

International Forum on Engineering Decision Making

6th IFED Forum, January 26-29, 2012, Lake Louise, Canada

Advances and Challenges in the Design of Bridge Falsework Systems

João André^{a,b}, Robert Beale^b and António M. Baptista^a

^a Structures Department, National Laboratory for Civil Engineering (LNEC), Portugal

^b Faculty of Technology, Design and Environment, Oxford Brookes University (OBU), United Kingdom

Bridge falsework systems are frequently used in the construction, rehabilitation and retrofit works of bridge structures. These structures have a significant impact on the cost, construction rate and construction safety of the supported permanent structures. However, the relevant stakeholders often do not consider them as important as permanent structures, and in the recent years a high number of accidents involving bridge falsework systems have been reported. A research programme was initiated aiming to contribute to a better knowledge about the structural behaviour, reliability and robustness of bridge falsework systems. In this paper the advances and existing challenges in the design of bridge falsework systems will be resumed. Additionally, a framework for the structural design of these structures within the context of a risk informed decision-making will be presented.