## Tohoku University Global COE Program:

## World Center of Education and Research for Trans-disciplinary Flow Dynamics International Space University 2012 Space Studies Program Report

Date: 8 / August / 2012

					(D)	(M)	(Y)	
Name	Hidemasa Fu	ıjita						
Department	D1, Mechan	ical system and	design	Engineeri	ng, Gradu	iate S	chool	of
	Engineering							
Supervisor's Name	s Name Professor Takehiko SATO, Department of Aerospace Engin							ng,
	Graduate School of Engineering, Tohoku University							
Dispatched Period	1 / June / 2012 ~ 5 / August / 2012 (D) (M) (Y) (D) (M) (Y)							
Venue (Name of the	Institute of Florida Technology, Melbourne, USA							
facility,city&country)								
Other visiting place	Kennedy Space Center							
Number of total	134		Number	of		31		
participants	(Of which number of Japanese: 5)		participati	ng nations				
Team project	STEM							
Lecturers of note	Chiaki Mukai (First Japanese woman astronaut), Yi Soyeon (First South							
	Korean astronaut), Leland D. Melvin (American astronaut)							
Participations in other congresses		None						
supported by ISU if any								

Space Studies Program 2012 (SSP12), which was hosted by Florida Institute of Technology, had 134 participants from 31 countries (Fig. 1). SSP12 lasted 9 weeks. In the first 4 weeks we attended the 60 lectures to acquire wide knowledge of space. From 3<sup>rd</sup> week to 6<sup>th</sup> week we joined Department Activity (DA) to experience what we learned from the lectures. During the last 3 weeks we concentrated on Team Project (TP). TP consisted of more than 30 members and we tried to complete one project through research and discussion. SSP12 was carried out under the cooperation of Kennedy Space Center (KSC) of NASA. We had some chances to visit KSC.

The lectures were well prepared and conducted by experts of their field. We were able to learn from the fundamental theory to the latest issue of space engineering, space law, space management, and so on. Lectures made by astronauts (Fig. 3, 4) were interesting. Especially I was really impressed with Chiaki Mukai's creative thinking and her enthusiasm for pursuing a dream.

I chose Space Engineering as my DA. We designed and constructed a rocket as a group, which consisted of 4 members. It was honored and unforgettable to get a chance to launch our rocket at LC-39A where space shuttle was launched many times in the past(Fig. 5).

I selected STEM as my TP (Fig. 6). STEM is an acronym of Science, Technology, Engineering, and Mathematics. This project aimed to enhance interest of young people in STEM by using Space. Since most members did not have any experience about education, we faced with a lot of difficulties.

Visiting KSC, we could see space shuttles from up close (Fig. 7, 8). Fortunately, a NASA engineer showed us around in space shuttle maintenance facility.

Participation in SSP12 gave me precious experiences and friends all over the world. In addition, SSP12 was a great opportunity to reconsider the weakness of myself. The application to SSP, the preparation for SSP, and everyday life in SSP were really tough for me, but now, I am proud of myself because I managed to achieve a whole program.



Fig. 1 Group photo



Fig. 3 With Leland D. Melvin



Fig. 5 Young rocket scientists at LC39-A



Fig. 7 With a NASA engineer under Endeavour



Fig. 2 Panther Dining Hall in FIT campus



Fig. 4 With Chiaki Mukai



Fig. 6 Team Project STEM members



Fig. 8 Atlantis at Kennedy Space Center