9th Korea-Japan Joint Seminar
on Space Environment Utilization Research

Thursday, August 30 – Friday, August 31, 2012

Tsukuba Space Center,

Japan Aerospace Exploration Agency

The seminar is supported by
Japan Aerospace Exploration Agency(JAXA)

Agenda of the 9th Korea-Japan Joint Seminar

on Space Environment Utilization research

Thursday, August 30 – Friday, August 31, 2012
Japan Aerospace Exploration Agency (JAXA)
Tsukuba Space Center
2-1-1 Sengen, Tsukuba-shi, Ibaraki-ken, Japan
Headquarters Building

Seminar Coordination
Dr. Makoto ASASHIMA, AIST, Prof. Chi-Hwan LEE, Inha University
Mr. Shigeki KAMIGAICHI, JAXA, Dr. Gi-Hyuk CHOI, KARI

Thursday, August 30, 2012

■Registration 8:45-9:00

*Session Chair: Mr.Shigeki KAMIGAICHI,
Space environment utilization center, JAXA

1. Opening Remarks and Welcome 9:00-9:10
Welcome Remarks
Mr. Yoshiyuki HASEGAWA, Executive Director, JAXA

2. Seminar Perspective 9:10-9:50
2-1. ISS/Kibo Utilization Strategy in Japan
Dr. Makoto ASASHIMA, Fellow, National Institute of Advanced Industrial Science and Technology (AIST)
2-2. Perspective of Korea
Prof. Chi-Hwan LEE, Inha University

3. Space Program Introduction 9:50-10:50
3-1. Status of KIBO Utilization and Cooperation with Asia
Mr. Nobuyoshi FUJIMOTO,
Space environment utilization center, JAXA
3-2. Update for Space Development Plan in Korea
Dr. Joo Hee LEE, KARI
3-3. Microgravity Science at Present and Future in Japan
Prof. Shinichi YODA, ISS project office, JAXA

■ Coffee Break　10:50-11:10

*Session Chair: Prof. Osamu FUJITA,
Hokkaido University

4. Fluid Physics　11:10-12:10

4-1. Thermophysical properties measurements of high-temperature liquids under microgravity conditions
Prof. Masahito WATANABE, Gakushuin University

4-2. Experiment of colloid interaction in microgravity
Prof. Chang-Soo LEE, Chungnam National University

4-3. Magnetic Benard-Marangoni convection in a liquid layer
Prof. Toshio TAGAWA, Tokyo Metropolitan University

■ Lunch Break　12:10-13:10

*Session Chair: Prof. Takeshi NIKAWA,
Tokushima University

5. Life Science, Molecular Biology & Biomedical Science (I)　13:10-14:10

5-1. Protein crystallization for high-quality structure determination in microgravity environment
Prof. Masaru TANOKURA, University of Tokyo

5-2. Protein crystallization in space and emerging neutron beamlines
Prof. Tae-Sung YOON, KRIBB

5-3. Rational approach to protein crystallization in space
Mr. Hiroaki TANAKA, Confocal Science

6. Life Science, Molecular Biology & Biomedical Science (II)　14:10-15:10

6-1. Muscle regeneration during unloading
Prof. Takeshi NIKAWA, Tokushima University

6-2. Anti-atrophic mechanism celastrol for muscle cell: preliminary work with a prototype microbioreactor
Prof. Inho CHOI, Taesik GWAG, Yonsei University

6-3. Topics from recent Kibo science utilization -Plant and cell biology-
Ms. Sachiko YANO, Space environment utilization center, JAXA

■ Coffee Break　15:10-15:30

*Session Chair: Prof.Masaru TANOKURA,
University of Tokyo

7. Life Science, Molecular Biology & Biomedical Science (III) 15:30-16:30

7-1. Bone loss on earth and in microgravity
Prof. Hang Sung KIM, Yonsei University

7-2. JAXA's bone research activities for space flight induced bone loss
MD., PhD. Hiroshi OHSHIMA,
Space Biomedical Research Office, JAXA

7-3. Net-centric operation of space environment utilization research
Dr. Yoshinori FUJIMORI, JAXA

■ Informal interaction and relocation 16:30-18:00

■ Workshop dinner 18:00-21:00

Friday, August 31, 2012

*Session Chair: Prof. Masahito WATANABE,
Gakushuin University

8. Combustion 9:00-9:40
   8-1. Research on solid combustion in microgravity
   Prof. Osamu FUJITA, Hokkaido University

9. Material Science 9:40-10:40
   9-1. Microstructure and optical properties of Sm-doped $Ba_2TiSi_2O_8$ glass ceramics prepared by aerodynamic levitation
   Prof. Won-Seung CHO, Inha University
   9-2. Synthesis of Carbon Nanomaterials in Counterflow Diffusion Flames
   Prof. Jae Hyuk CHOI, Korea Maritime University
   9-3. Topics from recent Kibo science utilization -Crystallization-
   Dr. Izumi YOSHIZAKI, ISS project office, JAXA

■ Coffee Break 10:40-11:00

10. Adjournment and Closing Comments 11:00-11:50
   10-1. Summery of Seminar KARI/JAXA
   10-2. Closing Comments Dr.. Makoto ASASHIMA, AIST

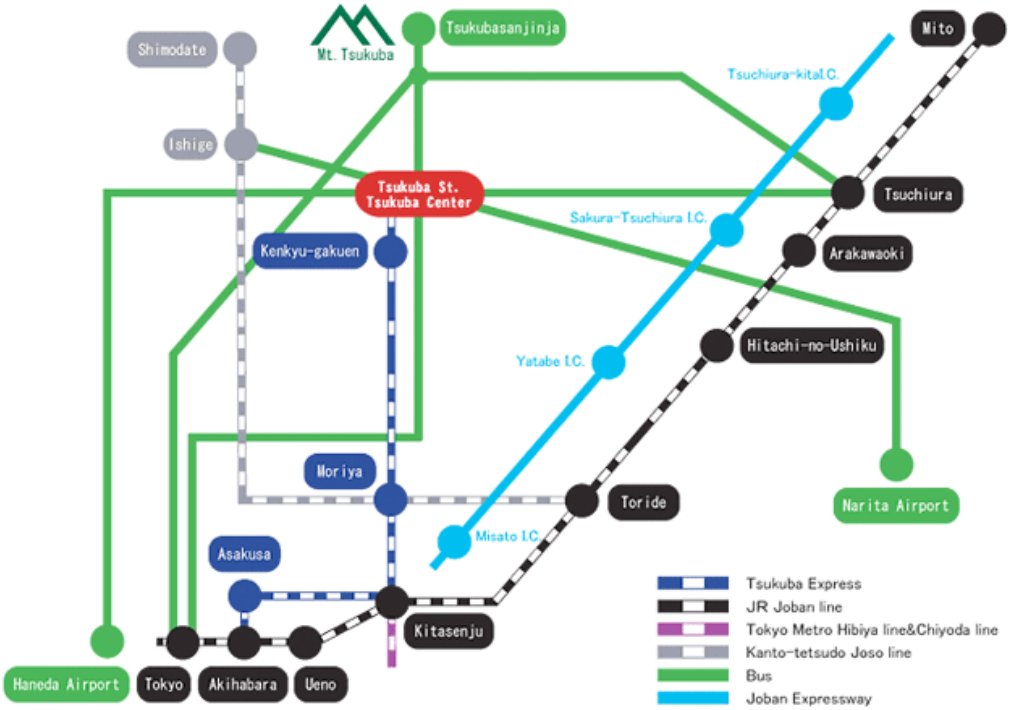
■ Lunch Break 11:50-12:50

11. Facilities Tour 12:50-15:00
   Exhibition room
   Laboratory

■ Work Shop Closing 15:00

Access to the “Okura Frontier Hotel Tsukuba Epochal”

＊Transfer from Okura Frontier Hotel Epochal to Tsukuba Space Center by bus, bus will depart the Hotel at 8:35, August 30&31.



Attention: There is 2 building of “Okura Frontier Hotel Tsukuba”, Main building and “Epochal”. Your building is “Epochal”.

* From Narita Airport to Tsukuba center: 100 minutes by bus

Terminal 2 Dept.	Terminal 1 Dept.	Arrival at Tsukuba Center
7:40	7:45	9:20
9:05	9:10	10:45
10:35	10:40	12:15
12:50	12:55	14:30
14:30	14:35	16:10
16:15	16:20	17:55
17:20	17:25	19:00
18:45	18:50	20:25
20:10	20:15	21:50

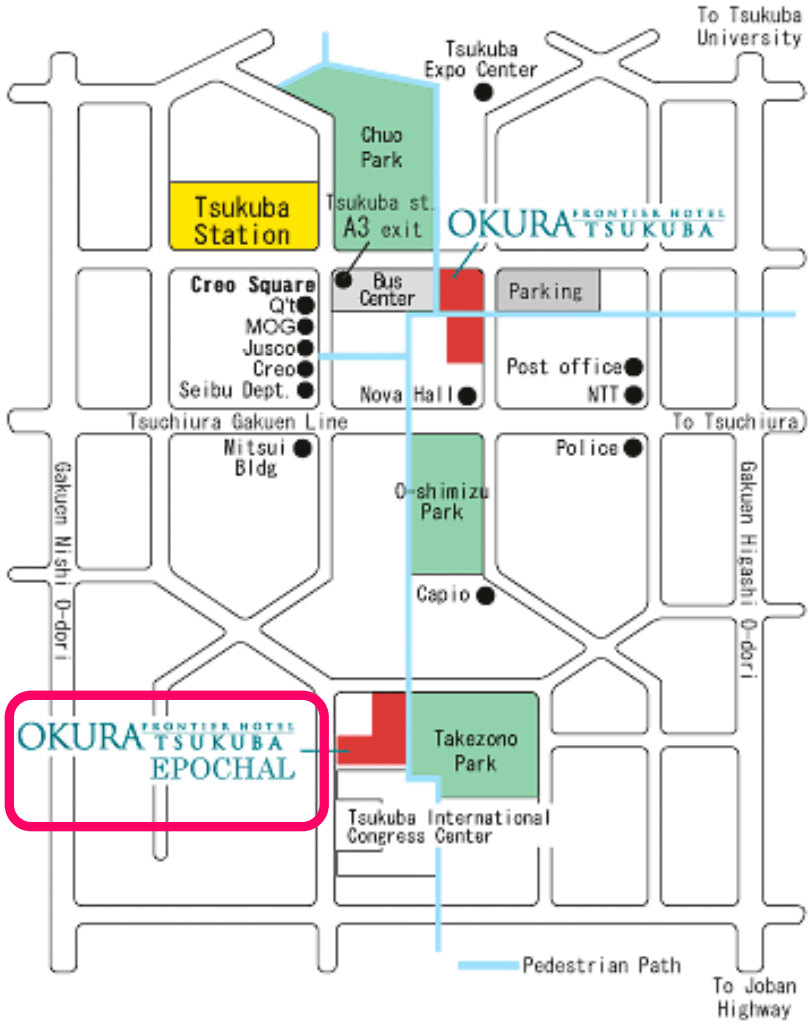
Fare: ¥2,540

* From Haneda Airport to Tsukuba center: 120 minutes by bus

International Terminal	Terminal 2	Terminal 1	Arrival at Tsukuba Center
8:20	8:30	8:35	10:20
9:20	9:30	9:35	11:20
10:20	10:30	10:35	12:20
11:45	11:55	12:00	13:45
12:45	12:55	13:00	14:45
14:45	14:55	15:00	16:45
15:45	15:55	16:00	17:45
16:45	16:55	17:00	18:45
17:45	17:55	18:00	19:45
19:20	19:30	19:35	21:00
20:45	20:55	21:00	22:15
21:45	21:55	22:00	23:15

Fare: ¥1,800

Okura Frontier Hotel Tsukuba Epochal is at 8 minute walk from Tsukuba Center



Access to the “Tsukuba Space Center”

By Train

From Akihabara station in Tokyo, take Tsukuba Express Line to “Tsukuba” station. At the "TSUKUBA" station, take a Kantetsu Bus for "ARAKAWAOKI" station, then get off the bus at the "BUSSHITSU-KENKYUJO" bus stop. It is 1-minute walk from the bus stop.
Or you can use a taxi from "TSUKUBA" station. It takes about 10 minutes

By Hightway Bus

At JR Tokyo Station Yaesu South Exit, take a Highway Bus for Tsukuba Center, and get off the bus at "NAMIKI 1-CHOME" bus stop. It is 1-minute walk from the bus stop.

From Narita Airport, take the bus for "TSUCHIURA" station and get off at the Tsukuba Center Bus Terminal then take the bus for “ARAKAWAOKI” or a taxi. From Haneda Airport, take the bus for “TSUKUBA” and get off at the “NAMIKI 1-CHOME” bus stop.

Upon arrival at the Tsukuba Space Center, please come to the Reception Building at the main gate.