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### **Macnica offers first solutions for the BrainTech market**

**Macnica, Inc.** (hereinafter Macnica, Headquarters: 1-6-3 Kohoku-ku, Yokohama-shi, Kanagawa, President and CEO Kazumasa Hara) announces developments to solve social challenges with BrainTech. BrainTech is a coined word composed of brain and technology and describes technologies and procedures based on brain research.

In 2013, Barack Obama, the former President of the United States, and Shimon Peres, the former Israeli President, launched the BrainTech Initiative, and promising results were quickly achieved. In addition, various brain research projects have been carried out in Japan and the results will now be incorporated into services and products.

BrainTech is the linking element that connects technical devices and devices to the human brain and will play an important role in promoting social innovations and digital transformation.

Macnica has signed a distribution agreement with the BrainTech company InnerEye Ltd. (headquarters: Herzliya, Israel, CEO Uri Antman) for Japan, Germany and Brazil. With InnerEye's technology, Macnica now offers a solution for the rapid training of AI algorithms by capturing EEG signals (electroencephalogram) of human experts. The brain activities in problem solving are recorded using the EEG signals and transmitted to the AI algorithms in the form of connotations. The aim is to transfer the relevant experience of experts to the systems of AI, e.g. when looking at medical X-Ray images.

When looking at objects, processing activities are automatically initiated in the human brain for assessment and classification, with the neurons involved generating and distributing electrical signals. These signals can be scanned without invasive techniques on the surface of the scalp and transmitted to computer units for evaluation. The signal patterns differ significantly between known and unknown objects or, for example,





whether suspicious objects are detected in the X-Ray image of a piece of luggage or whether it is inconspicuous.

The Solution of InnerEye now displays images on a display to people in quick succession and determines a key figure from the captured EEG signals, i.e. from the cognitive reactions of the viewers, and appends them to the image files as so-called "soft labels".

With this method, AI algorithms can be trained very quickly and charged with the expertise of the human viewers, so that a transfer of the expertise from person to machine takes place, thus the professional competence is efficiently passed on. The EEG patterns can also be used to show concentration, fatigue or distraction and thus evaluate the results with a safety factor.

### Learning AI Systems

In Japan, demographic trends, with a declining labour force and the ageing of society, are forecasting a general loss of professional experience, skills and labour shortages, making efficient technology transfer increasingly necessary.

By concluding a partnership with InnerEye, Macnica will promote the use and exchange of technologies that are relevant to society and enable the creation of a platform that allows optimal resource allocation and thus contributes to the overall transformation of the working methodology.

For the DACH region, Macnica GmbH from Ingolstadt, led by Jürgen Pöschl and Andreas Wemmer, will demonstrate InnerEye-technology to its key customers and interested parties and make it available for the first pilot projects in the field of video surveillance, security and quality assurance industrial production.

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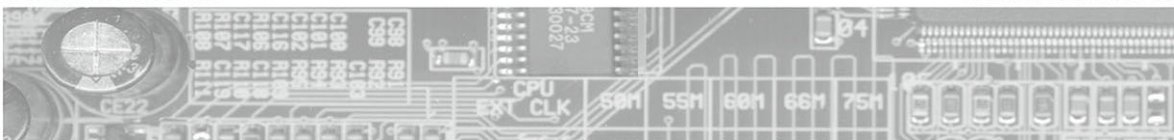
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# Press



## RELEASES

### About InnerEye

InnerEye was founded in Israel in 2014. Based on many years of research by Professor Amir B. Geva, who researches at the „Ben-Gurion University of the Negev" Electrical and Computer Engineering, and Professor Leon Y. Deouell, who researches cognitive neurosciences at “The Hebrew University of Jerusalem”, InnerEye was founded with the support of the Department of Research and Development (MAFAT) of the Israel Ministry of Defense. InnerEye products are extensively evaluated in various areas such as safety checks, visual inspection in factories, diagnostic support in medical care and personnel-recruitment in pilot projects.

### About Macnica, Inc.

Since its inception in 1972, Macnica has been offering state-of-the-art semiconductors, electronic devices, networks, and cybersecurity products with technological added value. In recent years, the company has developed new areas such as AI/IoT, autonomous driving and robots, based on our traditional strengths of sourcing and technology planning of state-of-the-art global technology. Under the motto "Co. Tomorrowing", we will create social value in the future and contribute to the development of the future society as a unit that offers unique services/solutions by combining cutting-edge technology with the intelligence of Macnica. Headquartered in Yokohama, we are expanding our global business with 81 locations in 24 countries worldwide.

For more information, visit the website (<https://www.macnica.co.jp>).

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