

Optimization of Fuzzy Production Inventory Model with Repairable Defective Products Under Crisp or Fuzzy Production Quantity

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Abstract—In this paper, we introduce a fuzzy Economic Production Quantity (EPQ) model with defective products that can be repaired. In this model, we consider a fuzzy opportunity cost, trapezoidal fuzzy costs and quantities into the traditional production inventory model. We use Function Principle and Graded Mean Integration Representation Method to find optimal economic production quantity of the fuzzy production inventory model.

Keywords—Fuzzy production inventory model, Economic production quantity, Function principle, Graded mean integration representation method, Optimization, Imperfect production, Defective products

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