Kawasaki Green Innovation Cluster Member Information		Management Number	Section Number	Company
Business Classification				
Business Field				
Company/Organization Information	Company Name	Device & System Platform Development Center Co., Ltd.		
	Company Name (EN)	Device & System Platform Development Center Co., Ltd.		
	President	Itaru (Ike) Hatano		
	Address	Solid Square East Tower 10F, 580 Horikawa-cho, Saiwai-ku, Kawasaki-City, Kanagawa 212-0013, Japan		
	Contact	044-201-9030		
	Capital	51.5 million yen		
	No. of Employees	23 (including temporarily transferred and contract employees)		
	E-mail	info@dsp-c.co.jp		
	Website	http://www.dsp-c.co.jp/		
	Branches/ Agencies	Japan: 1 office		
		Overseas: None		
Business Activities, Messages and Others	Business Activities	We are developing an ultra-low power consumption data collection system to meet the needs of smart edge computing. Specifically, we are developing energy harvesting technology to create self-powering (battery free) technologies, ulta-low power consumption devices and circuits, and other components and are adding AI and security functions to them. By promoting social implementation of a data collection system adapted to various applications, we aim to spread and expand into the IoT market. In order to spread the use of data terminals, we are operating the Edge Platform Consortium, to promote edge computing platforms.		
	Message/Other	We are monitoring equipment that rotates (such as motors) using the vibration sensor that we are developing to try and predict abnormalities and failures (soundness diagnosis). We believe that this new technology will be able to contribute to reducing equipment maintenance cost. In addition, we are developing power generation technology (energy harvesting technology) using vibration energy, which makes battery replacement unnecessary, contributes to ease of maintenance, and conserves energy.		
	Examples of Products	・Predictive diagnostics system for equipment such as motors Vibration data is collected and equipments' abnormalities are detected using analysis software. ・Consulting for the introduction of IoT edge systems (a system using various sensors to collect and analyze data) ― Predictive diagnostics for failure of equipment in factories ― Wireless factory production information terminals ― Facility management using low-power, wide-area (LPWA) wireless technology ― Wireless environmental information collection (factory, infrastructure, agriculture) ― Battery-less (energy harvesting) IoT devices (sensing devices, etc.)		

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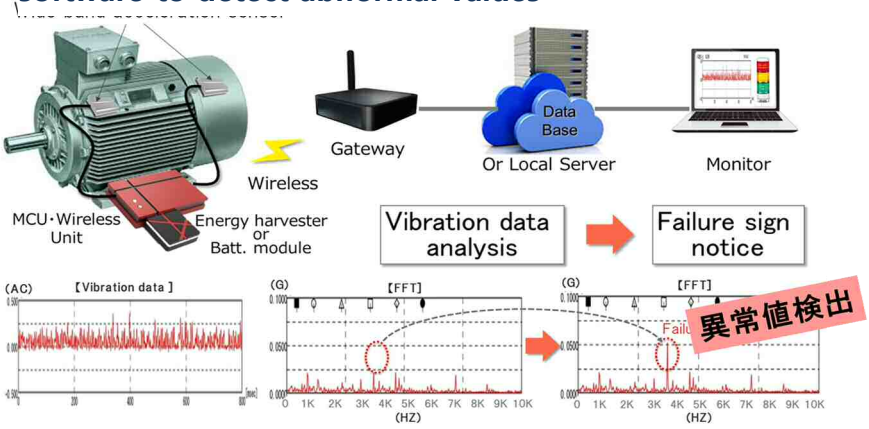
Business Classification		
Business Field		
Company Name		Device & System Platform Development Center Co., Ltd.
Product/ Technology		Data collection terminal system for IoT
Overview of Product/Technology	Characteristics	We are monitoring the operating status of equipment that rotates (such as motors) using the IoT data collection terminal system based on vibration sensors to predict abnormalities and failures (soundness diagnosis). This will contribute to reducing equipment maintenance cost. We are also developing vibrational energy generators (energy harvesting technology) to eliminate the need for battery replacement, simplify maintenance, and conserve energy.
	Keywords	IoT, data terminal, failure sign diagnosis, vibration sensor, vibrational energy generation, energy harvesting
	Price	
Detailed Information about Products/Technology	Details	Data collection terminal system for IoT with sensors, wireless, power, and microcomputers integrated
	Capabilities	
	Cost	
	Life cycle	
	Remarks	
	Pictures relating to products and technologies	**Example: Motor failure predictive diagnostics** • **Vibration data is colelcted, FFT analysis is performed using software to detect abnormal values** 
Advantages	Patent and award history	We are conducting R&D on IoT data collection terminal system technology, high-efficiency energy harvesting technology (broadband vibrational energy generation, radio wave power generation), and ultra-low energy consumption sensor modules sponsored by NEDO (national project)
	Examples of uses (Domestic and overseas)	・In a demonstration experiment, large-scale/long-distance LPWA wireless devices were shown to be effective. ・Technology developed as a commission for the City of Kawasaki Waterworks Bureau and NEDO is being evaluated for practicality.