INTERNATIONAL SPACE UNIVERSITY

SSP15 RETROSPECTIVE

ATHENS, OHIO, USA

#INCREASETHEAWESOME

INTERNATIONAL SPACE UNIVERSITY

SSP15 RETROSPECTIVE

Very few universities possess a spirit as innovative and visionary as the International Space University (ISU). As its name conveys, two of the underlying tenets of the university are its international spirit and specialization in space. Established in 1987 at a founding conference at the Massachusetts Institute of Technology, ISU has since become the world's leading institution in the specialized fields of the space sector.

ISU offers a unique brand of space education that is sought after by space agencies, private sector, and research institutions worldwide. True to its founding principles, the education at ISU revolves around the 3Is – International, Interdisciplinary and Intercultural. Over the past 28 years, around 4000 students from over 100 countries have graduated from ISU.

SPACE STUDIES PROGRAM (SSP)

ISU offers several different programs targeted at different demographics, from short term executive programs to a longer master's program. SSP, though, is the long-standing, flagship program of the university. It is a graduate level professional development program conducted by ISU since 1988. The curriculum covers the principal space related fields, both non-technical and technical and ranges from policy and law, business and management and humanities to life sciences, engineering, physical sciences and space applications. The shared experience of an international, intensive, interactive working environment is an ideal networking forum leading to the creation of an extensive, international, multidisciplinary professional network.

A key feature of SSP is that it takes place in a new location every year. This keeps the program truly international and adds an exciting dynamic as well as new resources and expertise. Anyone with a passion and a demonstrated interest for all-things space, intent on joining the workforce in the space sector, and keen on meeting like-minded people is a good fit for SSP.

The SSP15 program was held on the campus of Ohio University in the beautiful college town of Athens, Ohio. ISU leadership chose Ohio for its cutting-edge academic facilities and modern accommodations, situated in the rolling hills of Southern Ohio.

A PROUD HISTORY

1987: ISU Founding Conference & Incorporation in USA

1988: First Summer Session at MIT in Cambridge, Massachusetts

1994: ISU relocates to Strasbourg and incorporates in Alsace

1995: First Master of Science in Space Studies (MSS)

2011: Beginning of the Southern Hemisphere Summer Space Program

2015: SSP15 held in Athens, Ohio

ISU CENTRAL CAMPUS
STRASBOURG, FRANCE

SSP15 HOST INSTITUTION

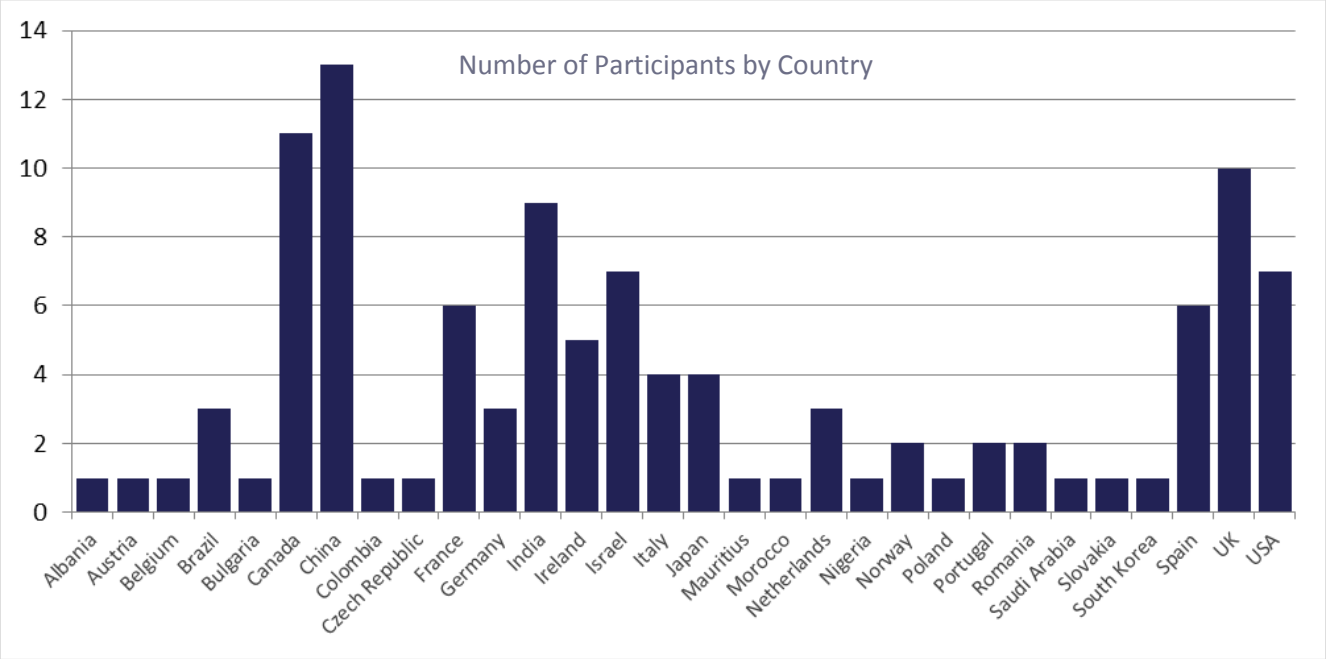
OHIO UNIVERSITY
ATHENS, OHIO, USA

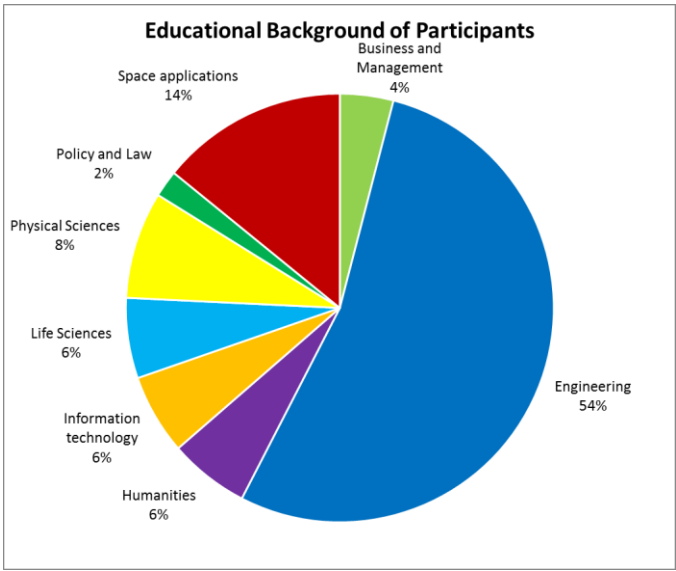
Faculty and Staff

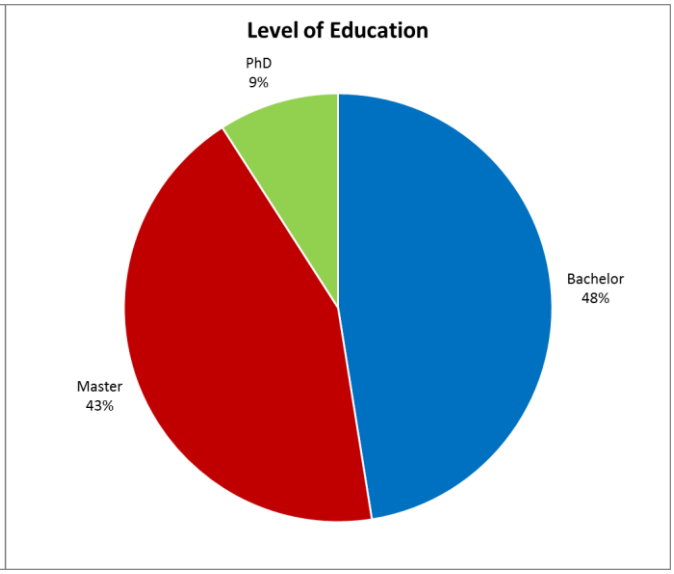
The lecturers and experts invited for the program numbered approximately one hundred and fifty top scientists, engineers, astronauts, space agency heads, artists, entrepreneurs, and managers from private industry, space agencies, non-profits, universities and research institutions. They included current NASA administrator Charles Bolden, Director of Space Policy for the White House National Security Council Chirag Parikh, Apollo astronaut Harrison Schmitt, Mikhail Marov from the Russian Academy of Sciences, Director of NASA's Planetary Sciences division Jim Green, and many more from all over the world.

Participants

This year, ninety-nine participants attended the program, representing thirty countries. Most had an educational background in engineering, with the rest having degrees in a variety of business, science and social science disciplines.







What do participants gain from SSP?

- **Knowledge of all fields in the space sector:** For nine weeks, participants are exposed to all major fields in the space sector including engineering, science, applications, policy, economics, law, management, business, arts, and health.
- **International exposure:** SSP offers participants the opportunity to meet with top experts, scientists and administrators from space agencies, private companies, and research institutions from around the world. It gives them the chance to have a personal connection with industry leaders.
- **Cultural training:** Living and working with fellow participants from around the globe provides everyone an appreciation of different cultures which is critical in an industry dependent on international cooperation.
- **Working in international, interdisciplinary teams:** SSP groups and teams combine participants from all national, professional and educational backgrounds to develop the skills required to work in global teams. Bringing together these diverse perspectives creates a rich environment in which peers can learn from one another to accomplish common goals.

SSP CLASS OF 2015

"The most interesting experience here are the conversations about science, engineering and arts. This triggered me and it is an eye opener for everyone. Next, I was in awe of the lectures about astronomy and cosmology, which were very inspiring for me as a graphic designer. It is the overall space ambiance that is like magic for everyone here."

WENDY MENSINK, NETHERLANDS

CURRICULUM

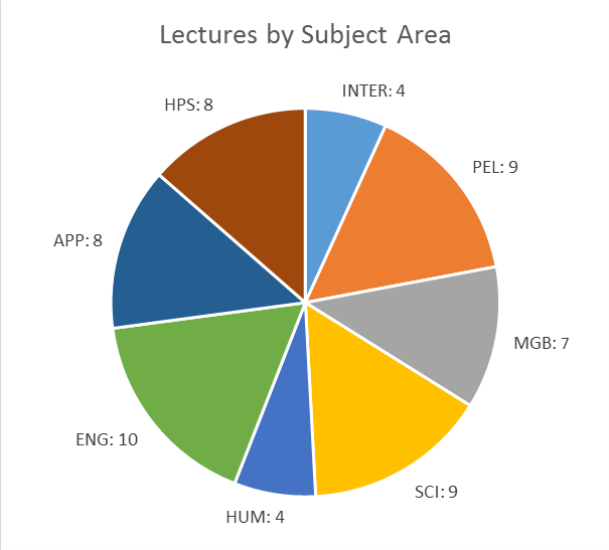
The interdisciplinary SSP curriculum emphasizes international cooperation and provides participants with varied perspectives on the world's space activities; perspectives which are normally reserved for those with years of diverse professional experience. The program includes a wide variety of activities, lectures by renowned experts, hands-on activities and projects, teamwork exercises, and professional visits, and each year it evolves to better meet the needs of its students and their employers.

Throughout the course, students are encouraged to contribute their own ideas, knowledge and enthusiasm, while – in accordance with ISU's philosophy – being open to and learning from others' unique perspectives. All course work at ISU is conducted in English.

There are three phases to SSP: Core Lectures, Department Activities, and Team Project.

CORE LECTURES

During the Core Lecture weeks, fifty nine lectures were given by experts of different backgrounds from all over the world. The lectures covered the fundamentals of all major topics of space and focused on Applications (APP), Engineering (ENG), Management and Business (MGB), Policy, Economics and Law (PEL), Sciences (SCI), Humanities (HUM), and Human Performance in Space (HPS). Many were interdisciplinary (INTER) lectures which covered a combination of those areas in order to emphasize the relationships between these disciplines in any space-related activity.



Each field of study presented a series of lectures designed primarily for non-experts. Medical specialists could understand lectures on propulsion, while engineers and lawyers could understand the lectures on the effects of weightlessness on the human body.

DEPARTMENTS

The Department Activity phase provides time for deeper examination of some of the topics covered in the Core Lectures. Groups are smaller, allowing for a greater exchange of knowledge and ideas as well as hands-on activities. Departmental weeks are an important opportunity for students to interact with faculty members, lecturers and teaching associates and to build their professional network.

Each department met for eleven separate activities, which included departmental discussions, simulations, hands-on workshops, field trips, professional visits and participant presentations.

SPACE APPLICATIONS

Chair: Dr. Su-Yin Tan

TA: Carolyn McCormick

SPACE ENGINEERING

Chairs: Dr. Sheila Baily & Joseph Pellegrino

TA: Graeme Taylor

HUMAN PERFORMANCE IN SPACE

Chair: Dr. Chris Lehnhardt

TA: Erika Kupper

SPACE HUMANITIES

Chairs: Dr. Norah Patten & Dr. Geoff Steeves

TA: Andree-Anne Parent

SPACE MANAGEMENT AND BUSINESS

Chair: Adil Jafry

TA: Aly Reneau

SPACE POLICY, ECONOMICS, AND LAW

Chair: Michael Davis

TA: Francesca Moretto

SPACE SCIENCES

Chair: Dr. Eric Dahlstrom

TA: Ramasamy Venugopal


INTERNATIONAL
SPACE UNIVERSITY

TEAM PROJECTS

Tracking Fracking

Chairs: Dr. Kevin Crist & Dr. Angie Bukley
TA: Remco Timmermans

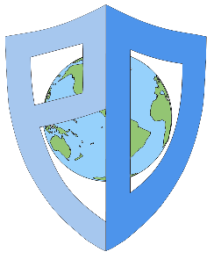
The mission of Tracking Fracking was to develop an understanding of the environmental issues that result from the hydraulic fracturing process and their potential effects on air and water quality. This was achieved by assessing the utility of space-based remote sensing assets for identifying the chemical composition of fracking emissions and tracking plume dispersion patterns in the atmosphere, using Ohio as a case study for extrapolation to broader applications. With the generous support of the Russ College of Engineering at Ohio University, the Tracking Fracking team obtained and flew a multispectral sensor to identify the atmospheric compositions of select fracking sites within the study area and to demonstrate the effectiveness of remote sensing for environmental monitoring.

Vision 2040

Chair: Gary Martin
TA: Aleksandar Jacimovic

The landscape of space exploration and development is rapidly changing. Disruptive technology and emerging commercial industries are enabling the development of new capabilities and markets in space. Entrepreneurs are finding support for business plans that would have been laughed at just a few years ago, and government support for routine delivery of cargo and crew to LEO is on the rise.

Vision 2040 studied the trends in major areas driving space exploration and development in order to construct multiple 'Visions' of what the year 2040 could look like. Based on their serious look into the future the team recommended strategic actions that ISU and other universities should implement to better prepare their students for the future world landscape.



Planetary Defense

Chair: Madhu Thangavelu
TA: Thomas Wilson

Most planetary defense strategies in the literature look at long term options to mitigate the asteroid impact threat. What if the threat appears with short term notice, requiring agile response? This team project looked at all the advanced technologies associated with Planetary Defense, especially the current and projected capabilities of core space technologies and allied systems that are needed to develop a range of strategies, concepts, options and protocols based on current developments and near term projections as well as organizations around the world to shape the global policy and explore alternatives to neutralize an asteroid threat in the near term, e.g., a bolide on a Earth impact terminal approach trajectory with a maximum warning time of one or two years

WORKSHOPS

Fundamental and elective workshops are offered during the Core Lecture and Department Activity phases. The workshops cover all seven disciplinary areas which the departments represent, providing participants with the opportunity to branch out and/or specialize further in a variety of topics of their choosing. This year there were three mandatory fundamental workshops and nineteen elective workshops.

Some workshops included:

- Radar Image Processing Workshop
- Rosetta - Extraordinary Mission Success
- Social Media for the Space Business
- Microgravity Drop Tower Experiment
- Military Space 101
- Hyperspectral Remote sensing
- The Search for Life in the Universe
- Leadership, Communication and Cooperation in Space Work
- Strategic Planning in Satellite Telecommunication Industry
- Getting Around on Another World: An Introduction to Rover Systems Design

"SSP15 was an awesome summer experience for me! The best part was that I was able to meet wonderful people from all over the world from different disciplines, as well as many experts and professionals. I enjoyed all aspects—core lectures, department activities and the team project. It was fun building rockets, designing landers and rover missions, and the project on the Europa mission. It was an enriching experience and I am grateful and blessed to be a part of it!"

NITI MADHUGIRI, INDIA

THEME DAYS

Theme Days consist of a morning or afternoon dedicated to a current theme or topic and comprise a series of presentations, group activities and interactive discussions. Generally, a number of well-known international experts address relevant and timely topics from an interdisciplinary perspective. Interactive discussions are often involved and provide an excellent forum in which to discuss or debate key issues in the space sector. For each Theme Day, participants chose between two

Theme Day #1

- Orbital Debris
- NASA Asteroid Retrieval Mission Design and Technologies

Theme Day #2

- Mars Exploration
- Space Operations Analogs

PROFESSIONAL VISITS

SSP15 participants had the opportunity to go on professional visits to various space-related institutes and companies. They were able to directly observe the facilities and interact with experts.

National Museum of the US Air Force

As the birthplace of aviation, Ohio has a rich history in aeronautics and space flight. Participants spent the day exploring the vast collection of air- and spacecraft at the museum while learning about the historical events that advanced technological developments.

NASA Glenn Research Center

This program-wide professional visit took all participants on a two-day trip to NASA Glenn Research Center (SSP15's Space Agency Partner). Participants viewed testing laboratories and facilities, and asked NASA research staff questions as they toured the facilities at both Lewis Field and Plum Brook Station. In Cleveland, the program also visited the International Women's Air and Space Museum where they learned about the history of women in aviation and space.

National Radio Astronomy Observatory

During the departmental phase, the Space Applications and Space Sciences departments joined together for an overnight visit to Green Bank, West Virginia to visit the National Radio Astronomy Observatory (NRAO). Participants learned about current research in radio astronomy while observing the world's premiere collection of radio telescopes and support facilities.

And many more professional visits including:

- Woolpert, Inc.
- Midwest Aerial Photography
- Ohio University Avionics Engineering Center
- Gordon K. Bush Ohio University Airport
- Ohio University Heritage College of Osteopathic Medicine
- Telesurgery Center at Ohio State University, Wexner Medical Center

"Ever since I can remember, I have loved to look at the night sky, follow the Moon and look out for shooting stars. On my way, I somehow lost the passion for these simple things---busy with life on Earth. By attending the ISU program and understanding the different topics and getting to know the leaders in the space community, I realized that the night sky is the one thing that binds us together. I have promised myself to never again let anything get between me and my passion of the stars in the sky."

SUSANNE PETERS, GERMANY

PUBLIC EVENTS & OUTREACH

A variety of evening events and talks were given by space experts and distinguished guests during SSP that provided insights from their personal experiences. They helped educate participants and the public on the current state of the space industry, future of spaceflight, and the history of space exploration. Some events were conducted as panel discussions that allowed enhanced interaction between panelists and participants.

INTERNATIONAL ASTRONAUT PANEL

The SSP15 astronaut panel spanned the entire duration of the human space exploration era, with astronauts who have flown on the Space Shuttle, the International Space Station and walked on the Moon. The four astronauts on the panel were Apollo astronaut Harrison "Jack" Schmitt, the first Korean astronaut and ISU alumna Soyeon Yi, Italian astronaut Paolo Nespoli and Canadian astronaut Robert Thirsk. The astronauts talked about their personal flight experiences, the commercial era and the future of human spaceflight. Popular among the public, the event was attended by more than three hundred people in person, with many more tuning in to the webcast.

OHIO UNIVERSITY'S DENNIS IRWIN WELCOMES ASTRONAUTS
HARRISON SCHMIDT, SOYEUN YI, PAOLO NESPOLI & ROBERT THIRSK

ARTHUR C. CLARKE PANEL

For the very first time, the Arthur C Clarke panel on 'Space Meets Popular Culture' was convened at SSP. The panelists included filmmakers, writers, authors, directors, composers, actors and musicians. Joining the panel were Harry Kloor as moderator, Michael Resnick, Daniel St. Pierre, Michael Potter, John Beck-Hoffman, and Joe Pelton. Discussions ranged from Arthur Clarke's predictions of technology to the intersection of Hollywood and science, where STEM meets STEAM (Science, Technology, Engineering, Art & Mathematics).

LEGO ROBOTICS COMPETITION

A traditional ISU fixture, the robotics competition saw participants, assisted by robotics experts, design and build autonomous robots to simulate planetary exploration. Watched by staff, participants and the public, six teams competed in the robotics obstacle yard to collect 'stones' that simulated interesting geological formations.

ROCKET LAUNCH

No space program can exist without rockets. For weeks, five participant teams and two staff teams labored to design and build the best model rocket that could fly to one thousand feet with a fragile payload and bring it back safely. Rockets were launched at the Ohio University airport with some spectacular successes.

CHIRAG PARIKH: US SPACE POLICY

As director of US space policy, Mr. Parikh is responsible for reviewing and writing White House space policies and coordinating their implementation. Chirag Parikh shared his personal stories and expertise on policy and law in an intimate setting with the participants.

THE HUMAN SIDE OF THE COLUMBIA DISASTER

In a moving presentation, Doug Hamilton and John Connolly shared their experiences as NASA employees who served on the 2003 Space Shuttle Columbia accident response team, emphasizing the "human side" of the disaster and how while human spaceflight presents risks, it also brings us together. It was a special experience for participants to hear of the SSP Director's direct involvement in the emotional aftermath of one of the most tragic events in spaceflight history.

There were numerous other evening talks and discussions on a myriad of topics.

- An interactive presentation with ISU Founders Bob Richards and Peter Diamandis
- The Hubble Space Telescope by NASA astronaut Jeff Hoffman
- Expeditionary Behavior by Canadian astronaut and ISU adjunct faculty Robert Thirsk
- The New Economics of Space Access Panel with David Bearden, Debra Emmons, Bob Bitten, Tom Adang, James McLeroy, and Rob Alexander
- Entrepreneurial Space Panel with Chris Stott, Andrew Aldrin, Will Marshall, Jeffrey Manber, and Adil Jafry
- John Kennedy, Richard Nixon, and the American Space Program by John Logsdon
- The Future of Human Spaceflight Panel with Francois Spiero, Kathy Laurini, Jean-Jacques Favier, and David Kendall
- Meteorite Chelyabinsk: Observations and Study by Mikhail Marov
- Armstrong Aldrin Panel--The sons of first humans on the Moon, Neil Armstrong and Buzz Aldrin
- Distinguished lecture by NASA Administrator Charles Bolden

"I really enjoyed SSP 2015! I was able to meet with professionals I cited in my thesis, as well as people who were involved in extraterrestrial activities. I listened in on private conversations from high-ranking and experienced colleagues from other countries. I was able to share my hopes and concerns about the future of space exploration. But, the best part was making lots of new international friends!"

SEMION SEMIONOV, ISRAEL

APOLLO 17 ASTRONAUT HARRISON SCHMITT

NASA ADMINISTRATOR
CHARLES BOLDEN

NEW ECONOMICS OF SPACE ACCESS PANEL


COPPERHEADS

SOCIAL EVENTS

CULTURE NIGHT

Friday nights at SSP are dedicated to participants, allowing each country share insights about their nation and culture. Highly relevant in today's globalized world, these nights are a way of understanding each other and forming friendships across borders.

SPACE MASQUERADE

Space masquerade is an annual SSP gathering where the participants can let out their inner space geeks. It was held in conjunction with the ISU alumni conference, and participants could network with alumni from various backgrounds and locations.

SPORTS ACTIVITIES

Although space is the magnet that brings everyone together, it is not the only uniting factor at the SSP. International teams of participants and staff bonded over volleyball, ping pong, golf and alumni football/soccer tournaments. The town of Athens afforded plenty of opportunities for group hiking, biking, canoeing and skydiving.

SOUNDS OF SPACE

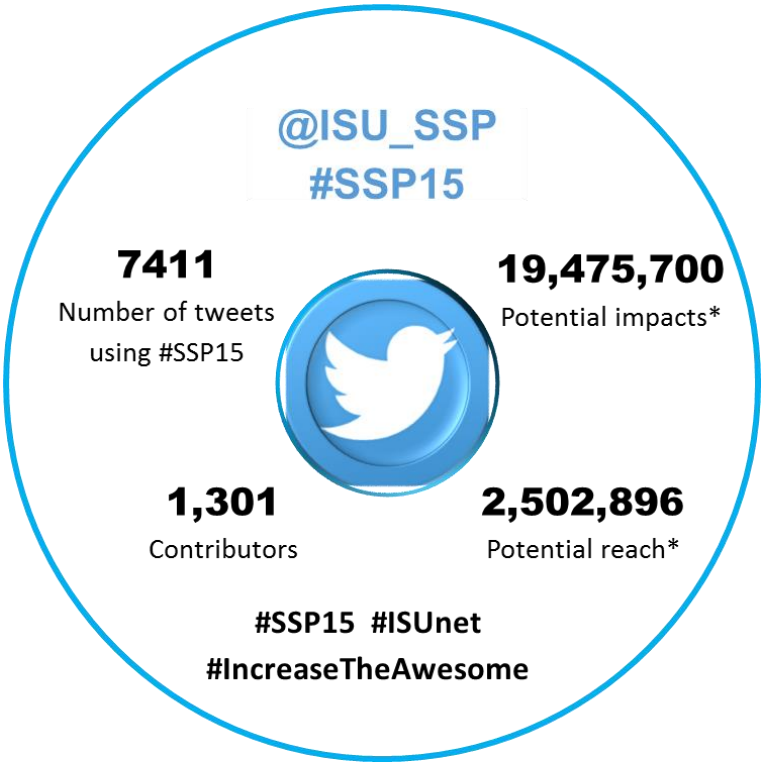
A space themed concert to celebrate ISU and SSP was performed as part of Ohio University's "Under the Elms" concert series. Hosted by the College of Fine Arts, the School of Music, and Ohio University Bands, the performance included delightful and inspiring pieces from Gustav Holst's "Mars", and music from the motion pictures Apollo 13, 2001: A Space Odyssey, and Star Wars.

CHARITABLE CAUSES

SSP is not simply about bringing together space enthusiasts but also about giving back to the community. Our participants and staff participated in local running races to help fundraise for local charity. 'SSP15 SpaceBikes Project' donated bicycles that participants and staff purchased during the program to 'Big Brothers Big Sisters of Athens', who will give them to children and young students. Furthermore, we also donated small telescopes used during the program to a local high school.

SOCIAL MEDIA

This year, the SSP ran a very effective social media campaign in association with our hosts at Ohio University. Utilizing a number of platforms such as Twitter, Facebook, LinkedIn, Instagram, SSP blog and Flickr, information on the SSP and its activities were brought to a broader public eye. Special hashtags were used to highlight specific events and to publicize our collaborations. Press releases and news items were published regularly in local and regional media. A news article on ISU was even published on the website of our prime sponsor, NASA.



*Potential impacts – The potential number of times someone could have seen the hashtag

*Potential reach – Number of unique users that could have seen the hashtag

CONNECT WITH SSP15

TWITTER @ISU_SSP
@ISUnet

INSTAGRAM Spaceuniversity

FACEBOOK PAGES
ISU Space Studies Program 2015

LINKEDIN
International Space University Friends
International Space University Alumni Association

YOUTUBE:
International Space University

MAIN SSP15 SITE:
ssp15.isunet.edu

SSP15 BLOG POSTS:
ssp15.isunet/blog

"SSP15 changed my life because it opened my mind beyond the boundaries of cultural differences. My country is a mono-culture and hierarchical. People avoid direct discussions and obey the elderly. In SSP15, I had the experience of a lot of frank discussions with many people from all over the world, focusing on problems and how to solve them. Dealing with people from international and multicultural backgrounds gave me a new confidence. This was a precious experience!"

DAISUKO GOTO, JAPAN

SPONSORSHIP & SUPPORT

PRIME SPONSOR

National Aeronautics and Space Administration (NASA)

MAJOR SPONSORS

Centre National d'Études Spatiales (CNES)
Chinese Aerospace Corporation (CASC)
European Space Agency (ESA)
Indian Space Research Organisation (ISRO)
Lookheed Martin Corporation
The Aerospace Corporation
The Boeing Company
UK Space Agency (UKSA)

HOST INSTITUTION

Ohio University

SPACE AGENCY PARTNER

NASA Glenn Research Center

PROGRAM SUPPORTERS

ABB
American Astronautical Society (AAS)
Analytical Graphics Inc
Association of Space Explorers (ASE)
ATLAS Experiment at CERN
Ball Aerospace
Canadensys Aerospace Corporation
Canadian Foundation for ISU (CFIU)
Canadian Space Agency (CSA)
China Space Foundation (CSF)
Chinese Academy of Science
Deutsches Zenrum für Luft-und Raumfahrt (DLR)
Dr Kalpana Chawla Scholarship Project
Embry-Riddle Aeronautical University
Esri Inc and Esri Canada
EUMETSAT
Euroconsult
European Aeronautic Defence and Space (EADS)
European Astronaut Centre (EAC)
Exelis Visual Information Solutions
Federal Aviation Administration (FAA)
Gordon K. Bush Ohio University Airport
Heinlein Foundation
Ilan Ramon Foundation
International Civil Aviation Organization (ICAO)
International Earth and Space Technology Pty Ltd
Jackie O's Rye of Jupiter
Japanese Aerospace Exploration Agency (JAXA)
King Abdulaziz City for Science and Technology (KACST)
Korean Airforce
Kyushu Institute of Technology
LOC/Precision Advanced Rocketry
ManSat Ltd
Massachusetts Institute of Technology (MIT)
Midwest Aerial Photography
Mission Control Space Services
Moon Express
NanoRacks LLC
NASA Goddard Spaceflight Center, Science Directorate, Atmospheric Chemistry and Dynamics Laboratory
NASA Human Exploration and Operations Mission Directorate, Advanced Exploration Systems
NASA Science Mission Directorate, Planetary Science Division
National Radio Astronomy Observatory
National Security Council
Neptec Design Group Ltd
Norwegian Space Center
Norwegian University of Science and Technology
Odyssey Space Research
Ohio University Avionics Engineering Center
Open University PIRATE Observatory
Orbital ATK
Planet Labs
Rio Tinto Alcan Planetarium
Royal Canadian Air Force
Royal Military College of Canada
Secure World Foundation (SWF)
Singularity University
SES
SNECMA
Telesat
The CREATE_space
The Southern Ohio Copperheads
3D Systems
Tohoku University
University of South Australia
University of Waterloo
UrtheCast
Virgin Galactic
Woolpert Inc
Xplornet

INDIVIDUAL SUPPORTERS

Jim and Lin Burke
Carol Carnett
Juan de Dalmau
Adil Jafry
Roger Pierce

DIRECTOR'S RETROSPECTIVE

Time passes quickly when you are in the company of good friends. And so it is that the nine week whirlwind that is the ISU Space Studies Program has once again come to a close, with participants, staff, TAs and faculty all exhausted, exhilarated, and wanting for more. And that's the way it should be - the SSP, by design, is equal parts academics, networking, socializing and endurance test. It takes ninety nine strangers from thirty different countries and through the intense experience of the SSP, creates many lifelong friends and changes us all in the process. SSP leaves everyone who experiences it energized, hopeful for the future, and yearning for more.

Like all great things, SSP15 began as a brilliant idea. Over a decade ago, ISU faculty member and Ohio University Dean Dennis Irwin and former ISU Dean Angie Bukley hatched the idea of bringing the SSP to OHIO. At the time, almost none of the facilities that we would ultimately use for SSP15 were even constructed. But the idea was a great one - when the SSP would return to the US, it would return to a university and a town that represented how most of the USA lived and was educated. On top of introducing ISU to "small town middle America", it would also showcase the amazing capabilities that a mid-size, rural engineering school can bring to the SSP. And on top of that, OHIO would partner with the NASA Center in nearby Cleveland to welcome the SSP. And yet on top of THAT, new buildings would emerge at OHIO that seemed designed with ISU's visit in mind. And so you had the three essential ingredients for a great SSP - excellent, new academic and residential facilities, a location in the birthplace of the USA's aviation industry with a nearby NASA Center, and an inspired leader and motivated local organizing committee. Two years ago, OHIO received the good news that they would host SSP15, and thus began planning meetings, site visits, curriculum planning meetings, a hundred telecons and thousands of e-mails. Department and Team project Chairs were selected, TAs and staff were selected, the Core Lecture Series was updated, Departmental activities were planned, workshops and theme days were selected, evening speakers were contacted, Strasbourg and Athens and Houston (my home) were on "speed dial" with one another - it takes a lot of work to make SSP happen, but all that hard work paid off.

What we created in those two years of planning was an SSP unlike any that have preceded it. It was not hosted in a big city, but it attracted ninety nine participants and two hundred of the top space professionals from around the planet. It was packed with core lectures, workshops, departmental activities, theme days, professional visits, and evening lectures and panels (every night for the first five weeks). It infiltrated the local community like no other SSP has done before - everyone from employees of Walmart to the OHIO President knew that ISU was in town for the summer, and you literally could not walk across campus or uptown without seeing an ISU banner or sign. People drove from neighboring states to hear astronaut panels, the NASA Administrator and public speakers. ISU was on the local television, on the radio and in the newspapers - almost every day - and our social media presence touched over 1.5 million different individuals. As the SSP15 community, we stood in the world's largest vacuum chamber, under the wing of a stealth bomber, and visited with astronauts and dignitaries. We learned each other's cultures, ate each other's food, drank each other's drink, and danced each other's dance. And through all of this we were transformed from a group of individuals who entered the SSP under the flag of each of our countries...to members of a family who now stand together with the ISU flag. Each of us now has a pin that symbolizes our journey through this shared experience, a lifetime of memories, and new friends from thirty countries.

So as the SSP15 class, staff, TAs and faculty all depart Athens, we do so with the knowledge that we will almost certainly meet once again - at some time, at some place, and on some world.

John F. Connolly, SSP15 Director