

Inkjet Printing: Effect of Paper Properties on Print Quality

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Abstract

A set of papers of various grades were characterized both on the optical and physico-chemical points of view. Then, they were all printed with the same color ink-jet printer by the use of a quadrichromic set of inks. Their performances were compared to one another by both densitometric and colorimetric measurements:

- Classical densitometric quality criteria (solid density, dot gain, relative contrast index,...) were evaluated.
- Color gamuts were determined;
- Print-through properties were also measured.

With the help of some theoretical considerations, we recognized a possibility to classify the behaviors of the papers at least qualitatively. The print-through determinations allowed to evaluate the penetration of the colorants into the paper and to confront the results with print rendering criteria. The final target is to derive an evaluative method for further investigations.

Biography

Gerard Baudin was born in 1944. He graduated from INSA-Lyon (France) in 1966 achieving Physical Engineering. He obtained his PhD from the Claude Bernard Scientific University of Lyon in 1970. Then, he was a teacher for Applied Sciences in scientific African universities. Since 1978, he joined the French Engineering Faculty for Papermaking and Printing (EFPG – Grenoble) where he became a Professor in Process Engineering applied to Graphic Arts, directing Master- and PhD theses, and teaching prepress and printing techniques.

*See NIP17 Proceedings, 2001, pp. 120-124
for full paper.*