

ASPAC 2018  
INNOVATIVE  
*Science Cuisine*  
SEP 5-7, 2018 NTSEC TAIWAN

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## Message from ASPAC President

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*Dr. Tit Meng Lim*

Welcome to ASPAC2018!

Our annual ASPAC conference will be hosted by the National Taiwan Science Education Centre in Taipei, from 5 to 8 September 2018. The conference is purposely timed for participants to not just attend the gathering to share, learn, and network with one another, but also to enjoy the newly renovated NTSEC with a major makeover targeted to complete by the end of August.

The conference is cleverly themed as 'Innovative Science Cuisine', reflecting the culture and warmth of Taiwan where thoughtful food preparation to welcome beloved and respected friends and guests is a rich tradition. The conference programs will be literally filled with intriguing food for thoughts along with real sampling of traditional Taiwanese cuisines.

Like how Chinese cuisines are enjoyed through the sensual engagement with the food colour, aroma, and taste, the conference will see innovative sessions with exciting courses that will unleash the hidden potential in every participant as a creative chef, a skilful kitchen assistant, a menu planner, or a food critic. Together we shall cook up a storm and serve one another innovative dishes that will nourish us for our science centre and museum professional growth and development.

A truly wonderful banquet awaits us in Taipei, and I look forward to meeting many old friends and making new friends as we gather around the tables laid out by NTSEC and renew our fellowship!

## Message from Director General of NTSEC

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*Dr. Hsueh-Yu CHEN*

Members of Asia Pacific Network of Science & Technology Centers (ASPAC), welcome to Taiwan! The theme of the 2018 ASPAC Annual Conference will be “Innovative Science Cuisine.” Established in 1997, ASPAC is the leading international network for science centers in Asia Pacific. With a mission to enhance connection and collaboration among members, ASPAC draws its membership from over 70 countries and administrative regions.

The 2018 ASPAC annual conference is organized by the National Taiwan Science Education Center and will last for three days. The theme of the conference is derived from the idea of “ban-dou” (traditional Taiwanese roadside banquet), which is a well-known symbol of Taiwanese culture. Operating museums and science centers is similar to organizing banquets. Like master chefs, museum staff, with the help of volunteers and experts, it must come up with creative menus and prepare innovative “science cuisine” in the form of exhibits and educational activities. The 2018 ASPAC Conference acts like a large banquet that gathers master chefs who are eager to share their expertise with each other. In addition to offering an opportunity for participants to experience Taiwanese hospitality, this conference will be a platform for exchange and will provide inspirations for museums and science centers to create more innovative “science cuisines” for all visitors.

# ASPAC Executive Council

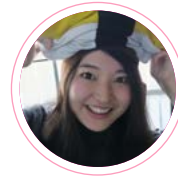
## Executive Council



**President**  
**LIM Tit Meng**  
Science Centre Singapore  
Singapore



**Vice-President**  
**Graham DURANT**  
Questacon – The National  
Science and Technology  
Centre  
Canberra, Australia



**Secretary**  
**Rieko CHIHANA**  
Miraikan – National Museum  
of Emerging Science and  
Innovation  
Tokyo, Japan



**Treasurer**  
**CHAM Lee Fin**  
Science Centre Singapore  
Singapore



**General Councillor**  
**Claire MCGOWAN**  
Science Alive  
New Zealand

## Co-Opted Positions



**Co-Opted Councillor**  
**YIN Hao**  
China Science and  
Technology Museum  
Beijing, China



**Co-Opted Councillor**  
**Rawin RAVIWONGSE**  
National Science Museum  
Pathum Thani  
Thailand



**Co-Opted Councillor**  
**Daniel LOY**  
Petrosains – The Discovery  
Centre Kuala Lumpur  
Malaysia



**Host of 2018 ASPAC  
Conference**  
**CHEN Hsueh-Yu**  
National Taiwan Science  
Education Center  
Taipei, Taiwan



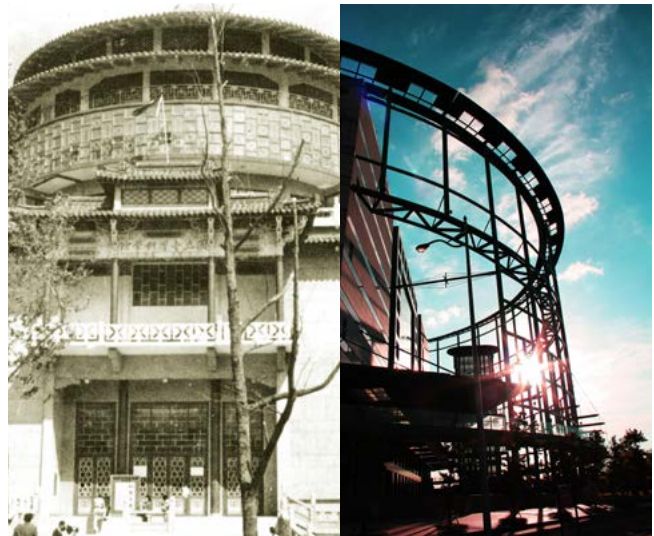
**Host of 2019 ASPAC**  
**Jim THOMPSON**  
Queensland Museum  
Brisbane, Australia



**Executive Director**  
**Maria Isabel GARCIA**  
The Mind Museum  
Manila, Philippines

## About National Taiwan Science Education Center (NTSEC)

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NTSEC's permanent exhibition area displays rich contents related to Life Sciences, Physics, Chemistry, Mathematics and the Earth Sciences, and the NTSEC also hosts the most up-to-date science exhibitions in collaboration with other international and domestic museums. In addition, the stimulating 3D Theater and the fun-filled Virtual Reality Theater keep you on the edge of your seat and expand your viewpoint, while the science library and fully-equipped science labs allow for hands-on experience in science, exploring more than just the theoretical base. Furthermore, the NTSEC hosts the National Elementary and High School Science Fair and the Taiwan International Science Fair every year, operates a restraint-free Internet Science Education Center, runs a country-wide, Mobile Science Education Center, and offers lively, interesting popular science books, meeting the needs of all age groups with the aim of attracting the entire population to learn about science, have fun with science, and ultimately fall in love with it.

## Program at a glance

	9/4 Tue.	9/5 Wed.	9/6 Thu.	9/7 Fri.	9/8 Sat.
08:00-08:30	Registration	Registration	Registration	Registration	
08:30-09:00					
09:00-09:30	Pre-conference Workshops	CEO Forum	Opening Ceremony	Keynote Speech 2	Parallel Sessions 3A 3B 3C 3D
09:30-10:00			Keynote Speech 1		
10:00-10:30			Tea Break		
10:30-11:00	Tea Break		Group Photo	Tea Break	Post-conference Tour
11:00-11:30	Pre-conference Workshops	CEO Forum	Market Place Open	Parallel Sessions 3E 3F 3G	
11:30-12:00					
12:00-12:30			Lunch		
12:30-13:00	Lunch		Lunch		
13:00-13:30	Lunch			Lunch	
13:30-14:00	Pre-conference Workshops	ASPAC EC Meeting	Parallel Sessions 1A 1B 1C 1D		
14:00-14:30					
14:30-15:00			Tea Break		Tea Break
15:00-15:30	Tea Break		Tea Break	Tea Break	Closing Ceremony ASPAC General Assembly
15:30-16:00	Pre-conference Workshops	ASPAC EC Meeting	Parallel Sessions 1E 1F 1G 1H	Parallel Sessions 2E 2F 2G 2H	
16:00-16:30					
16:30-17:00			Tea Break		Farewell Party at NTSEC
17:00-17:30			Special Session Cooking Contest	Networking Time in Marketplace	Dinner at National Palace Museum
17:30-18:00					
18:00-18:30	Welcome Reception (By invitation only)		Welcome Party	ASPAC Awards	Nocturnal Visit to National Palace Museum
18:30-19:00					
19:00-19:30				Networking Night	
19:30-20:00	Nocturnal Visit at Chiang Kai-Shek Memorial Hall				
20:00-20:30					
20:30-21:00					

Day 0 / September 4 / Tuesday

08:00-08:30	Registration	
08:30-09:00	Registration	
09:00-09:30	<b>Pre-conference Workshops</b> 1. Science Show Capacity Building (B1 Physics Lab) 2. Design Thinking (9F Library L3) 3. Science Kitchen-Tinkering with Food (5F Science Kitchen)	<b>CEO Forum</b> (9F Library L1)
09:30-10:00		
10:00-10:30		
10:30-11:00	Tea Break	
11:00-11:30	<b>Pre-conference Workshops</b> 1. Science Show Capacity Building (continue) 2. Design Thinking (continue) 3. Science Kitchen-Tinkering with Food (continue)	<b>CEO Forum</b>
11:30-12:00		
12:00-12:30		
12:30-13:00	Lunch	
13:00-13:30	Lunch	
13:30-14:00	<b>Pre-conference Workshops</b> 1. Science Show Capacity Building (continue) 2. Design Thinking (continue) 3. Science Kitchen-Tinkering with Food (continue) 4. Using GMO Debate as a Case to Foster Scientific Literacy Skills (B1 Earth Science Lab)	<b>ASPAC EC Meeting</b> (B1 Circular Conference Room D)
14:00-14:30		
14:30-15:00		
15:00-15:30	Tea Break	
15:30-16:00	<b>Pre-conference Workshops</b> 1. Science Show Capacity Building (continue) 2. Design Thinking (continue) 3. Science Kitchen-Tinkering with Food (continue) 4. Using GMO Debate as a Case to Foster Scientific Literacy Skills (continue)	<b>ASPAC EC Meeting</b>
16:00-16:30		
16:30-17:00		
17:00-17:30		
17:30-18:00		
18:00-18:30	<b>Welcome Reception</b> (By invitation only) (5F Science Kitchen)	
18:30-19:00		
19:00-19:30		
19:30-20:00		
20:00-20:30		
20:30-21:00		

## Day 1 / September 5 / Wednesday

Subtheme: Cooking up the Science Center Experience

08:00-08:30	<b>Registration</b>																			
08:30-09:00	(9F Hallway)																			
09:00-09:30	<b>Opening Ceremony</b>																			
	(9F International Conference Hall)																			
09:30-10:00	<b>"Master Science Chef" Keynote Speech 1 : Nobelist Dr. Yuan Lee</b>																			
10:00-10:30	(9F International Conference Hall)																			
10:30-11:00	<b>Group Photo</b>																			
	(9F International Conference Hall)																			
11:00-11:30	<b>Market Place Open</b>																			
11:30-12:00	(8F West Special Exhibition Gallery - Marketplace)																			
12:00-12:30	<b>Lunch</b>																			
12:30-13:00					(2F)															
13:00-13:30																				
13:30-14:00	<b>Parallel Session 1A</b>	<b>Parallel Session 1B</b>	<b>Parallel Session 1C</b>	<b>Parallel Session 1D</b>																
14:00-14:30	Expanding menu of experiences: exhibitions and programs (9F Int'l Conference Hall)	Marketing and Post Visit rewards: "Appetizers and Dessert" (9F Library L1)	Spices: The lure of hot topics (9F Library L2)	Refreshing the menu for regular diners: schools (9F Library L3)																
14:30-15:00					<b>Tea Break</b> (8F West Special Exhibition Gallery - Marketplace)															
15:00-15:30																				
15:30-16:00	<b>Parallel Session 1E</b>	<b>Parallel Session 1F</b>	<b>Parallel Session 1G</b>	<b>Parallel Session 1H</b>																
16:00-16:30	Big Data analytics (9F Library L1)	Fundraising and sponsorship (9F Int'l Conference Hall)	Communicating Cutting edge research (9F Library L2)	The Digital Ingredient in science centers (9F Library L3)																
16:30-17:00					<b>Special Session</b>															
17:00-17:30	(Science Cuisin Cook Off) (1F Lobby)																			
17:30-18:00																				
18:00-18:30	<b>Welcome Party</b> (1F Lobby)																			
18:30-19:00																				
19:00-19:30																				
19:30-20:00																				
20:00-20:30																				
20:30-21:00																				



## Day 2 / September 6 / Thursday

Subtheme: Knowing the Impact of the Science “Dishes” We Serve

08:00-08:30	<b>Registration</b>			
08:30-09:00	(9F Hallway)			
09:00-09:30	<b>“Master Science Chef” Keynote Speech 2 : Chef Andre Chiang</b>			
09:30-10:00	(9F International Conference Hall)			
10:00-10:30	<b>Tea Break</b>			
	(8F West Special Exhibition Gallery- Marketplace)			
10:30-11:00	<b>Traveling Exhibition Session</b>		<b>Poster Sessions</b>	
11:00-11:30	(9F Library L1)		(9F Hallway)	
11:30-12:00				
12:00-12:30	<b>Lunch</b>			
12:30-13:00	(2F)			
13:00-13:30				
13:30-14:00	<b>Parallel Session 2A</b>	<b>Parallel Session 2B</b>	<b>Parallel Session 2C</b>	<b>Parallel Session 2D</b>
14:00-14:30	The Science Center	Community	Linking with SDGs	Managing
	“Kitchen and Dining”	engagement: how do	(9F Library L2)	relationships with
14:30-15:00	Crew: role of	we know we matter?		government
	volunteers	(9F Library L1)		(9F Library L3)
	(9F Int'l Conference Hall)			
15:00-15:30	<b>Tea Break</b>			
	(8F West Special Exhibition Gallery- Marketplace)			
15:30-16:00	<b>Parallel Session 2E</b>	<b>Parallel Session 2F</b>	<b>Parallel Session 2G</b>	<b>Parallel Session 2H</b>
16:00-16:30	The Impact on our	Menu for specific	The different ways	Are science centers
	own teams and	customer groups	to measure scientific	the victim of
16:30-17:00	donors	(9F Library L2)	literacy	beneficiary of the
	(9F Library L1)		(9F Int'l Conference Hall)	digital age?
				(9F Library L3)
17:00-17:30	<b>Networking Time in Marketplace</b>			
17:30-18:00	(8F West Special Exhibition Gallery- Marketplace)			
18:00-18:30	<b>ASPAC Awards</b>			
	(9F International Conference Hall)			
18:30-19:00				
19:00-19:30	<b>Networking Night</b>			
19:30-20:00	(5F)			
20:00-20:30				
20:30-21:00				

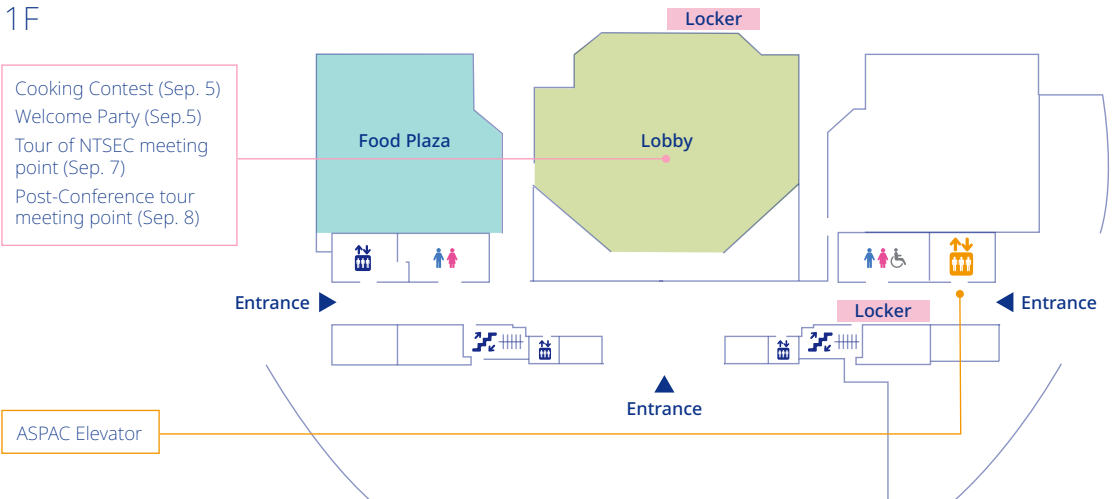
## Day 3 / September 7 / Friday

Subtheme: Expanding the Menu of Science Centers

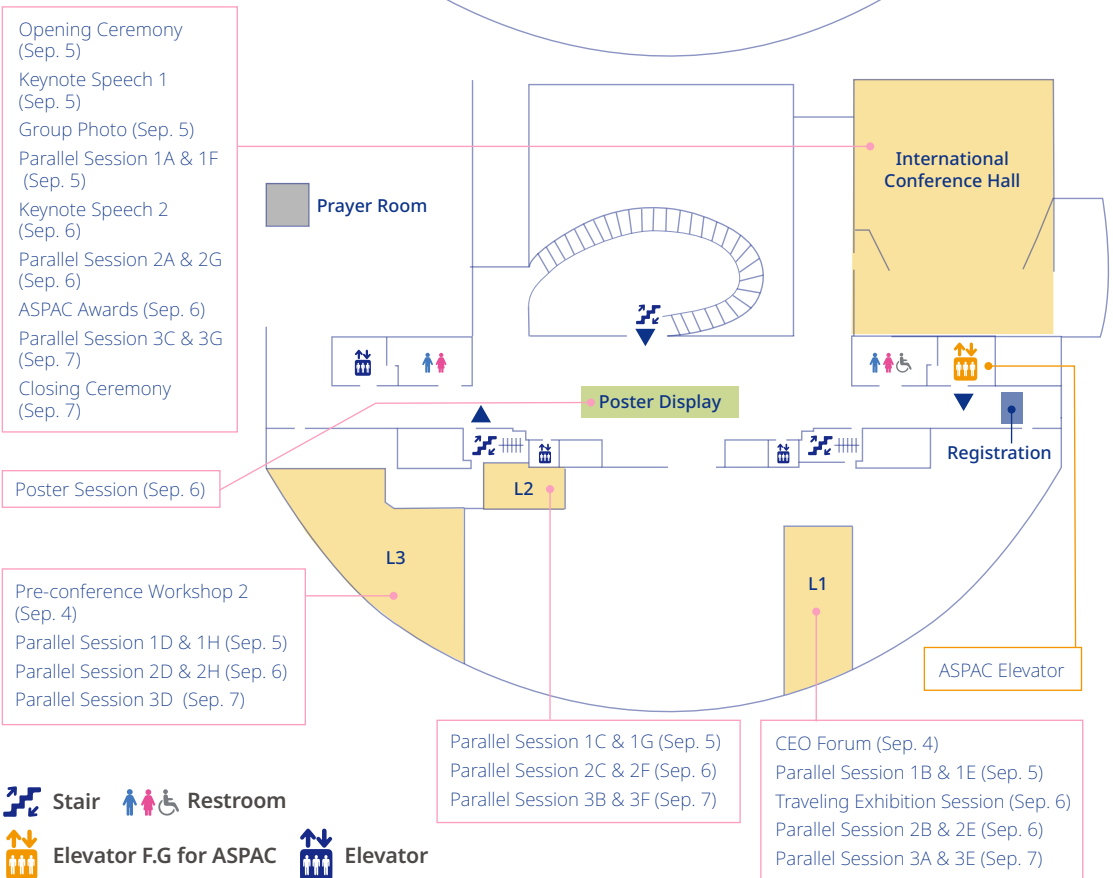
08:00-08:30	<b>Registration</b>			
08:30-09:00	(9F Hallway)			
09:00-09:30	<b>Parallel Session 3A</b> Collaborations with industries (9F Library L1)	<b>Parallel Session 3B</b> Collaborations within ASPAC: existing projects and possibilities (9F Library L2)	<b>Parallel Session 3C</b> What are we missing in current science centers?(I) (9F Int'l Conference Hall)	<b>Parallel Session 3D</b> Who else have we not serves and how do we serve them? (9F Library L3)
09:30-10:00				
10:00-10:30				
10:30-11:00	<b>Tea Break</b> (8F West Special Exhibition Gallery - Marketplace)			
11:00-11:30	<b>Parallel Session 3E</b> Co-creation and design with citizens (9F Library L1)	<b>Parallel Session 3F</b> Who are our competitors and how do we differentiate ourselves further? /Collaborations with "competitors" (9F Library L2)	<b>Parallel Session 3G</b> What are we missing in current science centers?(II) (9F Int'l Conference Hall)	
11:30-12:00				
12:00-12:30				
12:30-13:00	<b>Lunch</b> (2F)			
13:00-13:30				
13:30-14:00				
14:00-14:30	<b>Tour of NTSEC</b>			
14:30-15:00	(Guided Tours meet at 1F information Desk)			
15:00-15:30	<b>Closing Ceremony</b> ASPAC General Assembly (9F Int'l Conference Hall)	15:00 – 15:30 ASPAC President: Directions for 2018		
15:30-16:00		15:30 – 16:00 ASPAC Exec Dir: ASPAC Project and Plans		
16:00-16:30		16:00 – 16:30 Question and Answer		
16:30-17:00	<b>Farewell Party at NTSEC</b>			
17:00-17:30	(1F Lobby)			
17:30-18:00	<b>Dinner at National Palace Museum</b> (Silks Palace Restaurant)			
18:00-18:30				
18:30-19:00				
19:00-19:30	<b>Nocturnal Visit to National Palace Museum</b>			
19:30-20:00				
20:00-20:30				
20:30-21:00				

# Floor Plan

1F

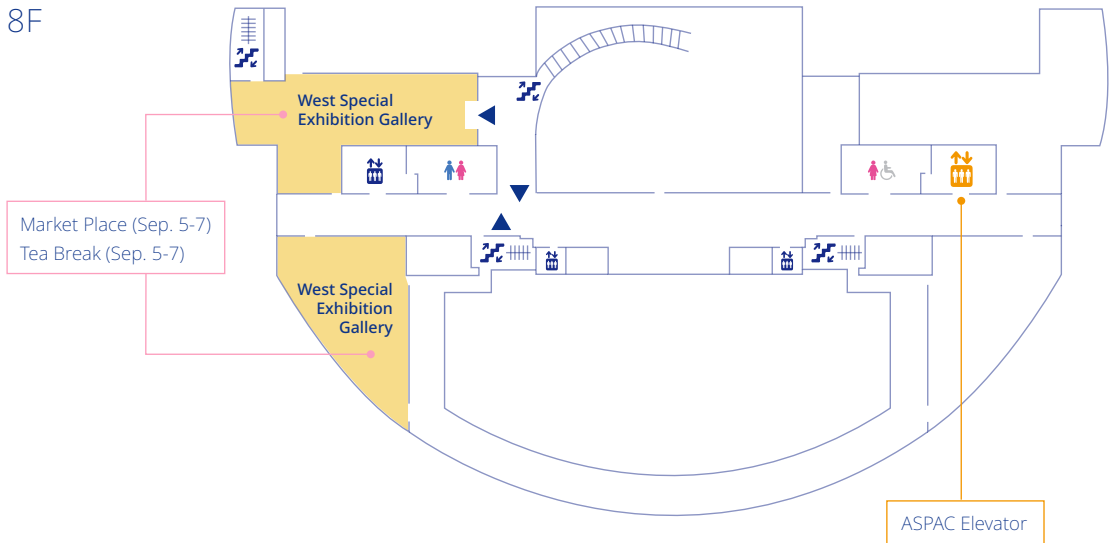


9F

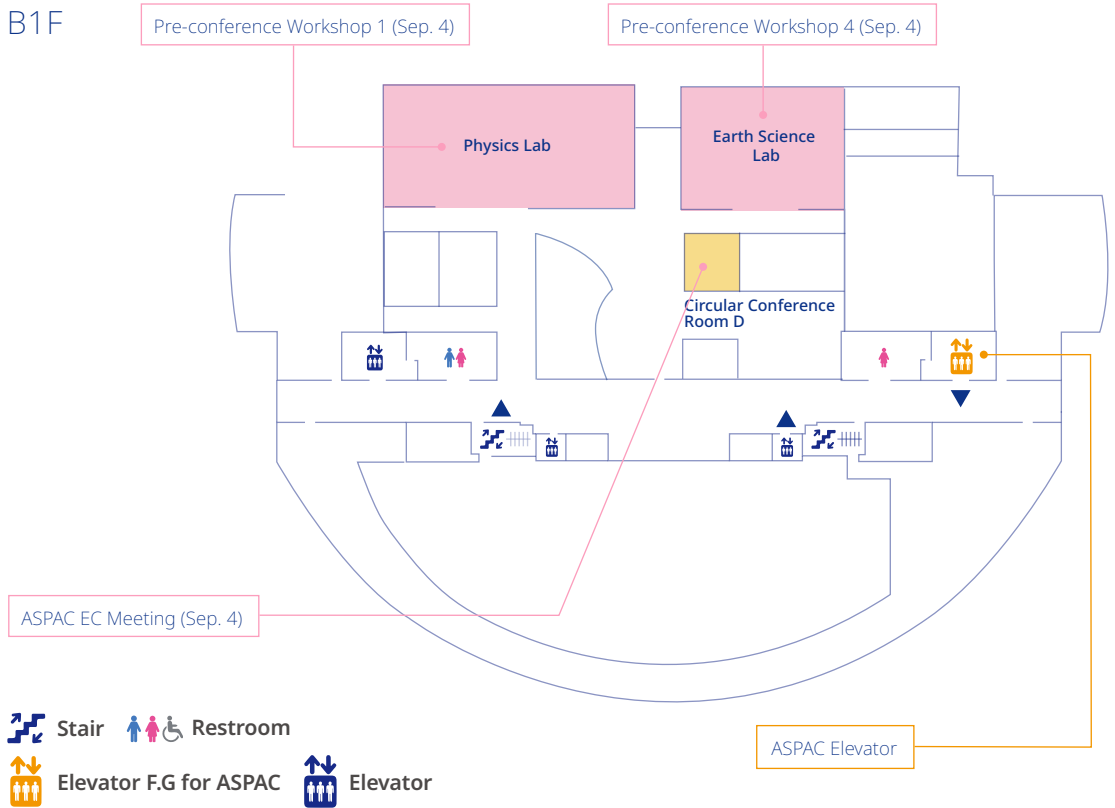






# Floor Plan

8F

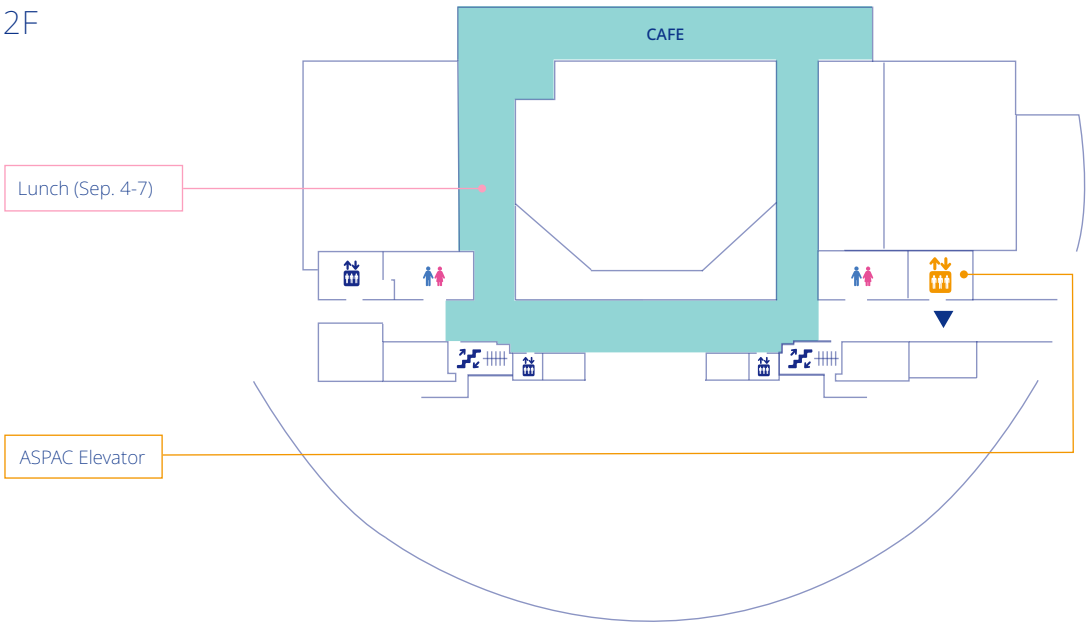


B1F

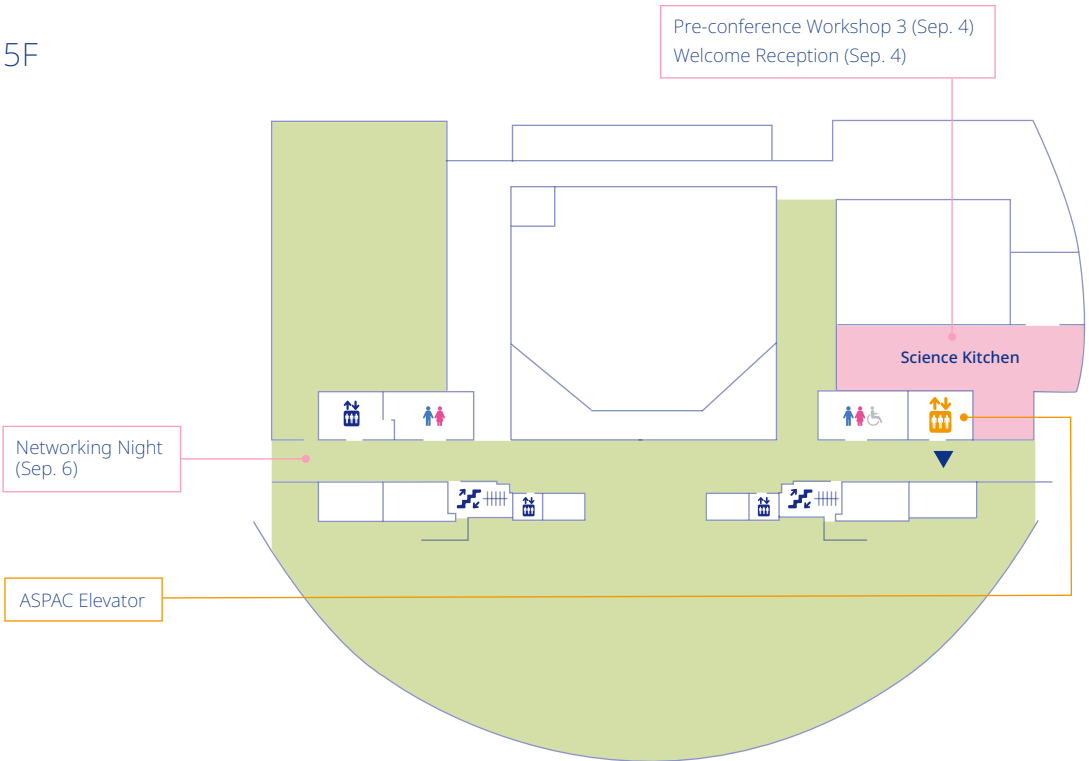


-  Stair
-  Restroom
-  Elevator F.G for ASPAC
-  Elevator

2F



5F



## Keynote Speech 1

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*Dr. Yuan Tseh Lee*

Time

Day 1 9/5 Wed.  
9:30-10:30

Room

9F Int'l Conference Hall

Born in 1936, Yuan Tseh Lee received his B.S. degree from Taiwan University in 1959, M.S. from Tsing Hua University in 1961, and Doctorate from UC-Berkeley in 1965. He joined Dudley Herschbach's group at Harvard as a research fellow in 1967. After being appointed Assistant Professor at the University of Chicago in 1968, Dr. Lee rapidly made his laboratory a major center for molecular beam study in North America. He returned to Berkeley as Professor of Chemistry in 1974. He was University Professor and Principal Investigator at the Lawrence Berkeley Laboratory, UC Berkeley, before he became President of Academia Sinica in 1994. In 2006 he became President Emeritus and Distinguished Research Fellow at the same institution. In 2008 he was elected president of the International Council for Science (ICSU) and took up the appointment in 2010 for a period of three years.

Dr. Lee has received numerous awards and honors, including the 1986 Nobel Prize in Chemistry, the U.S. National Medal of Science, Peter Debye Award from American Chemical Society, Faraday Medal and Prize from the Royal Chemical Society of Great Britain, and the Jawaharlal Nehru Birth Centenary Medal from the Indian National Science Academy. He is a fellow of the U.S. National Academy of Sciences, the American Academy of Arts and Science, and Academia Sinica; a foreign member of Göttingen Academy of Sciences, Indian National Academy of Sciences, Japan Academy, Korean Academy of Science and Technology, Royal Swedish Academy of Engineering Sciences, The World Academy of Sciences, etc. Dr. Lee has received Doctor Honoris Causa from 42 universities throughout the world.

## Keynote Speech 2

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*Chef André Chiang*

Time

Day 2 9/6 Thu.  
9:00-10:00

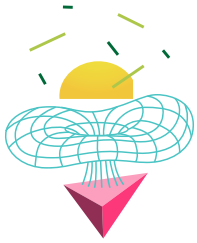
Room

9F Int'l Conference Hall

Recently awarded Life Time Achievement Award – Asia's 50 Best Restaurant 2018; The 15 Most Influential Chefs of the next decade by Elite Traveler.

Chef André Chiang has a philosophy of using only the freshest of seasonal produce. Having made an indelible impression on the culinary scene since opening in late 2010, Restaurant ANDRE was recently ranked #14 World's 50 Best Restaurants in 2017 and has been on the coveted list for 7 consecutive years and the only Chinese Chef who across Michelin Guide World's 50 Best Restaurants and the top Chef list.

Chef André has researched how our capacity to taste food is influenced by our memory banks, through the personal experiences we acquire over time. This has led him to develop a culinary principle – OCTAPHILOSOPHY – based on eight primary characteristics: Unique, Texture, Memory, Pure, Terroir, Salt, South and Artisan – the backbone of the creative process at Restaurant ANDRE.



# Day 0

September 4 Tuesday

$$I = \frac{1}{2} M (R_1^2 + R_2^2)$$



9:00-17:00

B1 Physics  
Lab**Science Show Capacity Building**

Join Dr. Graham Walker from the Australian National University to super charge your science demonstrations and shows. Learn about the important role of psychology, emotions, humour, interactivity and enthusiasm in your shows and how to use these tools to enhance science communication and learning.

Facilitator

**Dr. Graham Walker**

Centre for the Public Awareness of Science, Australian National University

9:00-17:00

9F Library  
L3**Petosains Design Thinking Workshop**

Design thinking is a human-centric approach to creative problem solving and innovation. The design thinking mindset encourages multidisciplinary process and also idea creation with an open mind. This workshop aims to support and encourage team effort and collaboration to solving problems in a purposeful and meaningful way. At the end of this workshop, participants will be exposed to the different theories and models used in the design thinking process, and apply it in a given challenge. This workshop is facilitated by the Petosains Team with support from Professors Hsu and Lim of Yuan Ze University, Taiwan.

Facilitator

**Dr. Daniel Loy**

Dr. Daniel Loy is currently the Director of the Centre of Learning & Innovation, Petosains which looks at innovative approaches to STEM education while leading free choice learning research. Through the lens of STEM, Petosains also supports entrepreneurship development, is an IMPACT Partner under the Malaysia Global Innovation and Creativity Centre (MaGIC), and is a recipient of the Social Enterprise Patron under the Amplify Awards by MaGIC. Daniel has a PhD in the field of Informal Science Education, with a Masters degree in Online Education and a Bachelors in Media Innovation. Prior to his current role at Petosains, Daniel was the Vice President of Social Innovation at Agensi Inovasi Malaysia, the National Innovation Agency. As a strategist, educator, and communicator, he views innovation as a necessary tool for managing change.

**Foo Huey Chyun**

Foo Huey Chyun is the Head of Learning Innovation at Petosains, The Discovery Centre. She leads the Learning Innovation team which looks at developing new and innovative learning projects that are impactful, cost-efficient, and effective

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**Guest  
Facilitators**

**Professor Hsu Yeh-Liang**

Yuan Ze University, Taiwan

**Professor Lim CK**

Yuan Ze University, Taiwan

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9:00-17:00

**5F Science  
Kitchen**

**Science Kitchen-Tinkering with Food**

In this playful day-long workshop, we'll try two classic tinkering activities with a culinary twist and reflect on the qualities of these experiences as learners. These fun hands-on investigations will serve as a starting points for identifying practical ways to adjust the materials, environments and facilitation strategies to support a tinkering disposition.

Our explorations will focus on the STEAM content areas of mechanical movement as we build automata out of food and electrical circuits and computation as we program electronic paper designs. Although the food-themed versions of these activities are experimental, they support collaboration, use of familiar materials in an unfamiliar way and an iterative process that characterize a broader tinkering experience.

**Facilitator**

**Ryan Jenkins**

Ryan Jenkins is the co-founder of Wonderful Idea Co, a creative studio in Northern California exploring art, science & technology through making and tinkering. Ryan helps train educators, develop playful environments, and create unique handmade exhibits and art pieces for museums and makerspaces. Previously Ryan worked at the Exploratorium's Tinkering Studio, developing workshops and activities that have been used, adapted and remixed in innovative education settings around the world.

**Fatin Lesa**

Fatin joined Science Centre Singapore as one of the pioneer Science Educator at the Tinkering Studio when it was first started in July 2015. Being trained first-hand by the tinkering experts from San Francisco's science museum Exploratorium, Fatin now trains staff, volunteers and interns to develop a practice of facilitation in the art of tinkering. Drawing inspirations from nature and surroundings, Fatin loves to prototype with different inspirations to create new tinkering activities.

## Schedule

08:45-09:00	15 min.	Welcome
09:00-09:30	30 min.	Ice Breaker: Tinkerville
09:30-10:00	45 min.	Slice of the Pie Making/Tinkering (compass points discussion)
10:00-10:30	30 min.	Paper Circuits (cookbook theme)
10:30-11:00	30 min.	Tea Break
11:00-12:00	60 min.	Paper Circuits (cookbook theme)
12:00-12:30	30 min.	Paper Circuit Reflection
12:30-13:30	30 min.	Lunch Break
13:30-15:00	90 min.	Chain Reaction
15:00-15:30	30 min.	Tea Break
15:30-16:00	45 min.	Chain Reaction
16:00-17:00	60 min.	Final Discussion

13:30-17:00

B1 Earth  
Science Lab

## Using GMO Debate as a Case to Foster Scientific Literacy Skills

In this workshop, we follow this year ASPAC's theme in related to food, and adopt the current GMO debate as a case to demonstrate the development and execution of a lesson plan that foster skills of argumentation. There are many issues related to the GMO debate and we will focus on the environmental and human safety aspects of the controversies. We will lead all participants to go through the ways to gather evidences and evaluate the merits of different evidences to support or refute a claim. We also stress the importance of the ability to provide a reason why and how certain data support a claim. Finally, we would like to point out that the development of literacy-based lesson plan or program is not very difficult and highly rewarding.

Facilitator

### Tak-Cheung Lau, Chih-Yu Lu and Wenhsing Hsieh

Dr. Lau is the curator of science education and Chih-Yu and Wenhsing are educators at the National Museum of Natural Science

9:00-12:30

9F Library  
L1

## CEO Forum

Facilitator

### Dr. LIM Tit Meng

Chief Executive, Science Centre Singapore, Singapore

PROGRAMME

DAY 0

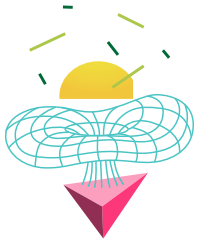
DAY 1

DAY 2

DAY 3

SOCIAL EVENTS

MARKET PLACE



# Day 1

September 5 Wednesday

$$\begin{aligned}v &= v_0 + at \\S &= S_0 + v_0 t + \frac{1}{2}at^2 \\v^2 &= v_0^2 + 2a(S - S_0)\end{aligned}$$

13:30-15:00

9F Int'l  
Conference  
Hall

1A

### Expanding menu of experiences: exhibitions and programs

In a competitive landscape for the time and mindshare of people, Museums and Science Centres need to frequently come up with new experiences and offerings in order to attract the public. This session showcases the ideas of 3 Science Centres and 1 design firm in bringing new experiences to their audience.

Science Centre Singapore will share about the creation of an experiential journey for their audience to discover the lives and work of important scientists. Ontario Science Centre meanwhile tackles relevant but difficult subjects like Mental Health in their engagement of their audience. The National Science and Technology Museum, Taiwan will share about using the latest technology in their "Innovating a better future" exhibition as well as their "Date with Researchers" programme and finally design firm HKD will propound the use of gamification in the illustration of big scientific concepts.

Champion

**Daniel Tan**

Senior Director, Projects & Exhibitions at Science Centre Singapore

Presenters

### An Experiential Journey of Discoveries

**Edna Chan Xiu Xiang**

Senior Science Educator,  
Science Centre, Singapore

### Tenderizing Tough Conversations

**Heather Farnworth**

Director, International Sales and Featured Products,  
Ontario Science Centre, Canada

### Innovative Exhibition and Programs: Interact with Researchers

**Shih-Wen Kuo**

Curator, Innovating a Better Future Exhibition,  
National Science & Technology Museum, Taiwan

### Fundamental Forces to the beat of a drum

**Richard Houghton**

Creative Director  
HKD Ltd, UK

PROGRAMME

DAY 0

DAY 1

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SOCIAL EVENTS

MARKET PLACE

## Cooking up the Science Center Experience

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13:30-15:00

9F Library  
L1

**1B**

### **Marketing and Post Visit rewards: "Appetizers: and Dessert"**

Effective marketing plays a crucial role in helping institutions reach its target audience and achieve the objectives set for its exhibitions and programs. In a world where customers are bombarded with so many messages and new activities, how can Science Centers and Museums market their offerings to attract new and returning customers? How do institutions ensure lasting impact to customers, even after a visit?

This session will explore the various ways to generate awareness for an institution and gain attendance, measure effectiveness and impact through visitor feedback tools, and continue to delight & reward customers even after a visit.

Gain insights on how venues used the narratives of an exhibition to shape marketing campaigns, listen to an institution's journey to refresh its brand identity after conducting visitor surveys, and finally, learn about how programs on topics such as Astronomy helped fuel the interest of audiences.

**Champion**

**Lisa Nicandro**

Marketing Manager, The Mind Museum, Philippines

**Presenters**

### **Treasures of the Natural World: Visitor Feedback and Marketing**

**William Cheung**

Exhibitions Partnerships Manager  
Natural History Museum London, UK

### **Brand New NTSEC – New CIS system and Visitor Survey**

**Stephanie Wu**

Assistant Curator  
National Taiwan Science Education Center, Taipei

### **Marketing the Museum and Rewarding the Visitors by Astronomy**

**Chun-lam CHAN**

Assistant Curator  
Hong Kong Space Museum, Hong Kong

13:30-15:00

9F Library  
L2**1C**  
**Spices: The Lure of Hot Topics**

As technology improves and becomes more accessible, popular audiences are able to engage more often and in deeper ways with science on their own. This can span a diverse set of topics: from programming robots to biology. By using hot topics as a draw, science centers and museums are in a unique position to reach audiences that are already more engaged than the average person. It would also be possible also expand their reach toward new audiences that may already have some familiarity with ideas that have become popular in culture.

**Champion****Garrick Bercero**

Mind Mover, The Mind Museum

**Presenters****How to keep the hot dish hot? Maker and Tinkering Activities in NTSEC****Su-Ping Liu**Project Coordinator  
National Taiwan Science Education Center**One Micro:bit for each child, one big leap for the community****Toh Kang Hui**Science Educator  
Science Centre Singapore**Biology exhibition based on visitor's life experiences - An example of a special exhibition "Market Tours"****Yu-Chwen Hsu, Li-Rong Hsiang**Assistant Curator  
National Taiwan Museum

PROGRAMME

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SOCIAL EVENTS

MARKET PLACE

## Cooking up the Science Center Experience

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13:30-15:00

9F Library  
L3

Champion

Presenters

**1D**

### **Refreshing the menu for regular diners: schools**

Science and Technology, or more popularly known as STEM these days, are not new to schools. However, our audience is changing. We now have an EPIC (Experiential, Participatory, Image-Rich, Connective) generation of students who approach learning differently. How do we continue to engage our schools by refreshing our menu of learning opportunities? Join us as we share initiatives from Brunei, Canada, Singapore, Taiwan and Vietnam. This is a session for us to get in touch with best practices and to network with people who are passionate about inspiring students in STEM.

**Chester Ong**

Manager STEM Inc, Science Center Singapore

### **Fantasy: Take you to Explore the World**

**Mrs C J Lu**

Research Assistant, National Science & Technology Museum, Taiwan

### **Improving OGDC's in-house and outreach student program**

**Mr Albert Chang Yew En**

Senior Science Communicator, Oil and Gas Discovery Center, Brunei

### **Don't give a Fish. Teach to Fish.**

**Ms Cathie Spencer**

Project Consultant, Ontario Science Centre

### **Be Our Guest! A Gastronomical Experience at KidsSTOP™**

**Ms Fatin Afiqah Binte Musa**

Educator, Science Centre Singapore

### **The educational activities in the Museum: new ways to approach and convey the natural world to the students**

**Ms Nhuan Thuy Tran**

On-site Guide, Vietnam National Museum of Nature

### **The Development and Utilization of Marine Science and Technology Teaching Modules in Museum**

**Dr. Tso-Chung Sung**

Assistant Researcher, National Museum of Marine Science & Technology, Taiwan



15:30-17:00

9F Library  
L1

Champion

Presenters

**1E**  
**Big Data analytics****Wachiraphan Charoenwet**

National Science Museum, Thailand

**Manipulating Our Senses with Digital Technology**  
**Fang-yi Su**

Assistant Researcher, Nation Science and Technology Museum

**Big Data Analytics in Museum Operations**  
**Yung-neng Lin**

Professor, National Taipei University of Education

15:30-17:00

9F Int'l  
Conference  
Hall

Champion

Presenters

**1F**  
**Fundraising and sponsorship**

In most instances Science Centres and Museums need to complement earned income with additional funding, to provide long-term financial sustainability. Therefore, fundraising and working with sponsors is a key activity within our organisations. This workshop session will explore what we mean by fundraising and sponsorship, what is seen as value by our funding partners, what success looks like, and how we build value to attract funding.

**Claire McGowan**

Science Alive

**Let's not be beggars but value providers to our benefactors****Dr. YL Khong**

CEO, Tech Dome, Penang, Malaysia

**Building Social Entrepreneurship Value in Science Museums - Strategy of Attracting Sponsorship****Ms Szu-yi Lo**

Project Manager, National Science &amp; Technology Museum, Taiwan

PROGRAMME

DAY 0

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SOCIAL EVENTS

MARKET PLACE

## Cooking up the Science Center Experience

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15:30-17:00

9F Library  
L2

Champion

Presenters

**1G**

### **Communicating Cutting edge research**

**Dr. Mack Saraswat**

Science Alive, New Zealand

### **Online to Onsite: An Information System for Capturing Museum Visits**

**Dr. Kee Chua Toh**

Assistant Researcher, Science Centre Singapore

### **Contemporary Science - Opportunities and Challenges**

**Robert West**

President, Informal Learning Experiences

### **How Do Science Museum Prepare a “Dish” of Cutting-Edge Research Materials that Are Difficult to Digest?**

**YING CHENG YEN**

TAIWAN NATIONAL SCIENCE AND TECHNOLOGY MUSEUM

15:30-17:00

9F Library  
L3

1H

**The Digital Ingredient of the Science Center**

Today, "digital" is an essential ingredient in the science center. How could we use these digital ingredients to give visitors a better experience, supporting learning, collaborating with peers or linking with research? What kind of reflection do we have after adding these "digital ingredients"? In this session, the speakers come from the different institution will share their first-hand experience of developing projects with "Digital Ingredient".

Champion

**Yihsuan Lin**

Exhibit-interdisciplinary&curate-Director, National Taiwan Science Education Center

Presenters

**NPM Gourmet: Museum as a Hub Where People Engage with Others****Dr. Chun-Ko Hsieh**

Department of Education, Exhibition and Information Service  
Deputy Chief Curator  
National Palace Museum, Taiwan

**Developing an app to support tinkering activities****Ms. Yihsuan Lin, Ms.PingYi Chen**

Exhibit-interdisciplinary &curate Director, Project Manager  
National Taiwan Science Education Center, Taiwan

**Cooking programmes with ready-made ingredients****Mr. Didier LAVAL**

Public Engagement Associate  
University of Bristol, UK

**Digital Ingredients to evolve: Miraikan Sphere Research****Mr. Yuki Yoshida**

Exhibition Development Division  
Miraikan, Japen

**ScienceVR: Empowering Learners by Placing Them in Immersive and Interactive Environments Alongside 19th Century Scientists****Dr. Chia-Hsun Jackie Lee**

ScienceVR Inc, USA

PROGRAMME

DAY 0

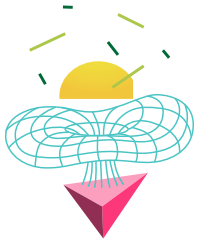
DAY 1

DAY 2

DAY 3

SOCIAL EVENTS

MARKET PLACE



# Day 2

September 6 Thursday

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10:30-12:00

**Traveling Exhibition Session**9F Library  
L1

Champion

**Daniel Tan**

Senior Director, Projects &amp; Exhibitions at Science Centre Singapore

Presenters

**AGT Euroevents Ltd****Aurae Exhibitions****Dalian Hoffen Culture Development Co., Ltd****Natural History Museum London****Ontario Science Centre****Science Centre Singapore**

10:30-12:00

**Poster Session**

9F Hallway

Presenters

**Space and Time Exhibition Digital Ingredient experience****PIYAKAN SRIMUANG**

Science Center for Education, Thailand

**The popular science communication of Air Lift Pump****Dr. Hai-Kuen Peng**

National Museum of Marine Science &amp; Technology(NMMST), Taiwan

**A diligent chef for science communication – cooking various earthquake information deliciously****Hyeong-gu Kang**

Daegu National Science Museum, Korea

**Smart Sensors Applied in Museum Interactive Exhibitions****Li-Wen Yan**

National Science and Technology Museum, Taiwan

**Digital Museum Services: The NSTM APP****Li-Wen Yan**

National Science and Technology Museum, Taiwan

PROGRAMME

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MARKET PLACE

## Knowing the Impact of the Science “Dishes” We Serve

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### **A Brief Review of Voluntary Program in Gwacheon National Science Museum**

**Hoi Jeong Yang, Eun Ji Park, Changyoung Yoo**

Gwacheon National Science Museum, Korea

### **The topic from the scientific subject for the education program in a science museum-using 「finding the fish tail」 as an example**

**Dr. Yung-Hui Chen**

National Museum of Marine Biology and Aquarium, Checheng, Pingtung, Taiwan

### **Crowdsourcing in the museum: The example of National Museum of Taiwan History of “The Day, The Memory” study group**

**Chia-Yi Lin**

National Museum of Taiwan History

### **“Waste to Value”, raising Public’s Awareness in Waste Management**

**Nuchjarim Yensueng**

National Science Museum Thailand

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13:30-15:00

9F Int'l  
Conference  
Hall

Champion

Presenters

**2A**

### **The Science Center “Kitchen and Dining” Crew: The role of volunteers**

**Dr. Wei Hsin Sun**

Director General, National Museum of Natural Science, Taiwan

### **Work with the NTSEC volunteers**

**Hui-wen Tu**

National Taiwan Science Education Center

### **Observation on hidden characteristics for short-term volunteers’ qualification**

**Pattarakorn Summat**

National Science Museum Thailand

13:30-15:00

9F Library  
L1

Champion

Presenters

**2B****Community engagement: how do we know we matter?**

Each community has its unique feature. How can science centers become an integral part of its community? How can science centers keep on attracting the attention from community? What creative approaches can a science center take to better serve a multi-cultural community? Science centers can bring a great impact to their community. Nowadays, holding science festival is also a booming tendency to reflect its unique community and a vital driving force to bring STEM education to reach a broad and diverse audience. In this session, there are speakers from Malaysia, Thailand, Turkey, Philippines and UK to share their strategies and experience on how science centers can better serve their community.

**Szuyi Lo**

Project Manager, National Science and Technology Museum, Taiwan

**Community Engagement Towards Sustainable Environment  
Rahimah Umar Rauf**

Head, Playsmart Peninsular, Petrosains The Discovery Centre, Malaysia

**Satisfying the Palate of Different Communities****Lee Kuan Shern(Sean)**

Education & Exhibits Manager, Tech Dome Penang, Malaysia

**Effectiveness of NSM Science Caravan as a Science Outreach Program:  
Evaluation of Students' Learning Experience in Interactive Science exhibits  
Ekapong Sripaoraya, Prof. Nancy Longnecker**

Science Communicator, National Science Museum, Thailand

Professor of Science Communication, Centre for Science communication, University of Otago, New Zealand

**Redefining the Natural History Museum London for the 21st Century  
Clare Matterson**

Director of Engagement, Natural History Museum, UK

**Science Expo as a Platform: How NSTM merges into Turkish  
Community****Nazim Enes Altan, Szu-yi Lo**

Project Expert, Bursa S & T Center, Turkey

Project Manager, NSTM, Taiwan

**Building a Community of Makers****Rhea De Claro**

Senior Designer, The Mind Museum, Philippines

PROGRAMME

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## Knowing the Impact of the Science “Dishes” We Serve

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13:30-15:00

9F Library  
L2

**2C**

### **Connecting the SDGs**

This session will explore how science centres, museums and other institutions are delivering public engagement for a better world and aligning their activities in support of the UN Sustainable Development Goals (SDGs). Participants will share some of the emerging opportunities and challenges they face in pursuing these aims, present case studies about current initiatives and outline their bold ideas for the future. From building better facilities and creating compelling new visitor experiences, sharing the science of sustainability and collaborating with others, building capability through shared expertise and training future leaders, these stories and more will get everybody thinking about how we can better connect and support the SDGs.

**Champion**

**Dr Bobby Cerini**

Deputy Director and General Manager for Science and Learning, Questacon

**Presenters**

### **The SDGs: A “commitment to leave no-one behind”**

**Dr Graham Walker**

Academic Convener-Masters of Science Communication Outreach  
Australian National University, Australia

### **Science Learning Center provides equitable opportunities of trans-disciplinary education and collaboration – The Youth Transdisciplinary Training Program, NTSEC.**

**Ching-Hua Shen**

National Taiwan Science Education Center, Taiwan

### **Now Everyone Can Plant**

**M Al Awwab Che Ahmad**

Petrosains, The Discovery Centre

### **Industry and Science Centers Collaboration: Conveying important messages on sustainability.**

**Dr Osamu Takachio**

Science Communicator  
National Museum of Emerging Science and Innovation (Miraikan), Japan

### **Schoolchildren experience a course for marine sustainable energy at exhibition**

**Dr Shih-Wei Lee**

National Museum of Marine Science & Technology, Taiwan



13:30-15:00

9F Library  
L3**2D****Managing relationships with government**

Globally, Science Centres are generally acknowledged by Governments as credible and valued learning institutions as well as public facilities. The mission of Science Centres and Science Museums is to interest people of all ages and from all walks of life in Science, Technology, Engineering and Mathematics (STEM). In promoting STEM to the public and especially to the young, the support of the Government is crucial. Government support not only includes financial support, manpower quality, but also includes policy support, administrative support, and even spiritual support.

Managing relationship with the Government well is therefore critical and important for Science Centres and Museums to advance their mission. This session will explore the various ways Science Centres and Museums work with their respective Governments to implement policies and programs which will not only benefit the two parties but also build relationships between the Governments, industries (eg STEM and Social Enterprises) and schools at the various levels.

**Champion****Leefin Cham**

Director (Corporate Resources) at Science Centre Singapore

**Presenters****How to earn more support from Government departments - About NTSEC's Experience****Mr Tseng Tsong-Pang**Chief Secretary  
National Taiwan Science Education Center**Working together with Government, schools and industries for the common good****Mr Chester Ong**Manager, STEM Inc  
Science Centre Singapore**Beyond Education: The Science Centre as a Catalyst for Social Innovation****Dr Daniel Loy**Director, Centre of Learning & Innovation  
Petrosains

PROGRAMME

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MARKET PLACE

# Knowing the Impact of the Science “Dishes” We Serve

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15:30-17:00

9F Library  
L1

**2E**

## **Impact on our own teams and donors**

Institutions are the way they are because of the contributions of the team members. Speakers from Brunei Darusaalam, Singapore, Thailand, New Zealand and the Philippines will discuss the big roles team members and donors play in bringing science closer to the public. They will also share how their teams inspire each other to continually learn and understand science. This session will also discuss the impact of participating/ volunteering in a science event to bring about a more positive attitude towards science.

**Champion**

**Myl Velvez**

HR & Admin Officer, The Mind Museum, Philippines

**Presenters**

### **The Impact of Teamwork**

**Allen Jaffran**

Lead Exhibition & Education  
Oil and Gas Discovery Centre, Brunei Darusaalam

### **An individual win games, a team win championships**

**Toh Kang Hui**

Science Educator  
Science Centre, Singapore

### **The impact of participation as volunteers in Science Caravan in Thailand**

**Nantida Sripaoraya**

Science Communicator | PhD Candidate  
National Science Museum Thailand | Centre for Science Communication, University of Otago, New Zealand

### **Wonder Bringer**

**Alexandra Limcaco**

Donor and Community Relations  
The Mind Museum, Philippines

15:30-17:00

9F Library  
L2

2F

**Menu for Specific Customer Groups**

Science Centers and Museums generally aim to inspire appreciation and understanding of science to as wide an audience as possible. To achieve greater impact and effectiveness in science communication, programs have to be able to identify specific needs, interests, even issues, and level of understanding of the target attendees. It is also key that science centers are able to customize their programs depending on specific age groups, and background differences, in order to maximize success in program results.

In this session, we will get to hear about different programs that cater to specific age groups, and programs that address identified issues in the aspect of science learning. Session attendees will also be encouraged to participate in a short ideation activity to help identify strong points of the programs presented, and share other recommendations to flesh out more ideas to both presenters and attendees.

Champion

**Trixie Tacardon**

Deputy Head of Operations, The Mind Museum

Presenters

**TEACHERS' ACADEMY - Education for Educators in Science Museums****Nazim Enes Altan**Project Specialist  
Bursa Science and Technology Center, Turkey**A summer school organization with the theme: Science History****İbrahim KOC**

Konya Science Center, Turkey

**Teen Science Cafe****Danette Carll**

USA

PROGRAMME

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MARKET PLACE

## Knowing the Impact of the Science “Dishes” We Serve

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15:30-17:00

9F Int'l  
Conference  
Hall

Champion

Presenters

**2G**

### **The Different Ways to Measure Scientific Literacy**

There are several approaches to define and measure scientific literacy, an outcome universally aspired for by science centres throughout the world. A common approach is to break down the components of scientific literacy into measurable subsets while other models adopt a baseline standard for the minimum knowledge required to be scientifically literate. This session will introduce some salient and tested ways in which science centres can approach the measurement of scientific literacy drawing from literature and practice.

**Lee Ying Ying**

Head, Learning Research, Centre of Innovation Learning, Petrosains Discovery Centre

### **A toolkit for science centres to measure scientific literacy**

**Lee Ying Ying**

Head, Learning Research, Centre of Learning & Innovation  
Petrosains Discovery Centre, Malaysia

### **How a museum-based science learning centre support scientific literacy learning for school science teachers**

**Tak-Cheung Lau & Chih-Yu Lu**

Science Education Department, Natural Museum of Natural Science

### **Producing the science news: measuring the impact of participants' responses to science**

**Shan-Yu Liu**

National Taiwan Science Education Center

### **To Promote Science Research Practices Through Science Fair**

**Shu-Wen CHENG, Chu-Li LIN, Ai-Hua LIN**

National Taiwan Science Education Centre

### **Evaluating the memory of visiting science museums**

**Chun-lam CHAN**

Assistant Curator  
Hong Kong Space Museum

15:30-17:00

9F Library  
L3

2H

**Are science centers the victim or beneficiary of the digital age?**

Digital technology is everywhere, and many of us use and benefit from it not only in personal lives but also in the museum work environment. While the trend changes daily, the strategical use is often required to develop/maintain our services, exhibitions, PR, and more. None wish to be victims of the digital age, so what can be done to be more in control?

This session will introduce examples of strategical use of digital technologies and cases tackling problems caused by digital environments. Sharing both successful efforts and challenges faced by science museums around Digital technology, audiences and presenters can discover what actions can be taken to better utilize and manage this technology.

Champion

**YAMADA Chiharu**

Miraikan – The National Museum of Emerging Science and Innovation, Japan

Presenters

**Why and how we use digital tools even with a very limit budget****Lin, Yi-hsuan**Exhibit-interdisciplinary & curate Director  
National Taiwan Science Education Center, Taiwan**The Influence of organizational memory on learning in science museum Staff****Nopparat Thepthepa**Head, Exhibition Development Division  
National Science Museum, Thailand**Selection and concentration strategy in the digital age****Yamada Chiharu**Planner, Exhibition Development Division  
Miraikan – The National Museum of Emerging Science and Innovation, Japan**Science Centre Singapore - Beyond the Stone Age****Jannah Monjiat**Senior Officer, Digital Media Marketing & Communications  
Science Centre Singapore, Singapore

PROGRAMME

DAY 0

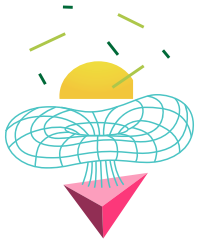
DAY 1

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SOCIAL EVENTS

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# Day 3

September 7 Friday

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9:00-10:30

9F Library  
L1

### 3A Collaborations with industries

In order to provide better products and services, industries devote themselves to closely understanding consumers' behaviors and society's changes and develop new science and technology. Science centers, as a media for spreading knowledge and wisdom, can help stimulate interactive communications between industries and consumers, to help better shape an ideal society. Yet, in order to consistently provide new values and knowledge and increase new reach, it is important for science centers to draw on industries' resource, knowledge and connections. In the first part of the session, the following questions will be addressed by introducing several successful collaborative activities: 1) Why should science centers collaborate with industries? 2) What can a collaborative partnership offer different stakeholders? 3) What strengths can science centers and industries take advantages of? In the second part, there will be a discussion about the challenges to a successful collaboration.

Champion

#### Chenchen Shen

Science Communicator, National Museum of Emerging Science and Innovation (Miraikan)

Presenters

#### Building Platform and Cross-field Value-adding- The Strategy how National Science and Technology Museum Strive for Social Resource

##### Pei-Hsiu Wu

Deputy Director  
National Science and Technology Museum, Taiwan.R.O.C

#### Inventorium: Synergistic Partnerships

##### Heather Farnworth

Director, International Sales and Featured Products  
Ontario Science Centre, Canada

#### Clear common goals and strengths analysis can help build a successful collaboration

##### Chenchen Shen

Science Communicator  
National Museum of Emerging Science and Innovation (Miraikan)

#### One step ahead of collaborations with biotechnology company

##### Akiko Mohri

Science Communicator  
National Museum of Emerging Science and Innovation (Miraikan)

PROGRAMME

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DAY 3

SOCIAL EVENTS

MARKET PLACE

## Expanding the Menu of Science Centers

9:00-10:30

9F Library  
L2

Champion

Presenters

### 3B

#### **Collaborations within ASPAC: existing projects and possibilities**

Collaborations between the ASPAC network of Science Centres and museums provide mutual benefit of strengthening the role and impact of each individual organization in enhancing the public understanding of science and technology. This session aims to provide a platform for various Science Centres/museums to share exciting initiatives ranging from exhibitions, digital platform for STEM engagement to a science drama competition for science communication, with the ultimate aim of creating opportunities for interested organizations to become part of these regional projects.

#### **Dr Lee Song Choon**

Deputy Director, Life Sciences and KidsSTOPTM at Science Centre Singapore

#### **International Science Drama Competition – Combining arts and science for science communication!**

#### **Dr Lee Song Choon**

Deputy Director, Science Centre Singapore, Singapore

#### **A Collaborative Voice for Effective Digital STEM Engagement**

#### **Dr Daniel Loy**

Director, Petrosains, Malaysia

#### **An Empirically Practical Science-based Touring from Taiwan to Singapore**

#### **Nelson CC Chen**

Assistant Researcher, National Science and Technology Museum, Taiwan

#### **Experience Sharing in Popular Science Education**

#### **Pei-Hsiu Wu**

Deputy Director, National Science and Technology Museum, Taiwan

#### **Design Squad Global project – A case study of international pairing collaboration for “Maker Culture”**

#### **Wachiraphan Charoenwet**

Science Communicator, National Science Museum, Thailand

#### **Science Circus Pacific – want to get involved?**

#### **Dr Graham Walker**

Academic Convener, Australian National University, Australia



9:00-10:30  
11:00-12:30

9F Int'l  
Conference  
Hall

### 3C / 3G

#### What are we missing in current science centers?

As the history of interactive and informative science centers crossed the 50-years mark, dating from the pioneers such as the Exploratorium and the Ontario Science Center, we have to critically ask if the current science centers are still relevant in the context of digital transformation and ease of knowledge transmission and acquisition due to the advancement in communication technologies. We need to reflect on where we have done well and should be sustained, and more significantly what are missing out in our field. Moving forward, how should we create new form of interactivity to enhance engagement through (social) interaction? Is it the role of science centers and museums to provide resources through which people are able to communicate and come to understand science? How can we widen our target audience from the typical focus on young children to include all age groups especially in view of the aging populations? With the arrival of industrial 4.0 how should science centers also help close the knowledge gap for working adults or displaced workforce to learn and acquire new competence? While many science centers capitalize on the lure and ubiquitous presence of gadgets that capture the "now" and even offer alternate worlds of 'now', have we relegated "remembrance" as part of learning from the history of science, technology and society to the dusty archives? Are science centers under the tyranny of the present and the future that they have relegated presenting the past as forgotten treasures that are irrelevant to the present which in turn will influence the future? How could "remembrance" in science centers provide meaningful context to the present and future so that science centers contribute to a well-informed global citizenry as citizens deal with the impacts of science and technology in their daily lives?

This session will involve several leaders from different science centers and museums. Audience will also be invited to explore ideas of co-creation and co-evolution by answering this question: If you have the means to build a new science center or museum, what will you prioritize as must have, good to have, or can do without?

**Champion**

**Dr. Lim Tit Meng**

Chief Executive, Science Centre Singapore

**Presenters**

**Nur Karnina Karim**

Science Communicator, Oil and Gas Discovery Centre, Seria, Brunei

PROGRAMME

DAY 0

DAY 1

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SOCIAL EVENTS

MARKET PLACE

## Expanding the Menu of Science Centers

### Presenters

#### **Ms Tengku Nasariah**

CEO, Petrosains, Malaysia

#### **Ms Maria Isabel Garcia**

Curator, The Mind Museum, Philippines

#### **Dr Bobby Cerini**

Deputy Director, Questacon, Australia

#### **Mr Guy Labine**

CEO, Science North, Canada

#### **Dr Chen Hsueh-yu**

Director General, National Taiwan Science Education Center

#### **Ms Aphiya**

Vice President, National Science Museum, Thailand

#### **Dr Lim Tit Meng**

CEO, Science Centre Singapore, Singapore.

9:00-10:30

9F Library  
L3

### 3D

#### **Who else have science centers not served yet and how do we serve them?**

Who else have science centers not served yet and how do we serve them? The people who won't real site visit Science Center/Museum and who don't like or can't visit are all our concern. Some strategies may help us to serve them: Using new way to develop the learning program/ exhibition, promoting the visitor by ticket price discount and providing the new interface by technology. And, what else?

### Champion

#### **Dr Ming Chao Lin**

Assistant Professor, Department of Science Communication, National Pingtung University

### Presenters

#### **Getting to Know the Non-visitors- Experience of NSTM**

##### **Ching Ching Pu**

Assistant Researcher, National Science and Technology Museum

#### **Universal Design for Museum Learning Programs: The Case of STARRY NMNS for Learners on the Autism Spectrum**

##### **Wenhsing Hsieh, Pinchun Chiang**

Science Communicator, National Museum of Natural Science

#### **Creating Tūhura: A bi-cultural Science Centre at Otago Museum**

##### **Samantha Botting**

Otago Museum

#### **Strategies in Promoting Community Science Literacy: Reach Out to the Unreached**

##### **Afia Rosdiana; Pipiet Dhanayu Pratiwindya & Lukman Yoga Suryawan**

Director, Taman Pintar Science Center

11:00-12:30

9F Library  
L1**3E****Co-creation and design with citizens**

Science centres have become integral community hub not only for physically present audiences but also people of all ages to connect digitally. As we deepen into the 21st century on the brink of the Fourth Industrial Revolution, the modes of engagement within science centres are set to change. New and adaptive approaches adopted from various fields reaching from crowdsourcing to design thinking are now being appropriated to encourage co-creation with citizens to impel change. Science centres with their experience in engaging diverse audiences can facilitate the interaction between science, technology and society on a neutral and open platform to generate new ideas, create prototypes and establish solutions. This session will explore innovative approaches science centres can adopt through the inclusion of their audiences in the designing process to achieve a shared vision and goals.

**Champion****Foo Huey Chyun**

Head, Learning Innovation at Petrosains, The Discovery Centre

**Presenters****Enabling Co-creation Through Design and Scientific Thinking Approaches in Open Innovation****Foo Huey Chyun**Head, Learning Innovation  
Petrosains, The Discovery Centre, Malaysia**Family Science Clubs – The power of Co-creation!****Ang Che Wan**

Science Centre Singapore

**Design-thinking through Designathon****Fatin Iesa**

Science Centre Singapore

PROGRAMME

DAY 0

DAY 1

DAY 2

DAY 3

SOCIAL EVENTS

MARKET PLACE

11:00-12:30

9F Library  
L2

Champion

Presenters

**3F**

**Who are our competitors and how do we differentiate ourselves further?**

**Collaborations with "competitors"**

Nowadays, there are a rising number of institutions that provide edutainment experiences similar to those in science museums/centres; the firsts seemingly competing with the lasts. However, could this competition become collaboration? Would it be an advantage for science museums/centres? This session will discuss examples of collaboration where others institutions and science museums/centres complemented each other and increased their numbers of attendants.

**Nopparat Thepthepa**

Head, Division of Exhibition Development at National Science Museum, Thailand

**Once Competitors, Now Colleagues**

**Robert West**

President  
Informal Learning Experiences, USA

**NSM Museums and our Win-Win Strategies**

**Ganigar Chen**

Director of Science Communication  
National Science Museum, Thailand

**From Competitor to Partner: working with our adjacent neighbors**

**Stephanie Wu**

Assistant Curator  
National Taiwan Science Education Center



ASPAC 2018  
INNOVATIVE  
*Science Cuisine*  
SEP 5-7, 2018 NTSEC TAIWAN

PROGRAMME

DAY 0

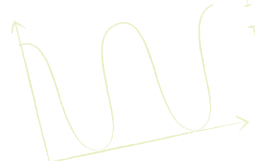
DAY 1

DAY 2

DAY 3

SOCIAL EVENTS

MARKET PLACE



$$I = 2\pi^2 q f^2 v \Delta X^2$$

$$I = \rho v \frac{\Delta v^2}{2}$$

$$I = \rho v \frac{\Delta \rho^2}{8\pi^2 f^2}$$

$$I = \frac{\Delta p^2}{2\rho v}$$

## Social Events

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Time

9/4 18:00-19:30

Room

Future Kitchen, NTSEC

### Welcome Reception

\*by invitation only

A warm and welcoming reception on the evening of September 4th for our esteemed guests including members from the ASPAC executive council members, session champions and speakers, science center directors and our sponsors.

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Time

9/5 17:00-18:00

Room

1F, NTSEC

### Special Session: Science Cuisine Cook off (Cooking Contest)

Calling all ASPAC member chefs! If you can cook and have an original recipe integrated with a science theory, then this Cook Off is for you!

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Time

9/5 18:00-21:00

Room

1F, NTSEC

### Welcome Party

The theme of the welcome party is 'Turn on your taste buds for Taiwan,' which stems from the conference's theme "Innovative Science Cuisine.' On top of serving exquisite Taiwanese dishes, there will also be cultural performances throughout the night. The opening dance combines culinary elements and innovative art work. At the half time, guests will get to experience the aboriginal performance rich in cultural tradition. We would like to deliver our warmest hospitality by providing our honorable guest with a feast full of great sounds, sights and tastes.

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Time

9/6 18:30-20:30

Room

5F, NTSEC

### Networking Night

Who doesn't love a fun night at the night market? There are always delicious food to try, fun things to see, and interesting games to try. This Networking Party will recreate and insert elements of a traditional Taiwanese night market for guests to enjoy meeting people and interacting with each other under a special and relaxing setting.

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Time

9/7 17:30-21:00

Room

National Palace Museum

### Farewell Party

After three days of meetings and conferences, we hope our guests have not only gained professional insights but also built helpful connections. To celebrate the beautiful memories made, we would like to further the experience by treating our guests to a Farewell Party at the National Palace Museum. Other than exquisite Taiwanese round table cuisines, guests will also get to visit the world-renowned National Palace Museum at night.

## Tour A- Culture Experience

### Post-conference tour

#### Day Tour

##### National Taiwan Museum → Dadaocheng → Wanhua District

National Taiwan Museum Nanmen Park invites you to visit their special exhibition "Market Tours – Biology in Food" to learn more about the edible organisms where food grows, how food to be obtained and the role of edible organisms in the ecosystem. Next, we will take you to Dadaocheng for a walk. In late 1880s, Dadaocheng started to prosper in light of the opening of Tamsui Harbor and has since become the keystone of economic and cultural development. During this walk, you will see extravagant Baroque architecture, traditional Hokkien bungalows, tea houses, fabric stores, Chinese pharmacy and local eateries and get to experience the traditional lifestyle of Taipei. After a delightful walk in Dadaocheng, we will take you to Wanhua District, which is the oldest region of Taipei City and is well-known for its national historical site-Longshan Temple. You will get to see the "local treasures" that includes temples, traditional shopping street and local snacks.



## Social Events

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### Tour B- Nature Experience

#### Post-conference tour

#### Day Tour

#### National Museum of Marine Science and Technology → Yehliu Geopark

National Museum of Marine Science and Technology, encompasses an area of over 500,000 square meters in the city of Keelung's Badouzi Harbor. The museum includes an award winning museum complex, breathtaking highland viewpoints and numerous parks and trails. The museum was formerly the site of Pei-Pu Steam Power Station which was constructed in 1937 during the Japanese occupation period. The Main Exhibition Building retains the power station's existing foundation and structure and can still be seen from inside the museum today. After visiting the museum, you will go to Yehliu Geopark which is best known for its unique rock formations, most prominent among them the various hoodoo stones that dot the almost alien-looking landscape, jutting out of the sedimentary rock in delicate spires boasting precariously balanced heads upon their thin necks.





**Post-conference tour**  
**Day Tour**

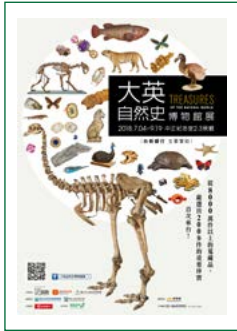
**Yangmingshan National Park → Shung Ye Museum of Formosan Aborigines**

Yangmingshan National Park is the only park in Taiwan that has volcanic geography and hot springs. It is next to Shamao Mountain and Qixing Mountain with Datun Mountain on the right and Guanyin Mountain in front. The magnificent mountainous scenery and comfortable weather have made Yangmingshan National Park a perfect summer resort. Total area of the park is 125 hectares, designed in traditional Chinese style. The natural beauty of the park has won it the reputation as urban forest and the Taipei garden. After visiting Yangmingshan National Park, we will treat you to Shung Ye Museum. Shung Ye Museum's main displays introduce the natural environment of Taiwan's indigenous peoples, their daily utensils, clothing and personal decoration, ritual objects and religious life. Films shown in the auditorium provide an understanding of the present conditions of Aboriginal life. The museum also has a special exhibition room where related exhibitions are held at regular intervals to broaden visitor's field of concern, and to present the many faces of humankind's culture.



## Social Events

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Time

9/8 Saturday  
19:10-20:30

Meetup Location

Please arrive at C.K.S  
Memorial Hall MRT  
Station Exit 5 at 19:10



Registration is free but mandatory. Pre-Book Your Seat Now!



### Nocturnal Visit at Chiang Kai-Shek Memorial Hall

#### Treasures of the Natural World- Natural History Museum London

The Natural History Museum in London is inviting #ASPAC 2018 participants to an exclusive guided tour. Treasures of the Natural World is one of the biggest and most ambitious projects the Natural History Museum London has ever worked on. Visitors to the exhibition will have the opportunity to receive a one-of-a-kind experience that brings together the best of the museum's collection: more than 200 iconic specimens carefully selected for their scientific, historic and cultural importance. The exhibition will give a unique insight into some of the greatest scientific minds: individuals who have shaped our understanding of our planet and capture the essence of the Natural History Museum both physically and intellectually through colorful storytelling. Following the successful presentation in Tokyo and Singapore, Treasures of the Natural World will be on display at the Chiang Kai-shek Memorial Hall in Taipei until 19th September 2018. This is the first exhibition the Natural History Museum has ever showcased in Taiwan and was made possible in partnership with undFunlife a Taiwanese Media company.

#### NHM representatives

**Clare Matterson – Director of Engagement**

**William Cheung – Exhibition Partnerships Manager**

**Kate Whittington – Interpretation Developer**

\*This will be a private tour. Please make sure you could arrive on time.

\*As this is an exclusive tour, attendees will be requested to bring along their # ASPAC 2018 delegate's badge.

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### Pili Fantasy World of Puppet Art

Acclaimed Pili Puppet Theatre troupe lead performer Su Huan-chen has been performing for 30 years. In this exhibition, on the theme of past, present, and future, technological interaction and traditional hand puppets are combined to give this Taiwanese puppetry form a whole-new flavor.

## Recommended Museums in Taiwan



These museums will welcome ASPAC 2018 participants.

Admission to the designated areas or exhibitions will be free or discounted by showing your ASPAC 2018 badge from September 4-8.

### FREE ADMISSION

- Galleries
- "Wondering in the Solar System" Exhibition



### National Museum of Natural Science

As one of the most heavily attended museums in Taiwan, and one of the most attended venues in Taichung, the Museum is in the distinguished company of the National Palace Museum in Taipei and the National Science and Technology Museum in Kaohsiung.

Across 9 exquisite hectares, the Museum is a five-venue complex housing the Space IMAX Theater, Science Center, Life Science Hall, Human Cultures Hall (the original Chinese Science Hall), and Global Environment Hall, plus the 4.5-hectare Botanical Garden, the 5-hectare 921 Earthquake Education Museum at Wufong, the 33-hectare Fonghuanggu Ecology Education Park at Lugu, and the 2.6-hectare Chelungpu Fault Preservation Education Park at Chusan. Over 50 permanent exhibit areas covering subjects on astronomy, space science, paleontology, ecology, gems and minerals, human cultures, tropical plants, and geology, the Museum is a place filled with hand-on exhibits that delights children and adults of all ages. As a matter of fact, the Museum is a major science learning center with over half a million school children visiting annually. In addition, rotating special exhibits are a constant occurrence to the Museum.



### Wondering in the Solar System

The major new exhibition "Wondering in the Solar System" at the National Museum of Natural Science explores the beauty of our solar system and demonstrates that the visual legacy of space exploration constitutes a stunning and important chapter in the history of astronomy. Visitors will feel like walking in the mysterious universe and get wowed by the new scientific discoveries and visual astonishment.

## Recommended Museums in Taiwan

FREE  
ADMISSION

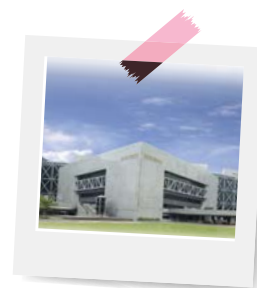
- Exhibition Gallery
- Rice Exhibition



國立科學工藝博物館  
NATIONAL SCIENCE AND TECHNOLOGY MUSEUM

### National Science and Technology Museum

National Science and Technology Museum (NSTM) was officially opened to public in 1997, with 18.37 hectares of land and 113,558m<sup>2</sup> of total floor spaces, which is located in Kaohsiung, Taiwan. There are 2 buildings with exhibition building in north and south complex. There are 17 permanent exhibition galleries and 5 special exhibition galleries and 5 special exhibition galleries, open storage and IMAX theater in north building. South complex includes library, collection storage area, and different classrooms. Lohas Energy Conservation House in the yard which display the concept of green energy and green architecture. The major functions of the museum are to preserve Taiwanese historical scientific objects, and to hold exhibition and education programs in different science subjects, specially focus on natural disaster prevention and environmental education in recent years. The goal is to inspire the public's interests to explore science in Taiwan.



### Rice Exhibition

Rice Exhibition is cooperated by Science Centre Board, Singapore, National Science Museum Thailand and National Science and Technology Museum Taiwan. This exhibition present the culture, heritage, and biology of rice and also some local rice materials from ASPAC members. This exhibition will be displayed in National Science and Technology Museum Taiwan from September by two stages: first display is Zone 3-Rice Community and then the whole exhibition will be displayed from October to September.



FREE  
ADMISSION

- Exhibits Hall



### Taipei Astronomical Museum

On November 7, 1996, the Taipei Astronomical Museum was opened, bringing forthwith it exciting new trends in astronomy education.

The Museum's primary mission is to serve as a bridge between the study of astronomy and society to make it possible for the public to learn more about astronomy. By introducing different points of view and offering a great variety of explanations in our demonstrations, we seek to provide the public with a learning environment that stimulates their interest in astronomy. Our ultimate goal is to strengthen astronomical education and establish a scientific basis here in Taiwan.



**FREE  
ADMISSION**

- Main Exhibition Building
- "Fish Biodiversity in Taiwan" Exhibition \$100 NTD
- 3D IMAX Theater \$90 NTD



## National Museum of Marine Science & Technology

The NMMST is more than just a museum. It epitomizes balance, combining modern design and scenic landscapes. Encompassing an area of over 500,000 square meters in the city of Keelung's Badouzi Harbor, the NMMST includes an award winning Museum Complex, breathtaking highland viewpoints, and numerous parks and trails.

The Museum Complex, which includes the Main Exhibition Building, IMAX Theater, and the Regional Exploration Building, features detailed exhibitions pertaining to marine science, technology, ecology, and culture. Additionally, the Museum Complex has important ties to the history of Taiwan. Formerly the site of the Pei-Pu Steam Power Station, which was constructed in 1937 during the Japanese occupation of the island, the Main Exhibition Building retains the power station's existing foundation and structure, which can still be seen from inside the museum today.



**DISCOUNTED  
ADMISSION**

- \$350 NTD From Sep 4 - 12



## National Museum of Marine Biology and Aquarium

The NMMBA is located in Checheng of Pingtung County, facing the Taiwan strait. The overall scheming concept of the museum focuses on presenting the spirit and characteristic of water and maintain the harmonious relation with the original natural environment. The building allocation can be divided into: the museum (the three theme exhibit halls of Waters of Taiwan, Coral Kingdom and Waters of the World), several major building divisions like the husbandry center, public facilities, research building, maintenance facilities, international conference center and academic research center.



## Recommended Museums in Taiwan

FREE  
ADMISSION



### National Taiwan Museum

National Taiwan Museum is the oldest natural history museum in Taiwan. As the Museum has expanded to three branches now, it tells the story of Taiwan with a variety of themes. Opening Hours: Tuesday-Sunday: 9:30 am-5 pm.

<https://en.ntm.gov.tw/>



DISCOUNTED  
ADMISSION

-\$75 NTD



### Shung Ye Museum of Formosan Aborigines

The Shung Ye Museum of Formosan Aborigines was established in 1994 as a specialist museum founded on the collection and display of artefacts of Taiwan's indigenous peoples. It is dedicated to promoting mutual understanding between different ethnic groups, through careful research, preservation and explanation of the essence of Aboriginal cultures. Achievement of these aims of mutual respect and appreciation will help to create a harmonious and gentle society.



FREE  
ADMISSION  
AND  
TWO FREE RIDES  
(1-13 LARGE RIDES)



## Taipei Children's Amusement Park

The Taipei Children's Amusement Park (hereinafter the Park), began life as the Taipei Children's Recreation Center in Yuanshan. The entire area was categorized as a national archeological site on April 11, 2006. In addition to national cultural heritage laws, the location was also bound by height restrictions as it is located on a flight path, as well as irrigation management laws, due to its proximity to a waterway. As a result, management and development of the site were greatly impacted and limited.

After completion of the Park in 2014, the Taipei Rapid Transit Corporation was commissioned for its management and maintenance. Citizens may extend their visits beyond the facilities of the Park, diversifying available activities to education and the natural environment surrounding the Taipei Children's Amusement Park.

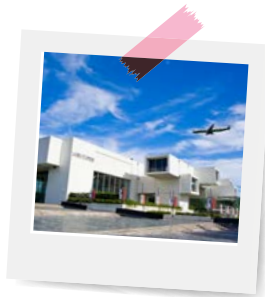


FREE  
ADMISSION

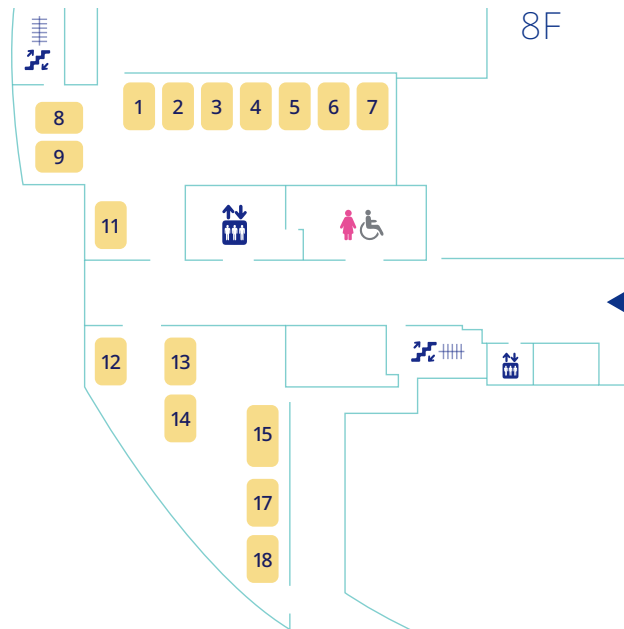


## Taipei Fine Arts Museum

The mission of the Taipei Fine Arts Museum is to promote the preservation, research, development and popularization of Taiwanese modern and contemporary art; to keep abreast of global trends and establish a variety of channels for exchange; to raise the general public's understanding of and participation in modern art; to help Taiwanese modern and contemporary art to thrive; and to cultivate fuller artistic attainment in the people, in the hope of forming a contemporary society with aesthetic sense and cultural perception.



# Market Place



## Booth #1 Hüttinger Interactive Exhibition

📍 Mittelbügweg 90, 90751 Schwaig bei Nuremberg, Germany  
✉ info@huettinger.de  
🌐 www.huettinger.de  
☎ +49 911 99 53 30

## Booth #2 Dalian Hoffen Culture Development Co.,Ltd

✉ liulei@hoffen.com.cn  
☎ 15140396536

Hüttinger is a one-stop shop for exhibition planning, design and fabrication. We develop environments that promote exploration and understanding through multi-sensory experience. Our preferred method of working is the design-and-build approach. This, together with a large in-house capacity, enables us to plan and provide turnkey solutions within a single project cycle, resulting in time savings, cost savings and, ultimately, a far more satisfactory exhibition. The essential prototyping is integral to the entire process. Where the design-and-build approach is not the preferred option, we are happy to work as designers or fabricators, bidding separately for the different project phases. Our Management System Standard certified by DNV conforms to ISO 9001:2008.

Dalian Hoffen Culture Development Co., Ltd. is an integrated enterprise integrating exhibition planning, design, marketing and operation, which was established in 2006. It is mainly engaged in travelling exhibitions, museums, industry portals and other operations. It is also the initiator of Thematic Exhibitions Summit Forum and a leader in the development of the industry.

More than ten years, the series of mystery of life travelling exhibitions has gone through 48 countries and 148 cities, with a total number of visitors exceeding 45 million. Among them, "Bodies" has been rated as one of the top ten culture events to visit in New York City.

Mystery of Life Museum is affiliated with Dalian Hoffen Culture Development Co., Ltd.. Since 2009, three museums have been located in Dalian, Suzhou and Chengdu respectively. In 2015, it was awarded as the "National Popular Science Education Bases", and in 2017, it was awarded as the "National Excellent Popular Science Education Bases".



### Booth #3 SIGONGtech

📍 SIGONG Bldg, 225-20, Pangyoyeok-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, 13494, Korea  
 ✉ john@sigongtech.co.kr  
 🌐 www.sigongtech.co.kr  
 ☎ +82 2-3438-0245

### Booth #4 Aurea Exhibitions

📍 Arroyito 22, golf, Nordelta, Buenos Aires, Argentina  
 ✉ toby@aureaexhibitions.com  
 🌐 www.aureaexhibitions.com  
 ☎ 005491165879341 \ 005491132127511

### Booth #5 Natural History Museum London

📍 Cromwell Rd, London SW7 5BD, UK  
 ✉ john@sigongtech.co.kr  
 🌐 w.cheung@nhm.ac.uk  
 ☎ +44 776 8858796

### Booth #6 Science Centre Singapore

📍 15 Science Centre Road  
 ✉ Sara-jane\_tan@science.edu.sg  
 🌐 www.science.edu.sg  
 ☎ +65 6425 2738

Hüttinger is a one-stop shop for exhibition planning, design and fabrication. We develop environments that promote exploration and understanding through multi-sensory experience. Our preferred method of working is the design-and-build approach. This, together with a large in-house capacity, enables us to plan and provide turnkey solutions within a single project cycle, resulting in time savings, cost savings and, ultimately, a far more satisfactory exhibition. The essential prototyping is integral to the entire process. Where the design-and-build approach is not the preferred option, we are happy to work as designers or fabricators, bidding separately for the different project phases. Our Management System Standard certified by DNV conforms to ISO 9001:2008.

Aurea Exhibitions creates and designs touring exhibits, from an original idea, to the production, and installation in venues. Covering every cultural, educational and technical detail, providing marketing support, besides logistics and operation guidelines.

We adapt exhibitions according to Museum needs, venue size and budgets. All our exhibitions are created and curated by world recognized scientists from Azara Foundation, providing the support and background needed for these exhibits.

With 20 years experience in the Entertainment industry, we promote, book and produce live events, and organize tours with International Artists and Exhibitions.

The Natural History museum tours an array of exhibitions including the crowd-pleasing Dino Jaws, the prestigious Wildlife Photographer of the Year, and the specimen-rich Extinction: Not the End of the World?

As a centre for scientific excellence, the Museum draws on the expertise of its 300 scientists when crafting exhibitions and where we also work collaboratively with some of the world's biggest museums and media companies to create once-in-a-lifetime opportunities for them to host the most famous, rare, precious and fantastical specimens like our recently opened Treasures of the Natural World exhibition and soon to be available Ancient Oceans, an exhibition that takes visitors on a journey beneath the waves to discover the fascinating and strange creatures of the Jurassic seas.

Set up in 1977, Science Centre Singapore brings out the wonders of science, technology, engineering and mathematics (STEM) through its unique blend of immersive exhibitions, interactive shows, educational programmes and exciting events. As a driving force of creativity and innovation, the Centre has proactively captured the evolution of scientific developments. More than 30 million guests have enjoyed over 1,000 exhibits spread across 14 exhibition galleries and outdoor exhibition spaces. Over the past 40 years, Science Centre Singapore has certainly played a pivotal role in transforming the way students and the public interact with and learn about stem.

For ASPAC 2018, we are proud to present DinoQuest; a new Travelling Exhibition created in collaboration with renowned palaeontologist Prof Patricia Vickers-Rich. DinoQuest leads visitors on a journey that lets them glimpse into the life of a palaeontologist. Featuring spectacular and interactive technologies, this exhibition promises to provide all ages of visitors with an extensive and immersive experience.

## Market Place

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### Booth #7

#### AGT EUROEVENTS LTD

📍 Kypranoros str.13, 2,floor, office nr. 201,  
1061 Nikosia ,Cyprus  
✉ agapios\_agt@yahoo.gr  
🌐 www.kotsanas.com  
☎ +306980720438

### Booth #8

#### Ontario Science Centre

📍 M770 Don Mills Road, Toronto, ON  
Canada, M3C 1T3  
✉ Heather.farnworth@osc.on.ca  
🌐 www.OntarioScience@osc.on.ca  
☎ +416 738 0630

### Booth #9

#### ScienceVR

📍 1061 Middlefield Rd, Palo Alto,  
CA 94301, USA  
✉ sha@sciencevr.com  
🌐 <https://sciencevr.com>  
☎ +1.408.475.1346

### Booth #11

#### Fulldome.pro Co. Ltd.

📍 67 moo 1, Hang Dong - Samoeng rd.,  
Baan Pong, Hang Dong, Chiang Mai,  
50230, Thailand  
🌐 <http://fulldome.pro/>

### Booth #12

#### National Applied Research Laboratories National Space Organization

📍 8F, 9 Prosperity 1st Road, Hsinchu Science  
Park, Hsinchu, Taiwan, R.O.C.  
✉ arthur@nspo.narl.org.tw  
🌐 <http://www.nspo.narl.org.tw/en2016/>  
☎ +886-3-578-4208#9205

Our company's mission is to promote the contribution of Ancient Greek Technology to the modern world. We present two travelling exhibitions: **"THE HI-TECH INVENTIONS OF ANCIENT GREECE"**, "The origins of our modern technology, " is part of the "Kostas Kotsanas Museum of Ancient Greek Technology" in Katakolo and Athens Greece and **"EUREKA " ARCHIMEDES AND HIS TIME.** The polymath and inventor who inspired Leonardo da Vinci, Galileo and Newton. More than 60 different inventions of Archimedes and his times are presented accompanied by rich audio-visual material (in Greek and English). The Archimedes collection is part of world wide unique "Archimedes Museum" in Olympia Greece. The Curator of our traveling exhibitions is Mr Kostas Kotsanas himself, the visionary creator of both museums. Mr Kotsanas after years of study and tests he brought to life more than 400 inventions of the ancient Greeks.

For over 45 years, as one of the world's first interactive science centers, the Ontario Science Centre uses Science as a lens to transform the way people see and think about the world around them. We have an experienced and talented in-house team who can consult, develop, design and fabricate customized science and technology experiences and exhibits. We also offer popular travelling exhibitions.

ScienceVR harnesses the power of VR to bring experiential learning to life. We are creating immersive, interactive VR experiences that take learners into the laboratories and studies of history's greatest thinkers, such as Michael Faraday, Lewis Carroll, and Ada Lovelace. Here, learners direct their own explorations, moving about the space to uncover the drama of scientific discovery; puzzles and games guide the learner through the fundamentals, which are then applied to an experiment the learner conducts first hand. We believe that learning should be fun and personalized. With VR, we can design worlds where learners are inspired to engage with their imaginations while having a visceral experience traveling through time and space.

Serving as the space agency of Taiwan, the mission of National Space Organization (NSPO) is to executive national space programs, promote space science and technology, foster the growth of domestic space industry, and make global environmental and disaster relief impact through international cooperation.

### Booth #13

#### National Museum of Natural Science

📍 No.1, Guanqian Rd., North Dist., Taichung City 404, Taiwan (R.O.C.)  
 ✉️ [wslj@nmns.edu.tw](mailto:wslj@nmns.edu.tw)  
 🌐 <http://www.nmns.edu.tw/>  
 ☎️ +886-4-2322-6940 #790

Across 9 exquisite hectares, the Museum is a five-venue complex housing the Space IMAX Theater, Science Center, Life Science Hall, Human Cultures Hall (the original Chinese Science Hall), and Global Environment Hall, plus the 4.5-hectare Botanical Garden, the 5-hectare 921 Earthquake Education Museum at Wufong, the 33-hectare Fonghuanggu Ecology Education Park at Lugu, and the 2.6-hectare Chelungpu Fault Preservation Education Park at Chusan. Over 50 permanent exhibit areas covering subjects on astronomy, space science, paleontology, ecology, gems and minerals, human cultures, tropical plants, and geology, the Museum is a place filled with hand-on exhibits that delights children and adults of all ages. In addition, rotating special exhibits are a constant occurrence to the Museum.

### Booth #14

#### HTC

📍 No. 88, Section 3, Zhongxing Road, Xindian District, New Taipei City, 231  
 ✉️ [steven\\_chen@htc.com](mailto:steven_chen@htc.com)  
 🌐 [www.htc.com](http://www.htc.com)  
[www.vive.com](http://www.vive.com)  
 ☎️ 0905-559-669

HTC aims to bring brilliance to life. As a global innovator in smart mobile devices, virtual reality and health care, HTC has produced life-changing products and industry firsts since 1997, and currently leads the VR industry with the VIVE portfolio.

VIVE is a first-of-its-kind virtual reality platform, built and optimized for room-scale VR and true-to-life interactions. VIVE delivers on the promise of VR with game-changing technology and best-in-class content, which not only include a breadth of enjoyable games, but also educational and medical applications, such as 3D Organon VR Anatomy and VIVEPAPER. Through VR, users are empowered with an immersive and engaging experience to visualize materials which could only be imagined before, allowing for a whole new way to learn.

The pursuit of brilliance is at the heart of everything HTC does, and HTC will continue to inspire the best VR experiences for people around the world.

### Booth #15

#### Acer Inc.

✉️ [Acer.Corp.PR@acer.com](mailto:Acer.Corp.PR@acer.com)  
 🌐 [www.acer.com](http://www.acer.com)  
 ☎️ +886-2-696-3131

Founded in 1976, today Acer is one of the world's top ICT companies and has a presence in over 160 countries. As Acer looks into the future, it is focused on enabling a world where hardware, software and services will fuse with one another to open up new possibilities for consumers and businesses alike. From service-oriented technologies to the Internet of Things to gaming and virtual reality, Acer's 7,000+ employees are dedicated to the research, design, marketing, sale, and support of products and solutions that break barriers between people and technology.

Free from external sensors, the Acer Windows Mixed Reality headset gives you the freedom to escape the confines of a single room and make the whole world your playground. The Windows Mixed Reality Headset is comfortable and easy to adjust as you experience different apps while walking wherever you want. Please visit [www.acer.com](http://www.acer.com) for more information.

## Market Place

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### Booth #17

#### CAMEO

7F-2, No.141, Heping W. Rd. Sec.2,  
Zhongzeng District, Taipei, Taiwan

daniel@cameo.tw

<https://cameo.tw/bigdata/>

+886-955-154-800

Telling the most touching stories with the most advanced technologies" has been Cameo's goal ever since our establishment 18 years ago, and also since the beginning of us to step into the interactive technology industry during the year 2012.

Cameo focuses on solving problems with creativity for countless government entities and private corporations, making us well known within the administrative departments- including Taiwan museums, the Environmental Protection Administration, Ministry of Transportation and Communications, Minister of the Interior, and so on. We integrate thorough design thinking into our daily work and ideas, making each of our projects and products full of inspiration, joy, and interaction, which has been three of the elements that we desire to provide.

With our numerous experience in the past, Cameo currently specializes in interactive technologies/ AR/ VR/ MR and AI/ big data analysis. While the topics are somewhat distinct from one another and both require deep knowledge, we often combine the two teams to provide precise and enlightening solutions to our clients.

Telling the most inspiring and most touching stories to the world with advanced technology has been and always will be our goal and our dream.

### Booth #18

#### National Chip Implementation Center (CIC)

7F, No.26, Prosperity Road 1, Hsinchu  
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In the era of the knowledge-based economy, manpower and technology are the keys to enhancing industrial competitiveness. With a view to making Taiwan a leading player in the global semiconductor society, the National Chip Implementation Center (CIC) focus on developing human resources and advanced technologies.

- Providing an IC/System design environment;
- Providing chip fabrication and measurement services;
- Promoting technology for IC/System design and international collaborations;
- Improving IC/System design services in southern Taiwan.

CIC aims to become a world-class laboratory for IC/System design research and service in Taiwan.



ASPAC 2018  
INNOVATIVE  
*Science Cuisine*  
SEP 5-7, 2018 NTSEC TAIWAN

PROGRAMME

DAY 0

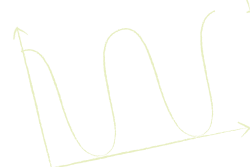
DAY 1

DAY 2

DAY 3

SOCIAL EVENTS

MARKET PLACE



$$I = 2\pi^2 q f^2 v \Delta X^2$$

$$I = \rho v \frac{\Delta v^2}{2}$$

$$I = \rho v \frac{\Delta \theta^2}{8\pi^2 f^2}$$

$$I = \frac{\Delta p^2}{2\rho v}$$

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$$f = f_0 \left(1 + \frac{v_x}{c}\right) = f_0 \left(1 + \frac{v_x}{c}\right)$$
$$t = t_0 \left(1 - \frac{2g\Delta h}{c^2}\right)^{1/2}$$
$$R_{\mu\nu} - \frac{1}{2}Rg_{\mu\nu} = \frac{8\pi G}{c^2} T_{\mu\nu}$$



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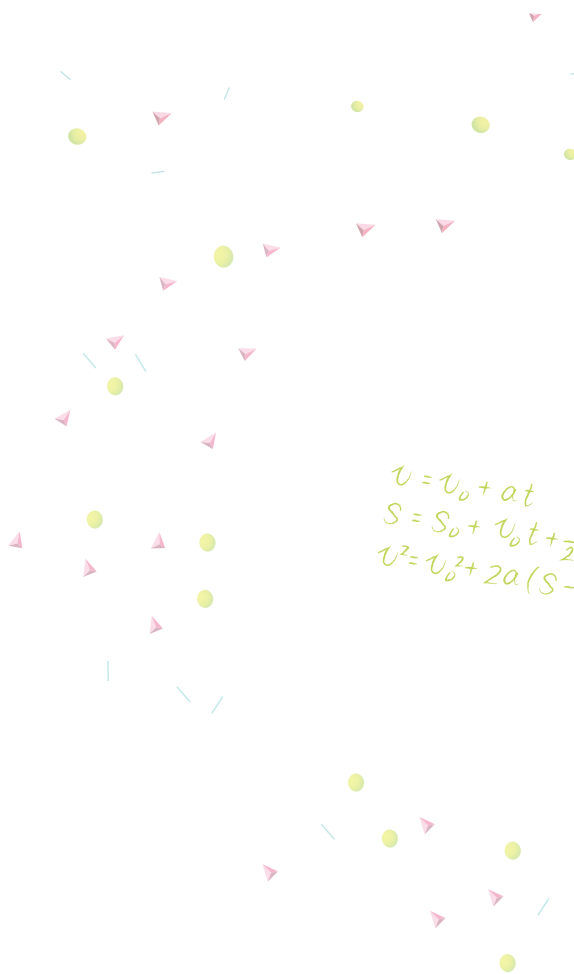
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