

## **OSDC/PIRE research proposals**

The Infraware research group at National Institute of Advanced Industrial Science and Technology, Information Technology Research Institute is one of the international member of the PIRE project. We are actively working on several research areas including cloud management systems, computer/network virtualization, BigData processing systems, SmartGrid and energy efficient Data Center management.

More information will be found at

- <http://grivon.apgrid.org/>
- <http://sss.apgrid.org/>
- <http://itri.aist-go.jp/en/about/research.html>
- <http://www.g-lambda.net/>

### **BigData Analysis for Geo spatial data**

The goal of the research is to analyze huge amount of geo spatial data using Hadoop MapReduce system or SSS, a MapReduce system developed by AIST. The student will write MapReduce application to analyse the data, as well as several supporting programs to setup and pre-process the data. The created system will automatically categorize pictures into specified number of groups by similarity, so that the scientists can easily find relevant pictures.

To achieve the above the students will need to familiarize with basics of parallel / distributed programming, Java programming, and basic Linux operations.