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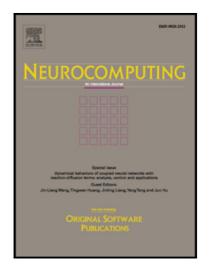
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## A case-based reasoning approach to cost estimation of new product development

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#### Abstract

New product development (NPD) is a crucial process in maintaining a company's competitive position and succeeding in dynamic markets. One of contemporary trends in the global economy is mass customisation that bases on modifications of existing products instead of designing everything anew. The advancement of information technology helps today's enterprises in managing business processes and collecting data in enterprise systems that can be a potential source of information. Specifications of previous products deliver information of design, cost and time of past NPD projects that can be the basis for developing new products. A promising methodology for assisting conceptual product design and monitoring a NPD project is case-based reasoning. This paper is concerned with developing a case-based reasoning approach towards using neural networks to estimate the cost of NPD in one-of-a-kind production companies.

#### Keywords:

Artificial neural network, Case-based reasoning, Decision support tool, New product development, Cost estimation

### 1. Introduction

A turbulent environment imposes organisations to be smart, agile, and responsive to fast changes of business needs. In order to survive and maintain

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