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## INTRODUCTION TO Rv-QUOTIENT BOUQUET (RQB) GRAPH AND Rv-PRODUCT BOUQUET GRAPH (RPB) AND APPLICATION OF RQB GRAPH IN TEAM MAKING USING LMX VALUES

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## Abstract

The Study on Leader - Member Exchange (LMX) is an approach to leadership that explains various types of relationships evolve between leaders and subordinates within their work environment and the LMX value is an important factor affecting the Harmony in total working environment and hence the turn over of the organization. We introduced Rv graph and Rv-difference bouquet (RDB) graph in [1], and explained their applications in subset selection process of sensory profiling [2], distribution of employees to construct equally skilled and balanced Teams[3], etc. In this paper we introduce Rv-quotient bouquet(RQB) graph and Rv-product bouquet (RPB) graph. Also we present the optimization problem named as "Most variant flower" problem on Rv-quotient bouquet graph which solves the problem of selecting a right person to be included in a Team from a pool of employees and the problem of selecting the best representative of the Team according to their LMX values.

Key Words and Phrases: Rv-quotient bouquet (RQB) graph, Rv-Product bouquet(RPB) graph, Leader member Exchange, Most variant flower problem, Stem preserving edge partitioning.

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