

**AN INTEGRATED MULTI-CRITERIA DECISION MAKING METHODOLOGY  
FOR CONVEYOR SELECTION SYSTEM**

**PAIRAT JIAMRUANGJARUS 5136481 EGIE/M**

**M.Eng. (INDUSTRIAL ENGINEERING)**

**THESIS ADVISORY COMMITTEE: THANAKORN NAENNA, Ph.D., TANAWUT  
TANTIMONGCOLWAT, Ph.D.**

**ABSTRACT**

Material handling equipment is important for every industry because it has an effect on manufacturing and productivity. A conveyor system is one popular type of material handling equipment in the present. Factors affecting investment in conveyor systems are various. This research used the Delphi technique to collect important factors to support the decision to invest. The analytic network process (ANP) including the benefits, opportunities, costs, and risks (BOCR) is proposed to select the best conveyor system. Therefore, criteria, sub-criteria, and alternatives in this model are interrelated to support decision making. The proposed model is easy to apply, to adapt, and to improve factory performance by selecting the best conveyor system for small and medium enterprises (SME) through large industries. The result from this method will suggest the most suitable form of conveyor system and will save costs.

**KEY WORDS: MATERIAL HANDLING EQUIPMENT / ANALYTIC NETWORK  
PROCESS (ANP) / BOCR**

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