



Farewell Banquet for the 5th AONSA Neutron School at the “YI HE YA YUAN” in Beijing

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By **Prof. Yasuhiko FUJII**

(*JSNS, CROSS-Tokai*)



Gathering Momentum

On October 27 this year, the 8th Executive Committee met at Peking University, China with several highlights to be reported as follows:

The China Neutron Scattering Society (CNSS) formally joined AONSA as a regular member. It is the first society newly joining after AONSA established in August 2008. It's our great pleasure to welcome CNSS as the 6th regular member which has been operated for the Chinese neutron community under its President's leadership by Prof. Hesheng Chen (IHEP, Beijing).

Welcome, CNSS!

Dr. Balebail Anantha Dasannacharya (retired from BARC, India) has been selected as a recipient for the 2nd AONSA Prize for his pioneering contributions to neutron scattering in the Asia-Oceania region, through his early development of neutron spectroscopy and its applications for the dynamics in low-temperature liquids and molecular solids, and his active promotion of regional and international sciences as well as the national user program in India. The Award Ceremony and delivery of his Prize Lecture will be held on July 12, 2013 during the upcoming ICNS at Edinburgh.

Congratulation, Anantha!

Prof. John White (ANBUG, ANU), the immediate Past President of AONSA, is retiring from an official advisor to the Board at the end of this year 2012. His great contribution to our Association from its preparation/establishment and his Presidential leadership has been highly appreciated by all of us.

On the occasion of the Workshop entitled "Structure and Dynamics of Condensed Matter by Scattering Methods" specially organized by Australian colleagues to celebrate John on his 75th birthday (Hunter Valley, Australia, Nov. 25-28, 2012), several past and present Board members were present there as snapshot below. We hope his continuous advice and encouragement for AONSA.

Thank you, John!



Happy faces snapshot during the Workshop Dinner at the winery in Hunter Valley.
From right; Sung-Min Choi (Secretary), Ailsa White, Mike Rowe (NIST), John White (Past President),
Yasuhiko Fujii (President), Wen-Hsien Li (Vice President), and Masa Arai (Past Secretary).

The 8th AONSA Executive Committee Meeting held in Kajang, Malaysia

The 8th AONSA Executive Committee (EC) Meeting was held at Tenaga Nasional Bhd Research and Development (TNBR), Kajang, Selangor, Malaysia on May 22, 2012. The meeting was attended by 18 participants and started with an opening remark by President Yasuhiko Fujii acknowledging the great efforts of Malaysian colleagues, especially Dr Abdul Aziz Mohamed and Dr Faridah Mohamad Idris, for their excellent arrangements for the 8th EC meeting and the 3rd Facility Directors' meeting (which was held in conjunction with the EC). Dr Danas Ridikas (IAEA) and Dr Supagorn Rugmai (SLRI, Thailand), who attended as special observers, were warmly welcomed by all the EC participants. At the meeting, all participants enjoyed active discussions on various issues.

The agenda of the meeting includes the duty statements of the AONSA Board Members, the reports on the 2nd AONSA Prize, the 5th AONSA neutron school to be held in Beijing, summaries of the 1st AOCNS and the 1st Instrument Scientist Workshop held in Tsukuba, 2011, possible dates and venue of the 2nd AOCNS in Australia, discussions on establishing an "AONSA Visiting Fellows" program, possible collaboration with ICSU and IUCr, the 2nd Three Presidents' Meeting held during the 1st AOCNS, a summary of cooperation with AOFSRR, possible cooperation with Association of Asia-Pacific Physical Societies (AAPPS), and AONSA Supporting Letter for the re-start of JRR-3.

These were followed by Association Reports and presentations about SLRI (Thailand) and IAEA Collaboration Centers.

The meeting was ended with a group photo of all participants.



Photo taken after the 8th EC meeting

All the participants also enjoyed the AONSA session of NuSTEC2012 (which was held at the same place a day before the EC meeting) and a wonderful banquet hosted by the Malaysian Nuclear Society. The minutes of the 8th EC meeting are posted on the AONSA homepage.

Sung-Min Choi

Secretary of AONSA



Photo taken after the banquet hosted by the Malaysian Nuclear Society

The 9th AONSA Executive Committee Meeting held in Beijing, China

The 9th AONSA Executive Committee (EC) Meeting was held at Peking University, Beijing, China on October 27, 2012. The meeting was attended by 15 participants and started with an opening remark by President Yasuhiko Fujii acknowledging the great efforts of Chinese colleagues, especially Dr Dongfeng Chen, Dr Yuntao Liu and Dr Songbai Han, for their excellent arrangements of the 5th AONSA Neutron School, the 4th Facility Directors' Meeting and the 9th EC Meeting.

In this meeting, the application of Chinese Neutron Scattering Society (CNSS) for AONSA regular membership was formally approved by the EC after an overview of CNSS given by Dr Dongfeng Chen (Vice-President of CNSS). The joining of CNSS was highly welcomed by all the EC participants.

The selection committee reported its nomination for the recipient of the 2nd AONSA Prize (Dr Balebail Anantha Dasannacharya, BARC, India), which was highly appreciated and officially approved by the EC.

Other items of agenda include the reports on the 5th AONSA Neutron School held in Beijing, China, the 6th AONSA Neutron School to be held in Tokai, Japan in 2013, the selection of the host of the 7th AONSA Neutron School (BATAN, Indonesia was selected unanimously), a report from the organizing committee of the 2nd AOCNS in Australia, a report on the AONSA homepage design update, a follow-up discussion on an "AONSA Visiting Fellow" document prepared at the Facility Directors' meeting, possible collaborations with ICSU and IUCr, AONSA-NSSA Presidents' meeting held during ACNS 2012 in Washington DC, cooperation with AOFSSR and AAPPS, AONSA Supporting Letters for JRR-3, and possible AONSA activities for the 2014 International Year of Crystallography. These were followed by Association and Facility Reports.

All the participants enjoyed a wonderful dinner (kindly hosted by Chinese colleagues) together with the participants of the 5th AONSA Neutron School.

The minutes of the 9th EC will be posted on the AONSA homepage once they are approved.



Photo taken during the 9th EC meeting

Sung-Min Choi
Secretary of AONSA

Asia-Oceania Neutron Scattering Facility Director Meeting Peking University, Beijing 26 October 2012

Six facility directors from CIAE, KEK, ISSP, ANSTO, IHEP, and KAERI gathered in Peking University, Beijing on 26 Oct. 2012. The AONSA President attended as an observer. Facility web pages were reviewed. The current status of the ANSTO cold source problem and the cold-guide replacement for 90% higher flux of the vertical reflectometer at HANARO were presented, which had been discussed at the last meeting. Dr Seto of KEK said that next AONSA neutron school will be held in Tsukuba possibly in June 2013.



Meeting in Peking University, Beijing

The facility issues discussed in this meeting were as follows. Flux degradation on cold guides at HANARO has been observed in last two years. Repairs from the earthquake and tsunami damage to JRR-3M in March 2011 were completed in FY 2011. However, a new operational license has not yet been granted. The C1 (13 elements) and C3 guides were replaced with $m=3$ guides in FY2011. ISSP and JAEA websites for users (submissions, schedule etc.) are being unified. An English language website for JRR-3M is now open. The accelerator of J-PARC is ready for 300 kW operation. The operation cycle is currently 88 days, but this will be increased to 98 days to accommodate the neutrino program. The LINAC will now operate until end of July 2013 (i.e. 24 days into next FY), followed by a shutdown for 6 months. The decision was taken to replace all damaged guides and those expected to last less than 10 years at OPAL. A contract for the replacement of 72 m of guide was signed in late 2011. Replacement will take place in the first quarter of 2013.

Construction of CSNS started in Oct 2011. Construction of the LINAC will start next year and there will be first beam in 2017. They are still waiting for an operating licence for reactor. CIAE is waiting for approval for funding for CARR fuel for 5 years at full power. The current budget only allows low power for 1 yr. BATAN, Indonesia has offered to host of the neutron school in 2014.

As a special topic, Mr Lee of HANARO presented the status of software for data reduction, analysis, visualization, and instrument control at HANARO. He will send a table of HANARO software to all directors, asking for them to complete tables for their facility and return them to him for distribution. Dr Yuntao Liu of CIAE suggests that the current high-flux facilities in the AO region are new enough that there is a good chance for collaboration in development of software systems. Dr Kennedy of ANSTO proposed developing a standard framework for “issues” discussion, e.g. problems and solutions for technical issues and user program issues. Dr Liu proposed to discuss plans for new developments. Mr Lee will chair the meeting another year and Dr Mitsu of ISSP will become secretary in the following.

Kye Hong Lee
Director of KAERI, Korea

Report on the 5th AONSA Neutron School at CARR in China

The China Advanced Research Reactor (CARR) neutron scattering facility at the China Institute of Atomic Energy (CIAE) is about to run as a new neutron science center in local area. The 60 MW CARR at CIAE reached full power in March, 2012. It is a tank-in-pool type reactor using a D₂O reflector for inverse neutron trap, and the expected optimal undisturbed thermal neutron flux is 8×10^{14} n/cm²/s. The reactor experiment hall houses a set of instruments connecting to 9 horizontal thermal neutron beam tubes, two of which are dual beam ports. Additionally, cold neutrons produced by a liquid D₂ cold source are transported via 4 guide systems to the 30 × 60 m² guide hall. CARR is a user facility. Neutron scattering and neutron imaging are major research programs at CARR open to users from universities, industry and government labs. The mission of the neutron scattering laboratory at CARR is to serve neutron users from China and abroad for materials research with reliably optimized, progressively upgradable, and safely operated facilities with a devoted staff.

The “5th AONSA Neutron School” was held from 23-27 October 2012. The school was hosted by CIAE and Peking University (PKU). It was organized in association with the Chinese Neutron Scattering Society (CNSS), the China Spallation Neutron Source (CSNS), and the China Center of Advanced Science and Technology (CCAST) in cooperation with the IAEA.



Group Photograph at the guide hall of CARR on Oct 25, 2012

Travel expenses of students from developing countries were supported by IAEA and AONSA. Totally, 47 formal student participants from 10 local countries and regions had attended the neutron school. In addition, more than 130 students and researchers from

universities and the institutes of the Chinese Academy of Sciences attended the theory lectures. Theory lectures were delivered by 13 scientists. The data analysis classes included small angle neutron scattering, reflectometry, powder diffraction and texture. The students were divided into 6 groups and 2 students from every group gave oral presentations concerning their research work.



Data analysis classes at Peking University

- 1 General introduction to neutron scattering 1: Introduction of neutron scattering theory and method Prof. Wen-Hsien Li
- 2 General introduction to neutron scattering 2: Introduction of neutron scattering facilities Prof. Shane Kennedy
- 3 China Spallation Neutron Source Prof. Hesheng CHEN
- 4 Study of semantic phase and oxygen vacancies in some oxides by Neutron Scattering Prof. Hsiung Chou
- 5 Neutron scattering instruments at CARR and their applications Prof. Dongfeng CHEN
- 6 Neutron Reflectometer and its applications Prof. Yuntao LIU
- 7 Powder neutron diffraction studies of magnetic materials Prof. Jinbo YANG
- 8 Industry application of neutron scattering Dr. Wanchuck Woo
- 9 Neutron and X-ray diffraction applied to materials chemistry Prof. Chris Ling
- 10 Powder neutron diffraction applied to inorganic chemistry Prof. Jianhua LIN
- 11 Neutron scattering studies of magnetic materials Prof. Jae-Ho Chung
- 12 Small angle neutron scattering and its application on polymers Prof. Mitsuhiro Shibayama
- 13 Spin echo neutron scattering and its application on soft condensed matter Prof. Hideki Seto

The program included a CARR visit, a Great Wall tour, a welcome reception dinner, and a farewell banquet are served at the “YI HE YA YUAN” – a traditional Beijing quadrangle courtyard – and everyone had a taste of the famous “Beijing Roast Duck”.



Student’s happy faces with their promising future at the Farewell Banquet

We warmly thank all the invitees from the EC for their visit to Beijing and kind contributions to make the 5th AONSA Neutron School a very successful event. We are also grateful to all the teachers for their very useful lectures. We would like to especially thank AONSA for the opportunity to organize the School.

Songbai HAN

China Institute of Atomic Energy



Group Photograph of opening on Oct 24, 2012 at Peking University

Summary of AONSA Neutron Schools over the Last Five Years

The AONSA Neutron School, one of the most important AONSA activities, has been very successful over the last 5 years. The five Schools have been held at KAIST in Korea (2008), ANSTO in Australia (2009), BARC in India (2010), ANSTO in Australia (2011), and CIAE and Peking University in China (2012).

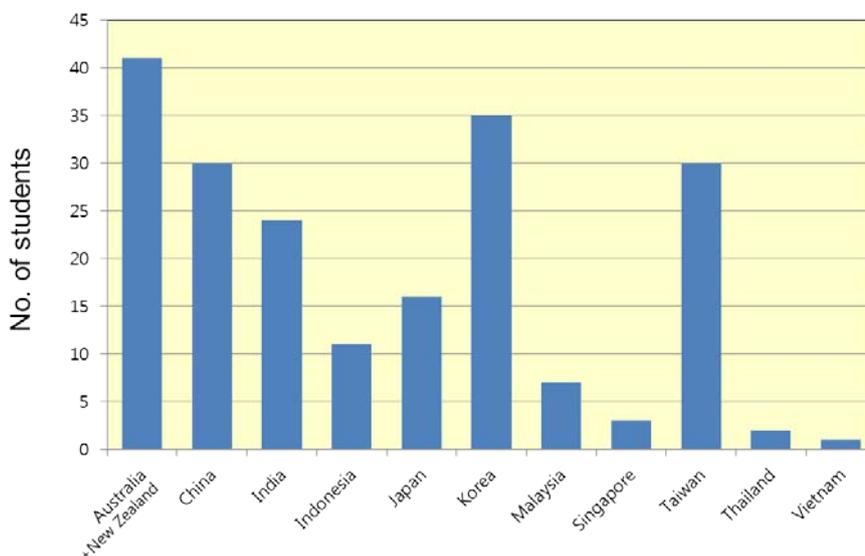
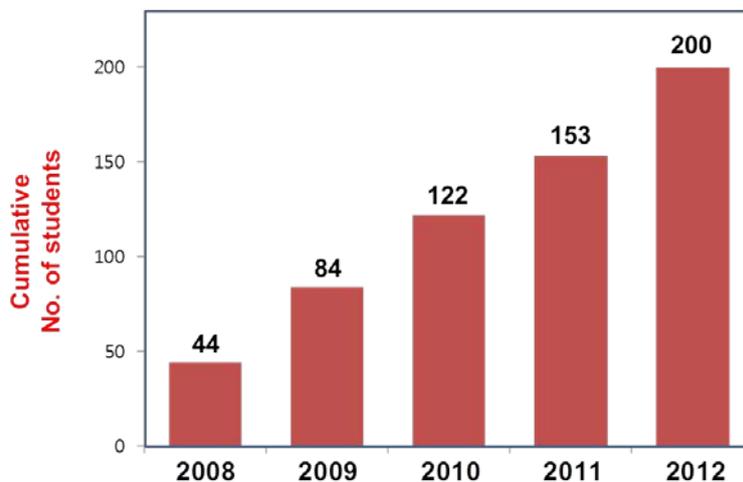
So far, a total of 200 students from 12 countries in the Asia-Oceania region have been trained through the Schools. The Schools have provided students excellent opportunities for making friendship among them who are the future of neutron scattering science in the region. The yearly cumulative number of students and the distribution of students among participating countries are summarized in the following two figures.

The great efforts of all the hosting institutes, organizers and lecturers, the financial supports of IAEA and AONSA, and of course all participating students for making the Schools very successful are highly appreciated by all AONSA colleagues.

The 6th and the 7th AONSA Neutron Schools are scheduled to be held at J-PARC in Japan (2013) and BATAN in Indonesia (2014), respectively. The 6th School at J-PARC will be the first AONSA Neutron School to utilize a spallation neutron source.

Sung-Min Choi

Secretary of AONSA



Seminar and Workshop on Exploring Soft Matter at the Nanometer Scale by Small-Angle Scattering (SAS) in Serpong, Indonesia

Continuing on from the regional activities of the 2nd ASEAN (Association of Southeast Asian Nations) Workshop on Small Angle X-ray Scattering (AWSAXS 2011) held from March 6 to 8, 2012 at Synchrotron Laboratory Research Institute (SLRI) in Nakhon Ratchasima, Thailand, a 3-day Seminar and Workshop organized by the Indonesian Polymer Association (HPI) in collaboration with the Indonesian Institute of Sciences (LIPI) and National Nuclear Energy Agency (BATAN) was held in Kawasan Puspiptek Serpong, Indonesia from October 9 to 11, 2012. The event consisted of a one-day seminar at the Center for Physics – LIPI and a two-day workshop at the Neutron Scattering Laboratory – BATAN, attended by the regional participants and focusing on introducing and promoting “the Beauty of Small-angle Scattering on Exploring the Soft Matter at Nanometer Scale”. 60 local and regional participants attending the seminar on the first day were exposed to an introduction, application, and facilities for SANS, SAXS and synchrotron from the invited speakers, Dr Paul Ulrich Pennartz of Rigaku Innovative Technologies, Germany, Dr Edy Giri Rachman Putra of BATAN, Indonesia, and Dr Siriwat Soontaranon representing Dr Supagorn Rugmai of the Synchrotron Light Research Institute (SLRI), Thailand.



The group photo during the Seminar at the Center for Physics, Indonesian Institute of Sciences (LIPI) in Kawasan Puspiptek Serpong, Indonesia

Following the seminar, a two-day workshop was conducted at Neutron Scattering Laboratory, Center for Technology of Nuclear Industrial Materials – BATAN and attended by 22 participants. At the workshop, lectures on basic theories of SANS, instrumentations,

data reduction and analysis and also some applications in soft matters were presented. The participants were also given an opportunity to visit the G.A. Siwabessy reactor facility and experience on sample preparations to synthesize micellar and polymer solutions, as well as hands-on training using the small-angle neutron scattering (SANS) spectrometer.



The group at the SANS facility in BATAN Serpong, Indonesia during the workshop

This event was actually a continuing activity and also the last in a series of seminars organized by HPI in order to promote the SAS technique to local scientists. A one-day seminar on X-ray Diffraction and SANS techniques was held previously in LIPI – Bandung on March 22, 2012 and then followed in Sentra Teknologi Polimer (STP) – BPPT Serpong on May 29, 2012 on the subject of SANS & SAXS: The New Probes on Nanostructure Studies in Polymers, Material Science, and Biology (<http://hpi-polimer.org/>).

Seeing as the SANS facility is available at BATAN Serpong, Indonesia and the SAXS facility is at SLRI, Thailand, the regional seminar and workshop were designed to promote and attract new researchers in the region, especially in Indonesia, to utilize both facilities for polymer and other research.

Bringing our spirit as well as friendships and networking in the ASEAN region will revive and enhance neutron and X-ray users in the Asia-Oceania region, through the AONSA and AOFSSR.

Edy Giri Rachman Putra

National Nuclear Energy Agency (BATAN) Indonesia and Indonesian Polymer Association

Report from ANBUG



ANBUG's membership has continued to grow following a renewed initiative to contact new neutron users through the OPAL User Portal. Our total numbers are now over 370. A significant proportion of these will come together from November 7-9 for the AINSE-ANBUG Neutron Scattering Symposium (AANSS 2012). We already have nearly 100 abstracts for AANSS despite an exceptionally busy schedule of meetings in overlapping fields in our region in late 2012, a testament to the strength of the community. The prestigious ANBUG Prizes will be presented at AANSS, as well as the outcomes of elections for new members of the ANBUG Executive Committee and for the position of Vice President. Note that the Presidency will move to the current Vice President, Prof Evan Gray, in 2013-14; and that the person elected Vice President in the upcoming elections will become President in 2015, the year of the 2nd AOCNS.

ANBUG has been particularly active on behalf of users this year. Many of the issues that our domestic users raise about facilities at the Lucas Heights site were heard independently from overseas visitors, who used OPAL in increased numbers following the temporary unavailability of Japanese neutron sources in 2011-12. This prompted ANBUG to officially request that ANSTO and AINSE (the Australian Institute of Nuclear Science and Engineering) consider:

- (a) providing one or more cars for short-term use by visiting scientists to access shops and restaurants, especially outside normal working hours (a system that has been very effective at the similarly isolated Australian Synchrotron site); and
- (b) revisit the possibility of constructing a dedicated Visiting Scientists Accommodation Facility in the vicinity of the Bragg Institute, to replace the outdated and inadequate Lucas Heights Motel.

The provision of car(s) has been favorably received and will be implemented in early 2013. The question of accommodation is still open due to budgetary constraints at ANSTO, but space for such a facility does feature in ANSTO's long-term site plan, and the CEO of ANSTO has assured us that it remains part of their long-term plans.

ANBUG has put considerable effort into obtaining international travel funding for its members. The President, Vice President and Past President are all named on a major grant application to the Australian Research Council seeking funding to replace the expired Access to Major Research Facilities Program (AMRFP) from 2013-2017, focused on access to spallation neutron sources (ISIS, SNS and J-PARC). The outcome of this application will be known in late 2012. The need for such a program was reinforced by the fact that when the AMRFP received some funds to reopen applications in mid-2012, those funds were all committed within one week. In the meantime, we have obtained a commitment from AINSE to fund limited travel to the ISIS facility (only) until the end of 2012.

Chris Ling

President, ANBUG

Report from KNBUA

HANARO Symposium 2012

The “HANARO Symposium 2012” was held at KAERI on May 11, 2012. The symposium was hosted by KAERI with MEST (Ministry of Education, Science and Technology), KNS (Korean Nuclear Society) and NRF (National Research Foundation of Korea), in the theme of “New Prospects in the Neutron Utilization Research”. More than 200 researchers and experts from universities, research institutes and industries attended at this symposium. Ninety-nine research papers were presented in five technical sessions: neutron beam utilization, radioisotopes, fuel and material irradiation, neutron activation analysis and research reactors.

Ki Bong Lee
POSTECH



HANARO Symposium 2012

Report from NSSI



We are looking forward to the International Symposium on Neutron Scattering to be held in Mumbai during January 14-17, 2013. This event is being organized by Bhabha Atomic Research Centre in association with the Neutron Scattering Society of India. We expect about 60 participants from abroad and another 100 from within the country.

The Symposium will be preceded by a School on “Neutrons as Probes of Condensed Matter”, which is being organized jointly by BARC and UGC-DAE-CSR. The School will cover various aspects of neutron scattering and the participants will also carry out hands-on experiments using the neutron scattering facilities at the Dhruva reactor.

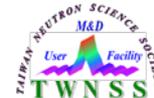
Several neutron-related meetings were held during the year 2012 in which members of NSSI were involved. This included a theme meeting at BARC in March, and

review meetings of neutron projects supported by UGC-DAE-CSR in March and October (see facility report from BARC). UGC-DAE-CSR organized an awareness workshop at Gitam University, Vizag, during January 26-27, 2012. About 50 faculty and students attended the workshop. Apart from other topics, various aspects of neutron scattering along with neutron scattering facilities available at BARC were discussed. An India-ORNL workshop on Exploring Materials using SNS was organized on September 6 and 7, 2012 at JNCASR, Bengaluru supported by Indo-US S&T Forum to promote collaboration at ORNL. About 40 scientists from India and about 10 from ORNL attended the meeting.

Samrath Chaplot

BARC, Mumbai, India

News from Taiwan Neutron Science Society (TWNSS)



Farewell and New Era

The TWNSS annual meeting was held in December 1st. Prof. Hsiung Chou was elected as the 3rd President of the TWNSS during the meeting. After serving a 2-year term, Professor Hsi-Mei Lai, the 2nd President of the TWNSS was elected for serving at the Board of Supervisors. The new Chairman of the Board of Supervisors is Prof. Wen-Hsien Li.

Prof. Lai, the First Lady President

Prof. Lai was elected president in 2011. During her presidency, Lai advocated for a wide variety of legislation and programs. She signed into TWNSS regulations to invite the National Synchrotron Radiation Research Center (NSRRC) representatives to join the Boards of Supervisors and Directors, respectively. She is also working with the NSRRC to initiate the Neutron User Executive Committee for Taiwan neutron users.

She made reform of the Annual Research Exhibition a top priority. The TWNSS academic committee succeeded in transforming a one-way education into the two-way communication, which essentially became the 1st TWNSS Student Poster Competition during this annual fall meeting.



The student poster competition: the students were reporting their neutron and synchrotron results.

Lai also presided over many enthusiastic outreach programs for our young TWNSS. Last fall, Lai led a group of more than 30 scientists and graduate students to the 1st Asia-Oceania Conference on Neutron Scattering (AOCNS), held in Tsukuba, Japan.

Like the AONSA Newsletter, a new-born TWNSS Newsletter will debut soon to communicate with all the TWNSS members more frequently. Each issue will also include a series of the educational information to broaden the neutron community in Taiwan.

Prof. Chou, the First President from the South

Prof. Chou received his PhD from Columbia University. He is a professor in the Department of Physics, the National Sun Yat-Sen University (NSYSU). The NSYSU is located in Kaohsiung City, where is in the heart of southern Taiwan. Kaohsiung is also the second biggest city in Taiwan. Unlike the National Central University and the National Taiwan University, where the first and the second Presidents of TWNSS affiliate with, respectively, Prof. Chou is the first TWNSS President from the university in southern Taiwan. Prof. Chou's research focuses on the physics of the thin magnetic films.



Prof. Chou's lecture in the TWNSS annual education workshop, which was held in Tsengwen Youth Activity Center (Tainan County, Taiwan) during Nov. 30 to Dec. 2.

Welcome International Visitors

Professor Peter Holden, Director of the National Deuterium Facility of the ANSTO, and Dr. Jason Gardner of the NIST Center for Neutron Scattering were invited to give the lectures during the TWNSS annual meeting and workshop held on Nov. 30-Dec. 2. There were total 113 attendees, including 26 researchers, 4 postdoctoral fellows and 83 students.



Dr. Holden and Dr. Gardner.

Hsi-Mei Lai

President, TWNSS

National Facility for Neutron Beam Research, Dhruva reactor at BARC

Several meetings were organized during the year 2012 to promote neutron scattering activities. This included a theme meeting at BARC during March 12-13, 2012, to take stock of the status of neutron scattering research in India and future planning. The meeting was attended by Andrew Harrison, Director, Institut Laue-Langevin. Review meetings of neutron projects supported by UGC-DAE-CSR were held in March and October. These led to several new project proposals.

At present there are about 40 active neutron projects from users of various universities and research institutions in India for experiments at the National Facility for Neutron Beam Research at Dhruva under the aegis of UGC-DAE-CSR and DAE-BRNS.

A new powder diffractometer replacing the old one with higher throughput has been installed at one end of the through-tube at the Dhruva reactor. This is specially meant for magnetic structure studies. A new cryomagnet (7 T at 1.5- 300 K) is being procured shortly in addition to the one already available on another diffractometer.

Samrath Chaplot

BARC, Mumbai, India

Inauguration Ceremony of the KIST-USANS Instrument at the HANARO Cold Neutron Guide Hall, KAERI

On the 30th of November 2012, the Korea Institute of Science and Technology (President, Dr. Moon, Kil-Choo) organized the inauguration ceremony of the Ultra Small Angle Neutron Scattering (KIST-USANS) at the HANARO cold neutron guide hall, Korea Atomic Energy Research Institute (KAERI), Daejeon, South Korea. Several dignitaries from KAERI, KIST and Korea Research Council of Fundamental Science and Technology (KRCF) attended the function. The ceremony began with a presentation by Dr. Kim, Man-Ho, leader of the KIST-USANS project. Dr. Kim briefly introduced the development history, funding sources, and performance of the KIST-USANS instrument to the scientific community.



A photo of the dignitaries at the HANARO cold neutron guide hall in front of the KIST-USANS instrument.

His introduction was followed by a welcome address, by the President of the KIST. Dr. Moon, Kil-Choo stated, "It is remarkable to extend the measurable size from nanometer scale of SANS to micrometer scale in USANS. I have never seen any instrument that measures 4 orders in scale, which means we are actually measuring 3 km in length with a 30 cm standard ruler". Chairman of KRCF, Dr. Kim Keon, in his talk also said, "it is a good model for KIST and KAERI to work together to develop the USANS instrument", and he also encouraged further collaborations between the two prominent institutes in Korea. President of KAERI, Dr. Jung, Youn Ho mentioned, how pleased he was to have the USANS instrument at the cold neutron guide hall, and stated that the USANS instrument would directly complement the SANS instrument, enabling significant achievements in the progress of scientific research. Two members of KAERI staff, Dr. Cho, Sang Jin and Director of Neutron Science Division, Mr. Lee, Kye Hong, were also acknowledged by the KIST President for the construction of the cold neutron guide hall and their contribution to the KIST-USANS instrument. Around 50 scientists participated in the function and a photo of the dignitaries is shown in Fig. 1. The delegation was pleased to see preliminary data from the USANS instrument, highlighting the satisfactory performance of the instrument.

The morning function extended to the 2012 KIST-KAERI Joint Symposium in the afternoon and there were nine scientific talks on neutron scattering instruments, alloys, polymers, biology, and energy storage areas. Various areas where neutrons could be used to characterize materials were discussed, and the stage seemed to be set for long term cooperation between KIST and KAERI, on numerous scientific projects.

Man-Ho Kim
KIST-USANS, Korea

Report from CSNS

The China Spallation Neutron Source (CSNS) is designed to provide multidisciplinary scientific platforms for the neutron scattering research and application. The site of CSNS is located at Dongguan city, Guangdong Province, China. The Institute of High Energy Physics (IHEP) is in charge of the project. CSNS will be a branch of IHEP.

Project Overview

CSNS comprises an 80-MeV H⁺ linac, a 1.6-GeV proton rapid cycling synchrotron (RCS) with a repetition rate of 25 Hz, beam transport lines, a solid tungsten target station, and 20 spectrometers in the experiment hall. Only 3 spectrometers (General Purpose Powder Diffractometer, Magnetic Reflectometer, Small Angle Neutron Scattering) will be available at the beginning. The RCS provides a beam power of 100 kW at Phase I. The beam energy of Linac will be upgraded to 250MeV in Phase II, and the proton beam power on the target will be further increased to 500 kW. The construction budget of CSNS is 1.67 Billion RMB, which is about 250M US\$. 400 new positions are allocated in CSNS.

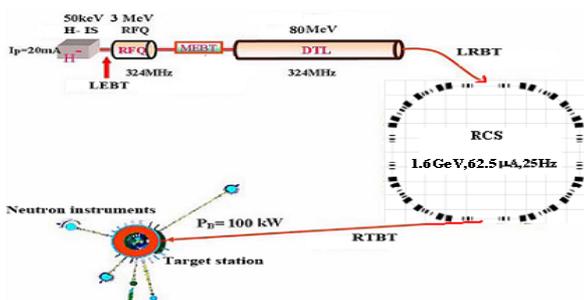


CSNS Project Aerial view

The project is the first large scientific facility in the south of China where the economy is growing rapidly. The local Government is strongly supportive. It is expected that CSNS construction and operation will promote sciences and high-tech in the area. The facility will be open to international users of neutron scattering.

Progress and Status

The project proposal was approved by the Chinese central Government September 2008. The ground-breaking ceremony of CSNS was held October 20th, 2011. The civil construction began on May 5th, 2012. The civil construction is going smoothly. The installation of the Linac will start in September 2013. The commissioning of the LINAC should start in September 2014. The RCS commissioning will start in March 2016, and the first proton beam on target is scheduled for March 2017. CSNS operation will be commence in March 2018, 6.5 years after ground-breaking.



CSNS Schematic Layout

The R&D for major components of CSNS started in 2006. More than 30 prototyping items (covering most key technologies of accelerator and experimental system) have been completed. The mass production of the accelerator and conventional facility components started in 2012.



Civil Engineering Status October 2012

The Fourth Review Meeting of the CSNS International Advisory Committee was held at IHEP Beijing September 22- 24, 2012. 19 committee members reviewed the progress of the project and the detailed design of CSNS accelerator, target station and instrument systems. They gave much valuable advice on the design, construction, commissioning and neutron scattering application of CSNS, as well as to its mid- and long-term development.

Hesheng Chen

Project Manager, CSNS

Report from AONSA Office

Ms. Junko Akutsu has moved to another position at J-PARC as of October 1, 2012, after her excellent work as Secretary of AONSA Office over the last two years during which AONSA has grown very rapidly. She did a great job on the preparation of the 1st AOCNS, the 1st AONSA Prize, several EC meetings and AONSA Neutron Schools, arrangement of Bank accounts, editing the AONSA Homepage and Newsletters, and much else besides. Her excellent work and contributions to AONSA are greatly appreciated by all AONSA colleagues. Ms. Yukino Inoue, one of Masa Arai's secretaries, has succeeded Ms. Junko as a new Secretary of AONSA Office. All AONSA colleagues warmly welcomed her joining the AONSA Office and greatly appreciate her excellent work since then. The continuing generous support of Masa Arai for the AONSA Office is highly appreciated by all AONSA colleagues.



(from the left) Yasuhiko Fujii, Junko Akutsu, Yukino Inoue and Masa Arai
in front of the AONSA Office

Sung-Min Choi

Secretary of AONSA

Calendar of AONSA Activities

(as of 2012/Dec.)

Year 2012

4/20	AONSA Newsletter Vol.4 No.1 (April 2012)
5/22	The 8 th AONSA EC Meeting (Kajang, Malaysia)
7/29-8/2	M2S-X (Washington DC, USA)
10/23-10/27	The 5 th AONSA Neutron School (Beijing, China)
10/27	The 9 th AONSA EC Meeting (Beijing, China)
11/7-11/9	The 10 th AINSE-ANBUG Neutron Science Symposium (Lucas Heights, Australia)
11/18-11/23	The 15 th International Small-Angle Scattering Conference (Sydney, Australia)
11/25-11/28	Structure and Dynamics of Condensed Matter by Scattering Methods Workshop (Hunter Valley, Australia)
11/26-11/30	IAEA Technical Meeting on Regional Research Reactor Users Networks: Advances in Neutron Imaging(Serpong-Jakarta, Indonesia)
12/2-12/6	The 11 th Conference of the Asian Crystallographic Association (Adelaide, Australia)
12/17	AONSA Newsletter Vol.4 No.2 (Dec. 2012)

Year 2013

1/14-1/17	The 2nd International Symposium on Neutron Scattering /ISNS (Mumbai, India)
6/16-6/20	The 6 th Neutron School (Tokai, Japan)
6/x	The 10 th EC Meeting (Tokai, Japan; during the 6 th AONSA Neutron School)
7/8-7/12	The 10 th International Conference on Neutron Scattering (Edinburgh, UK)
7/9	AONSA Regional Meeting during ICNS2013(Edinburgh, UK)
7/12	AONSA Prize Award Ceremony (during ICNS, Edinburgh, UK)
7/14-7/19	The 12 th Asia-Pacific Physics Conference/APPC(Chiba, Japan)
12/1-12/4	AsCA 2013(Dhaka, Bangladesh)

Year2014

TBD	The 7 th AONSA Neutron School (Serpong, Indonesia)
8/5-8/12	The 23 rd IUCr Congress and General Assembly (Montreal, Canada)

Location of AONSA Office

(Secretary: Yukino Inoue)

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