

Lecture Series on Life Skills by TISS Faculty

Science and technology in today's world are not limited to one discipline or field and require extensive collaboration from multiple disciplines. DAE presents bright youngsters with challenging opportunities to excel in the forefront areas of research and development of cutting-edge technologies and science. BARC TS has started the prestigious 'Lecture Series on Life Skills' to support the advancement of exceptional professionals who add value to the organization and society.

Producing professionally groomed individuals with expertise in scientific knowledge and proficiency in soft skills is a crucial task. The transition from college to professional life is a significant one for many trainees at BARC Training School. The expectations and responsibilities of the workplace are considerably different from those of college. Many graduates are completely unaware of unspoken nuances and social norms, making it extremely challenging and sometime traumatic to adjust to a professional environment. The "Lecture Series on Life Skills" helped trainees achieve professional competencies by fully understanding and implementing their behavioural and soft skills.

The lecture series, conducted in four batches from January 5 to March 15, 2024, and March 11 to March 22, 2024, had participation of 131 trainees across 12 disciplines of science and engineering. Presented by TISS faculty—Prof. Nasreen Rustomfram, Prof. Saigita Chitturu, and Prof. Shamim Modi – the series aimed to enhance professional grooming through activity-based learning and real-time business simulations. The training sessions were marked by curiosity, active participation, and high energy among the trainees. The training covered communication skills, presentation skills, creativity and innovation, time management, and work ethics. Trainees participated enthusiastically in group activities and presentations, with the program's structure, content, and delivery method receiving positive feedback. The sessions boosted trainees' self-assurance and confidence in interpersonal skills. Confidence was built by clearly presenting ideas and communicating with impact, and the most appreciated aspect was the ethical leadership that will bring value to the organization. Participants thoroughly enjoyed discussing and presenting their ideas with enthusiasm.



Lecture Series on GPU computing and programming

In today's computer age, GPU computing plays a vital role across various fields, including business, economics, and science. To equip the trainees, who had little or no computational background, with essential programming languages and computing techniques, BARC training school conducted its first GPU computing and programming course as part of HRDD initiatives to enhance their research capabilities. The course was conducted in three batches, with an overall duration of 20 hours each, from December 2023 to March 2024, catering to 131 trainees from 12 science and engineering disciplines. The course comprehensively covered GPU architecture and parallel programming concepts, providing hands-on tutorials on C-Language, OpenMP, MPI, CUDA, and more. Trainees received practical experience in running short codes in the GPU lab at HRDD. The course was delivered in such a way that the trainees from diverse fields such as Biosciences, RSES, Chemistry, Metallurgy etc could understand the data types and logical operations, optimize the algorithms, follow the flow chart, work on the computational efficiency, and tackle the large-scale data processing. The interactive teaching sessions encouraged trainees to actively participate and ask for help when needed. The trainees valued the fresh understanding and appreciated the learning environment, thanks to courteous, helpful, and knowledgeable professionals as reflected in their feedbacks.

Mini Projects

In order to provide a glimpse of the exciting work waiting ahead in their careers, all trainees undergo Mini-Project work of 10 weeks duration in an ongoing session. For OCES 2023, the Mini-Projects were conducted between 1st April to 5th July 2024. During Mini-Project, the aim of working with domain experts in an interactive and informal way is to provide necessary grooming and invaluable hands-on experience. The trainees are required to prepare a report and defend their work in front of a panel of experts. The list of project guides includes a wide cross section of scientists and technologists from BARC as well as other DAE units in Mumbai (Annexure 5).

Professional Excellence workshop organised by Administrative Training Institute (ATI)

As a part of the one-year Training programme under OCES scheme, a 3 days' workshop on "Professional Excellence" was organized under the aegis of the ATI and in coordination with HRDD, BARC for the young Trainee Scientific Officer (TSOs) of BARC Training School, Mumbai during July 11-15, 2024 at Mini Auditorium, DAE convention centre, Anushaktinagar, Mumbai. The workshop was designed as a capsule of 11 sessions of soft skills aimed at overall personality development. Each session was of 90 minutes duration and covered topics are enlisted below

1. Communication Skills (2 sessions)
2. Ethics and Values (2 sessions)
3. Effects of Social Media(4 sessions)
4. Gender Sensitization (2 sessions)
5. Habits of Effective Managers and Traditional Indian Wisdom (1 session).

Sessions on Communication Skills and Gender sensitization were conducted by educators and freelancers serving the Tata Institute of Social Sciences. The sessions on Ethics & Values, and the Effects of Social Media were conducted by our in-house experts. Professional soft skills expert conducted the session on Habits of Effective Managers and Traditional Indian Wisdom.

The trainees by large appreciated the workshop and acknowledged that the tips given could enhance their communication skills, created awareness of effects of social media, dos and don'ts, gave insight into Conduct Rules and gender sensitivity, emphasized on the importance of right attitude with ethics and values, on developing managerial skills etc. The sessions were considered to be diverse in nature, short, crisp, engaging and very interactive. The lectures were rated as well structured. The programme was considered to have been well organized. The trainees assessed the faculty as enthusiastic, knowledgeable and experienced.