

**21st Century COE of Flow Dynamics
F2005 International Internship Program
Achievement Report**

Date: 07/11/2005

Name: Chihyung Huang

Academic year: 2005

Department: Aeronautical and Astronautical Engineering

Institutions: Purdue University

Research topic in International Internship Program:

PSP measurements in microturbine

Accepting supervisor in Tohoku University: Prof. Keisuke ASAI

Period of Internship: 07 / 07 / 2005 ~ 04 / 09 / 2005
 Day Month Year Day Month Year

Date	Itinerary during your stay in Japan (places of visit, etc.)
July 4 th	Arrived at Sendai
July 19 th ~July 21 st	COE seminar at Akiu
July 26 th ~July 27 th	Flow Vis. Sympo. at Tokyo
August 29 th ~Sept 1 st	ICIASF 05 at Sendai

Outline the scientific activities you conducted while in Tohoku University (e.g. experiments, discussions, research trips)

Presentation in COE seminar
Attending and presenting in ASAI Lab meeting
Microturbine experiments in ASAI Lab
Attending Flow Vis. Conference at Tokyo
Presenting a paper in ICIASF'05 conference

Give your impressions of the present state of science in Tohoku University in your field

ASAI Lab has many great advantages in the research field of PSP/TSP. Prof. ASAI has great knowledge and vision of application in PSP/TSP researches. I really enjoy working in ASAI lab for the two months. ASAI Lab owns many wonderful instruments such as CCD cameras, LED arrays, Lifetime calibration software and microscope...etc that makes it great opportunity for doing PSP/TSP measurements in MEMS devices.

Give your future plan of submitting a paper

After doing experiments in PSP measurement in microturbine, preliminary results have been obtained. However, due to the difficulty of unsteady and microflow measurements, it needs more work to understand the detail flow field in the microturbine. Follow-up experiment will be conducted in Purdue University and the results will be included in a paper.

Give 21st Century COE of Flow Dynamics your comments or suggestions particularly with regard to the internship program

The COE program is a great opportunity for international students to work and cooperate with researchers in Tohoku University. During the couple months staying, international students can meet Japanese students and professors, and exchange the information in the research field, and learn Japanese culture. It is a great experience for everyone who has joined the COE program.

General impression you had of Sendai and Japan during your stay

Sendai is a great city with amazing Japanese culture. People are very nice and friendly in Sendai city. It is a great experience for me to know the Japanese culture and stay in Japan.