



International
Astronautical
Federation

News



Connecting @ll Space People

2/2018 (June 2018)

President's Welcome

Dear Colleagues,

This edition of our newsletter comes out just as we are returning from one of the year's signature events: the Global Space Applications Conference #GLAC2018 in Montevideo organised in partnership with the Centro de Investigacion y Difusion Aeronautico-Espacial (CIDA-E), a member of the IAF since 1985 and one of ten IAF members from South America. We are particularly pleased with the success of this gathering, which attracted huge interest from throughout the world space community.



Meanwhile, preparations continue to advance for IAC 2018 in Bremen, Germany, the details of which you will find in this issue. We also take a look at the events that will be associated with the Congress, such as the United Nations/International Astronautical Federation Workshop on Space Technology for Socio-Economic Benefits; the IAF International Meetings for Members of Parliaments on 'The Seamless Chain of Innovation – From Science to Business'; The International Project/Programme Management Committee (IPMC) Young Professionals Workshop.

We are also delighted to have received 2 full proposals for hosting IAC 2021. These come from Paris, France – submitted by the Centre National d'Etudes Spatiales, CNES and Venice, Italy – submitted by the Association of Aeronautics and Astronautics, AIDAA.

We are very pleased to invite you to two new events: the International Space Forum at Ministerial Level – the Latin American Chapter, in Buenos Aires, Argentina on 30 October 2018 and the annual IAF Global Conference on Space for Emerging Countries – GLEC 2019, taking place in the beautiful city of Rabat in Morocco from 24-26 April 2019. This will be the occasion to keep implementing the Global Innovation Agenda 2016-2019 by creating awareness on the essential legislative and financial models to establish and operationalising national space programs; to organise technology and skills transfer; and to keep highlighting the socio-economic benefits of space applications.

The next IAF newsletter will be published in September and will bring our members' news as usual, and important last-minute updates on events at the IAC.

Best wishes for the summer and let's keep the conversation online alive @iafaastro.

Dr. Jean-Yves Le Gall
IAF President

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MEMBERS' CORNER

OUR LATEST PUBLICATIONS

- GLAC 2018 Final Programme

INTERVIEWS WITH: Pascale Ehrenfreund
Chair of the Executive Board at DLR and
IAF Vice-President for Communications,
Publications and Global Conferences

IMPORTANT DATES:

- IAC 2018 Early Registration Rate – Ends **30 June 2018**
- IAC 2018 – **1-5 October**
- Deadline of IAF Distinguished Service Award Call for Nominations – **31 August 2018**
- Deadline of Luigi G. Napolitano Award Call for Nominations – **31 August 2018**
- ISF2018 – **30 October 2018**
- IAF Spring Meetings – **26-28 March 2019**
- GLEC 2019 – **24-26 April 2019**



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GLAC 2018

The Global Space Applications Conference (GLAC) 2018 was a huge local and international success. Thanks to the Global Conferences, the IAF is able to expand its local reach and offer its Community high-level events to meet and exchange in every region of the world. GLAC2018 was indeed the perfect occasion for Uruguayan space companies and enthusiasts to get even more involved in the space world!

GLAC 2018 first day started with the first joint Space Generation Advisory Council – SGAC / International Astronautical Federation – IAF Seminar which saw the participation of worldwide students and young professionals and provided them with an opportunity to learn about capacity building and policy input on space applications. The seminar was enriched by the participation of space experts whose enthusiasm towards the young generation was clearly notable, starting with the IAF President, Jean-Yves Le Gall, who expressed his wish to “see more and more young people from South America engaged in space”. After an engaging and productive working groups’ session, the seminar participants gathered again for lunch where they had the privilege to listen to Sergey Krikalev, Executive Director of Piloted Spaceflights at ROSCOSMOS, sharing his impressive Cosmonaut career. After a morning dedicated to the next generation, the afternoon focused on the prominent speakers attending GLAC 2018 with the Opening Ceremony and the High Level Panel on Space for Socio-Economic Growth. Jorge Menéndez, Minister of Defence of Uruguay, addressed the audience to highlight the “utmost importance of space applications for Uruguay considering that one of its main sector of activities is agriculture”. The lack of financial resources to conduct the most basic space activities, in some countries,



despite the enormous space advancements in the past decade, was one of the issues at the heart of the conversation. This is why collaboration between organisations has become vital for emerging countries to be part of the space scene in what concerns space applications. In this dynamic, Roberto Battiston, President of the Italian Space Agency (ASI), stressed the importance of the relationship between Latin American countries and Europe. In this spirit, ASI and IAF are working on a very important regional project, the IAF International Space Forum at Ministerial Level - ISF 2018 to take place in Buenos Aires, Argentina in fall 2018. Pascale Ehrenfreund, Chair of the Executive Board of the German Aerospace Centre – DLR, underlined the importance of finding the right balance between national interest and international cooperation. To mention also the participation and contributions of other Heads of Agencies, such as Francisco Mendieta, Director General of the Mexican Space Agency – AEM and Valanathan Munsami, CEO



of the South African National Space Agency – SANSA. Certainly, the first day of GLAC 2018 marked the beginning of an intense conference where the high value of space applications will hopefully embolden more and more countries, governments, space agencies and industries to work together and embrace all positive aspects and benefits of space applications.

The second day of GLAC 2018 started with a fundamental question: How are we going to produce food and energy for a constantly increasing population of more than 7 billion people? “By wisely using natural resources of all kinds” claimed Gerardo Richarte, Co-founder and CTO of Satellogic. Gunter Schreier, Deputy Director of German Remote Sensing Data Center (DFD) at German Aerospace Center (DLR) confirmed that “Earth Observation is the tool of choice to best monitor our food resources”. On the following panel, Christina Giannopapa, Head of Political Affairs Office at the European Space Agency (ESA), asserted that “space data open up a vast amount of possibilities and space applications can truly help in monitoring air and ground activities”. More generally, a self-evident observation emerged from the discussions: building space applications must be a common effort undertaken by all space nations to overcome the challenges faced in various fields such as transportation, agriculture, navigation or security. Health is another domain where space applications can improve people’s lives. For instance, as explained by Beatrice Barresi, Applications



Engineer at the European Space Agency (ESA), “through the use of multiple space assets, it is nowadays possible to provide significant advances for breast screening services in Europe and beyond”. In addition to improving the monitoring of individual’s health, space applications can also have a direct impact on ensuring the safety of specific areas and cities which regularly suffer from natural disasters such as floods and earthquakes. Oleg Ventskovsky, Yuzhnoye’s European Representation Director, explained how Yuzhnoye State Design Office “is actively engaged in the fight against earthquakes and looks deeply into a way to forecast them”.

The last day of the conference focused on the topic of space data democratization. Jean-Pascal Le Franc, Director of Planning, International Relations and Quality at the French Space Agency - CNES, explained that CNES is focusing on disruptive ideas and are currently working on innovations such as reusable rockets and more powerful satellites that will help the fight against digital divide.

Overall, GLAC 2018 provided detailed insights on the current space applications’ efforts carried out by agencies and industries. The 200 people from 24 countries that attended GLAC 2018 left the conference with a clearer view and knowledge of the future of space applications and their concrete benefits in our daily lives.



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69TH INTERNATIONAL ASTRONAUTICAL CONGRESS

BREMEN | 1-5 OCTOBER 2018

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#INVOLVING EVERYONE

IAC 2018

Register Now for the 69th International Astronautical Congress - IAC 2018!

Early Bird Pricing ends June 30!

the 69th International Astronautical Congress - IAC 2018 will be here in a flash!

If you haven't registered for IAC 2018, register today or before **30 June 2018** at www.iac2018.org if you want to benefit from the Early Registration Price.

We are also very excited to announce:

- The **Plenary Programme** including 3 Highlight Lectures and 7 Plenaries
- The **Technical Programme** including 178 Technical Sessions, 540 Interactive Presentations and 32 Special Sessions
- The **United Nations/International Astronautical Federation Workshop** on Space Technology for Socio-Economic Benefits
- The Global Networking Forum (GNF) programme with over 40 panels and roundtables



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IAF Graphic Recording

The IAF partners with a team of professional graphic recorders who live draw IAF events and, by combining the skills of a note-taker and an artist, visually represent information communicated orally.

This powerful technique is increasingly becoming popular as it captures discussions and ideas into drawings.

Graphic Recording delivers an extra, essential visual element with the benefits of bringing events to life, and creating a visual record.

These boards synthesis the essential elements of IAF events into a combination of words and images.

For more info visit <http://www.iafastro.org/publications/media-center/iaf-graphic-recording/>

If you too want to benefit of the IAF graphic recording services for your IAC 2018 event please contact: silvia.antolino@iafastro.org or isabella.marchisio@iafastro.org



UNLOCK YOUR IAC



The International Astronautical Congress welcomes each year a large number of students and young professionals eager to expand their knowledge and meet inspiring people.

The IAF has observed a strong need of mentoring amongst students and young professionals who attend the IAC. This was one of the main outcomes of a survey conducted for the young professionals who participated in the IAC 2016 held in Guadalajara, Mexico.

From this observation, the IAF S came up with the idea of organising a contest on social media where students and young professionals would compete to get the opportunity to be mentored by senior space experts at the next IAC in Bremen, Germany.

The #UnlockYourIAC in Bremen will be the first edition.

#UnlockYourIAC is an online contest for students and young professionals under 35 years of age. The contest will take place on YouTube and will give them the opportunity to access a « speed date » alike event with senior space experts of three different backgrounds:

- Business Incubator: how to get your business started and how to make it successful?
- Human Resources: how to get ready for a job interview and what are the best tips to succeed?
- Astronaut: what qualities and skills do you need to become an Astronaut?

The winners will get the great opportunity to meet one of the three experts and gain knowledge from them.

Participants should:

- Submit a CV;
- Explain what their professional project consists in;
- Upload on YouTube a 1 minute max motivational video on why they should be selected.

Participants should declare for which of the 3 categories they want to participate: business incubators, human resources or astronauts. There will be three winners per category experts.

Participants should submit a candidature (1 page, word/PDF format) and explain what their professional project consists in. In addition, participants should submit a CV and upload on YouTube a 1 minute max motivational video on why they should be selected. They should name their video: “name for #UnlockYourIAC”, tag #UnlockYourIAC and send us the link to their video.

Then, the committee will select the nine winners based on the CV, project presentation and motivational video.

In order to be selected, a few criteria need to be fulfilled:

- Project feasibility: the feasibility of the candidates’ projects need to be consistent;
- Motivation: candidates needs to be highly motivated;
- CV: in due form;
- Under 35: to be eligible, candidates must be under 35 years of age in the year of the IAC;
- Proof of registration to the IAC.

The selection of the nine winners will be made by the Next Generation Coordination Group (NGCG) members:



Chris Welch
(Chair)



Lyn Wigbels
(ESL/YSL/FSL)



Kevin Stube
(WD-YPP)



Naomi Mathers
(SEOC)



Pierre Rochus
(SUAC)



Clementine
Decoopman (SGAC)



ISF 2018

The IAF and the Comisión Nacional de Actividades Espaciales (CONAE) are pleased to invite you to the 3rd International Space Forum at Ministerial Level – The Latin American Chapter in Buenos Aires, Argentina on 30 October 2018.

The International Space Forum is an annual gathering at Ministerial Level created by the International Astronautical Federation (IAF) and the Italian Space Agency (ASI) to discuss, debate and encourage a global discussion on the necessity of promoting a greater involvement of Universities and national Academies into space activities.

Whereas Space Centres and Agencies are not present in all countries, Universities and Academies are distributed all over the world; their



attitude to cooperation gives the opportunity to establish a worldwide network of knowledge supporting the conception, preparation and exploitation of space activities regardless the geographical location. A coherent, inclusive and balanced action among different countries could create a worldwide network of space knowledge and human capital through the sharing of intellectual resources and opportunity to actively contribute to the development and exploitation of the scientific space programmes, including education and training areas.

The yearly ISF sees the participation of Ministers of University and Research and Space, as well as delegation from Space Agencies and International Organisations. Prominent Keynote Speakers are invited to deliver presentations on topics chosen specifically for each edition of the Forum.

The International Space Forum at Ministerial Level – The Latin American chapter will focus on Education, Environment and Partnerships.

More information will be shared soon!



GLEC 2019

In continuation of the IAF's series of Global Conferences, which was initiated in 2010 with a Global Lunar Conference (GLUC 2010) in Beijing (in cooperation with CSA) and followed by:

- Global Space Exploration Conference (GLEX 2012) in Washington (in cooperation with AIAA),
- Global Space Application Conference (GLAC 2014) in Paris (in cooperation with UNESCO),
- Global Space Innovation Conference (GLIC 2015) in Munich (in cooperation with the Bavarian ministry, DLR and ESA), and
- Global Conference on Space and the Information Society (GLIS 2016) in Geneva (in cooperation with ITU),
- Global Space Exploration Conference (GLEX 2017) in Beijing (in cooperation with CSA)
- Global Space Applications Conference (GLAC 2018) in Montevideo (in cooperation with CIDA-E)

The International Astronautical Federation (IAF) and the Centre Royal De Télédétection Spatiale (CRTS), a member of the Federation since 1996, are now pleased to invite you to the **2019 Global Conference on Space for Emerging Countries (GLEC 2019)** on 24-26 April 2019 in Rabat, Morocco.

Following its mission to promote international development and share knowledge, the IAF and its member CRTS are committed to fostering and supporting the international relations that allow space faring nations and space developing nations to share practices and data about space activities and their concrete social benefits.

First Conference of its kind, GLEC 2019 is designed to encouraging the sharing of programmatic, technical and policy information,



as well as collaborative solutions, challenges, lessons learnt, and paths forward among all space nations. This is a first in what could become a series of Conferences for emerging countries and new communities in line with the Global Innovation Agenda 2016-2019 .

Any discourse initiated to advance the development of space programs in emerging countries must be cognisant of the underlying challenges facing these countries. Hence, the discourse for GLEC2019 must focus on:

1. Creating awareness on the essential legislative and policy elements that must be considered in establishing the foundation for national space programs;
2. Highlighting the socio-economic benefits of space applications so that high-level national support can be secured for advancing national space programs;
3. Understanding the various financial models for the optimal resourcing of national space programs;
4. Identifying opportunities for technology and skills transfer and the underlying framework within which such interventions can be carried out; and
5. Creating awareness about the base infrastructure requirements needed for operationalising national space programs.

The Conference programme is designed to bring together the international community, including senior representatives of the major space agencies, industry, governments, policy makers, academia and NGOs. These leaders in the field will converge in Rabat, Morocco to present results, exchange ideas, debate roadmaps, and discuss the future opportunities provided by space activities to emerging nations.

The comprehensive programme will include high-level keynotes, round tables as well as young and students dedicated sessions that will address the most recent achievements in space activities and cooperation for emerging countries and explore how industry, politics, and law will help shape the future of this exciting domain of astronautics.

You are all invited!

Space Ops

The IAF is pleased to inform you that a collaboration with Space Ops has been sealed to promote and maintain an international community of space operations experts.

SpaceOps was founded in 1990 to foster continuous technical interchange on all aspects of space mission operations and ground data systems, and to promote and maintain an international community of space operations experts. The forums for discussing state-of-the-art operations principles, methods and tools are the SpaceOps biennial symposia held at varying locations and hosted and organized by a selected space agency. The event has been held biennially since 1990 and attracts technologists, scientists, managers and experts from space agencies, academia, space-related industry and military organizations.

The IAF attended the Space Ops conference 28 May - 1 June, in Marseille, France to start preparing the next event: #SpaceOps2020 18 – 22 May 2020 in Cape Town, South Africa!

Check
the video on
this new
partnership on
YouTube



SPACE GENERATION
ADVISORY COUNCIL

IAF & SGAC fostering generational diversity

After years of working in parallel, the International Astronautical Federation (IAF) and the Space Generation Advisory Council (SGAC) have decided in March 2018 to partner up in order to further promote and improve generational diversity in space.

The younger generation has everything the space field needs: the thirst to constantly learn something new, an experimental approach in research, the need to excel and impress, an up-to-date knowledge of technologies, and most importantly a more innovative way of thinking compared to the older generation. This is the basis of development, of evolution, of innovation. Both IAF and SGAC have been working to facilitate the inclusion of the younger generation into the space field. Today, they unite efforts to support not only students and young professionals in their professional development but also the organisations that employ them. This new partnership between the IAF and the SGAC ratifies the engagement the space community is endorsing to freshen up and open up to the new generation. This cooperative and accessible world the IAF and SGAC intend to form together will set in motion a virtuous cycle of solidarity and reciprocity that will keep nurturing harmonious relationships. The SGAC and the IAF are the embodiment of community engagement where now more than ever everyone is welcome to join!

Visit us on www.iafastro.org/generation to find out how to get involved!

#ThisDayInSpace

When was the first time four women were in space at once? Do you remember the sentence 'Houston we have a problem'? What is the Hubble Space Telescope? Who was the second human in space? When was the European Space Agency created?

Find out on the new #ThisDayInSpace IAF videos celebrating the history of Space:

<http://www.iafastro.org/publications/media-center/this-day-in-space/>



Connecting @ll Space People



IAF APP

Dear IAF Community,

As you probably know already, the IAF has launched the IAF App: **IAFASTRO**.

The importance of mobile phones in our everyday life and activities is undeniable. Through the development of the IAF mobile application (IAF App), the IAF is now able to connect with all of you more easily and faster.

In the IAF App you will find all the latest information regarding the Federation and most importantly you will receive the latest updates and info about your favorite moments of the year: IAF Spring Meetings, Global Conferences, International Astronautical Congress, Technical Programmes, GNF, updated schedules, and so much more.

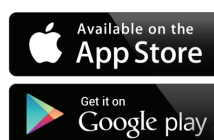
Download the IAFastro app!

The IAF works intensively to make sure knowledge is both advanced and shared on how space-related technology can improve our lives. Through the IAF App you will be able to connect and collaborate with the entire IAF Community.

As a small organisation, we rely on your help. Please download the IAF App now and let us know what do you think about it, what could be improved and of course what do you love the most – especially prior the #IAC2018!

The App name on the “App Store” and on the “Google Play Store” is IAFASTRO

Should you have any questions please contact IAF App Manager: **Abed Aldaas** abed.aldaas@iafastro.org



NEWS!



Yuri's Night celebrated

The University of the Western Cape - Cape Peninsula University of Technology Space Association celebrated Yuri's Night (12 April - Cosmonauts' Day in Russian Federation) by screening an astronomical film on the Hubble telescope discoveries.



Aexa Aerospace LLC is developing training for the International Space Station using mixed reality. Aexa Holowizard application will improve effectiveness, speed training, and save millions of dollars. It can also mitigate risk by reducing operator errors that could jeopardize mission success. This application could also provide on-site training for future missions to Mars and beyond.



The Aexa HoloWizard application is the most capable remote training and operations assistance tool in the world today. HoloWizard is a custom software application for the Microsoft HoloLens and other devices such as the Oculus Rift, Magic Leap, and VIVE. HoloWizard software leverages the augmented

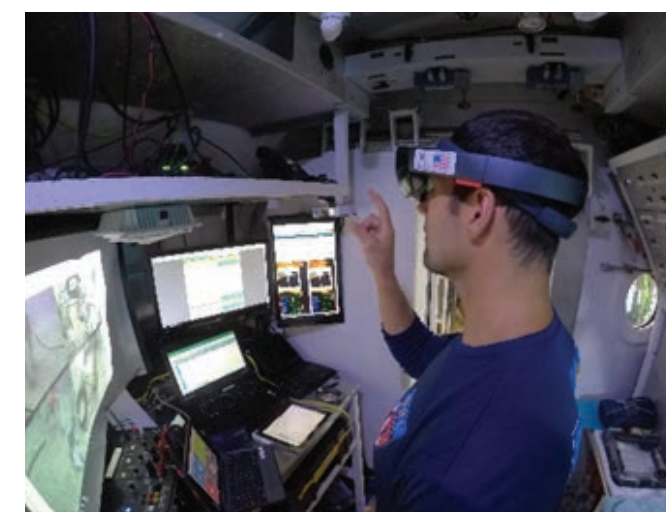


reality/virtual reality environment as the premier training and operations assistance application available for wearable devices.

HoloWizard immerses the user in a mixed or virtual reality world where they maintain situational awareness of their own space, while they are assisted with task performance by our intelligent software.

As part of the spinoffs, Aexa is working with other companies in the medical and petrochemical industries using the Holowizard to develop training and operational assistance tools. Aexa has offices in Houston, Texas, and Huntsville, Alabama.

More info www.aexa.us





Media statement re Space Funding in the 2018 Budget

The Space Industry Association of Australia welcomes the Commonwealth Government's long term commitment to the space sector as announced in the 2018 Budget -see <http://www.minister.industry.gov.au/ministers/cash/media-releases/budget-2018-new-opportunities-and-jobs-australian-industry>

The benefits of a National Space Agency and an investment in a Space Based Augmentation System (as set out in two SIAA White Papers – see <http://www.spaceindustry.com.au/publications.php>) have been the subject of detailed research and lobbying by the SIAA and other key players in the Australian space sector over the last 18 months.

Our advocacy for the establishment of a national space agency and a program of investment in space infrastructure, such as the SBAS system, and has been recognised and we now know that these programs will be funded.

We were pleased to be involved in the Expert Reference Group on Australia's Space Industry Capability chaired by Dr Megan Clark. We look forward to the release of that report and the Commonwealth Government's response.

It is vitally important that the recommendations of the Expert Reference Group be accepted and implemented. This will ensure that the new Agency has the necessary support from both government and industry to achieve the long term goals of industry engagement and economic development by promoting collaboration and investment nationally and internationally.



USC reaches major milestone: over 500 master's degrees awarded in Astronautical Engineering

The University of Southern California (USC) Viterbi School of Engineering reached a major milestone. Since establishment in 2004, its Department of Astronautical Engineering has awarded more than 500 Master of Science degrees in Astronautical

Engineering, in addition to numerous Bachelor of Science degrees and a few dozen doctoral degrees.

Faculty and students in this unique department focus on satellites, propulsion and rocketry, space science, mission safety and space communications.

The department includes many instructors who are leading specialists working in government agencies and industry. Recently, former NASA astronaut Garrett Reisman has joined the department, strengthening specialization in human spaceflight to educate the next generation of explorers.

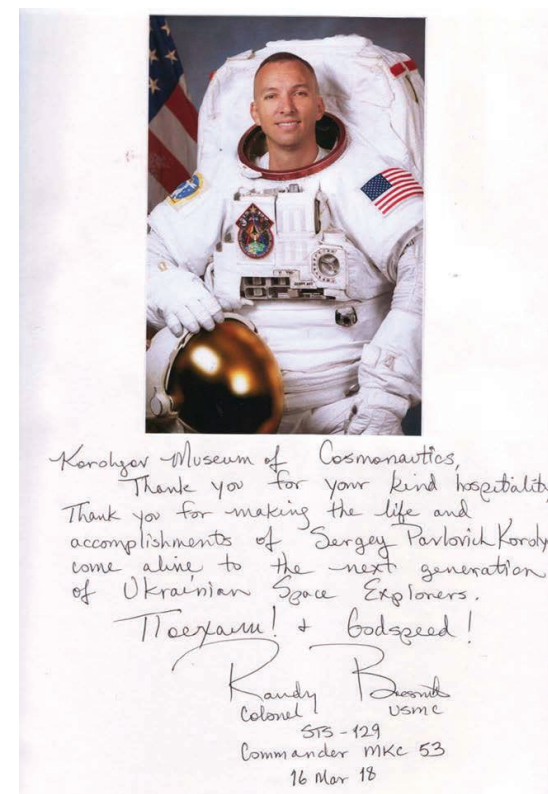


Ukraine Welcomed a NASA Astronaut

In March, three Ukrainian cities: Kiev, Dnepr and Zhitomir welcomed a NASA astronaut Randolph James "Komrade" Bresnik and his son Wyatt. Randy, who most recently served as the Commander of the International Space Station for Expedition 53 made inspiring presentations about outer space, STEM education and future missions to the Moon and Mars. Social network users remember his experiments with a spinner



and educational programs for kids, as well as his mind-blowing pictures of different parts of our planet. It was amazing that in Ukraine an astronaut enjoyed popularity of a rock star. In Zhitomir, Randolph Bresnik left the Ukrainian flag, which was unfolded in the ISS in honor of his adopted son, who was born in Ukraine. Now the flag is on display at the S.Korolev Space Museum.



The 4th SpaceLand Forum in the 1st Island of Space

Sustainable progress and socio-economic development imply research and research implies creativity: research programs in weightlessness, such as the SpaceLand ones focused on the hand-on involvement of elderly, kids and disabled individuals, generate unique opportunities both for business and high-tech & high-education jobs.

Microgravity and low-gravity environments can provide unprecedented conditions and capacities for state-of-the-art pharmaceutical, biomedical and material sciences research, as well as multi-disciplinary technology innovation for new human-rated and robotic systems, also for critical, tele-controlled and/or automated applications and spin-off's in remote, hostile or harsh environments.

This approach also fosters several education and commercially-driven research opportunities leading to new products and



services for the 21st century markets, generating new skills and labour-intense jobs benefitting also the weak social classes.

This is the context for the 4th SpaceLand Forum, where all IAF members and affiliates are welcome, planned for the 15 December 2018 in the beautiful island of Mauritius; the event is attached to, and in synergy with, the second African Space Generation workshop on 13 and 14 December in the same magnificent location.

The 4th SpaceLand Forum follows on the success of previous events carried out with the participation and the endorsement of the V-President of the European Commission and several other international institutions: e.g. <https://www.asi.it/it/eventi/convegni/spaceland-expo-congress>.

The Forum, with its amazing sun-set networking on one of the most beautiful beaches on the planet, will bring together stakeholders, investors, scientists and techno-science industry to consider and collaboratively stimulate with young professionals and international students, at all level, a myriad interdisciplinary perspectives on space and microgravity-related life science & techno-scientific matters, especially for the sustainable development of African and Asian regions.

Space Policies, Business and Entrepreneurship, Space outreach and STEAM (Science, Technology, Engineering, Arts and Medicine), United Nations' Sustainable Development Goals (SDGs) and Capacity-Building programs for Africa and the Indian Ocean, starting from the SpaceLand Centers planned in the area, will be among the main topics of the event.

Emphasis will be given to producing recommendations to relevant public, private and non-governmental sectors, helping to shape the future of the African and Indian Ocean-facing Countries, also to forward proposals to the United Nations Committee on the Peaceful Uses of Outer Space (U.N. COPUOS), in primis for microgravity STEAM disciplines.

Details on the involvement of both the above main players and



the young generations in the Mars-habitat-looking SpaceLand Center will also be provided, updating the multimedia presentation given at the U.N. - UAE High-Level Forum in November 2017 by the Head of State and Doct. Carlo Viberti, President of SpaceLand and NASA/ESA Zero-Gravity Research Flight Veteran.

Please set your calendar for 13-15 December 2018: welcome to Mauritius, your first SpaceLand !

Info on: www.SpaceLand.it



Yuri's Night@IAC2018 – a night dedicated to space enthusiasts

For space enthusiasts Yuri's Night is huge. It all started in the 1960s with small celebrations in Russia commemorating the first human launch into space of cosmonaut Yuri Gagarin on 12th April 1961. Since then the initiative has evolved over the years into a world wide space happening with more than 600 events – even on the ISS. The goal of Yuri's Night has stayed the same: to increase the public interest in space exploration, to inspire and to extend the network of space fans around the globe.



In 2010 Bremen officially became part of the Yuri's Night Community. Since then, 12 April in the city is all about space. The celebrations have grown rapidly and spread throughout the city every year, combining space celebrations with educational and outreach activities, costume contests, sci-fi movie nights, galactic parties or entertaining expert talks in bars and pubs.

With the IAC 2018 Bremen and the World Space Week ahead of us, it's just a matter of course that the Yuri's Night Bremen crew gets active again. On 4 October 2018, young professionals,



**Hungarian
Astronautical
Society**

2nd Symposium on Space Educational Activities in Budapest

The 2nd Symposium on Space Educational Activities (2nd SSEA) was co-organized by the ESA Education Office and hosted by the Budapest University of Technology and Economics in Hungary. The Hungarian Astronautical Society (MANT), a civil association of space professionals and enthusiasts gave a helping hand in organizing this remarkable international event in Budapest between 11–13 April 2018. The symposium was attended by more than 200 guests. At the opening session, Kai-Uwe Schroggl, ESA's Chief Strategy Officer and the Reinhold Ewald, ESA astronaut gave keynote lectures. Altogether, there were about 50 oral presentations at multiple sessions and nearly 40 posters were on display. Remarkably, about two thirds of the participants were university students or young space professionals. Our society offered financial support for young Hungarian participants for attending the meeting. Current space educational activities and programmes were presented and discussed, not only in the talks and posters, but also during the various networking events. The technical programme and the book of abstracts are available on the symposium web site (<http://www.ssasymposium.org>) where the proceedings with the full papers will soon be published.



(Image credit: ESA)



students and all IAC 2018 attendees who feel young enough to rock the club are invited to join space experts and enthusiasts from the Bremen space sector for „Yuri's Night@IAC2018“ and make this event the biggest space party on earth. It's the perfect occasion for having fun while getting connected and gaining first hand infos on career opportunities in our City of Space. #YurisNight_Bremen



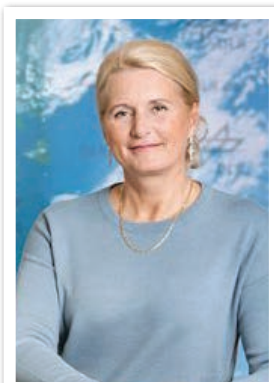
International Lunar Observatory Association **Galaxy Forum Hainan 2018: China** with themes International Human Moon Missions and Astronomy from the Moon will be held **4-7 December 2018** at Hilton Wenchang on Hainan Island. Early registration ends 20 July, visit www.bit.ly/GFH2018 for more info.

Speakers include Dr. **Andy Aldrin**, Professor **Ziyuan Ouyang**, Dr. **Giuseppe Reibaldi**, ILOA Director **Steve Durst**, Dr. **Chris Sallaberger**, Dr. **Bernard Foing**, CSA Director General **Gilles Leclerc**, ispace CEO **Takeshi Hakamada** and many more. Luncheon panel “First Women on the Moon” features **Soyeon Yi** and women Astronauts from Japan, China, USA. Attendees are international lunar scientists, engineers, space agency experts, space community professionals, entrepreneurs and enthusiasts. The principal objective of Galaxy Forum Hainan is to help realize humans on the Moon as soon as reasonably possible, to enable breakthrough technologies, human-rated lunar landers and human expansion into the Solar System.

ILOA Galaxy Forums advance Galaxy 21st Century science, education, enterprise. **International Lunar Observatory ILO-1** flagship mission NET 2020, human service mission, and ongoing Chang'e-3 LUT collaboration are being conducted with support from Moon Express of USA, Canadensys Aerospace of Canada, National Astronomical Observatories of China, India Space Research Organization, the newly formed Southeast Asia Principal Operating Partnership, and others.



Interview with Pascale Ehrenfreund



Chair of the Executive Board at DLR and IAF Vice-President for Communications, Publications and Global Conferences. Visiting professor in Astrobiology at the University of Amsterdam and the University of Leiden. Professor of Space Policy and International Affairs at the Elliott School of International Affairs, George Washington University, and Lead Investigator at the NASA Astrobiology Institute.



1. What is your vision for the IAC 2018?

Our vision for the IAC 2018 is to provide an opportunity for students to meet and share ideas with their peers from across the country and the entire world, to introduce them to new and exciting topics in space, and to inspire them to persist in their pursuit of knowledge. We want to give attendees a glimpse into space as it is practiced professionally in both academia and industry here in Germany. We want to be able to bring together passionate space researchers from across the country and foster connections and friendships that will support them long after the congress is over as they pursue their academic and professional goals. Our hope is that IAC 2018 will give young researchers the chance to share their accomplishments and that their interest in space will be reinvigorated. Finally, we hope that by hosting the IAC 2018 in Bremen, we will awaken a new and stronger interest in space in Germany.

2. What is the significance for Germany to host the IAC?

The IAC is the most important international event for all space actors worldwide. Global, interdisciplinary, and covering all space sectors and topics, it offers everyone the latest information from the space community and, above all, new contacts and potential partnerships. It's the key event to meet and discuss with major space agencies worldwide, and the best chance to build international networks. Germany is simply an ideal location for the IAC 2018. It is one of the world's top space countries employing physicists, engineers, and scientists and a vibrant space industry. It is close in the middle of Europe, between Asia and America and next to the Middle East and Africa: it will be easy for everyone to join us. Germany is eager to meet everybody!

3. How do you intend to showcase all the German achievements in Space to the international audience attending the IAC 2018?

We will have a wonderful booth in the middle of the exhibition area where everybody will be free to join us for coffee and cake! We are also organizing several events with the Global Networking Forum (GNF) including a host plenary session on: How to live and work on ISS, Moon and Mars.



4. Could you comment on the theme #InvolvingEveryone?

The world is facing too many challenges: an increased need of resources, natural disasters, degradation of the environment, climate change, to mention a few... The International community needs to work together. Everyone needs to be involved. Science, technology and innovation are key elements to provide solution for these challenges. Space in particular is essential to better understand the Earth system but also to increase and expand our understanding of the climate system and, consequently climate change. This needs the help of all the actors, everyone should be involved. The IAC 2018 is calling out everyone to attend and to be involved for the sake of humanity.

5. What legacy do you expect from the IAC 2018?

The congress had historically a huge impact on whichever nation has been chosen as the host. This impact ranges from new business opportunities, new collaborative initiatives and increased funding in support of missions, operations and services. IAC's unique legacy is driven by its ability to create and assemble high performing businesses and category leaders, and in the process transform everything. This annual event serves as a backdrop for the global space sector allowing governmental, academia and private industry leaders to envision, implement and complete collaborative projects involving everyone for the betterment of humanity. Such a high-profile event is also sure to accelerate further the growing interest among the youth in STEM education in Germany.



#UnlockYourIAC 2018

CONTEST

To all students and young professionals below 35 years of age, eager to succeed a career in space business: participate in the **#UnlockYourIAC** contest and get the opportunity to have a face to face meeting with a renowned space expert (business incubator, director of human resources, or astronaut) during the IAC 2018 in Bremen!

Send us by August 15 at ypp@iafastro.org:







- A 1 page (PDF format) description of your professional project,
- Your resume,
- The link to a 1 minute video uploaded on Youtube in which you tell us why you should be selected. **The title of your video should be:** "Name" for #UnlockYourIAC,
- Proof of your registration to the IAC 2018.

The winners will be announced mid-September 2018.

Connecting @ll Space People

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Be part of the conversation @iafastro



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The next newsletter will be issued in September 2018