

# Japan Booth



Supported by  
Ministry of Economy, Trade and Industry of Japan

Conducted by  
Japan Space Systems

33<sup>rd</sup> Small Satellite Conference  
Logan, UT, USA  
August 5-8, 2019



# Exhibitors

We are seeking sales representatives and distributors as partners.

Click and jump a company page you are interested in.

1. [Amanogi, Corp.](#)
2. [Crystal Optics Inc.](#)
3. [Digital Signal Technology, Inc.](#)
4. [IHI AEROSPACE Co., Ltd.](#)
5. [INTERSTELLAR TECHNOLOGIES Inc.](#)
6. [Ishitoshi Machining Inc.](#)
7. [KANEKA CORPORATION](#)
8. [Kawasaki Heavy Industries, Ltd.](#)
9. [Kyocera Corporation](#)
10. [Nippon Light Metal Company, Ltd.](#)
11. [Shimafuji Electric Inc.](#)
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13. [Space BD Inc.](#)
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15. [TAMAGAWA SEIKI Co., Ltd.](#)
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- [Japan Aerospace Exploration Agency](#)
- [Japan External Trade Organization](#)
- [Organization for Small & Middle Enterprises and Regional Innovation, Japan](#)

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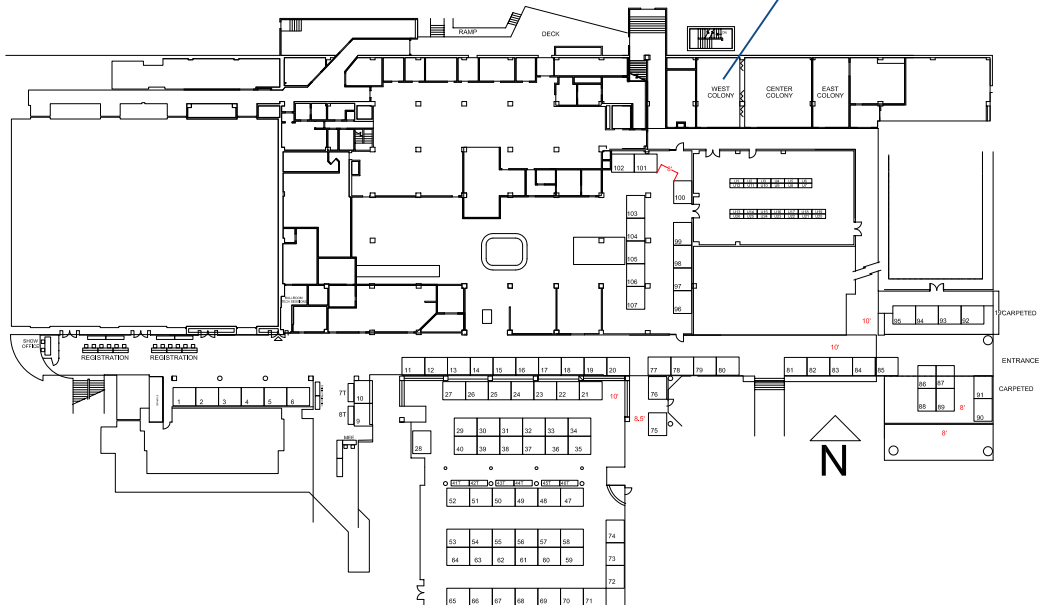


# West Colony

## Japan Booth



### Taggart Student Center





# Amanogi Corp.



**Yu Kudo (工藤 裕)**

[kudo@amanogi.space](mailto:kudo@amanogi.space)

Hi, my name is Yu Kudo. I'm CEO of Amanogi Corp. which is startup for Cubesat in Japan. It is interesting to note that I had made a planetarium to show stars hiding in dark sky, and now I'm developing a star trucker to take them.

**株式会社 天の技**

Discover Unknown Space

<https://amanogi.space/en/>



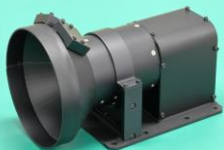
## For The Future Of Smart Space

We are Startup in Japan to make Cubesat components and to develop AI technology analyzing space data in a orbit.

**Star Trucker for Cubesat    AI Technology in Space**



Production Model



Prototype Model





**Chieko Sawai**

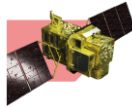
[c.sawai@crystal-opt.co.jp](mailto:c.sawai@crystal-opt.co.jp)

I'm Chieko Sawai, a sales rep. I practice Sado, Japanese tea ceremony and I'm an instructor of Ikebana, Japanese flower arrangement. Also I play a percussion instrument in the orchestra. I like to challenge myself.

## クリスタル光学

POLISH UP the WORLD

<https://www.crystal-opt.co.jp/>



Source : JAXA  
(The Japan Aerospace Exploration Agency )  
Advanced Optical Satellite 'ALOS-3'  
<http://www.satnavi.jaxa.jp/project/senshin/>

### 「 Large Diameter Optical Mirror 」

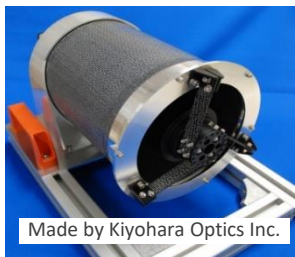
- Optical Satellite
- Rib structure



Credit ©ITER Organization  
<http://www.iter.org/>

### 「 Large Stainless Toroidal Mirror 」

- For “ITER”
- Size 400x300mm



Made by Kiyohara Optics Inc.



### 「 Space Telescope 」

- Small Satellite
- For “HODOYOSHI-4 sat”

Copyright: HODOYOSHI-Project,  
NeSTRA, Intelligent Space Systems  
Laboratory University of Tokyo



**Masaru Aoki (青木 勝)**

[masa@dst.co.jp](mailto:masa@dst.co.jp)

I will never forget when the first transceiver developed was successfully launched and received the first signals from the satellite.

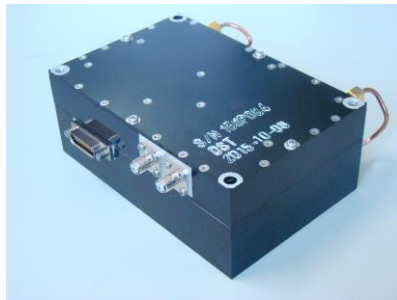
## ディエステクノロジー

Specialized in RF and communication system

<http://www.dst.co.jp/>



### S-BAND TRANSCEIVER DSTRX-1



### CUBE SAT S-BAND TRANCEEVER DSTRX-2





# IHI AEROSPACE Co., Ltd.



**Tomomi Hirai (平井 伴実)**

[Tomomi-hirai@iac.ihi.co.jp](mailto:Tomomi-hirai@iac.ihi.co.jp)

I love to visit various places and was so impressed when I saw Antelope Island my first time. Enjoy our exhibit and feel the Japanese and IHI Aerospace technologies.

## 株式会社IHIエアロスペース

Realize your dreams

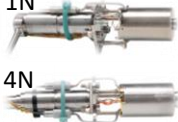
<https://www.ihi.co.jp/ia/en/index.html>

**IHI**AeroSpace

IHI Aerospace (IA) is carrying out the development, manufacture and sales of rocket projectiles, and has been contributing in a big way to the indigenous space development in Japan. Also IA produces FRP components of aero-engine for civil passenger.



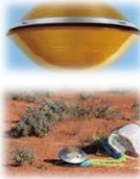
Epsilon Launch Vehicle  
1N



Catalytic Decomposition  
Thruster



H-IIA Launch Vehicle



Sample Return Capsule from space



Exposed Facility of ISS Japanese  
Experimental Module

Fan case



Structural  
guide vane FAN-  
SGV  
module



# INTERSTELLAR TECHNOLOGIES Inc.



**Kazufumi Ikemoto (池本 和史)**

[kazufumi.ikemoto@istellartech.com](mailto:kazufumi.ikemoto@istellartech.com)

Our base place Hokkaido is great because it has a lot of nature and beautiful sceneries, and you can enjoy fresh seafoods. I dislike only that it's very cold in winter :-). It's also suitable for rocket launch to east / south direction.

**インターステラテクノロジズ(株)**

A family sedan for the stars

[http://www.istellartech.com/front-page\\_en](http://www.istellartech.com/front-page_en)



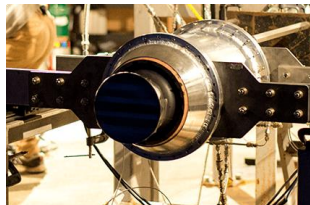
## Our Rocket Technologies



Sounding Rocket MOMO



Micro-satellite Launch Vehicle  
ZERO



Engine Development



LEAP





**Mitsuyoshi Ishikawa (石川 実良)**

[m.ishikawa@ishitoshi.co.jp](mailto:m.ishikawa@ishitoshi.co.jp)

I'm studying sushi very hard these days. There are various styles of sushi. I think Edomae-zushi is the best among them. My problem is that my wife gets mad at me because my research costs are high.

**石敏鐵工株式会社**

Company meeting your expectations

<http://www.ishitoshi.co.jp/>

**ISHITOSHI**

**MONO BASE FRAME**

## NextGen CubeSat Frame

**Production type** one piece  
base frame for CubeSat

Machined **MBF** satisfies  
your requirements flexibly



**MBF**  
**MONO BASE FRAME**

1U~3U available



# KANEKA CORPORATION



**Shuichiro Tsubota (坪田 修一郎)**

[Shuichiro.Tsubota@kaneka.co.jp](mailto:Shuichiro.Tsubota@kaneka.co.jp)

I am a musician as a guitarist, bassist and a composer on holidays. Unfortunately, this time I join in the conference as a musician but as an exhibitor.

**株式会社 力ネカ**

The Dreamology Company  
– Make your dreams come true –

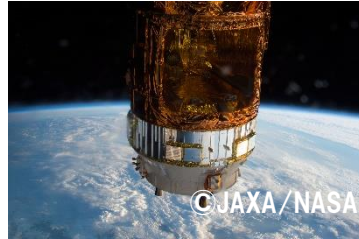
<http://www.kaneka.co.jp/en/>

**kaneka**

## **Super Insulation(Multi Layer Insulation) and Thermal Strap**



Super Insulation(SI)  
(Multi Layer Insulation)



H-II Transfer Vehicle  
KANEKA SI is used



Thermal Strap



**Kazuhiro Morita (森田 和宏)**

[morita\\_kazuhiro@khi.co.jp](mailto:morita_kazuhiro@khi.co.jp)

I have a little boy. We practice to work in a park during weekend. We really enjoy there because the park in Japan clean. KHI contributes to prepare for orbital environments with ADR for future.

**川崎重工業株式会社**

Powering your potential

<https://global.kawasaki.com/>



## Future Services

### Active Debris Removal Services for Sustainable Orbit



ADR Services  
in the future

Capturing Mechanism



Vision-based  
Navigation

In-Orbit Demonstration  
by Microsat in 2020



In development

## Main Products



H-IIA/H-IIB/Epsilon/H3  
Launch Vehicle Fairing



(Stored)



(Extended)

Capturing Mechanism  
using extendable booms



# Kyocera Corporation



**Masa Kamiura (神浦 真亜)**

[masatsugu.kamiura.gt@kyocera.jp](mailto:masatsugu.kamiura.gt@kyocera.jp)

It will be my 3<sup>rd</sup> years to join this Small Sat Conference. It is always exciting to see the people in Logan from all over the world. Looking forward to seeing you again this year!

## 京セラ株式会社

High Strength / Low Thermal  
Expansion Ceramics for Space Optics

<https://global.kyocera.com/prdct/fc/index.html>

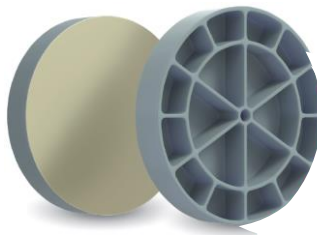


***Enabling Light Weight with High Rigidity for Space Optics***

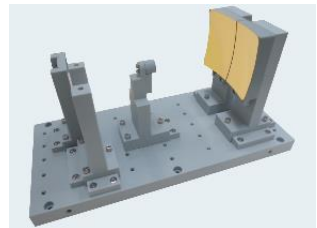
## Fine-Cordierite



Newtonian Telescope



Optical Mirror



Cordierite Optical System  
(Sarugaku et al, 2018, SPIE)



**Minimal Temperature Deformation**



**Approx. 70% or More Weight Reduction**



**For Structural Components Parts**





## Nippon Light Metal



**Nao Kaneko (金子 奈保)**

[nao-kaneko@nikkeikin.co.jp](mailto:nao-kaneko@nikkeikin.co.jp)

It is the first time for our company to participate in Japan Booth. I'm very excited!! I Hope this is the good opportunity to let you know us. Please come to see our booth!

**日本軽金属株式会社**

Nippon Light Metal

<http://www.nikkeikin.co.jp>



The NLM Group is a comprehensive manufacturer of aluminum products. From alumina, the raw material required to produce aluminum, to chemicals and other fabricated products, we supply highly diversified products in a wide range of fields, leveraging the collective strength as a technological group that we have cultivated over many years.





# Shimafuji Electric Inc.



**Iwao Fujishiro (藤代 巖)**

[fujishiro@shimafuji.c.jp](mailto:fujishiro@shimafuji.c.jp)

Hello, I am Iwao Fujishiro, CEO Shimafuji Electric Inc. It is great honor to participate in Japan booth. This is 4<sup>th</sup> times to host our booth in the Small Satellite Conference, and I am looking forward to build many relationship especially Spacewire related development. Please feel free to contact me at booth or email me for any questions.

## シマフジ電機株式会社

Shimafuji Electric Inc.

<http://www.shimafuji.co.jp>



## SpaceWire Products



**Space Pi**

SpaceWire Appliance Reference Board



**SpaceWire-to-GigabitEthernetR2**

## Science-Technology Products



**ZDAQ-SoC**

For solar observations



**GROWTH-FY2016**

For thundercloud observations

## Embedded Modules



**SEMB1401**

IoT-Engine RZ/T1



**SEMB1402**

IoT-Engine RZ/A2M



# Silicon Sensing Systems Limited



**Hironori Yamaguchi (山口 洋徳)**

[yamagu-h@spp.co.jp](mailto:yamagu-h@spp.co.jp)

I've recently taken up jogging as part of my morning routine and I feel great. When I have some free time, Sometimes I go to the circuit. This is my first time visiting Logan. Enjoy the Japan booth and our products.

**Silicon Sensing Systems**

Everything in motion

<https://www.siliconsensing.com>

**SILICON SENSING** 



**Collins Aerospace**

**SPP**

**Sumitomo  
Precision  
Products**

**Collins  
Aerospace**

**Silicon Sensing  
Systems Ltd**

**Silicon  
Sensing  
Products UK**

**Silicon Sensing  
Products Japan**

**Silicon Sensing  
Systems Japan**

**IMUS / Combi-  
sensors**



**Gyros**



**20**  
SILICON SENSING  
YEARS OF PARTNERSHIP  
BOSCH SENSING SOLUTIONS





**Daisuke Takahashi (高橋 大介)**

[d.takahashi@space-bd.com](mailto:d.takahashi@space-bd.com)  
+81-80-3393-8406

It is a great pleasure to participate Small Satellite Conference! I am very excited to meet a lot of people and promote “industrialization of space” together! Please feel free to talk or contact to me.

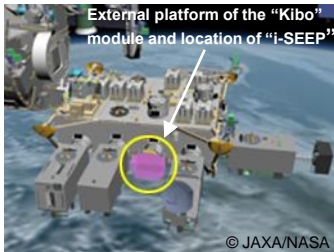
## Space BD株式会社

BRING DREAMS AND COMMERCE INTO SPACE

<http://www.space-bd.com/en/>



**Space BD**



### Authorized by JAXA

Selected as the official service provider for

- **Satellite deployment** from ISS “Kibo”
- **In-Orbit demonstration** using external platform “i-SEEP” on ISS “Kibo”

Space BD provides various services and solutions for overcoming obstacles to the industrialization of space, and contribute to developing space even further.

1. *One-Stop Satellite Launch Service*
2. *ISS Experimental Platform Service*
3. *Trading of Space Hardware*
4. *Business Incubation*





# Takasago Electric, Inc.



**Masahiko Inoue (井上 昌彦)**

[m-inoue@takasago-elec.co.jp](mailto:m-inoue@takasago-elec.co.jp)

Hello! This is our third time to exhibit here and I think always very excited to meet you face to face at the booth. Let's come Takasago's booth, we would be able to offer you the vest for less volume and weight of your system.

**高砂電気工業株式会社**

**Our Strength are Customization,  
Miniaturization & Integration**

<https://www.takasago-fluidics.com/>

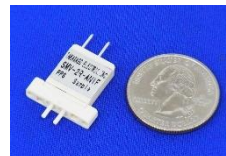


Takasago Electric, Inc. **supplies valves and pumps** primarily to clinical diagnostics and other analytical instrumentation fields for almost 60 years.



With our strengths of customization, miniaturization and integration, we have developed more than 10,000 models of fluidic devices and have accumulated know-how in high-mix low-volume production.

Utilizing the quality control capabilities derived from our experience in the medical field, we also provide high-quality and high-standard products to the aerospace field.



We hope to contribute to the international society by setting targets at a global level and by continuing to manufacture high quality and high performance products.



**TAMAGAWA SEIKI CO., LTD.**



**Yuri Yano (矢野 有里)**

**Jun Kiryu (桐生 潤)**

[yuri-yano@tamagawa-seiki.co.jp](mailto:yuri-yano@tamagawa-seiki.co.jp)

[jun-kiryu@tamagawa-seiki.co.jp](mailto:jun-kiryu@tamagawa-seiki.co.jp)

Tamagawa Seiki contributes to the development of a variety of onboard equipment for rockets, space satellites and space stations by providing rotary sensors, drive motors, actuators and various types of mechanical units.

**多摩川精機株式会社**

***Continuing to Challenge Angle and Accuracy***

<http://www.tamagawa-seiki.com>



## Our 5 Applications

### **F**actory **A**pplication



### **S**cience **A**pplication



### **A**musement **A**pplication



### **V**ehicle **A**pplication



### **S**pace **A**pplication

High Precision  
Resolver

Reaction Wheel

Fiber Optical  
Gyroscope

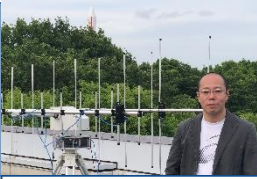
**From COTS  
To Space qualified**

Come  
See  
Us





# WARPSPACE



**Masanori Seki (関 正徳)**

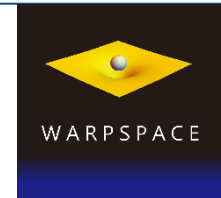
masanori.seki@warpspace.jp

I have been engaged in satellite/ground system development for over 15 years, but It will be my first time to participate in the small satellite conference.  
I am looking forward to talk about the future Space.

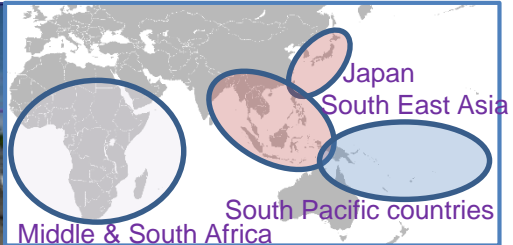
## 株式会社 ワーpsペース

Establish the telecommunication/data infrastructure for economic activity on outer space.

<https://warpspace.jp/>



**1. WARPSPACE Ground Station Service** using our portable ground station network, will be available from this summer.



**2. CubeSat COM, EPS, OBC, GPS modules**, we are currently developing and will launch at March 2020.





# Yamaguchi Aerospace Cluster



**Teruki Sakura (櫻 旭輝)**

[t-sakura@ymg-ssz.jp](mailto:t-sakura@ymg-ssz.jp)

Network of 7 manufacturing companies with high-quality manufacturing standard.  
With SAMURAI SPIRITS, we work together to solve various manufacturing issues of developers!

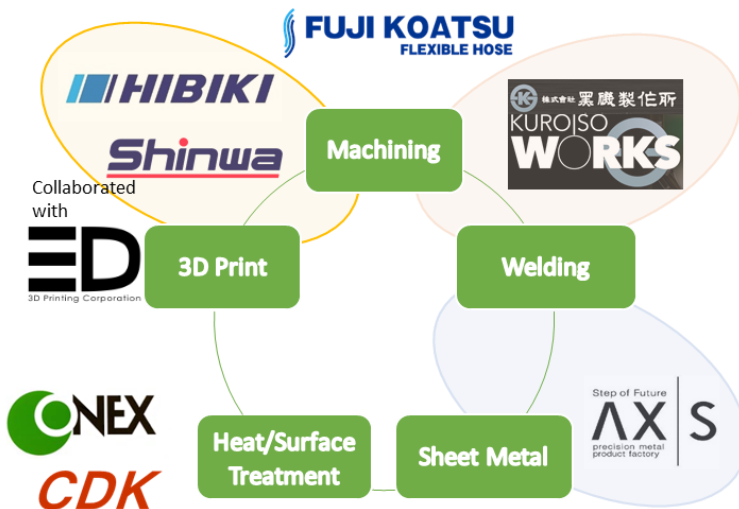
**山口県航空宇宙クラスター**

Discover our techniques !

<http://bit.ly/2WweZnA>



Yamaguchi  
Aerospace  
Cluster



★ Multi-process collaboration system + Robust Quality Control Practice! (AS9100)

★ Familiar with R&D! (JAXA, Space start-up companies)

★ Challenge to new materials and techniques!

(Non-Combustible Mg-alloy, Metal + CFRP/GFRP/KFRP 3D printing)



## YUKI Precoson Co., Ltd.



**Yukiko Matsumoto (松本 幸子)**

[yukiko.matsumoto@yukiseimitsu.co.jp](mailto:yukiko.matsumoto@yukiseimitsu.co.jp)

Hello. This is my second time at this conference. Logan and Salt Lake City are nice cities, Utah State university is also beautiful. I love it here! I will be happy to introduce you to our engineering services for satellite components.

**株式会社由紀精密**

R&D for small satellite components

<https://www.yukiseimitsu.co.jp/english>

**YUKI**



### **SAFE & COMPACT**

Low toxic monopropellant thruster in development. Our product is currently in development to enable advantages of chemical reaction thrusters in a convenient compact package suitable for micro satellites without the risks of traditional toxic hydrazine propellants.







# Japan Space Systems



**Shinsaku Nakamura (中村 晋作)**

[Nakamura-Shinsaku@jspacesystems.or.jp](mailto:Nakamura-Shinsaku@jspacesystems.or.jp)

My kids and I practice Kendo. The photo was about when my little son started. He cried because he thought his sister would hit him harder. Do not worry, he continues to practice, and we won the city tournaments last spring!

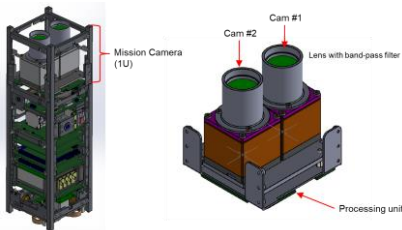
## 宇宙システム開発利用推進機構

Provide Total Solution by Total Space technology



<https://ssl.Jspacesystems.or.jp/en>

## Human Resource Developments in Africa



Small Sat Development



Satellite Data for SGDs



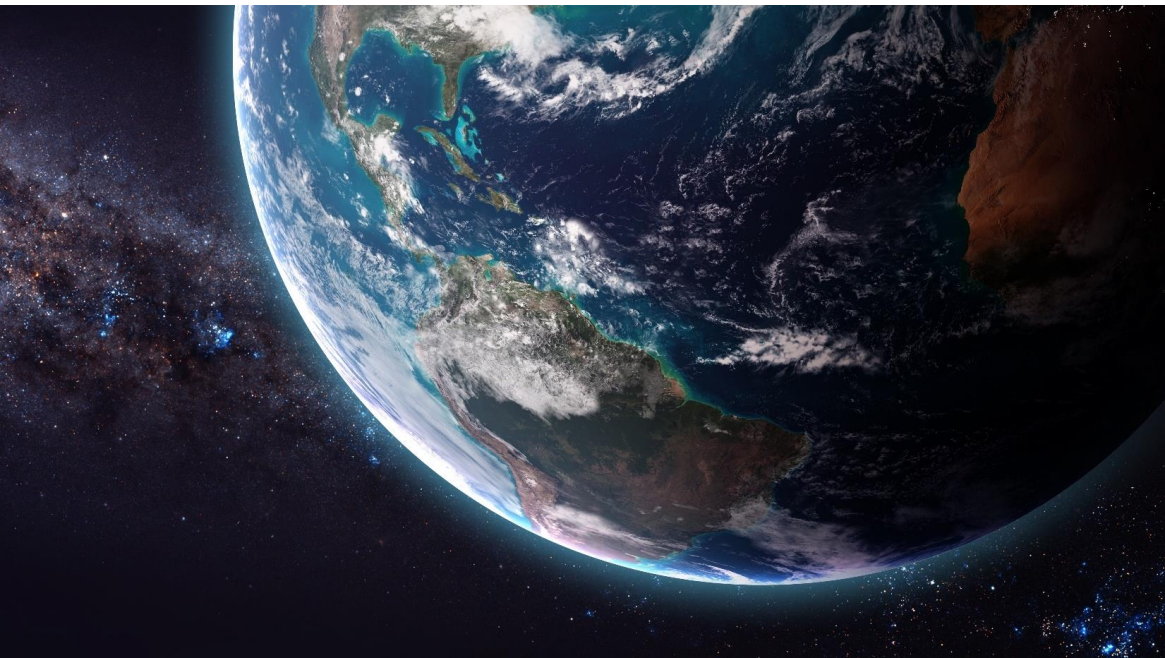
Field & in-Class Remote Sensing Trainings  
(Japan (Left), Zambia (Cent.), Uganda (Right))



# Editor's Note

## Space Industry and Local Revitalization in Japan

Thank you for another year, Japan Booth to be open at West Colony, 33<sup>rd</sup> Small Satellite Conference. As you saw the cover page, we all came from all parts of Japan. This year, new 6 talented companies have participated. We love to dream about space, but we love much to calculate, design and develop new space systems, services and applications. Our those activities in all of Japan will not only develop space industry but also play roles for local revitalization technologically, economically and educationally.



経済産業省

Ministry of Economy, Trade and Industry



Japan.  
Space  
Industry



