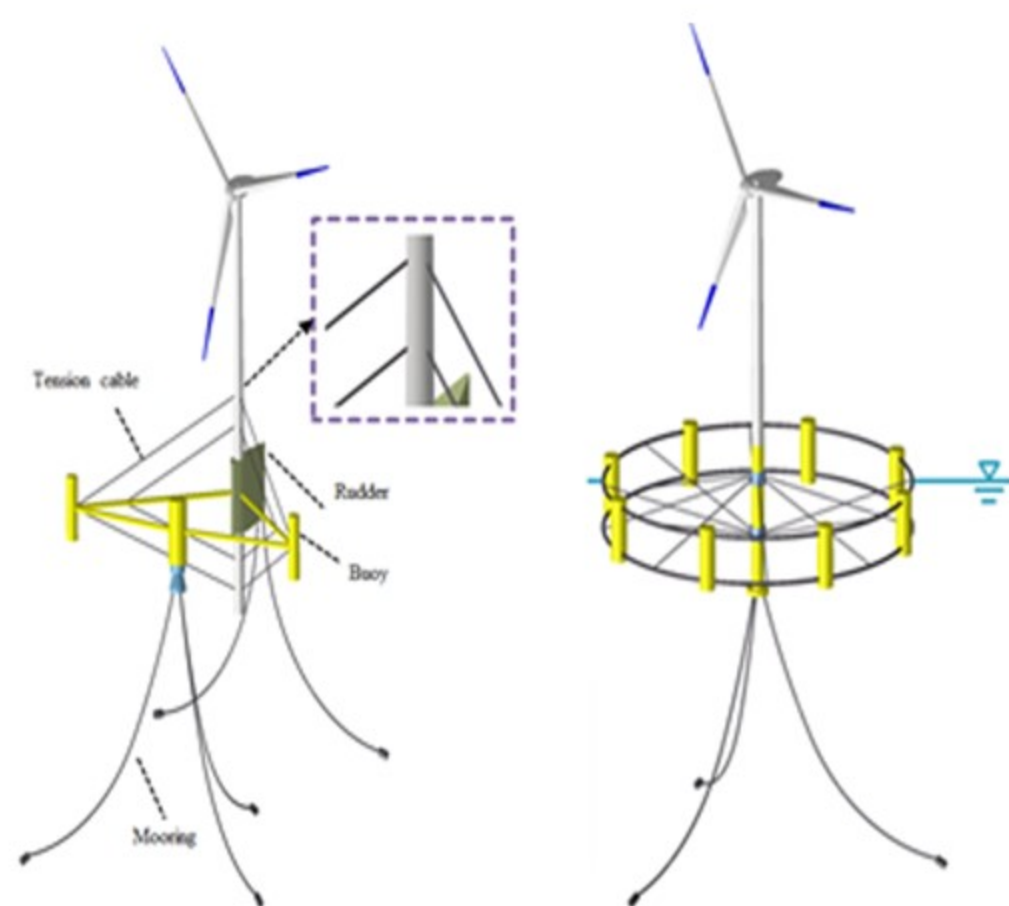


<Power spectra of the platform motions>

- A new design concept for ocean nuclear power plants (ONPPs) using a tension leg platform (TLP) was developed.
- The system-integrated modular advanced reactor is mounted for design demonstration.

Offshore floating wind turbine system

Hyun-Duk Seo, Dong-Hwa Lee (2018)



<Floating wind turbine>

<Flow chart of HAWC2-PADO code>

<Numerical results>

- We developed concept designs of offshore floating wind turbines and performed coupled dynamic analysis of the wind turbines.

