

JST さくらサイエンスプラン、共同研究目的で9名を招聘

広域アジアものづくり技術・人材高度化拠点形成事業 勝又 美穂子
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当研究所では2015年7月12日～8月1日の期間、インド工科大学ハイデラバード校5名、マラヤ大学2名、デ・ラ・サール大学1名、ハノイ工科大学1名、合計9名の参加者をJST さくらサイエンスプランの支援により招聘しました。

当初、多くの参加希望がありましたが、研究課題について調整の結果、最終的に9名の受け入れとなりました。受け入れが確定した9名はそれぞれ、「磁気パルス溶接による同材、異材接合の特性評価」、「熱可塑性および熱可塑性ナノコンポジットの誘導支援摩擦攪拌接合」、「微細構造における無欠陥、無影響の製造技術」(以上、伊藤研究室)、「多孔質アルミニウムの製造上の処理パラメータの影響」(近藤研究室)、「振動アシスト溶接における残留応力のモデリング」(村川研究室)、「ガスマタルアーク溶接(GMAW)におけるアーク安定性の解析」、「サブマージ溶接の観察と可視化」(以上、田中研究室)、「超音波集積レーザはんだ付け機器の設計と開発」、「三元Sn-1.0Ag-0.5Cuの腐食研究(SAC105)と液体媒体中の鉛フリーはんだ合金」(以上、西川研究室)の研究に取り組みました。

また滞在中、企業訪問も実施しました。訪問企業は日立造船(株)で、本社にて企業紹介を受けた後は、大阪舞洲にある日立造船の技術により実現した、日本で最初の発電型ゴミ焼却場を見学、更に堺市にあるシールド・トンネル掘削機の製造工場も見学しました。参加者は、日本における高度なゴミ処理法に大きな驚きを持ったようでした。また、トンネル掘削機については製造工程から利用に関する様々な質問が交

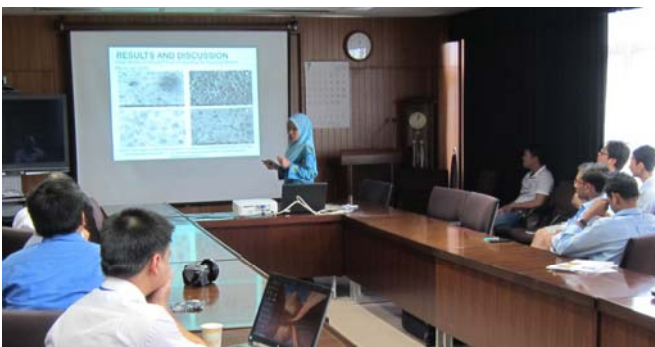
わされ、自ら目にした技術が世界各地のトンネルや下水道建設に活用されている状況に深く興味を抱いていました。

日本の滞在では特にインドからの参加者について食習慣の違い、コミュニケーションの難しさ(言語面)などで最初は戸惑いも多かったようですが、受け入れ研究室の教員、学生が親身になって滞りのケアを行なったことで、充実した時間を過ごせたようです。

参加者からは、「日本では人々のホスピタリティがいたるところで感じられ、安心して過ごせた」、「時間通りに動く公共交通機関がこんなに便利であるということを知り、感激した」、「あらゆるものが自動化されている技術に驚いた」など滞在全般に対するコメントがありました。

一方、研究活動についても「各自が厳格に研究に取り組んでおり、その姿勢が刺激になった」、「様々な最新機器を自由に利用できる環境は夢のようだった」、「指導教員のきめ細やかな指導は今後の考察に大きく役立った」、「研究時間に限りがあったので、もっと余裕を持って取り組めるよう、再度訪問の機会を探りたい」などのコメントがありました。

最終報告会では各自20分程度の時間を使い、当研究所で行なった研究成果について発表を行いました。活発な質疑応答や協議が行われ、予定時間を大幅に超える充実した会となりました。参加者からのコメント(抜粋)についても掲載していますので、是非ご一読下さい。



最終報告会



日立造船(株)にて

Comments on JST Sakura Science Program at JWRI, Osaka University
Collaborative Research Activity Course

Period: Jul. 12-Aug.1, 2015

Name: Angshuman Kapil

University Name: Indian Institute of Technology Hyderabad, India



The Sakura Exchange program in Science has been a wonderful experience for me. The program has not only developed me personally but also has helped me immensely academically. Experiencing a new culture, its food habits, meeting new people, making new friends has been enriching for me. I was highly impressed by the world class laboratories available at Joining and Welding institute, OSAKA University, Japan. Moreover the work culture at the labs was much disciplined and allowed us to gel in very easily. The students in the laboratory were very helpful and cooperated with us at every stage. The professors were very patient and listened to our questions and queries and tried to answer all of them in the best possible way. The best thing about the internship was that we were given a free hand to use to use the machines available and required for our research. During the course of the internship I was exposed to various machinery viz. Wire cut EDM, Grinder and Polisher together with etching of samples to observe microstructure, Conventional FESEM and FIB-SEM. I can say that the internship has provided me the right exposure to pursue research in future in form of a PhD.

Japan has been a wonderful host and with my limited travel experience I can undoubtedly say that the people here are the nicest, kindest and utmost caring. Coming from India I could easily sense the differences right from the working environment, means of transportation etc. It was quite a different experience to use the trains and buses in Japan. The pitch perfect timings of the same were highly impressive. Coming to nature and climate it would get thumbs up from me. The environment was very clean with no signs of any pollution unlike my country. I was amazed to see that everything was automated. The thing that amazed me the most was that inspite of no traffic police; there wasn't a slightest hint of uneasiness in traffic flow. There was absolutely no honking by the cars, buses and even the trains which reduced the sound pollution to a great extent.

Given a chance I would definitely wish to visit JAPAN once again for either pursuing higher studies or work there. Everything seems to be perfect there, and together with the kind and caring nature of the people Japan tops the list of my international destinations.

Sayonara Japan.

Angshuman Kapil

Comments on JST Sakura Science Program at JWRI, Osaka University
Collaborative Research Activity Course

Period: Jul. 12-Aug.1, 2015

Name: Syed Quadir Moinuddin

University Name: Indian Institute of Technology Hyderabad, India



The Sakura Exchange program in Science was a good experience and gave me a lively exposure to a new culture, its food habits, meeting new people, making new friends has been enriching for me. I was highly impressed by the world class laboratories available at Joining and Welding institute, OSAKA University, Japan. Moreover the work culture at the labs was much disciplined and allowed us to glue very easily. The students in the laboratory were very helpful and cooperated with us at every stage. The professors were very patient and listened to our questions and queries and tried to answer all of them in the best possible way. The best thing about the internship was that we were given a free hand to use to use the machines available and required for our research. During the course of the internship I was exposed to various machinery viz. GTAW process, High speed camera, I can say that the internship has provided me the right exposure to pursue research in future in form of a Post Doctoral fellow.

This internship program gave us flexibility for the personal things such as allowing us to perform prayer and first time I celebrated Ramzan Festival outside my country with different culture people from different parts of the world in Japan.

Japan has been a wonderful and amazing host; the people here are the nicest, kindest and utmost caring. Coming from India I could easily sense the differences right from the working environment, means of transportation etc. It was quite a different experience to use the trains, buses and taxi in Japan. The exact timings of arrival and departure of the vehicles, prediction of weather forecast and manmade island-Kansai Airport was highly impressive. Japan not only sounds high in technology but also in the tourism due to its beautiful constructions, the temples, the back waters of sea and maintenance of everything which attracts me more.

The libraries and the structured way of storing books, this library is one of the best libraries for me. The Alligator in the Osaka museum, made us to know the history of the Osaka University.

The various visits to the Hitachi campus were awesome. The tunnel boring machine, stopping sea water for construction, bridge construction, aquarium were mind blowing technology and which inspire me more was waste management system. This waste management keeps the country clean. If opportunities avail I would like to work in Hitachi, India.

Further, given an opportunity I would definitely wish to visit JAPAN once again for either pursuing higher studies or work there. Japan, is a place to visit for its tourism also and I added to my tourism list.

Sayonara Japan.

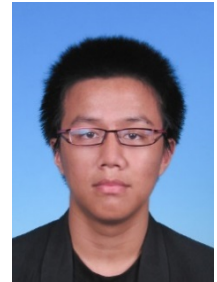
Syed Quadir Moinuddin

Comments on JST Sakura Science Program at JWRI, Osaka University
Collaborative Research Activity Course

Period: Jul. 12-Aug.1, 2015

Name: Lai Kwong Yih

University Name: University of Malaya, Malaysia



First of all, thanks to Japan Science and Technology Agency (JST) and Joining and Welding Research Institute of Osaka University (JWRI) for providing such a great opportunity. I have a great time in Osaka during that period.

PEOPLE OF JAPAN

Japanese are kind and helpful. I like the harmony of Japan society. I remembered there is a time when I paying for my grocery, I accidentally dropped my coin on to the ground, the cashier of the checkout counter came out and pick up the money for me, I was shocked during that time. Japanese are very polite, I can hear greeting everywhere, I love this harmony very much.

Japan is a safe country. One can really travels or walks alone in Japan without worry. I lost my phone in Japan twice but I manage to get it back.

RESEARCH

JWRI provided me a very good environment for my research. The facilities in the laboratory are very complete. Many equipment is automated, therefore samples produced are in high precision and less human' s efforts are needed. I had great time doing laboratory, and the outcome of my research in JWRI was outstanding.

PLACES THAT I VISITED

I was lucky because during these 3 weeks, 1 of the weekend was Japan long weekend, Japan Public Holiday, the Marine Day (7/18 – 7/20). During the weekend, I visited Kyoto, Uji, Nara, Himeji and Kobe.

In Kyoto, there is a lot of old temple. I was really enjoy visiting the temples like Kiyomizu-dera, Fushimi Inari-taisha and Tenryu-ji. Uji Matcha is really nice. Nara big Buddha statue is huge, deer and human live harmony in Nara city is also amazed me. White Heron, Himeji Castle is really most spectacular castle in Japan. Million-Dollar Nightscape View of Kobe from Mount Rokko is totally awesome.

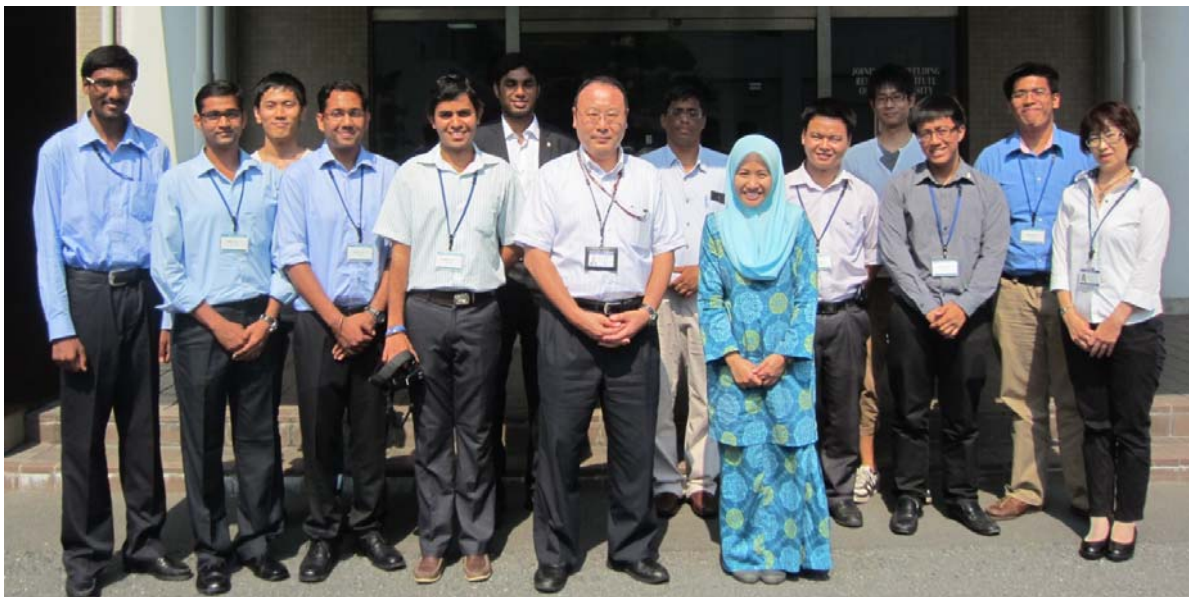
During the second weekend (7/25 – 7/26), I was visiting around Osaka City Area. Thank you Osaka Municipal for the Amazing Osaka Pass, I was able to travel around in Osaka with very cheap price. I really enjoy the hot spring in Japan. I also went to Tenshin Festival. During the Tenshin Festival, most of the Japanese were in Kimonos, there are a lot of people attending the festival and also variety of food available at the stall during the festival.

FOOD

The food in Japan is awesome. Ramen, Sushi, Sashimi, Yakimono, Dango and do not forget, Osaka specialized food, Okonomiyaki is a must try food in Osaka. I also enjoy Matcha ice-cream of Japan very much. I also like the foods provided in Restaurants in Osaka University, the foods are fresh, nice and cheap. I really enjoy the curry rice there. What surprised me was, they measured the weight of rice before serve which I never see in my country.

TRANSPORTATION

Japan transportation system is convenient. Most of the sightseeing can be reached by municipal subway. To travel between towns, variety of train also provided. The railway system of Japan really amazed me, it' s complete and very easy to use. Different train, for example special express, fast express, sub express and local trains provided to suit different users' need. What amazed me was the waiting time of trains is surprisingly short, during the last day, I went to Kansai Airport via railway system. There' s almost no waiting time when I change railway line.



プログラム修了後、接合研前にて田中学所長(中央)と