



# VANJ CONFERENCE 2022



**DIVERSITY**  
FOR  
AN **INCLUSIVE**  
**SOCIETY**

NOV  
**26-27**  
2022

Onsite Venue: The University of Tokyo - Hongo Campus  
Online Platform: Zoom Conference + Slack





**Vietnamese Academic Network in Japan**  
一般社団法人在日ベトナム人学術ネットワーク



## VISION

Our vision is to be the representative platform/network for Vietnamese academics in Japan, where generations of Vietnamese intellectuals gather and connect, initiate and promote education, science, and technology, and contribute to the development of Vietnam.

## MISSION

Our mission is to initiate and promote networks among the Vietnamese academic community in Japan towards progressive values that make practical contributions to the development of Vietnam and the good relationship between Vietnam and Japan.

### **“To Share Knowledge”**

*VANJ places “sharing knowledge” at the center of all its activities. VANJ considers knowledge to be the lasting value of humanity and a lever for breakthrough developments in society. VANJ’s activities are intended not only to facilitate the creation of new knowledge but also to promote sharing of useful information, knowledge, and experience within the intellectual community and to society.*

### **“Via Academic Network”**

*The foundation of VANJ is based on individuals and organizations in the fields of research and academia. The academic network is, therefore, a primary goal and core activity of our mission. “Academic network” includes connections within the network, between individuals and member organizations, and with external partners such as corporations, government agencies, investment funds, and other research institutions around the world to create value in bridging academia and industry.*

### **“For Society”**

*VANJ promotes the contribution of Vietnamese scientists, researchers, and experts in Japan to the development of Vietnam, Japan in particular, and the world in general, as a core value. VANJ hopes to connect scientists, researchers, and experts with national and international institutions, companies, and organizations to provide knowledge and initiatives to help solve social problems and create breakthrough developments.*



**QR code to VANJ website - Join us today**

# VANJ2022 SPONSOR

## GOLD

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**Vietnam Japan  
Open Innovation  
Network (VJOIN)**



**HỘI TRÍ THỨC VIỆT NAM TẠI NHẬT BẢN**  
Association of Vietnamese Intellectuals in Japan

## SILVER

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Joy brings us together



## BRONZE

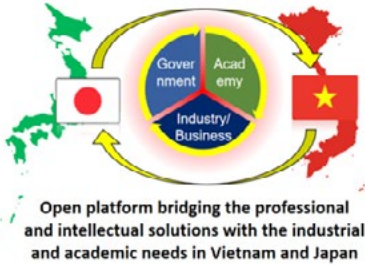
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**Mạng lưới Đổi mới Sáng tạo Việt Nhật**  
**Vietnam Japan Open Innovation Network (VJOIN)**  
 Established : 5/2020 Website: <https://vjoin.org> Email: [info@vjoin.org](mailto:info@vjoin.org)

**Vision**



**Missions**

- Network**
  - Vietnamese intellectuals in Japan
  - Connect Industries between VN-JP
  - Bridging academic worlds VN-JP
  - Science and technology events
- One-Stop-solutions**
  - Tech transfer
  - R&D
  - Training Vietnamese students and staff in JP
  - Search for solutions for industrial and local need
- Support**
  - Direct Support to NIC Vietnam
  - Advice scholarships for students
  - Exchange students and staff
  - Facilitate Japanese academic and professionals to VN

**Activities**

**Seminar, Webinar, Mentoring program**

**Collection of Papers about Japan's Technology and Science**

- Number of papers: 35 (about 300pages)
- Establish: Nov. 2021

**Series Webinar - "Vietnam Technology ~LIVE" with JETRO**

Introduce Vietnamese Startups **Fintech - Meditech - Edutech - Agritech - AI - Ecommerce - Mobility - Logistic - HR/CRM/ERP - Telehealth** to Japanese Enterprises



The Association of Vietnamese Intellectuals in Japan (AVIJ), the Vietnamese name is Hội Trí thức Việt Nam tại Nhật Bản (Hội Trí thức), was established with the goal of connecting all individuals and intellectual groups of Vietnamese people in Japan, regardless of gender, age, expertise, and geographic region. Through AVIJ, each member will have the opportunity to approach Vietnamese experts in the same field in Japan, Vietnam, as well as other countries around the World; access to information on policies, domestic projects, technology problems, and needs in Vietnam; approach agencies and units to support the realization of ideas to contribute to Vietnam and the World.

AVIJ also creates opportunities for cooperation between individuals and individual groups, creating collective strength to implement challenging projects for individuals and groups. Through these activities, the AVIJ wishes to create a unified voice and elevate the position and role of the Vietnamese intellectual community in Japan.

AVIJ is currently the convergence of intellectual groups across Japan, notable organizations such as the Community of Scientists Teaching/Researching (VANJ), the Community of Working Experts/Partners in companies/conglomerates (VPJ), the Student Youth Community (VYSA), the local Vietnamese intellectual communities throughout Japan, and the Vietnam Innovation Network in Japan (VJOIN). The Intellectual Association connects, supports, and replicates the activities of the groups mentioned above.



**KIRIN**  
HOLDINGS

Joy brings us together  
 **KIRIN**

Kirin Holdings Company, Limited is an international company that operates in the Food & Beverages domain (Food & Beverages businesses), Pharmaceuticals domain (Pharmaceuticals businesses), and Health Science domain (Health Science business), both in Japan and across the globe.

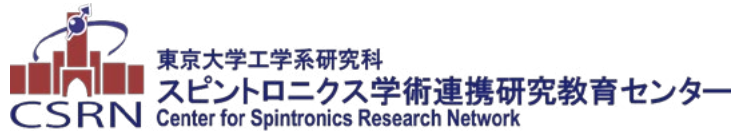
Kirin Holdings can trace its roots to Japan Brewery which was established in 1885. Japan Brewery became Kirin Brewery in 1907. Since then, the company expanded its business with fermentation and biotechnology as its core technologies, and entered the pharmaceutical business in the 1980s, all of which continue to be global growth centers. In 2007, Kirin Holdings was established as a pure holding company and is currently focusing on boosting its Health Science domain.

Under the Kirin Group Vision 2027 (KV 2027), a long-term management plan launched in 2019, the Kirin Group aims to become A global leader in CSV\*, creating value across our world of Food & Beverages to Pharmaceuticals. Going forward, the Kirin Group will continue to leverage its strengths to create both social and economic value through its businesses, with the aim of achieving sustainable growth in corporate value.





## VANJ2022 CO-ORGANIZER



## VANJ2022 PARTNERS

**CỘNG ĐỒNG Y SINH**  
VIETNAM BIOMEDICAL SCIENCE COMMUNITY

Share   Connect   Support   Develop

[fb.com/congdongsinh](https://fb.com/congdongsinh)   [congdongsinh@gmail.com](mailto:congdongsinh@gmail.com)

**MẠNG LƯỚI THỦ Y TRÉ VIỆT NAM**  
Vietnam Youth Vet Network

[fb.com/vietnamyouthvetnetwork](https://fb.com/vietnamyouthvetnetwork)   [www.vyvn.org](http://www.vyvn.org)



# MESSAGE

# FROM THE CONFERENCE'S ORGANIZING COMMITTEE CO-CHAIRS

*Dear colleagues and friends,*

On behalf of the Vietnamese Academic Network in Japan (VANJ), the co-chairs of the Organizing Committee VANJ2022 welcome you to Tokyo, Japan. Tokyo is one of the most vibrant and cosmopolitan cities in the world, and as Japan's capital, it is also the administrative, financial, commercial, cultural, and educational center of Japan. At the intersection of all this merging power, great minds and ideas flow together for exchanges and sharing that bring forward new and rich knowledge and innovation, building communities that lead the city to the forefront of the world.

In this new age, new normal, and connected world, digital solutions allow us all to transcend physical borders to build virtual bridges that enable a constant and accessible flow of knowledge. Leveraging this, VANJ2022 is proud to be holding a VANJ conference in a hybrid format for the first time ever in order to bring everyone together onto our multidisciplinary platform both virtually and physically at the very heart of Tokyo. Reflecting today's reality as we strive towards our mission of sharing knowledge for society, and along with the rich variety of topics put together this year, it becomes very fitting that VANJ2022 is built around the theme of *"Diversity for an Inclusive Society."*

The value of community, diversity, and inclusion is at the heart of the Tokyo spirit. VANJ2022 will bring together researchers, engineers, policymakers, and practitioners from various backgrounds in academia and industry to exchange the latest scientific findings, experience, and know-how for promoting the co-creation of new knowledge. The scientific program will present several special sessions, specifically designed to approach the goal of an inclusive society with diversity in multiple aspects of education, research, and development.

We sincerely welcome you and hope that you will take this opportunity to join VANJ 2022 in the conversation and move together toward a diverse, inclusive, and sustainable society while making it a pleasant and memorable experience.



**Assoc. Prof. Anh T.N. Dao**  
Nagasaki University  
VANJ, President



**Assist. Prof. Tung D. Ta**  
The University of Tokyo  
VANJ, Head of Database



**Dr. Hanh Vu, MD, PhD, MBA**  
Gifu University  
VANJ, Head of Publishing



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**Dr. Nguyen Thanh Vinh**, VANJ

# GENERAL INFORMATION

## ● VENUE

Building 2, Faculty of Engineering

The University of Tokyo 7-3-1 Hongo, Bunkyo-ku, Tokyo, 113-8656 JAPAN

## ● SPEAKER SERVICES

### For on-site:

Saturday, November 26<sup>th</sup>: Reception Desk, 1<sup>st</sup> floor

Sunday, November 27<sup>th</sup>: Reception Desk, 3<sup>rd</sup> floor

### For online:

<https://vanj.jp/links/vanj2022-zooms>

Person in charge/contact: Tung D. Ta / 080-9036-0127

## ● WIFI

Available at venue

## ● NETWORKING SESSION

Networking & Luncheon will be held in Room 2+3+4 on the 3<sup>rd</sup> floor

Time slot: 12:00 PM - 1:30 PM, Sunday, November 27<sup>th</sup>.

Food and drinks will be provided on-site for the Networking Session, from 12:00 PM at the Reception Desk on the 3<sup>rd</sup> floor.

## ● CERTIFICATES OF ATTENDANCE

- Eligible criteria: All REGISTERED attendances are eligible to request a Certificate of Attendance.

- How to get it:

Please email us ([conf@vanj.jp](mailto:conf@vanj.jp)), attached to your conference ticket.

Subject for the email “[VANJ2022] REQUEST for CERTIFICATES OF ATTENDANCE  
(Please clearly state your contribution to VANJ2022, if available.)

## ● POSTER PRESENTATION INFORMATION

- Venue: Room 2, 3<sup>rd</sup> floor

- Poster Set-Up: Saturday, November 26<sup>th</sup>; From 8:00 AM

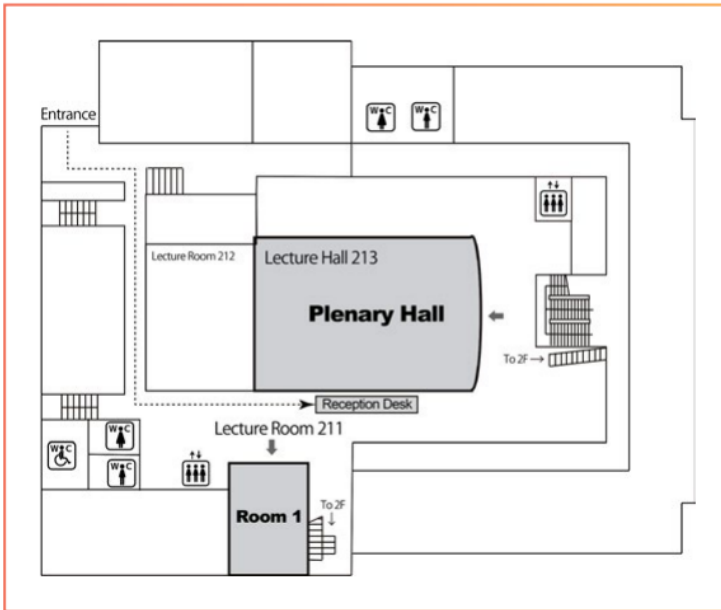
- Poster Tear Down: Saturday, November 26<sup>th</sup>; From 2:45 PM – 3:00 PM

- Poster Presentations: Saturday, November 26<sup>th</sup>; From 12:30 PM to 1:30 PM

Time slots for poster presentations and links to join online are available at page 29 (Poster Session Program)

# FLOOR PLAN, 1<sup>ST</sup> FLOOR

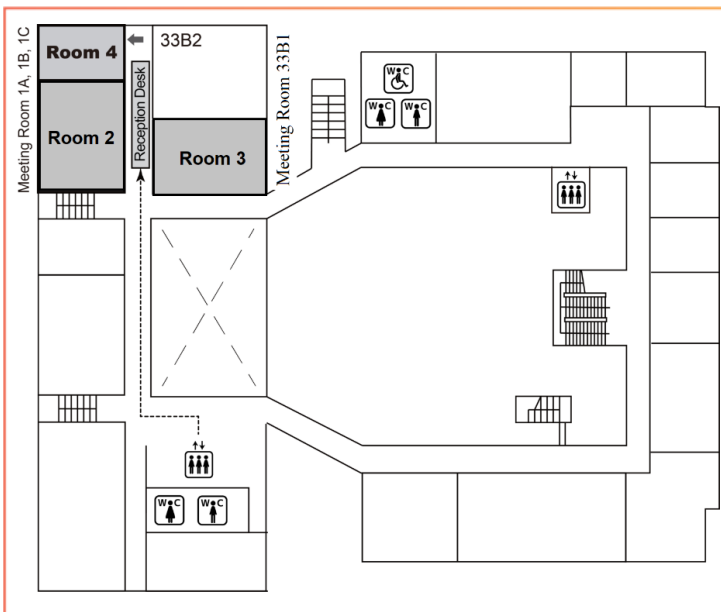
# PLENARY HALL, ROOM 1



*Please visit us at the Reception Desk in front of Plenary Hall on your first coming!*

# FLOOR PLAN, 3<sup>RD</sup> FLOOR

# ROOM 2, ROOM 3, ROOM 4



## OTHER INSTRUCTIONS

- Lunch boxes and drinks will be provided to all speakers (Invited speakers, Guest speakers, General Speakers) and Organizing Members who attend on-site.

*Please pick up your lunch box and drinks at the Reception desk on the 3<sup>rd</sup> floor from 12 PM.*

*Please follow the on-site instructions on COVID-19 prevention.*

- For Audiences: There are many restaurants that serve lunch in front of the Main Gate of The University of Tokyo. We recommend you get lunch there. A quick grab at the Lawson convenience store next to the venue is also a good choice.

## COVID COMFORT GUIDELINES



**I feel comfortable shaking hands**



**I feel comfortable with an elbow bump as a greeting**



**I feel comfortable with a six-foot distance**

*Please ask for the stickers that indicate your comfort level in contact at VANJ2022.*



# CONFERENCE SCIENTIFIC PROGRAM

## AT-A-GLANCE

### SATURDAY, NOVEMBER 26, 2022

	PLENARY HALL (1F)	ROOM 1 (1F)	ROOM 2 (3F)	ROOM 3 (3F)	ROOM 4 (3F)
9:00 AM	Opening Ceremony				
9:30 AM	S01_Plenary Diversity for an Inclusive Society <b>9:30 AM – 11:00 AM</b>				
10:00 AM					
10:30 AM					
11:00 AM		S08_Very Large Scale Integration and 6G <b>11:00 AM – 12:30 PM</b>	O01_General Session 1 <b>11:00 AM – 12:30 PM</b>		
11:30 AM					
12:00 PM					
12:30 PM		LUNCH <b>12:30 PM – 1:30 PM</b>			Poster Session <b>12:30 PM – 1:30 PM</b>
1: 00 PM					
1:30 PM		S07_Economic Policy Uncertainty <b>1:30 PM – 3:20 PM</b>	S04_Robotics & AI <b>1:30 PM – 3:00 PM</b>		
2:00 PM					
2:30 PM					
3:00 PM	BREAK				
3:30 PM			S09_Towards 3D Energy Landscape: Digitalization, Decarbonization, Decentralization <b>3:30 PM – 5:00 PM</b>	S05_Lessons From COVID19: Veterinary Medicine & One Health Perspective <b>3:30 PM – 5:00 PM</b>	
4:00 PM					
4:30 PM					



## SUNDAY, NOVEMBER 27, 2022

	PLENARY HALL (1F)	ROOM 1 (1F)	ROOM 2 (3F)	ROOM 3 (3F)	ROOM 4 (3F)
9:00 AM		S03_Quantum Materials Science <b>9:00 AM – 10:30 AM</b>			O02_General Session 2 <b>9:00 AM – 10:30 AM</b>
9:30 AM					
10:00 AM					
10:30 AM			S13_Municipal Environmental Pollution and Human Health Risks <b>10:30 AM – 12:00 PM</b>	S06_Innovation for Eco-friendly and Long-life Infrastructures <b>10:30 AM – 12:10 PM</b>	
11:00 AM					
11:30 AM					
12:00 PM			Luncheon – Networking <b>12:30 PM – 1:30 PM</b>		Luncheon – Networking <b>12:30 PM – 1:30 PM</b>
12:30 PM					
1: 00 PM					
1:30 PM			S11_Microbiome: The Inclusive & Diverse Society Inside Us <b>1:30 PM – 3:15 PM</b>	S12_Frontiers of Sustainable Science <b>1:30 PM – 3:30 PM</b>	
2:00 PM					
2:30 PM					
3:00 PM	<b>BREAK</b>				
3:30 PM		S14_Polymer Chemistry & Engineering for Sustainable Environment <b>3:30 PM – 5:00 PM</b>	S10_Organ-on-chip Technology for Drug Development <b>3:30 PM – 5:00 PM</b>		
4:00 PM					
4:30 PM					
5:00 PM	Moving to Plenary Hall at 1F				
5:30 PM	Closing Ceremony				

## SATURDAY, NOVEMBER 26, 2022

<b>8:00am – 5:00 pm</b>	Speaker Services Open	Reception Desk	
<b>8:00am – 5:00 pm</b>	Registration Open	Reception Desk	
<b>9:00am – 9:30am</b>	Opening Ceremony	Plenary Hall	
<b>9:30am – 10:40am</b>	<b>Plenary Session</b>		
	<p><b>Organized by:</b> Assist. Prof. Tung Ta Duc, The University of Tokyo, Chair          Assoc. Prof. Le Duc Anh, The University of Tokyo, Co-Chair</p> <p>After three years of social distancing, we are making progress in adapting to the new normal. Countries are gradually relieving the traveling restriction, re-opening the economy, and becoming ready for constructing a new future. To accelerate our society's development, we need everyone's contribution, regardless of their background. We understand the crucial role of diversity in a modern, inclusive society deeply. Social inclusion is a process by which efforts are made to ensure equal opportunities for all, regardless of their background, so that they can achieve their full potential in life. It is a multi-dimensional process aimed at creating conditions that enable full and active participation of every member of society in all aspects of life, including civic, social, economic, and political activities, as well as participation in decision-making processes. In this plenary session of VANJ Conference 2022, we will welcome speakers from both Japan and Vietnam to discuss diversity and inclusion from multiple aspects, including science, technology, education, and application in our society.</p>		
	<b>9:30am – 10:00am</b>	<p><b>Spintronics materials and devices: renaissance of ferromagnetic semiconductors and applications</b>            Masaaki Tanaka</p>	<i>S01-01</i>
	<b>10:05am – 10:35am</b>	<p><b>Autonomy in higher education in Vietnam - opportunities and challenges for HUST</b>            Huynh Dang Chinh, Phung Lan Huong, Nguyen Mai Chi</p>	<i>S01-02</i>

		General Session 1	Room 2-3	
<b>11:00am – 12:30pm</b>  <b>(CONCURRENT)</b>		<b>Organized by:</b> Prof. Hoe Chin Goi, Faculty of Management, NUCB Business School, Chair Assist. Prof. Ton Nu Thanh Nhan, Japan Advanced Institute of Science and Technology, Co-chair		
		<b>11:00am – 11:10am</b>	<b>User Experience, Generation Z and Digital Transformation in Japanese Business</b> Nam Nguyen	<i>O01-01</i>
		<b>11:10am – 11:20am</b>	<b>Linking Training and Development to Employee's Attitude and Behaviours: The Mediating Role of Engagement</b> Ha Nguyen Thu, Thanh Pham Tien	<i>O01-02</i>
		<b>11:20am – 11:30am</b>	<b>The Role of Emerging Industrialized Economies in the Indo-Pacific Region in Combating Climate Change</b> Hoang Anh Q. Nguyen	<i>O01-03</i>
		<b>11:30am – 11:40am</b>	<b>Scaling Social Impact for Sustainability in a Circular Economy by a Social Entrepreneur</b> Kishore Kumar François, Hoe Chin Goi	<i>O01-04</i>
		<b>11:40am – 11:50am</b>	<b>A Short Study on Minima Distribution</b> Loc Nguyen	<i>O01-05</i>
		<b>11:50am – 12:00pm</b>	<b>Microbial Electrosynthesis of Acetate from CO2 using Humin as an Extracellular Electron Mediator</b> Ha Nhu Biec	<i>O01-06</i>
		<b>12:00pm – 12:10pm</b>	<b>Agroecology: Solution for sustainable agriculture development in Vietnam</b> Minh Thu Doan	<i>O01-07</i>
		<b>12:10pm – 12:20pm</b>	<b>Sustaining Native Language Education for Children with Foreign Roots in Japan: A Case Study of Vietnam</b> Bui Sang	<i>O01-08</i>

Very Large Scale Integration (VLSI) & 6G		Room 1	
<p><b>Organized by:</b> Assist. Prof. Hoang Trong Thuc, University of Electro-Communications, Chair  Assist. Prof. Nguyen Ngoc Mai Khanh, The University of Tokyo, Co-Chair  Mr. Nguyen Khai Duy, University of Electro-Communications, Coordinator</p> <p>Typically, electronic circuits incorporate a Central Processing Unit (CPU), memory, and other peripherals on a single Printed Circuit Board (PCB). However, Very Large-Scale Integration (VLSI) allows a hardware developer to add all of these into one chip. VLSI is the process of creating an Integrated Circuit (IC) by combining billions of transistors onto a single chip. The two most common VLSI devices are the microprocessor and memory chips. If we examine the electronics landscape over the last few decades, we will see evidence of its rapid growth. The global semiconductor market is projected to grow from 573.44 billion USD in 2022 to 1,380.79 billion USD by 2029. This growth is mainly due to the rapid advances in VLSI technology and system design applications. With VLSI designs, the number of possibilities for ICs in control applications, telecommunications, high-performance computing, and consumer electronics continues to rise. The current cutting-edge technologies, such as sixth-generation (6G) telecommunication, provide the end-users with an astonishing amount of applications, processing power, and portability. With the ever-increasing demand, VLSI technology will continue to drive electronics advancement. Please join this session of VLSI and 6G with semiconductor experts as invited speakers from Japan, Vietnam, Canada, and France to help us make sense of the trends that shaped the semiconductor industry today.</p>			
<b>11:00am – 12:30pm</b>  <b>(CONCURRENT)</b>	<b>11:00am – 11:15am</b>	<b>Deep Learning Based Side Channel Analysis for Hardware Security Evaluation</b> Van-Phuc Hoang and Do Ngoc Tuan	<i>S08-01</i>
	<b>11:15am – 11:30am</b>	<b>A Configurable Multi-channel Analog front-end for EEG Acquisition on 180nm CMOS Process</b> Duc-Hung Le, Hong-Hai Thai, The-Hung Pham, Thanh-Xuan Nguyen, and Cong-Kha Pham	<i>S08-02</i>
	<b>11:30am – 11:45am</b>	<b>Substrate Innovation for Extending Moore and More than Moore Law</b> Bich-Yen Nguyen, Guillaume Besnard, Walter Schwarzenbach, and Christophe Maleville	<i>S08-03</i>
	<b>11:45am – 12:00pm</b>	<b>Mm-wave Integrated System for Wide-band Sensing Applications</b> Nguyen Ngoc Mai Khanh	<i>S08-04</i>
	<b>12:00pm – 12:15pm</b>	<b>Ultra-Low-Power (ULP) System-On-Chip (SOC) for Internet-Of-Things (IOT) Edge Computing</b> Trong-Thuc Hoang	<i>S08-05</i>
	<b>12:15pm – 12:30pm</b>	<b>How do Modern FPGAs Address Memory-Intensive and Compute-Intensive Applications?</b> Xuan-Thuan Nguyen	<i>S08-06</i>
<b>12:30pm – 1:30pm</b>	POSTER SESSION		<i>Room 4</i>
<b>12:30pm – 1:30pm</b>	LUNCH BREAK		<i>Room 1-2-3</i>

**Organized by:** Dr. Ly Hoang Hiep, The University of Tokyo, Chair  
 Assist. Prof. Tran Dinh Tuan, Ritsumeikan University, Co-Chair  
 Mr. Nguyen Huu Le Quang Tin, Mujin Inc, Coordinator

Robotics and the technologies used in robotics are being applied in various fields, from household and healthcare to industrial manufacturing and autonomous vehicles. However, the robotic field faces numerous challenges based on its hardware and software capabilities related to the technologies like artificial perception (haptic, visual, or auditory), power sources, control algorithms, Artificial intelligence (AI), etc. Currently, AI is interested in being applied to many robotic businesses and research. AI enables robotic automation to improve and perform complicated operations. However, most industrial companies that utilize robots have not yet applied AI-based technology to their products. Traditional control algorithms are still preferred for industrial products due to their precision, stability, and reliability. Nonetheless, AI is forecasted to appear more and more in future robots and industries. In addition, many other scientific disciplines, such as psychology and neuroscience, are interested in applying robotics and AI to research, for example, investigating human behavior when interacting with devices, machines, and robots. In this conference, we will hear the opinions of experts from academia and industry on current technologies and issues related to Robotics, Artificial Perception, Control, and AI.

**1:30pm – 3:00pm**

**(CONCURRENT)**

<b>1:30pm – 1:48pm</b>	<b>Tactile Sensors Based on the Softness of Materials</b> Hiroki Ishizuka	<i>S04-01</i>
<b>1:48pm – 2:06pm</b>	<b>A Study on Fast and Precise Position Control of Light-weight Robots with Double-Encoder-Integrated Elastic Joints</b> Trung Tran Vu	<i>S04-02</i>
<b>2:06pm – 2:24pm</b>	<b>Combination of fMRI and Artificial Neural Networks for Modeling Cognitive Processes in The Brain</b> Pham Quang Trung	<i>S04-03</i>
<b>2:24pm – 2:42pm</b>	<b>Wearable Robotic Arm Designed for Lightweight and Practicality</b> Akimichi Kojima, Dinh Tuan Tran, Joo-Ho Lee	<i>S04-04</i>
<b>2:42pm – 3:00pm</b>	<b>Digital Twin in Autonomous Vehicle Development and Validation.</b> Tong Duy Son	<i>S04-05</i>
<b>3:00pm – 3:15pm</b>	<b>Panel Discussion</b>	



Economic Policy Uncertainty		Room 1
<p><b>Organized by:</b> Dr. Luu Hai Dang, Nissan Motor Corporation, Chair            Dr. Nguyen Hue Minh, University of Economics Ho Chi Minh City, Co-chair            Mr. Nguyen Anh Hao, Yokohama National University, Coordinator</p> <p>In the wake of recent actions and events such as Brexit, the United States - China trade war, the Covid-19 pandemic, and the Russia – Ukraine conflict, the global economy has been experiencing high levels of trade policy uncertainty. Since international trade is an important element of an economy, high trade policy uncertainty can negatively affect trade flows, which in turn hurts economic growth. Recent US-China tension over Taiwan raises new concerns about an unprecedented increase in trade policy uncertainty, adversely affecting the global economy, especially the ASEAN region. Inviting speakers from both international organizations and academia, this session will discuss a wide range of economics and business topics, including trade, supply chain management, and economic policies, with a focus on the economic impacts of recent events of uncertainty on ASEAN countries.</p>		
<b>1:30pm – 3:20pm</b>  <b>(CONCURRENT)</b>	<b>1:30pm – 1:50pm</b>	<b>World Economic Outlook – Inflation and Uncertainty</b> Chikahisa Sumi <i>S07-01</i>
	<b>1:50pm – 2:10pm</b>	<b>The Trade Impact of U.S.-China Conflict in Southeast Asia</b> Kazunobu Hayakawa <i>S07-02</i>
	<b>2:10pm – 2:30pm</b>	<b>A Study on the Impact of Innovation Factors on the Performance of Small and Medium Enterprises in Vietnam During Covid-19</b> Do Thi Hai Ninh <i>S07-03</i>
	<b>2:30pm – 2:50pm</b>	<b>Heterogeneous Effects of Technical Non-tariff Measures on Vietnamese imports of Agricultural Products</b> Nguyen Bich Ngoc, Luu Hai Dang, Do Thi Huong, Ngo Thi Tuyet Mai, Nguyen Thi Thuy Hong, Tran Hoang Ha <i>S07-04</i>
	<b>2:50pm – 3:00pm</b>	<b>Impact of Compulsory Primary Education Law on The Educational Attainment of Children in Vietnam</b> Dang Thi Thanh Binh <i>S07-05</i>
	<b>3:00pm – 3:10pm</b>	<b>The Convergence in Merge Laws: The Cases of Japan, The EU and Vietnam</b> Truong Trong Hieu, Duong Anh Son <i>S07-06</i>
	<b>3:10pm – 3:20pm</b>	<b>The Legal Nature of Sale Contracts of Condotels in Vietnam</b> Le Thi Bich Chi <i>S07-07</i>

<b>Towards 3D Energy Landscape: Digitalization, Decarbonization, Decentralization</b>		Room 2-3	
<b>3:30pm – 5:15pm (CONCURRENT)</b>	<p><b>Organized by:</b> Dr. Nguyen Xuan Hieu, Toshiba Mitsubishi-Electric Industrial Systems Corporation, Vietnam National University of Agriculture, Chair Assoc. Prof. Do Duc Ton, Nazarbayev University, Co-Chair</p> <p>The energy system is undergoing a fundamental transformation due to the increasing penetration of renewable energy into the energy supply mix, the onset of electrification, the improvements in energy storage, regulatory changes, and the emergence of new business models and grid services. The need for decarbonization, evolving customer needs, and the need for flexible and resilient operation of larger systems, etc. are recognized as key drivers of the energy transition. These changes are resulting in a “3D energy landscape” with three key perspectives: digitalization, decarbonization, and decentralization. This special session is focused on clarifying three perspectives of the 3D energy landscape as well as discussing the different drivers, key enablers, and advanced technologies that will help us to realize this energy landscape.</p>		
	<b>3:30pm – 3:33pm</b>	<p><b>Opening Remark</b> Nguyen Xuan Hieu</p>	
	<b>3:33pm – 3:48pm</b>	<p><b>Digital Power and Energy Systems</b> Nguyen Hong Phuong</p>	<i>S09-01</i>
	<b>3:48pm – 4:03pm</b>	<p><b>Derisk Large-Scale Offshore Wind Interconnections Through Real-time Electromagnetic Transient Modeling and Studies</b> Vu Van Tuyen</p>	<i>S09-02</i>
	<b>4:03pm – 4:23pm</b>	<p><b>Review of 99.9% Class Efficiency DC-AC Power Conversion and Applications</b> Atsuo Kawamura</p>	<i>S09-03</i>
	<b>4:23pm – 4:38pm</b>	<p><b>Lifetime-Based Circular Economic Operation of Li-ion Batteries</b> Nguyen Dinh Hung</p>	<i>S09-04</i>
	<b>4:38pm – 4:53pm</b>	<p><b>Locally Clean Power Production, Storage, and Trading</b> Nguyen Dinh Hoa</p>	<i>S09-05</i>
	<b>4:53pm – 5:15pm</b>	<b>Panel Discussion</b>	

<b>Lessons From COVID-19: Veterinary Medicine &amp; One Health Perspective</b>		Room 1
<b>3:30pm – 5:00pm</b>  <b>(CONCURRENT)</b>	<p><b>Organized by:</b> Dr. Duong Duc Hieu, Vietnam National University of Agriculture, Chair            Dr. Nguyen Vu Son, Vietnam National University of Agriculture, Co-Chair            Ms. Cong Ha My, Tokyo University of Agriculture and Technology, Coordinator            Mr. Vuong Tuan Phong, Hokkaido University</p> <p>The emergence of the SARS-CoV-2 at the end of 2019 and the vast global public health and socio-economic impacts allow us to draw some broad lessons about the effective management of zoonoses. SARS-CoV-2 is not the first known to have an animal origin. Ebola, SARS, the Zika virus, and bird flu came to people through animals. Sixty percent of known infectious diseases in humans and seventy-five percent of all emerging infectious diseases are zoonotic, according to a new report published by the United Nations Environment Programme (UNEP) and the International Livestock Research Institute (ILRI). Zoonoses are complex; responsibility for their prevention and control falls across several sectors - human and animal health, environment, trade, and commerce. Approaches to dealing with these diseases to date have been inadequately coordinated across these multiple dimensions. In this context, the session "Lessons from COVID-19: Veterinary Medicine &amp; One Health Perspective" organized by VYVN and VANJ aims to come up with effective strategies and policy responses to prevent a future zoonotic outbreak from happening.</p>	
	<b>3:30pm – 3:35pm</b>	<b>Opening Remark</b>
	<b>3:35pm – 3:55pm</b>	<b>Graduate School Education for Fostering One Health Expert</b> Motohiro Horiuchi <i>S05-01</i>
	<b>3:55pm – 4:10pm</b>	<b>The Role of One Health Workforce Development in Global Health Security: An Example in Vietnam</b> Pham Duc Phuc <i>S05-02</i>
	<b>4:10pm – 4:25pm</b>	<b>Zoonotic Diseases in Vietnam</b> Pawin Padungtod <i>S05-03</i>
	<b>4:25pm – 4:30pm</b>	<b>Break</b>
	<b>4:30pm – 4:45pm</b>	<b>Translational One Health Research for the Control of Zoonotic Parasitic Diseases</b> Vito Collela <i>S05-04</i>
<b>4:45pm – 5:00pm</b>	<b>Panel Discussion</b>	

**SUNDAY, NOVEMBER 27, 2022**

<b>8:00am – 5:00 pm</b>	Speaker Services Open	Reception Desk	
<b>8:00am – 5:00 pm</b>	Registration Open	Reception Desk	
<b>9:00am – 10:30am (CONCURRENT)</b>	<b>Quantum Materials Science</b>		
	<p><b>Organized by:</b> Dr. Nguyen Duy Khanh, RIKEN CEMS, Chair          Assist. Prof. Nguyen Tuan Hung, Tohoku University, Co-Chair          Dr. Ngo Minh Chu, National Institute of Advanced Industrial Science and Technology (AIST), Coordinator</p> <p>The Materials Science session focuses on emerging issues such as quantum materials, 2-dimensional materials, and quantum computing. Quantum and 2-D materials have unique properties, such as superconductivity at high temperatures, unusual Hall effects, polarizing effects, and high magnetism at room temperature, that should be explained using quantum mechanics but not classical theory. Therefore, they have great potential for future scientific and technological applications. Besides quantum materials, quantum computing is also emerging as an effective tool for predicting material properties. The 2022 Nobel Prize in physics for quantum entanglement, one of the cornerstones of quantum computing, is expected to prompt the future development of this field. The goals of the materials science session are not only to focus on specific topics but also to extend interdisciplinary research to advance quantum concepts in materials science.</p>		
	<b>9:00am – 9:20am</b>	<p><b>Elemental topological dirac semimetal <math>\alpha</math>-Sn with high quantum mobility</b>            Le Duc Anh</p>	<i>S03-01</i>
	<b>9:20am – 9:35am</b>	<p><b>Quantum compilation for quantum state preparation</b>            Vu Tuan Hai, Le Bin Ho</p>	<i>S03-02</i>
	<b>9:35am – 9:50am</b>	<p><b>3D topological insulator and p-n junction</b>            Tu Ngoc Han</p>	<i>S03-03</i>
	<b>9:50am – 10:00am</b>	<p><b>Giant inverse spin Hall effect in BiSb topological insulator for 4 Tbps magnetic recording technology</b>            Huy Ho Hoang, M. Gribelyuk, M. Ho, C. Hwang, Q. Le, S. Le, N. H. D. Khang, P. N. Hai, J. Sasaki, H. Takano, X. Xu, B. York</p>	<i>S03-04</i>
	<b>10:00am – 10:15am</b>	<p><b>3D semimetals for thermoelectricity</b>            Nguyen Tuan Hung, F. R. Pratama, Riichiro Saito</p>	<i>S03-05</i>
	<b>10:15am – 10:30am</b>	<p><b>Emergent 2D Janus materials for energy applications</b>            Vuong Van Thanh, Nguyen Tuan Hung</p>	<i>S03-06</i>

General Session 2		Room 3
<b>Organized by:</b> Assoc. Prof. Do Duc Ton, Nazarbayev University, Chair Assist. Prof. Nguyen Binh Minh, The University of Tokyo		
<b>9:00am – 9:10am</b>	<b>A Review of the Dead-time Effects on the Dual Active Bridge Converters</b> The-Tiep Pham, Duc-Duong Nguyen, Xuan-Phuc Luong, Danh-Nam Nguyen, Khac-Tiu Nguyen, Duc-Manh Le	<i>O02-01</i>
<b>9:10am – 9:20am</b>	<b>Planar Transformer Design for DC-DC Resonant Converter</b> Quang Ngo-Minh, Duy-Dinh Nguyen, Quang-Huy Nguyen	<i>O02-02</i>
<b>9:20am – 9:30am</b>	<b>Design and Optimization of a T-type Converter Based on Nonlinear Programming Technique</b> Dong-Thanh Vu, Khuong-Duy Le, Duy-Dinh Nguyen	<i>O02-03</i>
<b>9:30am – 9:40am</b>	<b>Investigation of EMI Filter Design for AC to DC Converters</b> Le Khuong Duy, Duy Dinh Nguyen	<i>O02-04</i>
<b>9:40am – 9:50am</b>	<b>Fall Detection System Based on Human Skeleton for Intelligent Healthcare</b> Cong-Hoan Nguyen, Viet-Cuong Pham, Quang Duy Tran	<i>O02-05</i>
<b>9:50am – 10:00am</b>	<b>A Survey of the Lung Disease Classification Using the Convolutional Neural Network</b> Minh Doan Thien, Thuong Phan Manh	<i>O02-06</i>
<b>10:00am – 10:10am</b>	<b>M2BPGi as a novel marker for liver fibrosis in Vietnamese patients with chronic hepatitis B</b> Hoang Huu Bui, Suong Thi-Bang Nguyen, Sang The Phan, Chuong Dinh Nguyen	<i>O02-07</i>
<b>10:10am – 10:20am</b>	<b>Genome editing technology CRISPR/cas9 - the new future for medical sciences and applications</b> Pham Thi Loc	<i>O02-08</i>
<b>10:20am – 10:30am</b>	<b>Injectable Silk Hydrogel-based Nanodrug Controlled Release for Local Tumor Therapy</b> Mengheng Yang, Anh T.N. Dao, Hitoshi Kasai, Ryuju Suzuki, Yoshitaka Koseki	<i>O02-09</i>
<b>10:30am – 10:40am</b>	<b>A New Natural and Potent Antibiotic Extracted from Endophytic Fungus of Cyperus Rotundus L. (Cyperaceae)</b> Xuan Thuy Linh Tran, Vu Giang Bac Nguyen, Phuoc Vinh Nguyen	<i>O02-10</i>



Multipical Environmental Pollution and Human Health Risk		Room 2	
<b>10:30am – 12:00pm</b>  <b>(CONCURRENT)</b>	<p><b>Organized by:</b> Dr. Nguyen Thi Thanh Hue, National Institute for Environmental Studies, Chair Dr. Thao Tran P., National Institute for Environmental Studies, Co-Chair Dr. Nguyen Dang Khoa, Van Lang University, Coordinator</p> <p>With the global trend of urbanization and industrialization reaching unprecedented and upsetting proportions, environmental problems related to the over-consumption and depletion of resources and the increased output of wide-ranging types of waste are becoming more serious than ever. Since gas emission and waste generation, including wastewater and solid waste, are inevitable processes in urban development, many chemicals have been ubiquitously detected in biota and humans on a global scale linked to the exposure to human life described in numerous studies. These pollutions not only spoil urban landscapes but also cause disease for residents by way of air, soil, and water pollution in the long term. Therefore, it is crucial to highlight the health risks of waste streams, which themselves adversely pose to human health or are a medium for various organisms that threaten human health. On the other hand, to confront environmental challenges, technological advancements in environmental engineering have been developed substantially and greatly contributed to environmental protection and resource recovery. And more effort and collaboration between researchers, policymakers, and managers are also required. This session opens a discussion between Vietnamese and Japanese academics to share experience and technological development in ecological preservation in rapidly developing urban areas as part of efforts to raise public awareness of municipal waste generation, treatment, and their threat to human health.</p>		
	<b>10:30am – 10:50am</b>	<p><b>Exposome and children’s health: Towards primordial prevention</b> Shoji F. Nakayama</p>	<i>S13-01</i>
	<b>10:50am – 11:10am</b>	<p><b>Development of appropriate wastewater treatment technology for Southeast Asian region</b> Kazuaki Syutsubo, Thao Tran P.</p>	<i>S13-02</i>
	<b>11:10am – 11:23am</b>	<p><b>Assessing the current status and proposing solutions for urban solid waste management to meet the green growth and sustainable development goals of Ho Chi Minh City, Vietnam</b> Le Thi Kim Oanh</p>	<i>S13-03</i>
	<b>11:24am – 11:37am</b>	<p><b>Heavy metal(loid) pollution and health risk assessment of agricultural soils in a peri-urban area in Hue city, Vietnam</b> Viet-Dung Pham, Van-Hieu Duong, Khac-Lieu Pham, Toru Watanabe</p>	<i>S13-04</i>
	<b>11:38am – 11:51am</b>	<p><b>Street dust mercury levels among different land-use categories in Southern Vietnam megacity</b> Ly Sy Phu Nguyen, Nguyen Duy Dat, Minh Tri Truong</p>	<i>S13-05</i>
	<b>11:51am – 12:00pm</b>	<b>Panel Discussion</b>	

Innovation For Eco-Friendly & Long-Life Infrastructures		Room 4
<b>10:30am – 12:00pm (CONCURRENT)</b>	<p><b>Organized by:</b> Dr. Nguyen Minh Hai, University of Science and Technology, the University of Danang, Chair Dr. Phan Thanh Ngoc, Yokohama National University, Co-Chair Dr. Nguyen Trong Nghia, Yokohama National University, Coordinator</p> <p>Sustainable infrastructure development has become a major goal to minimize the environmental impacts of civil and infrastructure engineering in the situation where climate change and natural disasters occur more seriously and frequently in recent years. This issue has been also becoming an attractive topic in civil and infrastructure engineering all over the world for not only developed countries such as Japan, but also developing countries such as Viet Nam. Within the scope of this session, two interesting keywords named “Eco-friendly” and “Long-life” will be discussed by research communities and civil engineers. Therefore, the session is titled as “Innovation for Eco-friendly and Long-life Infrastructures”. Original related investigations and discussions on innovative material, structure, and construction methods or risk assessment and management approach for sustainable development of infrastructures are encouraged in this session. More importantly, this session aims to create a forum for academic exchanges between researchers with common interests to promote collaborative research in the near future.</p>	
	<b>10:30am – 10:35am</b>	<p><b>Opening Remark</b> Nguyen Minh Hai</p>
	<b>10:35am – 10:55am</b>	<p><b>Long life and Eco-friendly Concrete Structures with Industrial Wastes and By products Advanced Applications in Japan</b> Akira Hosoda</p> <p style="text-align: right;"><i>S06-01</i></p>
	<b>10:55am – 11:10am</b>	<p><b>Overview of Seismic Vulnerability and Risk Assessment of Fuel Storage Tanks in Petrochemical Plants</b> Phan Hoang Nam</p> <p style="text-align: right;"><i>S06-02</i></p>
	<b>11:10am – 11:25am</b>	<p><b>Applications of Bio-carbonation for Low Carbon Construction Materials</b> Hoang Phuong Tung</p> <p style="text-align: right;"><i>S06-03</i></p>
	<b>11:25am – 11:30am</b>	<b>Break</b>
	<b>11:30am – 11:45am</b>	<p><b>Recycling waste materials in concrete production</b> Vo Duy Hai</p> <p style="text-align: right;"><i>S06-04</i></p>
	<b>11:45am – 12:00pm</b>	<p><b>Effect evaluation of grass on shallow stability of unsaturated volcanic soil slope in seasonal cold region</b> Nguyen Thanh Binh</p> <p style="text-align: right;"><i>S06-05</i></p>
	<b>12:00pm – 12:10pm</b>	<p><b>Scattering of transient Rayleigh waves and its effect on buried pipelines</b> Nguyen Trung Kien</p> <p style="text-align: right;"><i>S06-06</i></p>

12:00pm – 1:30pm	NETWORKING SESSION – LUNCHEON		Room 2-3-4	
1:30pm – 3:00pm  (CONCURRENT)	<b>Frontiers Of Sustainable Science</b>		Room 1	
	<p><b>Organized by:</b> Dr. Cao Vu Quynh Anh, The University of Tokyo, Chair          Assist. Prof. Nguyen Binh Minh, The University of Tokyo, Co-Chair          Ms. Nguyen Dieu Linh, Nagasaki University, Coordinator</p> <p>The Intergovernmental Panel on Climate Change Special Report estimated that we have reached 1°C of global warming and climate change is accelerating towards the end of this century. Inevitable consequences and the impacts of COVID-19 urge society to advance quickly to cope with these pressing issues, aiming for the sustainable development of humankind. Such complex problems require not only the frontier knowledge of various disciplines but also collaborations across them and between the scientific community and society, including policymakers, practitioners, and residents. Driven by such an interdisciplinary and transdisciplinary approach, VANJ Conference 2022 offers this session on Frontiers of Sustainability Science as an opportunity for all attendees to discuss the cutting-edge knowledge of various fields and to establish the foundations for global and local collaborations.</p> <p>Topics of interest include but are not limited to the following.</p> <ul style="list-style-type: none"> <li>• SDGs and the impacts of COVID-19</li> <li>• Climate change mitigation and adaptation</li> <li>• Disaster risk reduction and management</li> <li>• Biodiversity</li> <li>• Innovative technology in energy sector</li> <li>• Economic perspective towards sustainability</li> <li>• Environmental Policy</li> </ul>			
	13:30pm - 13:35pm	<b>Opening Remark</b> Cao Vu Quynh Anh		
	13:35pm - 13:55pm	<b>“Transboundary” - A Key Concept for Sustainability Education</b> Mino Takashi	S12-01	
	13:55pm - 14:10pm	<b>Water Disaster Management in Tokyo</b> Tsuchiya Nobuyuki	S12-02	
	14:10pm - 14:25pm	<b>Stakeholder Inclusion for Regional Sustainability in and beyond Pandemic Times</b> Hoe Chin Goi	S12-03	
	14:25pm - 14:40pm	<b>APEC Energy Demand And Supply Outlook 8TH Edition: Vietnam Key Findings</b> Phung Quoc Huy	S12-04	
	14:40pm - 14:55pm	<b>Promoting Sustainable Energy through Solar Rooftop with Battery: a Feasibility Study in Binh Duong, Vietnam</b> Nguyen Linh Dan	S12-05	
	14:55pm - 15:10pm	<b>TBD</b> Anne McDonald	S12-06	
15:10pm - 15:30pm	<b>Panel Discussion</b>			

<b>Microbiome: The Inclusive &amp; Diverse Society Inside Us</b>		Room 2-3	
<p><b>Organized by:</b> Dr. Hanh Vu, MD., PhD., MBA., Gifu University, Chair Ms. Hoang Thi Thanh Hoa, Gifu University, Coordinator</p> <p>The human microbiome is composed of thousands of different species, including not only bacteria but viruses, parasites, and fungi. Each person has that unique living dynamic environment where the relative abundance of species may fluctuate daily, weekly, and monthly depending on diet, medication, exercise, and a host of other environmental exposures. The microbiome has complexity and is considered to be linked with various diseases and conditions. Identifying whether the microbial imbalance is related to disease has become a challenge. Nowadays, scientists are still in the early stages of understanding the microbiome's broad role in health and the extent of problems. Several current research topics are how the microbiome and its metabolites influence human health and disease, what factors influence the framework and balances of one's microbiome, or the development of probiotics as a functional food.</p> <p>The session "Microbiome" will provide you with a fruitful discussion of the host-microbiome interactions that impact disease as well as the future potential of microbiome manipulation for disease diagnosis and disease treatment, which is given by scientists and experts in this area.</p>			
<b>1:30pm – 3:00pm</b>  <b>(CONCURRENT)</b>	<b>1:30pm – 1:55pm</b>	<b>Human microbiome: role, applications and future directions</b> Nguyen Vu Trung, Le Thi Hoi, Hanh Vu, Hoa Hoang Thi Thanh	<i>S11-01</i>
	<b>1:55pm – 2:15pm</b>	<b>The role of gut microbiome in autoimmune diseases</b> Hiroshi Ohno	<i>S11-02</i>
	<b>2:15pm – 2:35pm</b>	<b>Effects of paraprobiotics Lactococcus lactis strain plasma supplementation on the incidence of upper respiratory disease and gastrointestinal disease on Vietnamese schoolchildren</b> Truong Tuyet Mai, Nghiem Nguyet Thu, Osamu Kanauchi, Ryohei Tsuji, Sazaly Abubakar	<i>S11-03</i>
	<b>2:35pm – 2:45pm</b>	<b>Panel Discussion</b>	
	<b>2:45pm – 2:55pm</b>	<b>Combination of NSAIDs and Azoles to tackle the drug-resistant Candida albicans</b> Chau Luu, Bac Nguyen, Chau Tran, Vinh Nguyen	<i>S11-04</i>
	<b>2:55pm – 3:05pm</b>	<b>Identification and evaluation of antifungal drug-resistance of clinical Candida species in vulnerable patients in Vietnam</b> Linh Ho, Bac Nguyen, Hau Nguyen, Vinh Nguyen	<i>S11-05</i>
	<b>3:05pm – 3:15pm</b>	<b>Otomycosis in Hochiminh city: pathogen identification and new treatment solution</b> Bac Nguyen, Vinh Nguyen, Huy Pham	<i>S11-06</i>

<b>3:30pm – 5:00pm (CONCURRENT)</b>	<b>Polymer Chemistry &amp; Engineering for Sustainable Environment</b>		Room 1
	<p><b>Organized by:</b> Assoc. Prof. Anh T.N. Dao, Nagasaki University, Chair</p> <p>This session is a convergence of polymer science, environmental chemistry, and related fields. Topics include the chemistry and engineering of polymeric materials, their transformation in nature and in service, their impact on the ecosystem, and the current strategic research toward a sustainable environment.</p>		
	<b>3:30pm – 4:00pm</b>	<p><b>Fragmentation Mechanisms of Microplastics and Their Distribution Behavior in the Sea Near Nagasaki</b></p> <p>Hisayuki Nakatani</p>	<i>S14-01</i>
	<b>4:00pm – 4:20pm</b>	<p><b>Microplastics in Surface Seawater of Southern Seas of Vietnam</b></p> <p>To Thi Hien, Nguyen Thi Thanh Nhon, Nguyen Thao Nguyen, Nguyen Doan Thien Chi, Ho Trung Nam Hai</p>	<i>S14-02</i>
	<b>4:20pm – 4:40pm</b>	<p><b>Microplastics Investigation in Sea Salt in Khanh Hoa Province, Vietnam</b></p> <p>Tran T. Phuong Anh, Le My Kim Vuong, Van Hong Cam, Ha T. Hai Yen</p>	<i>S14-03</i>
<b>4:40pm – 5:00pm</b>	<p><b>Surface Modification of Cellulose Microfibrils with Silane Agent for Eco-Friendly Hydrophobic Coating</b></p> <p>Tran Thi Y Nhi, Trinh Duc Cong, Tran Thi Thanh Hop, Luong Nhu Hai, Nguyen The Huu, Ngo Trinh Tung</p>	<i>S14-04</i>	
<b>3:30pm – 5:00pm (CONCURRENT)</b>	<b>Organ-On-Chip Technology For Drug Development</b>		Room 2-3
	<p><b>Organized by:</b> Dr. Nguyen Thanh Qua, International University, Vietnam National University in Ho Chi Minh City, Chair</p> <p>Dr. Hanh Vu, MD., PhD., MBA., Gifu University, Co-chair</p> <p>Ms. Hoang Thi Thanh Hoa, Gifu University, Coordinator</p> <p>Organ-on-a-chip (OoC) is an emerging interdisciplinary technique to mimic human physiology into a microfluidic chip system. The OoC's system emulates the cell microenvironment and physiological conditions to maintain tissue-specific functions. By combining advances in tissue engineering and microfabrication, OoCs have gained interest as a next-generation experimental platform to investigate human pathophysiology and the effect of therapeutics on the body. Moreover, physiology and pathology for in vitro disease modeling can replace animal drug screening and move toward precision medicine. This session provides different aspects and existing challenges of the OoC model to accelerate the drug development pipeline.</p>		
	<b>3:30pm – 3:35pm</b>	<b>Opening Remark</b>	
	<b>3:35pm – 4:00pm</b>	<p><b>Organ-on-a-chip (OoC) technology – current state, challenges, and future directions</b></p> <p>Mathias Busek</p>	<i>S10-01</i>
	<b>4:00pm – 4:20pm</b>	<p><b>High throughput Organ-on-chip platform for epithelium &amp; endothelium barrier modeling</b></p> <p>Tuan H. Nguyen, M Peltokangas, P Junttila, S Rissanen, P Sing</p>	<i>S10-02</i>
	<b>4:20pm – 4:40pm</b>	<p><b>Organs-on-a-chip systems with high operability and pumping capability for practical use in drug discovery</b></p> <p>Kenta Shinha, Hiroshi Kimura</p>	<i>S10-03</i>
<b>4:40pm – 5:00pm</b>	<p><b>Summary from Session Chair and Panel Discussion</b></p> <p>Nguyen Thanh Qua</p>		



# POSTER SESSION

12:30-13:30	<p><b>Presentation of a Model for Evaluating the Effectiveness of Official Development Assistance, in the Field of Sustainable Development, Coordinated by Japan and France in Vietnam</b></p> <p>Margaux Duhem</p>	P1.1
12:30-13:30	<p><b>Modeling Human-Like Reference Path for Automated Vehicle Using Risk Estimation Index and Interpolation Clothoid Curve</b></p> <p>Manh Dung Vu, Sueharu Nagiri, Hirofumi Aoki, Tatsuya Suzuki</p>	P1.2
12:30-13:30	<p><del><b>Determinants of Student Satisfaction in Teacher Competencies in the International Studies Bachelor Programme at the Faculty of International Studies, Hanoi University</b></del></p> <p><del>Hoang Anh Q. Nguyen, Hai Phuong D. Cao, Dung T. Do, Phuong Anh Doan, Lan Huong Nguyen, Thao Anh Pham</del></p>	P1.3
12:30-13:30	<p><del><b>Application of Paper Sludge Ash-based Stabilizer on CO<sub>2</sub> Capture, pH Neutralization, and Strength Improvement of Alkaline Construction Sludge</b></del></p> <p><del>Duc Trung Nguyen, Kimitoshi Hayano</del></p>	P1.4
12:30-13:30	<p><b>Multi-task Learning for Predicting the Volatility of Vietnam's Stock Market</b></p> <p>Tuan Le, Duc-Hau Le</p>	P1.5
12:30-13:30	<p><b>Creation of hybrid nanomedicine composed of Au and SN-38 prodrugs towards chemophotothermal therapy</b></p> <p>Taiyufei Liu, Anh T.N. Dao, Hitoshi Kasai, Ryuju Suzuki, Yoshitaka Koseki</p>	P1.6
12:30-13:30	<p><del><b>Effect of extract from carrot skins on the biomass yield and quality of Pleurotus sajor-caju cultivated on sawdust substrate</b></del></p> <p><del>Xuan Duy Nguyen, Thi My Hanh Tran</del></p>	P1.7
12:30-13:30	<p><b>Summoning Worthies Pavilion (招英閣) and Mo Tianci educational-cultural contribution to the process of Mekong delta annexation into Vietnam in the 18<sup>th</sup> century</b></p> <p>Khanh Tran</p>	P1.8
12:30-13:30	<p><del><b>Green and Sustainable Solution for Slope Stability by Soil Nail Combine with Vetiver Grass</b></del></p> <p><del>Trong Nghia Nguyen, Le Xuan Luu, Nguyen Van Duong, Tran Vu Tu</del></p>	P1.9
12:30-13:30	<p><del><b>Application of Artificial Neural Network Model for Predicting the Amount of Stabilizers for Soil Improvement</b></del></p> <p><del>Phuong-Anh T. To</del></p>	P1.10

Link to join online: <https://vanj.jp/links/p01-poster>

# ACKNOWLEDGEMENT

VANJ WOULD LIKE TO ACKNOWLEDGE  
EACH COMMITTEE MEMBER FOR THEIR UTMOST  
DEDICATION AND VOLUNTEER SPIRITS

## ORGANIZING COMMITTEE

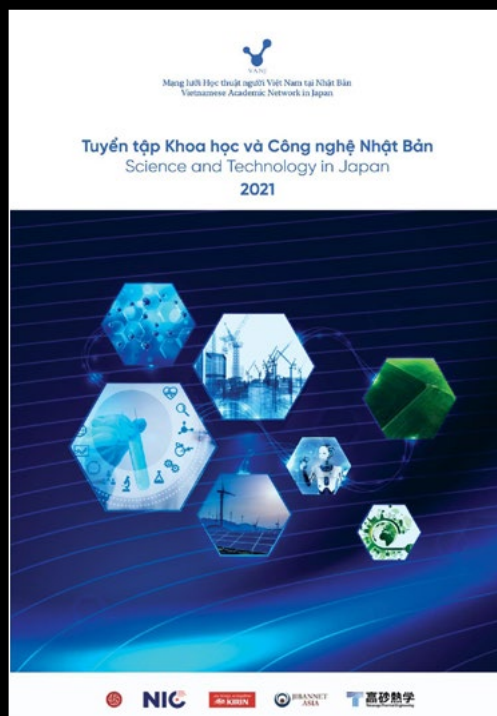


*“On behalf of the Vietnamese Academic Network in Japan, we would like to express our sincere thanks for the sponsorship of VJOIN and AVIJ as the Gold Sponsor of VANJ Conference 2022”*

# VANJ'S PROJECTS

## VANJ COMPENDIUM

With the desire to provide the useful and latest information on Japanese science and technology to Vietnamese scientists, the project to release a Compendium "Introduction to Japanese Science and Technology" has been implemented by VANJ, which is non-profit and is expected to be released annually. These publications will be posted on the official website of the Compendium and information channels of VANJ. All readers can freely access the content.



## PLANS IN 2022 - 2023

### 🔴 Release the Japanese Science and Technology Compendium, 2<sup>nd</sup> Volume

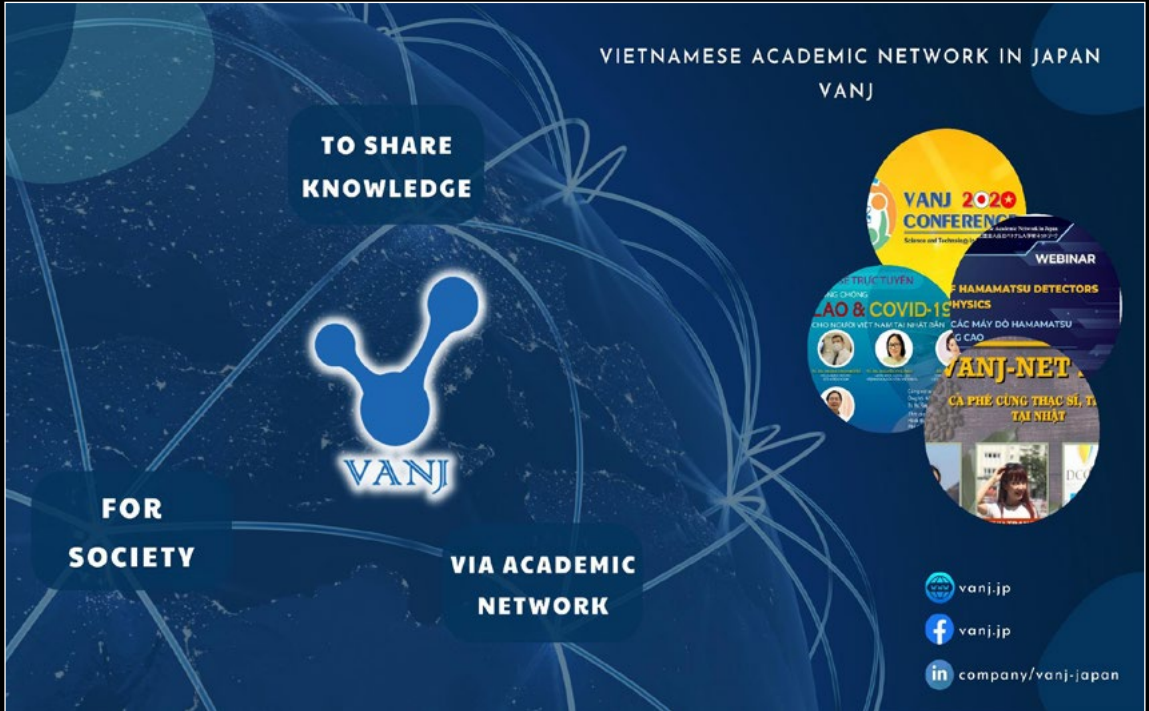
In 2022, the project will continue to be deployed to release the second Volume in 2023 on the occasion of the 50th anniversary of the Vietnam-Japan relationship. Articles will focus on areas and topics that respond to the direct demand of Vietnam. These publications will be posted on the official website of the Compendium and information channels of VANJ

### 🔴 Maintaining periodical publication on the website and turning the website into a Vietnam - Japan science and technology portal

Enhancing the interaction and connection of academic activities of the Vietnamese network in Japan, aiming to support the implementation and promote the consulting, supporting activities for research cooperation and technology transfer.

Contact information: Website: <https://jst.vanj.jp/>; Email: [jst@vanj.jp](mailto:jst@vanj.jp)

# VANJ'S ACTIVITIES



**VANJ seminars** are held frequently for VANJ members and guests who are experts in a specific field to talk, share, and discuss a specific topic.

This year, VANJ organizes monthly seminars with two main programs:

● **VANJ-NET:** Connect and support the Vietnamese Academics who were, are, and will be in Japan. Speakers will share their experiences and help the next Vietnamese generations to understand as well as prepare for graduate studies and academic environments in Japan.

● **VANJ-SPEC:** Bring in-depth scientific seminars to share and discuss research findings, exchange ideas and insights, and promote the learning spirit and research ability of young scientists.

*Speakers: Academics who received his/her Master's and/or Doctor degrees and are currently actively involved in research and business sectors.*

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## **INTERNATIONAL CONFERENCE • HYBRID CONCEPT**

The University of Tokyo - Hongo Campus

Zoom Conference + Slack

Time: November 26<sup>th</sup>-27<sup>th</sup>, 2022



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<https://conf.vanj.jp/2022>