

고속인쇄기의 롤교체공정 모델링과 장력제어 성능개선

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Roll Change Modeling and Tension Control Performance Improvement of a High-Speed Printing Machine

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Key Words: Roll change(롤교체), Web tension(웹장력), Unwinder(풀림롤), Printing machine(인쇄기)

Abstract : Tension control performance is very important in high-speed printing machine. One of the major factors that effect to tension control performance is the process of roll changing. Even if the turret arm moves during roll changing process and the span length of the unwinding system varies, it is customary to neglect it in motion and tension control and to consider it as a disturbance. In this paper, its effect is modelled and considered positively for the motion command generation of the unwinding motor. We show the performance improvement with the proposed method in the high-speed printing machine.

품질기능전개와 공리설계를 이용한 굴삭기 프론트 초기 설계 시스템 개발에 관한 연구

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A Study on a Development of an Initial Design System for an Excavator Front with Quality Function Deployment and Axiomatic Design

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Key Words: Excavator(굴삭기), Customer Requirement(고객 요구 사항), QFD(품질기능전개), Axiomatic Design(공리설계)

Abstract : A design needs various experience and design knowledge through a whole design process. Despite of all efforts and time, it is not easy to introduce a product that meets all customer's needs and expectation in time. To achieve the product goal, designers need a set of sequential process to find appropriate design parameters and ensure customers' needs and requirements. In this research we propose a design methodology for the initial design of an excavator front group with existing QFD and Axiomatic Design to satisfy customer's requirements. It turns out that the proposed methodology can support designers more effectively, objectively, and systematically.