

# Introduction to Fuzhou University

## Research Group on Printed Electronics and Flexible Devices

-- Over 20 year experience in display technologies, Fuzhou University has become one of the key R&D players in the emerging displays in China. With an ambitious plan of relocation of its laboratory from old campus to new campus in 2016, Fuzhou University is now looking for international cooperation in printed electronics and flexible devices.



Founded in 1958, Fuzhou University is one of the top 100 national key universities in China. Since its establishment, Fuzhou University has developed into a comprehensive university in Fujian Province, giving priority to engineering and also enjoying a reputation for excellence in other fields including sciences, economics, management, liberal arts, law, arts and design, etc.



There are 19 schools in Fuzhou University mainly for undergraduate education and 2 independently operated colleges. One of the schools is Physics and Information Engineering, where the research group of Printed Electronics and Flexible Devices is located. At present, there are about 50,000 students in Fuzhou University, including over 5,200 doctoral and master's degree candidates.

Fuzhou University has been taking great efforts to develop the cooperation and exchange. The favorable collaborative relationship has been established with more than 20 universities and institutes in different countries, such as the United States, the United Kingdom, Germany, France, Russia, Japan, South Korea and so on.

## Research Group of Printed Electronics and Flexible Devices and the Key Laboratory of optoelectronic and information display technology



Current Laboratory in Yishan Campus, which will be moved to new Qishan Campus in 2016. A new Laboratory is under construction.

There are 20 permanent staffs in the research group including the one National 863 expert, three Minjiang scholar Professors, six professors, five Associated Professors, three doctorate tutors, twelve peoples with doctorate degree. One people granted by Fujian "Baiqianwan Talents Project" provincial plan, one people granted by " the New Century Outstanding Talent Program of Fujian Province". The Research group is led by Prof. Guo Tailiang. The current R&D activities focus on printed electronics and flexible displays, such as OLED, QLED (Quantum Dot LED) and TFT on flexible substrates. Other activities include 3D displays and 3D Manufacturing, new energy and memory, circuits and systems, etc.

### Laboratorial facilities

The total area of the lab is more than 3000 m<sup>2</sup>, including a 1000 m<sup>2</sup> of cleanroom below 1000 class level and more than 60 sets of large-scale research equipment.

- Laboratory of analysis equipment



电化学工作站/ Electrochemical Workstation



大面积光学显微镜/  
Large-area Optical  
Microscope



台阶仪/Surface Profiler

 <p>原子力显微镜/AFM</p>	 <p>光谱光度/色度/辐射度计/ Spectrophotometer</p>	 <p>荧光光谱仪/ Fluorescence Spectrometer</p>
 <p>半导体测试仪/ Semiconductor Testing Apparatus</p>	 <p>太 阳 能 模 拟 器 / Solar Simulator</p>	 <p>超大幅面薄膜激光刻蚀设备/ Super-scale Laser Lithography</p>
 <p>SEM (EDAX),</p>	 <p>3D 显微镜/3D microscope</p>	



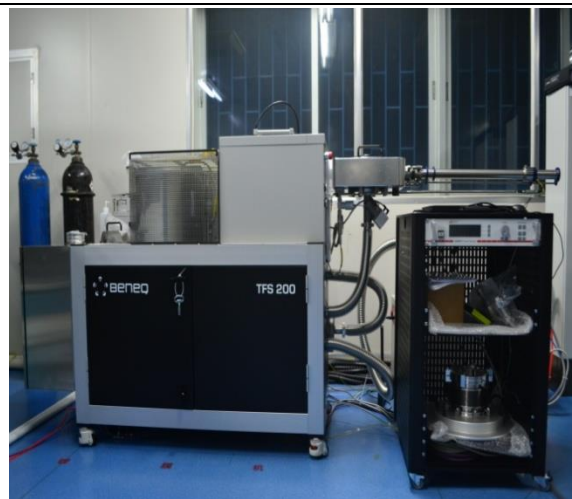
- Printed electronics and flexible displays



MicroFab Inkjet Printing



海思 Nazzole Printing



Beneq ALD



迈纳德 ALD/ MNT ALD



沈科仪 OLED 沉积系统 / SKY OLED deposition system

- System Integration laboratory

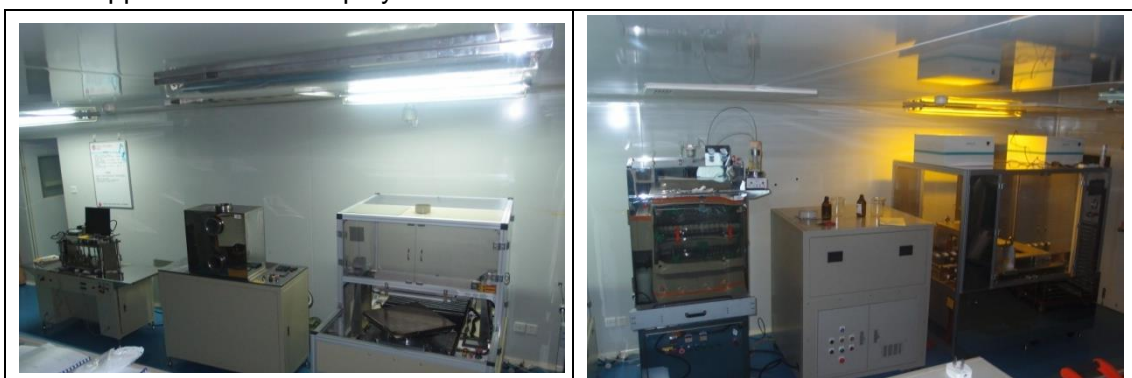
This group possesses a research area of nearly 300 m<sup>2</sup> with a full range of experiment platform and equipment, having the R&D ability of drive circuit system for new display

device. The main research focuses on the image gray reduction technology, video decoding and image processing for FPD, 3D display technology, and drive control for OLED and printed electronics device.



- Liquid crystal materials and devices laboratory

This group mainly focuses on the research of liquid crystal materials (including blue-phase liquid crystal) and liquid crystal device (liquid crystal light valve, lens and arrays), as well as its application in 3D display.





URE-2000A 光刻机/lithography Machine  
(URE-2000A)



HS-5050TP 丝印机 / Screen Printing  
Machine (HS-5050TP)

- Chemical treatment laboratory

With an area of 150 m<sup>2</sup>, the Lab is established with a robust experiment platform for material preparation, pre-treatment, post-processing, surface chemical treatment for substrates.



## Scientific Publications

In recent years, the group has published 320 all kinds of academic papers. Among them, there are many published in international journals, such as Adv. Funct. Mater., Nanoscale, Org. Electron., J. Mater. Chem. A, Carbon, Appl. Phys. Lett. and so on. There are more than 240 papers published in SCI and EI. We have made new achievements in theoretical innovation of optoelectronic functional materials and devices, LED display drivers, organic photovoltaic cells and other aspects.

# Welcome to visit Fuzhou University

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