



The AONSA Prize 2013

The Selection Committee (SC) for the AONSA Prize 2013 received multiple nominations before the deadline (July 31, 2012) and spent a few months seriously reviewing them. All the nominees were highly qualified, reflecting the quality of neutron scattering research in our Asia-Oceania Region. The SC eventually selected Prof. Balebail Anantha Dasannacharya for nomination to the Executive Committee of AONSA, which met in Beijing, China on October 27, 2012 and officially approved the SC's nomination. Prof. Dasannacharya will be awarded a certificate, a monetary prize (\$5,000) and a plaque at the Prize Ceremony to be held on July 12, 2013 during the ICNS 2013 at Edinburgh, UK where his Prize Lecture is also planned.



Balebail Anantha Dasannacharya

Retired from the Bhabha Atomic Research Centre, India

Citation: "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 science as well as the national user program in India."

Balebail Anantha Dasannacharya received his B.Sc. degree in physics from Banaras Hindu University in 1957 and was awarded the Devasthale Prize. His career in neutron scattering began in 1958 upon joining BARC as a Scientific Officer, where he participated in design, installation and use of the first automatic neutron diffractometer and inelastic spectrometer in India. He received his M.Sc. degree by research from Bombay University in 1961, and was selected as a Colombo Plan fellow on "Neutron Scattering with B. N. Brockhouse in Atomic Energy Canada Ltd.", where he performed detailed constant-Q measurement on the canonical liquid argon with Dr. Brockhouse. He received his Ph.D. degree by research from Bombay University in 1969, and continued as Scientific Officer at BARC.



As early as 1966, he was appointed as IAEA expert at Philippines Atomic Energy Commission under Regional Collaboration Agreement, where he trained scientists from Philippines, Thailand and Korea many of whom are now core members of neutron scattering facilities in their respective countries. As Director of Solid State & Spectroscopy Group & Multidisciplinary Technology Group, BARC, and later on as Director of Inter University Consortium for Department of Atomic Energy Facilities, he was instrumental in making Dhruva reactor facilities open to university scientists in India. He played a major role in supplying neutron spectrometers to South Korea, Indonesia and Bangladesh in the early stage, which implanted seeds of neutron beam research in the regions.

He has successfully demonstrated how original research can be done using medium flux reactors in the Asian-Oceania region. He was the first to map out entire quasielastic and inelastic spectra of CD in an integrated fashion, by bringing together the complimentary neutron and optical spectroscopy techniques. Employing Filter Detector technique for fairly large energy transfer and the polarization dependency of incoherent scattering, he had the first time in BARC characterized different librational modes of water in hydrates. Incorporation of a ΔT analyzer to the window-filter concept, he drastically improved the energy resolution that led to the construction of the collaborative instrument IRIS on spallation source at ISIS. This resulted in the opening up of the neutron scattering channel for Indian scientists at ISIS.

He was awarded the prestigious Homi Bhabha Medal of Indian National Science Academy and Mahendra Lal Sircar Award of Indian Association of Cultivation of Science for his contributions to neutron scattering. He is a Fellow of Indian National Science Academy, a Fellow of Indian Academy of Science, and a past-President of Indian Physics Association. He served in various Scientific Councils including BARC and ISIS. Most importantly, he implanted seeds of neutron beam research in Asia-Oceania region at the times when conditions were not conducive for the purpose.