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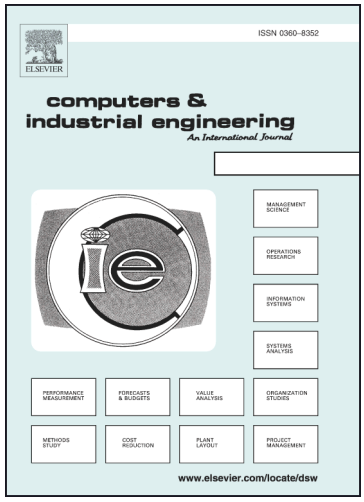

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PII: S0360-8352(16)30464-8
DOI: http://dx.doi.org/10.1016/j.cie.2016.11.032
Reference: CAIE 4548

To appear in: *Computers & Industrial Engineering*

Received Date: 22 April 2015
Revised Date: 13 November 2016
Accepted Date: 26 November 2016

Please cite this article as: Baysan, S., Bulent Durmusoglu, M., Cinar, D., Team Based Labour Assignment Methodology for New Product Development Projects, *Computers & Industrial Engineering* (2016), doi: http://dx.doi.org/10.1016/j.cie.2016.11.032

Team Based Labour Assignment Methodology for New Product Development Projects

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Team-based Labour Assignment Methodology for New Product Development Projects

Abstract

This study explores the organizational aspects of new product development projects and proposes a new team-based labour assignment methodology. The proposed hierarchical methodology focusses on the project value stream and aims to shorten lead time through waste reduction. Lean product development tools, such as clustering and design structure matrix tools, are integrated with the methodology. A detailed real-life case study is presented and the proposed methodology is evaluated using discrete event simulation. Experiment results show that the proposed methodology and team-based structure provide superior lead time performance when compared to conventional organizational setting. This study contributes to existing literature by presenting evidence of the effect of teams on NPD lead time performance.

Keywords: Product Development; Teams; Lean; Value Stream Mapping; Design Structure Matrix; Simulation

1. Introduction

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