

미세 선폭 롤 프린팅 공정에 대한 연구

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Study on the Roll Printing Process for Fine Line-width Printing

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Key Words: Printing(프린팅), Roll printing(롤 프린팅), Gravure printing(그라비아 프린팅).

Abstract : Printing technology has begun to get into the spotlight in many ways due to the low cost effectiveness to existent semi-conductor process. It also has very useful application areas, not only paper printing but also patterning for LCD color filter, Photovoltaic patterning, RFID antenna, OLED, and so on. In this study, an apparatus of gravure offset printing was developed for fine line width printing. A flat gravure plate made of brass was engraved as the original pattern. The pattern was composed of 20 um size of continuous lines of which pitch size was 40 um. An ink was poured and filled into the line holes by doctor blade. It was finally transferred to an aluminium plate via rubber roll. The printed pattern shows that it is possible to make around 20 um line-width printing pattern and to make conductive lines if a suitable conductive ink is used.

스캔 포인트로부터의 특징 추출 알고리즘

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Extraction of Feature Lines from Scanned Points

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Key Words: Scanned points(스캔 포인트), Feature lines(특징선), Curvature Extrema (곡률극값).

Abstract : Given a scanned points, we use an MLS (moving least-squares) approximation to estimate the local curvatures and their derivatives at a point by means of an approximating surface. Then, we compute neighbor information using a Delaunay tessellation. Feature points can then be detected as zero-crossings, and connected using curvature directions. We demonstrate our method on several large point-sampled models, rendered by point-splatting, on which the feature lines are rendered with line width determined from curvatures.