

## **Abstract**

Critical Chain Project Management (CCPM) has merged in last few years as a novel approach for managing projects. While there were many previous researches studied CCPM concerning with single project management, but CCPM multi project management was hardly paid attention, especially capacity-constraint buffer sizing approach. However, there were some research papers which examined and illustrated CCPM under multi-project environment; those papers assumed all the subprojects were identical. Despite the fact that such situation is impractical.

The purpose of this dissertation is to compare Cut and paste method (C&PM) with Root square error method (RSEM) for applying in project buffer, feeding buffer and capacity-constraint buffer sizing and to change some subproject parameters which make an impact on the project schedule for multi-project scheduling.

**Keywords:** Critical chain project management, Multi Project Scheduling, Buffer Management, Capacity constraint buffer, Buffer sizing method.

