

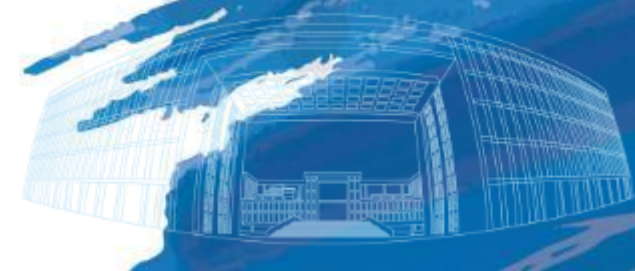
Promoting Women in Space Application Education

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the UN Regional Centre in China

Mar. 26, 2019 Amman, Jordan



北京航空航天大学
BEIHANG UNIVERSITY



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Introduction

2

Space Education and Space Women

3

Space Exploration Needs Female Astronauts

4

Way Forward



Two powerful phenomena unfolding on Earth:

The rise of global warming



The rise of women and girls





The rise of space women lead to better space education of the next generation.

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UNITED NATIONS

Office for Outer Space Affairs

Who is the first space woman?

The Lady Chang'e Flying to the Moon



International Space Women



The world's first female astronaut
Valentina Vladimirovna Tereshkova
Soviet Union
1963



The world's second female astronaut and
the first female to perform a spacewalk
Svetlana Savitskaya
Soviet Union
1982



The first female pilot and
commander of a space shuttle
Eileen Collins
United States
1999

International Space Women



The first American female in space
Sally Kristen Ride



The first Indian female in space
Kalpana Chawla



The first Canadian female in space
Roberta Bondar

International Space Women



The first Korean female in space
이소연 (Li Suyan)



The first Japanese female in space
Chiaki Mukai



The first Chinese female in space
Liu Yang



UNITED NATIONS

Office for International
Cooperation in Education

*At last account, 130 million girls are still denied their basic
right to attend school.*

What does education mean?

Education is defined as (system of) training and instruction (especially of children and young people in schools, colleges, etc.) designed to give knowledge and develop skills.

Options

Adaptability

Strength

What does education bring to women ?

Better health for women and their children;
Financial security;
Greater agency at home and in society.





International Space Women at the Centre



Space Education

- Remote Sensing and GIS
- Global Navigation Satellite Systems
- Satellite Communications
- Micro-satellite Technology
- Space Law and Policy

RS&GIS

GNSS

Micro-Satellite Technology

SATCOM

Space Law and Policy

The collage includes the following elements:

- Top Row:** A book cover titled "Remote Sensing and GIS"; a large satellite dish on a rooftop; two people working at a computer workstation; a computer lab with multiple workstations.
- Middle Row:** A book cover titled "Global Navigation Satellite Systems"; a globe display with satellite orbits; a classroom with round tables and chairs; server racks and a computer monitor.
- Bottom Row:** A diagram of "BUAA facilities" showing various testing chambers and stations; a book cover titled "Satellite Communications"; a diagram of a satellite network with "Satellite-based Network", "Airborne-based Network", "Ground-based Network", and "Gateway Cluster"; a book cover titled "Education Curriculum on Space Law".

Excellent Participants

Ana Paula Castro
2018 MASTA participant
Space Law and Policy

Leticia Santos Lula
2018 MASTA participant
Micro-satellite Technology

Brazil's students to pursue aerospace courses in China

BRASILIA — A group of Brazilian students have recently started postgraduate studies at the Beihang University, previously known as Beijing University of Aeronautics and Astronautics, as part of the China-Brazil Earth Resources Satellite cooperation program, which turns 30 this year.

Thanks to the program, three groups of Brazilian students have already had the opportunity to hone their skills in China.

The cooperation goes beyond hardware to human resources, according to the president of the Brazilian Space Agency, Jose Raimundo Braga Coelho.

"Since China has the BUAA, which specifically works in the space field, we expanded our cooperation to the area of human resources," says Coelho.

"We have sent people to do postgraduate and specialization courses, all financed by

China, which shows its great regard for Brazil," he adds.

The program which began in 1988 has become a model of South-South scientific and technological cooperation, benefiting both countries.

Currently, eight Brazilian universities offer degrees in the aerospace field, which in itself is already a great achievement, says Coelho.

The Regional Center for Space Science and Technology Education in Asia and the Pacific, which was inaugurated at the BUAA in 2014, offers scholarships for Brazilian students in the master's and PhD programs in space technology.

Brazilian students, who are granted scholarships at the BUAA, take the required Mandarin courses and receive free lodging on campus and a monthly stipend.

Their studies range from global satellite navigation systems to space law.

"Space law is a very important topic," says Coelho, adding there is a need for the creation of laws for the peaceful use of space, and China has created this specific course.

Ana Paula Castro, a major of aerospace engineering who graduated from the University of Brasilia, is among the new batch of students who recently began studying in Beijing.

"When I found out about the opportunity to study space law, I was very interested, because in Brazil we don't have too many specialists in the area," says Castro.

"I think it can open many doors for me, and it could also be a way for me to contribute to the Brazilian aerospace sector."

Meanwhile, Castro has submitted a preliminary project on space garbage that "looks" 100 years into the future to see what might happen if measures are not taken now to regulate waste in space.



Brazilian students Ana Paula Castro (left) and Leticia Santos Lula are studying in Beijing as part of the China-Brazil Earth Resources Satellite cooperation program. PROVIDED TO CHINA DAILY

"A professor also proposed that I research the potential benefits of space for the world's poor communities," she says.

Leticia Santos Lula, another graduate of the University of Brasilia, is doing a master's degree in microsatellite technology in Beijing on the recommendation of one of her predecessors.

"A friend came last year to study ... He had other options in Brazil, but chose to do his master's in China and he told

us it was a very good decision," says Lula.

She did not rule out staying on in China if the opportunity arises.

"I'm going with the hope that, along the way, other opportunities will come up. It could be in my academic career, in industry, if some opportunity presents itself to stay there I may go for it," she says.

Excellent Participants

Surucchawadi Seweewanlop

2018 MASTA

Space Law and Policy



- Won the First Prize in “FLTRP Cup” English Public Speaking National Round Competition 2018;
- Got full marks on course International Cooperation on Space Law and Policy.

Degree Programmes 2016-2018 (MASTA & DOCSTA)



75%

Gender: Male 75% Female 25%



25%



83%

Gender: Male 83% Female 17%



17%



64%

Gender: Male 64% Female 36%



36%

2016



2017

2018



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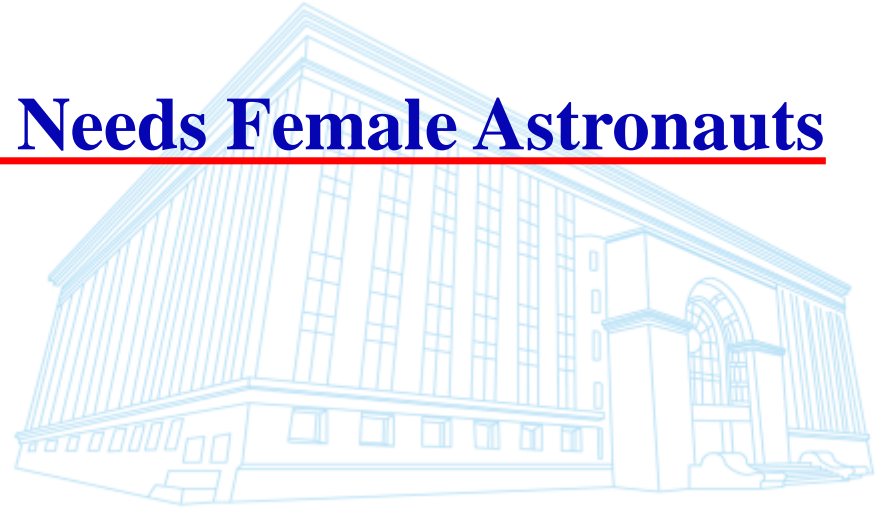
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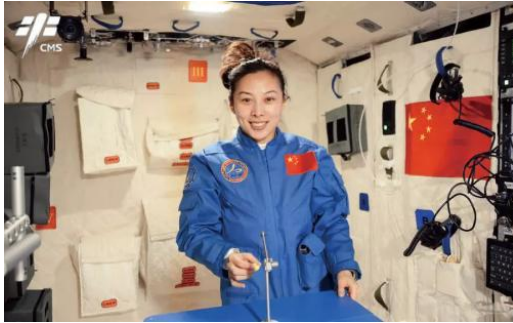


Women are playing a more significant role in aerospace programs, working as astronauts, helping develop aeromedicine and Mars exploration.





Liu Yang



Wang Yaping

Liu and Wang are members of the seventh team of Chinese astronauts. They were selected from a group of married female transport plane pilots, and are among China's first 10 astronauts who have been in space.

Both of them worked in space as mission specialists and were shown to have excellent physical and psychological attributes.

Advantages



Female astronauts have unique advantages in both **psychology** and **physiology**. They are more emotionally stable and more capable of enduring loneliness. In addition, women have better work efficiency as they are more considerate and have better superior communication skills than men.



Women have lower iron content and produce less waste than men, making them less likely to contract diseases such as thrombus, which makes them **more adaptable** to long-term space flight.

Perfectionist



An HP report found that men will apply for a job if they meet only **60** percent of the qualifications. But women will apply only if they meet **100** percent of the qualifications.

Cautiousness is the basic requirement of aerospace workers.

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4 *Way Forward*

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Regulations

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Education

Education Popularization

- *Basic education*
- *Higher education*
- *Professional education*

.....

4

Self-esteem

3

Society

No Discrimination

- *More communication*
- *More cooperation*
- *More understanding*
-

Status Improvement

- *Financial independence*
- *Open-minded*
- *Extensive experience*
-



Flying with the wings of art

Thank you for your attention!

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