

## [HOME](#)

### **The 1st Joint Workshop of University of Miyazaki and Hiroshima University**



**By Timur Seytnazarov**

#### **Introduction**

On February 9, 2015, NIX laboratory students Khusniddin Alikulov, Timur Seytnazarov, Ziyavuddin Shamsiddinov and Brati Mohammad Qasem (Afghanistan) together with Associate Professor Higashi Osamu visited Miyazaki University, where the first Joint Workshop of Miyazaki and Hiroshima University on International Cooperation for Solar PV Technology Development was held.

The University of Miyazaki (UOM) was formed in October 2003 with the merger of Miyazaki University and Miyazaki Medical College. The new UOM made a fresh start with its four faculties: Education and Culture, Medicine, Engineering, and Agriculture, and graduate schools (master's course and doctoral course). The UOM has about 5,600 students and 1,400 staff members.



The University of Miyazaki is in Miyazaki Prefecture, situated southeast of Kyushu, facing the Pacific Ocean; it is also blessed with beautiful scenery and people as abundantly warm as the climate. Among all faculties, we were much interested in the faculty of Engineering faculty, particularly in Prof. Kenji Yoshino's laboratory because they are currently involved in researches on concentrator photovoltaic system (CSP), heat reduction in pv, high efficiency solar cell, anti-soling coating layer for concentrator photovoltaic system (CPV) to name a few.

### **Objectives**

The main target of the joint workshop was to acquire knowledge from their experienced professors and discuss issues regarding solar potential in Uzbekistan as well as possibilities in using advanced solar technologies such as parabolic troughs, tracking solar pv systems and their current research work on modern solar technologies in Japan.

### **Main Parts of Workshop**

After getting off the bus, we were warmly met by Prof. Kenji Yoshino and Dr. Akira Nagaoka. Our day in the university began with an opening speech of Prof. Kenji Yoshino. He briefly told us about their laboratory and its activities. He presented "*PV Project in University of Miyazaki*" and shared their current research work, perspectives and achievements. Then, Prof. Kensuke Nishioka shared a lot of valuable information on "*Development of Concentrator Photovoltaic System for Desert Area*". It was a very perspective system, and because my research aims to study the possibility of the use of tracking solar pv system, I was very interested in his presentation. He showed us, how

CSP (concentrator photovoltaic system) can be used, its efficiency, land use and cost ratio against common PV system. Afterwards, Dr. Akira Nagaoka (Kyoto University) also shared his research work perspectives on “*Intrinsic carrier transport mechanism in Cu<sub>2</sub>ZnSnS<sub>4</sub> single crystal.*”

Dr. Nawwar Ahmad introduced his research work on “*Thermal heat reduction in photovoltaic solar concentrator using thin film filter*” as well.



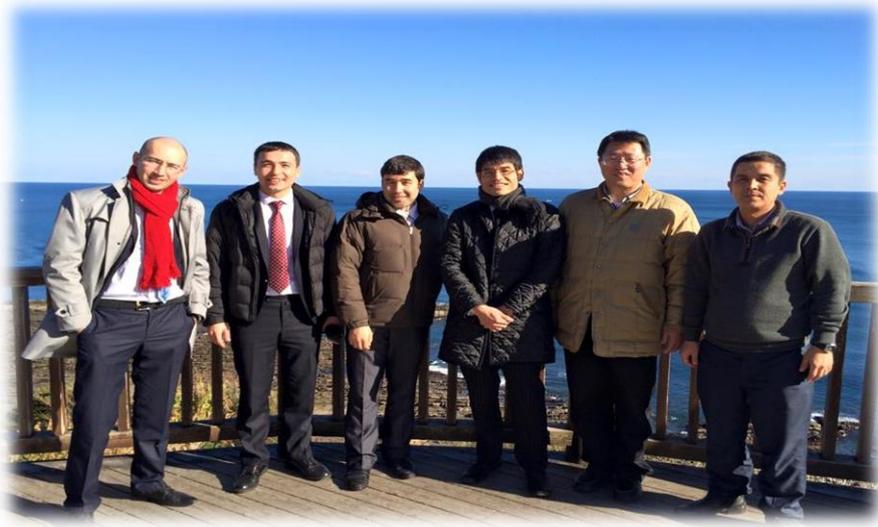
The rest of the workshop included the following presentations:

- Associate Professor Higashi Osamu, “*JDS Uzbekistan program in IDEC, Hiroshima University*”
- Khusniddin Alikulov, “*Development of Integrated Solar Combined Cycle in Uzbekistan - Case study of Sirdarya Thermal Power Plant*”
- Timur Seytnazarov, “*Development of large scale solar photovoltaic plant in Takhiatash, Karakalpakstan*”
- Ziyavuddin Shamsiddinov, “*Development of Solar energy in Uzbekistan in New Angren Thermal Power Station*”
- Brati Mohammad Qasem ‘*Water and Energy Management in Afghanistan*’

We were then invited to have lunch comprised of tempura, miso soup, sashimi and other kinds of Japanese food with professors and staff of the university. We enjoyed a lot having the delicious Japanese meals. After lunch and with the guidance of Prof. Kenji Yoshino, we went to the research facilities such as the one with the tracking CSP system, that follows the sun during daytime and at night turns down to avoid dust accumulation on the surface of pv etc.

## **Conclusion**

We hope, that this kind of joint workshop will continue, because it was very useful in gaining experience and discussing issues regarding research of advanced solar technology. We all acquired a lot of valuable information needed for our further research. We appreciate the efforts, hospitality, and opportunity of both the University of Miyazaki and Hiroshima University for us to gain more knowledge and exposure on such specific and related fields.



[HOME](#)