

The seal of Chiang Mai University is a large, faint watermark in the background. It features a central elephant standing on a base, with a sunburst above its head. The text 'มหาวิทยาลัยเชียงใหม่' is written in Thai script around the top, and 'CHIANG MAI UNIVERSITY 1964' is written in English around the bottom. There are also decorative floral motifs on the sides.

Thesis Title	Optimization of a Multi-Objective Problem with Complementary Constraints by Active Set Method
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Degree	Master of Science (Applied Mathematics)
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ABSTRACT

In this research, we modified the active set method for solving quadratic programming to solve convex nonlinear programming. Then we applied the modified method to the nonlinear programming with complementary constraints having all function being convex. To capture the multi-objective nature of our problem the weighted sum approach was applied to reduce our multi convex objectives to a single convex objective function. Since all functions in this study are convex, the optimal solution obtained is a global optimal.