DESCRIPTION

In this second edition of *Liquid Crystal Displays*, Ernst Lueder provides a timely update to his successful text. His unique combination of theory and practice presents all the information required for the development and manufacture of modern high performance and energy saving LCDs. The author also strives for an easy to understand description of complex facts.

The second edition focuses on a variety of liquid crystal cells and their electronic addressing, and outlines new developments including:

- High performance VA cells, especially for TV, due to two subpixels with excellent #-correction also at oblique viewing
- Short optical response times in the range of 1 ms also for inter-gray transitions due to novel addressing waveforms
- Fringe field switching for acceleration of rise and decay of luminance eliminating frame memories
- Reduction of motion blur by scanning backlights, high frequency frames, edge enhancement and motion blur modeling
- Very thin LCDs with power saving LED backlights exhibiting unmatched color purity and larger than NTSC color gamut
- Printed layers on hydrophobic and hydrophilic areas replacing photolithography

Practicing electrical engineers, physicists, chemists and display specialists will find this a valuable resource. Researchers will appreciate the practical guidance given for the design of improved LCDs, whilst students are provided with a useful overview of the field.
The Society for Information Display (SID) is an international society, which has the aim of encouraging the development of all aspects of the field of information display. Complementary to the aims of the society, the Wiley-SID series is intended to explain the latest developments in information display technology at a professional level. The broad scope of the series addresses all facets of information displays from technical aspects through systems and prototypes to standards and ergonomics.

ABOUT THE AUTHOR

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Now retired, Ernst Lueder was Professor at the Department of Electrical Communications and Director of the Institute of Network and Systems Theory at Stuttgart University until 1999. He also headed a research laboratory for the fabrication of flat panel displays. Professor Lueder is a Fellow of SID, and is also an IEEE Fellow. He has been awarded the order of merit 1st Class of the Federal Republic of Germany. Since his retirement, he has written the first edition of Liquid Crystal Displays: Addressing Schemes and Electro-Optical Effects (Wiley, Mar 2001). He has also authored Bau Hybrider Mikroschaltungen (Springer-Verlag, 1977) and written over 200 papers on LCDs, network systems and theory and thin film sensors.

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