

## **COLORIMETRIC CHARACTERISATION OF TRICHROMATIC RGB DIGITAL IMAGES. I. COMPARATIVE HSL COLOUR FEATURES**

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### **Abstract**

The linear and uniform RGB colour space can include up to  $255 \times 255 \times 255 = 16,581,375$  colours, far exceeding the capabilities of the human eye in the 400 - 700 nm wavelength interval. In colour rendering technique, each pixel contains information about the trichromatic components red, green and blue, specific to additive mixes, in [r g b] form with each component value ranging between 0 and 255 or in standard form, in which case the colour cube faces are even. From the standpoint of the colour designer, any random colour can be characterised by hue, lightness and saturation. The interpretation of the values of these basic features by digital image analysis is important in industrial practice for correcting printed designs and also for the technological analysis of print quality. The paper presents three methods of comparative analysis of trichromatic digital image and possibilities of retouching.

**Keywords:** colour, hue, saturation, lightness, model..RGB