

## 207th Business Plan Presentations Held on May 14, 2019 at Iwasaki Gakuen, Shin-Yokohama, Japan

### 1. Catana Corporation, Ltd. President Mr. Nobuo Fujita <http://catana.co.jp/>(Japanese)

Established in March 1999 Capital stock:USD \$ 100,000

The CVC Series of real-time high-speed lossless compression software

< Outline > Catana Corporation develops and sells lossless data compression software with extremely little processing delay and the related field-programmable gate array intellectual property (FPGA IP).

Lossless compression is a type of data compression technology entailing absolutely no information deterioration even if data are compressed and decompressed. Generally speaking, the ZIP and PNG varieties are in widespread use, but have been difficult to utilize in real-time applications due to issues such as the low speeds of algorithms using conventional encryption and the lack of time assurance.

In the CVC system developed independently by Catana, the algorithm is based on data conversion without any time fluctuation. This enables compression of video data, analogue waveforms, and other information with a fixed delay. The system demonstrates its true worth particularly in applications such as remote control, where delays cause problems.

< Current applications >

\* Development of advanced driver-assistance systems (ADAS) and autonomous driving systems

\* Storage of data learned in machine learning

\* Traceability (accumulation of all inspection information) in manufacturing plants (for automobiles, semiconductors, and food products)

\* Accumulation and communication of IoT data at manufacturing plants and research institutes

< Future activities >

Data compression technology is a technology that will be at the foundation of the information society and is thought to be capable of diverse applications. Catana is probing applications of the following types, which require the handling of big data and assurance of data completeness.

\* On-board automotive applications (image data compression & communication for autonomous driving data recorders, remote driving control, electronic mirrors, etc.)

\* Infrastructural applications (image data compression & storage for inspection of elevated railway lines, roads, etc.)

\* Security applications (communication of data from high-definition surveillance cameras etc.)

\* Other applications

**[Re-Cap]** President Fujita said that, at present, the market with particular need for Catana's technology is autonomous driving systems. He is seeking support in the following areas: 1) construction of sales channels (in the fields of medical care, cloud-based systems, and security), 2) cooperation with development of business outside Japan (in Germany, the United States, and China), 3) cooperation with ASIC and LSI development, 4) human resources needed for development (in the fields of embedded software and FPGA IP), and 5) funding needed for the preceding agenda.



### 2. DISCOVER Co.,Ltd. President Mr. Fumio Chiba <https://dis-cover.jp/>(Japanese)

**Presentator Mr. Kenji Tsuchiya, COO, Mr. Hiroki Nagai, Director**

Established in November 2016 Capital stock:USD \$ 30,000

DISCOVER has begun operating a motion-video shopping website where people find items they have never before seen. Its slogan is "bringing the world's new goods and services to Japan, and Japan's new goods and services to the world".

In keeping with this slogan, it is deploying a motion-video shopping platform making effective use of YouTubers, influencers, and live commerce, and has thus far handled more than 400 products, consisting mainly of IoT gadgets.

For the future, the company also has the vision of a platform that would link Japanese manufacturers to the rest of the world, and is aiming for growth into a motion-video platform website that will be of service around the world.

**[Re-Cap]** The presenters said that their target stratum in this field are men in their 30s who like new things. In collaboration with alliance partners in the United States, Taiwan, and Hong Kong, DISCOVER is preparing a system that will enable collection of real information. The presenters also said that they wanted to achieve a 100-fold increase in the number of transaction partners two years from now.



### 3. Mieruka Bousai Co.,Ltd. President Mr. Yuji Matsuo <http://mieruka.co.jp/>(Japanese)

Established in October 2013 Capital stock:USD \$ 1,290,500

Japan is an earthquake-prone country, and major earthquakes are not unusual. Huge earthquakes are forecast to occur with a probability of 70 percent over the next 30 years under the Greater Tokyo Metropolitan Area (with a magnitude on the order of 7) and along the Nankai Trough (with a magnitude in the range of 8 - 9). When such enormous earthquakes strike, they not only take many lives but also do tremendous damage even to infrastructures and lifelines.

The Yuremasu system developed by Mieruka Bousai is dedicated to buildings installed with seismometers and the surrounding areas. It calculates the size of the main shock (S waves) almost simultaneously with its detection of the slight preliminary tremors (P waves), and instantly provides this information to users in the form of its own earthquake bulletin. The system has this capability even for earthquakes occurring directly under the location in question, for which it is considered difficult to report such information in advance. The provision of information with higher levels of speed and precision can help to prevent people from being trapped in elevators in high-rise buildings, reduce damage on factory production lines to a minimal level, and achieve an earlier service resumption and recovery. In the case of earthquake countermeasures, a difference of a few seconds is a critically key factor. So far, this system has been installed on a full scale by companies including Mitsubishi Estate and Sony Semiconductor Manufacturing Corporation. Mieruka Bousai is convinced that it can make a vital contribution to protecting even more lives and preventing serious accidents through installation of Yuremasu in medical institutions and public transport systems. In addition, by networking, it could heighten the precision of Yuremasu forecasting and shorten the time required for bulletin issuance. The company is aiming for improvement of disaster-preventing capabilities not just for the individual customers installing Yuremasu but for entire communities, and earnestly hopes that more parties will take an interest in it.

**[Re-Cap]** The number of earthquake casualties could reportedly be reduced by about 80 percent if people have just 5 seconds' worth of advance warning. The smart earthquake information terminal Yuremamori indicates earthquake size in terms of four grades, and notifies users by sound (voice) and color. If it too is installed by small and medium businesses, tenants, stores, clinics, restaurants, schools, and other sites in the Yuremasu service area, it could curtail damage to a minimal level.



**《Impressions》** At this meeting, I was struck by the way the representatives of the companies making presentations searched for areas in which they could collaborate with each other. If your company would like to make a presentation at the meeting, please contact us at an early date, because the schedule is filled up for a few months in advance.

**NPO Venture Support Mechanism  
MINERVA  
TNP Partners / TNP On The Road**