

a member of the TS faculty is considered a prestigious assignment and recognition of merit and expertise in the chosen domain. The faculty selection and induction is an ongoing process, not only towards grooming younger faculty members but to introduce expertise into new areas of research. An average of 20-30 % of new faculty is inducted to cater to the emerging needs every year.

More than 800 experts from various disciplines and domains are involved in imparting the training. (Annexure 5).



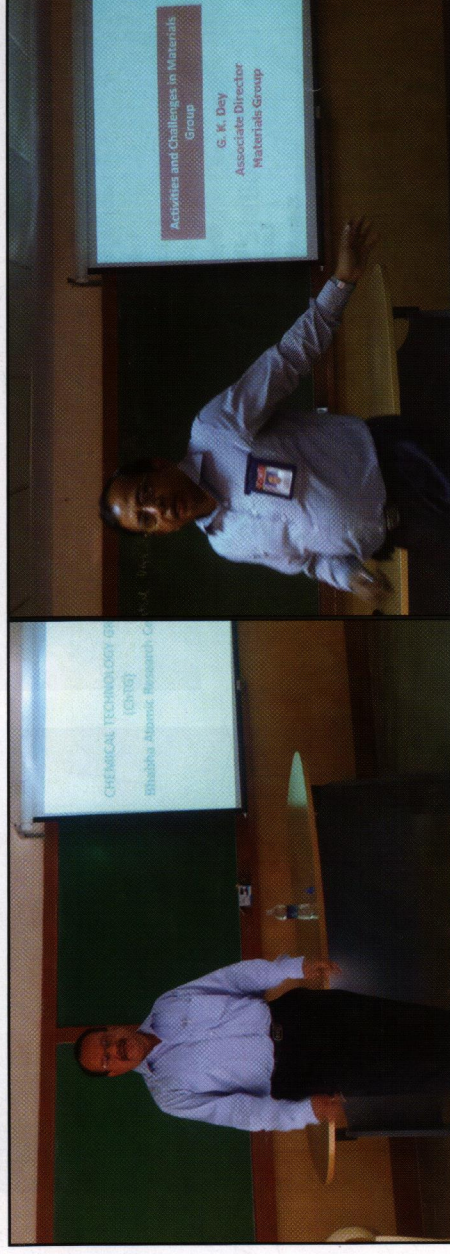
A lecture in progress

Placement of Trainees

On completion of their Semester 1&2 Course Works, trainees are placed in various projects of the Department, within BARC and at other units of DAE. Placement is choice based from amongst a pre declared list of vacancies circulated amongst the trainees after being shortlisted by the Trombay Council based upon manpower requirements of projects and units. Choice by the trainees is exercised in the order of merit arrived at by the assessment of performance in the first two semesters. Presentations are made by senior officers and Directors on the ongoing projects, opportunities and challenges in various projects, in order to enable the trainees to make informed choices (Table 1)

Table 1: Group Directors' Presentation Series

2015	Group	Presentation by	2015	Group	Presentation by
Feb 11	ChTG	S. Sarkar, Dir, CTG	Mar 4	MG	JK Chakravarty, Dir, MG
Feb 13	RG	RC Sharma, Dir, RG	Mar 9	ESG	HS Mishra, Dir, ESG
Feb 23	RD&DG	PK Vijayan, Dir, RD&DG	Mar 10	NFG	Arun Kumar, Dir, NFG
Feb 25	RPG	KN Vyas, A/Dir, RPG AB Mukherjee, Head, LWRD P. Sreenivas, Head, AEDS, RPD	Mar 11	DM&AG	YK Taly, A/Dir, DMAG
Feb 27	MRG	GK Dey, A/Dir, MRG	Mar 13	RD&DG	RK Singh, A/Dir, RDDG S. Mukhopadhyay, Head, SD D. Mukhopadhyay, RSD Sunil Ganju, RSD PK Singh, RSD Suneel Gupta, RSD Gopika Vinod, RSD IA Khan, RSD
Mar 2	E&IG	YS Mayya, A/Dir, E&IG	05-08-14	BSG	Dr. SK Apte, Dir, BSG



Shri S. Sarkar, AD, Chemical Technology Group **Dr. G.K. Dey, Associate Director, Materials Group**



Shri J.K. Chakravarty, Director, Materials Group

Dr. P.K. Vijayan, Director, RD&DG

Soft skills Workshop

Soft skills is a term often associated with a person's "EQ" (Emotional Intelligence Quotient), the cluster of personality traits, social graces, communication, language, personal habits, interpersonal skills, managing people, leadership, etc. that characterize relationships with other people. Soft skills contrast to hard skills, which are generally easily quantifiable. A person's soft skill EQ is an important part of their individual contribution to the success of an organization. Screening or training for personal habits or traits such as dependability and conscientiousness can yield significant return on investment for an organization. For this reason, soft skills are increasingly sought out by employers in addition to standard qualifications. Keeping these factors in mind, a Softskills Workshop conducted by Dale Carnegie Training was incorporated into the training curriculum of TSOs with the following topics

- Self Awareness
- Communication & Interpersonal Skills
- Presentation Skills
- Initiative & Creative Thinking
- Team Work & Influencing SKILLS
- Professionalism & Positive attitude
- Result Orientation
- Change & Stress Management Work Ethics
- Etiquettes
- Managing Stress and Work Life Balance
- Self-motivation
- Accountability & Adaptability



Trainees with Trainer of Softskills Workshop

Workshop on Administrative Practices and Procedures

The maze of rules, regulations, procedures and protocols associated with all aspects of a professional work life, not only in the conduct of official matters but also in the conduct of personal affairs involving entitlements, perks, leave, health services, management of finances etc are presented to the trainees in a two day workshop on 'Administrative Procedures' conducted at the end of their training programme. The list of topics is given below:

- 1 Organizational set up of DAE
- 2 Research and Development under Government
- 3 Career Development and Growth
- 4 General Overview of Service Conditions
- 5 Hierarchy and Governance
- 6 Project Management
- 7 Financial Management in Government
- 8 An overview of contributory health services Scheme
- 9 An overview of various entitlements to Govt. Servant

Workshop on Nuclear Security

The need for awareness on aspects of nuclear safety and security in DAE is of paramount importance for all employees of the organization. Effective nuclear safety and security culture is characterized by compliance with rules, regulations and procedures, and also constant vigilance and a proactive questioning attitude on the part of all personnel. In an attempt to ensure the above and ingrain a

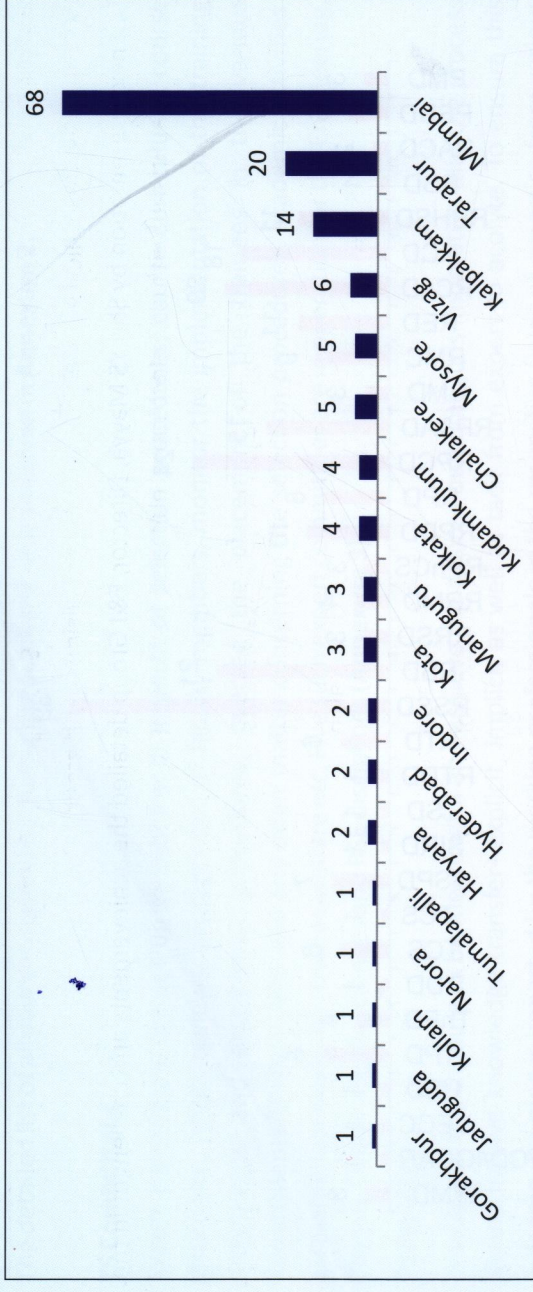


Fig 3b: Placement Locations of 143 TSOs

Group Directors' Presentation Series - Highlights

As a part of our commitment at Human Resource Development Division to provide required information to the Trainee Scientific Officers (TSO) of OCES 59th batch of BARC Training School, Mumbai, a Group-wise Evening Presentation series was organised during the month of February, March and May 2016. (Table 2) The objective was to highlight the challenges and opportunities that lie ahead in the careers of the TSOs in the Department of Atomic Energy. This was an effort to help the TSOs in identifying their areas of interests and make an informed choice during the placements.

Table 2: Group Directors' Presentation Series

2016	Group	Presentation by	2016	Group	Presentation by
Feb 15	ChEG	Smt. S.B. Roy, A/Dir, ChEG	10	NFG	Vivek Bhasin, A/Dir, NFG
18	RG	Sujay Bhattacharya, A/Dir, RG P.V. Varde, Head, RSSD	Mar 14	RD&DG	R.J. Patel, Dir, RD&DG
22	ESG	HS Mishra, Dir, ESG	May 13	DM&AG	D.N. Badodkar, Dir, DMAG
Mar 7	E&IG	YS Mayya, Dir, E&IG	Directors of respective Groups		
9	NRG	Kalyan Banerjee, A/Dir, NRG	Aug 2015	PG CG BSG	

This initiative received a ready response from the Group Directors and almost all of them made detailed presentations for the benefit of the trainees.

The inaugural session by Dr. Smt. S.B. Roy, Associate Director, Chemical Engineering Group, set the tone with an informal and interactive presentation highlighting the salient activities in the chemical engineering domain and touched upon the challenges in each of the units working in this area.

The next presentation by Shri Sujay Bhattacharya, Associate Director, Reactor Group and Shri PV Varde, Head, Research Reactor Safety Division highlighted the intricate aspects of reactor technology, involving innovations in mechanical engineering aided with support from chemical, electrical and electronics engineering domains, holding the TSOs in rapt attention.

The third presentation Shri HS Mishra, Director, Engg Services Group highlighted the technical, academic, attitude, communication electrical and mechanical engineering TSOs in the Divisions of his group.

The next presentation by Shri YS Mayya, Director, E&I Group detailed the achievement attributes are the soft Divisions associated with core electronics, electrical, instrumentation and computer engineering. The softer, This was followed by an exhaustive presentation by Shri Kalyan Banerjee, Associate Director, NRG. Effectively has Group, who took the TSOs through the journey of achievements in the Divisions under this group in meeting the challenges of Nuclear Fuel Reprocessing and the challenges that lay ahead in the coming years.

Shri Vivek Bhasin, Associate Director, Nuclear Fuels Group along with his colleagues presented highlights and challenges in this important activity of DAE.

Shri RJ Patel, Associate Director of Reactor Design and Development Group briefed the TSOs on the highlights and challenges involved in developing advanced reactor technologies, the main work of his Group.

The concluding talk of this series was delivered by Dr. DN Badodkar, Director of Design, Manufacturing & Automation Group on various activities in his group.

The speakers were all graduates of various batches of Training School and therefore could make the trainees directly relate to their individual journeys in BARC. They emphasized the importance of hard work in meeting the goals of the Department and attaining leadership positions to drive the programmes forward.

The saga of the growth of the Nuclear Science and Technology was revealed to the trainees in all its glory during this presentation series. This helped the trainees in gaining appreciation of the major milestones achieved by the Department, sometimes against severe odds. At the end of the presentations, speakers were open to questions and queries, an opportunity well utilized by the trainees to obtain clear and undiluted information from the domain experts.

Similar briefings were held by the Group Directors of Physics, Chemistry and Biosciences Groups for TSOs of Physics, Chemistry and Biosciences disciplines.

Mini Projects

In order to provide a glimpse of the exciting work waiting ahead in their careers, all trainees undergo a small project of 5 weeks in an ongoing mission. Working with domain experts in an interactive and informal manner is aimed at providing the necessary grooming and gain invaluable hands on experience. The trainees are then asked to compile a report and defend their work in the presence of an expert panel. The project guides comprise a wide cross section of scientists and technologists from BARC as well as other DAE units in Mumbai

(Annexure 5)

Plant Visit

In order to provide the trainees with real time experiences of various operations of the Nuclear Fuel Cycle, a visit to reactor sites and other important facilities is carried out. This provides an opportunity to witness the complex state-of-the-art systems and technologies involved in the operations of nuclear installations and associated plants. The current batch of trainees visited various facilities at Tarapur Atomic Power Stations TAPS 1,2,3,4 operated by Nuclear Power Corporation and to BARC Facilities involved in fuel fabrication, fuel reprocessing, spent fuel storage, waste management etc. Senior scientists, faculty members and support staff (Table 3) accompanied the trainees. At the site, trainees are briefed by a technical expert at each of the facilities and operating plants and shown the salient features of the main and auxiliary systems.

Table 3: Accompanying Officials for study tour for OCES-2015-16 Trainees

Date	Destination	Name of the official	Division
19.02.16	BARC Facilities, Tarapur	Shri Mani Lal Singh	NRPSED
		Shri D.N. Singh	NRPSED
		Shri Tribhuvan Jha	HRDD
		Shri Prashant D.Gurav	HRDD
		Shri K. C. Pancholi	WMD
26.02.16		Dr. Smt. S.S. Desai	SSPD
		Dr. Suhas Mangoli	MBD
		Shri Tribhuvan Jha	HRDD
04.04.16		Shri Prashant D.Gurav	HRDD
		Shri Mani Lal Singh	NRPSED
		Shri Tribhuvan Jha	HRDD
		Shri Pendse V.V.	HRDD
07.04.16	TAPS, Tarapur	Dr. Anand Ballal	MBD
		Smt. Chitra Subramanian	HPD
		Shri Prashant D.Gurav	HRDD
		Shri Pendse V.V.	HRDD

Leaving for Study Tour at 5:30 AM



Soft skills Workshop

Soft skills are increasingly becoming the hard skills of today's work force. Work ethic, attitude, communication skills, teamwork, leadership, emotional intelligence and a whole host of other personal attributes are the soft skills that are considered crucial. In addition to be highly trained in technical skills, developing the softer, interpersonal and relationship-building skills that help people to communicate and collaborate effectively has also been one of the training mantras of the BARC TSOs, Mumbai. Inculcating these traits and displaying a positive attitude are expected to become second nature to the employees, thereby providing a fillip to personal growth and organizational success, yielding significant return on investment for an organization. Keeping these factors in mind, a three day Softskills Workshop has been incorporated into the training curriculum of TSOs with the following topics

- Self Awareness
- Communication & Interpersonal Skills
- Presentation Skills
- Initiative & Creative Thinking
- Team Work & Influencing SKILLS
- Professionalism & Positive attitude
- Result Orientation
- Change & Stress Management Work Ethics
- Etiquettes
- Managing Stress and Work Life Balance
- Self-motivation
- Accountability & Adaptability

SOFT SKILLS WORKSHOP IN PROGRESS



21 presentations were made during this period. These presentations were not only quite informative and inspirational for the TSOs, helping them in identifying the work profiles of their interest in various Divisions of BARC, but also served as a source of motivation for future endeavours.

Group Directors' Presentation Series- The way it happened

2017	Group	Presentation by	2017	Group	Presentation by
Feb 13	BTDG	Shri Rajawat, A/Dir, BTDG	Feb 23	RD&DG	Shri A. Ramarao, A/Dir, RD&DG
13	ChEG	Dr. Sadhana Mohan, A/Dir, ChEG	Mar 1	RPG	Shri A.B. Mukherjee, A/Dir, RPG
13	ChTG	Shri K.C. Guha, A/Dir, ChTG	2	MG	Dr. G.K. Dey, Dir, MG
14	DM&AG	Dr.D.N. Badodkar, A/Dir, DMAG	8	RG	Shri N.S. Joshi, Head, SE&MTDS, RRSD
15	BSC	Shri Y.K. Taly, Chairman, BSC			
16	NFG & MRG	Shri Vivek Bhasin, A/Dir, NFG			Other Units of DAE
16	E&IG	Shri P.P. Marathe, Head, CnID	Feb 20	NPCIL	Shri A.K. Balasubramanian, ED, Engg, NPCIL
21	ESG	Shri K. Srinivas, Head, CED	Feb 27	AERB	Dr. A. Bhardwaj, Chairman, AERB
21	HSEG	Dr. Pradeep Kumar, A/Dir, HSEG	Mar 6	HWB	Shri A.N. Verma, CE, HWB
22	NRG	Shri Kailash Agarwal, A/Dir, NRG			Other Groups of BARC
22	NRB	Dr. Amitava Roy, CE, NRB	Aug 16	PG CG BSG	Directors of respective Groups

Mini Projects

In order to provide a glimpse of the exciting work waiting ahead in their careers, all trainees undergo a small project 5 week in an ongoing mission. Working with domain experts in an interactive and informal manner is aimed at providing the necessary grooming and gain hands on invaluable experience. The trainees are then asked to compile a report and defend their work in the presence of an expert panel. The project guides comprise a wide cross section of scientists and technologists from BARC as well as other DAE units in Mumbai (Annexure 5)

Plant Visit

In order to provide the trainees with real time experiences of various operations of the Nuclear Fuel Cycle, a visit to reactor sites and other important facilities is carried out. This provides an opportunity to witness the complex state-of-the-art systems and technologies involved in the operations of nuclear installations and associated plants. The current batch of trainees visited various facilities at Tarapur Atomic Power Stations TAPS 1,2,3,4 operated by Nuclear Power Corporation and to BARC Facilities involved in for fuel fabrication, fuel reprocessing, spent fuel storage, waste management etc. Senior scientists, faculty members and support staff (Table 3). accompanied the trainees. At the site, trainees are briefed by a technical expert at each of the facilities and operating plants and shown the salient features of the main and auxiliary systems.

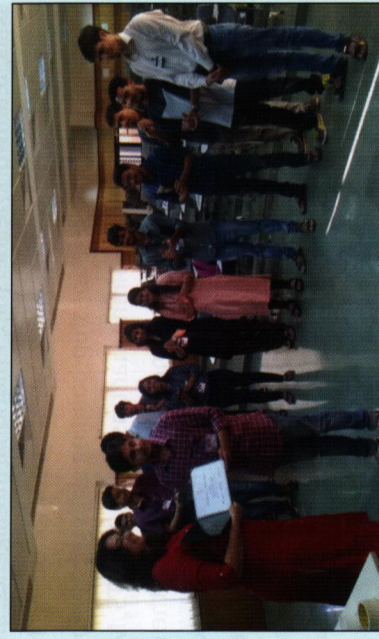
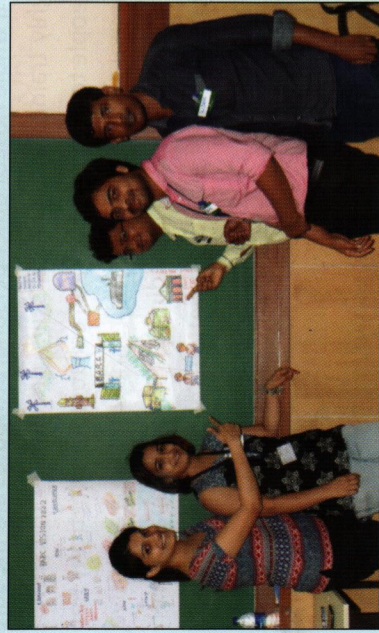


Study Tour at Tarapur

Soft skills Workshop

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- Managing Stress and Work Life Balance
- Self-motivation
- Accountability & Adaptability



Soft Skills Workshop in Progress

Workshop on Administrative Practices and Procedures and Nuclear Security

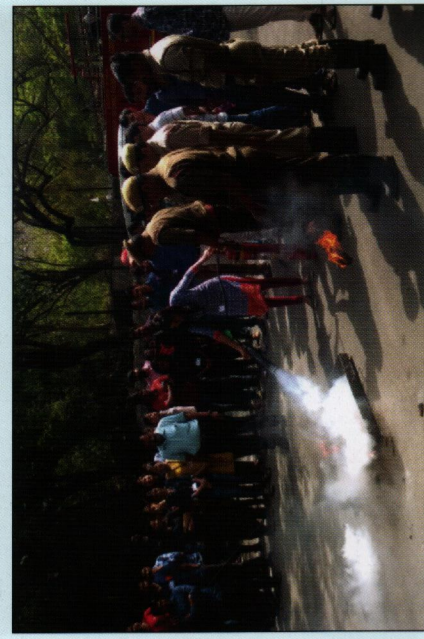
On completion of the training, the young officer has to work harmoniously with all wings of the organisation, remaining within the framework of all the rules and regulations of the government. With an aim of ensuring that the trainees are able to put their best foot forward and execute the assigned tasks in this regard as well, a two day workshop on 'Administrative Procedures' is conducted at the end of their training programme. The need for awareness on aspects of nuclear safety and security in DAE is of paramount importance for all employees of the organization. Effective nuclear safety and security culture is characterized by compliance with rules, regulations and procedures, and also constant vigilance and a proactive questioning attitude on the part of all personnel. In an attempt to ensure the above and ingrain a sense of nuclear safety and security amongst the young trainees, a one day workshop on Nuclear Security was conducted for the benefit of the young trainees. The list of topics covered are given below:

Awareness Program on Administrative and Security Practices & Procedures Prevalent in DAE

SN	Topic	Name of the faculty
1	Career Development & Growth in DAE	Smt. Shailaja Prakasam, CAO (P), BARC
2	DAE: Hierarchy & Governance	Dr. S. Gangotra, Head, SSSD, NCPW, DAE
3	Reminiscences and Impressions-BARC TS	Shri M.G.Kelkar, AD(HR), NPCIL
4	Purchase Procedures	Shri N.D.Khopkar, Deputy Director, DPS
5	Overview of NPCIL Activities	Shri A. K. Nema, AD, NPCIL
6	Financial Management in Government	Shri Himanshu Shankar, JFA, BARC
7	Entitlements and Service Conditions for Officers in Government Service	Smt. Saroja Gopal, Director, ATI
8	Contributory Health Services Scheme	Smt. Vinayalatha, AO(III), MD, BARC
9	M.Tech. /PhD Programme of HBNI	Dr. D. K. Maity, Associate Dean, HBNI
10	Nuclear Security-An Overview	Shri S.K.Parulkar, Computer Division, BARC
11	Cyber Security	Shri Gigi Joseph, CISO, BARC
12	Physical Security	Y.S. Gupte, Deputy CSO, BARC
13	Online Procedures and Systems	Shri D. K. Dixit, Comp. Division, BARC
14	Fire Prevention Procedures	Shri A.K. Tandle, Chief Fire Officer, BARC



Lecture & Demonstration

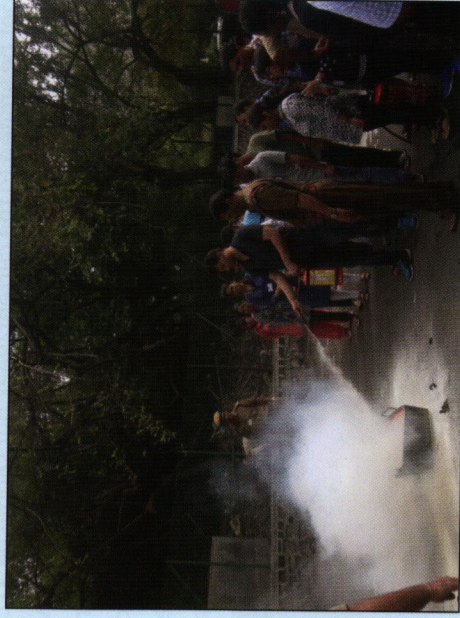


June 6-8, 2018 at BARC Training School Mumbai. Also, presentations were made to help the TSOs to learn about the ongoing projects in various DAE units located in Mumbai, such as HWB, AERB, DCSEM and NPCIL. These presentations were not only quite informative and inspirational for the TSOs, helping them in identifying the work profiles of their interest in various DAE units, but also served as a source of motivation for future endeavours. The list of topics covered is given below:

Awareness program on administrative and security practices & procedures prevalent in DAE

SN	Title of Talk	Name of the Speaker
1	Career Development & Growth in DAE	Shri N. Vijayragvan, CAO (P), PD, BARC
2	BARC Safety Framework	Shri K. Jayarajan, Chairman, BSC
3	Nuclear & Radiological Emergency	Dr. K. S. Pradeepkumar, AD, HSEG, BARC
4	Purchase Procedures	Shri N. D. Khopkar, Joint Director, DPS
5	Financial Management in Government	Shri Himanshu Shanker, IFA, BARC
6	Scientific Ethics	Dr. G. Ravi Kumar, Head, SIRD, BARC
7	Introduction to Nuclear Security & Physical Protection Measures at Nuclear Facility	Dr. (Smt) Garima Sharma, NCPW, DAE
8	Cyber Security	Shri Gigi Joseph, CISO, BARC
9	Overview of HWB Activities	Dr. U. K. Mudali, Chairman & CE, HWB
10	Physical Security	Smt. Tanuja Jadhav, CSO, DAE
11	Overview of NPCIL Activities	Shri M. G. Kelkar, AD (HR), NPCIL
12	Overview of AERB Activities	Shri D. K. Shukla, ED, AERB
13	Overview of DCSE&M Activities	Shri K. Mahapatra, CE(C2), DCSEM
14	RTI Act and CCS (Conduct) Rules	Shri A. Bhattacharya, BARC
15	An Overview of Contributory Health Services Scheme (CHSS)	Smt. Vinayalatha, AO (III), MD, BARC
16	Entitlements and Service Conditions for Officers in Government Service	Smt. Saroja Gopal, Director, ATI
17	Online Procedures and Systems	Smt Renuka Ghate, Comp. Div., BARC
18	M.Tech / PhD Programme of HBNI	Dr. Dilip K. Maity, Associate Dean, HBNI
19	Fire Prevention Procedures & Demonstration	Shri A. K. Tandle, Chief Fire Officer, BARC

Awareness program on administrative and security practices & procedures prevalent in DAE



Lectures & Fire fighting Demonstrations

complex state-of-the-art systems and technologies involved in the operations of nuclear installations and associated plants. The current batch of trainees visited various facilities at Tarapur Atomic Power Stations (TAPS 1,2,3,4) operated by Nuclear Power Corporation of India (NPCIL) and to BARC Facilities involved in for fuel fabrication, fuel reprocessing, spent fuel storage, waste management etc. Senior scientists and faculty members accompanied the trainees- Shri Amit Mishra & Shri Sreekanth Bathula, from BARC and Shri Prateek Varshney from NPCIL. At the site, trainees are briefed by a technical expert at each of the facilities and operating plants and shown the salient features of the main and auxiliary systems.

The sheer magnitude of the efforts put in the scientists behind the installations and several decades of their faultless operation are inspirational and left an everlasting impression in their minds, motivating them to perform at their best in the future in the service of the nation. Needless to mention the loads of fun on the tour is an added bonus. The study tour is an invaluable achievement whereas it gives an opportunity to visit the mega projects at closer range.

Soft Skills Workshop

Soft skills are increasingly becoming the hard skills of today's work force. Work ethic, attitude, communication skills, teamwork, leadership, emotional intelligence and a whole host of other personal attributes are the soft skills that are considered crucial. In addition to be highly trained in technical skills, developing the softer, interpersonal and relationship-building skills that help people to communicate and collaborate effectively has also been one of the training mantras of the BARC TS, Mumbai. Inculcating these traits and displaying a positive attitude are expected to become second nature to the employees, thereby providing a fillip to personal growth and organizational success, yielding significant return on investment for an organization. Keeping these factors in mind, a three day Softskills Workshop has been incorporated into the training curriculum of TSOs with the following topics

- Self Awareness, Accountability & Adaptability
- Initiative, Creative thinking and Result Orientation
- Communication, Presentation & Interpersonal Skills
- Team Work & Work Ethics
- Stress Management and Work Life Balance
- Professionalism & Positive attitude



Soft skills workshop in progress



This workshop catered to the complete professional grooming of the participants via activity based learning and real time business simulations. The course acted as a bridge to achieve professional competencies with a thorough understanding and effective implementation of their behavioral and soft skills. On completion of this Program, Trainees received a certificate of participation.

Workshop on Administrative Practices and Procedures and Nuclear Security

On completion of the training, the young officer has to work harmoniously with all wings of the organisation, remaining within the framework of all the rules and regulations of the government. Also, the need for awareness on aspects of nuclear safety and security in DAE is of paramount importance for all employees of the organization. Effective nuclear safety and security culture is characterized by compliance with rules, regulations and procedures, and also constant vigilance and a proactive questioning attitude on the part of all personnel.

With an aim of ensuring that the trainees are able to put their best foot forward and execute the assigned tasks in this regard as well as to ingrain a sense of nuclear safety and security amongst the young trainees, a workshop on Administrative Procedures & Nuclear Security was conducted for the benefit of the young trainees during

Evening Lecture Series

BARC Training School organizes special evening lectures by eminent person having rich and varied national and international experience/exposure in the field of atomic energy and the zeal to teach and share that repository of knowledge, which lies beyond the realms of books. These lectures are of great significance to create interest and awareness of the developments in different areas of Science and Engineering and to provide an opportunity for the Trainees to learn and interact with these eminent personalities having an in-depth experience. These lectures are organised beyond office hours so that employees working in any unit of DAE located in Mumbai and Navi Mumbai may attend such lectures.

Evening Lecture series

Date	Speaker	Topic
01.11.2018	Dr. S.K. Malhotra	Public Perceptions about Nuclear Power - Myths Vs Reality.
14.12.2018	Shri K.V. Ravi	Activities and Challenges at Nuclear Recycle Board.
13.02.2019	Dr. R. B. Grover	Importance of Energy and the Role of Nuclear Power in India's Electricity Mix.
22-042019	Dr. R. B. Grover	The Relationship between Science and Technology and Evolution in Methods of Knowledge Production

This series started with Dr. S. K. Malhotra, Secretary, AEES on Nov. 1, 2018, where he spoke on Public Perceptions about Nuclear Power - Myths Vs Reality. He touched on the issues that have created certain myths among public about Nuclear Industry and the scientific reality and arguments to clear those myths.



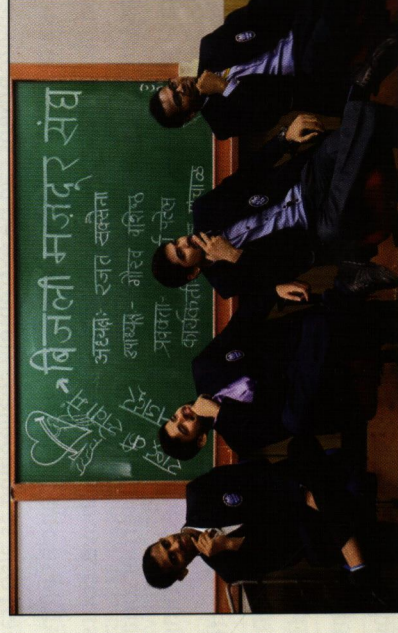
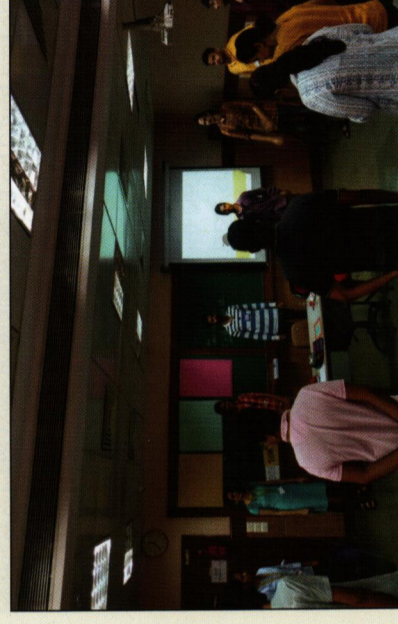
Lecture by Dr. S. K. Malhotra on "Public Perceptions about Nuclear Power - Myths Vs. Reality".

Mini Projects

In order to provide a glimpse of the exciting work waiting ahead in their careers, all trainees undergo a miniproject work of 10 weeks duration in an ongoing mission. Working with domain experts in an interactive and informal manner is aimed at providing the necessary grooming as well as hands on invaluable experience. The trainees are then asked to compile a report and defend their work in the presence of an expert panel. The project guides comprise a wide cross section of scientists and technologists from BARC as well as other DAE units in Mumbai (Annexure 5)

Soft skills Workshop

With the increasing need for professionalism, DAE offers challenging opportunities to bright youngsters to excel in the frontline areas of research and development of cutting edge technologies and science. BARC TS has ventured into prestigious "Executive Excellence program" to promote development of outstanding professionals who add value to organization and society. The need of the hour is to churn out Groomed Professionals with expertise in Scientific Knowledge and proficiency in Soft Skills.



Soft skills workshop in progress



Soft skills workshop in progress

The transition from college to a Professional life is a big adjustment for many Trainees at BARC Training School. Expectations and responsibilities in the workplace are very different than those in college. There are unspoken nuances and social norms that many graduates are completely unaware of and adjusting to a professional environment can be extremely challenging as also traumatic to a few. The Executive Excellence program acted as a bridge to achieve Professional competencies with a thorough understanding and effective implementation of their Behavioral and Soft Skills. The above course outline enabled the students to improve their self-assuredness and enhance confidence in interpersonal skills. The course catered to the complete professional grooming of the participants via activity based learnings and real time business simulations.

The program was executed in four batches and all participants were curious, participative, and highly energetic. Trainings sessions covered areas like Communication Skills, Presentation Skills, Creativity & Innovation, Time Management and Work Ethics. Training was attended by 90 trainees coming from 13 streams. The Participation level was very high, small group activities and Presentations were highly appreciated. The program Structure, Content and Method of Delivery was well received by the participants, which was expressed in the feedback forms. Presenting ideas clearly and communicating with impact helped build confidence, while the ethical leadership part was appreciated most it was felt that it will bring value for the organization. The Participants were enthusiastic and enjoyed the discussion and presenting their ideas.

Workshop on Administrative Practices and Procedures and Nuclear Security

On completion of the training, the young officer has to work harmoniously with all wings of the organisation, within the framework of all the rules and regulations of the government. With an aim of ensuring that the trainees are able to put their best foot forward and execute the assigned tasks in this regard, a two day workshop on 'Administrative Procedures' is conducted at the end of their training programme. The need for awareness on aspects of nuclear safety and security in DAE is of paramount importance for all employees of the organization. Effective nuclear safety and security culture is characterized by compliance with rules, regulations and procedures, and also constant vigilance and a proactive questioning attitude on the part of all personnel. In an attempt to ensure the above and ingrain a sense of nuclear safety and security amongst the young trainees, a one day workshop on Nuclear Security was conducted for the benefit of the young trainees. The list of topics covered is given below:

Awareness Program on Administrative and Security Practices & Procedures Prevalent In DAE (July 15-17, 2019)

SN	Title of Talk	Name of the Speaker
1	Career Development & Growth in DAE	Shri S. S. Bopathy, CAO (P), BARC
2	BARC Safety Framework	Shri K. Jayarajan, Chairman, BARC Safety Council
3	RTI Act and CCS (Conduct) Rules	Shri Anirban Bhattacharya, APO, Vigilance, BARC
4	Purchase Procedures	Shri N. D. Khopkar, Joint Director (Retd.), DPS
5	Financial Management in Government	Shri Shailesh K. Jakhotiya, Internal Financial Advisor, BARC
6	M.Tech / PhD Programme of HBNI	Dr. Dilip K. Maity, Associate Dean, HBNI
7	Scientific Ethics	Dr. G. Ravi Kumar, Head, SIRD, BARC
8	Entitlements and Service Conditions for Officers in Government Service	Smt. Saroja Gopal, Director, ATI
9	An Overview of Contributory Health Services Scheme (CHSS)	Smt. N. Subhasini, APO, CHSS, BARC
10	Fire Prevention Procedures & Demonstration	Shri A. K. Tandle, Chief Fire Officer, BARC
11	Nuclear & Radiological Emergency	Shri N. Ramesh Member-Secretary, CMG, DAE
12	Perimeter Control and Security of Nuclear Installations	Shri S. K. Agarwal, Member, NCPW, DAE
13	Cyber Security	Shri Gigi Joseph, Chief Information Security Officer, BARC
14	Physical Security	Smt Tanuja Jadhav, Chief Security Officer, DAE
15	Online Procedures and Systems	Smt Renuka Ghate, Computer Division, BARC
16	Awareness, Knowledge, & Healthy Lifestyle	Dr A. Khandekar, Medical Division, BARC
17	Stress Management & Positive Mental Health	Dr. S. Nair, Medical Division, BARC

Technical Study Tours ...blend of knowledge with fun

Every year technical study tour forms part of BARC Training School's OCES course curriculum. Benefits of the tour are for the students to derive inspiration and knowledge through practical education by seeing actual operational projects. Needless to mention that loads of fun on the tour is an added bonus. The study tour is invaluable so much so that trainees look forward to it as it gives an opportunity to feel live projects which enhances their confidence.

Plant Visit

In order to provide the trainees with real time experiences of various operations of the Nuclear Fuel Cycle, a visit to reactor sites and other important facilities is carried out. This provides an opportunity to witness the complex state-of-the-art systems and technologies involved in the operations of nuclear installations and associated plants. The current batch of trainees visited various facilities at Tarapur Atomic Power Stations TAPS 1,2,3,4 operated by Nuclear Power Corporation and to BARC Facilities involved in fuel fabrication, fuel reprocessing, spent fuel storage, waste management etc. Senior scientists, faculty members and support staff accompanied the trainees. At the site, trainees are briefed by a technical expert of the facilities and operating plants and shown the salient features of the main and auxiliary systems.



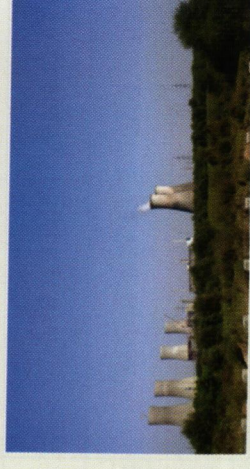
The following personnel were a part of the study tour as accompanying officials:

1. Shri. P.D.Gurav, HRDD, BARC
2. Shri. T. Jha., HRDD, BARC
3. Shri Prateek Varshney, NPCIL
4. Shri Dinesh Jamsutkar, HRDD, BARC
5. Dr. Smt Neelima Prasad, HRDD, BARC

The sheer magnitude of the efforts put by the scientists behind the installations and several decades of their faultless operation are something that the trainees felt highly inspirational to have an everlasting impression in their minds to motivate them to perform well in the future in the service of the nation.

Technical visit to Kakrapar Atomic Power Stations (KAPS)

A three day technical tour to Kakrapar Atomic Power Station (KAPS) was organized for civil engineering trainees during March, 2019. The visit to the under construction units 3 and 4 were immensely helpful to see the complexity involved in the construction details of a nuclear power plant. Studying calendaria vault during classroom course and then witnessing it at Kakrapar in real was the best part of this tour given the quantum of work involved in the actual site. Trainees also went to the top of the under construction containment building, which was around 50m above ground level, where they observed the thick concrete walls and large mesh of steel bars and could understand the safety incorporated in the construction such as it's ability to resist even aircraft impact. A special lecture on prestressing of containment building was given to impart knowledge on practical complications of prestressing. The hospitality of the NPCIL staff was unforgettable. The visit to statue of unity in between, thanks to NPCIL added special moment to this trip.



View of KAPS

Technical Visit to NCCCM, Hyderabad

A two day technical visit to National Centre for Compositional Characterisation of Materials, (NCCCM) Hyderabad was organized for the OCES trainees and HBNI PhD Scholars of the Chemistry discipline as a part of one year training programme during March 2019. The local hospitality was arranged at the NFC guest house. During the visit, the trainees visited the Ultra-Clean laboratory and saw the Air-particle Counter. They were also explained about the working principle of the Graphite Furnace Atomic Absorption Spectrometer (GFAAS)

the latest technology of visual Chromium and Iron detection using a simple kit. On the second day, the trainees visited the Biological laboratory, Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES), in the Bulk Analytical Laboratory and Gas-Chromatography laboratory. They also visited TANDEM Accelerator facility and the Surface and Depth Profile measurement laboratory. The trip helped the chemistry trainees in enriching themselves with the information regarding the various analytical techniques and the practical implementation of them and with invaluable information about working procedures in sophisticated laboratories.



Chemistry Trainees from OCES-2018 batch at NCCCM, Hyderabad