

Conference Report

Report of National Webinar: “National Science Day” – held on 28th February, 2023

National Science Day was celebrated by Institute of Science Education and Culture (ISEC), Kolkata on 28th February 2023 through organizing a National Webinar using Google Meet platform. In the inaugural session Prof. Santanu Das, the Secretary of ISEC welcomed all to join the webinar and mentioned the discovery of Raman Effect by Sir C. V. Raman in 1928 for which he received Nobel Prize in Physics on 28th day of February in 1930. This was indeed a great occasion in the history of Science in India. This rare achievement was made possible even when India was under British Raj. For this, India celebrates 28th February as the National Science Day every year. In 2023, ISEC arranged three lectures of three eminent persons in three different areas, such as genomics and diseases, ocean science and artificial intelligence.

After a short briefing, Prof. Santanu Das invited Prof. Anil Kumar Ghosh, the President of ISEC to deliver the Inaugural Speech. Prof. Ghosh outlined the motto of ISEC in the promotion of science and scientific temperament among people and different activities of ISEC. He also told everybody about the contribution of Prof. Murali Mohan Biswas, founder of the institute to all. He stated the significance of celebrating National Science Day and the discovery Raman Effect. He saluted the three honourable speakers for agreeing to deliver the lectures, hoped for the success of the webinar and declared the national webinar open. After that Dr. Swapna Mukherjee, the Vice President of ISEC, delivered the Welcome Address. She reiterated the need for serious study of science and also wished for the success of webinar.

Prof. Aditi Chatterjee, the first Speaker, was introduced by Prof. Santanu Das to all.

Prof. Aditi Chatterjee was then Head, Clinical Research, Strand Life Sciences, Bengaluru and she spoke on “The Role of Genomics on our Understanding of Diseases and Intervention Strategies”. She mentioned about the effect of tobacco and various drugs on our body, and the importance of human genomic project to detect the bad effects of drug that is used to treat cancer, etc. Hereditary cancer risk report can be generated through human genomic test of blood or tumour samples, and mutation of some cells can also be identified that can cause cancer. Actionable or Non-actionable mutations can be found out through genomic sequencing leading to precision oncology. Correspondingly, specific drug can be found out to prescribe. It can be applicable several other diseases. Several gene therapy techniques are also being applied, she pointed out. There was an interesting question-answer session after the deliberation.

Dr. Sabari Pramanik, Assistant Professor, Department of Computer Science, Vidyasagar University, Medinipur was the 2nd speaker. She talked on the topic, “Artificial Intelligence: Past, Present and Future”. She first remembered John McCarthy who coined term, ‘Artificial Intelligence’ (AI). Then she outlined the Turing Test done by McCarthy and others in the formative days that is a simple method of finding out whether a machine can demonstrate human intelligence and if a machine can engage in a conversation with a human without being detected as a machine demonstrating human intelligence. She stated that a person can be expert in one area, but can be ignorant in other areas. However, ‘Artificial General Intelligence’, or AGI, uses an intelligent software that can do multi-tasking operations, as ChatGPT makes

poems, write up, etc. Future of AI may be like a God with the features of Augmented Reality (AR) with Omniverse, or Metaverse capabilities. Even for water distribution, school education, etc., AGI can be used. After this lecture also there were interactions with the audience.

Next Prof. Santanu Das introduced the third speaker, Prof. Sugata Hazra, Professor of Oceanography, School of Oceanographic Studies, Jadavpur University, Kolkata. Prof. Sugata Hazra deliberated on “Ocean Sciences for Global Wellbeing”. He stated that Oceanography is an interdisciplinary area involving biology, physics, optics, chemistry, engineering, history, geography, etc. He briefed about the history of ocean and stated importance of its study as it is a rich store of minerals and water, is cable of absorbing one half to one third of CO₂ emission, can regulate precipitation, heat balance, water cycle, el-nino, rain, wind flow direction and storms. It is also a source of petroleum and wave energy. In many cases, ocean water is desalinated

to supply potable water. Many medicines are also found from ocean. However, climate change and plastics are putting a threat to marine life of sea and its ecosystem. Sea level is rising and it is feared that 55% of mangrove forest will be lost in coming years if remedial measures are not taken. He then mentioned about 17 sustainable goals to achieve by 2030 for human well-being as propagated by the United Nations. Blue economy is the aim to achieve through these goals set so that there will be no poverty, no hunger, good health, well being, quality education, gender equality, affordable clean water and sanitation, etc. After this lecture also, the audience and the speaker had a nice interactive session.

After the technical session, Prof. Santanu Das, Secretary, ISEC and Convener of the Webinar, gave a Vote of Thanks. Prof. Anuradha De then sang a Rabindra Sangeet and with this, the webinar came to an end.

Santanu Das[†]
Secretary, ISEC Kolkata

[†] Email: sdas.me@gmail.com

ORCID: Santanu Das: <https://orcid.org/0000-0001-9085-3450>
