

China Display / Asia Display 2011

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PROCEEDINGS OF CHINA DISPLAY / ASIA DISPLAY 2011

Edited by

Baoping Wang

Southeast University, China



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IVO INFOVISION OPTOELECTRONICS CO., LTD.



Infovision Optoelectronics (Kunshan) Co., Ltd. was founded on 12 July 2005, located in Kunshan Economic and Technology Development Park (KETD), which is a national level industry park in Kunshan, Jiangsu, China. Under KETD is a vertically integrated optoelectronic park, which will cover from glass fusion till TV/MTR set finish. IVO is the third G5 TFT-LCD line in China and now has a capacity of 110k per month. We specialize in the TFT-LCD related business including the design, manufacture, and sales.

Jiangsu FPD Technology & Research Institute was founded on 4 July 2008. It is sponsored by Jiangsu governments and IVO. To date, we have around 200 staff members, filed more than 200 patent applications (86 issued), and published over 50 journal/ conference papers. Advanced facilities are equipped with state-of-art devices and two key laboratories including cell & module test lines. Our technologies range from 3D, touch, wide viewing angle technology, GIA, and more.



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11.6" W	1366X768	400:1	Notebook
12.1"	800X600	800:1	Industrial
14.0" W	1366X768	500:1	Notebook
15.0"	1024X768	450:1	Industrial
15.6" W	1366X768	500:1	Notebook
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26" W	1366X768	800:1	Monitor/TV
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- Wide Viewing Angle
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FOREWORD

2011 China Display/Asia Display: Beginning of a new era

We welcome you all for participating in China Display/Asia Display 2011, to be held in Kunshan, China. Asia Display is one of the three premier display research conferences that rotates among the countries in Asia. The other two are Eurodisplay and International Display Research Conference (IDRC) which rotates among the countries in the Americas. This year Asia Display is significant in that it is colisted with China Display for the first time. It is a momentus event of great importance because of the world's attention on the migration of display manufacturing to China. A proliferation of LCD manufacturing plants in China is expected and the entire world is keenly watching the development as it unfolds.



Munisamy Anandan

Hoi-Sing Kwok

This year's conference has a strong technical program with well known invited speakers who are well recognized all over the world. Two of the plenary talks are worth mentioning here. The conference commences with a plenary talk by Larry Tannas on the evolution of flat panel displays. Larry has been growing with flat panel displays and hence the attendees have the precious opportunity of knowing the nearly 50 years of history of displays. The second plenary talk is on "OLED Displays and Lighting-prospects and challenges" by Ching Tang, the inventor of OLED. Ching Tang's vision of OLED in displays and lighting will be extremely interesting to know, both from the viewpoint of challenges the OLED technology is facing and the prospects in the context of the dominating LCD technology. We are fortunate to have the inventor himself addressing the challenges that the OLED is exposed to.

There are several other plenary talks that are truly interesting. These plenary talks set the stage for many technical sessions that follow. The technical sessions are decorated by several invited talks by world experts in the respective fields. It is a rare opportunity for all of you to update the information on the latest exciting and emerging display technologies and display systems, especially when the information comes from those who spent decades of their professional experience in specialized fields. There are plenty of contributed papers in all fields of display technologies and systems. As TFT-LCD is a dominant technology, there are three sessions devoted to LCDs and TFTs. In this

session there are papers on TFT that relates to LCD as well as OLED. In these sessions there are papers that deal with the backplane issues of AMOLED and the progress on oxide TFT. This is in line with the progress taking place in these areas. There is a special session on E-Paper and this session papers on flexible and rollable displays from different technologies are presented with emphasis on application to eBook reader.

One of the hottest technologies of today is 3D and there is a special session devoted to 3D. In this session there are papers emphasizing stereoscopic and auto-stereoscopic displays. As the present day consumer prefers glassless 3D, it is interesting to see the papers on this subject. There are two sessions on OLED/LED, although most papers in these sessions are on OLED. This emerging technology, that is expected to challenge LCD, is fully covered in these sessions with emphasis on displays as well as lighting. One can see the energy efficient phosphorescent OLED papers in these sessions.

There are two sessions called, ‘New types and others’. One can find several interesting papers related to touch technology, smart phone displays, MEMS- based displays and human factors. A special session is devoted to ‘Laser Display’. This is rare and new for a conference like Asia Display and is a well needed session. There are interesting papers on 3D Laser display and Lasers themselves. There are two sessions on ‘PDP/FED’ and the papers on PDP focus on the most needed efficiency improvement of PDPS. There are many papers on FED from China and it appears China is taking the challenge on FEDs. There are two ‘poster sessions’ comprising all the technologies mentioned above. Poster sessions are the most interactive sessions and the active participation can be seen only at these sessions. One should not miss these sessions. The crest of the future display research is in these sessions.

We hope that you will enjoy this conference and take home the benefit of the latest information provided at this conference on various areas of display technologies and systems, especially the status of China’s display industry. In time, we believe that China Display will become an important forum for the dissemination of the latest manufacturing and display technologies.

Munisamy Anandan
President of SID

Hoi-Sing Kwok
China Display/Asia Display 2011 Co-chair

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	Institute of Polymer Optoelectronic Material and Devices, Guangzhou, 510640, China (* psjbpeng@scut.edu.cn)	
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	Institute of Polymer Optoelectronic Material and Devices, Guangzhou, 510640 China (* psjbpeng@scut.edu.cn)	
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