

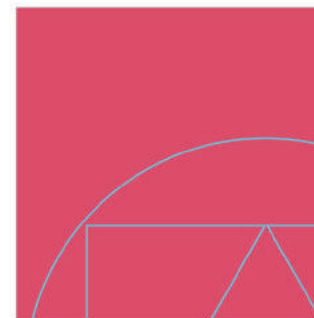
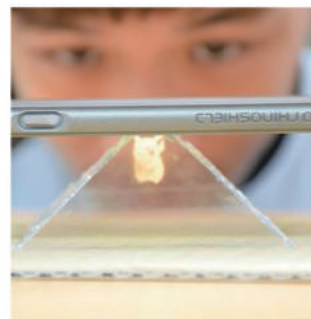
# 2016

NATIONAL SCIENCE AND  
TECHNOLOGY MUSEUM

Annual Report



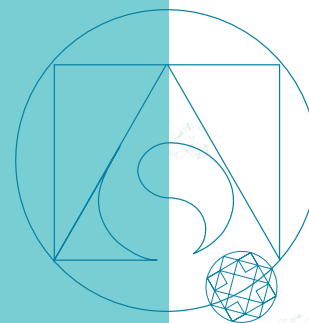
國立科學工藝博物館  
NATIONAL SCIENCE AND TECHNOLOGY MUSEUM



# 2016

NATIONAL SCIENCE AND  
TECHNOLOGY MUSEUM

Annual Report





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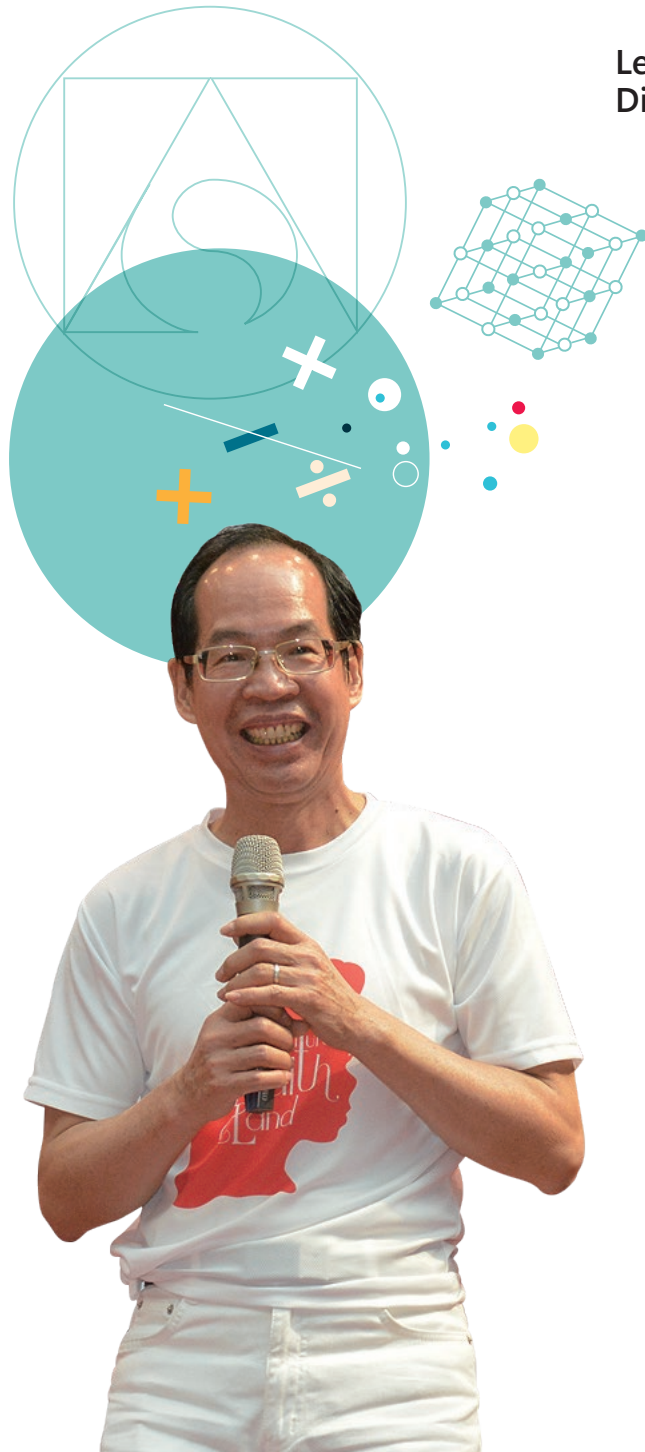
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## Letter from the Director-general

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2016 was a fruitful year for NSTM. Besides integrating our service quality friendliness, professionalism and innovation into NSTM's software/hardware and services, we have also upheld the spirit of "integrating science into daily lives, and integrating daily lives with science" and "experiencing science, and obtaining science experience", where professional know-how and innovative technology are utilized to design a diverse array of remarkable exhibitions in an effort to increase the public's interest in visiting NSTM. Thanks to the collective endeavor of our colleagues over the past year, we have extraordinary success on achieving total number of people service, as well as raising NSTM's operational funds ourselves. These truly extraordinary accomplishments serve as a testament to the exceptional performance of NSTM.

In addition, after passing the ISO9001 Quality Management System certification and ISO50001 Energy Management System certification in 2015, NSTM also received the ISO 27001:2013 Information Security Management System certification in 2016, hoping to improve the quality of NSTM to meet international standards. Moreover, other honors such as the 4th National Environmental Education Award and 1st place for Kaohsiung City Government's "Smart Power Conservation Project Competition" in 2016 further paved the way for NSTM to become a Green Museum.

In order to expand NSTM's service energy, we vied for opportunities to cooperate with various parties and strove to solicit

an infusion of resources, so as to provide the public with more fun, educational exhibitions, activities and services through integrated, innovative thinking. In regards to exhibitions, NSTM managed to pool resources from over 55 social enterprises in order to co-organize exhibitions. Besides opening 2 brand new exhibition halls including "The Story of Taiwan Agriculture" and "Adventures in Health Land", we also hosted 65 self-curated, cooperative and touring exhibitions. In particular, the "Wao! Somatosensory Adventure" exhibition combines popular science knowledge such as gravity, potential energy and kinetic energy, friction, centripetal and centrifugal forces to create a memorable learning experience for the public that is also full of fun and entertainment.

Shouldering the mission of social education as a national museum, NSTM focuses on the theme of applied technology to carry out services such as collection, research, exhibition, educational activities, recreation and cultural & creative promotion. Since its inception in 2014, NSTM's Cultural & Creative Team has developed cultural & creative products inspired by our collections. The merchandise not only accentuates the features and meaning of NSTM's collection but also helps to increase the visibility of NSTM's collections. The educational function of cultural & creative

products is also demonstrated by the steadily rising sales figures every year.

We have always upheld the service attitude of "Smiling, Enthusiasm, Initiative, Patience and Accountability" in pursuing the ultimate service quality, therefore we introduced the mystery shopper audit system to strengthen the service quality of our staff, as well as to ascertain any inadequacies in our services and formulate related improvement strategies. In terms of the environment, in addition to offering the public a magnificent, comfortable and clean green park, we also introduced "Rain Pavilion Shelter" along a route in 2016, so that visitors are able to enter NSTM safely in rainy days without getting wet.

In the future, NSTM will continue to promote popular science and innovative services. It is hoped that we will be able to bring about novel visiting experiences for the public through the creative application of technology, art and culture, so that each visit will become a memorable journey of exploration for them. Furthermore, we also aspire to transform NSTM into a museum that everyone likes to visit and revisit.

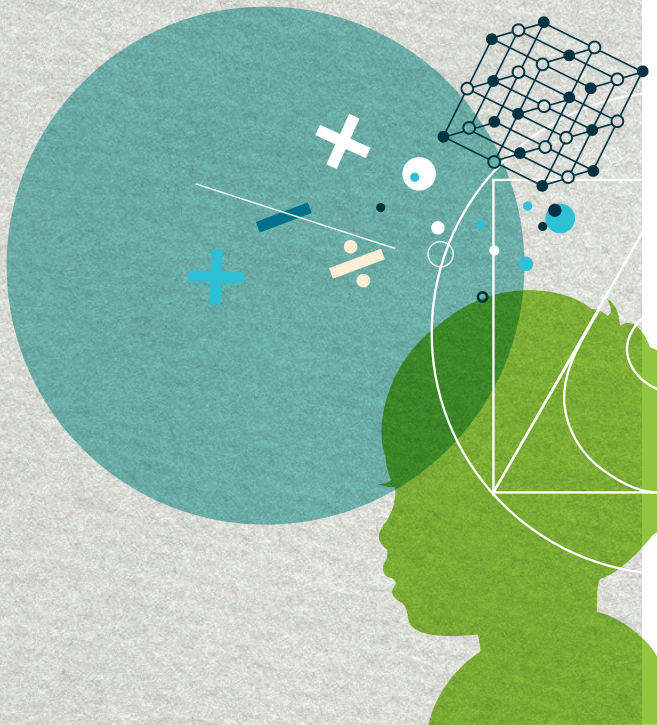
***Shiunn-Shyang Chen***

Director-general

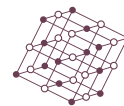




# Annual Achievements and Accolades







## Annual Achievements

Exert the function of life learning and social education in conjunction with the national education policy

Ⓛ Caring about popular science education for disadvantaged school children

In total, the 2016 NSTM Lanterns of Love project raised NT\$3,030,530 to sponsor financially disadvantaged school children from all corners of Taiwan (including off-shore islands) to visit NSTM.

2016 NSTM Lanterns of Love project serviced

**316** schools

**5,620** students



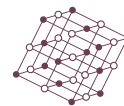
Ⓛ Seek resources to organize diverse science education activities

Various science education activities were held inside and outside NSTM in 2016

**1,596** activities

**328,225** participants

In 2016, in order to achieve the goal of "to make everyone with a science mind", NSTM obtained a budget of NT\$18,967,992 and other resources from industry, government, academia and society to develop a wide variety of specialty courses and creative art activities targeting people from different age groups.



▶ Create a "National Disaster Reduction and Environmental Education Park"

Number of participants of NSTM's environmental education activities

**84,635** people

NSTM's unique environmental education venue and facilities were merged with diverse educational activities to create a national educational venue to serve the public. As a result, NSTM has created value added services in environmental education and innovative education in disaster reduction, allowing the museum to earn several national

awards.

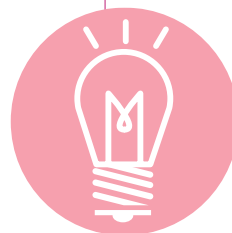


"Recovery and Reconstruction After MORAKOT" Exhibition

▶ Promoting the "Maker Culture" in southern Taiwan

"2016 Maker x Edu Week"

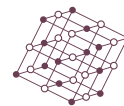
**2,000** people attended



Launched "True Dream Land" to encourage the public to unleash their creativity and be innovative. Furthermore, a revolutionary approach to science education was adopted, where maker-themed exhibitions and activities were held in the exhibition hall to develop a close association between makers and the exhibits, in turn presenting a new service model.







## Expand budget scale to generate more services and value

### Proactive measures to increase revenue and decrease expenditure

totaling

NT\$ **272,815,040**

growth

**25.49%**

In 2016, NSTM increased revenue by NT\$224,541,487 and cut back expenditures by NT\$48,273,553, totaling NT\$272,815,040. This is an increase of NT\$55,411,795 over 2015, equivalent to a growth of 25.49%.



### Pool social resources to improve exhibition service performance

Total value of social resources raised

NT\$ **156,362,906**



In 2016, 70 joint exhibitions were held by pooling the resources of at least 59 social enterprises, an increase of 11% compared to 2015.

### Development of theme merchandise based on NSTM's collections to increase revenue

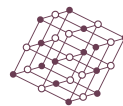
2016 cultural & creative products

Total revenue generated

NT\$ **1,567,907**



Cultural & creative products were developed based on NSTM's collections to highlight their features and significance, as well as increase the revenue of the museum.



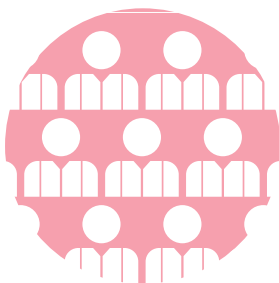
## Utilize social human resources to improve overall service performance

### ▶ Social human resources utilization

Social human resources obtained were equivalent to that of

**111** full time staffs

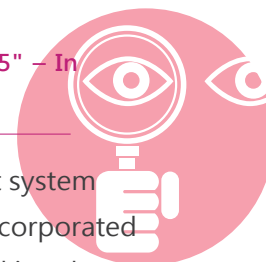
In order to offer visitors more comprehensive services, NSTM strives to manage and utilize volunteers, student volunteers and interns more effectively in facilitating the day to day operation of the museum. In 2016, a total of 1,133 volunteers were on duty for 183,111 hours; student volunteers accumulated 12,755 hours of service; 77 interns accumulated a total of 23,132 hours. The combined service time rendered by social human resources was 218,998 hours, equivalent to that of 111 full time staffs at NSTM in 2016.



## In pursuit of perfection – Demonstrating friendly, professional and innovative service quality

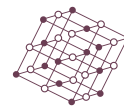
### ▶ Launch of "Mystery Shopper Audit System 2.5" – In pursuit of outstanding service quality

The mystery shopper audit and management system was adopted and virtual scenario testing was incorporated to effectively enhance crisis handling ability, making the mystery shopper a valuable tool for managing service quality. Since the system was introduced, the assessment outcome has shown steady improvements, reaching a total score of 87.35. This is a testament to the outstanding achievement of gradual refinements in service quality.



### ▶ Reinforce personnel training and encourage service innovation

NSTM's organizational culture is established through further education, training and benchmarking. At the same time, we encourage our employees to constantly engage in service innovation and transformation in order to demonstrate NSTM's expertise and innovative energy, as well as to improve service quality. In 2016, we organized a total of 76 education and training courses, 15 benchmarking sessions and developed 3 exhibits in-house.



## I Achieve the objective of steady growth in the number of visitors and revenue

④ The total number of visitors in 2016

**3,159,505** people

an increase of **↑ 21.31%**

By improving the design of NSTM's overall environment, service process and quality, combined with diverse exhibits, films and popular science education activities, we have set the highest visitor number of 3,159,505 in 2016, which grew 21.31% more than the previous year.



④ In 2016, NSTM's self-raised funds demonstrated steady growth

2016 reaching

NT\$ **179,298,244**

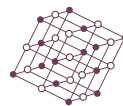
growth

**↑ 35.76%**

In 2016, NSTM generated an income of NT\$179,298,244, and an increase of 35.76% over 2015 to achieve the goal of steady income growth.







## Honors and Awards



1. Received the Executive Yuan EPA's "4th National Environmental Education Award".
2. Received 1st place for Kaohsiung City Government's "2015 Smart Power Conservation Project Competition".



Kaohsiung City Government's "Smart Power Conservation Project Competition" Awards ceremony.

3. Received 5th place for MOEA National Property Administration's "2015 National Property Revitalization Performance" in the Fund Category.
4. Received the Executive Yuan DGBAS's 2015 Internal Control System Outstanding Award, making NSTM the only museum in Taiwan to receive the award.



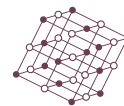
Received the 4th National Environmental Education Award



MOEA National Property Administration's "2015 National Property Revitalization Performance" Award



Internal Control System Outstanding Award



5. NSTM's "Taiwanese Journal for Studies of Science, Technology and Medicine" received 1st place for NCL's "Most Influential Periodical Award".
6. Introduced the Information Security Management System (ISMS), which passed ISO27001 certification, making NSTM the only national social education institution in the country to receive the certification.
7. Outdoor interactive multimedia exhibit "Technology Window" was selected as a top ten annual design creation for 2016 by Brain Magazine.



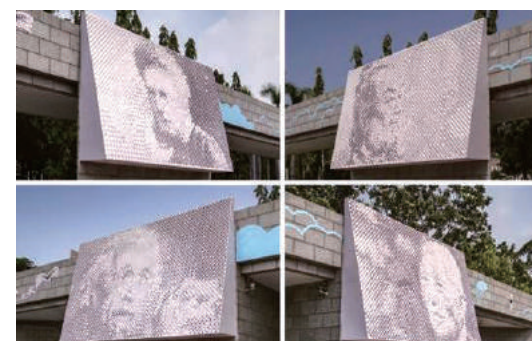
"Taiwanese Journal for Studies of Science, Technology and Medicine" received 1st place for NCL's "Most Influential Periodical Award"



Passed ISO 27001 certification and received the certificate



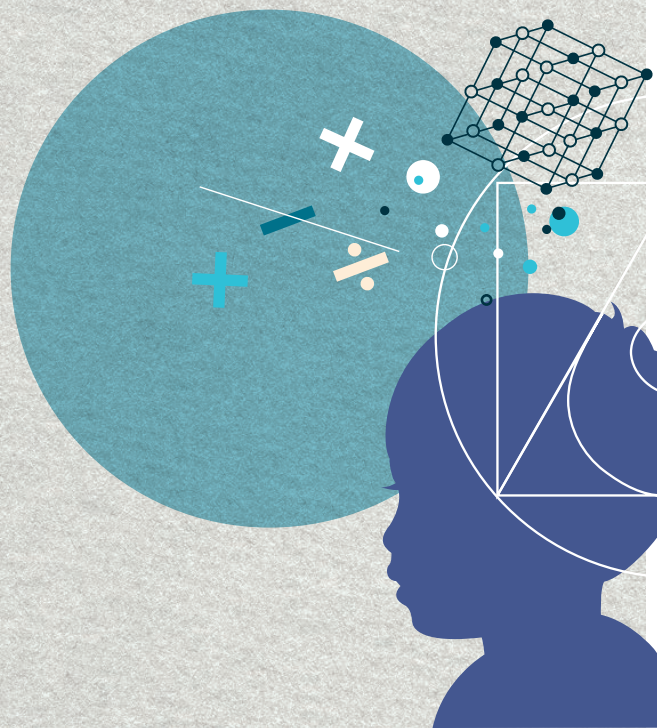
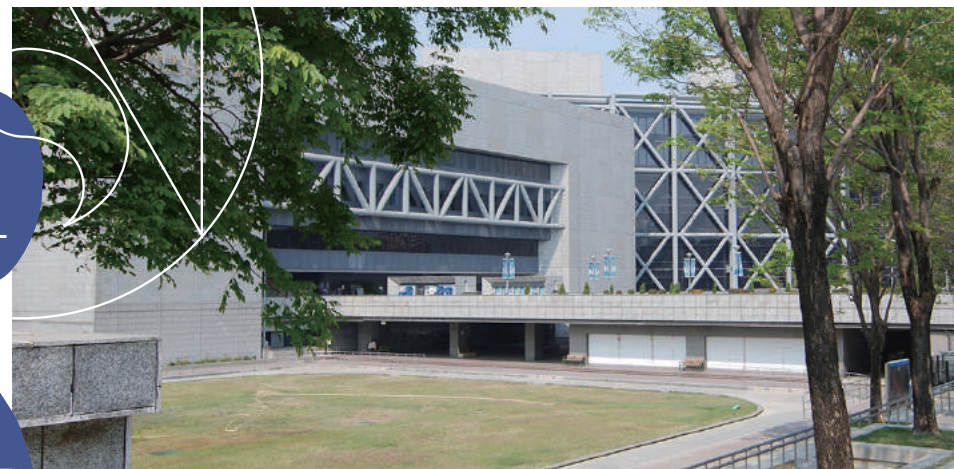
The outdoor interactive multimedia exhibit "Technology Window" was selected as a top ten annual design creation for 2016.



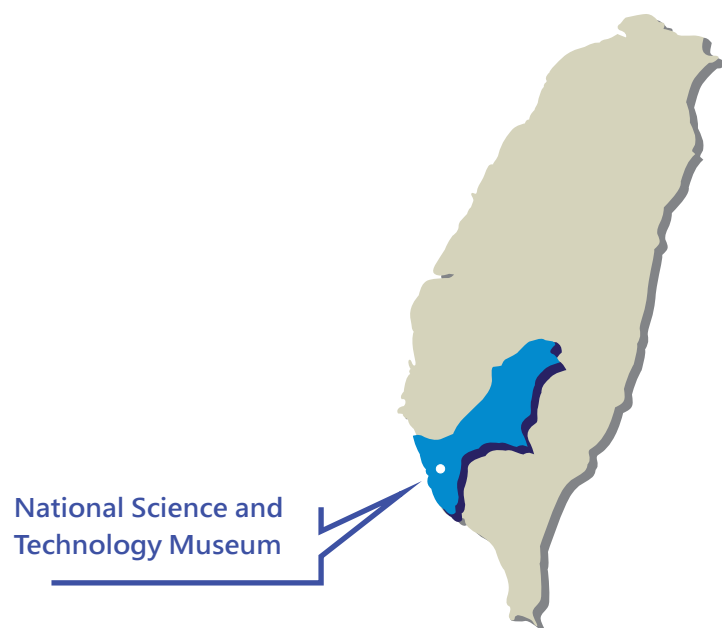
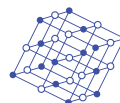
Dazzling design of the Technology Window – "Solar Art installation"



# History







National Science and  
Technology Museum

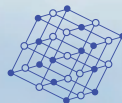
### Brief Description of the Preparatory Process

July 1986	The Planning Council for NSTM was established.
November 1988	The Executive Yuan approved the construction plan.
October 2, 1989	Construction of the museum commenced.
January 1, 1997	The museum was officially established with the approval of the Executive Yuan and the Ministry of Education.
July 26, 1997	The south complex was opened.
September 21, 1997	The museum park was opened.
November 9, 1997	The museum was opened to the public.

### In pursuit of perfection – Demonstrating friendly, professional and innovative service quality

The National Science and Technology Museum (NSTM) was one of the central cultural facilities constructed in the "Project of County/City Cultural Center Construction" in The Twelve Construction Projects announced by the Executive Yuan in 1979. As the first museum of applied science in Taiwan as well as the first national institute of public education in Southern Taiwan, the focus of the museum is to collect and study scientific and technological objects, hold exhibitions related to science and technology and promote education as well as provide the public with a place for leisure and life long learning.

Located on Jiouru 1st Road, Kaohsiung City (originally City Park No. 6), the museum covers 18.37 hectares of land. The buildings contain a total building area of 20,682.83 m<sup>2</sup> and the floor area is 113,557.69 m<sup>2</sup> (including North building: 97,734.93 m<sup>2</sup>; South complex: 15,258.88 m<sup>2</sup>; LOHAS Energy Conservation House: 563.88 m<sup>2</sup>) with 36.89 meters of structural height.



## North building

The building covers 15,007.55m<sup>2</sup>. It contains the administration center, permanent exhibition galleries, special exhibition galleries, 3D Theater, Open Storage, Maker: the True Dreamland, NSTM Green Shop and Gift Shop.







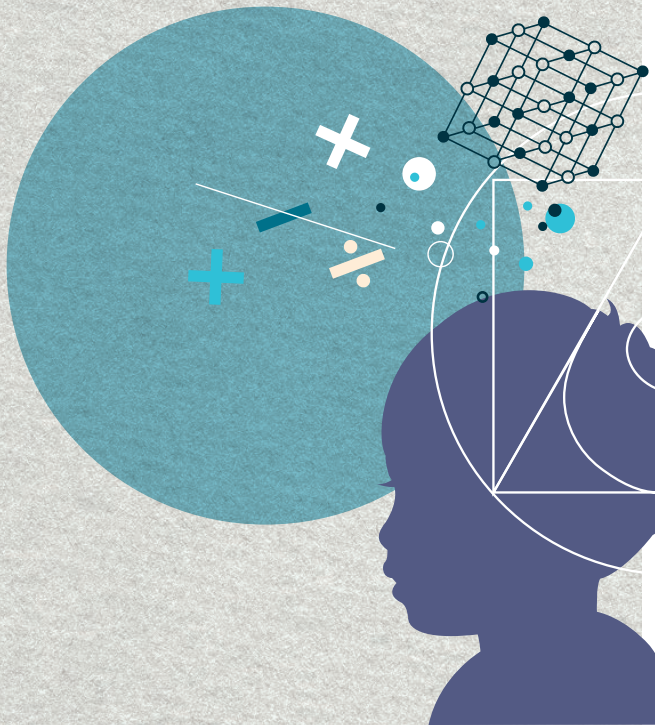
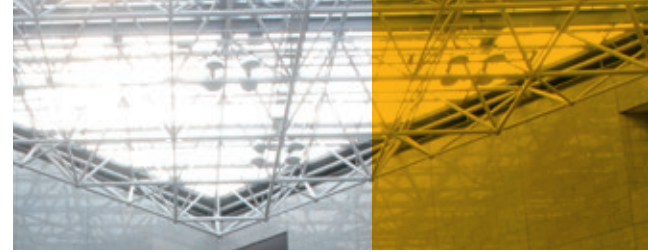
## South complex

The building covers 5,412.61m<sup>2</sup>. It contains the Popular Science Library, auditorium, lecture rooms, meeting rooms and Collections Storage. The LOHAS Energy Conservation House was set up in 2009 and sits on an architectural dimension of 262.67 m<sup>2</sup>

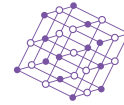




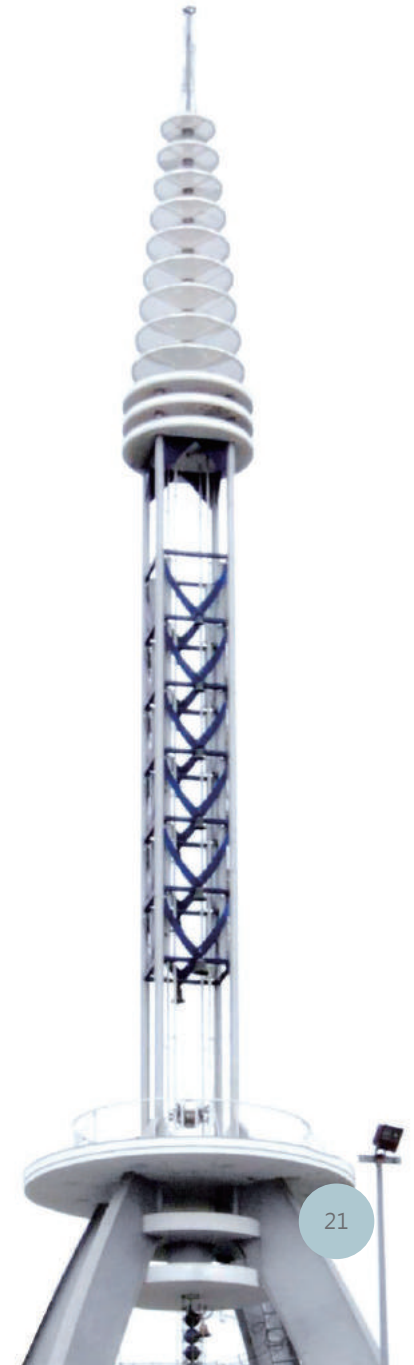
# Development Missions





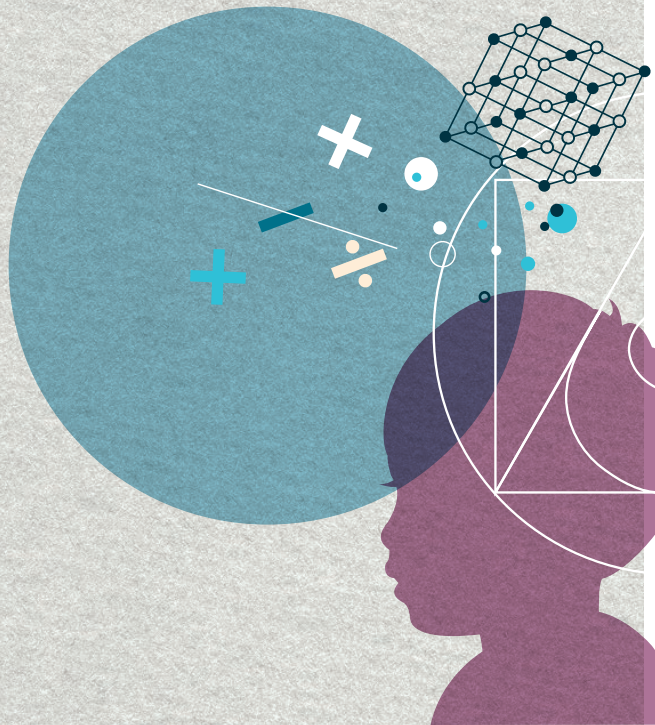


1. To reinforce technological collections management and research: continuation of holding conservation and maintenance seminars and improving the conservation environment, as well as strengthening research and applications for technological collections.
2. To establish an exhibition renewal mechanism and gradually alter exhibitions, so as to vitalize the exhibiting functions of the NSTM and make the NSTM a venue for displaying the industrial achievement of Taiwan as well as permanent establishment to record important industrial achievement.
3. To develop new teaching aids and combine resources from businesses, schools and society to organize more activities for technology education.
4. To enhance public services, utilize the power of the media as well as community resources and establish a diversified marketing strategy to increase the number of visitors.
5. To strengthen public safety around the museum and create quality visiting environment for better service.
6. To promote automation of administration affairs of the museum and provide life-long learning access on the internet.
7. To improve and enrich network hardware and software equipment to enhance work efficiency.
8. To plan a digitalized library to provide the public with information from Internet databases and to create a specialized book repository for different research topics in the museum.
9. To strengthen cooperation among museums by holding various seminars and inviting guest speakers to improve research quality.

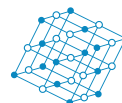




# Organizational Structure







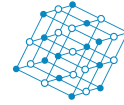
## Post Allocation

Pursuant to the temporary regulations and staffing structure of National Science and Technology Museum as promulgated by the Ministry of Education with the Letter Year (1996)Tsan-Zi 85504426 on December 30,1996, the National Science and Technology Museum has one director-general and one deputy director-general. Under them, the Museum operates through the Exhibition Division & Technology Education Division, Public Services Division, Secretariat, Personnel Office and Accounting & Statistics Office. Further in the light of the need for development of the Museum, the Information (MIS) Task Force was established on July 16, 1998 and Collection Research Task Force was established on February 1, 2001. Subsequently later on, pursuant to the amendment to the temporary regulations as promulgated by the Ministry of Education with the Letter Tai-Tsan-Zi- 0920113739A dated August 5, 2003, the Collections and Research Division was additionally established on September 1, 2003 and the establishment was approved by the Examination Yuan with the Letter Kao-Tai-Er-I-Zi 09200079281 dated September 22, 2003.

Besides, the Organizational Act of the National Science and Technology Museum was duly enacted under Order of the President of the Republic of China, i.e., Hua-Tsung-I-I-Zi 10100022841 dated February 3, 2012 and was put into enforcement starting from January 1, 2013 under Order Yuan-Shou-Yen-Tsung-Zi 1012260345 of the Executive Yuan (the Cabinet) dated March 8, 2012. Pursuant to the Organizational Act of the National Science and Technology Museum, the Accounting Office was reorganized into the Accounting and Statistics office.

In light of NSTM's development needs, task forces have been formed to promote certain services:

1. The Maintenance Team was established on January 1,2013. In December 2015, the performance of NSTM's "Maintenance Team" was reviewed; furthermore, in conjunction with the personnel number evaluation, the Maintenance Team was dissolved on January 1, 2016, in order to restore the normal manpower of various departments.



2. A Cross-departmental Cultural and Creative Team was formed on March 26, 2014 (abbreviated as CCT) in response to the cultural & creative development needs of NSTM, in turn opening a new chapter in NSTM's cultural & creative development and marketing.

3. In 2015, in response to NSTM's long-term needs in cultural relic restoration and inspection, and to collect technological cultural relics in a more systematic manner, science analysis and restoration technical equipment was purchased, and the Technology Cultural Relic Inspection Center was formed under the Collections & Research Division on April 7. NSTM's organizational structure was shown as Figure 1.

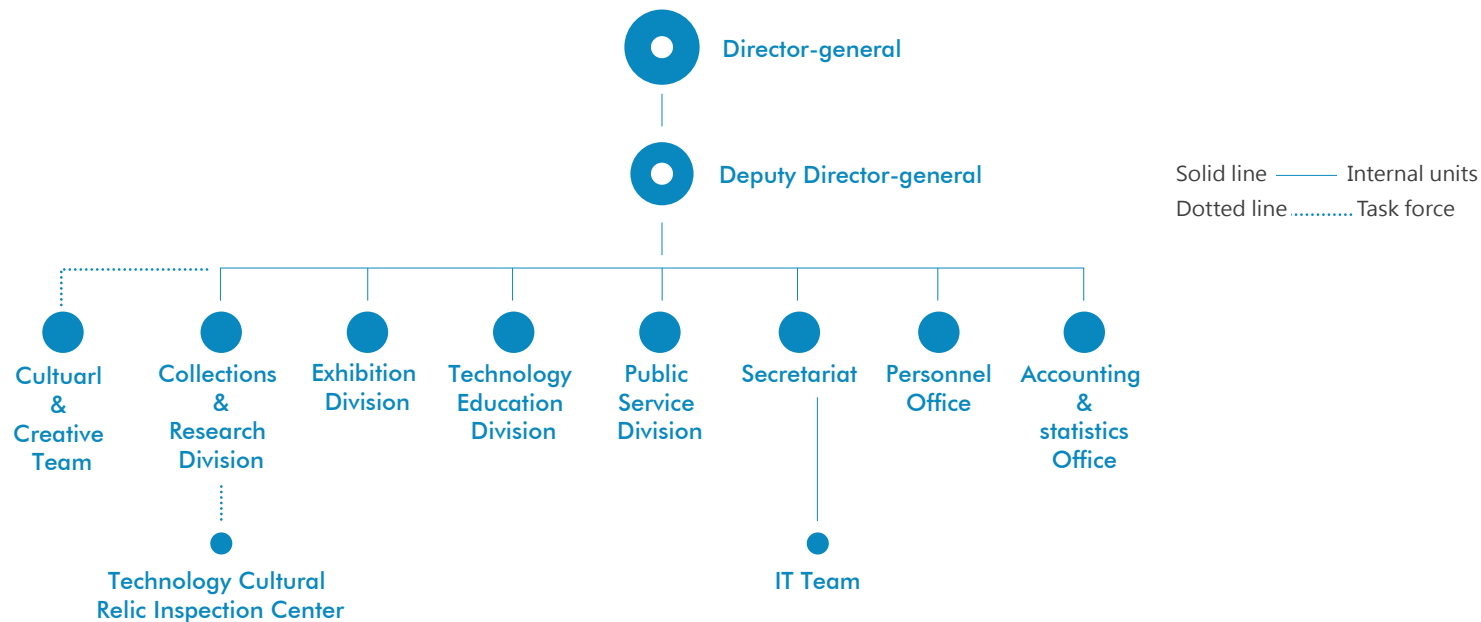
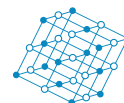


Figure1 Organizational Structure



## Posts

### 1. Budget Headcount

A total of 84 posts were opened as defined by relevant law and regulations. After the assessment of Ministry of Education in 2016, our budget post openings were as follows: 28 Researchers, 47 Civil Servants, 26 Senior Contract Employees, 20 Junior Contract Employees, 8 Technical Workers, 7 Maintenance Workers, with a total of 136 posts budgeted. The budget headcount analysis is as Figure 2.

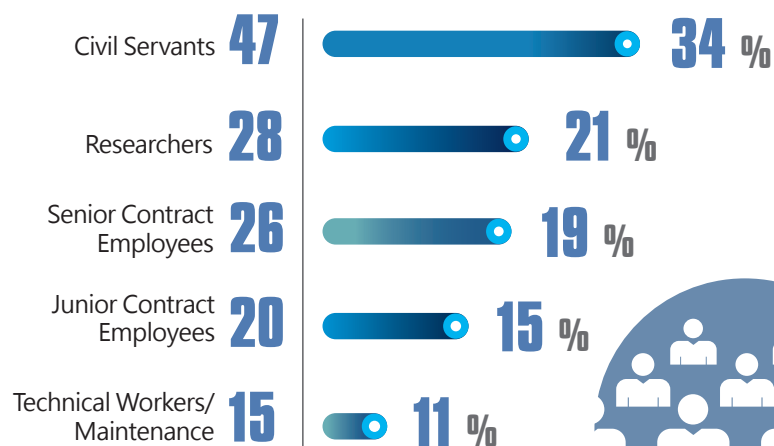


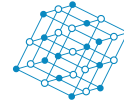
Figure 2 Budget Headcount

### 2. Existing Headcount

Our existing headcount (excluding volunteers and commissioned service companies) has a total of 136 people. (65 Males, 71 Females). The female ratio is 52%, while the male ratio is 48%. There were 9 managers (including director-general and deputy director-general: 7 males, 2 females). The ratio of female managers is 22%, while the male ratio is 78%. There were 127 non-managers (58 males, 69 females). The ratio of female non-managers is 54%, while the male ratio is 46%. The managers and non-managers gender analysis is as Table 1.

Table 1 NSTM Managers and Non-Managers Gender Analysis

	Existing Number	Males	Male Ratio	Females	Female Ratio
Managers	9	7	78%	2	22%
Non-Managers	127	58	46%	69	54%
<b>Total</b>	<b>136</b>	<b>65</b>	<b>48%</b>	<b>71</b>	<b>52%</b>



Additionally, there were 28 Researchers (12 males, 16 females), 46 Civil Servants (27 males, 19 females), 47 Senior Contract Employees and Junior Contract Employees (17 males, 30 females), 15 Technical Workers and Maintenance Workers (9 males, 6 females). The personnel gender analysis is as Table 2.

Table 2 NSTM Personnel Gender Analysis

	Existing Number	Males	Male Ratio	Females	Female Ratio
Researchers	28	12	43%	16	57%
Civil Servants	46	27	59%	19	41%
Senior/Junior Contract employees	47	17	36%	30	64%
Technical/Maintenance Worker	15	9	60%	6	40%
<b>Total</b>	<b>136</b>	<b>65</b>	<b>48%</b>	<b>71</b>	<b>52%</b>

## Educational Statistics

We currently have a total of 136 employees, out of which, there are 12 with PhDs, 66 with master's degrees, 52 college graduates, 6 high school graduates or below. Our personnel educational statistics analysis is as Figure 3.

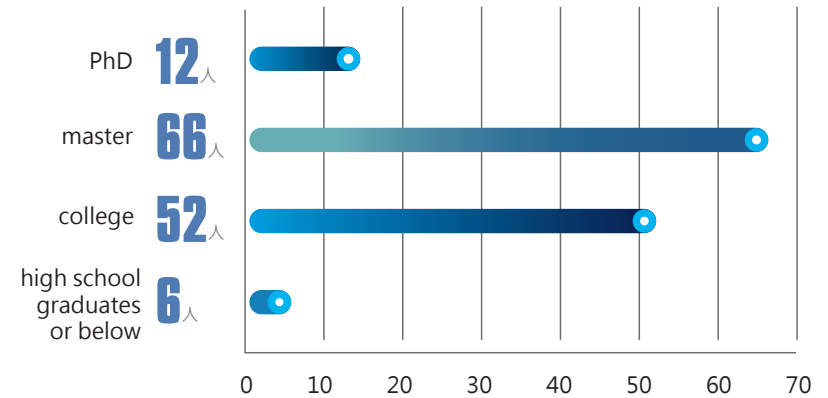
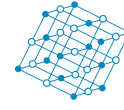


Figure 3 Personnel Educational Statistics





## Researcher Backgrounds



### 1. Researchers Educational Statistics

We currently have 28 researchers, out of which, there are 12 with PhDs, and 17 with master's degrees. Our researchers' educational statistics analysis is as Figure 4.

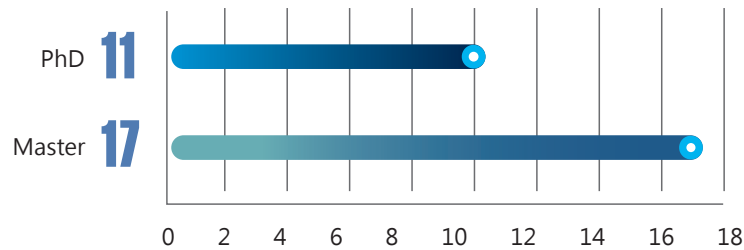


Figure 4 Researchers Educational Statistics

### 2. Researchers Academic Background Statistics

We currently have 28 specialized personnel, out of which, 10 are affiliated with Science and Technology, 8 are affiliated with Education, 1 are affiliated with Design, 9 are affiliated with Humanities and Social Sciences. Our researchers' academic background statistics analysis is as Figure 5.

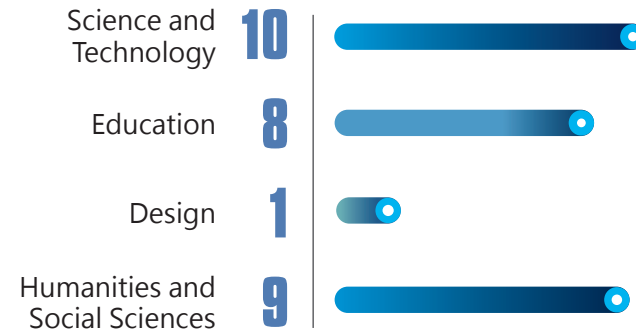


Figure 5 Researchers Academic Background Statistics



# Collections and Research





Under the principle of sustainable development, the Collections and Research Division has brought together the concepts of "integrating science into daily lives, and integrating daily lives with science" in promoting our key operations. Furthermore, we have applied the scientific spirit of "pragmatism", "rationalism" and "utilitarianism" to conduct the collection, research on important technological items, and the promotion of related activities. Our goal is to reinforce NSTM's professionalism and elevate operational performance.

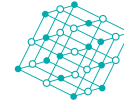
The focus of the 2016 annual operations on item studies and promotion, collection management & applications, artifacts maintenance and inspections, Open Storage, Popular Science Library, academic exchanges, cultural and creative development, research outcomes and publication statistics are as follows

## Item studies and Promotion

In 2016, NSTM continued the interpretation, research and promotion of our collections and industry items, including the following themes and fields: metrology, printing, locks, ancient machineries, telecom-related artifacts, the textile industry, Taiwan sugar industry-related artifacts, and the communication technology industry, etc. Furthermore, all research outcomes were published as academic articles.

At the same time, in order to capitalize on NSTM's collection of technology-related artifacts and technical resources of the industry, an "innovative and value added" approach was adopted in conjunction with new technology and multimedia technology to produce digital teaching materials for special collection themes such as metrology, locks, and printing. In doing so, the value of NSTM's collections can be further enhanced by integrating tangible objects with virtual contents, thereby increasing the accessibility and benefits of our collections. In total, one eBook was developed: "The Architecture of Ancient Chinese





Crossbows" along with 2 Apps: "Ancient Lock Match" and "Crossbow Sharpshooter". These contents can be downloaded or viewed online for free by the public from the following link: <http://valueadded.nstm.gov.tw/tour/index.aspx?Parser=13,5,29>



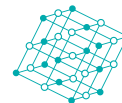
"The Architecture of Ancient Chinese Crossbows" eBook



"Ancient Lock Match" APP



"Crossbow Sharpshooter" APP



## Collection Management and Applications

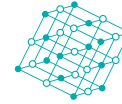
In 2016, 403 additional items were catalogued into NSTM's existing collections, including 326 donated items, 1 collected item and 76 transferred items temporarily under NSTM's custody. The stored items were given adequate storage conditions in accordance to their materials in

order to provide them with a sustainable environment for preservation. In 2016, the annual accumulated number of collections reached 40,877 items. Table 3 illustrates the collection statistics over the last 5 years.



Table 3 Collection statistics over the last 5 years

Item Year	Total	Collected	Purchased	Donated	Transferred	Other	Annual Accumulated Number	Temporary Custody
2012	219	23	7	172	17	0	1,693	4
2013	328	31	0	297	0	28,161	30,182	0
2014	328	25	1	302	0	9,623	40,133	0
2015	341	65	0	243	33	0	40,474	8
2016	919	1	0	326	76	516	41,393	0



In order to increase the visibility and utilization rate of our collections in 2016, 440 exhibits were displayed in the permanent exhibition hall (excluding telecom artifacts under our temporary custody), 168 collection items were displayed in NSTM's special exhibitions, 771 exhibits were loaned to other museums, and 273 exhibits were displayed in the Open Storage and Open Storage promotional activities. Table 4 illustrates the utilization statistics of technology artifacts over the past 5 years.

Table 4 Utilization statistics of technology artifacts over the past 5 years

Item Year	Total	Research	Teaching	Exhibition*	Other**
2012	1,735	417 (Includes publication of research results)	3 (Internship)	1,001	314
2013	3,372	40	0	2,419	913
2014	4,306	203	0	2,270	1,833
2015	3,893	250	0	2,201	1,442
2016	3,852	254	3	2,314	1,284

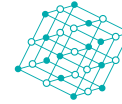
\* Internal/external exhibitions, including Open Storage exhibits and telecom exhibits under NSTM's temporary custody.

\*\*Including digitization, maintenance, inspection, picture loaning, cultural & creative application



New collection for 2016: Award-winning creations from the "2014 National Invention and Creation Award"





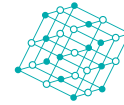
## Artifacts Maintenance and Inspection

NSTM has purchased scientific analysis and technical maintenance equipment to carry out the collection and maintenance of technology-related artifacts. In addition to infrared, ultraviolet, and endoscopic equipment, handheld XRF analyzers and microscopes, professional equipment such as portable X-ray equipment was also planned to purchase in 2016 to facilitate the storage, maintenance and health inspection of the collected items. Moreover, a specialty cultural artifact restoration demonstration is held every Tuesday to Friday at the Open Storage, and the restoration process is televised on the TV located at the entrance to the Open Storage, so that visitors outside can also catch a glimpse of how cultural artifact maintenance is carried out in the storeroom.

Inspection services carried outside of NSTM restoration volunteer assist in cleaning and restoring the central beam at the façade of Fongyi Academy in Kaohsiung, Fengshan District.

The Cultural Artifact Health Inspection Center was established to offer health inspection and restoration services for cultural artifacts collected by other institutions or private collectors. In 2016, a total of 25 health inspection services and 10 paid health inspection/restoration works were carried out to demonstrate NSTM's expertise in cultural artifact preservation and maintenance. A total of NT\$895,816 was generated from these services, and the public is also able to appreciate the knowledge and technique required for cultural artifact preservation.





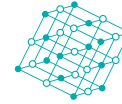
Furthermore, 3 conservation workshop events were held in 2016, inviting professional conservations to teach and demonstrate artifact restoration. By participating in case studies and learning, students can personally experience the process of cultural artifact restoration to understand the importance of cultural asset preservation. At the same time, conservation courses and technical demonstrations are able to train the professional know-how of cultural artifact preservation to volunteers. The aim is to reinforce NSTM's human resources as the cultural artifact maintenance center of southern Taiwan.



Restoration of KMT party flag commissioned by Republic of China Military Academy



"Yu-feng Chen Wood Painting Restoration and Volunteer Education and Training Workshop" activity



## Open Storage

Open Storage was completed in 2009 and incorporated into NSTM's experience facilities in July 2010 and officially opened to the public. Admission to Open Storage is NT\$30 per person (NT\$25 for groups of 20 persons or more). Unlike storage in conventional museums that are normally closed to the public, visitors to NSTM Open Storage are led by tour guides to view collected items closely and understand related tasks such as museum collection studies, collection management and cultural artifact maintenance, thereby conveying the importance of science, industry culture, preservation and maintenance.

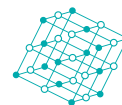
In addition, researchers made use of small exhibits in the Open Storage to present the museum's collections, research results and industry development history, as well as to revitalize the application of exhibits. At the same time, visitors are attracted to gain further understanding about the exhibits through promotional activities, and they are able to appreciate the scientific principles or applications of the

cultural artifact via experience or hands on methods. In 2016, 12 exhibit promotional activities were organized for the Open Storage, serving 18,574 people. Table 5 illustrates the service performance of Open Storage over the past 5 years.



Open Storage adopts a "Visible Collection" exhibit method





"An Encounter with Sound – Recorder and Player Collection Exhibition" was held using NSTM's collections



Visitors attending the "Ancient Chinese Lock Activity" experience at the Open Storage

Table 5 Service performance of Open Storage over the past 5 years.

	Number of visitors	Income generated
2012	11,636	128,005
2013	15,575	169,630
2014	13,993	167,575
2015	16,755	187,655
2016	18,574	144,140

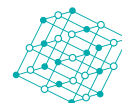


## Popular Science Library

The Popular Science Library is located on 1F of the South Complex. With a space of 1,350 m<sup>2</sup>, it is divided into general reading area and general book storage. Periodicals, videos and general reading materials are available in the reading room. There are also 9 major popular science themes, 5 major themes and theme exhibits were held in conjunction with the museum exhibitions in the library. Exhibitions of pictures and texts were also held from time to time. The first popular science themed library in the country also features a children's area, popular science comic area and video area. The lobby outside the reading room has a book and newspaper reading area.



Library volunteer introduces the Popular Science Library's environment and services to the visiting group



The Popular Science Library is based upon the concept of a "Green Museum", allowing technology to firmly take root via readings on popular sciences, enabling the museum to become the center for life and learning for the public, which can also broaden the scope of educational learning of the visitors. The Library has a collection of 46,959 books, primarily related to science and museology; 96 kinds of periodic journals, primarily related to design and educational information; and the database contains educational databases, newspaper databases, periodic journals, and thesis papers.

In correspondence with the implementation of the 12-year national fundamental education, in 2016, the Popular Science Library conducted reading activities on a diversity of themes. Besides long-term seminars and learning activities to encourage the parents to read with their children, various themed science-related video sessions were conducted to let families make use of the library's interesting and diverse facilities. Furthermore, in reinforcing popular science education, NSTM organized summer education camps for kindergartens to expand readership. In 2016, 28 reading promotion events were held by the Popular Science Library, serving 27,831 people. Table 6 illustrates the number of people served by the Popular Science Library over the past 5 years.

Table 6 Number of people served by the Popular Science Library over the past 5 years.

Year	Number of people served
2012	15,986
2013	11,860
2014	15,850
2015	19,323
2016	27,831

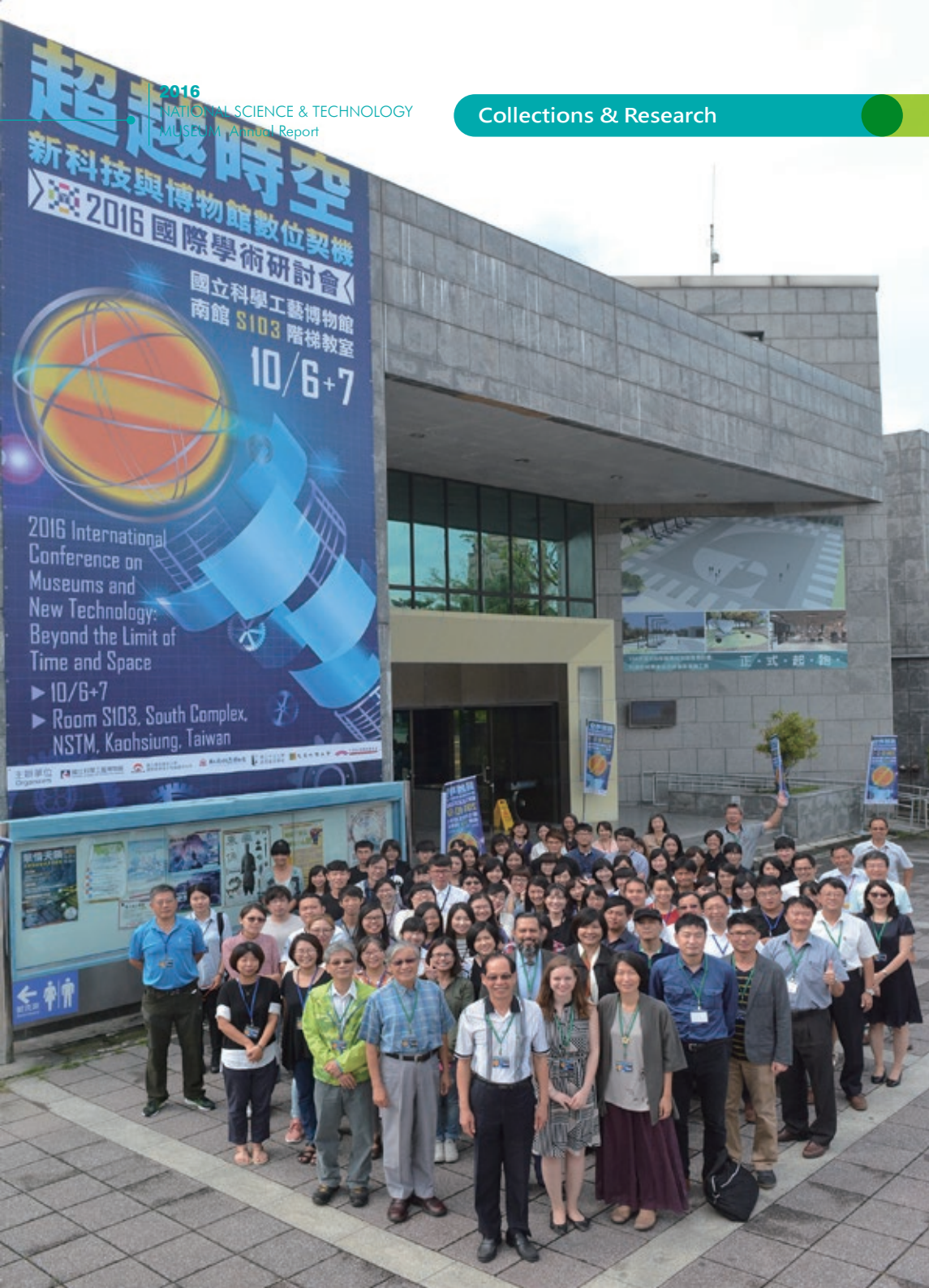
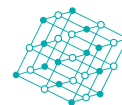


"Marine and Wetland Ecology Exhibition" theme area in the Popular Science Library.



Story-telling activity is organized by volunteer teachers inside the Popular Science Library

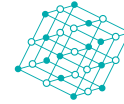




## Academic Exchanges

Adequate themes were chosen from the field of museology, and both domestic and foreign scholars and experts were invited to participate in discussions. During October 6-7, 2016, NSTM collaborated with 5 organizations, including TNNUA's Graduate Institute of Conservation of Cultural Relics and Museology, NCKU Museum, NSYSU's Department of Theater Arts, WZU's Department of Communication Arts & Graduate Institute of Creative Arts Industries and Chinese Association of Museums to host the "2016 International Conference on Museums and New Technology – Beyond the Limit of Time and Space".

Three foreign speakers were invited, including: Alex Freeman (Senior Director, Membership and Special Projects at The New Media Consortium), Juno Rae (Education Manager: Samsung Digital Learning Programme, British Museum, UK) and Ryuji Hotta (Illumination Designer, Panasonic Corporation, Japan). In addition, 6 domestic experts and scholars were invited to conduct speeches and seminars, which were attended by 281 people.



## Cultural and Creative Developments

NSTM formed the Cultural and Creative Team in 2014. It is in charge of cultural and creative merchandise design, collaboration development, consignment, marketing channels, sales by NSTM, and legal operations. NSTM developed, designed, manufactured and sold cultural and creative merchandise based on the museum collections. Besides emphasizing the features and meanings of the original item, the visibility of our collections was also improved via the power of our cultural & creative merchandises.



"Have the Best of Both Worlds – Double Shackle Lock" cultural & creative product

Three cultural and creative products developed in 2016 include: "Ancient Lock Collection: Protection of Safety

and Health – Hundred-family Lock" , "Have the Best of Both Worlds – Double Shackle Lock" and "Meticulous Discretion – Multipurpose Lever Scale and Stationery Set".

The products on sale include: Monkey Matchbox Color Pencils Set, Measuring Instrument Tape Set, Collections Poker Playing Cards, Ranked Top in the National Examinations-Broad Lock Flash Drive, Cubic Stamp, Standard Meter Key



"Meticulous Discretion – Multipurpose Lever Scale and Stationery Set" cultural & creative product



Ring, Roaming Metrology Multifunctional Luggage Strap, NSTM Go Luggage Strap, Safe Travels Luggage Tag, Science of Cooking Sealing Clip, Science of Cooking Cutlery Set, Love Lock, Custom Mug, NSTM Collection Book Card, IDF 3D Postcard, Lead-Printed Hand-Made Postcards, Mammoth DIY Model, Making a Nice Match, Micro Building Blocks – NSTM North Complex, Micro Building Blocks – Tower of Hope, Micro Building Blocks – Nostalgic Telephone Booth, Pinhole Camera DIY Kit, Happiness Doll DIY Kit, Roaming Collection Board Game, Science DIY – Colorful Wish Lantern, Science DIY – Balloon-powered Car, Science DIY – Leaping Frog, Science DIY – Cube Man, Science DIY – LED Flashlight, Science DIY – Patented Bamboo Toy Gun, Academic Excellence – Fix-orientation Lock, Abundant Wealth – Pullback Lock, Timeless Love – Rotary Lock, Ancient Lock Collection: Protection of Safety and Health – Hundred-family Lock, Have the Best of Both Worlds – Double Shackle Lock, Meticulous Discretion – Multipurpose Lever Scale and Stationery Set, Hand Massager, LED

Wristband, Key Shape USB Flash Drive, Custom Wicking Shirt and Adventures in Health Land Exhibition Limited Mug, totaling 41 items. Table 7 illustrates the sales generated over the last 3 years.

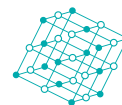
Table 7 Sales of cultural & creative products over the last 3 years

Year	Sales figure
2014 (Jul.-Dec.)	201,993
2015	1,145,342
2016	1,567,907



"Ancient Lock Collection: Protection of Safety and Health – Hundred-family Lock" cultural & creative product





## Research Outcomes and Publication Statistics

For the research findings in 2016, a total of 26 journal papers, 35 conference papers, 3 books and 12 related publications were published. NSTM also participated in 35 research projects. In particular, the "Taiwanese Journal for Studies of Science, Technology and Medicine" received 1st place for NCL's "Most Influential Periodical Award". The devotion and effort of the NSTM personnel proved to be beneficial to museology-related fields. Table 8 illustrates the research findings and publications over the past 5 years.



"Taiwanese Journal for Studies of Science, Technology and Medicine" received 1st place for NCL's "Most Influential Periodical Award"

Table 8 Research findings and publications over the past 5 years

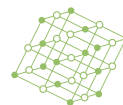
Item Year	Journal Papers	Conference Papers	Research Projects		Invited to Academic Lectures	Publications					Sympo- siums	Lecture
			NSTM Personnel as Hosts	NSTM Personnel as Participant		Books	CDs	Text Messages	Folded Leaflets	Journals		
2012	36	28	17	3	6	5	0	1	8	2	2	38
2013	28	26	7	3	3	3	0	2	11	2	1	20
2014	25	50	10	6	17	3	0	1	9	2	2	18
2015	27	41	12	6	12	4	0	1	0	2	9	26
2016	26	35	18	17	23	3	2	7	1	2	2	22



# Exhibitions







In 2016, NSTM introduced a total of 39 exhibitions, renovated and reopened 2 permanent exhibition halls, as well as updated partial exhibition units in 6 permanent exhibition halls. By constantly maintaining the exhibits and quantifying our services, we have achieved a normal exhibit functioning rate of over 93.1%. We also developed the 3D Theater "alternative content" service project to improve the operational performance of the theater.

Table 9 Exhibitions organized and exhibit hall renovations over the past 5 years

Item Year	No. of exhibits	Permanent exhibit hall renovation		Normal functioning rate of Exhibits
		Complete renovation	Partial renovation	
2012	31	1	3	91.50%
2013	35	0	4	92.47%
2014	29	3	8	91.85%
2015	33	2	5	93.24%
2016	39	2	6	93.10%

## Permanent exhibition updates

### 1. "Story of Taiwan's Agriculture and Plant Workshop" permanent exhibition hall

The exhibition hall was completely revamped from the Biological Technology Hall and renamed as the "Story of Taiwan's Agriculture" permanent exhibition hall, and it was officially opened on July 15, 2016. The "Story of Taiwan's Agriculture New Agricultural Technology Experience Pavilion Plant Workshop" is inspired by the exhibition philosophy



Opening ceremony of the Story of Taiwan's Agriculture Hall



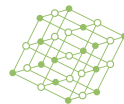


of developing quality agriculture in Taiwan, where the achievements of over 50 industry, government, academic and research institutions are exhibited from a biological perspective to demonstrate how technology is applied to daily agriculture.

The exhibition hall combines interesting popular science-related objects, models, images and drawing boards from traditional museums to convert knowledge into lively, adorable images of organisms, where the public can appreciate the diverse developments of agriculture in Taiwan through observation and interaction. Furthermore, in conjunction with modern interactive exhibit technology, the creative theme of depositing/withdrawing cash is applied, so that visitors can use their iPass to choose 5 stars of

agriculture: paddy rice, a pig, banana, orchid or grouper to accumulate capital by taking on challenges and build their own virtual farm. In doing so, they are able to learn about the bio-economy, breeding and related knowledge about agriculture in Taiwan.

The most appealing feature is the first museum-grade plant workshop in the country, which utilizes complete artificial lighting and soil-less cultivation. These include: hydroponics, tidal irrigation, micro drip irrigation and aeroponics/fogponics. They allow visitors to understand how technology is applied to cultivating crops and enable them to partake in the agricultural growth process, so that they can appreciate the process of nurturing life and growth.

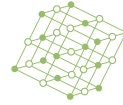


## 2. "Adventures in Health Land" permanent exhibition hall

November 13, 2016, the "Adventures in Health Land" Hall draws inspiration from Alice in Wonderland to create a dream-like adventure. The overall exhibit design conveys the knowledge of health by integrating disciplines including design, technology and medical care.

Through interesting image transformation and diverse interactive devices, visitors learn to think, observe and "ask questions". Moreover, they can become familiar with their physical properties. "People and Disease" educates visitors about lethal diseases and syndromes that are closely associated with our lives. They can look back and look forward to technology featured in "People and Medical Care" in order to catch a glimpse of the future trends in smart medical care. In addition, they can experience key breakthroughs in medical care technology. "People and Health" materializes healthy living by allowing users to experience the essence of health.





### 3. Climate Change Hall

Opened in 2010, the Climate Change Hall has been on exhibit for more than 5 years, thus updates were conducted in April of this year and it was reopened to the public on 6/9. The update draws inspiration from the 2015 Paris Climate Conference (COP21), where "GHG", "Ocean Transformation" and "Arctic Snow" were updated with exhibits such as Milankovich and Earth, Earth is Warming UP, The Fantastic Journey of Thermohaline Circulation, Ice Albedo Comparison, Endeavor to Save Food Provisions, etc. By operating the exhibits, visitors will be able to gain further knowledge about climate change.



Climate Change Exhibition Hall

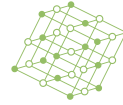


#### 4. "Textile and Clothing" permanent exhibition Hall Made in Taiwan, Sparkling New Stage exhibit update

In June 2016, in order to promote the innovative research and application of fashion design, NSTM collaborated with USC Kaohsiung Campus to host "Sparkling New Stage", an

exhibition of fashion creations by teachers and students in the "Textile and Clothing Exhibition Hall". Over a period of 3 months, different creations were exhibited so that the public can understand our domestic schools' achievements in the field of fashion design.





## 5. "Open Sesame Hall" : "Electricity Generation", "Blood Transfusion", "Artificial Blood", "Color of Blood", "Lightning-fast Reflexes" updated

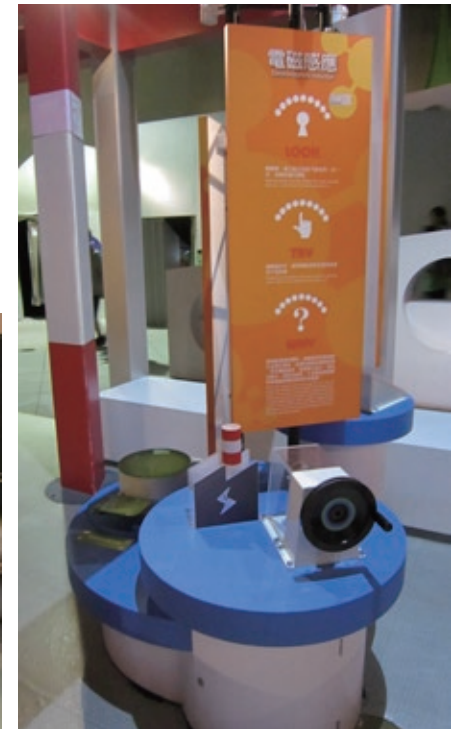
Open Sesame Hall emphasizes independent observation and exploration. "Electricity Generation" features 3 sections to introduce 3 power generation methods: electromagnetic induction, thermo-electricity and piezoelectricity. The exhibits are completely unplugged and allow visitors to generate electricity by operating them, in turn understanding the principles behind different power generation technologies.

"Artificial Blood" is a multimedia theater featuring foamboard cutouts of ambulances, patients and artificial blood to create the effect like puppet theater. The intriguing theater depicts the process of producing artificial blood using nanotechnology in the future, as well as its comparison with natural

blood in terms of functionality. With the series of "Color of Blood" and "Blood Transfusion" to complete the exhibit. "Lightning-fast Reflexes" is another updated exhibit in this hall.

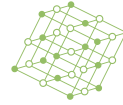


Artificial Blood



Electromagnetic Induction





## 6. Telecom@Taiwan: EM radiation experience area and future Telecom exhibition area update

Original exhibits, including Cell Towers, EM Radiation, and Future Telecom underwent a partial update after receiving subsidies from NCC and Chunghwa Telecom. Correct knowledge is conveyed through an edutainment approach, including introduction of cell tower and EM radiation, so that visitors can understand the effect of EM radiation generated by products they use every day on their body. Besides updating the detailed introduction of EM radiation, a professional electromagnetic field meter is also available for visitors to conduct measurements.

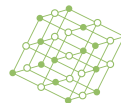


Electromagnetic field meter



EM radiation experience area





## 7. Water Hazard Mitigation Promotion Area

NSTM was commissioned to organize MOEA WRA's "2016 Experience Learning and Smart Disaster Prevention Improvement" project. In July, the "Flood Advanced Warning – Water Hazard Mitigation Promotion Area" was augmented at the "Reflection and Foresight" area of the "Typhoon Morakot Recovery Exhibition Hall", where WRA's "Disaster Prevention Information Service Network" is used as the learning platform. Moreover, information platform searching practice was conducted by using interactive teaching aids. The exhibition was held during August 1 to December 1, 2016, and NSTM co-organized joint promotion activities and



Water Hazard Mitigation Promotion Area

a National Disaster Reduction Day event with WRA.

## 8. "Power and Machine Hall" update

In order to enrich the motorcycle exhibit of the "Power and Machine Hall", NSTM collaborated with KYMCO to convey the concept of motorcycle riding safety and engine starting principles using easy to understand animation. At the same time, a 6-axis motion control platform and heavy motorcycle are utilized to simulate dynamic riding scenarios so that the public can experience the fun of riding, in turn creating a novel visiting experience. The paid experiential activity was opened on March 22, 2016.



The Fun of Riding motorcycle experience facility



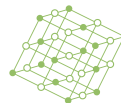
### 9. "Description of wind Power Exhibition"

The "Description of wind Power Exhibition" is located in the corridor adjacent to the 1F administration area. Since its inception in 2011, it has become a highly popular exhibit. In 2016, the exhibition area was updated with a wind power generation exhibit introduction on the wall, while the ceiling was installed with 312 small wind turbines. When the draft blows through the corridor, the cross-section becomes narrower and the wind speed picks up to power the wind turbine blades, thereby generating electricity to light up the LED on the wind turbine. As visitors walk through the

corridor, they can look up to experience the power of wind and appreciate the meaning of science in life. The exhibition started on August 22, 2016.



Description of wind Power Exhibition



## 10. Earthquake Disaster Reduction Education and Experience Area

Disaster reduction education is an important agenda for NSTM, therefore our permanent exhibition halls – including the "Disaster Reduction Hall", "Earthquake Chamber", "Climate Change Hall" and "Typhoon Morakot Recovery Exhibition Hall" – are related to disaster reduction education, and they have proven to be very popular among the public. The "Earthquake Chamber" experience area is more than a decade old, and it is one of the most popular experience facilities in NSTM. In an effort to keep abreast of the latest developments in disaster reduction prevention education, the Earthquake Chamber was reconstructed at the original site, hoping to continue laying a firm foundation for disaster reduction education.



Earthquake Disaster Reduction Education and Experience Area

The update is slated for completion in January 17, 2017.



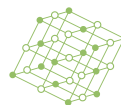
Nobel Prize Laureates Exhibition Area

## 11. Nobel Prize Laureates Exhibition Area update

Symbolizing the pinnacle of scientific and cultural achievement, the Nobel Prize is held in Stockholm and Oslo every year! Set up according to Mr. Alfred Nobel's will, the Nobel Prize is awarded for "The Greatest Benefit to Mankind". The Nobel Laureates are announced in October every year, divided into 6 categories: Physics, Chemistry, Medicine, Literature, Peace and Economic Sciences.

The section provides an easy to understand introduction of various laureates and their accomplishments. This year's Chemistry Award was awarded to 3 scientists for the design and synthesis of molecular machines. The Nobel Prize in Physiology or Medicine 2016 was awarded to the scholar "for his discoveries of mechanisms for autophagy". Information about the laureates and their contributions displayed at the Nobel Prize Laureates Exhibition Area (1F west side corridor) is updated in November every year.

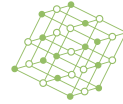




Tang Prize exhibition area

## 12. Tang Prize exhibition area update (2nd Tang Prize laureates)

Drawing inspiration from the Nobel Prize, the Tang Prize was established by the Tang Prize Foundation to increase people's understanding about the spirit of the Tang Prize, as well as to improve the public's scientific cultivation and endow them with positive energy. NSTM collaborated with the Tang Prize Foundation to create the "Tang Prize exhibition area". Laureates of the 2nd Tang Prize include: Arthur H. Rosenfeld (Sustainable Development), Emmanuelle Charpentier, Jennifer A. Doudna and Feng Zhang (Biopharmaceutical Science), Louise Arbour (Rule of Law), William Theodore de Bary (Sinology).



### 13. True Dream Land

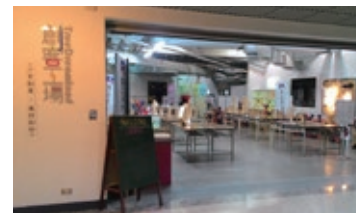
NSTM's B1F maintenance shop was originally a space for our colleagues to repair and maintain exhibits. It has now been transformed into the "True Dream Land" to accommodate more maker enthusiasts. Inside the workshop are facilities such as the machine room, woodworking room, laser engraving/3D printing room, classroom, individual studios and activity exhibit areas, etc. to create a maker-friendly environment.

Achievements for 2016 include: Recruitment of maker volunteer group, maker course, "2016 Maker x Edu Week", established and managed maker social media, woodworking workshop exhibition, True Dreamland Facebook page, etc. It is hoped that the series of events will facilitate the public to know, recognize, and participate in the maker movement.

The 2016 maker course offers a diverse collection of hands on classes and activities, including family woodworking experiences, tabletop games, 3D printer pens, laser engravers, 3D printing workshops, etc. An exhibition will be held for the students of the woodworking class each season. The True Dreamland Facebook fan page was established, and its number of fans is increasing steadily. So far, 765 people have clicked like.



Family woodworking experience class

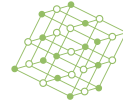


3D printer pen



True Dream Land

In addition, NSTM has helped to organize the following: Pingtung Baisha Elementary School's "2016 Maker Trend – Maker Special Teaching Aid DIY Program" (1 session), Chiayi City Yuren Elementary School's maker DIY class (1 session) and 12 hours of volunteer internship and professional training course. We strive to keep on promoting the maker movement and transform True Dreamland into the cradle of "Maker culture" in southern Taiwan. Furthermore, the intention is to promote NSTM's scientific philosophy of everyone can be hands-on, because there is a scientist in all of us.



## Special exhibitions curated by NSTM

### 1. Disaster Reduction Mazu Temple – Disaster Reduction Technology Exhibition

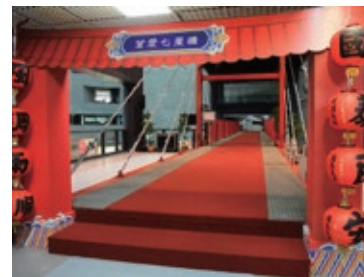
The Disaster Reduction Technology Exhibition is inspired by The Executive Yuan Program on Applying Science and Technology for Disaster Reduction (2011-2014), where the images of deities, including "Clairvoyance", "Clairaudience", "Sea King", "Earth God" and "Mazu", are used to introduce modern disaster reduction technology.

In particular, "Modern Clairvoyance" represents satellite imaging, aerial photography and UAVs (drone), while "Clairaudience" is used to introduce an earthquake early warning system. "Sea King" symbolizes the real-time reservoir water level monitoring system and automatic flood monitoring system. "Earth God" is used to introduce disaster potential maps and large scale landslide area monitoring systems. "Mazu" portrays the development process of Taiwan's national disaster reduction technology.

Moreover, the Romantic Seven Star Bridge, located on the east and west side of NSTM's 2F, is a "disaster rescue composite material makeshift bridge" developed by NCREE (subsidized by MOST). The exhibition is co-organized by NSTM, NCDR, NCREE and the Department of Civil Engineering, NTU. Exhibition duration: from January 8 to May 31, 2016.

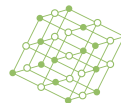


Disaster Reduction Technology Exhibition



Romantic Seven Star Bridge





## 2. Soil and Water Conservation Let's Go exhibition

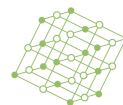
Taiwan is located in a region prone to seismic activities and typhoons; there are many mountains with short, fast-flowing rivers, and mountain slopes constitute 27% of the entire island's area. In recent years, extreme weather has caused uneven distribution of rain, with heavy rainfall concentrating on mountainous areas, leading to mountain slope disasters such as landslides, debris flows and even deep collapses.

The exhibition focuses on soil & water conservation and debris flow prevention of mountain slopes in Taiwan to explain the country's unique geographical features and the cause of debris flow. Other information provided includes: how to conserve mountain slopes, river dredging, landslide restoration and measures for responding to debris flow etc. Visitors can follow instructions on the mission card to experience the exhibits, collect lottery tickets and read the popular science comic published by

SWCB - Grandpa's Magic Book – Protecting Water and Soil – in order to learn in a systematic manner. Exhibition duration: from May 1 to December 8, 2016.



Soil and Water Conservation Let's Go exhibition



### 3. Haze is All Around Us special exhibition

The special exhibition is subsidized by the Executive Yuan Central Disaster Reduction and Response Council and co-organized with Modern Healthcare Corp. The exhibition focuses on the theme of air quality to remind the public about personal protection measures against haze, as well as ways to maintain outdoor air quality together.

The exhibition offers a definition of PM2.5, its origin and effect on the human body. Furthermore, advice on personal protection measures and methods to maintain air quality are also given. Interesting interactive games and teaching aids in the exhibition area allow visitors to reinforce their understanding through a hands-on approach. In addition, there is also a display of personal protection equipment.

Haze has become a global issue, thus it is hoped to arouse



Haze is All Around Us special exhibition

awareness among the public through this exhibition about the severity of haze, in turn contributing towards

maintaining air quality and haze prevention. Exhibition duration: from september 20 to December 31, 2016.

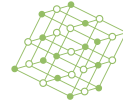
### 4. "Science and Technology for Disaster Reduction Exhibition"

The exhibition introduces the fruition of efforts invested in by the industry, government, academia and research institutions in disaster

reduction technology development. An edutainment approach is adopted to convey the knowledge of popular science to the public, so that they can appreciate the country's efforts and dedication in disaster reduction technology and education. Moreover, through diverse exhibition techniques, disaster reduction education is promoted and reinforced to prepare the citizens of Taiwan in responding to various natural and man-made disasters. Exhibition duration: from December 9, 2016 to may 31, 2017.



"Science and Technology for Disaster Reduction Exhibition"



## 5. Wao! Somatosensory Adventure Exhibition

Starting on July 21, 2015, NSTM co-organized the "Wao! Somatosensory Adventure Exhibition" exhibition with NanE Design Corp. Ltd. at The Star in the Universe plaza. The exhibition includes 3 major somatosensory games such as 4D Somatosensory Theater, Laser Battlefield and Laser Maze. In addition, the new 3D Spiral Slide was introduced on December 15, 2015, to add to the rich collection of exhibits in order to improve service quality and increase the number of visitors and revenue.

The spiral slide was introduced in 2016 from Germany. Custom designed by Wiegand specifically for NSTM, the slide is 46m long and 18m tall, stretching from 4F to The Star in the Universe plaza on B1F.

The tunnel-style slide is fabricated entirely from stainless steel with a clear acrylic cover to ensure maximum safety and thrill. Through this exhibit, visitors will be able to enjoy a safe, exhilarating experience created by gravity, friction, centrifugal force and centripetal force all working in unison. Thanks to revenue from the visitor numbers generated by the exhibit, after the cooperation duration

with the contractor expires, the exhibit will be upgraded again as "Wao! Somatosensory – Adventure 2.0" to offer the public a brand new, exciting experience that is also endowed with the meaning of scientific education.

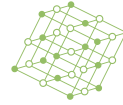


Laser Battlefield



Spiral Slide





## 6. "Art Exhibition Area" hosts art exhibitions

In order to fully utilize our venues to serve the general public and enrich the visitor experience through the holistic educational approach combining technology and culture, NSTM has established the Art Exhibition Area on the west wing gallery on 1F and Art Café on 2F. Besides internal exhibitions, the Art Exhibition Area is also open to art workers for holding exhibitions. The exhibited works include: Chinese paintings, calligraphy, oil paintings, sculptures, seal cutting, art design, crafts, pottery and photography. Through these art exhibition activities, aesthetics are applied to education to inspire aesthetic experience through beauty and cultivate people's appreciation and taste toward aesthetics as well as enlighten creative thinking to achieve educational goals.

In 2016, exhibitions held at the 1F west side corridor include: "Qing and Ming Dynasty Belt Knife Exhibition", "Year of the Monkey Celebration – Hand Painted Clothes Exhibition by Ping Chao", "DYU Resident Artist Prof. Kuang-nan Huang's Ceramic Art Solo Exhibition", "Poetic Paper Tearing Art Exhibition by Chin-liu Lu" and "Happy Dancer on

the Water – The Life of the Black-faced Spoonbill: Cheng-chi Wang and Shun-hsiung Chang Photography Exhibition" .

In addition, in 2016, "Forged in Fire – Kuang-lung Shen Blacksmith Sword Exhibition" and "Taiwanese Machete – Indigenous Knife Creation and Collection Exhibition" were held at the 2F Art Café in collaboration with MU GEC and the

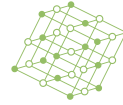
Kaohsiung City  
Ancient Weapon  
and Art Research  
Association.



Forged in Fire – Kuang-lung Shen Blacksmith Sword Exhibition



Happy Dancer on the Water – The  
Life of the Black-faced Spoonbill:  
Cheng-chi Wang and Shun-hsiung  
Chang Photography Exhibition



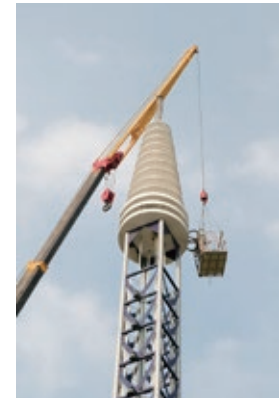
## 7. The Maintenance Team Periodically Inspects the Exhibition Halls and All Experience Facilities to Ensure Normal Operations.

We established maintenance teams and set up a group working method to efficiently utilize our personnel using their strengths and to facilitate cooperation and mutual trust. The involvement of team members and the coordination of their expertise have generated proactive productivity and performance.

In 2016, the maintenance team repaired and improved exhibits such as: Cultivated and harvested over 2,000 plants in the New Agricultural Technology Experience Pavilion – Plant Workshop; improved the food provisions exhibit at Fantasy Hall; improved the buzzer button at the overcoming obstacles exhibit; improved the dribble platform at the cargo delivery exhibit; updated the cable car internal mechanism at the Power and Machine Hall; improved the information capsule exhibit at the Open Sesame Hall; assembled teaching aids and repaired the power supply at the Diseases Prevention Combat Camp Exhibition Hall; installed video recording equipment in the Industry Hall; purchased

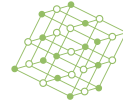
ceiling lighting fixture and converted the transformer of the Typhoon Morakot Recovery Exhibition Hall; welded and replaced damaged wind turbines, modified and provided anti-rust treatment for sunlight angle LED interactive exhibit at the Outdoor Energy Exhibition Area; fabricated a safety cushion around Fantastic Rides in the Taroko Theater in the Pavilion of Dream Transport; fabricated new stairs to make up for the gap in-between the stairs in the 3D Theater; the glass sleeve for The Tower of Hope was repaired and cleaned; the cracked track of Time Ball was repaired and safety measures at the top were increased.

The Tower of Hope glass sleeve repairing



Pavilion of Dreams Transport safety cushion fabrication

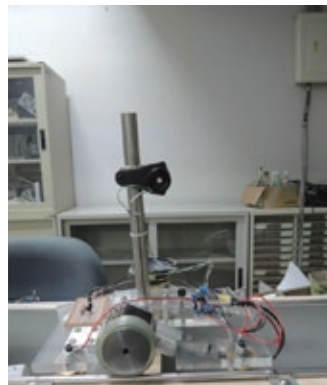




## 8. Improve Employee's Professional Knowledge and Skills, Enhance Professional Innovative Performance: Self-made Exhibits

NSTM's exhibit design and maintenance staff developed 3 exhibits in-house this year: "Eddy Current Brake Machine Slow Down", "Track Projector" and "my phone do re mi", where science principles are embodied via interactive exhibits. The professional know-how of our colleagues is complemented by their constant trial and error approach to

produce the exhibits, and the expositions are written by our design colleagues. In 2016, exhibits developed in-house were displayed in "Power and Machines", "Telecom@Taiwan" and "Textile and Clothing", and they were proven to be extremely popular. In addition to honing the practical and problem-solving skills of our colleagues, as well as reinforcing their professional expertise and innovativeness, the exercise also enriches the collection of interactive exhibits to generate interest in learning knowledge among the public.



Track-Textile and Project Clothing

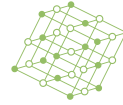


Eddy Current Brake Machine  
Slow Down- Power and  
Machines



My Phone Do Re Mi - Telecom@Taiwan





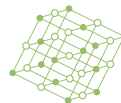
## 9. Exhibit "resume" database created

This year, NSTM achieved an average normal exhibit functioning rate of 93.1%. In total, 816 reports of exhibit faults were filed electronically, all of which were repaired or removed; the electronic record enables our repair staff to document normal functionally or faulty exhibits in order to improve maintenance performance.

The maintenance resume includes exhibit installation costs, fault rate, troubleshooting methods as well as the cost of repairs carried out in-house or externally. Subsequently, our maintenance colleagues are requested to utilize the above information to conduct fault analysis on exhibits that are malfunctioning more frequently than others in order to devise ways to make improvements. Moreover, fault analysis of the exhibits is used as the basis on which the exhibit updates are made to enhance design and maintenance effectiveness.

The process is simplified and the fault status of the exhibits is indicated openly on the system for ease of tracking, and the information is used as a reference database for exhibit maintenance. The database information is accumulated

gradually, in turn acting as a reference for updating future exhibits, and this data is also channeled back into the exhibit design. NSTM's maintenance colleagues are dedicated to maintaining the safety of our exhibits and experience facilities by teaching the volunteers how to operate them correctly, thereby improving visitor safety, peace of mind, satisfaction and service quality.



## Collaboration exhibitions

### 1. Gudetama@Taiwan

NSTM's joint exhibition with UND "Gudetama@Taiwan" focuses on the life of Gudetama, which not only includes an exhibition of his lazy lifestyle but also 19 extremely rare, original manuscripts of Gudetama.



"Gudetama@Taiwan"

In the "Daily Life of Gudetama" section, Gudetama accompanies visitors through breakfast, lunch, afternoon tea and supper. In the "Gudetama's Journey in Taiwan", Taiwanese customs and characteristics are combined with Gudetama, especially Kaohsiung's local features, iconic buildings, attractions, night markets and delicacies.

The distinguishing traits of Gudetama are his funny, lazy expression and gestures, as well as his laid-back, idle personality. Not only has he become the icon of "laziness", he also speaks out the voice of modern people's desire to be lazy and reluctance to work. Exhibition duration: from June 4 to August 28, 2016.

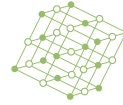
### 2. Upside Down House Exhibition

NSTM collaborated with Kuang Hong Arts to organize the "Upside Down House Exhibition", which features six major themes: inverted house, transforming house, happy tree house, adorable mushroom house and mysterious pigmy house and candy house world. The theme exhibits offer interesting experiences and special visual effects to let visitors enjoy a wonderful summer vacation that is enriched with arts, technology, fun and boundless imagination.

Exhibition duration: from June 15 to August 28, 2016.

Upside Down House Exhibition





### 3. "Terracotta The Rise and Legacy of Qin Culture"

NSTM collaborated with NPM, Shaanxi Cultural Heritage Promotion Center, Gansu Province Cultural Information Center, Media Sphere Communications Ltd. and Greenland International Books Co., Ltd. to organize "Terracotta The Rise and Legacy of Qin Culture", which is divided into 5 sections: Qin and Zhou Rong, Eastbound Domination, Reformation of Law, First Emperor of Qin and Adoption of the Qin System by the Han Dynasty.

The excavation of terracotta army from the Qin Dynasty took the world by storm, and people's imaginations about the Qin Dynasty suddenly came alive with the unearthing of the relics.

The exhibition reveals the myths about the terracotta army, with exhibits originating from 19 museums, including: Emperor Qinshihuang's Mausoleum Site Museum, Shaanxi History Museum, Gansu Provincial Museum and Gansu Provincial Historic Relic Archaeological Institute, as well as other



archaeological organizations and the Institute of History and Philology, Academia Sinica. In total, 189 relics were exhibited, including the terracotta army, bronze ware, gold/silverware, jade ware, earthenware, coins, ancient writing materials, lacquer ware, axle cover and weaponry, making it the largest Qin Dynasty exhibition in history, boasting an abundant collection of exhibits. Exhibition duration: from September 15 to December 18, 2016.



Terracotta The Rise and Legacy of Qin Culture



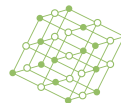
#### 4. "Where's Wally The Happiness Hunt Art Exhibition"

NSTM and Kuang Hong Arts Management Incorporation "Where's Wally The Happiness Hunt Art Exhibition", which comprises 5 must-see features: "Blow Up! Wally – Wally's Giant and Amazing Magic Book", "Birth of Wally – Wally's Secret Studio", "Taiwan Only! – In Search of the Most Taiwanese-like Wally in the World", "Where's Wally – Re-creation of Classic Scenes from the Drawing Book" and "Draw Your Own Wally – Collective Creation Drawing Book Area".

Touted as the pioneer of "treasure hunt activity books", "Where's Wally" took the globe by storm when it was published in 1987 and started the "Where's Wally" frenzy worldwide. Currently, it has sold over 60 million copies in over 30 languages in 38 countries, and it is also a coveted fashion icon with which many prominent designers, products and landmarks have sought collaboration! Exhibition duration: from December 17, 2016, to February 28, 2017.







Film selection task force meeting

## 3D Theater

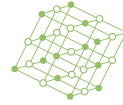
### 1. Formed the film selection task force to choose the most outstanding 3D films of the year

The film selection task force consists of 9 NSTM staff and volunteers. They choose films according 3 major attributes: animation, environmental education and relevance to NSTM's exhibitions. The films chosen are well-known and extremely popular, thereby facilitating the goal of marketing. The film selection task force selected 4 animation and environmental education oriented films: Journey to Space, Tiny Giants 3D, National Parks Adventure and Walking with Dinosaurs: Prehistoric Planet 3D. All of these outstanding



3D films of 2016

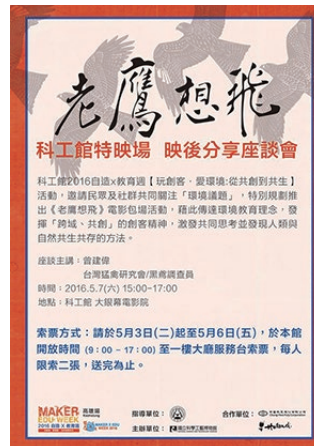
films proved to be very popular. The film selection task force took the opinions of different parties into consideration in choosing high quality films to attract more families and the general public.



## 2. Develop 3D Theater's "alternative content" service program

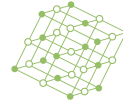
In order to enhance the benefits of 3D Theater, in addition to annual films, NSTM also strives to integrate social resources to develop 3D Theater's "alternative content" service program through collaboration and joint education promotion. In conjunction with Maker x Edu Week 2016 "Fun Makers-Love Earth: From Co-creation to Co-existence", the "Fly Kite, Fly" documentary movie screening event was held on 5/7, where research specialist from the Raptor Research Group of Taiwan / research assistant and lecturer Chien-wei Tseng from NPUST's Institute of Wildlife Conservation was invited to host the post-screening forum. The aim of this program is to evoke the public and community's attention about "environmental issues".

In addition, during 2016/8/1-12/31, NSTM also screened "Typhoon Morakot Disaster Recovery 3D Film" provided by China Engineering Consultants, Inc. (length: 5 minutes 53 seconds) for visitors free of charge in order to promote water hazard mitigation education.



Movie screening event for documentary  
"Fly, Kite Fly"





## Out-of-the-Museum Service Performance Self-curated Touring Exhibition

### 1. "All About Inventions" theme exhibition relocated to Chongqing Science and Technology Museum

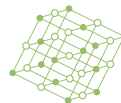
"All About Inventions" adopts a novel, interesting and easy to understand method to introduce the 40 TRIZ Principles by Russian scientist G. S. Altshuller as well as the scientific principles behind everyday inventions.

The exhibition employs over 200 everyday inventions. Visitors can appreciate the benefits and convenience of these inventions through their personal, everyday experiences, and an array of open mazes, photos, videos, animations and interactive devices will help enlighten them to observe potential inventing opportunities in their daily lives. Furthermore, the objective is to convey NSTM's philosophy of "Making technology closer to life, and improving life via technology".

In light of the rich, interesting and interactive content of the exhibition, Chongqing Science & Technology Museum invited NSTM to temporarily relocate the "All About Inventions" theme exhibition to the museum during July 1 to November 6, 2016.



"All About Inventions" theme exhibition on display at  
Chongqing Science & Technology Museum



## 2. Nanometer: The Invisible Scale Exhibition was relocated to GDSC, Fengtian Temple in Songshan and NMNS

After numerous years of development in nanotechnology, the market is flooded with products bearing the nanotechnology moniker, despite being familiar with the related terminology, people often do not understand the scientific principles and characteristics behind it.

Supported by the Nanotechnology Education, Training & Nanotechnology Promotion Platform and starting out from the general public's perspective, NSTM has designed a special exhibition involving hands-on experiences through packaging and transformation. The purpose is to achieve the goal of popularizing nanotechnology science education by making the content more understandable and acceptable to visitors.

In 2016, NSTM proactively collaborated with domestic (Fengtian Temple in Songshan and NMNS) and overseas (GDSC) institutions to present an outstanding touring exhibition throughout the globe. In particular, Fengtian

Temple is a private organization, so it is able to exert the influence of religion by jointly organizing multiple exhibitions with NSTM. In doing so, we will be able to do our bit for educating future generations and the general public, thereby promoting scientific education.



Guangdong Science Center (GDSC)



Fengtian Temple in Songshan



### 3. "Food Packaging Exhibition" relocated to NLPI

The "Great Crown of Food Packaging" special exhibition introduces the story of inventions by Taiwanese entrepreneur I-fang Yeh, who was originally an egg wholesaler. In order to resolve his inconveniences at home, he eventually invented the sealer through perseverance and incessant research.

In order to let visitors appreciate the can-do spirit of SME entrepreneurs and realize that "creativity + persistence = achievement", the exhibition was relocated to National Library of Public Information(NLPI) during February 2 to August 8, 2016.



"Food packaging exhibition" at NLPI

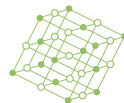


#### 4. "Force and Energy – Science Magical Train" exhibition was relocated to Tainan Children's Science Museum

Energy conservation and carbon reduction has been an extremely popular topic over the recent years, and how to resolve the problem of energy is also a constant challenge for humanity. In order to promote force- and energy-related science, TAEA collaborated with NSTM to borrow the "Science Train" exhibit to hold the "Force and Energy – Science Magical Train" exhibition, where multimedia materials are combined to endow people with knowledge about force and energy, and how difficult it is to obtain energy. The aim is to inspire their willingness to cherish and conserve energy. At the same time, the interactive games explain the principles of force and energy in an easy to understand manner. The fusion of technology and life enables people to understand different sources of energy and the development of technology. The exhibition will be held at Tainan Children's Science Museum from 2016 to November 5, 2017.



"Force and Energy – Science Magical Train" exhibition at Tainan Children's Science Museum



## 5. All About Locks – Cross-Strait Joint Exhibition Tour and Seminar

NSTM launched the "Under Keys & Locks" exhibition in November 2012 to introduce the development history, design principle, and craftsmanship of iconic locks from domestic makers and abroad, as well as their cultural connotation in society. Thanks to its interesting design and relevance to people's lives, the exhibition has proven to be highly popular among visitors. As a result, Shanxi Folk Museum, Datong Museum and Jincheng Museum all expressed interest in collaborating with NSTM in hosting this exhibition in China. After a year of negotiation, a cooperative agreement was signed with the respective museums in June 2016.

In order to promote popular science education as well as the sharing and exchange of experience, the "Under Keys & Locks" exhibition was introduced to 3 major museums in Shaanxi Province to create a research platform for both parties. In addition, the Cross-Strait

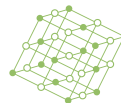
Joint Exhibition Tour and Seminar was jointly organized to discuss issues such as collection solicitation, research, utilization, (exhibition, development of cultural & creative merchandises) and protection. Through the exchange of information between professionals from both museums as well as the organization of exhibitions and seminars, we are able to foster Cross-Strait cooperative opportunities and cultivate future talents.



Opening at Shanxi Folk Museum in Taiyuan City



NSTM Director-general Chen's speech at the seminar



## 6. Self-made mobile teaching aid – Promoting NSTM's external education

In order to extend the education function of the exhibition halls beyond the walls of NSTM and reach all education institutions and schools in Taiwan, NSTM's Diseases Prevention Combat Camp designed and produced epidemic prevention mobile teaching aids (total disease reduction x 2, disease reduction mobile museum x 1). Meanwhile, the Typhoon Morakot Recovery Exhibition Hall produced soil

and water conservation mobile teaching aids (STORM x 35 and FLOOD x 15), and they are made available to all schools in the country for educational purposes. In 2016, the disease reduction mobile teaching aids were loaned to 30 schools, while the soil and water conservation teaching aids were loaned to 103 schools, benefiting 8,867 students.

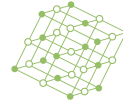


Soil and water conservation teaching aids



Disease reduction mobile teaching aids





## Social Resource Integration Achievements

### 1. Mobile Museum of Taiwan Literature

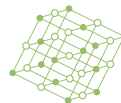
The exhibition is inspired by the theme of the "Sound of Literature", encompassing the history of Taiwanese literature development. The exhibition attempts to transform the experience of "writing and reading of words" into "speaking and listening of language" by inviting visitors to become familiar with literature through "hearing". In doing so, they can appreciate the imperceptible sentiments and aesthetics of the speaker or writer concealed within their hearts.

The exhibition begins with down-to-earth, lively myths, legends and folklore, extending to the appreciation of the beauty of our mother tongue, the charisma of reading out loud, as well as the enchanting qualities of literature embodied in theater and music. Furthermore, they can also experience the fusion of tangible words and intangible sounds.

Through this literature exhibition, we are able to appreciate the beauty of literature and endow it with new life. Exhibition duration: March 4-27, 2016.



Audible Literature - Mobile Museum of Taiwan Literature



## 2. Second Tang Prize Medal and Certificate Exhibition (Kaohsiung)

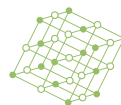
Founded in December 2012, the quadrennial Tang Prize comprises 4 awards, including Sustainable Development, Biopharmaceutical Science, Rule of Law and Sinology. Regardless of their race or nationality, the laureates are awarded for their innovative, substantial and influential contributions to the world. The 6 laureates of 2015 Tang Prize are: Arthur H. Rosenfeld (Sustainable Development), Emmanuelle Charpentier, Jennifer A. Doudna and Feng Zhang (Biopharmaceutical Science), Louise Arbour (Rule of Law), William Theodore de Bary (Sinology). The exhibition introduces the Tang Prize as well as the accomplishments of the laureates, embodying their contributions and related academic significance in the exhibits. Exhibition duration: from October 7 to November 6, 2016.



Second Tang Prize Medal and Certificate Exhibition (Kaohsiung)



Tang Prize Medal



### 3. 2016 NSTM's 4G Learning App

The project involves developing NSTM's All About NSTM app under the guidance of MOE's Department of Information and Technology Education. The multifunction app offers information such as NSTM's diverse exhibitions, science education, digital video archive, as well as gourmet delicacies and accommodation around the museum.

In addition, entertaining science knowledge games are incorporated into the app, thereby providing the public with a more convenient channel to access NSTM's resources. The All About NSTM app features 8 major functions:

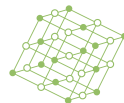
1. Visit: Introduction on permanent exhibitions, special exhibitions, experience facilities, 3D Theater.
2. Activity: Various activities at NSTM, science education, True Dream Land etc.
3. Digital archive: Browse NSTM's digital video archive and e-books.
4. Transportation: Different forms of transportation are available to reach and leave NSTM.
5. Food and accommodation: Provides information on food and accommodation around the museum.

6. Entertainment: Science knowledge in the exhibition halls are combined with robot pop quiz game to make learning fun.
7. Gift redemption center: Use the app to accumulate virtual coins and redeem them for wonderful NSTM gifts.
8. Links: Links to NSTM's other apps, e-letter and Facebook fanpage.



"2016 NSTM's 4G Learning App"



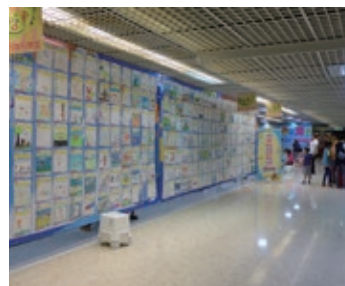


#### 4. Seeing Taiwan Drawing Exhibition

NSTM collaborated with TWCECA to host "Seeing Taiwan Children's Creative Drawing Exhibition" with the objective of promoting environmental education and art education. The event includes a drawing exhibition, costume and makeup magical runway show and DIY (sand drawing and terracotta art). Families are invited to participate in the activities to promote environmental protection, corresponding to NSTM's goal of environmental education. Exhibition duration: January to December 2016, held once a month.

#### 5. Maker x Edu Week 2016 "Fun Makers·Love Earth: From Co-creation to Co-existence"

In supporting MOE's promotion on maker education, NSTM organized Maker x Edu Week 2016 "Fun Makers·Love Earth: From Co-creation to Co-existence", inviting the public and communities to pay more attention to "environmental issues". Five major highlights of the event include: Chung Hwa Pulp Corporation, NTIO and NSTM jointly invited Dutch paper artist Noa Haim to conduct a "Creative Paper Art" exhibition, as well as maker experience sharing and exchange by combining art with science.

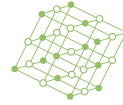


Seeing Taiwan Drawing Exhibition



Maker x Edu Week 2016 "Fun Makers·Love Earth: From Co-creation to Co-existence"

Additionally, NSTM also organized a rich array of activities, including "maker workshop", "maker lecture", and "Fly Kite, Fly" movie screening and "expo". Besides an exhibition of "maker" creations, visitors are also encouraged to experience the activities via a hands-on approach. Moreover, the maker spirit and philosophy of "cross-field joint creations" are promoted via social media, so as to build a sharing platform that can be used to promote the "maker" movement. Efforts were also made to promote maker education in southern Taiwan, transforming NSTM into the best venue for makers in southern Taiwan to share their experiences and exchange their creations. The ultimate aim of this program is to convey the philosophy of environmental education. Exhibition duration: from May 5-8, 2016.

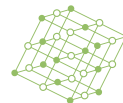


## 6. NSTM Environmental Education Tour – Year of the Monkey Special Event

This event combines all environmental education related exhibition halls at NSTM, including the Typhoon Morakot Recovery Exhibition Hall, Climate Change Hall, Utilization of Water Resources Hall, Earthquake Chamber, Diseases Prevention Combat Camp, NGIS Result and Spatial Development & Planning Exhibition, Disaster Reduction Technology Exhibition and lively, interesting challenge activities to conduct environmental education and learning. The edutainment, integrated learning approach allows the public to receive the most comprehensive environmental education. Exhibition duration: from February 26 to March 6, 2016.



NSTM Environmental Education Tour – Year of the Monkey Special Event



## 7. 2016 National Disaster Prevention Day – National Disaster Prevention Challenge

This activity is part of the Executive Yuan Office of Disaster Management's "2016 Disaster Prevention Day" event, which incorporates NSTM's "Typhoon Morakot Recovery Exhibition Hall", "Water Hazard Mitigation Promotion Area", "Climate Change Hall", "Earthquake Chamber", "Diseases Prevention Combat Camp" and "Haze is All Around Us" special exhibition, where interesting challenging activities were held to implement disaster reduction education and personal protection training. Event duration: from September 20-25, 2016. Visitors were encouraged to experience all the challenges from B1F to 6F, and small souvenirs were awarded to those who have completed all challenges.



National Disaster Prevention Challenge



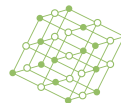
## 8. Diseases Prevention Combat Camp promotional plan

Sponsored by Centers for Disease Control, the exhibition serves the function of communicable disease prevention education. In 2016, 112 groups (totaling 4,045 people) visited the hall, achieving a total of 17,292 visitors for the entire year. Furthermore, NSTM collaborated with the Kaohsiung City Government Department of Health to organize a children's health education activity. The event theme for the first half of 2016 was "Wash Your Hands and Exercise – Eliminating Enterovirus", which was held during March 23 to May 27; the event theme for second half of 2016 was "Disease Reduction with Mask – Say Goodbye to Influenza", held during September 21 to November 25. In total, 58 kindergartens participated in the event.



Diseases Prevention Combat Camp promotional plan





## 9. Soil and Water Conservation, Debris Flow and Disaster Prevention Education Program

The project is jointly organized by NSTM and COA's SWCB, where Typhoon Morakot Recovery Exhibition Hall is used as the base for promoting, educating and exchanging information on soil and water conservation and debris flow disaster prevention.

In 2016, 419 groups visited the hall, accumulating a total visitor number of 126,727. In addition, a "Soil and Water Conservation Let's Go" exhibition was conducted together with 7 promotional activities, reaching 24,590 visitors. Also, 4 small special exhibitions were held and 4 teaching plans were developed in conjunction with 2 learning forms, while 209 "I Like Soil and Water Conservation" activities were participated in by 3,746 people.

NSTM organized 125 soil and water conservation promotional activities that were participated in by 4,047 people. "Soil and water conservation mobile teaching aids" were loaned to 102 schools and one organization. In total, 8,867 people benefited from the teaching aids. "Morakot

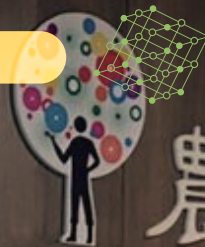
Environmental Science Café" lectures: 5 indoor lectures, 2 practical sessions and one outdoor visit were conducted, participated in by 174 people. NSTM hosted and co-hosted 14 teachers' seminars, participated in by 538 people.



COA Minister Chi-hung Tsao



"Morakot Environmental Science Café" lectures



農村好物

Select products from agricultural villages

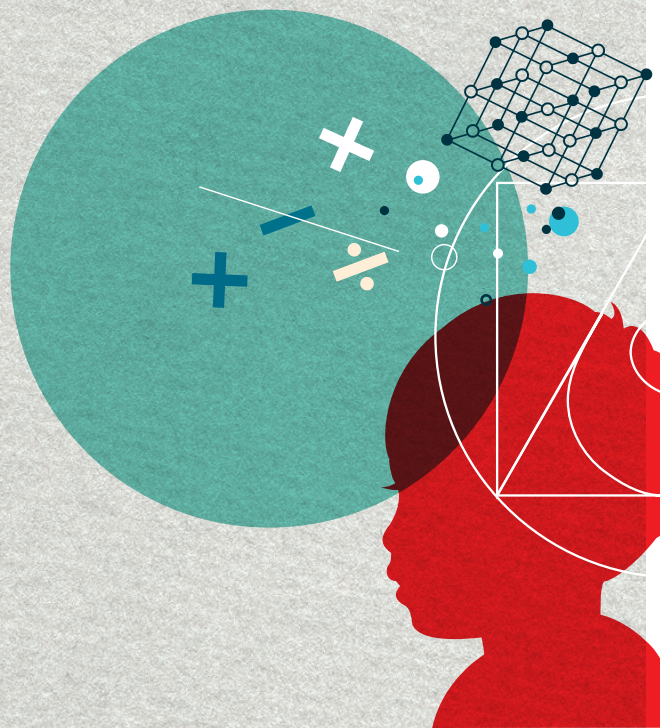
### 10. "Story of Taiwan's Agriculture" exhibition hall – Selected products from agricultural villages display window

In 2016, NSTM collaborated with COA's SWCB, where funding was provided to market SWCB's achievements in revitalizing the agricultural industry. Agricultural villages in Taiwan exude traditional characteristics, and these characteristics are embodied in the Selected products from agricultural villages display window of NSTM's "Story of Taiwan's Agriculture" exhibition hall" in the form of produce cultivated by farming communities and villages in central and southern Taiwan. The exhibition serves to encourage the public to savor the authentic taste of local produce, appreciate the kindheartedness of people living in farming villages and the beauty of agricultural communities in Taiwan.

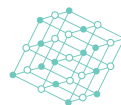




# Technology Education



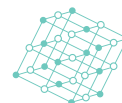




In order to achieve the objective of "Training science enthusiasts", NSTM hosted a multitude of science-themed educational events for students of different school ages via the core principle of "Bringing technology closer to life, and improving life via technology". The events include: Food science, electronics, chemistry, mathematics, aesthetics, power mechanical engineering and life sciences, etc., providing a diverse learning resource and creating a scientific educational environment. In 2016, NSTM hosted 1,596 events, with a visitor count of 328,225 people.

In promoting national popular science education, science-themed activities were designed according to age. Aside from elementary school and junior/senior high school students, the NSTM Little Creative Master course was also developed for preschool students and children. Moreover, the NSTM Creative Life School and Technology Senior Alumni Association were created for adults, families and senior citizens. In total, 734 events were held to serve 26,197 people.

In order to strengthen scientific experiential learning, various science education activities were organized, and interactive experience activities were developed by combining the fundamental concept of science to enhance the fun of learning popular science. This year, a total of 680 events were held to serve 197,407 people. The diverse learning model was adopted to promote popular science,



where a variety of external activities, seminars and lectures were held to increase the diversity of the events and expand the scope and breadth of our services. This year, 182 events were held to serve 104, 621 people. The technology education activities held from 2012 to 2016 are detailed in Table 10.

Table 10 Table of technology education activities from 2012 to 2016

Type	Study activity		On-site activity		External service		Lecture		Seminar		Other		Total	
Year	Sessions	Participants	Sessions	Participants	Sessions	Participants	Sessions	Participants	Sessions	Participants	Sessions	Participants	Sessions	Participants
2012	956	34,407	1,557	204,644	114	43,187	42	5,414	0	0	2	1,662	<b>2,671</b>	<b>289,314</b>
2013	986	34,225	1,502	206,250	96	48,481	32	4,112	0	0	7	3,619	<b>2,623</b>	<b>296,687</b>
2014	1,004	36,672	1,270	229,329	139	59,931	36	4,768	1	520	5	1,886	<b>2,455</b>	<b>333,106</b>
2015	765	29,375	906	193,700	157	106,831	40	6,593	2	114	7	185	<b>1,877</b>	<b>336,798</b>
2016	734	26,197	680	197,407	137	99,913	36	4,410	9	298	0	0	<b>1,596</b>	<b>328,225</b>

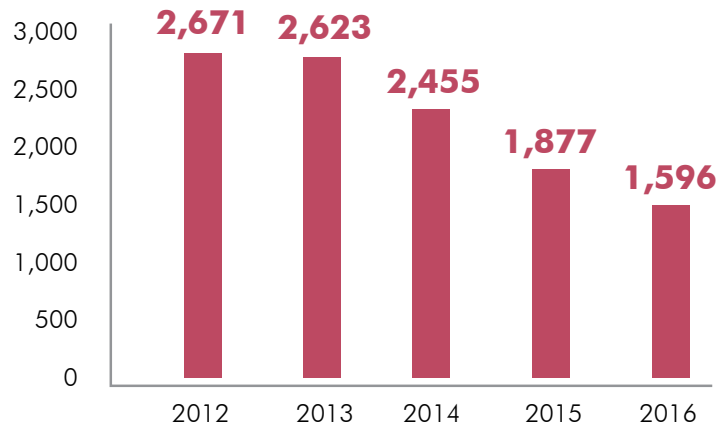
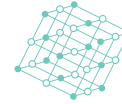


Figure 6 Number of activities from 2012 to 2016

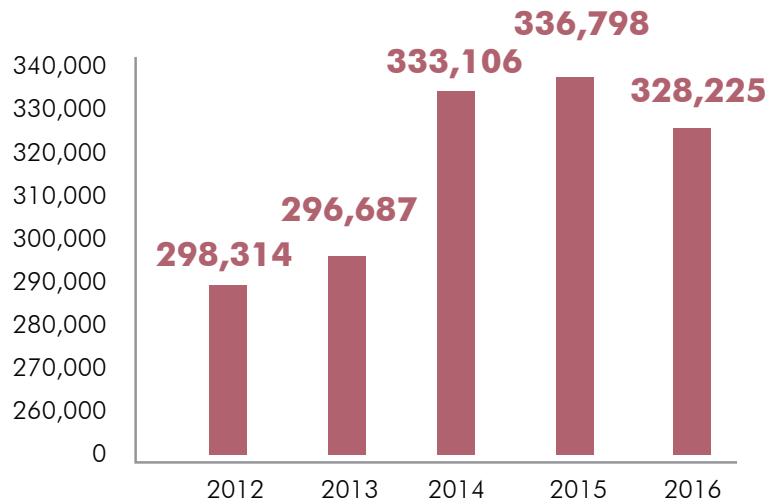


Figure 7 Number of participants from 2012 to 2016

## Science Themed Activities

### 1. Winter/summer vacation science camp

In order to enrich the lives of students during summer and winter vacations, NSTM promoted a diversity of science education courses to improve the scientific knowledge and discipline of our national students via a variety of science experiences. We held summer/winter science camps specifically for preschool, elementary school, and high school students, which include courses in machinery, chemistry, energy, mathematical logic, creativity, life sciences, physics, mathematics, and astronomy. Furthermore, 5% of the vacancies were reserved for specific student groups.



Minions & Science: Hopping Rabbits, Space Travel DIY Winter Camp

In total, NSTM organized 182 camps and served 5,186 people in 2016.





"Holiday Science Feast" Moon Festival – Let's Make Mooncakes!

## 2. Weekend learning course

In order to cultivate basic scientific knowledge and discipline of students, NSTM has integrated applied science resources to develop science courses, including: family courses, biological experiments, green magic, astronomy, power machines, aesthetics and crafts, children's creative arts, physics and chemistry, etc. Furthermore, 5% of the

vacancies were reserved for specific student groups, where "Holiday Science Feast" and "Little Scientists" weekend courses were held from March to June, and from September to December. In 2016, we held 120 courses, and served 2,483 people.



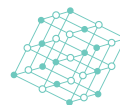
"NSTM Fun Science" - Frozen Superconductivity Experience

### 3. Reservation of activities for school and educational groups

In order to improve basic scientific knowledge in students, NSTM planned the "NSTM Fun Science" hands-on activity series by integrating our experience exhibits and exhibition hall resources. NSTM Fun Science is available to school and educational groups to conduct field trips (reservation is required) to create diverse learning opportunity for students.

The activities are divided into lower, intermediate, and advanced elementary school levels, junior high school level, and environmental education activities. NSTM held 245 activities, and served 9,615 visitors in 2016.





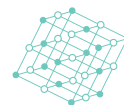
#### 4. Hands-on science

In order for the students and public to learn basic scientific knowledge through exhibitions and experiments, NSTM held Hands-On Science events, guiding the public into the realm of scientific learning via hands-on activities. This year's experience activities included "Interactive Science Teaching Aid Experience", "Let's Cherish and Conserve Water – Children's Day Celebration", "Magical Lights", etc. Furthermore, external resources were integrated to conduct popular science experiences, including co-organizing the "King of Nutrition" with the Department of Nutrition and Health Science, Fooyin University, "World Environment Day – Hand-in-Hand to Cherish the Earth" activity with the Kaohsiung City Government Environmental Protection Bureau and "Military Officers and Children – EM Radiation Challenge and Creative Science Education" with the R.O.C Military Academy, etc. In 2016, NSTM hosted 680 events and served 197,407 people.



"Magical Lights – All About Knowledge"





## Scientific Creativity Competition

### 1. National energy technology contest

In correspondence with the energy technology education promotional policies from the Ministry of Education, the NSTM held the "National Energy Technology Competition" and "MOE Energy Education Program Result Exhibition" in collaboration with the MOE Energy Education Program Office. The events included: National Energy Technology Creative Practical Competition, National Energy Technology Teaching Plan Design Competition, and MOE Energy Education Program and competition result exhibition. In order to promote the philosophy and details for the National Energy Technology Competition, 6 briefing sessions were held, attracting 3,241 teachers and students from 760 teams to participate in the event. At the end of the competition, 219 contestants from 53 teams received awards.

The MOE Energy Education Program Result Exhibition "2016 Best Energy Creativity – Creative Technology Innovation Exhibition" includes the annual results from 6 energy technology educational alliance centers under

its office, 2 Energy Technology Education Centers and 21 energy technology education promotion schools, as well as winning works from the 2016 National Energy Technology Competition. Moreover, interactive experience activities including an energy technology DIY challenge and energy school were also held. The exhibition was held for 17 days and served 40,610 people.



National Energy Technology Creative Practical Competition



MOE Energy Education Program Result Exhibition



## 2. Hand launch glider flying competition

In honor of the Wright Brothers in designing the first manned heavier-than air air-craft in 1903, as well as promoting aerospace science, NSTM held the 6th "Hand Launch Glider Flying Competition" during 12/17-18 aimed at senior and junior high school students. The event adopted the method of making-on-the-day, competing-on-the-day with the categories of "Straight Flight" and "Endurance Flight", while taking into consideration the creativity and scientific principles of flight. It was aimed at training students

in developing, designing, thinking, and problem solving abilities. The event was participated in by 132 senior high school teams, 112 junior high school teams, and a total of 582 students and teachers.



6th Hand Launch Glider Flying Competition awards ceremony - First in junior high school group



6th Hand Launch Glider Flying Competition awards ceremony - First in senior high school group





Taiwanese team at the 2016 FLL FTC

### 3. Robot competition

In promotion of cross-industry integration and utilization of scientific knowledge, as well as the motivation in learning and student participation in robotics, Esunra invited the NSTM to organize the 2016 FIRST LEGO League and FIRST Tech Challenge creative robot competition. The competition was participated in by a total of 950 people, including 470 contestants from 52 teams, their families and the audience.





## Environmental Education Promotion Activity

In promoting environmental education, NSTM has created various environmental education activities to proactively elevate the quality and content of environmental education. This year, we received honors such as the "4th National Environmental Education Award", and we strove to accumulate more environmental education energy to materialize the vision of becoming a "Green Museum".

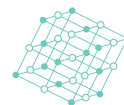
### 1. Energy-conservation house promotions

The NSTM conducted energy-saving volunteer training in certified environments within the museum, bringing volunteer groups passionate in serving as well the public into the "LOHAS Energy-Conservation House", allowing the house to provide knowledge learning through live demonstrations and workshops, in order to convey household and everyday life energy-saving skills to the

public. This was done in correspondence with the expanded "Energy-Saving & Carbon-Reduction" movement principle of the Bureau of Energy. In 2016, NSTM organized "Energy-Saving Partners" Volunteer Alliance Seminars, Little Energy Conservation Activist Summer Camps, Energy Conservation Environmental Education Courses, Little Energy Conservation Volunteer Tour Guide Training Camps and Energy Conservation Popular Science Challenge Activities, etc. to serve 3,974 visitors.



National Environmental Education Award ceremony



In order to foster the concept of energy conservation among the public and provide families with a venue for lifelong learning and co-learning, NSTM held the "World Environment Day – Hand-in-Hand to Cherish the Earth" at the "LOHAS Energy-Conservation House" with a guided tour of the house, teaching aid experience, and "Crank Up the Power" hands-on activity. In total, 16 sessions were conducted, participated in by 188 people.



Energy-Conservation House manual power generation  
teaching aid experience activity



Energy conservation environmental education course



## 2. 2016 Tainan Earth Day Go Low Carbon City, Tainan Go Green 2.0– "Environmental Sustainability and Innovative Energy Exhibition"

In conjunction with 422 World Earth Day, the Environmental Protection Bureau of Tainan City Government invited NSTM to hold the 2016 Tainan Earth Day – "Environmental Sustainability and Innovative Energy Exhibition", which consists of the Love the Earth by Engaging in Environmental Protection Theme Exhibition, Energy Technology Interactive Challenge, Large Scale Energy Exhibition Challenge, Environmental Protection & Sustainable Energy DIY, etc. Energy education teaching aids were applied, allowing the public to gain hands-on experience, thereby imparting green energy, energy storage and energy conservation concepts to them. Moreover, DIY activities such as green potted plants were designed to evoke people's emphasis on "environment and energy" and advocate the concept of saving the Earth by taking action. The 12-day exhibition served 5,142 people.



Opening ceremony of the 2016 Tainan Earth Day – "Environmental Sustainability and Innovative Energy Exhibition"





### 3. "NSTM Visit Experience" activity

In order to bridge the education gap between rural and urban areas, NSTM has received a subsidy from the Executive Yuan EPA's "Environmental Education Facility Subsidy Program" to hold the "NSTM Visit Experience" activity.

Using various NSTM teaching resources, school children of new immigrants in Taiwan and children from remote townships are invited to receive extracurricular environmental education, where diverse exhibition contents are combined with scientific hands-on activities to provide the students with an opportunity to engage in practical courses and experiments.

Students are guided to experience and interact with various exhibits in a realistic

environment, so that they can learn how to practice environmental protection work in everyday life. In turn, they will understand how to make good use of clean, green energy and cultivate an attitude of protecting the Earth's resources by taking action. In total, 21 events were conducted for 1,006 teachers and students.



DIY course – wave power generation teaching aid production and experiment



## Specific Ethnic Group Activities

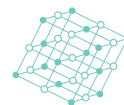
### 1. Remote area disadvantaged group activities

In order to care for disadvantaged students, the NSTM strove to obtain the sponsorship of the Shui-Lai Chen Foundation in holding the "Scientific Banquet Event: Science Papago" project, sponsorship of King Hong in holding the 2016 "Cultural and Ethnic Diversity Science Education" promotion collaboration project, and science education banquet events for the children of new immigrants and students living in remote townships. NSTM held 56 sessions and served 2,816 people in 2016. Additionally, we obtained the sponsorship of the Motech Culture and Art Foundation in holding the Solar Energy Journey event for elementary schools in remote regions of Tainan. We held 8 sessions, and served 307 people this year. For this year's "Best Energy

Creativity – Creative Technology Innovation Exhibition", we arranged 6 visits to schools in remote townships, serving 214 people.



"Cultural and Ethnic Diversity Science Education" Hakka Lei Cha (pestle tea) activity



## 2. Adult education learning activities

In establishing the principle of a community popular science learning center, the NSTM exclusively held the 24-hour museum courses: "NSTM Creative Life School" series learning activities. The activities were aimed at adults, and the courses were held weekday nights and weekend afternoons to establish an all-day-long knowledge-sharing environment, providing adults with an opportunity to receive lifelong education. It was well-received and recognized by the students. We held a total of 41 sessions, and served 470 people in 2016.



NSTM Creative Life School – Creative copper plate etching

## 3. Senior series courses

The NSTM held the "Technology Senior Alumni Association" series of courses to organize lifelong learning activities for retirees and senior citizens, where the correct scientific concepts and experiential learning are combined to create memory-stimulating, macrobiotic courses. Relaxing and pleasant activities are incorporated based on adult learning characteristics to make the courses more lively, professional and diverse. In 2016, 10 courses were conducted for 250 people.



"Technology Senior Alumni Association" –  
Memory-stimulating aerobics

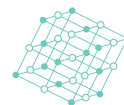




#### 4. Customized curricula

In correspondence with the implementation of the 12-year national education, NSTM developed customized courses and new activities in order to satisfy the demands of junior high school curricula or other special educational activities. NSTM held 23 whole-class honor classes for junior high schools, and served 703 people in 2016.

"Science Training Center" – Instant freezing



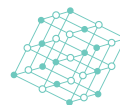
## Academic Exchange Activities

In order to integrate domestic and overseas science education resources, a cooperative approach was adopted to design customized activities, including: Guangzhou Popular Science Alliance's popular science education observation and study, Nanjing Education Society's elementary teacher training group, hosting of the 2016 Cross-Strait Technology Innovation Camp Science Demonstration Activity with the Taiwan Businessmen's Dongguan school and the Dongguan Science and Technology Museum, GDSC's popular science exhibition, etc. In 2016, NSTM engaged in 8 exchange activities with domestic and foreign industries, governments, academia and research institutions.



Popular science exhibition





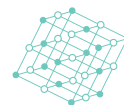
## Teaching Material and Teaching Aid Development

In order to improve learning effectiveness and facilitate experiential learning, NSTM designed and developed teaching materials and teaching aids. This year, we developed the large environmental education teaching aid "Green Energy Exploration and Experience", which includes exhibits such as Solar Energy Paradise, Hydrogen Energy Challenge, and Wind Power Generation Comparison. In addition, we also developed the "Science Exploration Box" to serve school children in remote townships, and various lesson plan-related resources were developed for school teachers. Furthermore, teaching plans were designed for different schools' extracurricular courses. In total, 32 plans were completed in 2016.



Green Energy Exploration Experience teaching aid





## Project-type Programs

### 1. MOST subsidizes the nanotechnology popular science promotion and resource establishment project

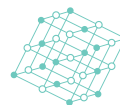
NSTM participated in MOST's "Nanotechnology Innovation Popular Science Promotion Project (1/3)" and "Nanotechnology Digital Popular Science Resource Establishment and Promotion Project" during the first half of 2016; during the second half of 2016, we participated in MOST's "Nanotechnology Innovation Popular Science Promotion Project (2/3)" and "Nanotechnology Digital Popular Science Resource Establishment and Promotion Project" to promote nanotechnology education promotion activities in a diversified manner.

This includes the creation of digital learning resources, continued operation of the "NANO" website, revision of "All About Biotechnology" website, establishment of popular science digital technology resources including the nanotechnology exhibition area, "The Story of Taiwan

Agriculture" and "Adventures in Health Land". In addition, we also conducted online marketing on social media such as Facebook and blogs, and popular science promotion activities were held in conjunction with the development of teaching materials, teaching aids, animation, and films. Through hand-on experiments, teaching aid experiences, teachers' seminars and science camps, the social public will be able to experience and learn about nanotechnology via a variety of methods of participation and learning, in the hopes of improving their knowledge. NSTM held 18 nanotechnology and popular science promotions in 2016, which were participated in by 2,960 people.



Nanotechnology and biotechnology promotion activity



## 2. The K-12 Education Administration commissioned NSTM to organize the "2016 Science Education Resource Promotion Plan"

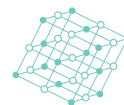
Building on the achievements of the Science Learning Center during 2014-15, NSTM was commissioned by the MOE K-12 Education Administration to promote innovative science education by combining museum resources. The aim is to accomplish 3 major objectives: Develop and prepare teaching resources, increase the innovativeness and convenience of learning for students, and enhance collaboration and empowerment among teachers.

In 2016, NSTM developed 10 sets of teaching materials and revised 10 sets of teaching materials. In total, 14 teachers' seminars were conducted in NSTM, Pingtung County, Chiayi County and Tainan City, participated in by 440 teachers. A total of 200 teaching packages were promoted to implement science teaching material promotion on campuses. NSTM held exhibitions at the annual meeting of the National

Nature and Life Technology Advisory Group, which was participated in by 139 teachers. NSTM also co-hosted 16 "Magical Lights – All About Knowledge" events with NSYSU's Department of Photonics, attended by 6,690 people.



Teachers' seminar



### 3. NCC sponsored the "EM Radiation Experience Promotion and Mobile Broadband Lifestyle Promotion"

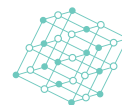
NSTM conducted the promotion of EM radiation related popular science knowledge in conjunction with the need to promote EM radiation experience and the opening of the EM radiation experience area at the Telecom@Taiwan exhibition hall. The aim is to let the visitors experiment and explore the basic principles of EM radiation, in turn understanding how it is applied in everyday life and related safety issues.

In 2016, NSTM's achievements included: Held 12 EM radiation lab events over 6 days (attended by 3,876 people); organized 14 large promotional activities over 7 days (attended by 4,750 people); held 5 teachers' seminars and 162 school teaching package classes (attended by 4,860 people); 6 winter/summer camps and seminars (attended by 174 people); organized 5 remote township services (served 1,100 people); organized 6 community EM radiation experience camp (attended by 532 people); Creative Science Fun Summer – 2016 National Senior High School Science Camp (attended by 86 people).



Large scale EM radiation promotion activity - Military Officers and Children:  
EM Radiation Challenge and Creative Science Education





#### 4. MOE subsidizes the "Promote Senior Citizen Self Learning Group & Lifelong Learning Activity Pilot Project"

In conjunction with MOE's senior citizen education policy, NSTM held the "Promote Senior Citizen Self Learning Group & Lifelong Learning Activity Pilot Project" project leader training. Continuing the training course in 2015, 60 qualified leaders were selected from 128 participants. Furthermore, the charter ceremony and preparatory meeting were held along with senior citizen self learning group forums, where qualification certificates were awarded and guidance was offered to the leaders to form their self learning groups.



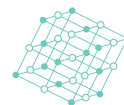
Carter ceremony - MOE Department of Lifelong Education Director General Yueh-li Huang awards qualified leaders with certificates

#### 5. MOE commissioned NSTM to organize the "2016 1st and 2nd Session Further Education for Senior Citizen Education Professionals" events

In order to enrich and re-qualify the skills of senior citizen education professionals and case officers of municipal education bureaus, in turn improving teaching and service quality, MOE has conducted 2 further education events for senior citizen education professionals, which was attended by 111 people.



Further education for senior citizen education professionals



## Popular Science Lectures

### 1. MOST sponsored the "Sunday Science Reading Master" popular science lectures

In order to promote popular science education for the public, MOST started sponsoring NCKU, NSTM, KUAS, and NAR Labs to conduct the lectures since 2003. In total, 16 lectures were held in the NSTM South Complex International Lecture Hall in 2016, which were attended by 3,135 people. In addition, online real-time video broadcasting was available for people from Taiwan and abroad who were unable to attend the lectures in person.

### 2. NSTM co-organized the "Health Science Master at NSTM" project with the Taiwan Association for Promoting Public Health

Under the vision of "Everyone is Welcome – A Museum You Will Want to Re-visit All the Time" and in conjunction with the concept "Making technology closer to life and improving life via technology", the aim is to pursue health

science knowledge with the public and achieve the mission of implementing social education and promoting public health. In 2016, a total of 6 events were conducted, with the presentation topics including dengue fever, cancer, environmental hormones, liver disease prevention and colon cancer. In total, 950 people attended the event, attaining an overall satisfaction of 97.5%.

"Sunday Science Reading Master" popular science lectures



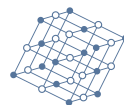
"Health Science Master at NSTM" lectures



# Visitor Services







## Visitor Services

### 1. Improve marketing and service, improve visitor ratings

The number of visitors is a key performance indicator for the museum, as well as a demonstration of the performance goals. Faced with the changing outside environment, besides continuing to update and innovate our merchandise, NSTM also adopted diverse marketing channels by combining social/civil resources, and we are actively developing potential visitors and disadvantaged groups. In terms of visitor services, NSTM has provided a diversity of guided tour services and activities, improved service quality and conducted community events to maintain our customer base, in turn establishing a good interactive mechanism.

The overall satisfaction rate of the audience this year was 90.78%, and the number of the total serviced people was 3,159,505, which grew 21.31% more than the previous year. The details of the stats table of the number of serviced people from 2012 to 2016 are as table 11.



NSTM provides diversified services to satisfy visitors' experiences and needs

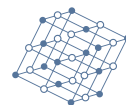
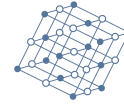


Table 11 The stats table of the number of serviced people from 2012 to 2016

Item	The number of people	2012	2013	2014	2015	2016
Exhibition	Permanent Exhibition					
	Exhibition required additional fees	1,015,065	1,340,613	698,550	609,597 36,286	870,923 132,264
Large screen theater		180,570	131,535	113,575	86,300	119,579
Independent special exhibition required additional fees		416,380	131,761	157,223	284,324	316,632
Experience activity		173,002	141,974	135,585	170,175	157,466
LOHAS Energy Conservation House		3,856	6,087	5,923	5,578	5,287
Open Collection Storeroom		11,636	15,575	13,993	16,755	18,214
Popular Science Library		73,014	85,846	103,614	60,479	77,964
Leased fields		121,356	115,296	118,570	127,501	106,205
Outdoor Square		265,702	302,166	575,581	574,584	475,734
Total number inside the museum		<b>2,260,581</b>	<b>2,270,853</b>	<b>1,922,614</b>	<b>1,971,579</b>	<b>2,280,268</b>
Out-of-the-Museum Service (inside the boundary)		258,070	399,783	334,720	437,754	424,639
Out-of-the-Museum Service (outside the boundary)		0	0	0	195,079	454,598
Total number (inside the boundary)		<b>2,518,651</b>	<b>2,670,636</b>	<b>2,257,334</b>	<b>2,409,333</b>	<b>2,704,907</b>
Total number (inside and outside the boundary)		<b>2,518,651</b>	<b>2,670,636</b>	<b>2,257,334</b>	<b>2,604,412</b>	<b>3,159,505</b>



## 2. "iPass" facilitates effortless admission to NSTM

In 2015, NSTM completed the "iPass System" based on the philosophy of Cross-Industry Development to provide the public with more diverse, convenient services and improve NSTM's service quality.

In order to achieve the sustainability of the services, improve their implementation efficiency and create superior service quality, NSTM not only provides the original credit card and cash ticketing services, also NSTM's iPass system enables our admission tickets, movie tickets, paid experience facilities, and cultural & creative merchandise to be substituted with automatic billing, and consumers can also pay for small expenditures with the card. Depending on the needs of various service locations in NSTM, automatic ticket kiosks, ticket service kiosks or fixed check-in kiosks have been installed, where the central processing system manages the overall ticketing service and statistics in order to offer visitors more diversified ticketing services.

In addition, the central processing system's management functions also include: Authorization, parameter/software

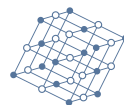
version management, transaction data management, transaction transmission, account management, report management and iPass card management. Establishing a comprehensive electronic ticketing management system helps to mitigate the verbal service workload of existing personnel.

NSTM is currently considering collaboration with Multi-Card and ibon online ticketing in an effort to create a convenient, comfortable environment that will keep visitors coming back.



iPass offers the public convenient visiting services





## Public Relationships and Marketing

### 1. Utilize media resources, develop marketing channels

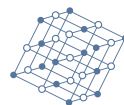
In accordance with our marketing network concept, we have developed and maintained good relations with reporters from print, network, broadcast and television. Moreover, NSTM has maintained good interaction with educational experts over the years, thereby gradually establishing a relevant database. Also, NSTM has actively provided the latest and most relevant information on the museum's popular science promotional events, thus enabling the formation of a positive cycle in the industry, while word-of-mouth and proactive promotions have improved the marketing performance every year. NSTM issues press interview notices and news releases from time to time. In total, 69 press interview notices and news releases were issued over the year, and the "NSTM Newsletter" was also sent to the media regularly to establish a feedback mechanism for media exposure. In turn, this is used as the basis for selecting outstanding media for placing our advertisements.

Opening ceremony of "Story of Taiwan's Agriculture" - NSTM Director-general Shiunn-shyang Chen receives a joint media interview



NSTM APP launch ceremony

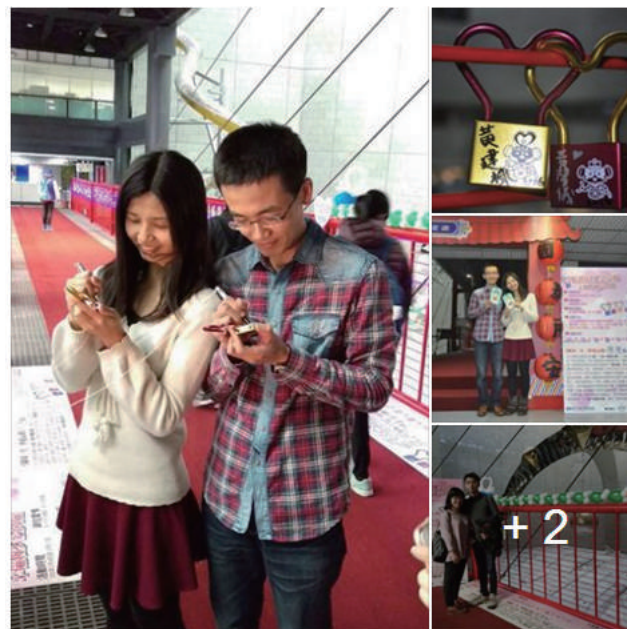
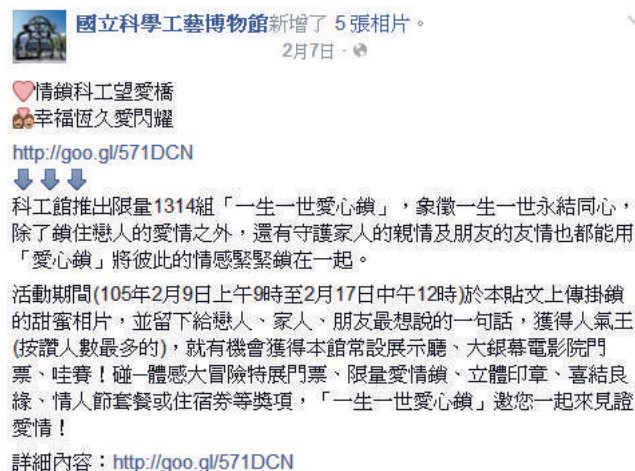
One of the most popular exhibits  
"Spiral Slide"

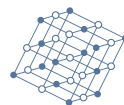


## 2. Utilize social media, conduct real-time information updates

Due to the popularity of social media, we established a Facebook page in October 2009 with the address: <http://www.facebook.com/ilovenstm>, and have amassed 53,318 fans as of October, 2016, which is 15% more in comparison with the 46,332 fans in 2015. The check-in count after the Facebook community page updated was 176,459. We relay information to our Internet fans via NSTM's FB, which includes permanent exhibitions, special exhibitions, science education events, selected collections, seminars, relevant images and writings, videos, as well as science, environmental education, and science education news. We wish to bring forth applied science and the vision of a green museum in both an educational and entertaining manner.

Event information is released through Facebook to attract participation from online fans and fans at NSTM, thereby enhancing interaction.





### 3. Organize holiday art festivals by combining technology and art

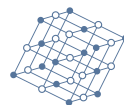
In integrating art and technology, improving the performing art quality and artistic sense of the southern regions, the NSTM has held creative performing art events on holidays, enabling visitors to enjoy music, drama, and other performances aside from learning new technologies, in turn bringing artistic education closer to life and introducing knowledge and sensibility to everyday life. In 2016, 5 events were organized and participated in by 1,300 people.



Yuri Orchestra performs a family music concert

NSTM Creative Life School students  
perform an "Erhu Concert"





## Guided Tour

### 1. Provide quality tours, enrich the tour experience

In correspondence with our exhibitions, we provide the public with a diversity of guided tour services, which include: group guided tours, active guided tours, robot demonstrations, and "periodic guided tours" specific to each different exhibition and exhibition hall. In the current year, we provided guided tour services for 5 exhibitions including: "Terracotta: The Rise and Legacy of Qin Culture", "Story of Taiwan's Agriculture", "Science of Cooking", "Pavilion of Dream Transport" and "Typhoon Morakot Recovery Exhibition Hall". We held a total of 1076 periodic guided tours, with a total of 2,720 various guided tours in the current year, and serviced 58,809 visitors.

### 2. Establishment of NSTM tour guide APP – Attentive personal tour guide

In conjunction with the NSTM tour guide APP unveiled by the Information Division, we have offered cell phone mobile guided tour service for the visitors, including the

LOHAS Energy Conservation House in the South Complex, Science Library, Open Storage in the North Complex, 14 permanent exhibition halls, and the public art installation The Star in the Universe. After downloading the NSTM tour guide app and exclusive tour guide pack, users need to activate Bluetooth in order to enjoy the tour guide

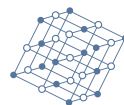
experience in both complexes. There are currently 147 guided tour spots, and guided tours of the latest Health Exploration Hall as well as GPS guided tour for 5 outside locations will be augmented in the future. At NSTM, our smart digital tour guide will accompany you to enjoy an interesting visiting experience.



The NSTM tour guide system for smartphone



Audio guide for smartphone



## Resource Utilization

### 1. NSTM Lanterns of Love

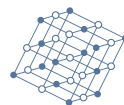
In order to shorten the gap between the rich and the poor, and implement scientific education, we promoted the "2016 NSTM Lanterns of Love" welfare program for the disadvantaged, accepting donations of social welfare enthusiasts for NT\$ 10,000 per lantern to financially supporting the economically disadvantaged students in visiting the museum. This further facilitates the goal of the museum, social resources, and education integration. Through the "2016 NSTM Lanterns of Love" event held this year, we received a grant of NT\$3,030,530 to service 316 schools, 5,620 students, and helped economic disadvantaged students visit the museum.



Chairman of Sunfar Computer Co., Ltd. Chin-chang Wu in a group photograph with visiting students



2016 NSTM Lanterns of Love activity



## 2. Adequately utilize social resources to aid disadvantaged groups

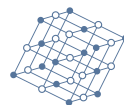
Chunghwa Telecom and NSTM co-organized two "Zero Distance Love – Telecom Technology Tour for Students in Remote Townships" events in 2016, which were participated in by 548 students and teachers from 10 schools, thereby allowing underprivileged school children from remote townships to enjoy an energetic and knowledgeable day.

In order to endow underprivileged school children from remote townships with abundant learning resources, Far Eastone Telecommunications Co., Ltd. proposed to collaborate with NSTM to sponsor 103 students and teachers from Jian-Shan Elementary School and Xing-Zhong Elementary School to visit NSTM.



2016 "Zero Distance Love – Telecom Technology Tour for Students in Remote Townships"





### 3. Utilize social manpower resources, improve overall performance

NSTM is the first applied science museum in Taiwan. Under the restriction of limited employees, in accordance with the "Volunteer Service Act" of the Ministry of Interior, we invite social manpower resources to join our ranks. The scope of service includes reader services, collection maintenance, collection management, maintenance services, educational activities, exhibition services, Chunghwa Telecom exhibition services, theater services, audience services, volunteer

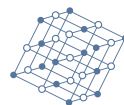
administration, guided tours, nursing, information desk, promotion, group cafeteria, energy-saving house projects, general affairs, and gardening. There were 1,133 volunteers by the end of 2016 with an accumulated total service time of 183,111 hours. We held 3 volunteer forums, participated in by 272 people, and one volunteer recognition ceremony, participated in by 939 people. In gratitude of our senior volunteers, we awarded 42 volunteers with 15-years-of-service awards (total service time of 2,250 hours) at our NSTM 19th Anniversary.



Senior volunteer awards ceremony during the NSTM anniversary celebration



2016 NSTM volunteer tour



#### 4. Provide employment opportunities, encourage students in volunteer services

In correspondence with the implementation of the national 12-year education policy, since 2012, the scores of service learning (volunteer service) in diverse learning performance has been considered an important factor. In encouraging students to commit to volunteer services and providing service opportunities, NSTM amended the "NSTM Social Service Student Operation Key Points", which was implemented in June 2012. We conduct educational training once per month. All students enrolled in junior high schools or above are eligible to apply. In 2016, there were 1,529 students participating in social services with a total service time of 12,722 hours in the current year.

#### 5. Conduct community events, building good community relationships

Since the Building Good Community Relationship Plan was approved in an NSTM meeting in November 1997, we have held related activities every year. The activities combine social resources to cater to the needs of the community

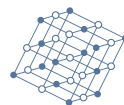
and maintain good public relationships with local residents. The plan also engages in community development by incorporating community residents as an integral part of NSTM's support resources, in turn generating excellent interaction with local communities and enhancing NSTM's image among them.

In 2016, one preparatory meeting and one Building Good Community Relationships activity were held for "The Reality Magic of Interaction Show" paid exhibition and "Spiral Slide" experience, which were attended by 1,320 visitors. NSTM held 2 community movie viewing events in January and July.



2016 Building Good Community Relationship activity

A total of 96 sessions were conducted over 12 days, participated in by 3,536 people.



## 6. Museums from Taiwan and China exchange experiences to generate new cooperative opportunities

In order to extend NSTM's influence in science and technology museums in China, this year we received museum teams from various provinces in China to demonstrate our achievements in collection, exhibition, science education and operation, thereby creating new opportunities for future collaborations. In 2016, CNYPA, Anhui Association for Science and Technology and GDSC all dispatched staff to visit NSTM, and they were all impressed by our ability in designing educational activities and curating exhibitions.

## 7. Joined International Museum Association to lay a firm foundation for the New Southbound Policy

In supporting the government's New Southbound Policy, NSTM has collaborated with ASPAC's TREX to standardize the data of NSTM's touring exhibitions and a link to ASPAC's touring exhibition database was established in 2016. The system is now officially online, providing an excellent platform for global museums to search for touring exhibitions in Asia.

In 2016, NSTM joined the National Science Museum (Thailand)'s ASPAC joint exhibition program "Rice Exhibition"

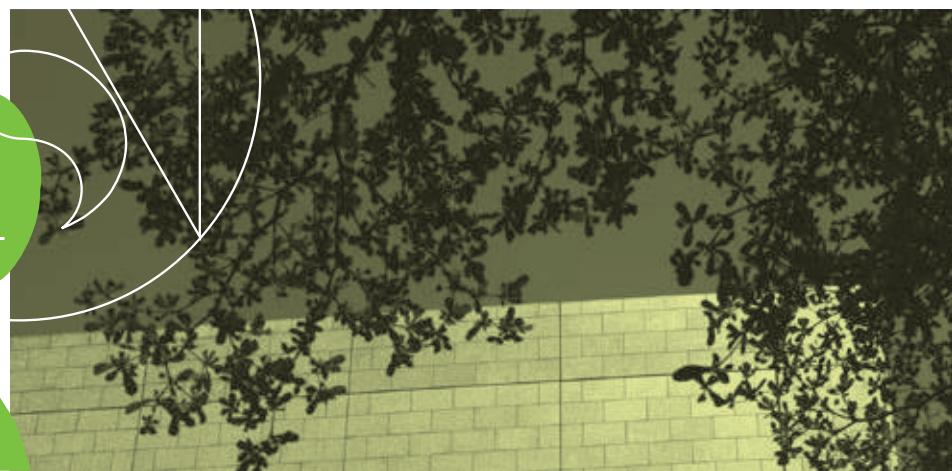
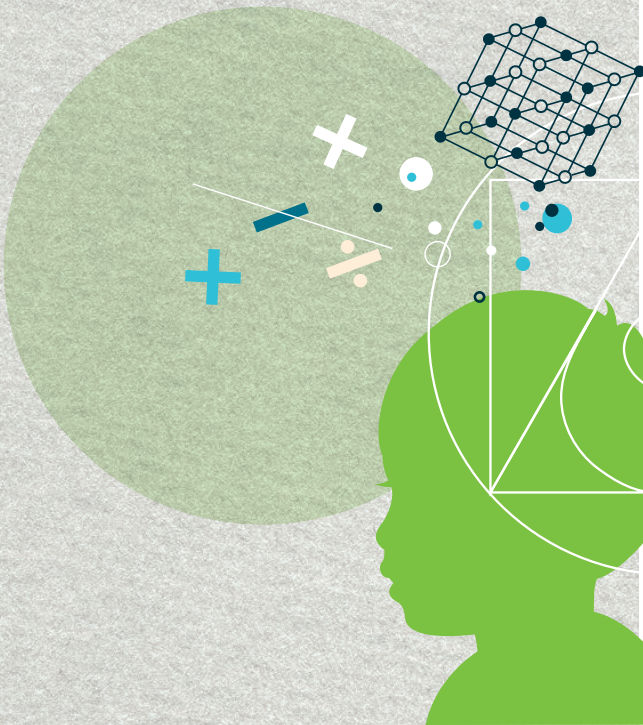


CNYPA delegations observing NSTM's scientific exhibition demonstration

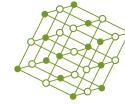
with Miraikan – The National Museum of Emerging Science and Innovation in Japan and the Science Centre in Singapore. In October, Exhibition Division delegates attended the first international work group meeting at the National Science Museum in Thailand to exchange international experiences in research, talent cultivation and culture. In the future, NSTM intends to build on the foundation of international cooperation to reinforce our touring exhibitions and international promotion of science education activities as a key national science museum of the New Southbound Policy, thereby increasing the international exposure of NSTM's touring exhibitions. Furthermore, the aim is also to implement diverse management and expand the economic benefit of exhibitions, as well as to foster substantial international collaborations for the sake of broadening our international perspective in the Asia-Pacific region.



# Green Museum







In 2016, NSTM continued to strive toward the ideal and vision of being a green museum by upholding our sustainable development philosophy in order to exert out function of educating the public about technology education. From the 4 major aspects of "Sustainable Environment", "Sustainable Society", "Sustainable Culture", and "Sustainable Economy", we aim to promote sustainable development strategies including environmental protection, fulfilling our CSR, enhancing cultural heritage and sound finance. Our implementation status and results in the current year are as follows:

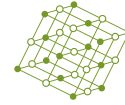
## Sustainable Environment Aspect

The aim of Sustainable Environment is to make NSTM a friendly, comfortable, and enjoyable environment for visitors. The items of implementation include 3 topics: "energy-saving & carbon reduction", "green building improvement", and "green consumption".

The major achievements include: Received 1st place for Kaohsiung City Government's "Smart Power Conservation Project Competition"; annual renewable energy generated (85 thousand kWh) and annual green procurement reached 95.8%.



Providing the public with a friendly, comfortable and pleasant environment



## Sustainable Society Aspect

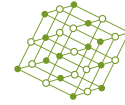
The aim of Sustainable Society is to fulfill our social responsibilities, pursue social justice, and develop diverse participation in order to receive recognition and support from the public, communities, and other domestic/foreign museum communities. The 3 sub-programs include: Developing a Diverse Audience Program; Promoting Community Collaboration Program; Environmental Education Enhancement Program.

The major achievements include: Accumulating 54,832 fans on social media, showing a 18% growth compared to 2015; the "Hand-in-Hand, Side-by-Side" welfare project for the disadvantaged received funding of NT\$ 3,030,530, which was utilized completely. Throughout the year, NSTM received visitation from 316 schools with a total number of 5,620 people, and 5 environmental education enhancement courses were held, accumulating 616 training hours.



Zero Distance Love – Paradigm of collaboration between museums and social enterprises





## Sustainable Culture Aspect

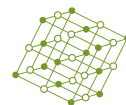
The aim of Sustainable Culture is to improve the transmission and innovation of culture via our collections research, exhibitions, and educational events. The program includes the 3 topics of "Cultural Asset Preservation", "Green Education", and "Green Exhibition". The 3 sub-programs include the collection and research improvement project, green education promotion project, and the green exhibition and assessment project.

The major achievements include: Digitization of 205 collected pieces; scientific analysis of 12 collected pieces; held 12 collection promotion and preservation events; developed 11 creative pieces of merchandise for the museum. In terms of green education promotion, NSTM held 31 specialized personnel training sessions, and over 167 water-saving, electricity-saving, solar photovoltaic, new energy technology, environment, ocean, ecology, and disaster prevention sessions, with over 50,000 participants. Additionally, NSTM continued to conduct science education promotion events for disadvantaged communities, and held 20 educational promotion events aimed at new immigrants and students



R.O.C Military Academy's vintage KMT Party flag restoration work

in remote townships, including "Science Banquet", and the "Multiculturalism" series with 1,523 participants. In terms of green exhibitions, NSTM launched the "New Agricultural Technology Experience Pavilion – Plant Workshop", "Story of Taiwan's Agriculture", updated the "Climate Change Exhibition Hall" and "Forest and Me – Sustainability, Longevity, Impact on Mankind" special exhibition, Typhoon Morakot Recovery Exhibition Hall and Soil and Water Conservation area, Passage of Wind – Wind power exhibition and outdoor solar power exhibition, etc. The aim is to transform NSTM into a quality educational facility for environmental education, and we achieved a total visitor number of approximately 303,492 people. In addition, NSTM completed 4 green exhibition assessments, with 3 exhibition halls attaining "Gold" status and one exhibition hall achieving "Silver" status.



## Sustainable Economy Aspect

The aim of Sustainable Economy is to conduct cost control, reduce operational costs, and establish a well-rounded financial mechanism. The items of implementation included the topics of "Resource Recycling" and "External Resource Utilization". The sub-program was to increase revenue and decrease expenditures. The major achievements in this regard include: Business and other business revenue for 2016 was NT\$ 224,541,487, which was NT\$ 34,341,467 more than the estimated target of NT\$190,200,020. Expenditure reduced in 2016 was NT\$ 48,273,553, which was NT\$ 6,816,225 more than the estimated target of NT\$41,457,328. NSTM also launched the membership program, accumulated 38,428 iPass transactions. Moreover, we have recruited 14 corporate members including: Han-Hsien International Hotel, Urban Hotel 33, McDonald's Taiwan, Formosa Plastics Group Kaohsiung Office and Mandarin Daily News.



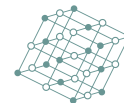
iPass significantly improves the convenience for consumers



# General Affairs and Environment







## General Affairs Management

### 1. Public Procurement to Conserve Public Funds

For procurement contracts and tender award cases over NT\$100,000, the accumulated tender budget was NT\$118,313,318, and the awarded amount was NT\$112,611,717. NT\$5,701,601 was conserved in total, with a conservation achievement rate of 4.82%. There were 460 procurement cases between NT\$10,000 and NT\$100,000 totaling NT\$20,012,701; the amount reported was NT\$19,336,433, saving a total of NT\$676,284, equivalent to 3.38%.

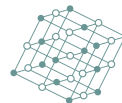
### 2. Interest Income Resource Widening

In order to increase interest income and utilize fixed deposit more flexibly, in addition to the existing 401 NSTM account of operational funds in a fixed deposit with the Agent Institutions of the National Treasury (Taiwan Business Bank, Eastern Kaohsiung Branch), NSTM also has fixed deposits at Chunghwa Post. Currently, the total amount of fixed deposits, including deposits in the Taiwan



"Browse Files and Play Lottery" file management-related exhibition activity

Business Bank and Chunghwa Post is NT\$143 million. The interest generated in 2016 was NT\$1,886,208. In 2016, NT\$1,350,000 in rent income was generated from base stations established by 5 telecom companies. Furthermore, NT\$70,600 was generated by auctioning scrapped products to actively increase income by widening resources.



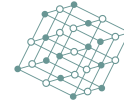
### 3. Improve Archive Management Quality

In 2016, NSTM colleagues accumulated 466 hours in the digital learning of archive management, which serves to cultivate the basic skills of file management among our staff. Based on the principle of one name per case, 78 case names were determined. Hard copy official documents for the years 1992-1995 were checked in accordance with NSTM's "Archive Destruction 5-year Plan", where 2,063 documents that have no more value or exceeded their storage date were destroyed. During 2016/7/27-8/7, NSTM hosted the "Browse archive and Play Lottery" exhibition to introduce NSTM's development history via text explanations and official documents. At the same time, visitors were allowed to operate the first generation Taiwanese lottery machine collected by NSTM in order to revitalize the application of our archives. The exhibition attracted 8,000 visitors, and 1,700 of them filled in archive application learning forms. In addition, NSTM internal meeting minutes from 857 meetings held during 1986-2008 were compiled into 80 hardbound volumes for permanent collection. So far, 468 NSTM Go

luggage fasteners (archive management related cultural & creative merchandise) have been sold, demonstrating the diverse value-added applications of archive management.

### 4. Emphasis on the performance of internal control

The museum is the only one in Taiwan to participate in the "Phase 2 and 3 Pilot Scheme of Signing the Internal Control System Statement Promotion Project" and the 2014 internal control system effective statement was signed on June 3, 2015, by the Director-general and Deputy Director-general. The 2015 internal control system effectiveness statement was signed on January 7, 2016,. Furthermore, NSTM received the outstanding award for internal control assessment (above 80 points) on October 14, 2016, making it the only museum in the country to participate in the program and receive an award.



## Electromechanical Operations

### 1. Saving energy to fulfill the Green Expo's concept

NSTM's energy-saving achievements for 2016 were: Reduced power consumption by 31.34%, water consumption by 18% and fuel consumption by 37.95%. Since the average temperature of this year was higher than 2015, power consumption by air-conditioning units increased. Furthermore, the opening of the Agricultural Technology Hall and Technology Window at the archway on Jiuru Rd. has also contributed to an overall increase in NSTM's power consumption. As a result, power consumption increased by 346,952kWh (+1.57%) compared to 2015. In 2016, due to a higher average temperature and water leakage at the South Wing, water consumption increased by 2,670 cubic meters (+4.21%) compared to 2015. The power, water and fuel consumption statistics analysis over the last 5 years are shown in figure 8 to 10.

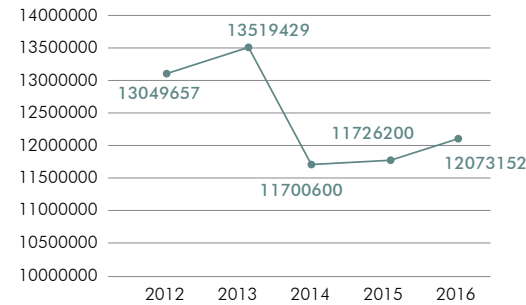


Figure 8 Power consumption over the last 5 years

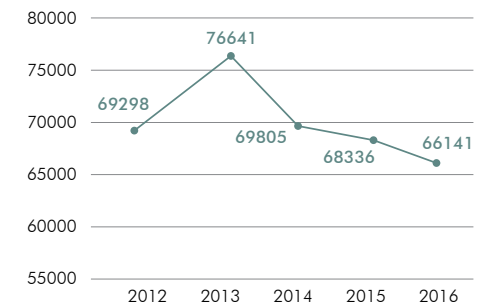


Figure 9 Water consumption over the last 5 years

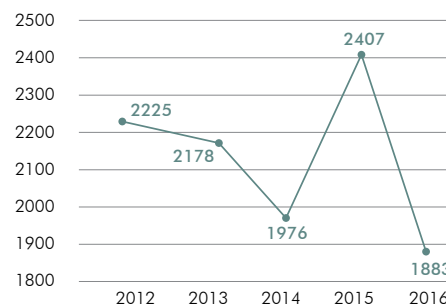
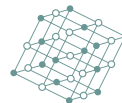


Figure 10 Fuel consumption over the last 5 years





## 2. Occupational disaster prevention preparedness

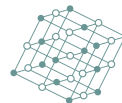
After the amendment of the Occupational Safety and Health Act, all government agencies (departments) fall under the regulation of the law, therefore NSTM immediately began establishing an occupational safety and health system. In January 2016, colleagues from various divisions were assigned to task forces, while NSTM's "Occupational safety and health work rules", "Occupational safety and health work management plan" and "Occupational safety and health work automatic inspection form" were developed. After 4 revisions, the first draft was completed, and the Deputy Director-general convened an occupational safety and health system establishment meeting with the heads of various divisions on October 21 and November 2 respectively. During the meetings, a consensus was reached for "Occupational safety and health work rules", while discussions were conducted for the management plan and automatic inspection form. After all the plans were completed, they were submitted to the Director-general for approval and reported to the Labor Inspection Office, Labor Affairs Bureau of Kaohsiung City Government for reference. Subsequently, the plans were announced and implemented.

NSTM's occupational safety and health related

protective measures in March 2016 include: installation of ELB, anti-shock devices and grounding lines (equipment grounding); thorough inspection

of dangerous areas in NSTM (such as: floor panels being installed in the plumbing space to prevent falling, and safety harnesses being installed to prevent cleaners from falling off the roof while cleaning); installation of warning signs (such as: electric control panel power on or off warning sign); padding was added to the 3D Theater to prevent the audience from bumping their heads; electrical cables buried underground were labeled and the wiring diagram was revised; use of dangerous facilities was prohibited (for instance, damaged, unstable boom lifts, scaffolds or step ladders with unequal lengths); comprehensive review of emergency evacuation routes; fences were installed around the water tower on South Complex; formulated "Construction operation safety notification form" (bring attention to the contractors about any precautions or potential hazards).





### 3. Improve the efficiency of public facilities

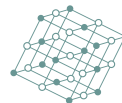
In 2016, in order to improve service quality, public facility enhancement works carried out include: mitigated foul odor of outdoor public toilets, replaced trash bins in the public toilet, implementation of pedestrian and vehicle segregation, improved loose brick flooring and waterlogging, construction of Rain Pavilion Shelter and improved leaking skylights, etc.

#### (1) Section A skylight leakproof canvas replacement and miscellaneous repairs

Section A skylight (above the Triangular Hall) was inspected in early 2016 and repairs were carried out, including replacing the old canvas with a brand new one and drainage facility repairs. Furthermore, high altitude work precautions and preparations were conducted and the water leakage was remedied.



Skylight leakproof canvas replacement operation



## (2) South Complex stone wall improvement project

The South Complex is a reinforced concrete structure 12.8m tall. The exterior stone wall was constructed using wet-type reinforcement techniques, however with age and unknown extraneous force, the wall surface began to bulge, peel off and efflorescence occurred. If left untreated, further problems may develop in the future, leading to other disasters, therefore after considering the vast surface area of the South Complex exterior wall and available budget, a professional contractor was appointed in 2014 to inspect the entire wall. The inspection revealed that 1,676 square meters of the wall (roughly 31% of the total surface area) exhibited signs of bulging, cracking, peeling off and damage. In mid-August 2015, more stone materials came off the wall (at the same position as revealed by the previous inspection); in order to prevent unexpected disaster and damage, NSTM adopted recommendations offered by the professional contractor in 2016, where all existing stone materials on the exterior wall were retained, while deteriorated fillers were replaced and screws were installed as reinforcement. The most important consideration of the project was that the filler and screws must satisfy the objectives of safety and overall aesthetics.



South Complex stone wall improvement project

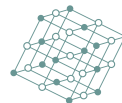


Visitor-friendly installation –  
Rain Pavilion Shelter

## (3) Safety maintenance of public facilities

In 2016, various facilities at NSTM were inspected and improvements were made based on observations conducted under different climate conditions and at different times. In addition to installing rain shelters and improving waterlogging on the ground, pedestrian and traffic segregation measures were implemented in light of the potential risks in the environment, foot traffic, vehicle traffic and parking needs in order to provide the public with a safe, comfortable park environment.





#### 4. Honors and awards

NSTM received the following honors and awards in 2016:

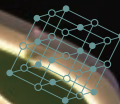
- (1) Received 1st place for Kaohsiung City Government's "Smart Power Conservation Project Competition".
- (2) Passed ISO27001 certification on 2016/6/26, making NSTM the only national social education institution in the country to receive the certification.
- (3) The outdoor interactive multimedia exhibit "Technology Window" was selected as a top ten annual design creation of 2016 by Brain Magazine.
- (4) Received 5th place for the MOEA National Property Administration's "2015 National Property Revitalization Performance" in the Funding Category.
- (5) Received the Executive Yuan EPA's "4th National Environmental Education Award".
- (6) Received the Executive Yuan DGBAS's 2015 Internal Control System Outstanding Award, making NSTM the only museum in Taiwan to receive the award.



4th National Environmental Education Award ceremony



Internal Control System Outstanding Award



"Story of Taiwan's Agriculture Hall"

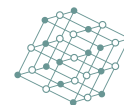
## Cross-Field Value-Adding Project

In order to innovate and re-create social education institutions in terms of management philosophy and form, in turn transforming national museums in Taiwan into a contributing force during the "social innovation" process, the MOE proposed the "Cross-Field Experience, Learning for Life: Project for Cross-Field Value-Adding in National Social Education Institutes Development", which will be implemented from 2014 to 2017.

NSTM's "Southern Taiwan Technology Education Green Expo Park Project" is also proposed based on goals including environment, culture, economy and sustainable social development. The implementation of the project serves to connect other museums in southern Taiwan and combine

private resources in an effort to promote internationalization. Moreover, the aim is to broaden people's horizon, facilitate developments in the tourism and recreation industry in Kaohsiung, as well as to improve the quality of the surrounding environment and industrial/commercial development. Most importantly, we strive to create an interesting, knowledgeable museum theme park where people of all ages can learn freely and have fun joyfully.

"Southern Taiwan Technology Education Green Expo Park Project" comprises 2 sub-projects such as "Happy Green Park" and "Happy Taiwan Industry". In 2016, the "Plant Workshop", "Story of Taiwan's Agriculture" and "Health Exploration Hall" were completed and opened to the public to transform NSTM into a green paradise with social education function.



## IT Operations

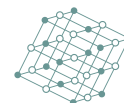
### 1. Completed the development of the Touching Story search engine and database management system

Each division is required to share their touching stories at the weekly NSTM meeting. In order to quickly write, search, categorize and manage the abundant collection of touching stories, our Information Division developed the "Touching Story Information Management System" in 2016 featuring functions including data code management, touching story information, statistical data conversion, system data management and information search. Furthermore, RWD (Response Web Design) technology was applied to integrate it into NSTM's mobile version website (<http://si.nstm.gov.tw>), so that NSTM employees can access all the touching stories at any time via their mobile devices.



Development of the "Touching Story Information Management System"





## 2. Development of the "Centralized Telephone Receptionist Call Log System"

In order to digitize the record of calls handled by telephone receptionists for the sake of facilitating information searches in the future in a scientific manner, NSTM developed the "Centralized Telephone Receptionist Call Log System" in 2016, which incorporates functions such as data creation, historical information searching and manual e-mail delivery, etc.

## 3. Obtained a patent for cubic stamp cloud technology/systems and initiated collaboration with the Dongguan Science and Technology Museum

NSTM completed the software development of the cubic stamp cloud system in 2015, where the user can type the words on the web page to automatically generate cubic stamp images. The experience facility has become extremely popular among the public since it was launched. In 2015, NSTM commissioned a Five Continents International Patent and Trademark Office to patent "Cubic stamp generation

technique", which was successfully approved by MOEA's IPO in 2016. Next, NSTM will sign a cooperative project with Dongguan Science and Technology Museum on cubic stamps.

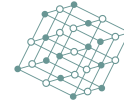
接聽人	日期時間	事項	描述	來電姓名	來電電話	備註	刪除	新增
郭中寧	105/11/14 下午 03:15	博知館遷		陳小姐	0423585158		刪除	新增
楊慶生	105/11/14 下午 02:30	維新基本資訊		陳先生	07-2135262	我公署透過重慶、巴魯城中日辦	刪除	新增

Search screen of Centralized Telephone Receptionist Call Log System

Development of the "Centralized Telephone Receptionist Call Log System"



Obtained patent for "Cubic stamp generation technique"



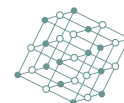
#### 4. Established NSTM's ISMS and passed ISO 27001:2013 certification

According to MOE's "Regulation for Information Security Responsibility Classification of MOE, Affiliated Government Agencies (Departments) and Schools", which upgraded the information security classification of all MOE affiliated organizations to Class B toward the end of 2015, NSTM was required to implement the necessary changes as a Class B organization. In 2016, NSTM implemented the Information Security Management System (ISMS) to complete phase 1-4 information security management system document, which was officially approved by the CISO in 2016 on 3/31, and it was adopted as the standard for regulating NSTM's information security. CISO of NSTM's information security organization is also the Deputy Director-general of NSTM, and the organization consists of the heads of various divisions and IT personnel. The organization convenes management review meetings regularly to assess information security operations; furthermore, review and improvement plans were proposed, and various information security measures were also refined by adhering to the Plan-Do-Check-Act (PDCA) principle.



Accreditation and inauguration ceremony

In June 2016, NSTM commissioned SGS Accreditation and Enterprise Optimization BU to conduct an ISMS document review and external audit. A letter of referral was received from SGS after successfully passing the review, and NSTM conducted the accreditation and inauguration ceremony in August and received the ISO 27001:2013 certificate.



## 5. Completed official document online file request system

The current official document online file request system was reviewed in light of NSTM's online official document request needs, and Excellent Infotek Corporation was commissioned to readjust the system. The adjustments were completed in May 2016, and traditional hardcopy file requests were replaced with online file requests.



Online official document system verification

Screenshot of online official document file request

## 6. Assisted to complete 2016 NSTM Lanterns of Love activity

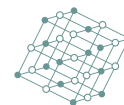
In order to maximize the benefits of Lanterns of Love, the theme from 2014 and 2015 was carried forth to develop ideas such as lanterns of blessing cards and displaying the sponsors' name on the main hall TV wall so that the sponsors can take photos with the lanterns of blessing. In conjunction with the image of Romantic Seven Star Bridge, LOVE-lettered LED lights were produced in-house to highlight the core values of Lanterns of Love. In addition, the Lanterns of Love animation was also adjusted to match the theme of LOVE and Romantic Seven Star Bridge.



Romantic Seven Star Bridge

Established Eating Around NSTM mobile map





## 7. Completed Eating Around NSTM map

In 2016, the Eating Around NSTM mobile map was completed by combing Google Maps and store xml database, so that the public may search for gourmet stores on NSTM's official website via their mobile devices. The project was co-developed with the Exhibition Division's "4G Learning App" to expand the scope of NSTM's mobile and cloud services, thereby bringing the museum closer to people's lives.

## 8. Completed the installation of audio tour system

In order to provide diverse guided tour services and allow the public to obtain additional information about NSTM's exhibits via listening, the Information Division introduced a Bluetooth positioning system Beacon to create an audio tour system for our exhibition halls. Colleagues from the Exhibition Division and Visitor Services Division wrote the script and recorded the content of the audio tour, which was then uploaded to the app's backend management system. As the visitor approaches the exhibit, the positioning device will be activated and the app will automatically launch the

audio tour service. This is unique to the traditional tour guide method. In 2016, NSTM purchased and 163 positioning devices and completed 150 audio tour contents.

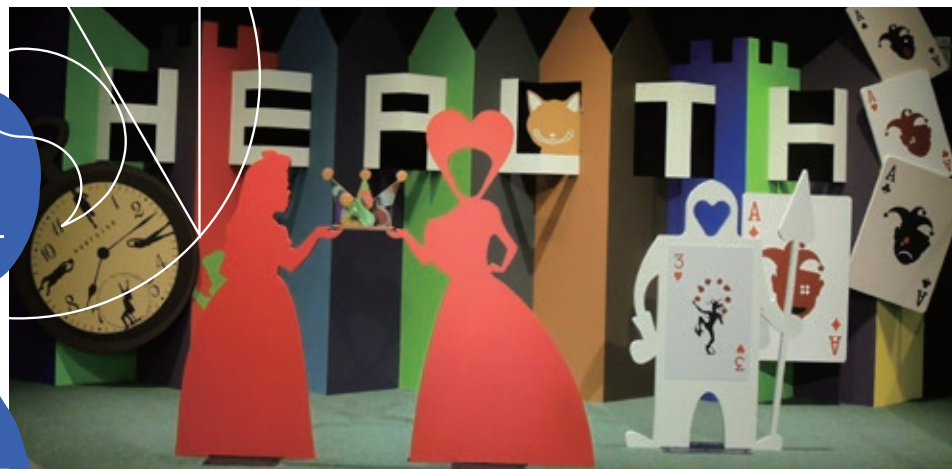
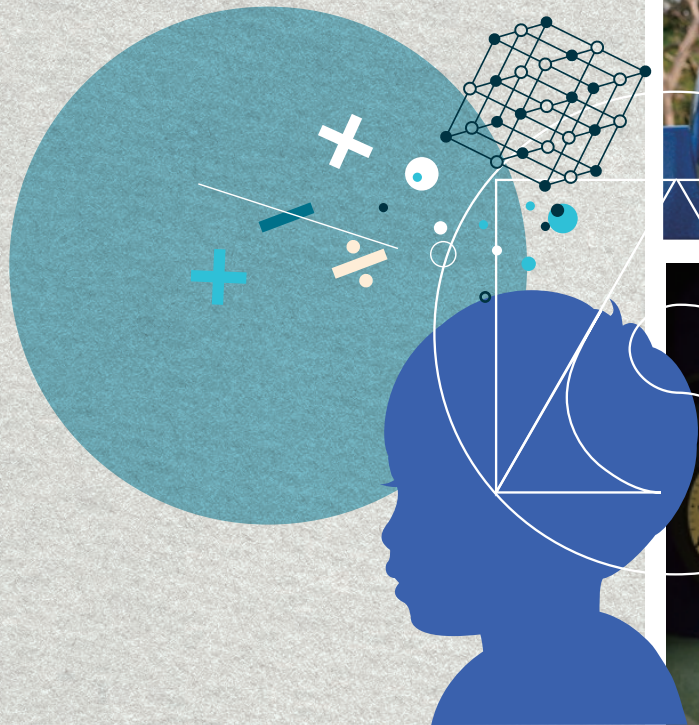


Introduced Bluetooth positioning device (Beacon)

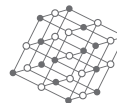


Installed audio tour system at the exhibition halls

# Budget Execution







## Annual Balance

The total revenue from execution results of NSTM in 2016 was NT\$375,744,000. The main source was the social education institution development grant of NT\$196,446,000, which occupied 52.28% of the total revenue. Self-raised funds was NT\$179,298,000, occupying 47.72% of the total revenue. Out of which, service income of NT\$54,923,000 took the top, occupying 14.62% of the total revenue.

The second highest was the income from Cooperative Education of NT\$37,214,000, occupying 9.90% of the total revenue. The rest in order were: Asset-use and Royalties income of NT\$35,207,000, occupying 9.37% of the total revenue; additional income of NT\$33,850,000, occupying 9.01% of the total revenue; educational promotion income of NT\$10,700,000 occupying 2.85% of the total revenue; donation income of NT\$2,847,000, occupying 0.76% of the total revenue; other income of NT\$4,557,000, occupying 1.21% of the total revenue. Business costs and expenses of NT\$430,243,000, occupy 114.50% of the total revenue; other business expenses of NT\$2,368,000 occupy 0.63% of the total

revenue. Our annual shortage amount was NT\$56,867,000, this was attributed to the fact that operational funds must be depreciated and amortized. On the income side, the self-raised ratio of NSTM in 2016 was 47.72%.



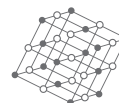
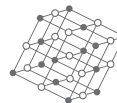


Table 12 2016 Income Statement

Unit: Thousand NT\$

Item	2016 Yearly budget Amount	2016 accounts Amount	2015 accounts Amount
<b>Business Income</b>	<b>251,578</b>	<b>333,133</b>	<b>291,556</b>
Service Income	36,750	54,923	38,790
Exhibition Halls	14,000	22,599	16,833
Special Exhibitions	12,000	18,684	4,979
Theater	7,250	8,725	12,649
Experience Facilities	3,500	4,909	4,323
Popular Science Card	0	6	6
Cooperative Education Income	10,367	37,214	31,452
Educational Promotion Income	8,015	10,700	11,232
Social Education Institution Development Grant (A)	196,446	196,446	196,446
Additional Income	0	33,850	13,636
<b>Other Business Income</b>	<b>27,279</b>	<b>42,611</b>	<b>36,958</b>
Interest Income	1,600	1,898	2,087
Exchange Gains and Losses	0	0	127
Asset-use and Royalties Income	25,087	35,207	28,437
Donation Income	0	2,847	3,004
Breach and Fine Income (including reparations)	40	532	363
Miscellaneous Income	552	2,127	2,940
<b>Total Income (B)</b>	<b>278,857</b>	<b>375,744</b>	<b>328,514</b>
<b>Business Costs and Expenses</b>	<b>371,511</b>	<b>430,243</b>	<b>382,169</b>
Service Costs	198,983	242,456	205,573
Cooperative Education Costs	10,314	32,732	27,743
Educational Promotion Costs	5,256	6,712	5,944
Management Costs and General Expenses	156,958	148,343	142,909
Other Business Expenses	0	2,368	420
Miscellaneous Expenses	0	2,368	420
<b>Total Expenses</b>	<b>371,511</b>	<b>432,611</b>	<b>382,589</b>
Yearly Surplus (Shortage-)	-92,654	-56,867	-54,075
Government Current Grants Ratio(A)/(B)	70.45%	52.28%	59.80%
Agency Current Self-Raised Ratio 1-(A)/(B)	29.55%	47.72%	40.20%
<b>Self-Raised Income</b>	<b>82,411</b>	<b>179,298</b>	<b>132,068</b>

Source: Annual Budgets, Financial Accounts



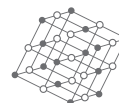
## Annual Capital

The total amount of annual capital budget in the fixed asset was NT\$104,102,000, which included NT\$74,204,000 from government support, NT\$28,640,000 from self-raised funds and NT\$1,258,000 from project grants from the Ministry of Science and Technology.

Table 13 2016 Fixed Asset Facility Improvement /  
Expansion Balance Sheet

Unit: Thousand NT\$

Projects	Available Budgets	Yearly Accounts
Fixed Asset Additions	104,586	104,102
Government Support	76,005	74,204
Self-Raised Funds	28,581	28,640
Project Grants	0	1,258
Total	104,586	104,102



## Past Revenues, Expenditures, Budgets and Final Accounts

Table 13 Past Revenues, Budgets and Final Accounts

Unit: Thousand NT\$

Item Year	Budgets					Financial Accounts				
	Total	Social Education Total Institution Development Grant	%	Self-Raised	%	Total	Social Education Total Institution Development Grant	%	Self-Raised	%
2012	330,513	221,324	66.96	109,189	33.04	335,751	221,324	65.92	114,427	34.08
2013	315,354	206,165	65.38	109,189	34.62	306,495	205,717	67.12	100,778	32.88
2014	280,823	196,446	69.95	84,377	30.05	312,904	196,446	62.78	116,458	37.22
2015	283,867	196,446	69.20	87,421	30.80	328,514	196,446	59.80	132,068	40.20
2016	278,857	196,446	70.45	82,411	29.55	375,744	196,446	52.28	179,298	47.72

Source: Annual Budgets, Financial Accounts

Table 14 Past Expenditures, Budgets and Final Accounts

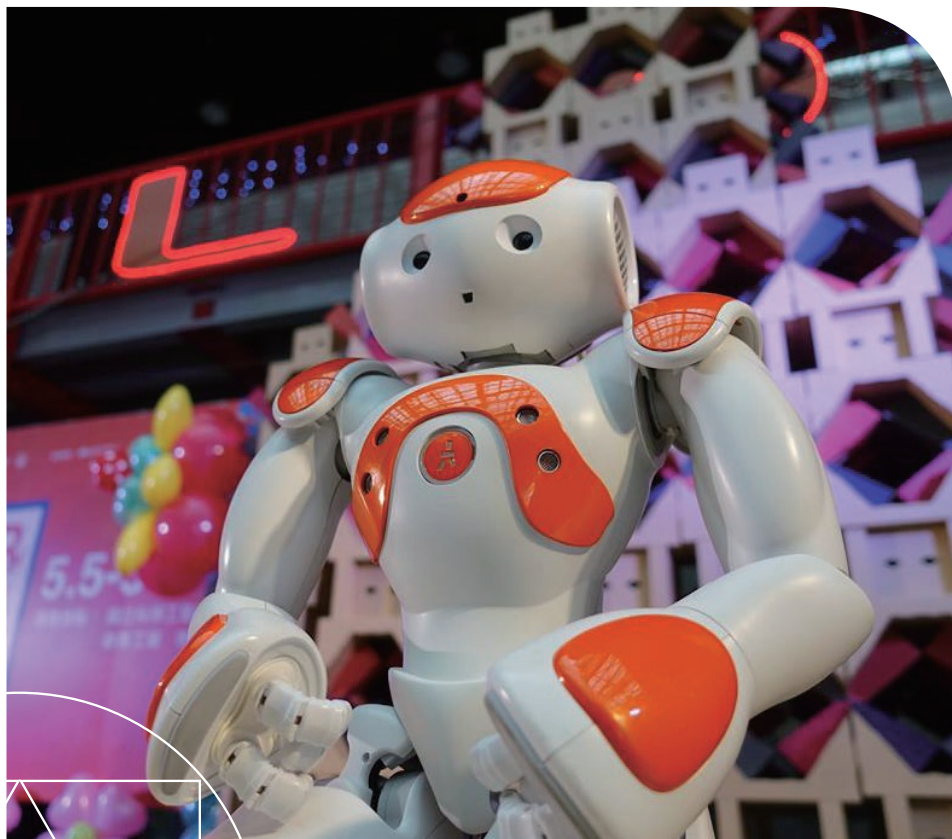
Unit: Thousand NT\$

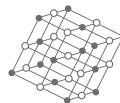
Item Year	Budgets					Financial Accounts				
	Total	Recurrent Expenditures	%	Capital Expenditures	%	Total	Recurrent Expenditures Staff Costs Recurrent Costs	%	Capital Expenditures	%
2012	470,605	451,713	95.99	18,892	4.01	437,344	124,548 294,624	95.84	18,172	4.16
2013	435,635	424,825	97.52	10,810	2.48	383,037	123,916 248,313	97.18	10,808	2.82
2014	435,237	382,168	87.81	53,069	12.19	423,384	125,236 245,857	87.65	52,291	12.35
2015	417,573	377,443	90.39	40,130	9.61	422,780	124,285 258,304	90.49	40,191	9.51
2016	476,097	371,511	78.03	104,586	21.97	536,713	126,819 305,792	80.60	104,102	19.40

Source: Annual Budgets, Financial Accounts



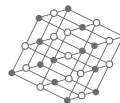
# Chronicle of Events





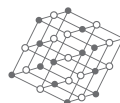
Date	Summary of the events	Unit
2015/08/16- 2016/02/14	Our museum cooperated with United Daily News Group to co-conduct the experience exhibition of water conservation teaching materials in the FE EcoArk of Taipei EXPO Park	Education Division
2015/11/31- 2016/12/31	Our museum cooperated with Kaohsiung Transportation Co., Ltd to conduct the activity, "Take the bus, Tour the Museum".	Visitor Services Division
2016/02/01- 2017/02/01	Our museum authorized YungHsin Entertaining Co., Ltd to duplicate the contents of the five exhibited items in the Pavilion of Dream Transport, which were "Go to Taitung", "Alishan Railway Tour", "Chimei Farmhouse Tour", "Fo Guang Shan Motorbike Tour", "Taroko Simulated Ride" and exhibited them in Wanda Plaza in Nantong City, Jiansu Province, China.	Exhibition Division
01/04	The establishment of the "AS-1 seismoscope" donated by the Institute of Earth Sciences donated to Our museum was completed and was opened for exhibition in the earthquake experience area of Open Sesame.	Exhibition Division
01/06- 05/31	The "Disaster Reduction Technology Exhibition" and "Love Watching Bridge" conducted by Our museum, Ministry of Science and Technology, National Science and Technology Center for Disaster Reduction, National Center for Earthquake Engineering, and the Department of Civil Engineering, National Taiwan University together were opened and exhibited at the east hall on the second floor.	Exhibition Division
01/08- 03/15	The "National Geographic Information Result Exhibition" cooperated with by Our museum and the National Development Council was opened and exhibited at the east hall on the first floor.	Exhibition Division



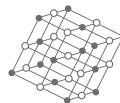


Date	Summary of the events	Unit
01/14	The National Communications Commission audited and passed the plan, "The promotion of electromagnetic waves experience and the promotion of mobile broadband life", and provided a subsidy of NT\$ 11.91 million eight thousand seven hundred and twenty eight dollars.	Exhibition Division
01/19- 03/01	"Jade Monkey welcomes new Spring happily: Color clothes exhibition" was exhibited at the art and culture exhibition area at the west long hall on the first floor.	Exhibition Division
01/23- 02/06	We conducted the "Magic Interaction AR Exhibition", "Spiral SD Slide", and Movie watching activities for the neighborhood.	Visitor Services Division
01/24- 11/05	Our museum and the Taiwan Association for Promoting Public Health conducted 6 total sessions of the 2016 "Master of health and science is at the National Science and Technology Museum" together, and the topics included dengue fever, cancer, EDC, liver disease prevention, and colon cancer.	Education Division
02/17	Our museum and Guangzhou Science Center signed the leasing agreement of moving the exhibition, "Nanometer - the Invisible Scale" to the Guangdong Science Center for exhibition.	Exhibition Division
02/18	The National Library of Public Information conducted the demonstrating presentation and press conference of the exhibition, "Great Crown of Food Packaging", and Library Director, Chun-Chaio Lu, the director of Our museum, Hsun-Hsiang Chen, and the general manager of the Y-Fang Sealing machine and Ting-Jung Yeh were the hosts.	Exhibition Division

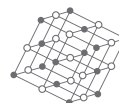




Date	Summary of the events	Unit
02/19	2016 Lighting Spread Love Activity at the National Science and Technology Museum.	Visitor Services Division
02/21	We conducted the first session of Parent-Child Day at the National Science and Technology Museum this year.	Personnel Office
02/26	The officials of the Ministry of Education came to visit on site for the evaluation of 2016.	Personnel Office
03/01	The Biotechnology Exhibition was closed and was dismantled and cleaned, and "Health Exploration" will be established at the original space. The original Biotechnology Exhibition will be fully updated to B3 of the round hall and "The story of Taiwan Agriculture" was established.	Exhibition Division
03/04- 03/27	Our museum and the National Museum of Taiwan Literature cooperated with the Kaohsiung Tour exhibition, "Convert the writing and reading of text to the enunciation and listening of language-Mobile Museum of Taiwan Literature", and it was exhibited at the space field next to the armillary.	Exhibition Division
03/05	Our museum, Association of Occupational Injuries, and RCA Employee Caring Association host "Meeting of sharing RCA occupational injuries" at the Recover and Reconstruction after Morakot together.	Exhibition Division
03/05	Our museum and ESUN ROBOT ASSOCIATION host the 2016 FLL (FIRST LEGO League) and FTC (FIRST Tech Challenge) for the Taiwan Robot Tryouts	Education Division
03/14	2016 Volunteer Recognition Ceremony	Visitor Services Division

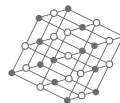


Date	Summary of the events	Unit
03/15	Director of Department of Lifelong Education of the Ministry of Education, Yueh-Li Huang, the director of Our museum, Hsun-Hsiang Chen, and Director of Road Traffic Safety Committee of Ministry of Transportation and Communication Yun-Chu Liu attended the training and workshop of the "Pilot project of promoting elders to make their own groups for lifelong learning activities" at the south area, certification awarding ceremonies, the seminar and exchanging meeting of operating self-learning groups.	Education Division
03/16	Our museum and the Chongqing Science and Technology Museum, plus Seagull-Cargo Logistics signed a cooperation agreement for moving the invention exhibition.	Exhibition Division
03/22	Our museum and Kymco cooperated to update the motorcycle demonstration unit at the "Power and Machine" display, setting up the charge fee facility "Take a ride on a Chopper" .	Exhibition Division
03/27- 04/10	The Taiwan Chinese Calligraphy Society conducted the "Cross-strait Calligraphy and Paintings Exhibition in Fujian-Taiwan Kinship" at the first and second exhibition hall of Our museum.	Exhibition Division
04/01	Our museum, the Water Resources Agency, MOEA, the Water Resource Bureau, Kaohsiung City Government, and other authorities conducted the opening activities of water conservation month, "You love water, I conserve water, let's celebrate Children's Day" .	Education Division Visitor Services Division
04/16	Our museum won the first in authority group of the "Smart Power Conservation Project Competition" from Kaohsiung City Government and was presented with the award in the K-Arena.	Secretariat

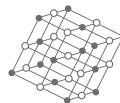


Date	Summary of the events	Unit
04/22	Premier of the Republic of China, San-cheng Chang, went to our museum to visit the "Recover and Reconstruction after Morakot", "Romantic Seven Star Bridge", and "Disaster Reduction Technology Exhibition" .	Exhibition Division
04/22-05/05	"2016 Tainan Earth Day Use our hands to protect the earth and make the city greener 2.0 - Sustain environmental protection and energy technology innovation exhibition" cooperated in by Our museum and Tainan City Government opened.	Education Division
04/30	The update of the exhibition, "Food Supply" in Welcome to Fantasy, was completed and opened to the public for a visit and experience.	Exhibition Division
04/30-05/08	Our museum and Education Bureau, Kaohsiung City Government cooperated to conduct " the 56th Kaohsiung City National Science Fair for Elementary & Secondary schools" and was exhibited at the fourth and fifth exhibition hall.	Exhibition Division
2016/05/01-2017/03/31	The exhibition, "Soil and Water Conservation for Disaster Prevention", cooperated in by Our museum and the Soil and Water Conservation Bureau, Council of Agriculture, Executive Yuan was exhibited in the water conservation for disaster prevention education area in the Recover and Reconstruction after Morakot display.	Exhibition Division
05/03-09/04	"Lots of efforts are required to make a sword - Shenguanglong Jianpu exquisite blades and swords exhibition" was exhibited at the coffee gallery on the second floor.	Exhibition Division
05/05-05/08	The contents of the 2016 Maker x EDU Week 【 Fun Makers·Love Earth: From Co-creation to Co-existence 】 included "You're your paper creativity" - the large creations of Dutch paper artist, Noa Haim.	Exhibition Division

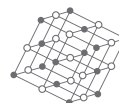




Date	Summary of the events	Unit
05/06	Our museum and Industrial Technology Research Institute signed a cooperation agreement to establish the innovation permanent hall .	Exhibition Division
05/10- 05/29	The painted pottery art of the resident artist of Da-Yeh University, Guang-Nan Huang, was exhibited at the culture and art exhibition area on the west side on the first floor of Our museum.	Exhibition Division
05/11	Released the "Eating Around NSTM" and its APP.	Visitor Services Division
05/14- 11/20	Moved "Nanometer-the Invisible Scale" to the Guangdong Science Center.	Exhibition Division
05/17	The Office of Disaster Management, the Executive Yuan, decided to include Our museum into the conducting authorities at the consulting meeting on National Disaster Prevention Day, making Our museum the only museum included as the conducting authority.	Exhibition Division
05/24	Updated part of the exhibited items in Open Sesame and added the units, "artificial blood" and "the generation of electricity".	Exhibition Division
06/01	The "Stereogram generating method" developed by Our museum obtained No. I536317 patent certification awarded by the Taiwan Intellectual Property Office.	Collections and Research Division
06/04- 08/28	"Gudetama@Taiwan" by United Daily News Group was exhibited in the fourth and fifth exhibition halls.	Exhibition Division

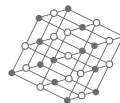


Date	Summary of the events	Unit
06/06	Our museum was awarded the excellence award of the fourth National Environmental Education Award.	Education Division
06/09	Milankovitch plays around the earth, the earth is heating up! The fantastic journey of thermohaline circulation, the comparison of the albedo of ice, crisis is coming-let's save food, and other units were added to the Climate Change Exhibition.	Exhibition Division
06/15	National Pingtung University held the grand opening, contract signing, and results presentation of innovation and self-creation education promotion base, and the director of Our museum, Hsun-Hsiang Chen, attended and completed the signing of the strategy alliance agreement of both sides.	Collections and Research Division
06/15-08/14	Paper torn painting artist, teacher Chin-Liu Lu, exhibited "tear and make the painting-Chin-Liu Lu paper torn paper painting exhibition" at the culture and art exhibition area at the west side of the first floor of Our museum.	Exhibition Division
06/15-08/28	"Upside-Down House Exhibition" by Kuang Hong Arts was exhibited at the first and second exhibition hall.	Exhibition Division
06/18	Our museum and Kaohsiung City China Youth Career Development Association made MOU, and The director of Our museum, Hsun-Hsiang Chen and the Director of Kaohsiung City China Youth Career Development Association, Mei-Ling Yang held the signing ceremony at the south complex.	Collections and Research Division
06/19-06/28	The Nanjing Education Academy commissioned Our museum to conduct the training group for elementary school teachers, and the number of participants was 24, which was the first time Our museum hosted a cross-strait teacher training project.	Education Division

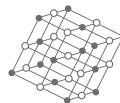


Date	Summary of the events	Unit
06/21-11/27	"Nanometer-the Invisible Scale" was moved to Fengtian Temple in Songshan.	Exhibition Division
06/26-08/05	Our museum passed ISO 27001:2013 accreditation on June 26th and conducted the certification awarding and grand opening ceremony on August 5th to officially obtain the certification.	Information Technology Team
07/02	"All About Inventions" was moved to the Chongqing Science and Technology Museum and was officially started. The director of Our museum, Hsun-Hsiang Chen attended the opening ceremony.	Exhibition Division
07/05-09/30	Our museum and Soil and Water Conservation Bureau, Council of Agriculture, Executive Yuan cooperated to conduct "The conversation between Youth and Farm" and was exhibited at the Water and Land conservation and disaster prevention education area of the Recover and Reconstruction after Morakot display.	Exhibition Division
07/09-08/10	Xinxin Culture Broadcasting Company leased the second and third exhibition hall of Our museum exhibit "The Exhibition of Chinese Cultural Relics and Masterworks".	Exhibition Division
07/12	Taiwan Businessmen's Dongguan Education Foundation and Dongguan Science & Technology Museum went to Our museum to conduct the science demonstration activities of 2016 Cross-strait technology and innovation communication camp.	Education Division
07/15	"Cross-field value added green energy happy land-Agricultural new technology experience hall and plant workshop" and "Cross-field value added happy Taiwan industry-The story of Taiwan agriculture exhibition" was officially opened to the public.	Exhibition Division

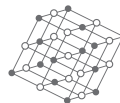




Date	Summary of the events	Unit
07/22- 07/23	Conducted the "Pilot project of promoting elders to make own groups for lifelong learning activity" and it was host by Senior Executive Officer of Ministry of Education, Hsiu-An Yang and professor Fu-Shun Huang.	Education Division
07/26- 07/31	Conducted movie watching activity for neighboring residents of 2016.	Visitor Services Division
07/30	Our museum, the Water Resources Agency, MOEA and the Tainan Hydraulics Laboratory, National Cheng Kung University cooperated on the "Water conservation and disaster prevention promotion area" and was open to the public.	Exhibition Division
08/08- 12/25	Our museum, Shanxi Provincial Museum of Folklore, Datong Museum, and Jincheng Museum cooperated to hold "Lock Together Share Forever – Shanxi and Taiwan Cooperative Exhibition & Seminar".	Exhibition Division
08/09- 08/19	Conducted 2016 Goodwill Angel Selection Event.	Personnel Office
08/15	Our museum and universities cooperated on "The digital humanity and cultural plans of subsidizing universities to use social education institute as the base", and the Ministry of Education approved and assigned the Southern Taiwan University of Science and Technology, China University of Science and Technology, and Chang Jung Christian University to cooperate on the plan and the total fee was NT\$ 9.8 million.	Exhibition Division
08/20	We conducted the series of activities of the fifth Golden Warrior mixer.	Exhibition Division

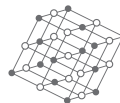


Date	Summary of the events	Unit
08/21	Conducted the third Parent-Child Day at National Science and Technology Museum of 2016.	Personnel Office
08/27- 08/28	Our museum and Family Education Center. Department of Education, Kaohsiung City Government cooperated to conduct Grandparents Day activities.	Education Division
08/31	12 people of the Guangzhou Popular Science Alliance were led by the deputy director of Guangdong Technology Library, Hsiang-Li Huang, to conduct inspection and communication on scientific activities in Our museum.	Education Division
09/05	In order to establish "the innovation exhibition and education area in Industrial Technology Research Institute", the "Utilization of Water Resources Exhibition" and the experience of the environment with wind and rain in Our museum was closed and completed the procedure of scrapping.	Exhibition Division
2016/09/06/- 2017/01/01	The 2016 Melee weapon series "Taiwan Machete Legend-The creation and collection of Taiwan Aborigines" exhibition.	Exhibition Division
09/08	The exhibition of the winners of the second Tang Prize.	Exhibition Division
09/15- 12/18	"Terracotta-The Rise and Legacy of Qin Culture" conducted by Our museum and Media Sphere Communications Ltd. together was exhibited in the fourth and fifth exhibition hall.	Exhibition Division
09/19	Our museum participated in the 2015 Ministry of Finance selection of the performance for activating and using the state-owned property and won fifth place in the funded group.	Secretariat

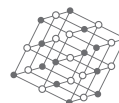


Date	Summary of the events	Unit
09/20	Our museum produced the demonstrated item of "vortex brake sling" and it was opened for exhibition at the exhibition hall at the west side of Power and Machine.	Exhibition Division
09/20-12/31	Our museum, Office of Disaster Management, the Executive Yuan, and Modern Healthcare Corp. cooperated on the exhibition of air quality and personal prevention, "Haze All Over the Place", and it was opened on September 20th , and conducted "Haze All Over the Place Exhibition and National Disaster Prevention Activity".	Exhibition Division
09/30	Our museum and Chunghwa Telecom Co., conducted the dream realizing plan "Send love to the remote country·Tour of caring for disadvantaged children to realize dreams".	Visitor Services Division
09/30-10/10	Our museum and Navy Command R.O.C cooperated to conduct "The 50th Armed Forces Golden Statues Awards" and the awards was exhibited in the art and culture are on the first floor.	Exhibition Division
10/01-10/02	Our museum and the MOE Energy Education Office hosted "The 2016 Energy Science & Technology Creative Design Contest" and the finals and the awards ceremonies were held at the first, the second, and the third temporary exhibition hall.	Education Division
10/06-10/07	Our museum, Tainan National University of the Arts, the Graduate Institute of Conservation of Cultural Relics and Museology , National Cheng Kung University Museum, Department of Theater Arts, National Sun Yat-san University, Department of Communication Arts and Graduate Institute of Creative Arts Industries, Wenzao Ursuline University of Languages, and Chinese Association of Museums cooperated to conduct "2016 The International Conference of museum marketing".	Collections and Research Division

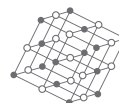




Date	Summary of the events	Unit
10/07-11/06	"The second honorary exhibition of the Tang Prize" Kaohsiung Tour Exhibition by the Tang Prize Foundation was exhibited at the long hall on the fourth floor.	Exhibition Division
10/13-11/18	Our museum invited Mr. Ping-Tsuen Si to exhibit his collection "The solar terms of the love on mountains and oceans" at the art and culture exhibition area on the first floor of Our museum.	Exhibition Division
10/14	The Executive Yuan approved that Our museum won the excellence prize of the 2015 government internal control evaluation operation. The awarding was held in the VIP room on the first floor of the Executive Yuan on December 20th , and the director of our museum was the representative to receive the award.	Secretariat
10/18	The self-made exhibited item "My Phone Do Re Mi" was opened at Telecom@Taiwan for visit and experience.	Exhibition Division
10/28-10/29	Our museum and the Education Bureau, Kaohsiung City Government hosted the "2016 Kaohsiung 35th Primary and Junior High Schools Science Lawn Party" together, the director of Our museum, Hsun-Hsiang Chen and the director of Education Bureau, Hsun-Lu Fan raised the curtain together at the opening ceremony.	Education Division
10/31	The self-made exhibited item "Track Projection Car" was opened at Textil & Clothing for visit and experience.	Education Division
11/06	"NGC NETWORK ASIA, LLC TAIWAN BRANCH 《Mars》 Kaohsiung Tour Exhibition" was exhibited at the site on the west side of the armillary outdoors.	Exhibition Division
11/13	Our museum completed the establishment of the permanent exhibition hall for Cross-field value added happy Taiwan industry - "Adventures in Health Land" and cooperated with the museum anniversary to conduct the opening ceremony activities.	Exhibition Division

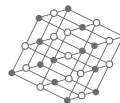


Date	Summary of the events	Unit
11/15-11/19	The Pearl S. Buck Foundation, Taipei, Taiwan exhibited "2016 creation contest for children of new immigrants - 『Look for sensation』 Works exhibition in Kaohsiung" at the gallery hall on B1 of our museum.	Exhibition Division
11/18	4 visit committees for 2016 file management operation performance and the officials of Ministry of Education came to our museum to visit the file management performance on site.	Secretariat
11/20-12/04	"Happy Dancer on the Water – The Life of Black-faced Spoonbill: Jeng-yi Wang and Shun-hsyung Chang Photography Exhibition" was exhibited at the art and culture exhibition area on the first floor.	Exhibition Division
12/02	The eight committees and Director of Department of Lifelong Education, Yueh-Li Huang, of Ministry of Education for Government Service Quality Award visited our museum on site, led by the school inspector Wen-Lu Wang.	Visitor Services Division
12/02-12/10	The Industrial Technology Research Institute exhibited "the result exhibition of Hakka industry plan for the whole areas" at the round square on B1 of Our museum.	Exhibition Division
12/06-12/18	The King Hong Children Culture and Education Foundation invited Our museum to exhibit "【King Hong Award】 the exhibition for twentieth anniversary of National Calligraphy Contest" together at the art and culture areas on the first floor and B1 of our museum, and the first prize winning works were exhibited.	Education Division
2016/12/06-2017/02/05	Our museum, Unison Surgicals Company, E-Da Hospital, and others cooperated to conduct "Meet Leonardo da Vinci" to exhibit the current application of Leonardo da Vinci Surgical System on medical end.	Education Division



Date	Summary of the events	Unit
2016/12/09- 2017/05/31	Our museum planned "Science and Technology for Disaster Reduction" by ourselves and exhibited it at the long hall on the sixth floor.	Exhibition Division
12/10- 12/18	"The Ministry of Science and Technology result presentation of the 2016 MOE Energy Education Program at Kaohsiung" by the Ministry of Science and Technology was exhibited at the lobby on the first floor.	Exhibition Division
2016/12/10- 2017/01/02	Our museum conducted the result presentation of the 2016 MOE Energy Education Program, "The best energy innovation - Energy Technology Innovation Exhibition", and the exhibition was a tour at south and north, which was respectively exhibited at the lobby on the first floor of Museum and National Taiwan Science Education Center.	Exhibition Division
12/13	Wao! Somatosensory Adventure 2.0 started.	Exhibition Division
12/14	Based on the results of National Communications Commission software inspection and artificial inspection, the website of Our museum obtained the Web Priority AA Accessibility Approval.	Information Technology Team
12/16	Our museum was rated the number 2 in 2016 Indoor Air Quality Evaluation of Kaohsiung City Government Environmental Protection Agency and we was awarded in Gravity International Hall in Kaohsiung Software Park Information Service on January 5th, 2017.	Secretariat
12/17- 12/18	There were a total of 120 teams in the junior high school group and 150 teams in the senior high school and vocational high school group signing up and participating in the sixth "Hand Launch Glider Flying Competition".	Exhibition Division

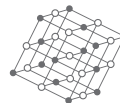




Date	Summary of the events	Unit
2016/12/17- 2017/02/28	"The Happiness Hunt Where's Willy?" art exhibition by Kuang Hong Arts was exhibited at the second and the third exhibition halls.	Exhibition Division
12/20	"Nanometer-the Invisible Scale" was moved to the National Museum of Natural Science.	Exhibition Division
2016/12/21- 2017/01/07	"Deng-Yuan Li Cosmic Spirituality-World Peace Art Exhibition" was exhibited at the art and culture exhibition are on the first floor.	Exhibition Division
2016/12/22- 2017/01/08	Our museum, Ministry of Education, Kaohsiung City Government, and the CTBC Anti-drug Educational Foundation hosted "Get to know drugs-What you don't know about drugs" and it was exhibited at the round square on B1.	Exhibition Division

# List of NSTM Personnel





## STAFF (In Alphabetical Order)

### Director-general

CHEN, SHIUNN-SHYANG

### Deputy Director-general

TSAI, HSIEH-TSU

### Secretary

SU, YI-HSIANG

### Collections and Research Division

Director: LIN, JONG-I

CHEN, SHU-CHING / CHENG, TING-FANG

HUANG, CHENG-CHONG / HUANG, JUN-FU

HUNG, HSUEH-CHIN / HSIAO, KUO-HUNG

LIN, LI-CHUN / LIU, CHING-HO / TSAI, CHIA-JUNG

TSENG, CHI-SHU / WANG, YAO-HUI

WANG, YUN-YING / WU, CHING-TAI

### Exhibition Division

Director: WU, PEI-HSIU

CHANG, I-CHE / CHEN, MEI-TSEN

CHUANG, CHUN-LIN / CHUANG, SHENG-TENG

HONG, WAN-JHEN / HUANG, CHI-HONG

HUNG, HUANG-KAI / JHENG, ZONE-JHE

KAO, SHIH-WEN / LI, HSING-LIN / LI, JU-CHING

LIN, CHAO-HUNG / LIN, CHEN-YIN

LIN, JIAN-LIANG / LIN, SHU-CYU / LIN, SHIS-TANG

LIN, WEN-HSIEN / LU, THAO-RONG

SU, FANG-YI / SUN, YI-JEN / TSENG, HUI-CHANG

WANG, TSUNG-CHI / WU, SU-HUA

WU, YU-CHUN / WU, YUN-JU / YAN, LI-WEN

YANG, CHIN-HAO

### Technology Education Division

Temporary Division

Director: LIN, JONG-I (during 2016/1/1-2/29)

Director: CHANG CHIEN, CHIN-TING (Assumed office on 2016/3/1)

CHANG, JIA-HWAI / CHANG, MEI-CHEN

CHEN, CHENG-CHIH / CHEN, CHING-YING

CHEN, YI-CHEN / CHEN, YU-HSIN

CHENG, CHIEN-CHI / CHENG, JUI-CHOU

CHUANG, TING-YU / HO, SHU-MIN

HONG, JHIH-MING / HSIAO, DER-REN

JIANG, SHU-FANG / KUO, HONG-BIN

LIN, CHIH-CHENG / LIN, PEI-YING / LIN, SUNNY-S

LIOU, JR-YUNG / LIU, JIA-RU / MAI, HSIU-WAN

TSENG, JUI-LIEN / TSUI, YA-TING

WANG, YU-HUNG / YEH, CHIN-YU

### Visitor Services Division

Director: WANG, LIANG-CHUAN

CHANG, SIN-YI / CHEN, HSIANG-CHUNG

CHEN, I-WEN / CHENG, CHUN-HSIANG

CHENG, HSIEN-JEN / CHIU, PING

CHU, PEI-YING / CHUANG, FU-SHAN

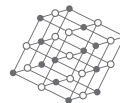
CHUNG, YING-SHIUE / HSIEH, YA-WEN

HUANG, HUI-TING / HUANG, PEI-YU

HUANG, SHIH-TING / LAI, JUO-NAN

LEE, CHIA-FEN / LEE, KUAN-CHING





## STAFF (In Alphabetical Order)

LIN, HUI-CHUAN / LIN, SZU-YUAN

LIU, FUN-RU / LIU, JIN-YI / LO, SZU-YI

LU, MENG-YIN / PU, CHING-CHING

TSAI, PEI-YING / TSAI, YUNG-LIN / TSENG, I-HSUN

TSAI, FAN-YI / TU, MEI-FANG / WU, YI-NA

CHEN, JUO-HAN

### Secretariat

Director: CHEN, CHI-HSIA

CHEN, LIN-YUAN / CHEN, TAI-WEI

CHOU, WAN-RONG / GER, TZU-HSIANG

HORNG, JING-YI / HSIAO, SHIH-MING

HUANG, PO-SHIN / JU, YUAN-CHING

KUO, CHUNG-HAO / LEE, CHIEN-HSING

LEE, HOUNG-JYH / LEE, SHUN-HSIUNG

LI, CHANE-WEN / LI, JHENG-DA / LIAO, MIN-LING

LIN, CHIH-YU / LIU, CHIN-HUNG / MO, HSIUNG-WEI

OU, HUI-LING / SU, PEI-JHEN / SU, YU-JEN

SUN, MING-SHENG / TSAI, CHENG-TE

TSAI, MENG-CHE / WANG, CHU-LIN

WU, CHING-YUN / WU, TING-FANG / YANG, LI-WEI

YANG, MEI-HUI / YEH, CHIA-HSING

YOU, SHUN-PING / ZOU, JIA-PING

### Personnel office

Chief: CHUAN, WEN-CHING

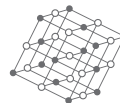
HUANG, HSIN-YI / TAI, MENG-CHUN

### Accounting and Statistics Office

Chief: TSAI, YA-WEN

HUANG, SHU JUNG / LIU, SHU-YI / KANG, YA-WEN

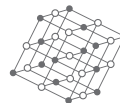
YANG, TE-WEI



## VOLUNTEERS (In Alphabetical Order)

0860397	TSENG CHIUNG-HUI	0860549	ZHENG SHOU-YAN	0860714	YANG KUEI-TAO	0861006	CHEN KAO-LI-CHU
0860456	KUO SHU-TUAN	0860550	YANG LEE-JU	0860715	YANG HSUEN-O	0861014	LEE HSIU-CHIN
0860474	CHUANGT MEN-CHU	0860551	TSENG WEN-CHEN-YING	0860716	CHENG SU-FEN	0861018	LIANG YU-YING
0860487	CHEN JIA-SHIANG	0860554	CHEN TSUNG-TAR	0860718	CHEN,SHU-YAN	0861039	LEE CHUN-JUNG
0860502	TSAI NENG-SHENG	0860557	SHEN MEI-LING	0860743	LIN CHAO-YIN	0861044	WANG,JIAN-HUA
0860511	CHIU YU-MEI	0860559	ZHENG,XIU-ZHEN	0860753	CHEN NING	0861046	SUN LU-HUA
0860512	LEES-M	0860561	TSAI LI-SHU	0860760	HUNG MEI-YING	0861059	LIU,LING-YU
0860513	SHUN SHU-SHAN	0860574	HE,YI-TING	0860770	LO YUEH-HSIU	0861082	HUNG,HSIU-CHUAN
0860530	CHEN YANG-YU	0860575	HSU CHI-FU	0860781	CHANG KUO-WEI	0861096	SHIAI SHAO-ERE
0860539	CHUANG YU-CHUNG	0860578	HUNG SU-CHEN	0860809	TSENG PAO-HUI	0861101	LIN,CUI-DUAN
0860541	CHAO LI-FENG	0860580	FU,YU-CHUAN	0860825	LIAO,ZHEN-XING	0861103	CHEN SUE-HUA
0860545	HUANG SHU-HUI	0860585	HUANG KUEI-FENG	0860841	KONG FUN-CHUAN	0861154	LEE SHU-CHING
0860546	CHIANG CHIN-CHU	0860586	TSENG SHU-LING	0860845	KU BAIR-HWA	0861158	HONG KO-MENG-LI
		0860587	LIN LIANG-HSIU-YUAN	0860852	SHAO YU-TANG	0861165	HONG KANG-NAN
		0860594	TZING-KUN LIN	0860865	LAI RONG-JER	0861172	WANG CHIN-CHENG
		0860599	CHUANG MEI-CHING	0860876	CHUNG WU-LING	0861173	PENG LAI-YU-HUA
		0860609	CHANG,YAN-LING	0860883	HUANG HUI-LIEN	0861174	HSIEH A-MEI
		0860616	SHIH BO-SONG	0860929	LEE TZU-CHI	0861177	HUNG HSIN-HUA
		0860670	CHEN CHENG-HSIN	0860945	CHENG CHIN-KUEI	0861179	YEN YIN-IZU
		0860673	CHANG SHU-MEI	0860979	SHAN,SHOU-JU	0861188	LOR CHUN-LIN
		0860705	WANG,CHUN-LIAN	0860995	YANG TSAI	0861194	TSUI AI-YEN
		0860707	LAI,HENG-HUA	0861001	KU KUEI-LI	0861195	LI,JIN-LIN
		0860712	LIANG CHIN-O	0861004	HUANG CHIUNG-FANG	0861207	SHIH HUI-CHING

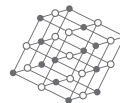




## VOLUNTEERS (In Alphabetical Order)

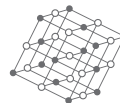
0861233	HUANG KWEN-FENG	0861589	CHAN PEI-YING	0861718	LIU,YUE-JIAO	0870084	CHEN,LI-YU
0861242	CHEN I-LUN	0861590	LEE LI-HSIANG	0861732	HUANG SHU-JU	0870085	HUANG LIN-LIANG-HUI
0861256	CHEN PAO-CHU	0861619	LIN PSAI-FA	0861759	CHEN MAY-LIE	0870088	CHEN LI-HUA
0861278	TU PI-LIEN	0861629	CHANG MAI-LING	0861760	WENG,RUI-MEI	0870091	LIN WU-MEI-LAN
0861283	YANG GAO-GUI	0861630	HU CHIN-CHAI	0861762	HSU FENG-HSIANG	0870103	TAI SHU-HSIEN
0861287	TSAO YU-HSIU	0861640	WANG HUI-CHING	0861763	LI HSIAO-LIN	0870110	CHEN,JIN-RUI
0861296	WU YUEH-CHEN	0861645	TSOU HSING-YING	0861765	HUANG SHIH	0870111	LEE YA-LINE
0861314	WANG,SHU-CHING	0861649	YANG HSIU-YN	0861781	CHOU CHEN-MEI-WEN	0870117	CHEN CHUNG-SHENG
0861320	LI TERANG-CHUAN	0861652	HUANG MEI-LAN	0870001	LIN,HUI-ZHEN	0870127	SU TENG-KUEI-YING
0861327	CHEN LIANG-PAI	0861653	LIN SHAN	0870010	LIN,XIU-BEI	0870130	WU HSIN-HUI
0861335	SHIH CHUAN-CHUAN	0861658	HSIEH TSAI LEE-FENG	0870012	SHIH PAO-HSIU	0870131	WU TUAN-MEI
0861339	LEE FANG-YING	0861672	CHENG CHIN-CHAI	0870016	YE,YUE-YING	0870138	SU CHIN-TSUNG
0861358	LIANG CHIN-WEI	0861673	LIU,CHUN-TSENG	0870027	LI SING-HONG	0870141	HO YUAN-PIN
0861370	CHOU FANG-HUA	0861674	HSIEH SHIANG-ER	0870033	HUANG CHIU-HSUEA	0870144	YANG SHU-FEN
0861400	LIN,HSIU-HUA	0861675	LIN HUI-MEI	0870039	KUO WEN-CHEN	0870149	SHIEH CHI-HUI
0861410	LIU,XIU-YING	0861676	CHUANG PAO-AI	0870058	LIN SHU-WAN	0870150	YU,SHUN-YI
0861416	WU WEN-CHING	0861677	LI,SU-CHEN	0870059	ZENG,SHU-SHEN	0870152	SHIU LI-CHUAN
0861419	CHOU HUI-LIEN	0861678	LEE SHIH-FANG	0870061	YU CHEN PI-LIEN	0870190	TAI CHIN-CHIH
0861421	WU CHING-HUNG	0861690	CHOU HUA-KUEI	0870070	HUANG TSAI-FZNG	0870199	CHEN LI-CHU
0861500	HUANG SU-SHIA	0861694	CHUNG HUI-LAN	0870071	TSAI,YU-CHEN	0870202	CHANG HSIU-CHIN
0861540	CHIH CHEN-KNEI-YING	0861695	CHEN SU-CHIN	0870075	LIN EN-HSIUNG	0870208	LIN KUEI-CHEN
0861553	SU SU-HUI	0861703	CHEN YOUNG-CHING-MEI	0870077	LIN CHUEN-MEEI	0870226	CHEN MEI-HUEI
0861560	LIN HSIU-FANG	0861717	GU,LI-CHIN	0870078	CHEN,LI-HUA	0870229	YANG SHU-HUA





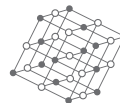
## VOLUNTEERS (In Alphabetical Order)

0870230	WANG JEN-HSIU	0870372	ZHANG,MEI-YUN	0880029	WU CHIN-TUAN	0880195	HUANG HUNG HSIU-CHIN
0870231	CHUANG CHIA-NU	0870402	YU JUI-CHIA	0880034	WU CHIN-JUI	0880197	WU,YE
0870242	LEE LING-FEN	0870403	WEI YANG-HSIU-HUA	0880037	CHAO PI-LIEN	0880236	WANG FENG-YI
0870243	TSAI TENG-YEH	0870411	LIN SU-LING	0880040	WU SU-SHIH	0880241	LAN MEI-CHU
0870244	CHEN MEI-CHU	0870413	QIAN,LI-ZHEN	0880041	TIAN CHEN,MEI-ZHU	0890006	CHEN HSIEN HUI-LI
0870246	LIN HUI-YANG	0870415	LI,YUAN-XIAN	0880045	LIU KE-SHIU	0890008	CHU LI-YU
0870248	LEE SHU-CHEN	0870428	LIANG,ZHU-YAN	0880046	WU,SHU-YUE	0890009	YU CHEN-YUEH-HSIA
0870263	WANG YA-LI	0870429	CHENG YEN-PIN	0880050	SU LEE-CHIN	0890010	WANG CHIN-HUAN
0870281	CHU,JUI-FANG	0870431	LIN KUEI-MEI	0880054	LU,LI-RONG	0890013	LI HUI-CHEN
0870290	WANG JUI-HAN	0870446	HONG,QING-XIN	0880055	TAI CHING-MEI	0890018	LIANG,LI-ZHU
0870294	KAO FEN	0870451	WEN,XIN-LAN	0880058	CAI,ZHEN-FEN	0890019	LIN,GUI-FEN
0870300	CHANG SU-YING	0870453	CHAO LI-KUEI	0880064	TAI CHIEN-HUI	0890021	LIN,YU-CHIUNG
0870306	ZHENG,LI-XIANG	0870459	CHEN YANG-SHOW-CHING	0880078	LIN CHEN-MING-SHOW	0890022	YANG LI-CHU
0870315	LEE HSIU-HUA	0870465	HU XU, XIU-QIN	0880082	LEE HSIU-HSIANG	0890023	CHEN CHUN-TAO
0870316	SHIH LI-HUA	0870467	WEI CHANG CHIU-JUNG	0880086	LIN SHU-CHEN	0890047	CHEN JIAN-LONG
0870318	WU PEI-HSUAN	0870483	GUO,MING-ZHEN	0880087	PAO CHIUNG-YING	0890062	LIU CHIN-YEH
0870322	CHUANG PI-YUN	0880002	ZHANG,MEI-FENG	0880093	HUANG,YU-LI	0890065	WU HSIU-LIN
0870330	ZENG,YAN-HUA	0880004	SU HUI-MIN	0880097	SUN YU-CHU	0890073	HUANG HAI-PING
0870332	HSU WANG-LI-YU	0880007	YU JUNG-SHIN	0880123	HUN SHU-YING	0890074	CHANG HUI-HSIEN
0870333	WANG LEE-BAO	0880010	LIOU SHOU-YING	0880138	CHEN CHAI-CHIN	0890075	HUANG SHIH-LIAN
0870338	KUO MEI-JU	0880013	YANG LING-FEI	0880161	CHEN NENG-YU	0890080	TSAI JUAN-LI-CHUAN
0870348	LIN,QIN-JUAN	0880017	CHUANG CHUN-HUA	0880179	ZHENG WU,YING-LUAN	0890083	LUO,YU-MEI
0870362	WEN CHIU-CHU	0880019	LIU MING-CHU	0880185	WANG,PIH-SIA	0890084	TSENG SHU-HUI



## VOLUNTEERS (In Alphabetical Order)

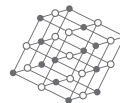
0890086	LU,XIU-ZHU	0890203	CHANG MANG-LING	0900109	WANG,JUN-KAI	0910054	YANG MEI-LI
0890097	YANG HSUEH-CHIH	0900004	XU,TIAN-DE	0900125	HUANG FENG-CHIEN	0910085	LEE CHIN-YUAN
0890109	KUO HSUEH-LU	0900006	LIM SHU-LI	0900126	CHENG I-CHEN	0910088	KUO CHIU-TAO
0890111	LIU CHEN-CHEAN	0900008	FENG SHU-JUNG	0900127	CHEN CHI-YUAN	0910090	CHEN CHIN-CHUEH
0890119	TSENG YEN-HSIN	0900009	CHEN MEI-HUI	0900130	LEE CHI-HOU	0910091	SU YUNG-PING
0890129	CHANG,YUN-HUA	0900010	LEE,YU-YAN	0900133	YEH HSIEN-WEN	0910094	LIN ENG-MIN
0890132	CHEN,HUI-CHEN	0900014	ZHAO SHU-ZHEN	0900134	CHANG CHIN-YON	0910096	WENG,MEI-CHU
0890133	CHENG,HUI-LING	0900024	LIU YU-HUA	0900139	LIN HUANU-SHU-HSIA	0910098	HUANG CHIEN-CHENG
0890140	CAI JIA-JUAN	0900027	LIEN CHING-YUN	0900141	HSIEH MEI-CHEN	0910099	CHANG CHIN-CHENG
0890145	CHAO JUI-CHU	0900034	CAI,QIU-YING	0900144	LIN,SHI-LANG	0910100	HUANG LIEN-HSIANG
0890147	TING MEI-HUI	0900048	HSIEH PAO-HUA	0900146	HSU SU-CHEN	0910104	TENG CHIN-HSIANG
0890150	HSU,HSIANG-MEI	0900049	LIN MIN-YI	0900151	CHEN KU-LAN	0910110	LAI KE-NAN
0890151	WANG,CHIUNG-YUN	0900050	CHEN AI-LING	0900152	KUO YU-LING	0930002	CHEN YUEH-HSIA
0890153	HO,SHU-LIU	0900052	CHIANG TAI-CHEN	0900158	TU YUAN,LI-DE	0930003	CHOU SHIU-CHU
0890155	DU SHU-FANG	0900053	PENG,CHIH-CHIANG	0910018	XU,YA-TING	0930005	CHANG SU-CHIAO
0890158	CHEN TSAN-CHI	0900055	HSU SHU-YING	0910039	HOU WEN-FU	0930007	HUANG MING-HUA
0890163	LIU MAM-NING	0900074	HUANG HOU-HSUEH-YUEH	0910040	CHOU YU-CHIAO	0930009	HSU LI-HSIA
0890189	KUO FANG-MING	0900085	WANG YU-CHUNG	0910043	HUANG CHING-MEI	0930010	FAN CHENG-YI
0890195	CHEN CHIN-MEI	0900086	ZHAO,ZI-WEI	0910044	TSUI YU-YU	0930011	CHEN HUI-HUA
0890197	WU,JIAN-LANG	0900089	CHEN YUEN-HSIA	0910047	HUANG MEI-YING	0930012	HWANG GWO-SHENQ
0890198	LEE LING-FIENG	0900090	TUNG MEI-CHU	0910051	LIU GUO-CHIEN	0930013	YU CHIU-YI
0890199	WU SU-HUA	0900094	WU MEI-CHIN	0910052	SUN JUI-HUNG	0930014	CHEN LI-CHOU
0890202	HSUEH TUNG-PAO	0900098	CHENG CHUANG-CHUEI	0910053	CHEN MING-HUANG	0930016	SU PAI-WEI



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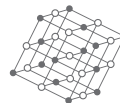
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0930018	CHEN HSIUNG	0930065	LIU FONG-HSIUNG	0930142	SHEN MING-CHIN	0940052	YU LEE-MEI
0930020	CHIANG AN-NAN	0930072	JIAN,ZHENG-NAN	0930147	LI YU	0940058	HUANG WEN-HSIUNG
0930021	TAI SU-CHEN	0930073	CHEN,NAI-JU	0930150	LIN JUI-MEI	0940061	QIU,LIN-YUE
0930022	CHOU SHENG-CHING	0930074	SUN HUYU-LE	0930151	SU JUI-CHUAN	0940063	TUNG WAN
0930023	CHENG LI-LAN	0930075	LIN,WU-NAN	0930153	LIN PI-CHAO	0940064	HOU CHUN-HUA
0930024	LIN BI-CHEN	0930076	WEI,JIN-HUI	0930154	HUANG TSAI-YUN	0940067	WEN CHI-CHEN
0930025	CHANG YUEH-YUN	0930078	LIN SHU-CHUAN	0940001	CHEN,LI-E	0940070	LIN HSIU-LING
0930026	LEE YU-HSIA	0930081	YIN WEI-HUNG	0940002	LIU WANG-WAN-MAN	0940080	HUNG YI-WEN
0930027	HUANG SHENG-TS	0930087	TAI LI-HSIANG	0940003	SU CHENG-CHIAO	0950001	CHOU LIN-CHIU-HSIA
0930030	LEE MU-HWA	0930088	GU,YONG-JIE	0940007	CHIU,YU-LUN	0950003	CHEN LIN-CHIN-LUN
0930031	KUO CHAO-HSU	0930095	LIN,CHIH-CHUNG	0940008	CHUNG CHIG-YEN	0950004	YU,SHU-ZHAO
0930032	LI WANG LI-YU	0930097	HUANG HSUEN-FENG	0940010	SHIH LING-TZV	0950005	HUANG SHU-YEN
0930036	WANG,HSIU-CHING	0930102	DAI KO-LI	0940027	LIN PEI-YU	0950007	KUO KUEI-CHU
0930043	HSIAO LI-YING	0930109	LU SHU-CHEN	0940029	YANG SHU-YING	0950008	CHANG YUEH-YING
0930044	LI LI-FENG	0930111	HUANG HSUEH-CHIAO	0940033	JUHN LEI-FNA	0950009	HUANG CHIN-PEN
0930045	WANG CHEN-SHOW-WONG	0930119	YANG LING-CHEN	0940036	CHEN YU-YING	0950014	LIN CHIN-MEI
0930046	LEE CHAO-FEN	0930120	SHAO YI-CHAO	0940037	CHEN HSIU-FENG	0950015	JU,JIA-LING
0930048	TEENG YEN-MEI	0930124	WU CHEN,SU-YU	0940038	CHIU CHI-SHENG	0950019	CHEN,CHUN-ZHU
0930053	SHYU HUEY-LI	0930127	LIU LIN CHAO-HUA	0940040	LI,BI-MEI	0950020	TUNG SHU-CHEN
0930055	HSU CHING-HUA	0930131	LI WOEI-YANG	0940042	PAN MEI-HSIANG	0950023	CHU LIEN-HWA
0930060	CHEN,SHU-NU	0930134	CHEN TLU-CH	0940045	SHIH WAN-YI	0950025	WANG CHAO-YUAN
0930061	WANG YA-CHIH	0930138	CHANG LIEN-CHU	0940050	CHEN HSIU-CHU	0950026	CHEN LIN





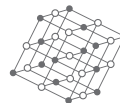
## VOLUNTEERS (In Alphabetical Order)

0950027	WU HUAN-JAN	0950067	CHEN SHEN	0950128	HOU JHAO-WUN	0950181	TSAI HSIU-MEEI
0950028	CHEN CHIH-YUAN	0950068	CHEN AI-LING	0950129	WU SU-CHING	0950185	CHEN TENG-CHAO
0950030	TSENG CHUAN-SUNG	0950071	TSAI SHU-YUAN	0950131	HUNG LI-HWA	0950186	CHAO CHENG-CHIEH
0950031	LU KAI-CHUAN	0950076	LEE MING-HUI	0950134	HUNG JU-RUNG	0960001	MA SAI-FEN
0950034	LEE BAO-NAN	0950077	WANG CHIA-TSENG	0950136	TSO TSUNG-YI	0960002	TANG CHIU
0950036	ZHANG,LI-MEI	0950078	CHANG HSIAO-HIS	0950139	LU DU-MEI	0960005	CHEN,XIAN-YI
0950039	HUANG YU-LAIN	0950079	YI CHEN-YU	0950140	RUAN,ZHONG-QING	0960009	CHEN,YI-MING
0950041	HSU CHIEN-CHENG	0950080	LAI SHU-YING	0950144	SUNG LONG-SHENG	0960010	XIE,YING-DONG
0950044	LU,YA-HUI	0950081	CHUANG,HSIU-LI	0950145	LIN SEN-TIEN	0960012	CHEN,SHENG-XIONG
0950045	SUN,YU-HUI	0950084	HSIEH MEI-YING	0950147	LIAO,YU-CANG	0960016	HSI CHING-PING
0950046	HUANG,HUI-LING	0950089	KUO CHIUNG-CHU	0950151	HUANG,HE	0960017	WANG HSIU-CHU
0950047	LIN,CHUN-HUI	0950090	LEE MEI-YUEH	0950153	HUANG YU-HSIN	0960020	YANG ZN-YUAN
0950048	SHI XIAO,SEN-ZHI	0950096	LIU SHU-HUI	0950154	CHOU PO-SHIUN	0960022	TSAI JU
0950049	LEE CHIAJO	0950098	LIU WEN-CHI	0950156	LIU MEI-MAN	0960023	CHEN NENG-CHI
0950051	SU JU-SHU	0950099	LEE LI-YUN	0950157	SU,GUANG-ZI	0960029	PAN JIN-LONG
0950054	LEE YU-CHIN	0950104	LIU CHING-HIN	0950159	CHANG,KUEI-YING	0960034	HSU KUEI-HUA
0950055	TSAI LI-MAN	0950105	ZHANG,RONG-LAN	0950163	CHEN YI-LI	0960040	WANG YU-HSIANG
0950058	LIN,GUAN-RONG	0950112	CHEN,XIU-YAN	0950165	SU,XUE-MEI	0960042	SHEN YANG-CHENG
0950059	CHEN LINH-LI	0950113	HSIEH PEI-CHU	0950166	WU FU-I	0960045	HUANG TZU-CHUAN
0950061	TSAI CHIA-YEN	0950116	TSAI SU-CHEN	0950174	YU CHIU-TAO	0960048	CHUNG YAN-SUH-JAU
0950062	WU KUEI-MEI	0950119	ZHOU,AI-YING	0950175	CHENG,HSIU-CHING	0960053	WANG CHIU-HSIANG
0950063	TSENG FONG-O	0950122	LIN LONG-MIN	0950176	LIU CHUN-YUEH	0960054	CHEN,MEI-YIN
0950066	WENG,XIU-MIAN	0950125	CHEN LIOU-JIN-YING	0950177	CHENG MING-HSANG	0960057	CHEN NAN-SHENG



## VOLUNTEERS (In Alphabetical Order)

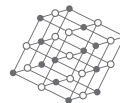
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0960063 CAI,JIN-ZHANG	0980012 CHEN,JIE-PING	0980053 LIN KUNG-SHU-MAN	0990003 CAI,QING-XIAN
0960072 YANG HSUEH-FEN	0980013 LI YUN-YIN	0980054 KUO KUEI-LAN	0990004 LAI,KUN-YI
0970004 WENG TZU-SHUAN	0980014 CHANG CHIEN-CHUN	0980061 CHUNG MEI-LEE	0990005 TSENG,YU-LUN
0970006 LIN JIA-HONG	0980015 CHEN,SHAN	0980066 YANG,BI-FEN	0990006 CHEN,CHUN-HSIUNG
0970027 LIN MEI-LING	0980016 CHIANG HSIU-MAN	0980067 LIN SHANG	0990010 JIN,CUN-SHAN
0970032 HONG,ZHEN-SHAN	0980017 LIN MEI-LAN	0980074 CHANG,LI-CHING	0990011 XIE,ZHI-LING
0970033 YAO CHU-LI-HUA	0980018 CHIANG HUI-CHIN	0980081 CAI,CAI-LING	0990012 CHEN,YAN-ZHU
0970034 HON MI-SHOW	0980021 WANG NITA	0980082 ZHANG,MEI-JIN	0990013 TUNG CHENG-LIANG
0970035 CHEN SIANG-SYUE	0980022 CHOU LING-CHUAN	0980083 LIU,YU-YING	0990015 LEE YI-HOUN
0970038 HSU SHIH-CHENG	0980025 HSU MEI-JEN	0980084 LEE LI-YING	0990016 JIANG,HUI-TIAN
0970039 HSIAO LI-CHING	0980027 HU SHU-CHEN	0980085 CHANG CHAW-YANN	0990017 QIU,JIN-CHENG
0970040 YU CHIEH	0980028 CHEN,WEN-SHAN	0980086 LIN,XIU-LUAN	0990019 HSU,HSIN-CHU
0970041 TSAI CHIA-YI	0980031 CHOU CHIU-LAN	0980087 HSU HSIEN-TANG	0990020 HUANG KUN-TSE
0970042 CHEN SHU-FEN	0980032 LIU,XING-LIAN	0980089 LIN CHUN-SHIA	0990021 CHEN HSIU-HUA
0970043 HU,JUI-HUI	0980033 LIU HSIANG-JU	0980090 YEH,PAO-CHIH	0990024 SHI,XIU-ZHEN
0970045 HSU CHIA-CHUAN	0980034 WANG,LI-MEI	0980091 CHEN HONG-SHING	0990025 KUO CHING-MEI
0970051 CHEN HSIAO-HUAN	0980036 LIN DAR-NAN	0980092 YE,MEI-MAN	0990026 LEE MIAO-CHEN
0970052 CHOU HUI-LING	0980038 HUANG SU-MEI	0980093 CHANG HSIU-LAN	0990028 LU FU-MEI
0970055 TESNG YUEH-HSING	0980039 YANG HSIU-YING	0980095 CHUANG CHEN-CHIN-YUEN	0990029 CHEN,MEI-YING
0970062 CHAO HIS-CHING	0980042 CHEN TZU-JIUN	0980096 CHEN LEE-HUA	0990030 CHU YU-FANG
0980002 YIN JIAN-CHUNG	0980045 CHEN,ZI-LING	0980100 PAN FU-TSUN	0990031 TONG,MING-CONG
0980005 CHIANG YU-YUN	0980046 PENG HUI-CHEN	0980101 CHANG CHIEH-YUN	0990040 CHANG MING-SUNG



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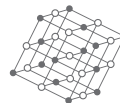
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0990043	WANG,ZHENG-NAN	1000005	YEH PAI-MEI	1000033	LIU,RUI-YU	1000062	TSAI HSIU-CHIN
0990044	HSU CHIH-MING	1000006	HSU SHU-CHUN	1000034	CHU MAN-CHEN	1000064	CHANG MAY-CHING
0990045	CHANG LI CHIEH-YIN	1000007	CHENG CHEN-SU-LUAN	1000035	HSIEH HO-MING	1000070	CHIU HSUEH-LING
0990046	CHEN YUNG-CHIANG	1000008	CHENG CHI-MING	1000036	FANG SHU-LING	1000071	YAN,YU-RU
0990047	CHOU YEONG-CHI	1000009	TSENG YEN-HUANG	1000037	TSEN HUI-CHAO	1000072	WEN HUI-YEN
0990048	CHEN SHUI-WANG	1000010	WEI CHIN-SHUN	1000039	TSAO EN-TE	1000073	YEN CHING-KAO
0990050	CHEN YI-CHUN	1000012	KUO YU-CHING	1000040	WU CHIU-HUAN	1000074	ZHENG,BO-XIONG
0990051	CHEN WAN-FU	1000013	WANG LUNG-YUAN	1000041	HSU MING-FU	1000075	YU MING-HO
0990053	CHENG RUEY-SHAN	1000014	YUAN YA-CHIN	1000043	ZHUANG,ZAN-LI	1000076	GUO,ZHEN-ZHEN
0990054	HE,XIA-ZHI	1000015	JUAN YUEH-YUN	1000044	LIN RONG-BIN	1000078	LEE TI-PEI
0990056	LEE YURN-CHONG	1000016	CAO,CHIN-YUN	1000045	FENG YU-KUEI	1000080	HUANG PO-HSIANG
0990057	LIN SHOU-SHAN	1000017	ZHUANG,JIN-ZHI	1000046	LIN SHIU-SHIA	1000081	PAN CHIEN-MEN
0990058	LIU CHIN-CHIH	1000018	HUANG SU-HUA	1000047	WU SHIU-CHU	1000084	LI,YAN-XIANG
0990059	HSU,YUEH-YING	1000019	CHEN PI-ER	1000048	CHEN MAI-YEN	1000087	HUANG MEI-CHI
0990060	HUANG CHIN-HUEI	1000020	TSAI CHEN-YUAN	1000049	SONG,LI-ZHU	1000088	CHEN CHUN-KUANG
0990062	LIN HUI-LI	1000022	CHANG FU-SHAN	1000050	CHAN CHIN-YUEH	1000090	HSIEN,YU-CHIN
0990063	LIU YEN-CHUN	1000023	LAI,MING-HONG	1000053	LIU MEI-HSUEH	1000091	LEE,HSIU-CHU
0990064	HUANG JEN-TSUNG	1000025	HUANG HUI-HIS	1000054	CHEN YUAN-MING	1000093	YANG WEN-CHUAN
0990065	YAN SHU-ER	1000026	WU,JIN-GUI	1000055	CHUNG LO-CHUN-YING	1000095	GUO,YI-QING
0990066	TSAI HSUEH-HSIANG	1000027	LIAN,SHENG-LIN	1000056	HU CHIA-LIN	1000097	LO CHIEH-TSUN
0990067	HSU KUEI-JEN	1000028	YANG,YI-AN	1000057	LI,JIN-LING	1000099	KUNG LEE-SU-FEN
1000001	LO YU-HUA	1000029	WU TSUN-NENG	1000058	SHI,YI-TING	1000100	KUNG TING-HUI





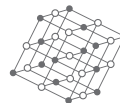
## VOLUNTEERS (In Alphabetical Order)

1000101 YU CHIH-HUA	1000139 RUAN TANG,FENG-JIAO	1000166 LU,XIU-ZHU	1000195 WU,PI-YUN
1000103 HUANG YANG-CHIH-HUI	1000141 CHEN,PI-CHU	1000167 CHEN,SHU-DAN	1000197 HSU,JIN-WEN
1000104 YANG,CHAO-QUN	1000142 LU,SHAO-YU	1000168 LIU,MING-LI	1000199 WANG,SHUN-HIEN
1000105 LI,DE-XING	1000143 LU,JIN-DUAN	1000169 TAO,SHU-CHIN	1000201 YEH,CHAO-CHUN
1000107 LIN,BI-ZHU	1000144 SHI,NAI-YING	1000170 YANG TSAI-CHUAN	1000202 CHOU,HSIU-CHUN
1000108 YANG HSIU-CHAO	1000145 CHIU,SUE-CHEN	1000171 XIE,FU-ZHEN	1000203 PAN,CONG-MIN
1000116 HSU SU-CHEN	1000146 WANG,TE-SHENG	1000172 CHEN,CHUN-MAN	1000204 CHEN,GUEY-SHIANG
1000117 WU,CUI-HUA	1000147 ZHENG LIN,XIU-ZHU	1000173 ZHANG,YU-MEI	1000205 WU,MING-ZHU
1000118 HUANG YU-CHUAN	1000148 LAI,HE-JING	1000174 WANG PAI-KUNG	1000206 TAN,HAI-LIN
1000119 LIN YU-YING	1000149 LU,JIAN-CHENG	1000177 CHEN,RUI-YING	1000207 LU,ZONG-MING
1000120 YANG CHING-YUN	1000150 WANG LI,BI-XIA	1000178 CHUANG,YUNG-JEN	1000208 LI,YUNG-CHI
1000121 CHANG,LI-CHUEH	1000151 CHEN,QING-SONG	1000181 SU,TUNG-CHUN	1000210 ZHU,ZHEN-SHE
1000122 CHEN,XIN-JIAO	1000152 CHENG,LI	1000182 LIN,CHING-YING	1000211 FU,CHUN-YING
1000123 LIN,DE-YU	1000153 CHANG PAI-LIEN	1000183 LI,MING-JANE	1000213 HU,RUEI-SHAN
1000124 ZHOU,LI-YUE	1000154 YE,RUO-YI	1000184 LI,QING-XIAN	1000216 TSAI SHU-CHIN
1000125 LIN LI-CHENG	1000155 HUANG LI,CHUN-QIN	1000185 CHEN,ZHI-SHENG	1010001 LI,CHUN-HUI
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1000129 SHEN,MEI-JIN	1000160 ZHENG,XING-XING	1000188 LIAO,YI-CHUN	1010005 CHOU,YU-CHING
1000130 PENG,GUANG-TANG	1000161 WANG KUANG-HSIEN	1000189 HUANG,MEI-LAN	1010006 LO,CHIN-HUNG
1000132 LUO,JIN-DAO	1000162 HU,QIU-MEI	1000191 HUNG,JUNG-YI	1010007 WANG,ZAI-FU
1000134 LEE SHAO-MEI	1000163 WU,KUEI-HSIANG	1000192 CHEN,YI-HUI	1010008 WANG CAI,MEI-HUI
1000136 XIE,GUAN-ZHENG	1000165 LIN HOU,XIU-ZHU	1000193 CHANG,FENG-CHEN	1010009 ZHENG HUANG,YU-XIU



## VOLUNTEERS (In Alphabetical Order)

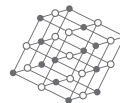
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1010011 YE,HUI-MIN	1010039 CHEN,YUN-JUAN	1010069 ZHUANG,XUE-YU	1020004 FANG TSUNG-RAN
1010012 HUANG,XIAO-ZE	1010040 LIU,HSING-KUEI	1010070 WANG,SHAO-HSIN	1020006 WANG,XIN-LEI
1010013 HSU YUEH-YEH	1010042 SHI,FANG-JIN	1010073 CHEN,XIU-XIA	1020007 SUN I-NAN
1010014 MAI,SHU-CHING	1010043 CHIOU,CHIEN-JEN	1010074 CHANG,YUE-NU	1020010 CHEN CHIH-FANG
1010015 ZHANG,LI-XUAN	1010044 LI,YI-JU	1010075 LIU,SHAO-ZHANG	1020011 DING,YONG-CHING
1010016 WANG,MEI-YI	1010047 HSU,CHENG-TUNG	1010076 HUANG,HUI-YIN	1020012 CHEN,LIU-SHIH
1010017 YE,LI-HUA	1010048 CHUANG,PI-CHUAN	1010080 YU,DE-XIAN	1020013 HSIEH TSUI
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1010019 HSU,MING-HSIU	1010051 WU,WEN-LI	1010082 ZHANG,SUI	1020015 SU,WEN-HUA
1010020 SHI,YU-YING	1010052 GUO,CHUN-CHING	1010084 LIN LEE-HUA	1020016 HUANG,SHAN-FU
1010022 YANG,SEN-GUI	1010053 TZENG KUEI-YU	1010085 HUANG WAN-WAN	1020017 HE,YI-WEI
1010023 WU,SHU-YUAN	1010055 YU,SHU-FANG	1010086 XIE,QIN-CHENG	1020019 WANG,FU-YING
1010024 CHEN,ZHEN-MEI	1010056 HSIEH,HSIU-LI	1010088 LIN HSUEH-HUI	1020020 SUN,XIAN-GUANG
1010025 TSAI,MIAO-YUEH	1010058 ZHAO,SHU-ZHEN	1010089 LIN KUEI-CHU	1020021 YANG,BI-HUI
1010026 SU,YUE-LI	1010059 LU,PEI-HUA	1010091 CHIU KIN-SHUN	1020023 XIE,LI-XUAN
1010029 ZHANG,ZHUO-XIAN	1010060 CHEN,XIANG-JUN	1010091 ZENG,YU-JING	1020024 CHEN,CHIN-YU
1010030 WA,CHAO-JUNG	1010062 HE,GUI-YUE	1010092 LEI,SHAO-YING	1020025 LIU,XIU-YING
1010031 CHIU,PEI-DE	1010063 TIEN,JIA-HUI	1010093 CHEN,KUEI-CHU	1020026 LIU LIN,SHU-YA
1010032 CHEN,MEI-CHING	1010064 DING,HUI-MEI	1010094 CHEN,LING-NA	1020027 CHEN,CHIN-ZONG
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1010036 XU,XIU-FEN	1010067 LI,FANG-YU	1020002 SONG,YUE-YING	1020030 JIANG,YING-XUAN



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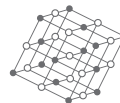
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1020033 CAI,LAN-XIANG	1020064 QIU,XIAO-ZHU	1030018 CHAI,CHIH-HSUAN	1030044 KUO MEI-LI
1020034 CHANG,TSUI-HUA	1020065 LO PEI-JU	1030019 LIAO YIHG-LI	1030045 HSU CHIN-PI
1020035 XUE,YI-XIONG	1020066 TU CHIU-YU	1030020 WU,HSIANG-CHIH	1030046 TSAI FU-MEI
1020036 LEI,SHAO-LAN	1020067 ZHANG,CHENG-FANG	1030021 CHANG KAO-LAN	1030047 WU,SU-LAN
1020037 CHEN,BANG-QUAN	1020068 ZHENG,DING-FU	1030022 TSAI LI-HAW	1030048 WANG CHIOU-I
1020038 DU,YI-YUN	1020069 WU,YU-FEN	1030023 CHEN LI-CHU	1030052 JAU CHII-JONG
1020039 HUANG,HUI-ZHU	1030001 HOU,PO-YAO	1030025 CHEN,HUO-YEN	1030053 DAI SHWU-NU
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1020041 HUANG,XUE-JIAO	1030003 CHEN LIN NU-HUEI	1030027 TSENG SHU-FEN	1030055 CHOU,PEI-HAN
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1020043 ZENG,QI-CANG	1030005 YU HSIANG-KUO	1030029 HUANG HSIU-LUAN	1030057 CHEN HO-JUNG
1020046 WANG,SI-KE	1030006 FENG,HUI-HSUEH	1030030 HUNG MEI-CHIH	1030058 LIN LI-MEI
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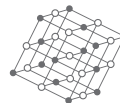
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1040002 HUNG,LI-YUN	1040027 YANG,SHUN-YU	1040051 LIOU ZIH-CHUN	1050005 LIU,HUI-LING
1040003 TAI CHING-SEN	1040028 KUO,YU-CHIU	1040052 LIOU ZIH-YIN	1050006 TSAI,CHIU-YING
1040004 CHEN JUNG-SHENG	1040029 LI CHING-LING	1040053 LIN,CHIN-SU	1050007 HSIEH,HSIU-LAN
1040005 SU,YIN-JU	1040030 KUNG SU-HSIANG	1040054 TSAI,SHU-CHEN	1050008 HSU,YING-SHU
1040006 CHOU,KAI-CHUN	1040031 MICHAEL CHANG	1040055 MARY WANG	1050009 HUNG,KUEI-CHING
1040008 LO,YU-YUN	1040032 SUNNY	1040056 HUANG LI-YEH	1050010 LI,LI-HSIEN
1040009 KAO-YANG KUEI-YING	1040033 FENG TSE-PIN	1040057 CHIANG,JUNG-SHU	1050011 CHUANG,SHU-YUAN
1040010 FENG CHU-YING	1040034 WANG CHIA-HUEI	1040058 LIANG,SHU-CHUAN	1050013 HUANG,LI-TING
1040011 CHANG PEI-FANG	1040035 TSAI,HSUEH-MEI	1040059 CHIU,SHIH-CHU	1050014 CHOU,WEN-CHENG
1040012 SU PIN-YEN	1040036 LU,MEI-YU	1040060 HUANG,SHU-YEN	1050015 CHIEN,JUNG-TE
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1040015 CHAO,CHIA-LI	1040039 HUANG LI-CHIN	1040064 TSAI,SHU-YUAN	1050018 LIN,MING-LIANG
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1040018 TZENG YUH-TYUG	1040041 CHEN,YU-CHIN	1040066 HU,LI-HSIA	1050020 CHEN,WEI-CHIH
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1040021 WANG,MING-HUI	1040044 WU,TZU-YUN	1040070 CHENG,LING-SHAN	1050023 LIU,TSUNG-MEI
1040022 HSIEH MING-HAN	1040045 CHAO LI-KUEI	1040071 TSENG,HUAN-KAI	1050024 PING,HUAI-CHUAN
1040023 YEH,CHIA-CHEN	1040046 LIN,HSUEH-JU	1050001 CHI,TUNG-LAN	1050025 LU,TSUI-JUNG
1040024 TZENG YA-JIUAN	1040047 HSIOO CHING-LAN	1050002 CHU,LI-CHEN	1050026 CHEN,FENG
1040025 WANG,PI-CHEN	1040048 HUANG,CHEN-TAI	1050003 CHAO,HSIUNG	1050027 CHIU,YU-TING
1040026 SHAO,SHAN-PIN	1040050 WU YIN-JUI	1050004 LI,HSIU-HUI	1050028 LIN,CHUN-HUNG



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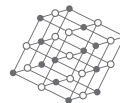
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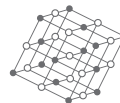
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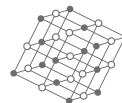




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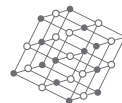




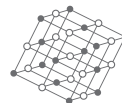


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Quan Tai Laser Precision Co., Ltd.	10,000	Kaohsiung Yu-Te Charity	10,000
Anderson Kindergarten	10,000	Garden Plaza Hotel	20,000
Yeou-Fong International Co., Ltd.	10,000	NSTM Aerobics Society	10,000
Ms. Wu, Chu-Nu	10,000	Exhibition Volunteers (Tuesday Afternoon)	10,000
Mr. Wu, A-Ji	10,000	Y-FANG SEALING MACHINE LTD	10,000
Ms. Wu, Jane-Hui	5,000	Sound of Music Kindergarten	10,000
Ms. Wu, Jen-Yun	3,000	CSC Group Education Foundation	20,000



The Corporate Body of Yuan Dao Cultural & Educational	10,000	Chang, Rong-Jou	10,000
Taiwan Yun Dow Buddhism Cultural Exchange	243,330	Chang, Der-Xian	10,000
Chung-hsing Preschool	10,000	President of Yusi Restaurant	10,000
Kao Two Senior Jaycees Club	10,000	Sponsorship of MOE	300,000
Ke Lai Neng Kindergarten	10,000	Cao, Xi-Bing	10,000
Chyan-Nang Kindergarten	10,000	Ms. Zhen, ○○	10,000
Chin Min Cram School	10,000	Ms. Chen, Mei-Ling	10,000
Kao Two International Youth Club	10,000	Mr. Zhen, Yan-Shuo	10,000
Kao Two Senior Jaycees Club	10,000	Mr. Chen, Xin-Hong	10,000
Cram School Association	10,000	Chen, U-Yun	10,000
Cram School Employment Association	10,000	Chen, Hui-Tze	1,000
Wen Bin-Xiang, Chi-Shih Charity	10,000	Ms. Chen, Ching-Mei	10,000
Lin Ya Police Friends	10,000	Outstanding Cram School	10,000
Kaohsiung Employment Women Association	10,000	Fubon Life Insurance Co.Ltd/ Chen Tzu-Han	20,000
Mr. Chang, Yuan-Fang	10,000	Ms. Yang, Gui-Tao / Ms. Xie, Xiang-E	10,000
Chang, Ho-Shuenn	50,000	Ms. Chen Yang, Qing-Mei	
Chang, Chia-Horn, Chang, Ting-Ning	1,000	Ms. Lin, Chun-Mei / Ms. Wang, Ya-Li	
Ms. Zhang, Min	10,000	Ms. Lin, Su-Ling / Ms. Huang Lin, Liang-Hui	
Chang, Su-Mei, Lin, Bei-Yu, Huang, Hui-Liang, Chang,	10,000	Ms. Xie, Bao-Hua	
Ling-Li, Liu, Ker-Shiao			
Mr. Zhang, Jin-Cheng	10,000	Ms. Gu, Bo-Hua / Ms. Cai, Li-Feng	10,000
Chang, Yun-Bo	20,000	Ms. Wang, Hui-Qing	



Ms. Zeng Wen,Zhen-Ying		Cheng, Yu-Ting	10,000
NSTM Volunteers	10,000	Cosmos Language School	50,000
	10,000	Shu-Te Home Economics and Commercial High School	10,000
Sunfar Computer Co., Ltd.	1,010,000	Shin Fong Packing Enterprise Co., Ltd.	10,000
	10,000	Dragons Preschool	10,000
Huang, Shi-Rong	10,000	Ms. Zhong,Yue-Lan	1,000
	10,000	Ms. Chung Mei Lee	10,000
Mr. Huang,Yi-Sheng	10,000	Jim Way Enterprise Co., Ltd.	20,000
Sin An Seen Kindergarten	10,000	Wei, Cheng-Chun	10,000
Men Hwa Metal Co. Ltd.	10,000	Wei, Jie-Yu	10,000
	10,000	Wei, Ming-Wei	10,000
Mr. Ye,Chong-Han / Mr. Ye,Ding-Yuan	10,000	Mr. Luo,Guan-Fu	10,000
Mr. Dong,Yong-Nan		Su, Cheng-Ta	10,000
Ms. Lu,Mei-Qiao	10,000	OOO Charity Foundation (Privitization)	100,000
Liu, Xiu-Mei / Zhuang, Qi-Zhen	10,000	OOO Computer Co. Ltd (Privitization)	10,000
Wang, Li-Zhu / Chang, Li-Hsing		Zhao, Ping	charity sale
Mr. Liu,Gui-Xu	10,000		
Liu, Ling-Yu	10,000		
Confirm instruments Co., Ltd	10,000		
Chinaocean Co., Ltd.	20,000		
Mr. Cai,Ji-Xiong	10,000		
Cheng, Cheng-I	10,000		



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Annual Report

