

# ITRI Wins R&D 100 Awards for Sixth Consecutive Year



Three honored innovations include iAT Technology for wearable computer display and input, ButyFix™ for bio-butanol production, and FluxMerge for electric machine efficiency.



ITRI received three 2013 R&D100 Awards in Orlando, US.

(From left: Dr. Wen-Yang Peng, Manager of Mechanical and Systems Research Laboratories; Dr. Golden Tiao, Deputy General Director of Electronics and Optoelectronics Research Laboratories, Dr. Yun-Huin Lin, Manager of Green Energy and Environment Research Laboratories, and Shang-Yi Lin, Researcher of Electronics and Optoelectronics Research Laboratories.)

ITRI accepted three 2013 R&D 100 Awards on November 7 in Orlando in the US. It was selected as a winner for the sixth consecutive year, collecting awards for the following advanced technologies in their respective categories:

- **iAT Technology** (Electrical Device category), one of the first see-through display and air-touch input technologies for computers, wearable computers and mobile devices that allows a user's hand to be free of any physical device.
- **ButyFix™** (Energy Technology category), the first carbon-negative bio-butanol production technology that uses cellulosic feedstock to produce advanced biofuel.
- **FluxMerge** (Mechanical Systems category), the only technology that reduces air gap magnetic flux leakage in the magnetic circuit path of all electric machines.

“ITRI always pushes the edge of technology, looking at new things and having new capabilities. Its innovation has the market competitiveness of the world,” said Tim Studt, the Editorial Director of R&D magazine. Lindsay Hock, the Managing Editor of R&D Magazine also pointed out that ITRI’s wins in three diverse categories show the breadth of ITRI which is different from other organizations. Paul Livingston, Senior Editor of R&D Magazine offered his praise for ButyFix™ and recognized ITRI’s efforts in increasing the practical prospects of its winning technologies over the years.

“At ITRI, we are delighted to receive recognition for the sixth consecutive year by R&D Magazine and for this year’s three breakthrough computer and green technologies,” said Dr. Golden Tiao, Deputy General Director of Electronics and Optoelectronics Research Laboratories, ITRI. “They are significant innovations that create new possibilities for wearable computing, biofuel production, energy efficiency and global carbon reduction. These technologies exemplify ITRI’s mission to innovate and provide a better future for society.”

Commercialization of iAT Technology, ButyFix™, and FluxMerge is currently underway. The technologies are available for transfer to companies worldwide. ITRI holds eight patents on iAT technology; four patents and six pending patents on ButyFix™, and 19 patents on FluxMerge in Taiwan, China, Japan, Germany, and the United States. 



## Recognition for Outstanding Technology Innovation

ITRI has received numerous awards in every year since 2008. For example, in 2012, the institute received six R&D 100 Awards for Lignoxy, TEMM, aePLASMA, SideLighter, Light&Light, and AVA-Clamp. In 2011, the institute received six prestigious international awards: The Excellent Organization, Solar Industry Awards in the UK for Solar Radome, two R&D 100 Awards and The Wall Street Journal’s Technology Innovation Awards for i2R e-Paper and HyTAC, and the Silver Award for The Society for Information Display’s (SID) Display of the Year Awards for ITRI’s Flexible Substrate for Displays. In 2010, the institute received five prestigious international awards: The Overall Gold Wall Street Journal Technology Innovation Award for its FlexUPD technology, runner-up in the Semiconductor category for its MDPS (Micro-Deformable Piezoresistive Sensor Technology) and three R&D 100 Awards for FlexUPD, i2/3DW and . 

### ITRI’s R&D 100 Awards, 2008-2012

Year	Award-Winning Technology
2012	<b>Lignoxy</b> , a lignin-based polymer technology to manufacture a BPA-free coating
	<b>TEMM</b> , a thermoelectric material and module technology
	<b>SideLighter</b> , a high-performance concentrated photovoltaic (CPV) solar panel
	<b>aePLASMA</b> , an atmospheric environment plasma coating technology
	<b>Light&amp;Light</b> , an A19 all-plastic LED light bulb with an illumination angle of 330°
	<b>AVA-Clamp</b> , a clamp-on voltage and current meter technology
2011	<b>i2R e-Paper</b> , a re-writable, re-usable and environmentally friendly print medium
	<b>HyTAC</b> , an eco-friendly new-type polarizer protective film
2010	<b>FlexUPD</b> , a de-bonding layer that lets the polyimide film easily separate from the glass
	<b>i2/3DW</b> , a 3D display technology with integral 2D and 3D
	 , a non-toxic fire resistant material
2009	<b>STOBA</b> , a hyper-branched polymer that grows in volume and structural complexity under increased temperature
2008	<b>On-Chip AC LED</b> , an LED chip that runs directly on alternating current