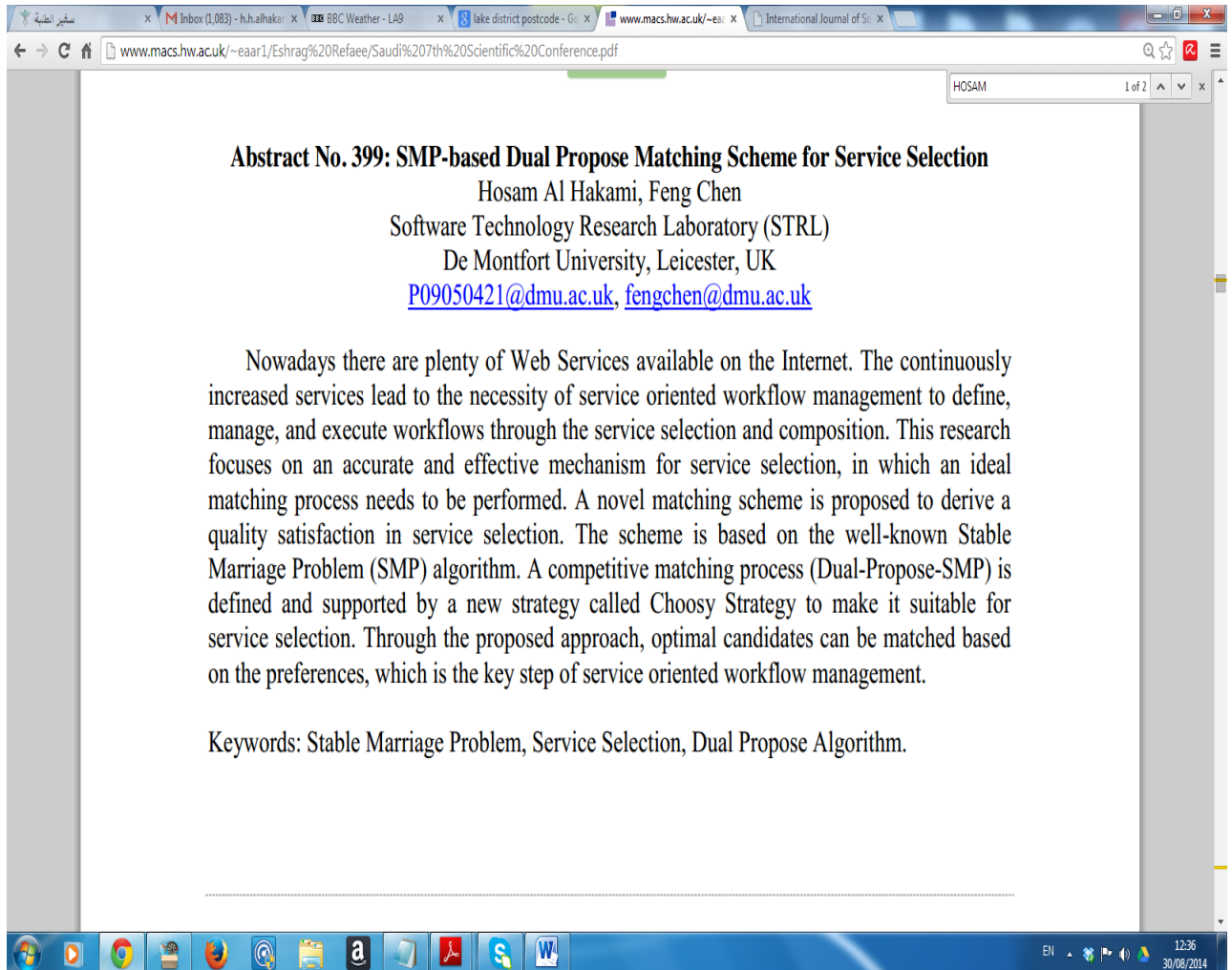


The Saudi 7th Conference paper Abstract



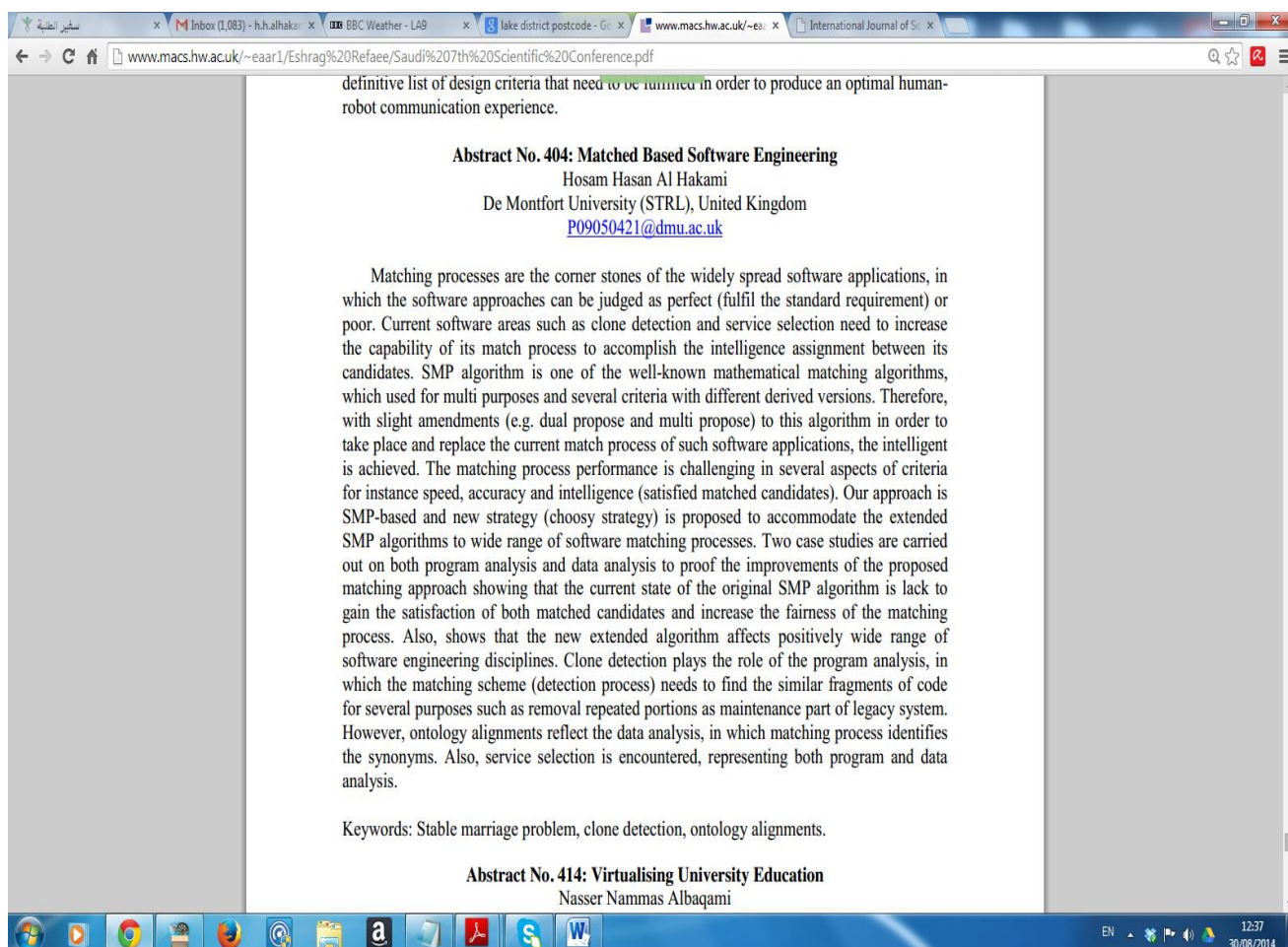
The screenshot shows a web browser window with multiple tabs. The active tab is titled "www.macs.hw.ac.uk/~easr1/Eshrag%20Refaee/Saudi%207th%20Scientific%20Conference.pdf". The address bar shows the full URL. The page content is an abstract for "Abstract No. 399: SMP-based Dual Propose Matching Scheme for Service Selection" by Hosam Al Hakami and Feng Chen. The authors' affiliation is the Software Technology Research Laboratory (STRL) at De Montfort University, Leicester, UK. Contact emails are provided as P09050421@dmu.ac.uk and fengchen@dmu.ac.uk. The abstract text discusses the need for service-oriented workflow management and proposes a novel matching scheme based on the Stable Marriage Problem (SMP) algorithm, specifically a Dual-Propose-SMP process supported by a Choosy Strategy. The keywords are: Stable Marriage Problem, Service Selection, Dual Propose Algorithm. The browser's taskbar at the bottom shows various application icons and the system clock indicating 12:36 on 30/08/2014.

Abstract No. 399: SMP-based Dual Propose Matching Scheme for Service Selection
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Nowadays there are plenty of Web Services available on the Internet. The continuously increased services lead to the necessity of service oriented workflow management to define, manage, and execute workflows through the service selection and composition. This research focuses on an accurate and effective mechanism for service selection, in which an ideal matching process needs to be performed. A novel matching scheme is proposed to derive a quality satisfaction in service selection. The scheme is based on the well-known Stable Marriage Problem (SMP) algorithm. A competitive matching process (Dual-Propose-SMP) is defined and supported by a new strategy called Choosy Strategy to make it suitable for service selection. Through the proposed approach, optimal candidates can be matched based on the preferences, which is the key step of service oriented workflow management.

Keywords: Stable Marriage Problem, Service Selection, Dual Propose Algorithm.

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definitive list of design criteria that need to be followed in order to produce an optimal human-robot communication experience.

Abstract No. 404: Matched Based Software Engineering
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Matching processes are the corner stones of the widely spread software applications, in which the software approaches can be judged as perfect (fulfil the standard requirement) or poor. Current software areas such as clone detection and service selection need to increase the capability of its match process to accomplish the intelligence assignment between its candidates. SMP algorithm is one of the well-known mathematical matching algorithms, which used for multi purposes and several criteria with different derived versions. Therefore, with slight amendments (e.g. dual propose and multi propose) to this algorithm in order to take place and replace the current match process of such software applications, the intelligent is achieved. The matching process performance is challenging in several aspects of criteria for instance speed, accuracy and intelligence (satisfied matched candidates). Our approach is SMP-based and new strategy (choosy strategy) is proposed to accommodate the extended SMP algorithms to wide range of software matching processes. Two case studies are carried out on both program analysis and data analysis to proof the improvements of the proposed matching approach showing that the current state of the original SMP algorithm is lack to gain the satisfaction of both matched candidates and increase the fairness of the matching process. Also, shows that the new extended algorithm affects positively wide range of software engineering disciplines. Clone detection plays the role of the program analysis, in which the matching scheme (detection process) needs to find the similar fragments of code for several purposes such as removal repeated portions as maintenance part of legacy system. However, ontology alignments reflect the data analysis, in which matching process identifies the synonyms. Also, service selection is encountered, representing both program and data analysis.

Keywords: Stable marriage problem, clone detection, ontology alignments.

Abstract No. 414: Virtualising University Education
Nasser Nammas Albaqami