

# **Expected Warranty Cost of Repairable Product with Two Dimensional Warranty**

**Won Young Yun**

**Department of Industrial Engineering, Pusan National University,  
Jangjeon-dong, Kumjeong-ku, Pusan, 609-735**

## **Abstract**

This paper considers the estimation problem of the warranty cost under two dimensional warranty. The product (e.g. car) is sold under two types of warranty (milage and ages ). The failed product will be replaced or minimally repaired by the manufacturer during the preassigned warranty of which the length is determined by the run miles or the ages, whichever occurs first. The existing models for the two dimensional warranty are able to be separated by two groups: one or two dimensional approach models. We use the one dimensional approach to model our problem. Under the general distributions, the formula of the expected value of total warranty cost is obtained. Special cases of the failure distributions are analysed. Numerical example is included.