Medical Electronics—medicine in a digital world

The health industry is going through a period of dramatic change. We are seeing more and more digital solutions throughout the patient journey—at every stage from prevention and diagnosis to treatment. Medicine 4.0 can only work on the basis of collaborative efforts at the point where the medical and engineering disciplines overlap. We are therefore proud to introduce the electronica Medical Electronics Conference (eMEC) as the perfect platform for this interdisciplinary partnership. It will be held for the first time on November 15, 2018, boasting an innovative event and space concept.

Electronics are at the very heart of innovations within the medical technology sector. There are already plenty of examples of vital developments from the past, such as X-ray machines and pacemakers. And now, as health care becomes increasingly digitized with networking, smart data analysis, and telemedicine, electronics have come to be an integral element. The result of this is further market growth, which is boosted by aging and booming global populations as well as by a greater focus on individualization within medicine.

On that basis, Global Market Insights is anticipating that the international medical electronics market will generate sales of USD 148 billion by 2024, with a compound annual growth rate (CAGR) of 12%. According to marketsandmarkets, the turnover for medical IoT devices is expected to be just under USD 64 billion by 2023, with a CAGR of 25%. The same analysts are also forecasting a little over USD 132 billion for the global e-health market by 2023.
All of this opportunity is, however, offset by a whole host of risks that are not to be underestimated. For instance, the market concentration is set to continue to rise alongside the competition from emerging markets. Not to mention that huge IT companies from outside of the industry (the likes of Google and Apple) are on the verge of advancing into the first health market given that many innovations in future are going to be based on data and software. Plus, regulatory requirements surrounding market and product approval, such as the amended EU Medical Device Regulation, slow down the rate of growth and bring about considerable costs. And then there are the serious security risks associated with online networking (IoT).

All of these issues will be covered at the first ever electronica Medical Conference (eMeC) and at the Medical Electronics Forum at electronica.

electronica Medical Electronics Conference (eMEC)—the debut

In 2018, the spotlight will be shining on medical electronics for the very first time when the field has its own dedicated conference (November 15, ICM—Internationales Congress Center München). The event will see doctors and electronics engineers entering into discussions about the future of the medical sector. The issues covered will include smart medical devices, cloud computing, data security and sovereignty, blockchain technology, collaborative robots, smart contracts, usability, artificial intelligence, telemedicine, and Medicine 4.0.

Alongside the traditional keynote speeches and presentations, the electronica Medical Electronics Conference (eMEC) will also be opening up the stage to innovative formats of discussion to encourage interdisciplinary dialog:

1. Podium discussions encourage the audience to get actively involved, providing the ideal platform for controversial but results-driven exchange.
2. Open space discussions are in-depth discussions held in small groups. There is no script to follow and the process and results are left open to the very end.
3. “Date a problem” is the name given to sessions where doctors and electronics engineers discuss problems at length at the venue and come up with solutions together.

4. “Pros & cons” sessions involve two people going head-to-head in front of an audience. Who will have the strongest arguments? It’s down to the audience to decide by voting electronically.

**Medical Electronics Forum—all things wearables**

The focus of the Medical Electronics Forum (Hall C3, Stand 534 in the morning on November 16) is on wearables. After all, they are set to have a major impact on the health care sector and medical treatment. Once they are connected to the Internet, they enable doctors to monitor their patients’ health remotely and give constant care to chronically sick people. Older people will also be able to live independent lives in familiar surroundings for longer thanks to wearables. Plus, smart analysis of the data will allow for the health care system to be optimized even further.

**Medical electronics—the exhibitors**

Medical products and services can mainly be found in the exhibition areas covering embedded systems, sensors, printed circuit boards and other bare circuit carriers, wireless technology, power supplies, and micro and nano systems.

MEMS market leader Bosch Sensortec (Hall C3, Stand 522) will be showcasing a range of sensors for wearable applications that constantly measure vital parameters.

Analog Devices (Hall C4, Stand 111) will have implantable MEMS inertial sensors on display that consume very little energy and can be used to monitor patients at an increased risk of having a fall, for example.

The world’s smallest differential pressure sensor from Sensirion (Hall B3, Stand 417) plays a crucial role in state-of-the-art treatment in smart inhalers.
Mektec (Hall B4, Stand 530) produces flexible printed circuit boards that are essential for medical devices. Made in clean rooms, they are extremely thin, lightweight, and durable.

Thanks to the microsensor system from Fraunhofer IMS (Hall C3, Stand 409), patients with glaucoma can measure their intraocular pressure and temperature via an implanted sensor without the need for any contact to be made.

The Heinz Nixdorf Chair of Biomedical Electronics (Hall B5, Stand 450) is the first port of call for the development of customized solutions in telemedicine, as well as for lab-on-a-chip devices.

The Hahn Schickard Association (Hall A1, Stand 443) has developed a high-tech screwdriver with built-in sensors for the medical process of distraction osteogenesis, allowing patients to adjust settings themselves.

More information: www.electronica.de

Link for press accreditation:
https://electronica.de/presse/services/akkreditierung/index.html

About electronica
electronica is the world’s leading trade fair and conference for electronics. The trade fair is the most important meeting point for the electronics industry and also features a supporting program with forums and conferences, such as the electronica Automotive Conference (eAC), the electronica Embedded Platforms Conference (eEPC), the electronica Medical Electronics Conference (eMEC), and the Wireless Congress. electronica Experience will be debuting in 2018 with live demos and applications in Hall C6. The electronica Fast Forward Award has been presented since 2016. Around 73,000 visitors and more than 2,900 exhibitors took part in electronica 2016. Since 1964, electronica has taken place every two years in Munich. The next event will be held from November 13 to 16, 2018.

electronica worldwide
As well as electronica, Messe München International also organizes electronica China and electronica India. Other electronics trade fairs in the network are productronica in Munich, productronica China, productronica India, and eAsia.

Messe München
Messe München is one of the world’s leading trade fair companies. It organizes over 50 exhibitions for capital and consumer goods and new technologies. Each year, more than 50,000 exhibitors and some three million visitors take part in over 200 events held at the trade fair center in Munich, the ICM—Internationales Congress Center München, the MOC Veranstaltungscenter München, and abroad. Together with its subsidiaries, Messe München organizes exhibitions in China, India, Brazil, Russia, Turkey, South Africa, Nigeria, Vietnam, and Iran. Messe München has a global presence with a network of affiliates in Europe, Asia, Africa, and South America and around 70 representative offices abroad serving more than 100 countries.