DESCRIPTION

With the move of cinema away from film, the adoption of electronic-based production throughout all media is now complete. In order to exploit its advantages, the accurate definition, measurement and reproduction of colour has become more important than ever to achieve the best fidelity of colour reproduction.

This book is concerned with providing readers with all they need to know about colour: how it is perceived and described, how it is measured and generated and how it is reproduced in colour systems. It serves as both a tutorial and a reference book, defining what we mean by colour and providing an explanation of the proper derivation of chromaticity charts and through to the means of ensuring accurate colour management.

Key Features:

• Addresses important theory and common misconceptions in colour science and reproduction, from the perception and characteristics of colour to the practicalities of its rendering in the fields of television, photography and cinematography

• Offers a clear treatment of the CIE chromaticity charts and their related calculations, supporting discussion on system primaries, their colour gamuts and the derivation of their contingent red, green and blue camera spectral sensitivities

• Reviews the next state-of-the-art developments in colour reproduction beyond current solutions, from Ultra-High Definition Television for the 2020s to laser projectors with unprecedented colour range for the digital cinema
• Includes a companion website hosting a workbook consisting of invaluable macro-enabled data worksheets; JPEG files containing images referred to in the book, including colour bars and grey scale charts to establish perceived contrast range under different environmental conditions; and, guides to both the workbook and JPEG files

ABOUT THE AUTHOR

Michael S. Tooms has had a career in the television industry spanning 45 years, from operations and design to senior and project management roles. He was responsible for the conception, outline, design and project management of a number of multi-million pound television centre projects, most notably working for Granada Television, TV3 Scansat, ITV, Wharf Cable, BT and Spectrum Consultants/Siemens among others. He has served on industry standards committees responsible for developing new television system specifications and lectured on colour reproduction for the Royal Television Society, the Royal Photographic Society and the British Kinematograph Sound and Television Society. He represented ITV on the EBU Colour Primaries committee and was a founding member of the UK Independent Broadcast Authority’s Quality Control Section, a body that was concerned with classifying and regulating colour reproduction standards in broadcasting.

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