**Composition Context-Based Web Services Similarity Measure**

**Abstract:**

Web services similarity measure is an important problem in service computing area, which is the technological foundation of service substitution, service discovery, service recommendation, and so on. Most of the existing works use a static description of services to measure the similarity between two services. However, the interaction information of Web services recorded in the historical compositions is totally neglected. In this paper, we propose a novel Web services similarity measure approach based on the notion of service composition context. Specifically, we first introduce three types of parameter correlations between service input and output parameters. These correlations can be obtained from existing services compositions. Based on parameter correlations, we propose the service composition context model. Through the composition context of a service, the composition context network is constructed using contexts of all services. Then, we propose to measure the similarity between any two services using the PersonalRank and SimRank++ algorithms by taking the obtained context network as input. By experiments, we analyze the characteristics of our proposed method and demonstrate that its accuracy is much better than the state-of-the-art approaches

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Pentium Dual Core.
* Hard Disk : 120 GB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 1 GB

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows XP/UBUNTU.
* Implementation : NS2
* NS2 Version : 2.28
* Front End : OTCL (Object Oriented Tool Command  Language)
* Tool : Cygwin (To simulate in Windows OS)