

Multi-counterpropagation network model for colour recognition

ABSTRACT

Minolta Chroma Meters was used to convert colours into numbers. It offers five different colour systems for measuring absolute chromaticity, that is, CIE Y_{xy} , $L^*a^*b^*$, $L^*C^*H^\circ$, Hunter Lab and XYZ. In this study, only $L^*a^*b^*$ is used, and combinations of two counterpropagation network (CPN) are required to recognise 808 colours produced by The Royal Horticultural Society, based on RHS Colour Chart [1]. Our proposed neural network model is tested; the result shows that 99% of trained data are recognised, against 98% for untrained data.

Keyword: CPN model; Competitive layer; Unsupervised learning; Supervised learning; Minolta Chroma Meters