

DKN Research Newsletter

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Convertech Japan 2017

The Tokyo Big Sight was the place to be on February 15, 2017. The East Hall was bursting with well-known organizations and individuals affiliated with the electronics and technology community.

So began Convertech Japan 2017. The three-day event featured many exhibitions. Most notable were: Advanced Printing Technology Expo, 3Decotech Expo, Prototype & Contracted Manufacturing Exhibition, ENEX, Smart Energy Japan, Energy Supply & Service case, InterAqua, ASTEC, SURTECH, nanotech, Printable Electronics, and 3D Printing. The featured product at the exhibition was electronics and progressive technologies (e.g., advanced materials and interface technologies).

There were several noteworthy booths reserved by familiar and respected organizations. The New Energy and Industrial Technology Development Organization (NEDO) reserved a huge booth to showcase their state-of-the-art projects. Also present were the National Institute of Advanced Industrial Science and Technology (AIST) and the Japan Scientific and Technology Agency (JST).

A strong academia presence was represented at Convertech Japan 2017, and offered a fresh perspective on new technologies. Many universities (mostly students showcasing their academic studies) had remarkable contributions in their technological field. In fact, several universities featured practical application for their new technologies. There were quite a few booths reserved by local and smaller sized institutes and consortiums. Even though they were small, their presence was a clear benefit to people who attended the exhibition.

Many companies from foreign countries contributed a significant representation Convertech Japan 2017. For example, Germany had a huge booth dedicated to their companies and the major institute, Fraunhofer. Other countries with large booths included: The Netherlands, Taiwan, Korea, Switzerland, Czech Republic, Iran, Canada, and China. Companies from the USA did not present too many new products or technologies and reserved relatively small booths.

Companies affiliated with 3D printing introduced new capabilities and materials. 3D printing continues to be a major topic of conversation at these conventions. However, most of the displays were just mockups and many

companies continue to look for realistic applications. Researchers have taken steps to illustrate the practicality of printable electronics. However, there is still a search for even more practical applications. Several key words used during the convention were: nano, 3D, carbon nano tube (cnt), and graphene. At this time, it is unclear whether or not there will be actual commercial applications. One researcher confided in me that these were just buzz words aimed at securing R&D budgets.

One thing was clear at the convention, although Japanese companies are still hurting from a long recession, we all look forward to learning about new technologies and dreaming of future applications. Japanese companies benefit from attending academic events and conventions like Converttech Japan. After all, only good things come from putting a bunch of intelligent and innovative people in the same room.

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Headlines of the week

(Please contact haverhill@dknreseach.com for further information of the news.)

1. DNP (Major printing companies in Japan) 2/2

Has developed a new film laminate of nylon and PET suitable for pouch packages. It can reduce the total thickness remarkably.

2. Fujitsu (Major electronics company in Japan) 2/6

Has started free service of testing bed for large scale IoT systems. It could be valuable for the management of large size data processing.

3. AIST (Major R&D organization in Japan) 2/7

Has developed new small size (5~40 nanometer) nano-capsule as the stable storage device for wide range molecular weights including various proteins.

4. Sony (Major electronics company in Japan) 2/7

Has developed the first CMOS image sensor with three layer construction of DRAM chips for smart phones.

5. Lenovo (Major electronics company in China) 2/8

Unveiled the new unique LTS (Low Temperature Soldering) process. It is valuable to reduce the assembling energy and make the component reliabilities higher.

6. AIST (Major R&D organization in Japan) 2/9

Has developed a new compact high power fuel cell system with high reliability for robot or vehicle uses.

7. Fuji Film (Major optical device and material supplier in Japan) 2/14

Has rolled out a new high resolution lens series “FUJINON HF-XA-5M SERIES” for industrial use vision cameras.

8. Tohoku University (Japan) 2/14

Has established the quick turn manufacturing system of the lithium ion batteries for small volume production of the electric vehicles.

9. Sumitomo Chemical (major chemical company in Japan) 2/14

Will introduce a new organic EL lighting panel “Layer Series” during the Lighting Fair in March. It is flexible to design colors, shapes and transparency.

10. Ube Industries (Major material supplier in Japan) 2/14

Has started the sample supply of N-type organic semiconductor, available for the printing process of the organic integrated circuits.

11. Kyoto University and Tohoku University (Japan) 2/14

Has studied the formation process of graphene nano ribbon conductors. It could be valuable to design ultra small size electronics circuits.

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