
DISPLAY APPLICATIONS

Tuesday, May 22 / 10:50 am – 12:30 pm / Room 103

Chair:

Susan Jones, *eMagin Corp., Bellevue, WA, U.S.A.*

Co-Chair:

Andras I. Lakatos, *Editor, Journal of the SID, Green Valley, AZ, U.S.A.*

4.1: Color Conversion from Film to xvYCC Video Signal (10:50)

*T. Matsumoto, Y. Imai, Y. Shimpuku, T. Nakatsue, S. Haga,
H. Eto, Y. Akiyama, M. Sakurai, H. Takizura
Sony Corp., Tokyo, Japan*

*H. Mortia
Sony PCL, Inc., Tokyo, Japan*

The color gamut of xvYCC is larger than that of film. The color reproduction was evaluated and a suitable conversion method of the video signal was developed. This resulted in faithful reproduction of film color space in xvYCC color space.

4.2: Self-Calibrating Tiled Displays (11:10)

*E. S. Bhasker, A. Majumder
University of California at Irvine, Irvine, CA, U.S.A.*

Seamlessly tiled displays were connected via a completely distributed network of projector-camera systems that calibrates itself without any user intervention. This makes projection-based tiled displays very easy to deploy and maintain. The decentralized calibration methodology presented to achieve this also enables advanced capabilities such as scalability, reconfigurability, and fault-tolerance.

4.3: Development of PTV Using Six-Primary-Color Display Technology (11:30)

*A. Nagase, S. Kagawa, J. Someya, M. Kuwata,
T. Sasagawa, H. Sugiura
Mitsubishi Electric Corp., Kyoto, Japan*

A six-primary-color PTV was developed. Because of a newly developed six-color color wheel, a six-color light engine combined with a high-efficiency UHP lamp and proprietary image processing, the newly developed PTV ensures high brightness, a wide color gamut, and high contrast.

4.4: Optical Neural-Guided Device Using a Microdisplay (11:50)

C-J. Ou
Hsiuping Institute of Technology, Taichung, Taiwan, ROC

C-M.Ou
Kainan University, Taoyuan, Taiwan, ROC

R. Her
RayOpt Research, Hsinchu, Taiwan, ROC

C-Y. Kung
National Chung Hsing University, Taiwan, ROC

C-H. Chen
National Kaohsiung University of Applied Sciences, Taiwan, ROC

As a well-developed spatial light modulator, a liquid-crystal-based microdisplay can extend its capabilities to non-display applications. A microdisplay-based optical neural guiding system is proposed. The feasibility and experimental results of the device will be demonstrated.

4.5: Multi-Primary LCD for TV Applications (12:10)

S. Roth, O. Ben David, M. Ben Chorin, I. Ben David
Genoa Color Technologies, Herzelia, Israel

Four- and five-primary-color displays using CCFL backlights with a color gamut between 92 and 110% NTSC will be presented. Trade-off issues, experimental results, and a comparison with other gamut-enhancement technologies will be given.

LUNCH (12:30–2:00)

AUTHOR INTERVIEWS (3:20–4:20)