

One-Week Training Program on "Frontiers in Earth Sciences" (12th July - 18th July, 2022)

The Department of Science and Technology, Government of India, has given the responsibility to IIT (ISM) Dhanbad to build human resources and its knowledge capacity using open access science and technology infrastructure through the scheme "**Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI)**". Thus, under DST-STUTI programme of IIT (ISM) Dhanbad, a one-week training program on "**Frontiers in Earth Sciences**" is organized from 12th July to 18th July 2022 at the Department of Geological Sciences, Jadavpur University, West Bengal.

This training program was coordinated by Prof. Subir Sarkar, Department of Geological Sciences, Jadavpur University and Prof. Ajoy Kumar Bhaumik, Department of Applied Geology, IIT (ISM) Dhanbad. This program includes thirty participants (Faculty/Executives, Post Doctoral fellows, Research Scholar) from various universities/colleges in India [Aligarh Muslim University, Banaras Hindu University, Bankura University, Birbal Sahani Institute of Paleosciences, Delhi University, Geological Survey of India (Eastern Region), IISER Kolkata, ISI Kolkata, MECL, Jadavpur University, Nagaland University, Patna University, Presidency University, Pune University, NIT Durgapur, University of Kashmir, University of North Bengal], with no more than three from the same university/college.

Highlights of the Day-1 (Dated: 12th July, 2022)

The first day of the training program began with a brief introduction to the program's purpose and significance. The introduction energized the participants' interest in science and engineering. The participants were then given a welcome kit that included a bag, a notepad, a power kit (pen, pencil, eraser, sharpener), and a program pamphlet.

Following that, two consecutive lectures were scheduled, with a relatively short tea break in between. The emphasis of these lectures was on the post-sorbian development of sedimentology. The first lecture (from 10:00 AM to 11:30 AM) was delivered by Prof. Pradip Kumar Bose, and the second lecture (from 11:45 AM to 01:15 PM) was delivered by Prof. Subir Sarkar.

Next, after the lunch break, a practical demonstration (from 02:15 PM to 05:15 PM) on sedimentology was provided by Prof. Subir Sarkar and Prof. Sunipa Mandal.



Highlights of the Day-2 (Dated: 13th July, 2022)

On the second day, two lectures were given based on the deep carbon cycle and a saga of vigorous crust-mantle interaction at the circum-pacific belt. The first lecture (from 10:00 AM to 11:30 AM) was delivered by Prof. Pulak Sengupta and the second lecture (from 11:45 AM to 01:15 PM) was delivered by Prof. Sanjay Sanyal.

Next, after the lunch break, a practical demonstration (from 02:15 PM to 05:15 PM) on petrology was provided by Prof. Sanjay Sanyal and Prof. Subrata Karmakar.

Highlights of the Day-3 (Dated: 14th July, 2022)

Similarly, on the third day, two lectures were conducted. The first lecture (from 10:00 AM to 11:30 AM) was based on probing the life of a mineral using micro-domain textural, geochemical, and geochronological techniques. This lecture was delivered by Prof. Dipak Chandra Pal. The second lecture (from 11:45 AM to 01:15 PM) was based on understanding magmatic ore deposits and was delivered by Prof. Sisir Kumar Mondal.

Following the lunch break, a practical demonstration (from 02:15 PM to 05:15 PM) on ore geology was provided by Prof. Dipak Chandra Pal and Prof. Sisir Kumar Mondal.

Highlights of the Day-4 (Dated: 15th July, 2022)

On the fourth day, two lectures were given based on the scanning electron microscope. The first lecture (from 10:00 AM to 11:30 AM) was delivered by Prof. Tapas Kumar Bhattacharya, and the second lecture (from 11:45 AM to 01:15 PM) was delivered by Prof. Vandana Prasad.

Next, after the lunch break, a practical demonstration (from 02:15 PM to 05:15 PM) on the scanning electron microscope was provided by Prof. Pulak Sengupta.

Highlights of the Day-5 (Dated: 16th July, 2022)

Similarly, on the fifth day, two lectures were conducted. The first lecture (from 10:00 AM to 11:30 AM) was based on arc volcanism and was delivered by Prof. Nibir Mandal. The second lecture (from

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Sanjay Sanyal



11:45 AM to 01:15 PM) was based on practical approaches of strain analysis from deformed rock structures and was delivered by Prof. Susanta Kumar Samanta.

Next, after the lunch break, a practical demonstration (from 02:15 PM to 05:15 PM) on geological sample preparation was provided by Prof. Susanta Kumar Samanta and Prof. Soumik Mukhopadhyay.


Highlights of the Day-6 (Dated: 17th July, 2022)

On the sixth day, fieldwork (from 10.00 AM to 05:15 PM with a lunch break) in the modern environment at Bakkhali was conducted by Prof. Subir Sarkar and Prof. Ajoy Kumar Bhaumik. Both theoretical and practical demonstrations were carried out during the fieldwork.

Highlights of the Day-7 (Dated: 18th July, 2022)

Similarly, Prof. Subir Sarkar and Prof. Ajoy Kumar Bhaumik continued the remaining part of the fieldwork (from 8.00 AM to 12:00 PM) in the modern environment at Bakkhali on the seventh day (i.e., the final day of the training program). Both theoretical and practical demonstrations were carried out during the fieldwork.

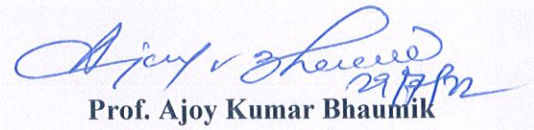
Following that, the certificate distribution took place, followed by a closing speech. Throughout the training programme, a formal discussion environment was established for the exchange of scientific and technological knowledge.


Prof. Sagar Pal

Coordinator (DST-STUTI)


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