

# **MILSET - EXPO SCIENCES INTERNATIONAL ABU DHABI 2019**



مركــز أبــوظــبــــي Technical and Vocational Education and Training والتعــنـــي والمهــنــــي



Educational, Scientific and Cultural Organization



Consultative Partner of UNESCO



# WELCOME

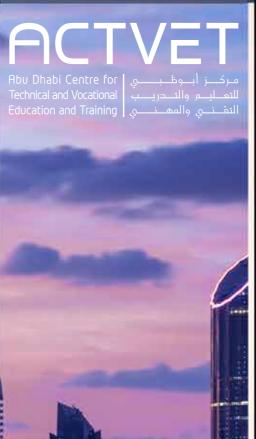
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Under the patronage of H.H. Sheikh Mansour Bin Zayed Al-Nahyan, Deputy Prime Minister of the UAE and Minister of Presidential Affairs of the UAE, the MILSET - Expo-Sciences International Abu Dhabi 2019 brings together young people, educators and scientific experts from Asia, Europe, North America, Latin America, and Africa, to exchange ideas and compare science projects fostering networking and international collaboration in science development.









# **ESI 2019 IS BROUGHT TO YOU BY: ACTVET**

The Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET) was established under the directive of His Highness Sheikh Mohamed bin Zayed Al Nahyan Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, through Resolution No. 49/2010.

ACTVET is committed to establishing policies and standards that effectively regulate technical and vocational educational institutions in the emirate of Abu Dhabi. ACTVET is also responsible for the licensing of trainers and tutors that meet the demands of the UAE's local market. The Centre aims to boost training and educational opportunities for young nationals within the qualification framework of the Emirate. ACTVET's ultimate goal is to increasing the number of skilled Emirati youth in rewarding career paths and foster life-long learning and personal development.

Learn more about ACTVET initiatives on www.actvet.ac.ae







## WHAT IS ESI?

MILSET - Expo-Sciences International ESI 2019 is a non-competitive event that brings together young people, educators and scientific experts from Asia, Europe, North America, Latin America, and Africa, to exchange ideas and compare scientific projects fostering networking and international collaboration.

ESI 2019 aims to promote scientific knowledge in a multi-cultural environment through an exhibition of projects created by children and young people from all over the world. The Expo-Sciences International is a unique opportunity for budding talents to get to know each other and share scientific innovation thus to open their minds in research, creativity and initiative with the perspective of allowing them to build up their personal fulfillment and to realize their ambitions.

The program of the Expo-Sciences consists of a variety of activities: cultural and scientific visits, leisure activities, exhibition of projects, workshops, animation and conferences.

### Participating in ESI is an opportunity to:

Install and animate a space to highlight youngsters, teachers and leaders' efforts and interest in research, science and technology innovation by enhancing their motivation while contributing to their personal development.

Establish relationships with other institutions with similar goals through the development of scientific, technical and social projects in order to exchange ideas and create actions according to the needs of today's world, for the benefit of the industry, the educational sector and society as a whole.

Be represented at an international level through youth's STEAM projects, allowing the dissemination of knowledge. amongst the main target audience.

Promote a scientific culture in a multicultural environment, creating the space for experience and good practices to be shared so as to achieve higher-standard scientific activities.

# **HISTORY**

The Expo-Sciences International is a biennial event of the duration of approximately one week while the exhibition of the projects is open to the public for three days. Each edition of the ESI is host by a different member country of MILSET.

The first Expo-Sciences International was organized in 1987 (ESI 87) in Montreal, Canada and received a great welcome from the young scientific community.

The creation of the International Movement for Leisure Activities in Science and Technology (MILSET Mouvement International pour le Loisir Scientifique et Technique) during the ESI 1987 marked the beginning of a successful series of Expo-Sciences International that took place all over the world reaching the seventeenth edition in 2019.



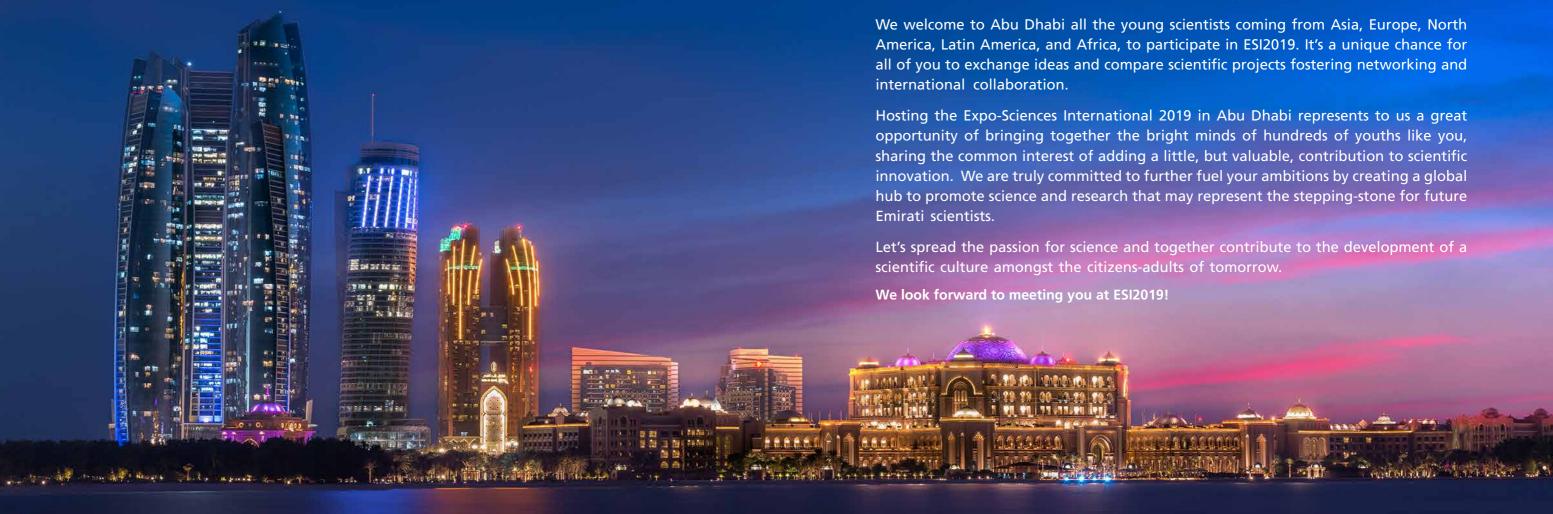




# MILSET EXPO-SCIENCES INTERNATIONAL (ESI) 2019 ABU DHABI

The MILSET Expo-Sciences International (ESI) 2019 is the largest event in UAE focusing exclusively on the scientific creativity of young aspirant scientists from all over the world. ESI is an initiative of the International Movement for Leisure Activities in Science and Technology (MILSET), a non-governmental, non-profit and politically independent youth organization, which aims at developing a scientific culture among young people through the organization of science-and-technology programs.

Under the patronage of H.H. Sheikh Mansour Bin Zayed Al-Nahyan, Deputy Prime Minister of the UAE, Minister of Presidential Affair, the Abu Dhabi Centre for Technical and Vocational Education and Training (ACTVET), together with MILSET, has the great pleasure to host and organize the ESI 2019 that will take place from 22 to 28 September 2019, at the Abu Dhabi National Exhibition Centre (ADNEC).



### **OBJECTIVES**

#### **Educational Tourism**

Today, governments are increasingly focusing on education as a basically integral component of tourism attraction. Education is currently taking the form of a tourist product that is capable of attracting students searching for knowledge and science. The government of Abu Dhabi adopts a long-term educational outlook which aims at making Abu Dhabi the science and research hub in the region. The emirate's plan in this sector can be summarized as follows: help opening branches for globally-known universities locally, support entering into twinning programs (between local universities and global ones), providing IT-specialized schools, building research centers, arts and music institutes, among other educational facilities to be built. With this plan successfully accomplished and carried out in upcoming years, Abu Dhabi will be truly the regional hub for education and knowledge.

### **Sharing Platform**

Become a meeting point for students engaged in scientific activities and projects for sharing ideas and experiences

### **Encouraging Competitiveness**

promote motivation of students in improving acquired scientific skills by creating a positive challenging approach amongst exhibiting teams.

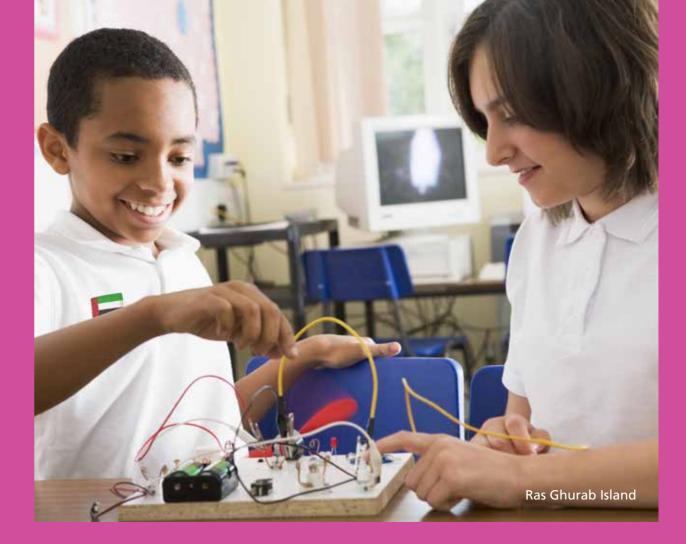
### **Scientific Popularization**

attract and involve private and public organizations active in science-related fields to associate to the event and support future scientific projects of participants.

### **Scientific Knowledge**

expand scientific knowledge in different scientific categories by focusing on strengthening students and teachers' awareness and promote the implementation of research-based learning activities.





### **Scientific Research and Technological Skills**

provide scientific and technological knowledge that will enhance and refine inquiry and investigation skills, use of field methods and equipment, technological equipment and resources, scientific literature and media, laboratory techniques, and analytical and computer software capabilities.

#### **Roles and Contexts of Research**

expand the understanding of the importance of research in scientific development in particularly through the activities of private enterprises and public institutes. Enhance the role of scientific research as essential resource for setting policies and support the decision making process.

#### **Academic Skills**

showcase new projects and offer lectures and working sessions that can inspire new teaching activities and methods as well as represent essential tools for sharing scientific knowledge and teaching experiences that can be applied by educators in their home country.

### Follow-up

develop a comprehensive follow-up component that will provide resources and information in the different science fields, and enhance employment opportunities for teachers and students.

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## **13 CATEGORIES**









### **BIOLOGY**

The science of life" projects; projects dealing with zoology, plant science (botany), anatomy, cytology, genetics, microbiology, and physiology belong to this category.



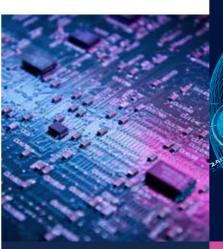
## BEHAVIORAL AND SOCIAL SCIENCES

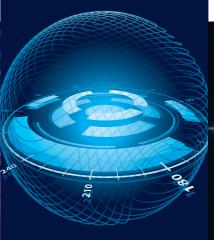
Projects in this category should describe new behavioral traits of various organisms (including humans), their migration during a year or a longer period, behavioral changes during ontological development or a longer period. Authors should use appropriate statistical tools.



### **CHEMISTRY**

This category includes both organic and inorganic chemistry. Projects may be focused on various study fields ranging from the structure of atoms to complex organic molecules. Projects offering new efficient ways to produce substances are especially welcomed. Biochemistry projects belong to this category, as well. Chemical formulas and equations should be included.









### **COMPUTER SCIENCE**

This category is very broad. It includes both hardware and software. Concerning hardware authors may propose changes in the structure of various computer components to enhance the total computer output. In software, there may be new useful programs, CMS systems, own websites, games etc.



### **EARTH SCIENCE**

Includes studies of various processes going on in the Earth, such as earthquakes, wind patterns, continental and crust drifts etc. Authors should use formal scientific language, especially geology, physics, and mathematics expressions. Geodesy works belong to this category, as well.



# ENERGY AND TRANSPORT

**Projects involved in this** category should study the efficiency of classical power plants (water, nuclear, coal power plants), the usage of fossil fuels (coal, gas, oil), and other raw materials. In projects dealing with transport, authors may focus on the efficiency of common transportation means, the frequency of their usage, the cause of traffic jams in particular regions etc. Authors should also attempt to focus on alternative energy sources and transportation means.







### **ENGINEERING**

Young engineers should apply their scientific, technical, and mathematical knowledge and experience to construct and make proposals for new mechanisms or parts of mechanisms that fulfill a desired objective. They may also propose new combinations of known mechanical parts.



### ENVIRONMENTAL ANALYSES AND ENVIRONMENTAL MANAGEMENT

Works in this category should analyze various environmental problems and impacts of human activity on nature. Authors should also try to propose new ways to eliminate or even solve these problems.



# ELECTRIC AND MECHANICAL TECHNOLOGY

Authors propose new components in common mechanisms to make them more efficient or they may devise brand-new mechanisms. They may also devise and implement new circuits and elements in electric devices.



### **MATHEMATICAL SCIENCE**

In this category, authors may present works and theorems of famous mathematicians with their own applications or proofs. They may also attempt to prove theorems or hypotheses that have not been proved yet.











### **MEDICINE AND HEALTH**

Projects in this category should be related to the human body, its anatomy, and diseases. Authors may try to test the effect of various substances or radiation on bacterial growth. They may also propose new healing methods.



### **PHYSICS & ASTRONOMY**

Projects should include physical solutions to various problems, especially those that have not been solved yet. They may also support their solution with programs and simulations. In astronomy, authors may present their observations of various celestial bodies (binary stars, asteroids, occultation, variable stars etc.) and they ought to use obtained data in order to draw results.



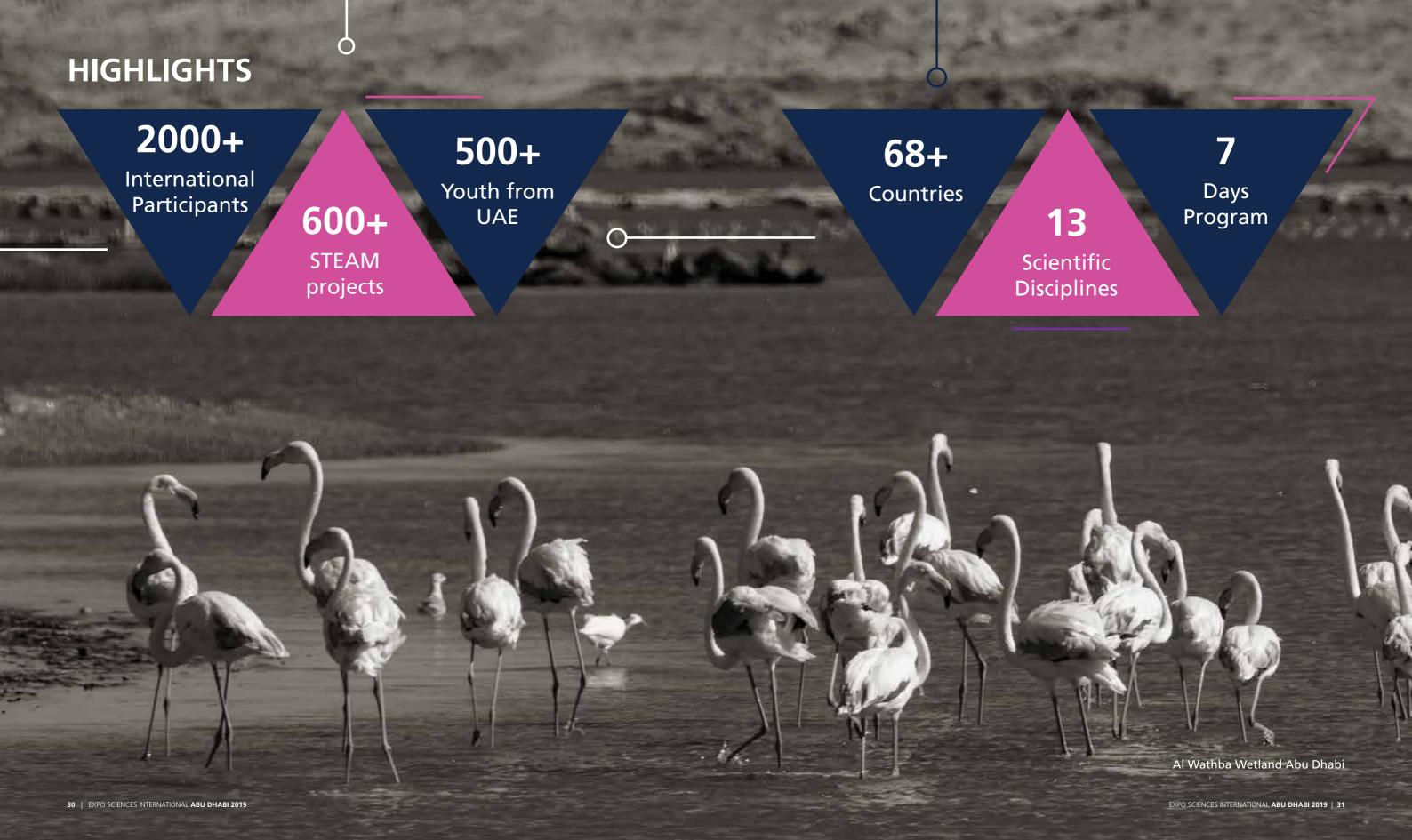
# TECHNOLOGY AND BIOTECHNOLOGY

In this category authors may propose new (mainly more efficient) ways of producing various substances and materials. In the biotechnological part, for instance, they should devise and develop new, innovative substances or ways that may speed up the growth of some crops or kill pests.



# **ESI 2019 - ACTIVITIES CALENDAR**





# CULTURAL & SCIENTIFIC VISITS AND LEISURE ACTIVITIES

Some cultural and scientific tours will be organized for the exhibitors, students, teachers and VIP's, in order to explore the extraordinary heritage of UAE and also visit the main attractions of our country.

The United Arab Emirates (UAE) has emerged as one of the popular tourist destinations in the world, offering visitors interesting sightseeing and recreational opportunities. Sightseeing in the UAE includes a visit to ancient archaeological sites, historical landmarks, museums, mosques, traditional houses, as well as artificial islands, sand dunes, beaches and world-class theme parks. Almost all seven emirates have some interesting sightseeing opportunities to offer to visitors.

There is a wide variety of tourist sites and activities in and around Abu Dhabi. We would like to recommend to our guests the following places /activities to visit while in Abu Dhabi:

### Louvre Abu Dhabi

A spectacular museum city in the sea, Louvre Abu Dhabi is a sprawling cultural beacon that seeks to harmonize different cultures and celebrates the achievements of artists from all around the globe.

### **Interesting Numbers:**

- The UAE Government has paid \$464 million to use the word "Louvre" for the art gallery
- Louvre is home for over 600 diverse artworks, 300 of which are on loan from France.

### **Masdar City**

Masdar City is an emerging global clean-technology cluster located in what aims to be one of the world's most sustainable urban developments powered by renewable energy.



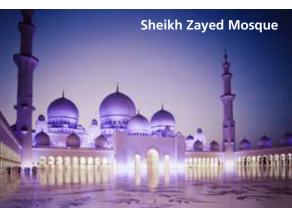












# CULTURAL & SCIENTIFIC VISITS AND LEISURE ACTIVITIES

### Ferrari World

Ferrari World Abu Dhabi – the world's first Ferrari theme park and its largest indoor theme park.

### Sheikh Zayed Mosque

This architectural work of art is one the world's largest mosques, with a capacity for an astonishing 40,000 worshippers.

### Abu Dhabi Falcon Hospital

The Abu Dhabi Falcon Hospital (ADFH), is the largest falcon hospital in the UAE with a patient influx of more than 42,000 patients in the first eleven years of existence. Moreover, ADFH has highly successfully entered in the field of leisure tourism through continuous and tremendous increases in tourists who have visited and participated in Falcon World Tour year after year.

### Saadiyat Island and Manarat Al Saadiyat

Just 500 metres off the coast of Abu Dhabi city, the 27-square kilometer Saadiyat Island is undergoing remarkable transformation to become a world-class leisure, residential, business and cultural hub of global proportions, housing the world's largest single concentration of premier cultural assets. Saadiyat, a natural island, is a multifaceted destination.

### **Zayed Centre**

For a fascinating sneak peek into the life of the late Sheikh Zayed, affectionately known as the 'Father of the Nation', visit the Zayed Centre in Abu Dhabi's Al Bateen district. This museum, housed in an Emirati heritage village replete with camels, is an incredible homage to the man who shaped the nation.









### Women's Handicraft Centre

This creative initiative is run by the Abu Dhabi Women's Association as a showcase for local art and crafts. The small museum within is the chance to examine and learn about local artists' handiwork.

### Desert Safari

This off-road Arabian adventure takes you from the city to the desert of golden sand dunes. You will travel to the desert from your pick-up point in a luxury 4WD. Next, the Arabian roller coaster ride known as dune bashing (desert driving) will begin, where you will shriek and laugh with excitement.

### Embrace Arabia Farm - A truly Arabic Experience

The United Arab Emirates, much to the surprise of most visitors, is an agricultural country. Most of the Bedouins of the Arabian Peninsula used to live in oases and cultivate date palms and breed livestock for survival. Embrace Arabia Farms allows you to enjoy and taste the true Arabian lifestyle as it was and how it came to be.

### Warner Bros. World™ Abu Dhabi

Set to be one of the world's largest indoor theme parks when it opens on Yas Island on 25 July 2018, Warner Bros. World™ Abu Dhabi brings together all your favorite Warner Bros. characters and stories under one roof to offer you an enthralling, captivating day out for all the family. Walk through the iconic Warner Bros. shield and be transported to a whole new world of action, adventure, wackiness and more.

### Saadiyat Public Beach

Saadiyat Public Beach occupies a prime location within the Saadiyat Beach District. It provides a laidback, leisure-oriented lifestyle for both residents and visitors alike, offering a host of sport and recreational activities in an unparalleled beach setting.



# SPECIAL ACTIVITIES FOR A LONGER STAY IN ABU DHABI



### Culture at its Core

The Intrinsically rich UAE culture, together with the cultural initiatives and programmes Abu Dhabi regularly launches, constitute the bedrock for the capital's tourist attractions. The UAE's authentic heritage reflects the very essence of the national identity while the cultural programmes enhance Abu Dhabi's standing as the region's emerging cultural hub. Cultural tourism has increasingly become a crucially important socio-economic catalyst which informs all tourist activities and programmes, cultural events and initiatives.



### Museums, Monuments & More

Abu Dhabi boasts several ancient archaeological sites, some dating back thousands of years and which give deep insights into the country and its culture. Additionally, the emirate's museums chart the history Abu Dhabi's history for visitors. A major cultural development thrust is underway with Saadiyat Island due to host the world's single largest concentration of premier

Abu Dhabi is emerging as an entertainment hub with a wide variety of entertainment options, for individuals and families alike and for all ages.



### From Souk to Shopping Mall

Shopping is a popular pastime in Abu Dhabi. The choice is amazing from browsing and bargaining in traditional souks (markets) for everything from jewellery to carpets to leisurely browsing in the most modern of malls amidst the world's most sought-after brands.

Several initiatives will be offered to our guest to show them the best our country can disclose: You will be impressed by the variety of attractions Abu Dhabi and the United Arab Emirates are proudly showcasing to the travelers.



### Sports Tourism – On the Right Mark

Abu Dhabi has developed into a recognized major international sporting events destination. Each year it hosts competitive events with a global following across golf, motorsport, water sports, adventure racing and athletics. Worldwide media coverage results and the local population find new outlets for their sporting endeavors. Additionally, visitors can gain insights into local sports, like camel racing, falconry and horsemanship.



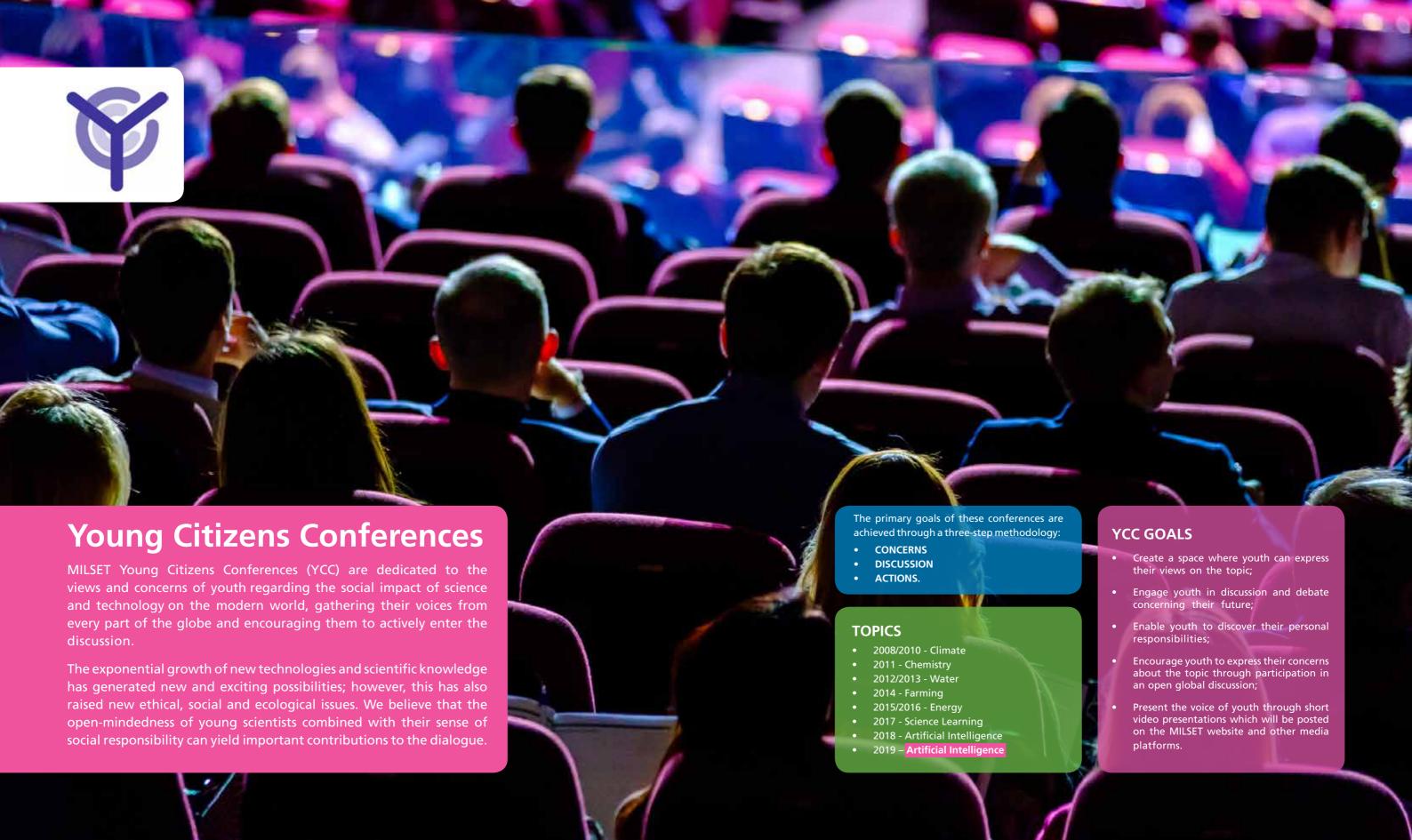
### **Ecotourism**

The UAE capital enjoys an affluently rich natural environment, where the desert meets the seashores, with both enfolding widely diverse forms of wildlife and marine life. Ecotourism is an integral part of the economic plans enacted by the local government mainly aiming at attaining strong sustainable development. Abu Dhabi offers for its visitors numerous scouting, adventurous, and entertaining opportunities in its natural reserves, wildlife parks, and other unique natural sites (e.g. islands, oases, and beaches).



### **Events and Festivals**

Abu Dhabi is constantly and actively bustling and hustling with events and festivals throughout the year. As soon as the emirate farewells one, another hurriedly comes in, with a brand new look featuring a unique set of activities. Thereby, the capital constantly keeps its bustling form all the year around. All local events and festivals are well received and attended by the public, which adds to their success and acclaim. The annual agenda involves a whole lot of festivals that suit all people of ages, like cinema festivals, concerts, sports champions, shopping festivals, culinary events, family festivals, and others.



### **ACCOMMODATION FACILITIES**

Arabian hospitality is the stuff of legends. In Abu Dhabi, it's a lifestyle. Here the warmth of welcome and generosity that emerged from encountering travelers in the desert generations ago, is very much a part of life today – from the traditional serving of Arabic coffee to an absolute dedication to the highest standards of modern service. Much of Abu Dhabi's charm lies in the old-world courtesies lost in many destinations. Here they prevail. Craftsmen will be only too pleased to take you through the intricacies of their centuries-old disciplines, camel herders and falconers will take an almost unprecedented interest in introducing you to their sports – giving you a chance to try your hand at these most traditional of outdoor pursuits. Henna artists will be eager to demonstrate the intricacies of their 'art' and the history of a tradition which emerged from a desire to celebrate festive occasions.

### While selecting the best accommodation for our guests, we keep a few things in mind:

- Availability of diverse accommodation options and its proximity to the congress venue and to the City Centre
- Availability of accommodations on preferred dates
- Competitive rates

### How to reach us

Due to Abu Dhabi's strategic location as a middle point between three continents and at a busy transportation route that connects all parts of the world, there is no major destination around the globe that is not linked with Abu Dhabi in a direct or a single-connection flight. So, getting to Abu Dhabi by air is quite easy, whether via one of the emirate's two international airports or neighboring airports in other emirates, the nearest of which (Dubai International Airport) is only an hour-and-half drive by land, Abu Dhabi is accessible from border crossings with Saudi Arabia and Oman via freeways.

Abu Dhabi is at the heart of one of the world's most rapidly advancing regions. Its strategic location ensures easy access from the world's major trade centers of Europe, Asia, Africa, America and Australia. Abu Dhabi is halfway between Tokyo and New York, with Europe, Africa and western Asia a short hop away.



Traveling to and from the exhibition venue is a vital part of the experience. Our selected venue, the Abu Dhabi National Exhibition Center (ADNEC), is positioned in the Capital City's Diplomatic District ADNEC is conveniently located 20 minutes from Abu Dhabi City Centre/Corniche, 15 minutes from the Abu Dhabi International Airport and one 90 minutes from Dubai International Airport.

### Abu Dhabi International Airport

One of Abu Dhabi's key advantages is its efficient airport operation, which includes rapid baggage handling, immigration and customs formalities. To ensure these high standards are maintained as visitorship grows, Abu Dhabi International Airport is undergoing a massive multi-billion development programme. A new terminal 3, together with other developments at Abu Dhabi Airport including the second runway, new ATC tower and the Midfield Terminal Complex which will be completed before 2019, form part of Abu Dhabi Airport Council's larger expansion plan. Abu Dhabi International Airport is currently serving over 96 destinations in 56 countries including Etihad Airways, the national airline of the UAE and many other mainline international flag carriers are among Abu Dhabi International Airport's clientele.





### **ESI 2019 VENUE**

Abu Dhabi National Exhibition Centre (ADNEC) is the chosen location for hosting the Expo-Sciences International 2019. It is the most modern exhibition Centre in the world. Located in the capital of the United Arab Emirates, the Exhibition Centre was opened by the President of UAE and Ruler of Abu Dhabi, His Highness Sheikh Khalifa Bin Zayed Al Nahyan in 2007. Since then, the Centre welcomes over 1.5 million visitors and hosts over 300 events every year. From large-scale public shows such as the Abu Dhabi Book Fair to international trade exhibitions such as The World Future Energy Summit, the International Defense Exhibition –IDEX, Abu Dhabi International Petroleum Exhibition & Conference – ADIPEC and WorldSkills Abu Dhabi 2017, ADNEC is becoming famous for hosting high profile large-scale exhibitions.

With 12 state-of-the-art fully connected exhibition halls, the Atrium and the Concourse totaling 73,000 square meters, ADNEC is the largest exhibition centre in the Middle East and the ideal venue for an international event such as the Expo-Science. The flexible, flat-floored, interconnected halls offer endless possibilities for all types of exhibitions and events; these facilities are complemented by extensive event services including imaginative conference and banqueting facilities.

As part of the Centre's innovative design, the front of each hall can be partially removed to allow a show to expand into the 18,000 square meters public concourse area. Fully air-conditioned with high ceilings and integrated I.T. facilities, ADNEC's exhibition halls are amongst the most modern and the most flexible in the world. Every exhibition hall is served by a minimum of two vehicle entry doors with variable heights. All exhibition halls have sizable back-of-house facilities for loading and unloading of equipment. The selected area for hosting the Expo-Science International 2019 is an 8,000 sqm space located in Halls 1,2,3,4 and the atrium with direct access to VIP entrance and parking facilities. The strategic location allows easy movement to reach conference and banqueting facilities as well as meeting rooms, the auditorium and the Business Centre.





Stay Connected with us!

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# ACTVET

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