Abstract No: SO-15 Software Intensive Systems

## Algorithm to identify the original web links and suggest optimized mirror links for download content within a web page

G. L. S. I. Karunarathna\* and U. P. Liyanage

Department of Statistics & Computer Science, Faculty of Science, University of Kelaniya, Sri Lanka \*Email: sanuri.karunarathna@gmail.com

Invention of the Internet has become a revolutionary change to the world. People use different technologies to connect to the Internet. Surfing Internet has become a stressful activity due to the existence of various spams and redirections. Consequently, internet surfers suffer from wasting time and money on in relevant web contents every day. Further, looping redirections caused to distract many internet surfers all over the world. Though the adware blockers come to the stage for preventing unwanted ads, it does not come with handy solution for assisting web surfers to direct the desired web content or resource. At the same time, there can be lots of mirror links, which are available for refer the same web content or resource. If the web surfer is provided desired content targeted and optimized mirror link/s that has minimum traffic and higher bandwidth with minimum estimate time to download the file, it will be much more useful.

The purpose of the research is to achieve the solution for suggest original link to download and provide optimized download link. A chrome extension, which is run in chrome browser, is built with all the proposing components and algorithms in order to proof of the concept. Through this highlight original resource link in the web page and pointing fake/redirect links in the web page. Define an algorithm to suggest optimized mirror link to download among the original mirror links. The tool supposed to cache all the metadata of the referred links and validate links time to time with update latest state of the links.

The ultimate objective is to derive an algorithm to avoid fake web redirection links and download resources in cost effective manner. Additionally, the software solution implementing this algorithm protect the computer system by avoiding the links that contain harmful malwares and virus. This proposed software solution will develop as platform independent chrome extension and deploy to ensure the optimum and safe internet surfing.

Keywords: Adware blockers, Mirror links, Redirections