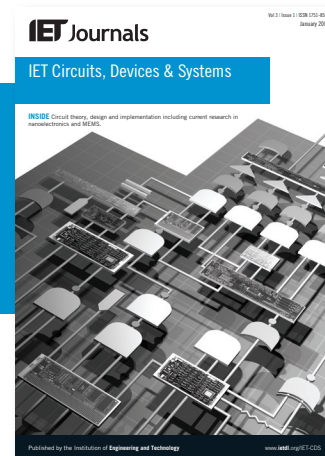


## IET Circuits, Devices and Systems Call for Papers

### SPECIAL ISSUE ON:

### Thin-Film-Transistor Modelling for Circuit Simulation



In recent years, the increasing use of active matrix flat-panel displays and bio-medical imagers in commercial electronic products has drawn a significant attention to thin-film transistors (TFT) and technologies. TFTs on amorphous- and poly-silicon as well as newly emerging organic, transparent metal oxide and nano-composite semiconductor technologies are becoming increasingly common. Flat panel displays are finding widespread use in many products such as cellular phones, personal digital assistants (PDAs), camcorders, laptop personal computers (PCs). The active matrix display is composed of a grid or matrix of picture elements called "pixels". Thousands or millions of these pixels together create an image on the display, in which the TFTs act as switches to individually turn each pixel. More increasingly TFTs are starting to be used as analog circuit elements for rudimentary signal conditioning.

For all these applications, the development of accurate and computationally efficient models is critical to reduce the cycle time between design and manufacturing. Furthermore, to guide the design process and to explicitly show relationships between material properties and device design and performance, physically-based compact TFT models for emerging thin-film technologies are indispensable.

This special issue is intended to address recent advances, related works, and future research directions in modelling of Thin Film Transistors.

- physics of TFTs and operating principles
- compact TFT device models for circuit simulation
- model implementation and circuit analysis techniques
- model parameter extraction techniques
- applications of compact TFT models in emerging products
- compact models for interconnects in active matrix flat panels

All papers must be submitted through the journal's Manuscript Central system:  
<http://mc.manuscriptcentral.com/iet-cds>

#### Schedule

**Deadline for submission of papers:** 1 November 2010  
**Authors to receive a 1st decision by:** 1 March 2011  
**Final notification of acceptance:** 1 May 2011  
**On-line and print publication:** July/Sept 2011

#### Special issue guest editor:

**Dr. Juan A. Jiménez Tejada**  
Dept. of Electronics and Computer Technology  
Facultad de Ciencias  
Universidad de Granada.  
18071 Granada, SPAIN  
E: tejada@ugr.es

#### IET Publishing Dept. contact:

**Sapna Shah**  
IET Circuits, Devices and Systems  
Editorial Assistant  
E: sshah@theiet.org