

# **A Study of the Production Rules for Context Inference of Wetland Water Quality On USN Middleware Framework**

So – Young Im

Dept of Computer Science and Information Engineering  
Chung-Ju National University  
Chungju-si, South Korea  
gray474@gmail.com

Ryum-Duck Oh

Dept of Computer Science and Information Engineering  
Chung-Ju National University  
Chungju-si, South Korea  
rdoh@cjnu.ac.kr, Corresponding Author

**Abstract**— With gradually increasing movement to live together with nature, artificial wetlands are increasing as well. And the wind of change blows at the rivers and streams, thereby increasing the need for management systems. Accordingly, this paper aims to design production rules for wetland environment context inference and establish application system by using JESS and the rule-based system based on facts collected from sensor networks in the wetland environment USN middleware.

**Keywords:** Wetlands, Context-Inference, JESS, Sensor Network