多階段拓樸最佳化於結構外型設計之研究

A system including finite element analysis software ANSYS, optimization method and topological design was developed in this study. This system provides a user-friendly environment for engineers to execute the multi-stage topology optimization easily. After carries on the first stage to topological optimization design, we use the element growth-removal combined method (EGRCM) simultaneously to grow and remove the essential element and the non-essential element on the second stage. The third stage, new design move limits were obtained by Bezier curve concept to smooth the design shape. After three stages topological optimum design, the primitive design can be improved to more practical topological design.