



# ASSISTING HOTELS IN THEIR PREPAREDNESS TO MITIGATE RISKS AND CONTINUE OPERATIONS SAFELY

An initiative of Ministry of Tourism in association with QCI



MARK OF EXCELLENCE



**National Accreditation Board for Hospitals and Healthcare Providers (NABH) is a constituent board of Quality Council of India (QCI), set up to establish and operate accreditation programme for healthcare organizations.**

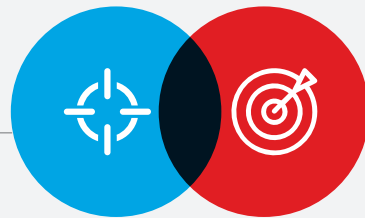
NABH has been established with the objective of enhancing health system & promoting continuous quality improvement and patient safety. The board while being supported by all stakeholders, including industry, consumers, government, has full functional autonomy in its operation.

NABH provides accreditation to hospitals in a non-discriminatory manner regardless of their ownership, size and degree of independence.

International Society for Quality in Healthcare (ISQua) has accredited NABH. The approval of ISQua authenticates that NABH standards are in consonance with the global benchmarks set by ISQua.

### Vision

To be apex national healthcare accreditation and quality improvement body, functioning at par with global benchmarks



### Mission

To operate accreditation and allied programs in collaboration with stakeholders focusing on patient safety and quality of healthcare based upon national/ international standards, through process of self and external evaluation

## NABH Activities

### NABH Accreditation Programs

NABH offers accreditation to Hospitals, Blood Banks, Eye Care, SHCOs/ Nursing Homes, OST Centers, CHCs/PHCs, AYUSH Hospitals, Wellness Centers, Medical Imaging Services, Dental Centers, Allopathic Clinics, Ethics Committees and Panchkarma Clinics

### NABH Certification Programs

NABH offers certification to Medical Laboratories, Nursing Excellence, Emergency Departments, Medical Value Travel Facilitator (MVTf), Pre-Accreditation Entry Level for Hospitals, Pre-Accreditation Entry Level for SHCOs

### NABH International

NABH has started its operations overseas under NABH International (NABH I). It offers all accreditation programs as being offered in India. The program is unique as in addition to the accreditation standards it requires compliance with local regulatory requirements

### Training & Education

NABH conducts Education/Interactive Workshops, Awareness Programmes and Programmes on Implementation (POI)

## EDITOR'S NOTE



**Dr. Ravi P. Singh**  
Secretary General

Quality Council of India

Dear All,

Rabindranath Tagore had once said, "You can't cross the sea merely by standing and staring at the water." Staying resilient and agile in difficult situations is the only way we can respond efficaciously and adapt to changing times decisively. The COVID-19 pandemic threw our normal life out of gear, causing disruption to the economy, health and life never experienced before. In a situation like this, the opportunity to respond quickly to the myriads of challenges required unprecedented planning and execution.

The entire QCI fraternity, including its Boards and Divisions, rose to this challenge and have been steadfast in their deep commitment to all stakeholders. Our teams have worked alongside the government in the fight against the pandemic. As we move forward, we are committed to actively supporting the government in all its initiatives as well as identifying new growth areas.

In the last quarter, we have worked with different ministries to support the provision of essential services and its supply chain across the country. The Policy Unit, which came into existence in late 2018, has ramped up its functioning during COVID. The Unit quickly geared itself to augment government's capacity in policy making especially in the areas of trade, commerce and institutional reforms. Over the last few months, the Unit has helped answer key questions concerning India's market monitoring strategies, enhancing quality of exports, substituting imports, technical regulation response, trade policy, and competitiveness, while keeping 'Quality as a subject of public policy' as its core focus.

We have built a stable video-based assessment platform which will eventually become the norm in these changing times. Our assessments are now being conducted online with data security features, allowing reduction in movement of assessors in most cases. We have stepped up measures to continue responding to hospitals and laboratories across the country to fulfil their requirement of quality certification and accreditation. In alignment with Hon'ble CIM's vision for QCI, we are focused on expanding scope, impact and eventually grow as an organisation. To assist all organizations as well as the hospitality industry in their preparedness to continue operations safely and mitigate risks arising out of the COVID pandemic, we started WASH and SAATHI schemes. The Ministry of Tourism partnered with the QCI to promote 'SAATHI' (System for Assessment, Awareness & Training for Hospitality Industry.)

I wish to thank all my Boards/Divisions, our officers and employees for their continuous support in these tough times and most importantly to all those who demanded action from us and we could respond to fulfil their aspirations.

Stay Safe and Keep Well



For further details please contact:  
**National Accreditation Board of Hospital and Healthcare Providers  
Quality Council of India**

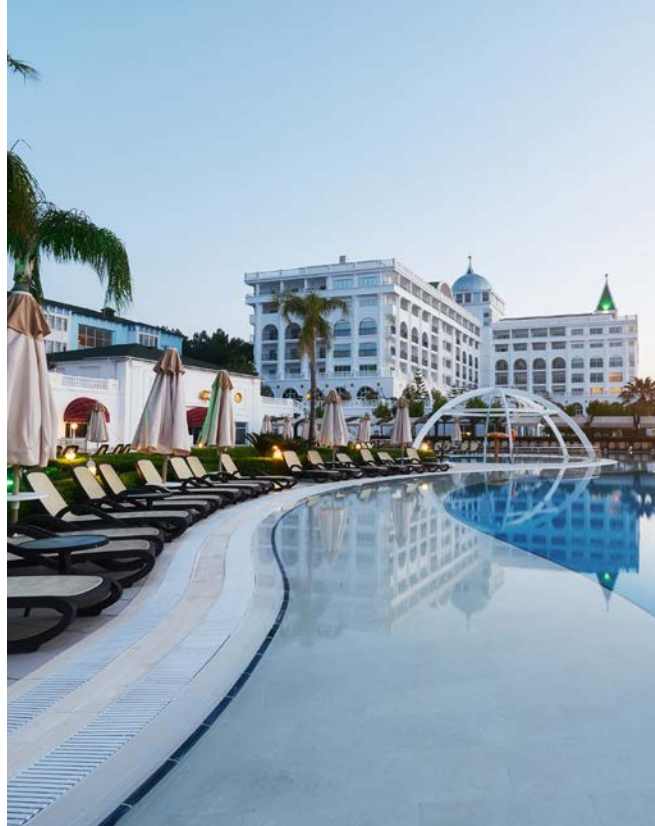
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# saathi

System for Assessment, Awareness and Training for Hospitality Industry

It's not just about Masks, Sanitizers and Safe-distancing  
**A holistic approach for the Hospitality Industry to fight COVID-19**



## OUR DIVISIONS/ CELL

08 **TCB** Training and Capacity Building

14 **PADD**

18 **PPID** Project Planning & Implementation Division



# STEPS TO COVID



60 The Beacon of Sustainability in Hospitality – The Ashok, New Delhi

63 Air India: A Step Forward in area of Sustainability and Quality in Aviation

## CASE STUDIES

53 Best Practices followed during/ after ENMS Implementation at CCI-Tandur Cement Factory

54 Implementing ISO 50001 Energy Management System (ENMS) at Fact - Tracking The Transformation



## ARTICLES

68 Blended and Online Learning - Future of Education: Insights on School & Household Survey on Education in Times of Covid-19

71 How to make schools safe for reopening?

73 Virtual Assessment – New Model, A Way Forward



## MEMBERS WRITE

78 Education 4.0: A Brief Review

81 Food Safety vs. Food Defense

83 The Excellency in Manufacturing

86 MSME Manufacturing Efficiency Model

91 Management and Approachability

## OUR BOARDS

25 National Accreditation Board For Testing And Calibration Laboratories (NABL)

31 National Accreditation Board For Hospitals And Healthcare Providers (NABH)

37 National Accreditation Board For Education And Training (NABET)

43 National Accreditation Board For Certification Bodies (NABCB)

49 National Board For Quality Promotion (NBQP)



It's not just about Masks,  
Sanitizers and Safe-distancing

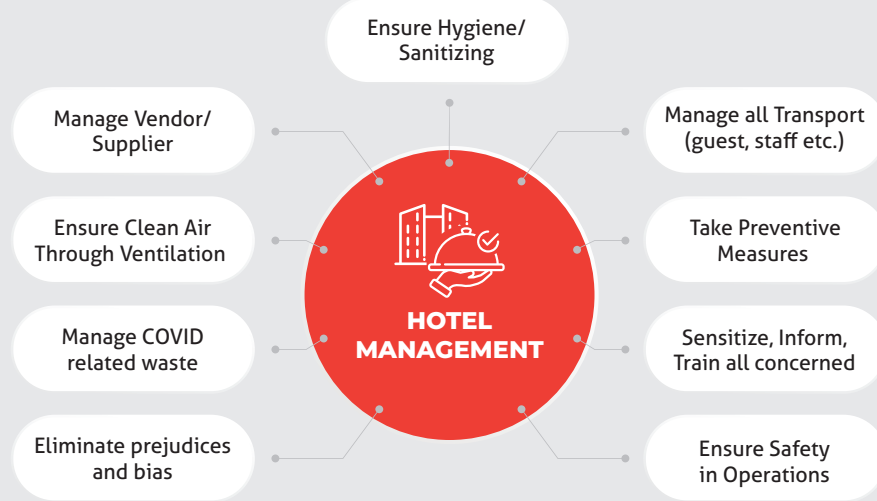


## A holistic approach for the Hospitality Industry to fight COVID-19

Given the current outbreak, it is important that all hospitality units take suitable measures to restrict any further transmission of the virus while providing accommodation and other services post lockdown. To assist the hospitality industry in their preparedness to continue operations safely and mitigate risks arising out of the COVID-19 pandemic, the Ministry of Tourism has partnered with the Quality Council of India (QCI), to assist the Hospitality Industry through an initiative called SAATHI (System for Assessment, Awareness and Training for Hospitality Industry). This initiative is aligned with the Hon'ble Prime Minister's clarion call for "Atmanirbhar Bharat".

The idea here is not only to sensitize the industry on the COVID regulations by the government but also to instil confidence amongst the staff and guests that the hospitality unit has exhibited intent towards ensuring safety and hygiene at the workplace.

SAATHI Standard has been developed based on the COVID-19 guidelines, as issued by the Ministry of Tourism and Ministry of Health



& Family Welfare, Government of India. The Standard re-imposes the fact that a Hospitality Unit needs to incorporate a

holistic approach in their fight against this pandemic and hence has 10 key elements pivoting around the commitment by the hotel management to ensure institutionalizing of this protocol/ standard.



The **SAATHI standard** provides a tool to the hotel management to ensure that they identify risks arising out of COVID-19 and institute suitable measures to mitigate them in order to ensure continuity in operations and safeguard the health and safety of the staff and guests. Emphasis is laid on identification of relevant COVID related regulations, especially those by States/ Local authorities while ensuring that a rapid response team or a senior person (in case of a small hotel) is made responsible to oversee COVID related concerns in the hotel. It also urges to ensure allocation/provision of budgetary & human resources for business continuity.

Similarly, there are nine more elements focusing not only on practices related to hygiene and safety in all hotel areas (both public as well as back-of-the-house) by identifying high-touchpoints, but also on how to communicate the same to concerned stakeholders like staff, guests, vendors/contractors etc. Training of hotel staff on the same is also aptly emphasized. The Standard also advises the hotel to ensure suitable preventive measures (before opening and during

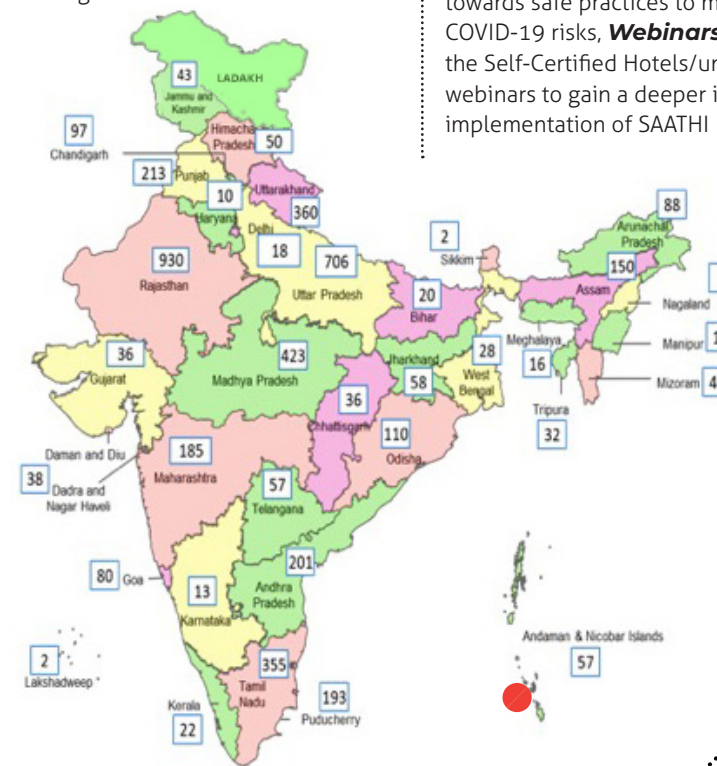
operations), manage transport related concerns (guest, staff, vendor etc.) and having a process to handle vendors/ contractors etc. while receiving incoming material/supplies.

The Standard also highlights the importance of ventilation to ensure that the Hotel areas are well ventilated to maintain clean air (as advised by CPWD) & waste management related to COVID advising measures to ensure that PPE waste management in the Hotel/Unit (as advised by CPCB).

The final element, that of Control of Discriminatory practices, advises the hotel to identify discriminatory practices (related to COVID), if any, and ensure provisions to prevent them.

These 10 elements of SAATHI are intricately intertwined and work in harmony. If implemented holistically, these will assist the hotel in minimizing risks arising out of COVID-19.

This initiative is in 3 phases i.e., **Self-Certification** which provides a detailed understanding of the Guidelines/Key-elements to be followed and demonstrate a commitment towards safe practices to minimize COVID-19 risks, **Webinars** wherein the Self-Certified Hotels/units attend webinars to gain a deeper insight on the implementation of SAATHI



standard and clarify doubts through live interactions and the **Site-assessment** to help the hotels get an objective assessment of the implementation of SAATHI standard and identify gaps, if any. The Site-assessment is optional and involves assessment of on-ground implementation of the SOPs/ Guidelines and identification of gaps by a third-party leading to an assessment report with opportunities for improvement.

The SAATHI initiative was launched on September 11, 2020 and the response of the industry has been encouraging.

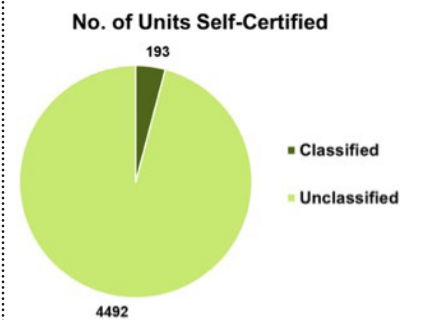
### SAATHI STATISTICS AS ON NOVEMBER 09, 2020

#### SELF-CERTIFICATIONS:

- Participating States: 35
- Number of Units Self-Certified: 4685 (more than 136410 available rooms).

#### WEBINARS:

- Conducted: 20
- Registered Participants: 1185

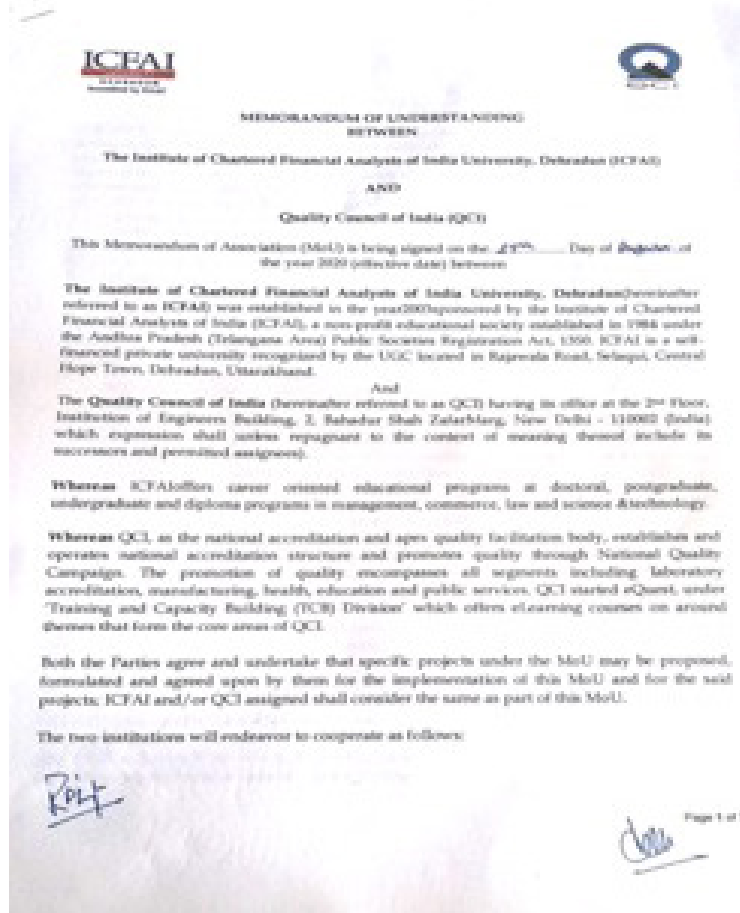


Adoption of SAATHI in a hospitality unit will not only instil confidence amongst all stakeholders (including staff & Guests) but also enhance its image as a responsible Organization that has exhibited intent and commitment towards safety and hygiene of guests, staff and other stakeholders.

# UPDATES FROM 'TRAINING AND CAPACITY BUILDING' CELL

## TCB signs MoU with ICFAI: Making the Youth of Today Industry Ready

Keeping up the journey of entering into MoUs with academic Institutions/Universities in continuation, eQuest has signed another MoU with The ICFAI University, Dehradun, with the University recognizing the former for capacity building interventions in the form of learning activities to enhance employability while using the Training and Capacity Building's (TCB) online platform eQuest for its students. The ICFAI, as an Institute that provides career oriented courses in the fields of Management, Commerce, Law, Science and Technology will collaborate with TCB in promoting courses of varied interests like from the domain of Quality viz. Total Quality Management (TQM), Total Productive Maintenance, from the domain of Technology i.e. Blockchain and from the domain of management i.e. Project Management amongst Students, Trainees and Partners. This collaboration will help the students in enhancing their skill sets and be industry ready. The MoU was formally announced on the occasion of inaugural session of the research centre on "Centre for Artificial Intelligences and Machine Learning" of ICFAI University where a no. of dignitaries was present from all across India.



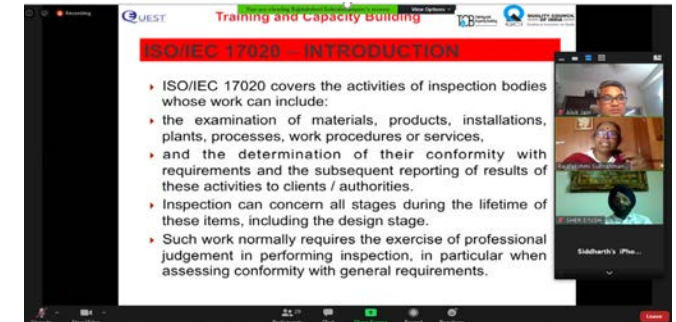
MoU signed between QCI and ICFAI University

## TCB's Virtual Trainings and Conferences: A Discourse towards Progress in Stagnation

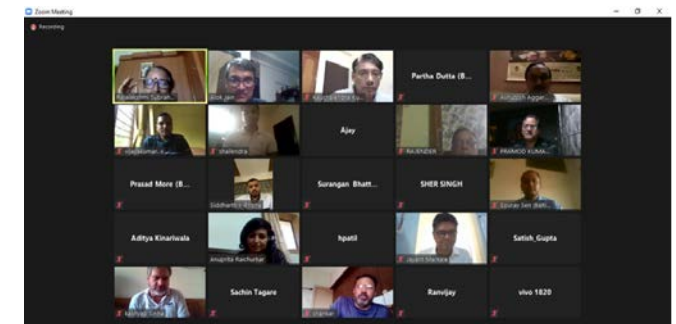
1. Director, TCB Cell, Mr. Alok Jain participated as one of the speakers in a conference on 'Quality & Beyond 2020' organized by Rajkot Management Association and American Society for Quality and shared his inferences on 'Quality Infrastructure- Its role in responding to COVID-19 & post COVID era'



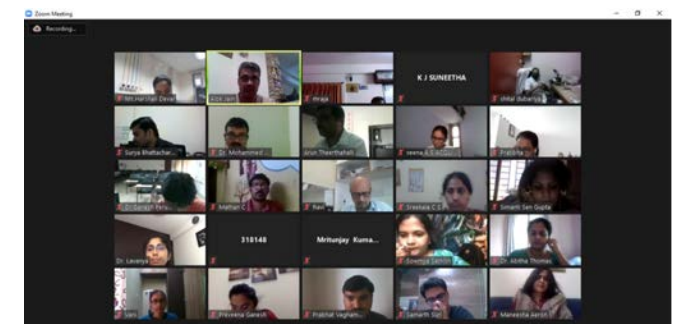
2. In this Quarter, TCB organized several virtual trainings on various international standards related to Accreditation viz. ISO/IEC 17020, ISO/IEC 17025, ISO 15189, ISO/IEC 17065, ISO/IEC 17021 and Uncertainty of Measurement. The sessions were made interactive by the use of PowerPoint presentations given by renowned faculties to discuss critical and salient features. In addition to this, TCB conducted a series of 2-week Distance Learning Program (self-study program) on 'Practical Course and Guideline of Uncertainty of Measurement'. About a 1000+ professionals from India and Abroad (Qatar, Kingdom of Saudi Arabia, Abu Dhabi, Bhutan, Dubai etc.) coming from various backgrounds/organizations such as Inspection Bodies, Laboratories, Certification Bodies, Regulators, Government Bodies, Industry etc. have been benefitted from these courses.



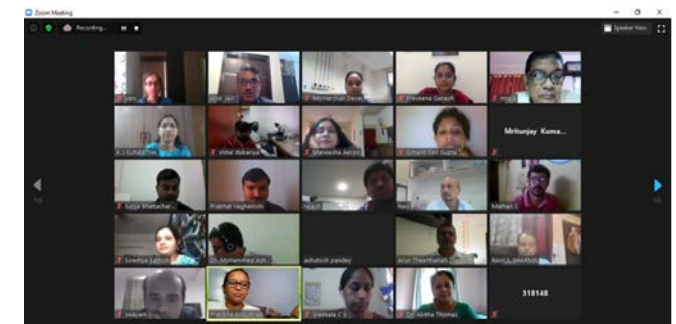
In line with adapting to the 'new normal', TCB conducted a virtual training on ISO/IEC 17020.



A glimpse of a virtual training conducted by TCB on ISO 15189



Continuing with the trend of virtual learning, TCB conducted a training session with ISO/IEC 17025.

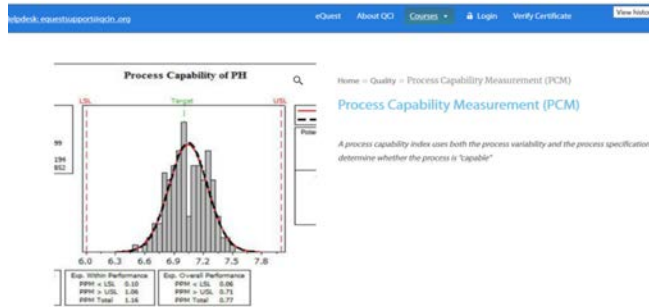


A glimpse of an enlightening session conducted by TCB on ISO/IEC 17021



A virtual training conducted by TCB on ISO/IEC 17065 in session

3. The Ministry of Defence (MoD), bought 60 logins for the course "Process Capability Measurement" (PCM) for capacity building interventions in the form of bulk learning activities to reskill the skills of 60 officials using the Training and Capacity Building's (TCB) online platform eQuest. The response received towards this training has been staggering.



Course on Process Capability Measurement is available on <https://equest.co.in/>

4. In coordination with other Boards, TCB has organized a number of webinars covering a variety of topics and for a domain of stakeholders on its e-learning platform eQuest. The webinars have received overwhelming participations.
5. On 24th August 2020, TCB organized a virtual training on 'Demand Driven MRP & Inventory Management for improving Bottom Line' with the students of GLA University, Mathura under the MoU signed between QCI and GLA, Mathura. The response that we received has been stupendous.

## Programs Developed by TCB and Boards: Steps to Ensure Efficacy through Efficiency

1. eQuest, an e-learning portal of TCB/QCI, along with ZED Division developed and designed a new program on "Workplace Assessment for Safety and Hygiene" (WASH) Standard to assist organizations (Manufacturing, Service,



eLearning module on WASH has recently been introduced on eQuest platform

Trade, etc.) and individuals in learning the key elements that they are required to understand and implement at their workplace in accordance with the WASH standard to mitigate the risk of COVID-19 and ensure safe operations and workplace for safeguarding the health and safety of employees, customers and public, ensuring business continuity in operations to serve customers and protect businesses. The program is now available on eQuest platform <https://equest.co.in/>.

2. eQuest launched a program on 'Hand Hygiene'. The program is a component of a course called 'Surgical Site Infection' designed and developed by NABH and eQuest. The primary reason behind launching this free course during the time of COVID -19 pandemic was to generate an awareness amongst the citizens of our nation on the importance of hand hygiene practices as an effective strategy in preventing health associated infections.



Course on Hand Hygiene is now available on eQuest platform for free!



## Fullfils the Quest for Learning

Quality Council of India has launched an e-learning certification platform in line with the Government of India's Digital India campaign to bridge the existing skill gap. eQuest is equipped with a unique model of blended learning with courses designed and prepared by industry recognised experts.



eQuest has several courses in the domains of Quality, Technology, Management, Environment, Healthcare, Agriculture, Laboratories and Food sector covering topics like Total Quality Management (TQM), Total Productive Maintenance (TPM), Good Agricultural Practices (GAP), Blockchain, Project Management etc.

### The Ecosystem of eQuest



#### Students and Working Professionals

To strengthen skill and knowledge in line with emerging requirements to enhance employability



#### Entrepreneurs

Learn best practices in line with emerging trends of market



#### Assessors and Consultants

Reskilling or upgrading of existing skill set

# DISABILITY AND E-LEARNING: WHAT DOES “ACCESSIBLE” MEAN?



**Prapti Singh**

Intern, Training and Capacity Building (TCB)



It was in the year 1999 at a TechLearn Conference at Disney World that a man named Elliot Masie gave to the world the term “e-Learning”. It was the first time that the word had been used in a professional context, yet the practice, or its variations, had existed since the advent of the 19th Century, where in 1840s a man named Isaac Pitman, taught his pupils shorthand via correspondence. Designed to improve writing speed, this practice became popular amongst secretaries and journalists who just had so much to write. Over the course of the 20th Century several attempts had been made to make the lives of the hardworking student simpler and better, yet it wasn't until the 1960s when the first computer based training program PLATO was introduced in the University of Illinois and in 1980s with the introduction of the MAC allowing individuals to have a computer, making it easier for them to learn about particular subjects and skill sets, that the practice actually garnered curiosity, and begged the world to ask the question: Can learning become digital?

With the advent of the 21st Century, businesses began using e-Learning to train their employees, and in the latter half of the century, the practice permeated into the world of textbooks and blackboards, offering a new way to learn. In India, with the start of the 2010s and with the Internet becoming accessible in both rural and urban spaces, there has been a digital revolution with over

500 million Internet users added to the already existing user ship of 320 million. Technavio's market research analysts predict that the Indian online market will grow at a CAGR of about 20% by 2020 and will be worth 18 billion USD. KPMG reports that the education industries will witness a growth of about x6 times, with the number of online users enrolling in online education touching an estimate of 9.6 million users by 2021, with estimate revenue being worth 1.96 billion USD. These statistics, coupled with the advantages of e-Learning such as easy access to a plethora of varied subjects and learning material through any device at any given point of time, low cost rates, user friendly interface and the advantage of learning at one's own time and pace proves to us that the future of e-Learning is bright. With its interactive visuals and easy to follow virtual lessons, e-Learning has garnered the appreciation of many around the world with Gosper, Green, McNeil, Phillips, Preston and Woo (2007) observing that students find that online technologies such as web-based lecture technology help them to achieve better results. So where, amidst all of these advancements, do the users lie, especially the ones differently able from the rest?

An online Learning Management System (LMS) Blackboard from Blackboard Inc was awarded the Non-Visual Accessibility Gold Certification from the National Federation of the Blind in the United States in 2010, and while it is an applaud able contribution towards the betterment of the disabled, it is worth noting that Blackboard Inc was formed in 1997 and it was only in 2010 that they chose to make their material accessible to disabled people, after almost thirteen years of its inception. It is also quite troubling to note that as of 2015, it is the only e-Learning portal that offers such facilities.

In India, as per the 2011 Consensus, there are currently 2.68 crore people with some form of disability, and 1.4 crore people of this population have the ability to read or write to various degrees. Due to the lockdown induced by the COVID-19 pandemic, education has had to go online, yet unfortunately,

learning material is still inaccessible to the differently able. Government initiatives like ePathshala, launched in 2015 by the Ministry of Human Resource Development, offers to host a variety of educational resources such as audio-visual lectures, periodicals and teacher training modules, yet fails to cater to the needs of the disabled. The Javed Abidi Foundation, a foundation known for pioneering a cross-country disability movement, stated through their “Nothing Without Us” campaign that E-Learning portals such as BYJUs and Unacademy, known for teaching through audio-visual resources, still fail to provide services such as subtitles and sign language captions. The ISLRTC (Indian Sign Language Research and Training Centre) provides with interpreting services for the disabled, yet these services haven't been properly utilized when it comes to e-Learning portals.

This effectively leaves out a large section of people, which is growing rapidly due to age and environmental factors. It is also worth noting that 'disabled' is the only minority group that people may join over the course of their lives, and therefore, it is imperative to treat all people as temporarily able-bodied and promote the invention of an inclusive design that facilitates access for disabled people.

But such ambitions are often met with numerous hurdles. It is important to understand the nuances that accompany disability and those affected by it. Many people with disability refrain from disclosing their impediment, and students also do not request accommodation to help with the access to course material that is presented in an inaccessible format. The attitude of the instructor/faculty also influences the implementation of the practice of making virtual content accessible. Non-disabled students are viewed in the context of what they can do with technology, while their disabled counterparts are viewed in the context of what they cannot do with technology. Those who can have access to online technology then face difficulties when it comes to accessing websites and LMS, audio and video content, PowerPoint presentations and

course material in inaccessible PDF formats. Many e-Learning portals are not designed with the idea of universal accessibility. Students who do request for accommodation with their learning material note that it required a process of design and redesign, which came with its additional costs. It would be in the best interest of e-Learning portals to introduced universally acceptable designs at the outset to avoid costs caused by a need to engage in a digital retrofit. The learning and teaching material should also be made user friendly for any instructor/faculty with any form of disability.

It is imperative to ensure that the learning material provided by such portals are accessible and designed to accommodate to the differently able masses. These alterations are not very onerous to make, what with the increasing advancement that the world of Modern technology introduces. Electronic texts should be translated into Braille and audio texts should be transcribed. The timings for virtual sessions should be made flexible and not fixed, and if that isn't feasible, the sessions should be recorded for future access. Texts that are made available in audio form should allow for alterations in the settings to suit the needs of the disabled and subtitles should be used to read the content of a video presentation when the sound isn't appropriate.

P.T Jaegar aptly notes the need for universally accessible learning material in his book Disability and the Internet (2012) when he says “For persons with disabilities, unless technological design and implementation meaningfully focus on inclusion, the Internet may become a new means of increased marginalization in society.” The quote itself poses a question that may require an answer soon: For a country that hopes to digitize each and every single sphere of our lives, what does the term 'accessible' mean? And when will everyone be able to enjoy the privilege that the word offers?

# ONLINE TRAINING PROGRAM ON INDIA GOOD AGRICULTURAL PRACTICES (INDGAP)



**Aayushi Dhawan**  
Junior Associate, PADD, QCI



**Dr. Manish Pande**  
Director, PADD, QCI



Agriculture is the backbone of South Asian rural economy in respect of employment and contribution to national GDP. While agriculture is the basic strength of many of the countries, its vast potential has not been fully exploited. This market potential of agriculture, both in the region and globally, can only be realized by reforming agriculture and making its produce internationally competitive in terms of quality and food safety.

With the opening up of the world market, there is a flow of trade in agricultural products in wide range of agriculture produce such as fruits and vegetables, livestock, dairy, tea and coffee etc. It is, therefore, necessary to define certain minimum standards with a well-defined certification and accreditation mechanism for the ultimate implementation of GAP to facilitate national and international trade in farm produce.

Agriculture plays a crucial role in Indian economy as over 70% of the rural households depend on agriculture and it provides employment to over 60% of the population. There are certain challenges faced by this sector, and hence, it is important to address them. Introducing Good Agricultural Practices (GAP) in India will promote sustainable agriculture and contribute to meeting national and international environment and social development objectives. It is expected to help increase compliance to national and international regulations, standards and guidelines regarding use of permitted pesticides, maximum levels of contaminants (including pesticides, veterinary drugs and mycotoxins) as well as other chemical, microbiological and physical contamination hazards.

There are certain niche crops such as large cardamom, citrus, pineapple that are unique to

the region with high export potential. However, the farmers are not aware of Good Agricultural Practices that restricts their markets. It is also seen that the producers, farmers and workers in the states are not updated about the Good Agricultural Practices. IndGAP Certification Scheme was launched by the Quality Council of India with the objective of production of safe and hygiene produce in farms in India and providing Indian farmers an option to get certified to a local standard at lower cost. QCI developed Good Agricultural Practices for India as the Governments and the agro-processing industry acknowledge agriculture to be a growth driver.

IndGAP Scheme has unique feature in that it provides two options to the farmers depending upon their current practices and resources either to adopt BasicGAP or IndGAP and this provides a mechanism which gives direction to farms irrespective of size and resources to introduce quality in their production system to ensure food safety and hygiene thereby increasing acceptability of their produce by consumers and food processing industry. Therefore, IndGAP plays a crucial role in agri-business.

## Overview of the Training Program on IndGAP

The Government of India has announced several reforms pertaining to agriculture and our Hon'ble Prime Minister has envisioned a 'Farm in India' economy alongside a 'Make in India' economy. In his Independence Day speech of 2020, he mentioned that our strength is self-reliance in agriculture but value addition is also necessary in the farm sector. To take advantage of these new developments and to provide benefit to millions of farmers, agripreneurs and farmer producer organisations' appropriate skills are needed to perform well in a competitive world.

Many processors, exporters, retailers and food service buyers are increasingly demanding GAP certified produce. The certification enables farm produce to be internationally competitive,

incorporating the concept of globally accepted GAP. It ensures safety and quality of produce in the food chain by defining measurable improvements in terms of increased productivity, quality and safety of the produce and income levels.

QCI developed the IndGAP Certification Scheme to promote good agricultural practices in India. The scheme is aligned to ISO 17065, the international standard for product / process certification, complete with certification and accreditation framework. The objective was to address the food safety needs of the domestic and the international market. The scheme greatly benefits small and marginal farmers, who can reap the benefits from group certification at competitive costs for better income.

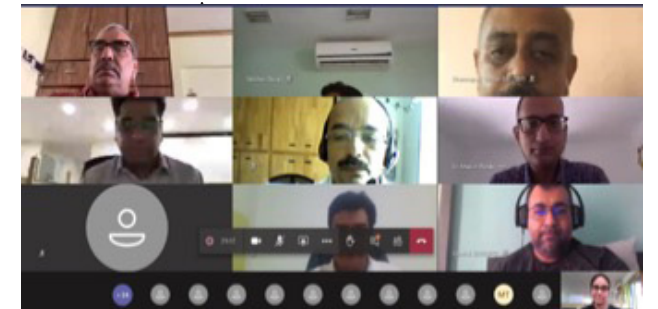
We need to enhance regional co-operation and trade, strengthen co-ordination mechanism and encourage presence in international fora. The world is moving away from product certification to process certification and, if our farmers have to remain in business, all of them (with Government encouragement) have to keep pace with the changes happening globally, considering the fact that India herself is a global market.

Echoing the clarion call of Hon'ble PM to go 'vocal for local' with a global outreach and in order to develop the skills to promote these practices, the Project Analysis and Documentation Division (PAD Division) of QCI organised a training program on IndGAP on 7-8 September 2020. The two-day program, focusing on perspectives derived from the experiences of experts, saw active participation from 50+ participants who were willing to learn about good agricultural practices. Participants ranging from University Professors, Certification Bodies, Agripreneurs to organisations working at the farm level, FPO, research institutions, exporters and export promotion organisations participated in the program.

### The training program aimed to:

- Disseminate objectives and background of Good Agricultural Practices
- Equip participants about the IndGAP scheme of QCI
- Unpack how to introduce IndGAP in farm and scale sustainably
- Explain components of IndGAP through technical sessions on IndGAP

The training program was inaugurated by Dr. Sridhar Dharmapuri, Senior Food Safety and Nutrition Officer, FAO Regional Office for Asia and the Pacific, Bangkok. He emphasized on the importance of Good Agricultural Practices for enhancing agri-business opportunities. He highlighted the fact that most countries are demanding GAP certified produce and, therefore, the exporting countries are implementing their national GAP programmes. He gave the example of ASEAN-GAP. He



added that development of the IndGAP scheme by QCI was a welcome step in the right direction. He suggested that efforts should be made to benchmark IndGAP with GLOBALG.A.P. as soon as possible in order to make Indian produce competitive in the international market and increase farmers' income.

In his keynote address, Mr Sanjay Dave, former Adviser in FSSAI, Ministry of Health and Family Welfare, Govt. of India; and former Chairperson of Codex Alimentarius Commission, provided the broad contours of the IndGAP scheme and mentioned that it not only addresses nine out of the 17 Sustainable Development Goals of the United Nations, it also covers spices which are not covered in GLOBALG.A.P.



He mentioned that 15 clusters for fruits, vegetables and spices have been identified in the Agriculture Export Policy (AEP) and, in case, necessary support can be provided to implement IndGAP, it will give a boost to India's image. He encouraged all stakeholders to adopt IndGAP and contribute to making Atmanirbhar Bharat. He also advised that the benchmarking process should be expedited. He added that there is also a need to enhance awareness about IndGAP among the farmers, FPOs, exporters and Certification Bodies in the country.

#### The Resource Persons for the Training Program were:

- Mr. S. Dave (Former Adviser in FSSAI, Ministry of Health and Family Welfare, Govt. of India and former Chairperson of Codex Alimentarius Commission);
- Mr. Atish Kumar Sen (FAO expert; served BIS, Govt. of India in the scientific and technical cadre);
- Mr. Abhilash Gorhe (Technical expert, QCI; Secretary, Avocado India; Chief Consultant, Samrudhhi Exchange); and
- Dr. Manish Pande (Director & Head, PAD Division, QCI).

Mr. C S Sharma, Joint Director, PAD Division, QCI also delivered a technical session during the program. Mr. Shivesh Sharma, Executive Officer, PAD Division, QCI moderated the training program and Ms. Aayushi Dhawan, Junior Associate, PAD Division, QCI was the rapporteur.

### Training Process

The first day of the Training Program started with the Inaugural Session



Second day started with Technical Session by Mr. Abhilash Gorhe and his sessions were majorly on IndGAP Standard: Requirements

wherein the keynote and inaugural address were given by Mr. Dave and Dr. Sridhar Dharmapuri, respectively.

QCI welcomed both of them, the resource persons, members from Spices Board and APEDA and all the participants. It was mentioned that our hon'ble PM envisioned 'Farm in India' economy to strengthen the Atmanirbhar Bharat concept and that IndGAP is a strong tool to make it happen by promoting cluster development in states, pushing states to implement IndGAP in clusters and encouraging retailers to sell IndGAP certified products. The states, districts and products identified in the AEP could be taken up for IndGAP implementation even for the domestic market.

It was informed that QCI has already mapped 15 such products as per the AEP. Further, using these 15 product clusters, QCI wishes to benchmark IndGAP with GLOBALG.A.P. with the proposed financial assistance from APEDA and Spices Board. This will help certified produce gain better price and give access to more markets.

The Technical Session started with QCI official explaining details of the IndGAP scheme and related aspects to the participants following which Mr. Dave talked about the regulatory aspects of food business and explained the structure of the Food Safety and Standards Act and the various requiring compliance.

Mr. Atish Kumar Sen carried the Technical Session for the rest of the day and his sessions were primarily focussed on Introduction to IndGAP Voluntary Certification Scheme; Certification Criteria of IndGAP and BasicGAP; IndGAP Standard: Requirements and Evaluation Criteria (four sessions).

and Evaluation Criteria (six sessions); Certification Process: IndGAP, BasicGAP, Group Certification; Workshop on checklist for Self-Assessment

Mr. Dave presented a case study on use of GAP and traceability in horticulture crops for export of table grapes and how it benefited the farmers and exports.

Lastly, the rules for use of certification mark (IndGAP) and Provisional Approval Criteria / Certification Body requirements were explained to the participants.

Several facilitation techniques were used by the resource persons and it included discussion, brainstorming, case study, interactive chats and practical implementation of some of the topics. The aim was to make sure that all the participants understood the concepts and to ensure that they actively participate and learn the intricacies of the scheme.

#### At the end of both the days, there was Q&A session.

The participants actively took part in the training on both the days. The resource persons reiterated the importance of training in the daily operations of the participants. They emphasized the role of IndGAP and how the certification results in global market acceptance, benefit-sharing, development of upfront minimum requirements for credible certification systems and mechanisms, promotion of sustainable agriculture and agro-products. They also mentioned that such initiatives also result in improved market access opportunities and reliable quality inputs which increases farm value and increases farmers' skills in farming operations.

Several positive feedbacks were received from the participants and they expressed their interest in the IndGAP certification and in future training program on IndGAP by QCI.

PAD Division, QCI looks forward to hosting more such online training programs on IndGAP and interested participants can e-mail at gap@qcin.org to know more about the IndGAP scheme.

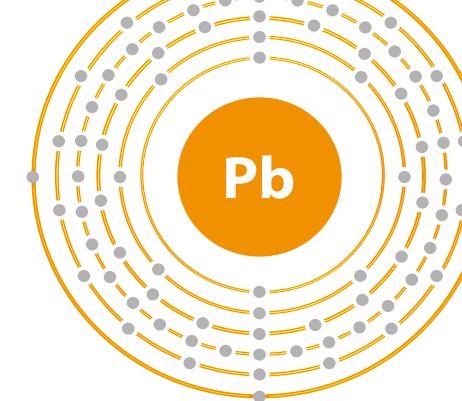
# KNOW LEAD: NO LEAD



**Shivesh Sharma**  
Executive Officer, PADD



**Dr. Manish Pande**  
Director, PADD, QCI



Lead aka Plumbum (Pb) is a p-block element marking its existence in the periodic table quite distinctively for many centuries. This long history is reflected in prominent forms through an early alchemical symbol for lead and carved Ancient Roman characters.

It is a dull silver metal with strong malleability and properties that of corrosion-resistance and pro- longed disintegration makes it the best suited chemical for paints and primers. It has also been used in lead glazes for pottery and, in this century, insecticides, hair dyes and as an anti-knocking additive for petrol. The dependency on this element has witnessed disorders of the central nervous system in the human body which has coined it TOXIC in nature. So much so that the usage of lead has now been banned, replaced or discouraged as an element known to be detrimental to health, particularly in the developing nervous system of foetuses and children in the age group of 3-8 years.

The most exposed form of lead among humans is in the chemical composition of the paints. These lead containing paints at unacceptable levels are circumscribing our lives in the form of home decors, public signages, railways, children play area and toys, school buses, hospitals etc. It appeals to us as a shimmer but is actually a menace which is an established and a proven fact by various regulatory bodies across the globe. The decorative paints is an integral part of celebration during festive season such as Diwali which is just round the corner. It is imperative that we as Indians take due cognizance of such utilities domestically and prevent the

possible exposures to this element as much.

It is pertinent to mention that the content of lead in paints shall not be more than 90 PPM (parts per million) which currently exceeds by many paints manufacturers as 2000-4000 PPM. The exposure of this alarming level of lead to us, esp. our children, in the form of non-nutritive feed leads to disturbed cognitive functioning of their young and developing brain cells. It eventually results in low IQ and intellectual abilities which is an established fact. It is quite worrisome a situation to have a nation with a population of these lead affected young kids growing as adults. The economy of such a nation will take a back seat resulting in a National Productivity loss to a tune of almost Rs 600,000 crores.

What's the solution of this perturbing issue at hand? Answer to which is quite simple and that is to ensure that the content of lead in paints is maintained to a level of 90 PPM- coining it as LEAD SAFE PAINT.

There is a quest felt among the paint manufacturers in the country who ponder for alternatives of Lead; usage of which is inevitable in some of the key additives viz. enamel, resins, primers etc. to a name a few. These additives cumulatively raise the levels of Lead to that of 1000s of PPM in Paints as a final product.

We have with us a full proof solution to this grave issue at hand. Quality Council of India, an apex body having established qualitative acumen in the

form of schemes in numerous domains in the country, has designed and developed a Voluntary Certification Scheme for Lead Safe Paints (VCSLSP) ensuring the levels of LEAD below 90 PPM. This scheme envisages all the aspects of an 'informed purchase' by consumers both for domestic and industrial usage of paints. An assimilation of the content of lead < 90 PPM and informed purchases will balance the demand-supply graph in the market spaces eventually resulting in establishing coefficient of market equilibrium.

This scheme has immense market potential as it caters to the safety as a prima facie element and ensures a healthier environment around us. Once certified under this scheme, the applicants will get a mark / logo which can be displayed on the respective paint containers stating the lead content is below 90 PPM. This piece of information will be duly communicated by QCI to the general public so as to initiate and enhance informed purchases by them w.r.t the content of lead in paints.

Implementation of VCSLSP is a win-win strategy encompassing all concerned; for example: the manufacturers will be assured of >90PPM lead content in their paints, the buyers will get the lead safe environment at their homes, offices, public places, toys for children etc. and last but definitely not the least, QCI will be proud of establishing the initiative among stakeholders.

Conclusively, the visibility of the scheme is in public interest and is to ensure a Lead Safe environment for a brighter and a safer future for generations to come.

# PROJECT PLANNING & IMPLEMENTATION DIVISION

## COAL

Third-party sampling, testing and analysis of coal

Since, August'2017 when Quality Council of India (QCI) had commenced its operations, we have sailed through some major milestones in terms of third-party assessment of coal. QCI plays a vital role in grade assessment for mine grades. In addition to this, below are the updates for the second quarter of the current FY:

1. QCI have crossed the 180 MMT of coal sampling till Sep'2020
2. Extension in scope of work of linkage auction FSA for power sector which consumes more than 70% of CIL's total production

3. In September'20, QCI signed 5MMT in FSA linkage with Sembcorp Energy India Limited and GMR Energy Limited which are power consumers
4. QCI has deployed nearly 170+ on-ground representatives with 25 people deployed at the central team to overlook entire operations

Currently, we are operational at 100% locations with more than 170 active coal consumers and sampling round the clock with limited resources in the market. Coal team has given utmost priority to the safety and preventive measures to be adopted in the project and a benign environment.

## PLANT END PROJECTS

LANCO Anpara Power Limited - Sampling, testing and analysis of coal at thermal power plant

The process of sampling provides a transparent mechanism to analyse the quality of coal. QCI with its ability, willingness, expertise and infrastructure to undertake the job of coal quality testing is performing the sampling activity at LAPL plant since January'20. In this journey QCI has achieved several milestones such as:

1. A total volume of 28,10,000 MT of coal is sampled till date and around 225 samples have been collected since the commencement of work
2. Out of 225 samples not even a single sample is challenged for referee examination
3. QCI has deployed 5 on-ground representatives to maintain the transparency in entire operations

## OCPL

Quality analysis of coal at mine end of Odisha Coal and Power Limited (OCPL)

QCI plays a huge role in coal assessment for mine grades in Odisha Coal and Power Limited. QCI is performing the sampling activity since March'20 and following are the milestones achieved while performing the same:

1. A total volume of 6,96,000 MT of coal is sampled till September'2020

2. QCI has deployed 4 on-ground representatives with 3 people deployed at the central team to overlook entire operations
3. In September'2020, OCPL has extended our scope of work in order to perform the coal sampling in their stockyard

## JSW

Quality and Quantity analysis of lignite fuel at JSW Energy Barmer

JSWBL has nominated QCI for Quality and Quantity analysis of coal at their plant end for 3 years in August,2020. During the project, QCI is responsible for Quality analysis of lignite coal i.e. collection, preparation and analysis (Proximate, GCV, Sieve and Sulphur) and Quantity verification. In addition to this, below are the latest updates of the project:

1. QCI has commenced its operations at JSW plant from 1st October 2020
2. A total volume of 7,70,000 MT of coal is sampled till date
3. Around 65 samples have been collected since the commencement of work



# FOOD AND DRUG ADMINISTRATION GOA

- Third-Party Testing of Fisheries to check the presence of Formaldehyde

**QCI is checking trucks entering Goa's state borders and in wholesale fish market. For this purpose, three teams were set up along with CIFT testing Laboratory at Goa North Border with Maharashtra (Patradevi), Goa South Border with Karnataka (Pollem) and in Margao wholesale fish market for incoming trucks carrying fish from Maharashtra, Kerala, Tamil Nadu, Odisha, Andhra Pradesh, and Karnataka. Since the commencement of work, QCI has attained several milestones such as:**

Around 38,900 trucks have been screened from which 22,000 samples are drawn till date for testing and analysis (for the presence of formaldehyde).

To ensure transparency in the process, QCI has designed a mobile application/dashboard to capture real-time data for sample collection and testing.

## Validation of Key Performance Indicators for District Hospital Ranking – NITI Aayog

The primary aim of the project was the onsite review and validation of Key Performance Indicators' (KPIs) input data provided by the District Hospitals on HMIS.

The KPIs were designed by NITI Aayog for assessing performance of District Hospitals. These KPIs were based on various data items of HMIS which is an online portal where district hospitals submit data on health indicators. NITI Aayog, as mandated by the Government, has created a framework for assessing the performance of district hospitals based on 16 KPIs.

QCI-NABH was on boarded by NITI Aayog for conducting an independent onsite review and validation of data items of the KPIs which are submitted by the district hospitals on HMIS. We designed an assessment framework in consultation with NITI Aayog, MoH&FW and other stakeholders to validate the KPIs through onsite assessments at 731 district hospitals of the country. This was an enormous exercise as every district across the country had to be covered for

assessing the hospitals.

400+ assessors were engaged for assessments which included NABH assessors as well as medical professionals from institutes like AIIMS Rishikesh, KGMU Lucknow, NEIGRIHMS Shillong among others. The assessors were trained in training programs conducted by QCI-NABH across 17 cities in the country.

The team worked tirelessly on multiple components of the project like training and mapping the assessors, operationalizing the assessments, conducting quality checks of the data received, report writing, presentations with the States and NITI Aayog among others. This provided valuable learning opportunity to the team where they got to understand end-to-end project implementation.

QCI positively completed the assessments in a span of 4 months. The efforts of the team were greatly commended by Mr. Alok Kumar, Advisor, Health, NITI Aayog.

The exercise undertaken by QCI was significant because this was the first time any national survey was done at the District Hospital level at such a large scale.

# ARTIFICIAL LIMBS MANUFACTURING CORPORATION OF INDIA (ALIMCO)

**ALIMCO is one of its kind of Government Organisations that produces 355 varied types of quality aids and appliances across its manufacturing facilities for Orthopedically, Visually, Hearing & Intellectually handicapped persons.**

It is an organisation under the Department of Empowerment of Persons with Disabilities, Ministry of Social Justice & Empowerment and is determined to innovate and enhance the design or performance of their manufactured product.

ALIMCO has been registering a high production growth rate over years. Thus signifying an increase in the consumption of the products and so intended to conduct a third-party assessment of the products that have a high consumption. ALIMCO approached QCI in March 2018 to conduct periodic Third-Party Assessment at ALIMCO manufacturing facility at Kanpur for a set of identified products. The compliance was verified with respect to technical specifications as well as ALIMCO records/ documentation relating to input materials, in-process checks and final quality assessment. The overall objective of the assessment was to identify the gaps for improvements in quality and functional performance of ALIMCO products based on quarterly assessment. After the gradual improvement of the product quality and procedures, QCI was again engaged for the year 2019-20 by ALIMCO for quarterly assessment wherein the number of products to be assessed increased from 13 to 16.

Over the last two years, it has been observed that ALIMCO is making step-by-step progress to improve its quality processes and implement good practices. They have adopted several suggestions of QCI such as upgradation to covered storage space to safeguard the manufactured products, ensuring their measuring instruments are calibrated from a NABL accredited labs with valid certificates and upskilling of their employees via training and required certification. It is clearly an indication of development and a welcome step in the right direction.

In continuation with the existing assessment at Kanpur facility, ALIMCO extended the scope of Quality Assessment carried out by QCI for the products/aids being manufactured at its various Auxiliary Production Centres located at Jabalpur (MP), Ujjain (MP), Bengaluru (Karnataka), Bhubaneswar (Odisha) and Mohali (Punjab). The assessment has been conducted on the similar lines that of Kanpur production facility and recently we even did a reassessment at their Mohali Facility and noticed that ALIMCO is getting stronger every day. They are leaving no stone unturned in order to ensure that they are serving the countrymen with the best products which are 'Made in India.'



**PMO APPRISED OF THE QCI AUDIT REPORT**

## 20 Urban Districts have Max Migrant Labour Grievances

Govt starts district-wise assessment of distress issues, holds VC with district collectors

Anubhuti.Vishnoi @timesgroup.com

**New Delhi:** Battling a serious migrant labour crisis, the government has begun a district-wise assessment of distress issues with focus on migrant labour issues in 20 districts in and around big urban centres from where maximum complaints have been received.

An audit conducted by the Quality Council of India (QCI) on the basis of complaints flagged off to the labour ministry between March 30 and May 14 revealed that less than half of the grievances raised by migrant labourers were suitably addressed, officials familiar with the development said.

The PMO has been apprised of the QCI report and a closer assessment of the situation in the identified 20 urban districts has begun, they told ET.

The list includes Surat, Ahmedabad, Mumbai city, Gurgaon, Hazaribagh in Jharkhand, Ludhiana, Bengaluru, Ahmedabad, Chennai, and Thane among others.

Relevant central ministries are now holding direct videoconferences with district collectors of the 20 identified districts to provide whatever assistance that can be sent from New Delhi, and to identify and address administrative gaps where needed, the sources said.

According to the QCI audit, more than 3,300 public grievances have been flagged off to the Union labour ministry in the lockdown period so far, and more than half of them are related to migrant workers. Only 49.4% of grievances from migrant workers have been found to be suitably addressed.

The district of Kolkata has shown the poorest record in addressing the grievances. Faridabad in Haryana has the best record.

Among the metropolises, New Delhi district was the worst while Bengaluru urban fared best by disposing of 75.8% grievances.

District collectors flagged serious livelihood issues that have emerged for migrants who have stayed back. Several of them highlighted how the district apparatus has been overwhelmed due to the sudden movement of workers in large numbers even as the administrative machinery was caught up with handling the spread of the virus, officials said.

District	Disposal Rate
Kolkata	17.65%
Ludhiana	20.68%
New Delhi	26.3%
Surat	28.8%
Ahmedabad	29.63%
Hazaribagh	38.63%
Mumbai (suburban)	41.67%
Mumbai City	42.85%
Tirunelveli	42.86%
Hyderabad	47.06%
Coimbatore	50%
Patna	56.25%
Pune	60%
Thane	60%
Central Delhi	68.75%
Chennai	70.37%
Gurgaon	70.83%
Jaipur	73.3%
Bengaluru Urban	75.86%
Faridabad	85.71%

**District collectors have flagged livelihood issues for those who have stayed back**



QCI team stationed at DARPG is currently working on streamlining the Hon'ble Prime Minister's Public Grievance portal CPGRAMS. The exercise aims at auto forwarding of the lodged grievance to the last mile officer possible throughout the country. Team is involved in direct handholding of top 20 Ministries/ Departments and has completed the exercise in 9 Ministries.

As a part of our National duty, the team also assisted DARPG with speedy redressal of COVID -19 grievances with an average disposal of 1.45 days.

1. Any citizen can lodge a grievance on CPGRAMS vis-a-vis any service not provided. QCI has been working with DARPG from the last 4 years and has assisted DARPG with major reforms exercise for top 40 Ministries.

To make CPGRAMS more user friendly and reduce transition time of a grievance, a study has been undertaken to revamp the CPGRAMS portal by providing citizens with drop downs of grievance categories and sub categories. Once filed, the grievance will directly go to the last mile officer who is responsible to resolve it, thereby skipping multiple levels of transition; however, the Ministry and concerned offices will be flagged about the grievance. This reform has already been introduced in 9 Central Ministries in a phased manner. Mapping 1.5 lakh post offices for Department of Posts and inclusion of all Missions abroad for Ministry of External Affairs have been the most notable highlights of this reform.

The team is currently working with the next set of Ministries for speeding up the CPGRAMS reforms

aimed to be launched by December 2020

2. During the lockdown, QCI team proactively extended their assistance to DARPG for the management of COVID related grievances. After the initial analysis and formulation of COVID-19 grievance Categories and Sub-Categories for the citizen, the team made more than 3000 phone calls to seek feedback from the citizens which eventually led to DARPG setting up a Call Centre to expand the monitoring of these grievances and taking real-time feedback from the citizens.

**The team directly reported to the Chairman, Empowered Group 10 set up by Hon'ble Prime Minister in response to COVID-19. Following were the major tasks assigned to QCI:**

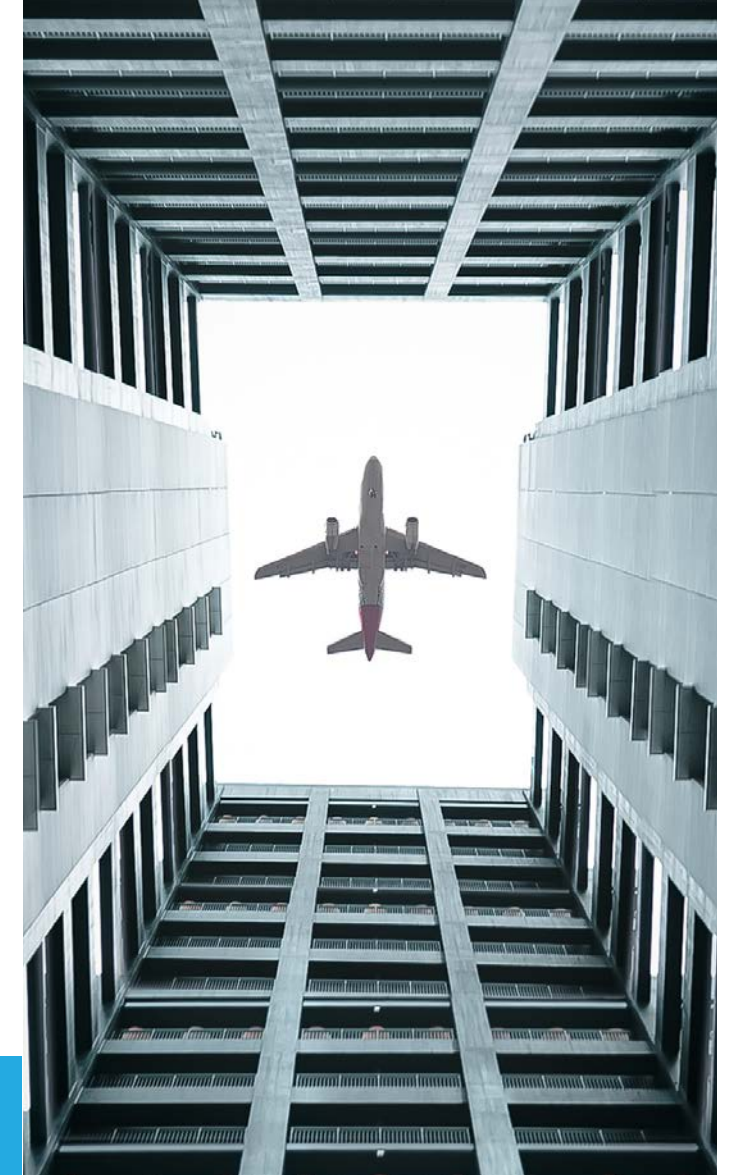
- Furnishing of Data reports based on Grievance analysis of Ministries, States and Districts
- Assessing the major types of grievance issues in reference to the phases of lockdown and subsequently the Unlock period
- Ranking of districts based on grievance redressal feedback to foster competition. A report of the same was sent to PMO and published in The Economic Times
- Preparation of infographics to provide a bird's eye view of COVID-19 grievances to Hon'ble Minister of State, PMO

## PROJECT MONITORING UNIT- MINISTRY OF TOURISM

A Project Monitoring Unit (PMU) has been set up in the Ministry of Tourism for assisting the ministry in coordination of action plans with various stakeholders for improving the Travel and Tourism Competitiveness Index (TTCI) of India.

### ABOUT THE TRAVEL AND TOURISM COMPETITIVENESS INDEX

Travel and Tourism Competitiveness Index (TTCI) evaluates the Travel and Tourism (T&T) competitiveness of economies and measures the set of factors that enables the sustainable development of T&T sector. The index evaluates the economies on four broad sub-indices, namely, Enabling Environment, T&T Policy and Enabling Conditions, Infrastructure and Natural and Cultural Resources. The sub-indices further comprise of 14 pillars and 90 indicators covering domains like health, security, tourism infrastructure among many others.



QCI conducted a study on Travel and Tourism Competitiveness Index (TTCI) report of World Economic Forum (WEF) for Ministry of Tourism in the year 2017 and successfully submitted more than 200 action plans for various central ministries in order to improve India's ranking in the index.

In extension to the above study, Ministry of Tourism has appointed QCI to set up a PMU to develop an overall framework to improve India's ranking in TTCI and implement the same.

As per the scope of work, the PMU would perform secondary research and analysis to identify the responsible ministries and coordinate with them in order to monitor and implement the action plans developed by QCI in its study. The PMU would also actively engage with WEF for any necessary activities related to TTCI.

It will also examine and evaluate existing government schemes to check and track the progress of QCI suggested action plans which could potentially improve India's ranking in TTCI.

The exercise undertaken by Ministry of Tourism in collaboration with QCI is significant as the interventions made would positively impact the overall tourism sector of the country and improve its ranking at the global level.



# National Accreditation Board for Testing and Calibration Laboratories



## Board Updates

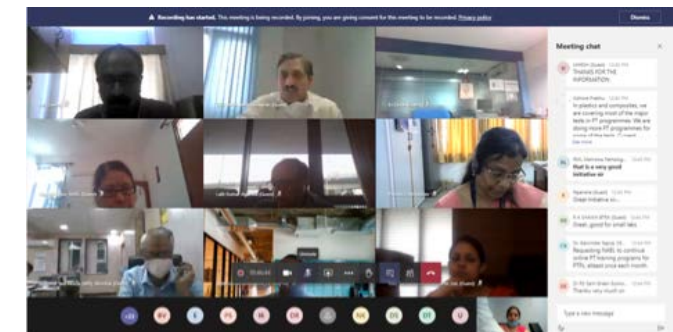
JULY TO SEPTEMBER 2020

NABL has obtained ILAC MRA for Reference Material Producers (RMP) accreditation program (ISO 17034) also, in addition to existing MRA in Testing (ISO/IEC 17025), Medical (ISO 15189), Calibration (ISO/IEC 17025) laboratories and Proficiency testing providers (PTP) accreditation program (ISO/IEC 17043).

## Interactions with Laboratories

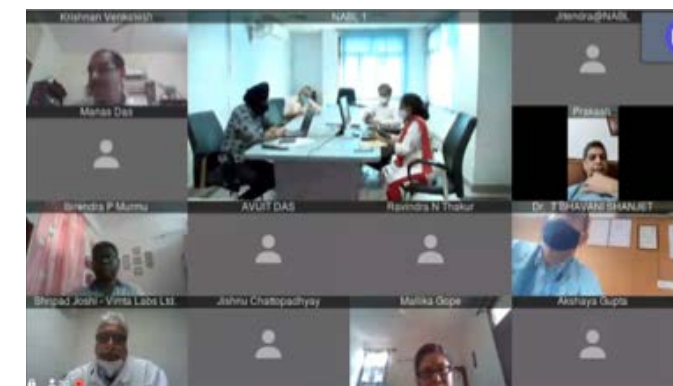
Proficiency Testing Providers (PTP) interaction with NABL on 1st July 2020

Interaction was held with NABL Accredited PT Providers on 1.7.2020 through Video Conferencing.



Testing Laboratories Interaction meeting (27th July 2020)

Testing Laboratories meeting was conducted on 27th July 2020 through Video Conferencing.



### ILAC MUTUAL RECOGNITION ARRANGEMENT

#### SIGNATORIES

We, the undersigned, endorse the terms of the ILAC Arrangement and undertake, to the best of our ability, fulfilment of its objectives.

**Accreditation Body:** National Accreditation Board for Testing & Calibration Laboratories (NABL)

**Economy:** India

**Scope and date:** Testing ISO/IEC 17025 - 2 November 2000  
 Testing ISO 15189 - 2 November 2000  
 Calibration ISO/IEC 17025 - 2 November 2000  
 Proficiency Testing Providers ISO/IEC 17043 - 3 October 2019  
 Reference Materials Producers ISO 17034 - 22 July 2020

**Authorised Representative:**

Signature:  Date: 21 July 2020

**Chair, ILAC Arrangement Council:**

Signature:  Date: 21 July 2020  
 Eddy Feller

Annex 4 - Revised Scope ILAC MUTUAL RECOGNITION ARRANGEMENT

## Current Events

### Calibration Laboratories meeting (27th July 2020)

Calibration Laboratories meeting was conducted on 27th July 2020 through Video Conferencing.



### Medical Laboratories meeting (27th July 2020)

Medical Laboratories meeting was conducted on 27th July 2020 through video conferencing.



### NABL Medical testing labs stakeholders meet on 29th July 2020

NABL conducted an open-forum stakeholders' meet with Medical Testing Laboratories, assessors, consumers, association members on 29-7-2020 which garnered a huge appreciation from various stakeholders.

The objective of the meeting was to ensure good practices of using NABL accreditation

- to check the practices in the market where NABL accreditation is being used in misleading ways
- to put a check on how online marketing portal in healthcare are doing wrong promotions
- misleading of healthcare community by these wrong promotions
- making people aware about ways in which quality certificates are being misused etc.

Also, the meeting was to address the unawareness/ challenges faced by laboratories leading to the considerable rise in the number of cases for misuse of NABL symbol/ logo being reported at NABL.

Clarifications were provided by NABL to various queries, and suggestions for improvement were noted.

The Stakeholders' meeting was attended by more than 150 participants and many participants requested for conducting such additional programs to help bring awareness on NABL and its activities.

# NABL, in collaboration with Healthy You Foundation, organized

## A webinar on 30th July 2020

### NABL Accreditation: Assuring Quality to the Customers

An Awareness program on NABL Accreditation: Assuring Quality to the consumers was conducted by NABL in collaboration with Healthy You Foundation, New Delhi on 30th July 2020.

The awareness program was conducted through an online platform and witnessed participation from more than 100 members of Healthy You Foundation and other consumer awareness organizations throughout the country ranging from doctors, public servants to consumer awareness activists.

Prof. Bejon Kumar Misra, Founder Trustee, Healthy You Foundation explained about the importance of NABL Accreditation and the usefulness of bringing about awareness of accreditation to ensure the quality to the consumer.

Mr. N Venkateswaran, CEO, NABL urged all the participants to share the awareness obtained on NABL accreditation and activities of NABL through the program, for the benefit the end consumers in different fields.

Senior officials from NABL explained the benefits of accreditation to end customers, accreditation of medical testing laboratories for testing of RT PCR RNA (COVID-19) viruses and accreditation of testing and calibration of medical equipment like ventilators. Testing of PPE, Sanitizers, Masks and Gloves.



It was elaborated on how ensuring the trust and accuracy on test results through accreditation will help the nation in the fight against COVID-19 Pandemic.

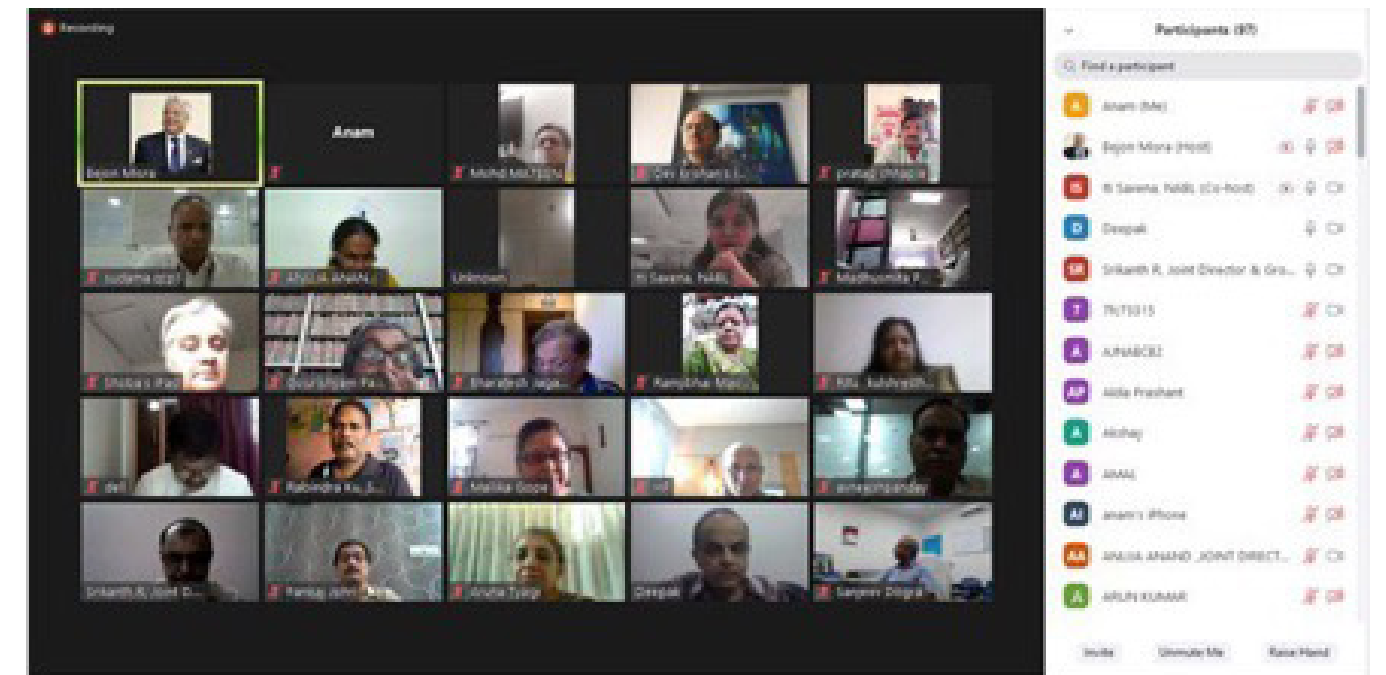
The process of accreditation and how NABL operates impartially were explained in detail and received appreciation from all participants. The participants also suggested that the awareness about NABL and accreditation should reach the rural populace.

Identification of authentic NABL test reports / certificates was explained and the problem being faced by consumers falling prey to false reports were discussed. Healthy You Foundation and the various consumer forums reiterated their support to educate the common consumer on identifying such issues and being safe.

Mr. Sanjeev Dogra, AGM/P&G, Ordnance factory shared his experience of getting NABL accreditation to his laboratory and how prompt and supportive NABL was during the COVID-19 pandemic providing multitude of benefits to laboratories.

Mr. Prafull D. Sheth, Past President, Indian Pharmaceutical Association & Board Member, Patient Safety & Access Initiative of India Foundation reiterated the importance of accreditation and how it benefits consumers in ensuring the quality in various products such as drugs, food and others.

Various queries were addressed in respect to NABL accreditation and the participants requested for conducting such additional awareness programs to benefit the common man of the nation.



Medical laboratories accredited for testing of RT PCR RNA viruses cross the 500 mark.

## NABL 4TH PTP/ RMP CONCLAVE

The 4th Proficiency Testing Provider / Reference Material Producer (PTP / RMP) Conclave was conducted on 30th and 31st August 2020 through video conferencing mode. Around 150 participants attended the conclave including international attendees.

Mr. N Venkateswaran, CEO, NABL welcomed all the participants and explained that due to the current situation, the program was planned in virtual mode.

The program was inaugurated by Dr. D. K. Aswal, Director, NPL and Chairman, NABL. Dr. Aswal emphasized on the importance of accurate measurements and the role of Reference Material Producers (RMP) & Proficiency Testing Providers (PTP) in delivering confidence in the measurements made and traceability of measurements.

Dr. Aswal elaborated on the importance of Bharatiya Nirdeshak Dravya (BND) and the service to the nation by NABL accredited Reference Material Producers (RMP) producing them.

Dr. S P Vasireddi, Chairman, Vimta Labs Ltd. underscored the important role being played by PTPs and RMPs in accreditation of laboratories. He also discussed about the challenges being faced by laboratories and was hopeful that more number of PTPs and RMPs would be forthcoming to cater in the desired areas.

The program consisted of technical sessions and panel discussions. PTPs and RMPs were given the opportunity to showcase their programs conducted and materials produced. This provided a platform for sharing information and ideas amongst the accredited, applicant and aspirant PTPs and RMPs.

## BRIEF OF THE PRESENTATIONS MADE BY PTP AND RMP DURING THE CONCLAVE:

### AsthaGiri Herbal, Chennai

Presented in detail the production process of Reference Material (RM) – Production of Epoxyzadiradione (EADD), clearly explained the way how they do the homogeneity and real time stability studies. Emphasis on characterization techniques used to attain the assigned values and how metrological traceability is achieved.

### Rallis India Ltd, Bharuch

Presented the production plan for RM on Pesticides - Started the presentation with capability of Rallis and challenges faced during the implementation of ISO 17034: 2016 and journey of accreditation. Clearly explained the selection of materials, Production, Homogeneity, ANOVA, uncertainty estimation. Emphasis was given on characterization techniques used for different RM/CRMs.

### Trilogy Analytical, Hyderabad

Delivered a presentation on Challenges of Developing Mycotoxin PT, RM, CRM Material for Asian Food Matrixes. Their Presentation explained the information in relation to procurement, production, analysis and financial viability. The need for the CRM in global as well as in Asia region was explained.

### BPCL RMP, Mumbai

Shared their experience both as PTP as well as RMP. As RMP they shared information in regard to the production plan of CRM – Lubricant and further stressed upon the importance of packaging using aluminium containers and their labelling and transportation. In case of BPCL, Proficiency testing, the

presentation was on their PT Scheme in Aviation Turbine Fuel.

### SCS Enviro Services, Jaipur

Presented their PT scheme on Manganese Ore – How the sample gets collected and further processing it as a PT item. Explanation in regard to the homogeneity study and stability study conducted and reporting of results in PT report were presented.

### Neu-QAP, Bangalore

Shared the details of their PT scheme in Histopathology (Tissue Slides), Interesting aspects in relation to packing of PT item and the functionality of their web portal for participants used in PT programs were explained, further the problems being faced and how they could be overcome were explained.

### Horizon Services, Pune

Presented their PT scheme for Air Sampling case study -PM 10. Explained the methodology used for assigning value, homogeneity and performance evaluation of the participants in the PT program. Further, the method in which their case study is forwarded to the participants and results to be provided within specific time limit were showcased.

### Deep Metallurgical, Thane

Demonstrated the PT scheme on Tensile Test for two different test methods. The way in which the PT Scheme was conducted was explained in detail. Emphasis was given on the information about the sample preparation; their methodology of sending 3 samples. Also, one additional sample was sent for test trial on the additional sample for one test method and another sample for the second test method. Further, explanation in regard to Homogeneity in the PT item, ANOVA techniques & Measurement Uncertainty and performance evaluation were explained.

### Green Economy, Mohali

Presented their PT scheme in Water. Different test parameters in water for which the PT scheme is available were explained. Information on how the homogeneity of the PT item was maintained group wise. The methodology used to assign value to the PT item and performance evaluation mechanism were explained. Additional focus on the problems in transport of PT were shared.

### Fine Finish, Mumbai

Explained their PT scheme on Paint in respect of the parameters related to trueness of Assigned value & Standard Measurement Uncertainty of assigned value. Explained how they are performing the stability and homogeneity of paint sample. The PT scheme is receiving good participation from domestic as well as international laboratories.

### ITC, Guntur

Shared the details about their PT scheme in Spices (Chilli). Explained regarding Three Stanchions of a Successful PT Study, viz, 1. Raw material selection. 2. PT item production. 3. Result analysis

### Metal Power, Mumbai

Shared their experience as PTP as well as RMP. As RMP, their presentation was on the production plan of CRM – Pure Copper in aspects of the manufacturing and characterization techniques used to attain assigned value. As a PTP they presented on their PT Scheme – Stainless Steel. On how they are manufacturing their Stainless steel and homogenizing them to make their PT item. Further, details on upcoming programs were elaborated.

Mr. N. Venkateswaran, CEO NABL called upon accredited PTPs and RMPs to make note of areas where laboratories are looking for their service and come forward by improving their capacity to bridge the gap.

All the accredited PTPs agreed to the proposal of CEO, NABL to share the results of participating laboratories which would be used in passing on the benefits to successful PT participants in evaluating their performance in subsequent assessments.

Panel discussions were held wherein points of improvement and support required for accredited PTPs and RMPs were discussed. Important points such as support in registration on GeM portal; working towards easy acceptance of Proficiency Testing Programs and Reference Materials globally, were discussed.

## BASED ON THE PERFORMANCE AND TECHNICAL PRESENTATIONS, PRIZES WERE GIVEN TO THE FOLLOWING PTPS AND RMP

### FIRST PRIZE

Neu-QAP (PTP), Bangalore

### SECOND PRIZE

AsthaGiri Herbal Research Foundation (RMP), Chennai

### THIRD PRIZE

BPCL Proficiency Testing (PTP), Mumbai





# National Accreditation Board for Hospitals and Healthcare Providers

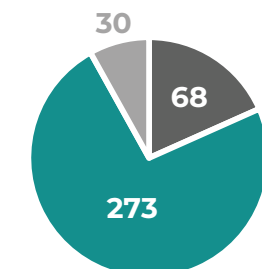
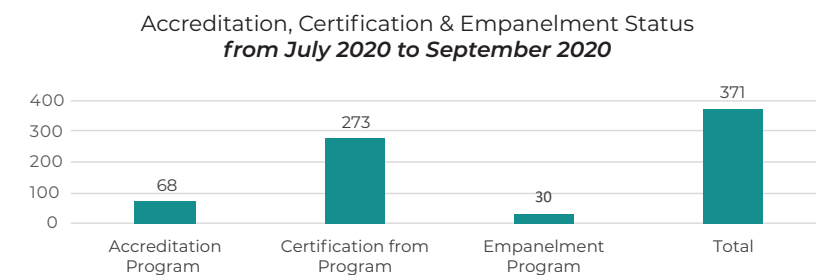


## Board Updates

JULY TO SEPTEMBER 2020

S.No.	Program	Accreditation/Certification Granted
1.	Accreditation Program	68
2.	Certification Program	273
3.	Empanelment Program	30
	<b>Total</b>	<b>371</b>

Accreditation, Certification & Empanelment Status from July 2020 to September 2020



● Accreditation Program  
● Certification from Program  
● Empanelment Program

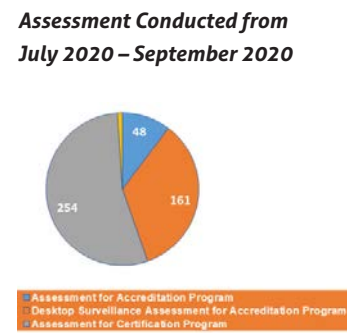
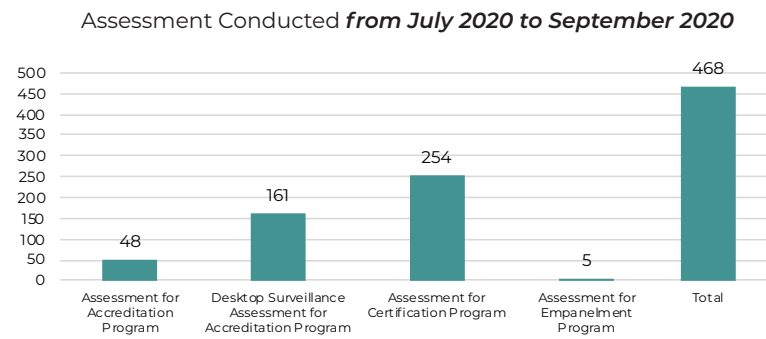
### VIRTUAL ASSESSMENT CONDUCTED

NABH team has initiated remote and hybrid assessments of HCOs using virtual platforms. To start with, virtual assessments of HCOs were conducted on pilot basis and the outcome was found to be favourable. It is expected that this will reduce the pendency in accreditation or certification cycle tremendously.

Total nos. of assessment 307 conducted for Accreditation, Certification and Empanelment during July 2020 to September 2020

S.No.	Program	Assessment Conducted
1.	Assessment for Accreditation Program	48
2.	Desktop Surveillance Assessments for Accreditation Programs	161
3.	Assessment for Certification Program	254
4.	Assessment for Empanelment Program	5
	<b>Total</b>	<b>468</b>





## QUALITY CONNECT-LEARNING WITH NABH

NABH announced the enriched continuation of “NABH Quality Connect-Learning with NABH” initiative under which free monthly training classes, webinars and seminars will be conducted. The training topics will cover all aspects of patient safety, including: Key Performance Indicators, Hospital Infection Control, Management of Medication, Document Control etc.

## A) NABH TRAINING PROGRAMS ON IMPLEMENTATION (POI) & EDUCATIONAL WORKSHOPS ON VIRTUAL PLATFORM

Programs on implementation are conducted on NABH Accreditation Standards of Hospitals, AYUSH, Blood Bank and Nursing Excellence, Pre Entry Level Hospital & SHCO Certification Standards, Clinical Audit Workshop and Continual Quality: Tools and Techniques Workshop.

The objective of POI is to provide guidance to healthcare provider on implementation of NABH standards. These programs are instrumental in developing internal Capability within the hospitals to work towards implementation of quality and patient

safety standards, achieving accreditation and maintaining the same.

During the period from July 2020 to September 2020, 21 educational workshops were conducted on virtual mode wherein more than 1000 healthcare professionals participated.

## B) ASSESSOR TRAINING COURSE FOR AYUSH PROGRAM

NABH conducted Assessor Training Course for AYUSH program from 7th to 11th September 2020 on Virtual Platform



## C) FREE WEBINARS

NABH Conducted free webinars on following topics and recordings of the same have been placed in Resource section on the website of NABH at the link <https://www.nabh.co/Resources.aspx>

1. Amendments in Rules for Blood Banks under Drugs & Cosmetic Act – Way Forward for NABH Standards on 9th July, 2020
2. Documentation Requirement for Patient Safety and Quality Improvement on 26th July, 2020
3. NABH Accreditation Standards for Medical Imaging Services – 2nd Edition on 27th September, 2020
4. Free Access to NABH Accreditation & Certification Standards announced

NABH was established in year 2005 and has completed 15 years of its existence. As a mark of completion of 15 years and celebration of 74th Independence Day, on 15th of August, 2020, NABH announced free access to all NABH standards, across all programs. The standards are available free of charge as downloadable documents in PDF format on the NABH website [www.nabh.co](http://www.nabh.co). (The Printed copies of Standards and Guidebooks will continue to remain available for purchase at a nominal price).



All the NABH standards have been developed in consultation with various stakeholders in the healthcare industry and if implemented, it will help the healthcare organizations in stepwise progression to mature quality systems covering the entire spectrum of patient safety and healthcare delivery.

The NABH organization & the hospital accreditation standards are internationally recognized and benchmarked. NABH is an Institutional as well as a Board member of the International Society for Quality in Healthcare (ISQua) and Asian Society for Quality in Healthcare (ASQua) and a member of the Accreditation Council of International Society for Quality in Healthcare (ISQua).

Over the years, successive NABH standards have brought about not only paradigm shifts in the hospitals' approach towards delivering the healthcare services to the patients but have equally sensitised the healthcare workers and patients towards their rights and responsibilities.

## 5. NABH Newsletter

NABH released the second newsletter NABH QUALITY CONNECT to provide comprehensive information related to NABH activities and updates about healthcare quality. NABH QUALITY CONNECT will be projected the brand name for our revamped training initiative

## 6. NABH International

CEO NABH, Sr Director and Director, attended ASQua 5th Executive Board Meeting 2020 and Annual General Meeting on 23rd July, 2020.

Joint Director, NABH participated as a Speaker at ASQua Webinar on 26th August 2020 on "Covexit – Accreditation Landscape Post COVID-19".

## 7. Team NABH





# National Accreditation Board for Education and Training



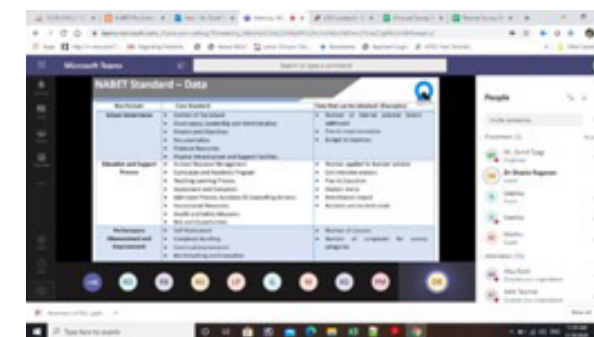
## Board Updates

JULY TO SEPTEMBER 2020

### FORMAL EDUCATION EXCELLENCE DIVISION (FEED)

FEED-NABET conducted various digital awareness workshops for administrators, schools and teachers. The workshops were designed keeping in mind the need of the school stakeholders as well as the domain of FEED. Some of the screen-shorts are given below:

#### Awareness about various components of accreditation standard for quality school governance by NABET



FEED-NABET conducted workshops on components of Accreditation Standard for Quality School Governance by NABET. Various accredited and non-accredited schools

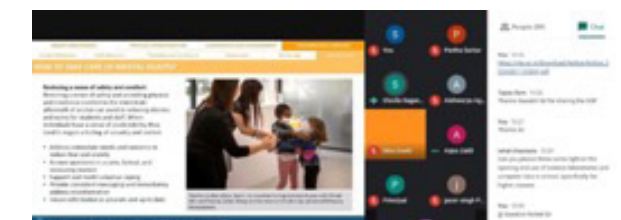
participated in the workshops. 6 workshops have been conducted so far.

**The program was designed for:** School Stakeholders

**Speakers:**

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Sheela Ragavan

#### Digital workshops on Preparing Schools for Pandemic (PSP)



FEED-NABET conducted 1-day Digital awareness workshops and launched a 2-day training workshop on PSP to address reopening protocol after COVID-19 lockdown and further provide safety guidelines. 3 workshops were conducted in July and August month.

**The program was designed for:** School Stakeholders

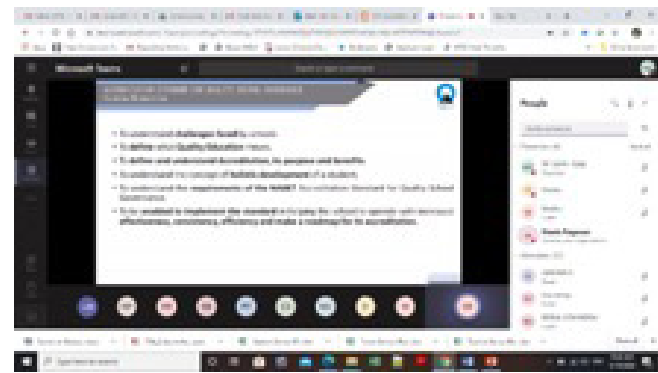
**Speakers:**

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Sheela Ragavan
- Mr. Saurabh Arora (Assistant Director)
- Ms Aqsa Zaidi (Junior Associate)

#### Digital Awareness workshops on Accreditation Standard for Quality School Governance

To spread awareness about the Standard. 2 workshops have been conducted till date.

**The program was designed for:** Management Committee Members, Education System Coordinators, Teachers / School Administrators (Core team members), Principals, Educationists / Curriculum Developers and Education Consultants who wish to implement Accreditation Standard for Quality School Governance in the schools.



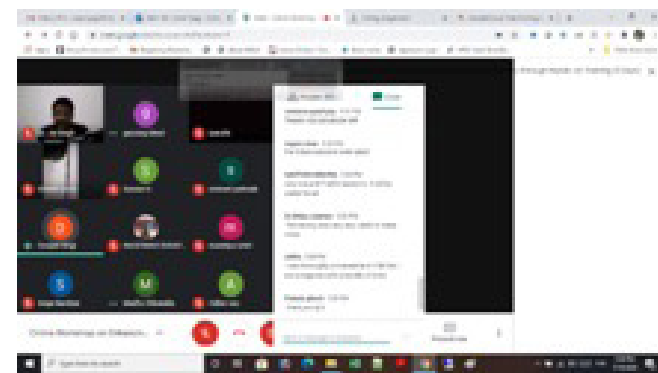
**Speakers:**

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Sheela Ragavan

**Digital workshops on Enhancing Blended & Online Teaching Capability through Hands-on Training**

6 workshops have been conducted till date.

**The program was designed for:** School Stakeholders



**Speakers:**

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Patanjali Mishra
- Dr. Gaurav Singh
- Dr. Jai Singh
- Dr. Mamata

- Dr. Gaurang Tiwari
- Ms. Adiba Faiz

**Digital workshop on Preparing School for Competency-based Education**



1 workshop has been conducted till date.

**The program was designed for:** School Stakeholders

**Speakers:**

- Ms. Madhu Ahluwalia (Sr. Advisor NABET)
- Dr. Patanjali Mishra
- Dr. Gaurav Singh
- Dr. Bhaskar
- Dr. Mamata Aswal
- Dr. Gaurang Tiwari
- Ms. Adiba Faiz

**ENVIRONMENT DIVISION**

**Introductory meeting for AC/TC members for APA and MPPA scheme**

Introductory meeting of Scheme for Accreditation of Prospection/ Exploration Agency (APA) and Mining Plan Preparing Agency (MPPA) with the nominated members of the Accreditation (AC) and Technical Committee (TC)

Date: 17th July 2020

Duration: 11:00 am - 12:00 pm

Faculty: Mr. A. K. Jha- Senior, Director, NABET

**Air Pollution Prevention and Control**

Training and Capacity Building (TCB) Cell, QCI- NABET organised training course on Air Pollution Prevention and Control'(Webinar). The capacity building training program designed for EIA Coordinators, Functional Area Experts, Team Members, Functional Area Associates, EIA Assessors, Regulator, Government Bodies, Industries, PSUs, Environment Consulting Organizations, Environment Consultants, Environment Training Organizations, etc.

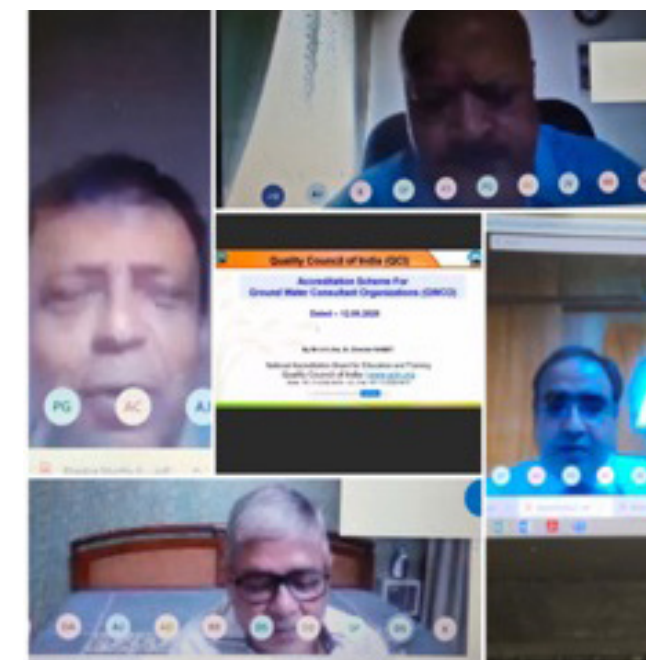
This training course, involved Air Pollution Control (APC) & Technologies and New Development in APC Technologies' .

Date: 24th July 2020

Duration: 11:30 am - 04:30 pm

Faculty: Sh. K.D Choudhury, Former MECON Ltd., (EIA Coordinator)

**Assessors Training Program and introductory meeting with the nominated members of AC/ TC Committee for Ground Water Consultant Organization Scheme**



This program was designed for GW assessors, involving salient features of the GW Scheme, its assessment procedure and brief of online GW portal.

Date: 12th August 2020

Duration: 10:30 am - 04:30 pm

Faculty: Dr. Dipankar Saha, Member (CGWB), Sh. A.K. Ghose, Former, SAIL, EIA AC Member; M/s 7techies.

**Induction Program for EIA Assessors (New)**

This program was designed for EIA assessors, involving salient features of the EIA Scheme - Version 3, its assessment procedure and brief of online EIA portal.

Date: 24th August 2020

Duration: 11:00 am - 04:00 pm

Faculty: Sh. A.K. Ghose, Former, SAIL, EIA AC Member; M/s 7techies.

**Launch of the Accreditation Scheme for Prospecting and Mining Plan Preparation Agencies and its Web-Portal by Mr A K Jain, IAS, Secretary, Mr V K Tiwari Addl. Secretary, Mr M Nagraju, JS and other senior officials from Ministry of Coal, Government of India**

The scheme was launched on 11-Aug-2020 through video conferencing to start the accreditation of the Consultants. Through its recent notification, Ministry of Coal mandates QCI-NABET for accreditation of Prospecting and Mining Plan consultants vide notification G.S.R 331 (E) dated 29.05.2020.

The Secretary and Addl. Secretary MoC praised QCI for making this scheme and web portal in a very short period of time and emphasized that accreditation will play a vital role in bringing quality report and help improve quality.

The Secretary General, QCI, Dr. R. P. Singh, speaking on the occasion, informed that the scheme will create quality consultants in the country and the movement of quality will ensure good work done in the field with the stringent mechanism of accreditation in place.

With the introduction of commercial mining in coal sector, Government of India allows Private Sector Participation for development of explored/partially explored coal blocks through revenue sharing mechanism.

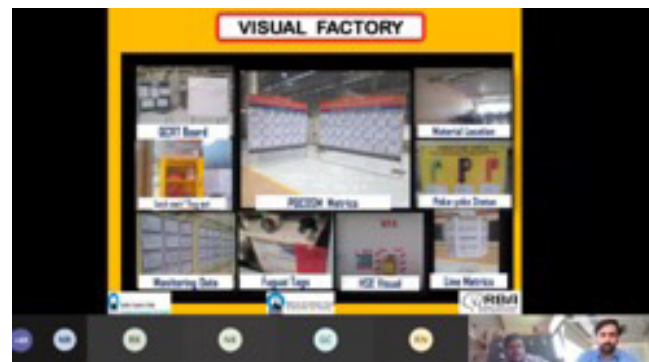
On allocation of potentially commercial (G2 & G3) coal blocks for mining there is requirement of competent Mining consultants for partially explored coal blocks.

NABET will now start accepting the application under the Accreditation Scheme from consultants on its dedicated APA/MPPA Web Portal. The accreditation Scheme has been developed by NABET with inputs from various stakeholders including experts in the field, regulatory agencies and consultants.

Through this accreditation scheme QCI\_NABET will create a pool of credible and capable consultant organisations in the country for the Prospecting and Mining Plan Preparation that will help in augmenting the commercial mining of the allocated coal blocks to private investors.



# MSME DIVISION - LEAN VERTICAL

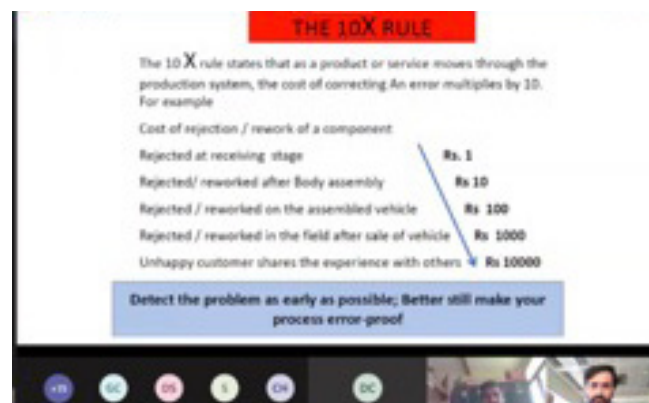


The program was designed for Quality managers, TQM & Supply Chain Professionals, MSME Executives, Consultants, Supervisors, Process owners, Engineering & Management Students.

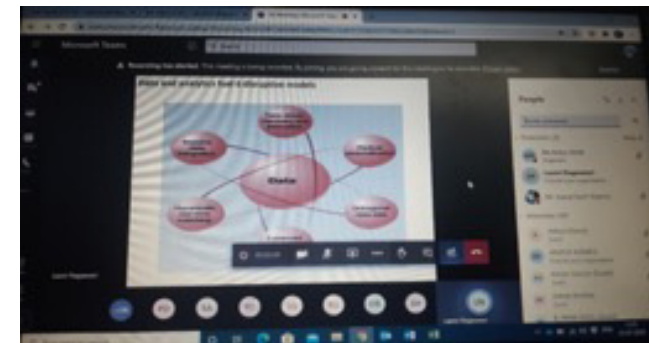
## Program Objective

This training program was a blend of theory and practical exercises. Post Program, delegates developed an understanding of:

- Visual Management and its applications in Business Process



- How to implement the visual management in a structured way
- How to capture the opportunity and implement the Poke-yoke
- How to take the countermeasures to Human Errors



## Course Content

- What is Visual Management?
- Why is important?
- How it is related with Lean/TPM/TQM and six-sigma
- Stages in Visual Management
- How to implement Visual Management
- What is Poka-Yoke
- 7. 3 Stages of Poka-yoke
- Concepts in Mistake Proofing
- Mistake Proofing tools
- Mistake Proofing Matrix
- Human Error Prevention - Introduction
- HEP Principles
- Examples & Cases studies – Visual Management, Poka-yoke & Human error Prevention

The program was well appreciated nationally as well as internationally. 86 Participants registered & attended the program.

Lean Vertical organised a 1-day certificate program on "Enhancing profitability in MSMEs through Data Analytics"

The program focused on the below points:

- How Data Analytics can help MSMEs – Real Time Analytics Workflow
- How MSMEs can adopt data analytics
- Understanding business at one glance
- Inventory management
- Targeting the right customers at right time with right content
- Cross-selling products
- Sentiment analysis

**Best practices for implementing and scaling Data Analytics -** Five guiding principles

- Acting on analytics outputs requires business to understand the implications of those outputs.



- Focus on hiring and training talent to serve as the interface between Data Analytics and business
- Business users need to trust analytics results, and they need to be able to action them.
- You might need to initially "bypass" corporate IT to start quickly and prove the concept early, but you will need to ultimately involve IT timely and heavily in order to scale.
- A "risk to fails mall, to win big," a test-and-learn approach, and an "experimental mindset" should be woven into the organizational fabric. Cross-functional teams are essential to keep pace with rapid test-and-learn cycles.

**Best practices for implementing and scaling Data Analytics -** Five medium-to long-term strategic actions

- The value in data is its potential to generate in sights that lead to better business. Stepping back from the process steps described above, a couple of macro-level principle scan help companies turn vast amounts of data into insights-based use cases that boost performance.
- First identify business use cases you believe in and then think about the models and data you need to operationalize
- Focus and prioritize the top-3 use cases that are the easiest or fastest to implement or the ones that generate significant business impact.
- Hire a few data scientists and link them to business teams to quickly prove the concept.
- Build a central analytics unit



# National Accreditation Board for Certification Bodies



## Board Updates

JULY TO SEPTEMBER 2020

### NABCB Secures International Equivalence For Occupational Health And Safety Management Systems (OHSMS) And Medical Devices - Quality Management Systems (MDQMS)

NABCB has signed the Multilateral Recognition Arrangement (MLA) of the International Accreditation Forum (IAF) for Occupational Health and Safety Management Systems (OHSMS) certification bodies programme based on international standards, ISO/IEC 17021-1 and ISO/IEC TS 17021-10 in May 2020. NABCB has secured international equivalence for its accreditation programme for Medical devices - Quality Management Systems (MDQMS) for the certification bodies. NABCB signed the Multilateral Recognition Arrangement (MLA) of the International Accreditation Forum (IAF) on 25 June for its accreditation programme based on International Standards, ISO 17021-1 and ISO 13485 in June 2020.

This confers International equivalence to NABCB accredited certification bodies for OHSMS scheme and MDQMS scheme and certificates issued by such certification bodies to industry would be recognized worldwide. The direct beneficiary of this equivalence is the Indian Industry which is exporting products to various countries globally.

### World Accreditation Day Celebrations 2020

The World Accreditation Day (WAD) is celebrated on 9th June every year to highlight as well as promote the role

of accreditation in trade & economy. The theme for WAD 2020 as decided by the International Accreditation Forum (IAF) and the International Laboratory Accreditation Cooperation (ILAC) this year is "Accreditation: Improving Food Safety".

NABCB and NABL, the two accreditation boards of the Quality Council of India (QCI), organised a Webinar to commemorate the event, in which all relevant stakeholders participated.

The Chairperson FSSAI, Ms. Rita Teotia, was the Chief Guest and delivered the Inaugural Address in the WAD Webinar. She highlighted that "FSSAI has recognized the role of credible, competent accreditation for inputs in decision making. This is because NABCB and NABL have worked closely to support Government and Regulators to ensure that the data provided by accredited conformity assessment bodies is robust, reliable, trustworthy in decision making, compliance testing and standards setting. Accreditation also facilitates world trade and economic growth". She also mentioned about the different areas wherein FSSAI is working closely with NABCB and NABL which is enabling FSSAI to share the regulatory burden and helping in compliance monitoring using the services of the accredited conformity assessment bodies. In her address, she highlighted many areas including the need to institutionalize the virtual assessments.

The Secretary, D/o Food & Public Distribution, Mr. Sudhanshu Pandey was the Distinguished Guest of Honour in the Inaugural Session of the Webinar. He expressed that food safety is a right of all individuals of the country. He that accreditation has a very important role to play in the quality ecosystem, and urged QCI to mount a quality campaign to support it. He also highlighted the need for development of conformity assessment infrastructure and consumer empowerment in the country.

The Chairman QCI, Mr Adil Zainulbhai, in his Key Note address emphasized that accreditation is an important



**Ms. Rita Teotia, Chairperson, FSSAI**



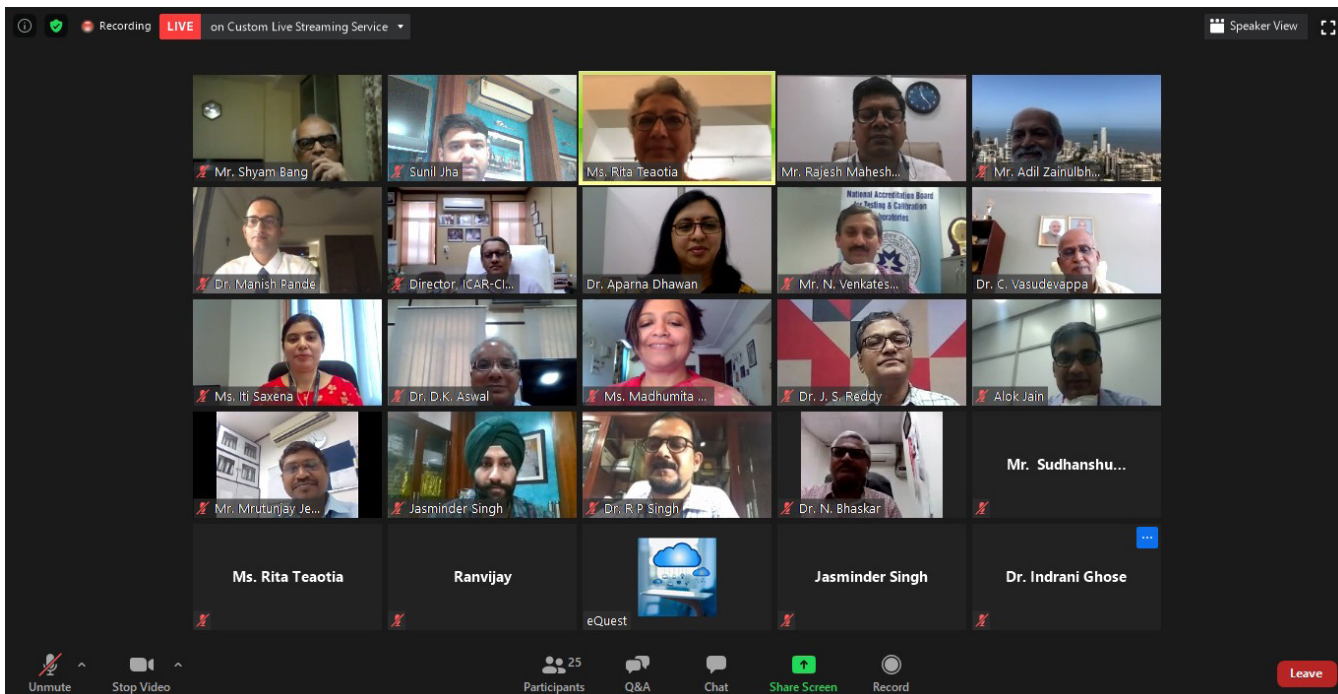
**Mr. Sudhanshu Pandey, Secretary (F&PD)**

tool to help improve quality, but the ultimate goal is to improve quality of product and services in food sector as well as other areas. He also urged the need to ramp up capability and capacity to help improve quality in food services in India, and requested all conformity assessment bodies to rise up, as the country's needs will increase in future and it is important to cater to them.

The Secretary General, QCI, Dr. R. P. Singh, speaking on the occasion highlighted the need for six-point programme for future: Scaling up conformity assessment system in different

and Rapid Alert System with all Regulators on one single e-platform.

The webinar had two technical sessions, the first session focussed on Regulator's perspective on food safety and was Chaired by Dr. D. K. Aswal, Director NPL and Chairman NABL. The second technical session, chaired by Mr. Shyam Bang, Chairman NABCB, focussed on Industry's Perspective on food safety. Eminent speakers from Government, Regulators and Industry spoke on some of the key areas relating to food sector. Action points were deliberated to look at path forward by



parts of country; encourage PPP model of FSSAI to work forward for "Saajha Nivesh, Saajha Vikas, Saajha Vishwas: Work in direction of Certified in India and accepted globally; Informal Market formalization. The other two points include initiating "Rashtriya Gunavatta Abhiyan" which will help in crowd sourcing to check quality issues in local market through double blinded system and to develop a robust Market Surveillance

speakers who were experts in their respective fields and both the accreditation boards will be working forward with industry and regulators to build in the quality campaign. Around 700 participants attended the webinar live, and more than 1500 persons viewed the programme during the day.

## Webinar on Traditional Community Healthcare Providers (TCHP)

benefits it can provide to the community where healthcare facilities are not readily available and shared several case studies underscoring the benefits of providing due recognition to TCHPs as legitimate Healthcare Providers.



NABCB organized a webinar on "Traditional Community Healthcare Providers: Assuring Competence through Accredited Certification" on 17th Aug 2020. Traditional Community Healthcare Providers (TCHPs), provide non-formal healthcare services based on their traditional knowledge using medicinal plants/herbs & local healthcare practices and are particularly prevalent in areas where mainstream healthcare services are not readily available or preferred. The webinar sought to provide a fresh perspective on the role of accreditation in assuring competence amongst the TCHPs in the country.

The Certification scheme for Traditional Community Healthcare Providers was established by the Project Analysis and Documentation Division (PADD) under QCI, is a voluntary third-party certification scheme which aims to provide accredited certification of TCHPs in accordance with the international standard ISO/IEC 17024 for assuring quality of competence, skill, knowledge and healthcare practices of TCHPs. NABCB is providing accreditation as per international standard

The webinar received a healthy response from the public with 380+ registering as attendees. It covered a host of topics ranging from details of the QCI's accredited certification scheme for TCHPs. NABCB accredited PrCB shared its journey in obtaining NABCB accreditation to run the scheme as per ISO/IEC 17024. Dr. Debjani Roy, NABCB assessor discussed on the impact on the livelihood and recognition of TCHPs, and the

The latter half of the webinar consisted of a panel discussion with panelists from various areas of expertise in the Traditional Healthcare field. The distinguished panel consisted of Dr. D.C. Katoch, Advisor, Department of AYUSH; Dr. T. Thiru Narayanan, an AYUSH Medicine Practitioner; Dr. Imlikumba, Medical Officer, NEIFM; Mr. Bejon Mishra, Founder, Consumer Online Foundation and Prof. Darlando Khathing, NECU. The panel discussion was moderated by Dr. Debjani Roy. The discussion covered a range of issues with regard to augmenting the preservation and growth of TCHPs in the Healthcare field. The last session of the panel discussion was a Q n A session with the attendees where the panelists answered the queries put forth.

The webinar came to a close with a concluding address by Dr. Aparna Dhawan, Joint Director, NABCB. Dr. Aparna highlighted the key takeaways from the webinar and provided a blueprint for the road ahead.

## NABCB Interaction with Assessors

The first Assessors' Conclave of NABCB for the year 2020 was held virtually on 28 and 29 August 2020. NABCB holds Assessors' Conclave to harmonize the assessment process, to

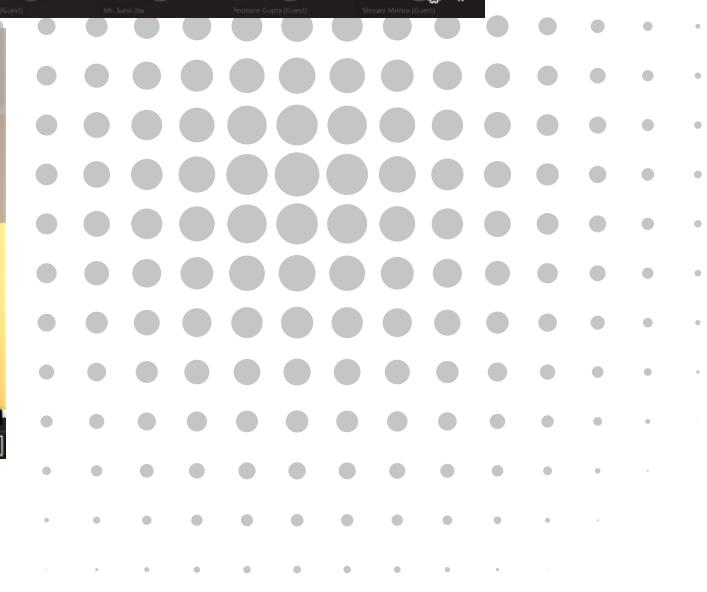
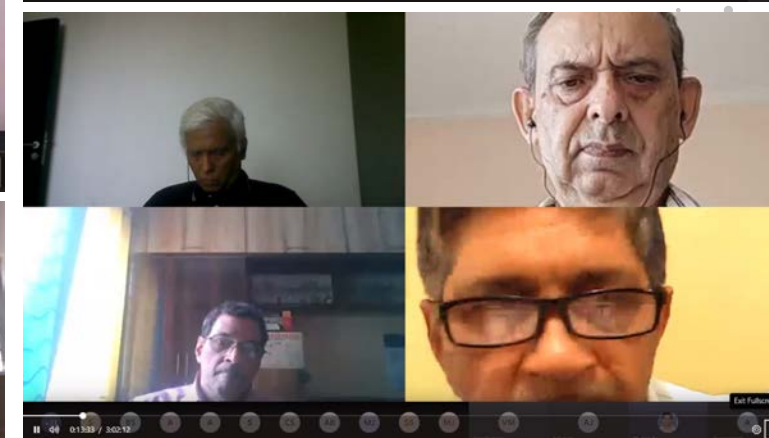
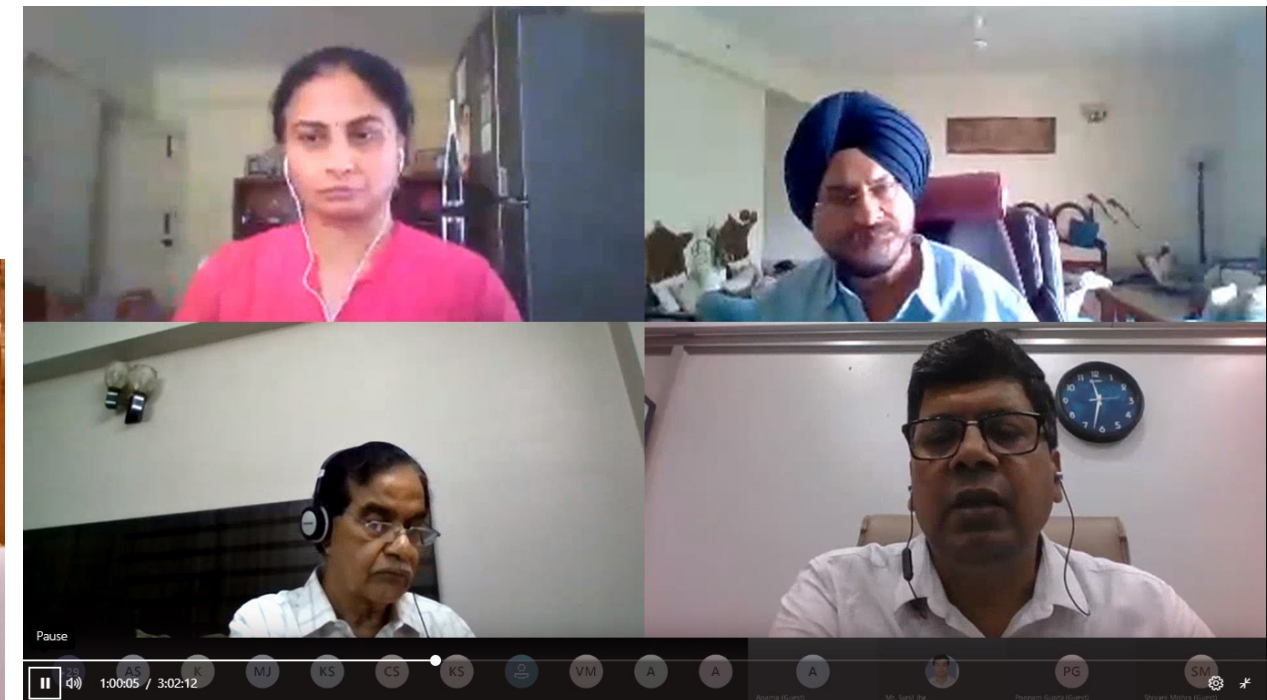
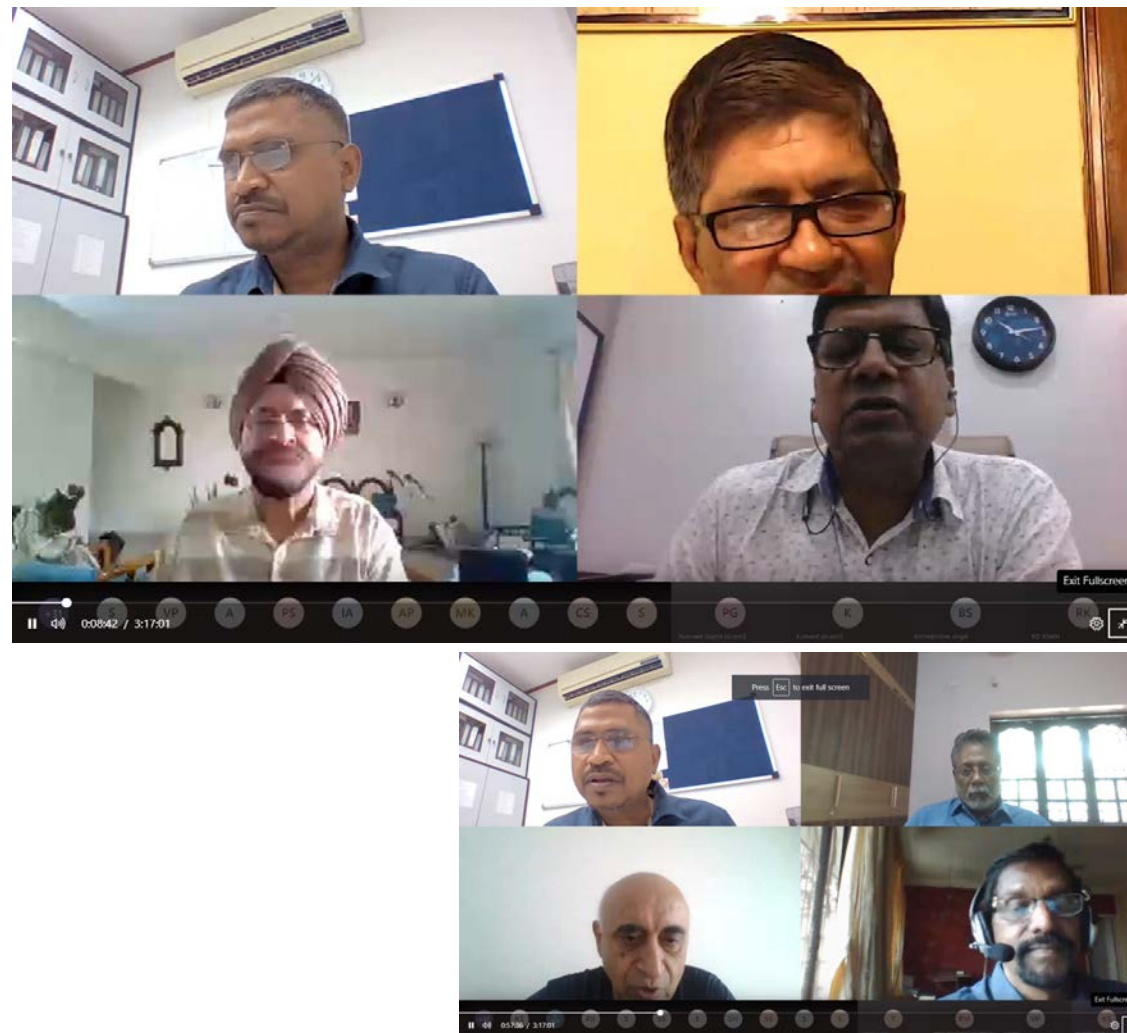
deliberate on specific issues and to provide information on new requirements / standards. The Conclave was attended by 48 assessors.

The first day of the Conclave was devoted to specific issues related to certification bodies. An update was provided to on various IAF/ISO/APAC documents and various changes in IAF MDs and implementation was discussed. Requirements of various schemes were discussed such as BCMS, ABMS, Halal Certification Scheme, MDQMS & ICMED Scheme requirements. A session was organized dedicated to discuss issues related to reporting writing, issues relating to assessment of certification bodies, changes in ISO 45001:2018.

The second day of the Conclave was focussed on issues related to Inspection bodies and validation and verification bodies. The

IB session was focussed to discuss related Changes in ILAC P15 document, experience and challenges of remote assessment, issues related to Assessment in IB. There were meaningful deliberations on scope, competence requirements of IBs. An Update on NABCB documents in lieu of new PNGRB regulations were also provided.

The second day of Conclave also had a session on the validation and verification body programme related issues. During the sessions assessors were updated about the steps undertaken to launch and execute the programme. Assessors were explained about the requirements of ICAO-CORSIA scheme and ISO/IEC 17029 standard.







# National Board for Quality Promotion



## Board Updates

JULY TO SEPTEMBER 2020

### Uplifting Business Operations through Digital Transformation: Building Resilient Workplace for Future Uncertainties

July 02, 2020

#### About the Topic

Staggered shifts | Labour shortages | Restrictions on the number of people working together at the same time | Extra disinfection required in assembly lines. These are just some of the ground realities of the new normal being faced by the manufacturers operating in the COVID-19 era. In times of uncertainty, being able to implement quick changes in the production, thus, is the key. COVID-19 crisis is likely to significantly accelerate the deployment of the much talked about topics such as Industry 4.0, IIoT, Cobots and other automation solutions etc. to adjust to the new operating principles.

The question raised by thinkers like Forbes is: "Given the absolute need for digital transformation at an accelerated rate, what can companies do to move now and move fast?"

#### This webinar had two most pertinent questions:

- How to start?
- How to implement?"

#### Objective & Key Takeaways

How digital solutions take care of health and safety measures to be introduced by MSMEs as they restart manufacturing operations

How IoT can be used to follow social distancing and other norms given by the Government

How MSMEs can use AI and RPA to run their operations smoothly

Know what's the difference between Cobots and robots and their significance in the post lockdown era

Learn how Collaborative Robots provide automatic Social Distancing benefits in Manufacturing

Democratized Automation - affordable for the MSME to enable "Make Safely in India"

No. of Participants: 95

### How the Risk Management and Management Systems helps organizations to manage the COVID-19 situation

Date - July 04, 2020

#### About the Topic

Most of the MSMEs have established and certified for a management system.

This program aimed to relook the established or proposed management system in line with the Risk Management (ISO 31000:2018) and the Management Systems' Risk-based approach towards managing the COVID-19 situations.

Participants learned about the concepts and practices of the risk management in accordance with ISO 31000:2018

#### Objective & Key Takeaways

- Understand the concept of ISO 31000

- Identify why it is important to identify and manage risks that impact on the achievement of objectives of the management systems
- Understand the need for an integrated approach to the management of process and operational risk
- Understand the risk management process and process tailored to the organisation processes
- Increased resiliency and flexibility of response to change on this COVID-19 situation

## Implementation of SA8000:2014 in the new normal and drive towards sustainability.

Date - July 31, 2020

### About the Topic

SA 8000:2014 is a measure of an organization's state of being mindful of the emerging social concerns and priorities of internal & external stakeholders (i.e. owners, management, employees, governmental & non-governmental organizations & community).

It is reflected in the organization's verifiable commitment to certain factors (which may or may not be tied directly to its processes) such as:

- Willing compliance with employment, health and hygiene, safety and environmental laws
- Respect for basic civil and human rights, and
- Betterment of community and surrounding.

### Objective & Key Takeaways

- Understanding the importance of SA 8000:2014
- Understanding its linkage with

- employee motivation
- Understanding of difference between Child labour & Adult worker
- Understanding of its long-term benefits in terms of business growth

No. of Participants: 120

## Demand-Driven MRP & Inventory Management for Improving Bottomline

Date - August 21, 2020

### About the Topic

Traditional MRPs were designed for supply side constraints and focused on making sure that we didn't have stock outs. However, the major reason for poor company performance is excess inventory. The Demand-Driven MRP is probably the only innovation done in decades to make MRP work in pull systems. It removes the shortcoming of standard MRP and MRP II, and allows the tools like inventory management to integrate extremely well within the software domain.

When flow increases, the inventory decreases within the system and this has a direct impact on Return on Investment (ROI). DDMRP works to reduce the overall lead time to satisfy the demand, by strategically decoupling long lead time items, leading to a much lesser inventory & also reducing stock outs. This has a double impact in profit by making sure that there are no stock out and much reduced lead time to supply gives a distinct advantage on pricing.

### Objective & Key Takeaways

To help participants understand the significance of Demand-Driven Material Requirement Planning (DDMRP) for effective inventory management and profitability

- Understand the importance of DDMRP in profitability

- Understand the key causes of inventory build-up
- Learn tools for efficient Material Requirement Planning and dynamic inventory levels
- Learn how to convert existing ERP to handle DDMRP

## Complex Problem Solving - Survival Skills during and post Covid-19: The 12-Steps Approach

Date - August 28, 2020

### About the Topic

Complex Problem Solving has been identified as most sought-after skills in 2020 by World Economic Forum.

Japanese Union of Scientists and Engineers (JUSE) and many other institutions have adopted 12-steps problem-solving approach. This 12-steps approach has been giving tremendous results by improving Quality, Safety, Cost, Delivery, Morale & Costs. Organisations and individuals have been benefitted with this systematic and well proven approach. It has become more relevant and important during and post Covid-19.

### Objective & Key Takeaways

To bring awareness, understanding and practice of 12-steps approach with hands-on practice on various Tools and Techniques like Brain Storming, Flow Charts, Pareto Analysis, Cause & Effect Diagram, Why-Why Analysis, Kaizens, Poka-Yoke, Check-Sheets, Stratification, Control Charts, Histograms, Scatter Diagrams etc.

After attending the program, participants were able to

- Understand 12-Steps approach and its systematic application
- Understand basic and advanced QC Tools and apply these tools in their projects
- Plan, Do, Check and Act (PDCA) for

Project Implementation

- Understand importance of communication within and outside team
- Make presentation and strengthen the team building
- Improve Safety, Quality, Cost, Delivery and Morale

## Collaborative Robots (COBOTS) & Automated Guided Vehicles (AGVs): Ubiquitous Disruptive Technologies for New Age Smart Factory

Date - August 29, 2020

### About the Topic

India as a nation has interdisciplinary ingredients rich in culture, skilled youth, huge natural resources, frugal innovation, adoption of best manufacturing practices, growing penetration of digital transformation. The engineering sector is the largest of the industrial sectors in India. The Indian manufacturing industry has acknowledged the importance of Industry 4.0 and has now made it a part of its long-term business strategy. Industrial companies in India are digitizing their essential functions with a focus on achieving operational efficiencies, cost control and revenue growth.

The Indian Economy is Gearing & Moving ahead Towards Self-Reliant India which is called as Atmanirbhar Bharat that prompts Made-in-India alternatives for foreign products.

There is a paradigm shift from conventional manufacturing to digitized manufacturing transformation with the advent of disruptive new-age technologies such as Collaborative Robots (Cobots) & Automated Guided Vehicles (AGVs). Cobots and AGVs are gaining rich importance in India to emphasize the importance of Industry

4.0. These technologies have enhanced the product quality, productivity, manufacturing efficiency and also improve the domestic and global value chain. The online training will have the footprints starting with the Industrial revolutions, then special focus of standardization of automation solution emphasizing on the cobots and AGVs. The training had modules on basic anatomy of Cobots and AGVs & demonstrated the potential of Cobots and AGV in Indian Industries.

### Objective & Key Takeaways

- Sensitize the importance of standardization of automation solution in manufacturing industries
- Showcase the importance of lean manufacturing integrated with industry 4.0
- Discuss the significance of digital manufacturing transformation required in manufacturing industries
- Emphasize the importance of Industry 4.0 in Indian Industries
- Create an awareness of Industry 4.0 with special focus on cobots and autonomous guided vehicles
- Demonstrate the capabilities of cobots and automated guided vehicles in manufacturing industries
- Provide an overview on Digital MSME & MSME Technology Centres in India

Opportunities and scope for digital transformations on Industry 4.0 in manufacturing process in India

- Strategize the importance of Cobots and Automated Guided Vehicles in Indian Industries
- Case studies of Indian industries (MSMEs & large enterprises) implemented the Cobots and Automated guided vehicles
- Talent development in terms of upskilling and reskilling on the technology front
- Scope for employment opportunities and research in current scenario

## TL 9000 – Telecommunication QMS (Hardware, Software and Services)

Date - August 31, 2020

### About the Topic

TIA Business Performance Community (formerly QuEST Forum) developed the TL 9000 Quality Management System (QMS) to meet the supply chain quality requirements of the global communications industry.

The purpose of TL 9000 was to define the unique communications quality system requirements for design, development, production, delivery, and service. In addition, it specifies measurements for companies to help evaluate the effectiveness of quality implementation and improvement programs.

This program was meant to create an awareness on the requirements of Telecommunication industry specific Quality Management System requirements.

### Objective & Key Takeaways

This webinar helped the Telecommunication industries to understand the Quality System Requirements made by the industry and how it will support them in Make In India / Atmanirbhar Bharat Program and how can they compete with international players.

- Understand the TL 9000 Certification Process
- Introduction about TL 9000 Requirements
- Explain how the additional requirements can be interpreted and implemented

No. of Participants: 150

# BEST PRACTICES FOLLOWED DURING/ AFTER ENMS IMPLEMENTATION AT CCI-TANDUR CEMENT FACTORY

## GIVE YOUR PROFITS A POWER BOOST with the Strategic Planning & 'Triple Triangle Growth' Model used by the World's Best Regarded Companies

Date - September 04, 2020

### About the Topic

All Organizations need a vision and a long-term objective for value addition for all stakeholders. There must be a defined process for this. This program will focus on how to plan the long-term business plan and plan its execution, with objective of developing/ sustaining their competitive advantage in industry. Session cited illustrations to explain factors that led to spiralling growth of some organizations, whereas others failed. The participants will be able to ask the right questions (penetrating, challenging, open ended and

analytical oriented) to rightfully engage their internal teams. They will be able to correctly apply SWOT, plan for design & execution of Long- term Business plan; and understand difference between change management and changed Leadership for sustaining competitive advantage

### Objective & Key Takeaways

- Million-dollar 'McKinsey approach' to escalate your profits
- 3 must-know secrets to demolish speed bumps in your improvement drives
- Powerful business tools to future-proof your business against fluctuations
- Productivity hacks to synergize, elevate & maximize your business processes
- 5 highly effective methods to energize your team to lead, deploy and sustain
- Key insights to lead the business transformation of your Organization

No. of Participants: 90

Cement Corporation of India Limited (CCI), incorporated on 18th January 1965 as a Government of India Company, operates three units with a total installed capacity of 14.46 lakh MT per annum. Tandur Cement Factory, with an installed capacity of 10,00,000 MT per annum through dry process, is located at 14 km from Tandur railway station and 120 km from Hyderabad by road. Currently, it manufactures Portland Pozzolana Cement (PPC) & Ordinary Portland Cement (OPC) of 43, 53 and 53-S (special grade). The factory covers 211.92 acres of land with 1925.97 acres of mining area, 173.28 acres for railway siding, 64.29 acres for township and 14.92 acres for other activities.

The organization holds license for manufacture of OPC (Grade 43, 53 & 53-S) according to IS 269:2015 and PPC according to IS 1489 (Part 1):2015.

CCI-Tandur is a Designated consumer under PAT Cycle-III. MOU for the implementation of ISO 50001:2018 Energy

Management System (EnMS) Standard was signed by our Corporate Office, New Delhi on behalf of CCI-Tandur & BEE, New Delhi on 18.02.2019. BEE had sent a letter stating that Quality Council of India (QCI) will be doing the implementation process.

QCI was appointed the implementation & monitoring agency for this project. QCI took in-house training classes and also trained our team members for EnMS implementation & meeting the EnMS Requirements.

The status report of the documents for implementation of ISO 50001:2018 has been processed and approved by the Competent Authority. The energy policy has been defined and displayed in the plant & other buildings. The organization implemented and controlled the processes, related to its SEUs. The organization considered energy performance improvement opportunities and operational control in the design of new and renovated facilities, equipment, system

and energy using process that has a significant input on energy performance evaluation and the EnMS and other requirements related to energy efficiency, energy use and energy consumption.

The system has been established and steps have been taken for determination of continual energy performance improvement.

Improvement in EnMS has been achieved by replacing the existing Cooler Fan, Pre-Heater Fans, Coal Mill Fans with High Energy Efficient Fans, Installation of VFDs for 04 Nos. Cooler Fans, MFC Blower. Conventional burner was replaced with Multi Channel burner and all the conventional lights were also replaced with highly efficient LED Lights throughout the factory and in the colony area.

### Achieved Results After Implementation of ISO 50001:2018 by the end of 31<sup>st</sup> March'2020

Name of the Company	Product Produced	Unit (MT/MU/any Other)	Cost Savings Per Unit	Annual Average Production in MT/MU	Annual Saving Potential to the Company in Lakhs (Approx.)
Cement Corporation of India Ltd. Tandur	Cement	MT	25.19	317560 MT	80 Lakhs

# IMPLEMENTING ISO 50001 ENERGY MANAGEMENT SYSTEM (ENMS) AT FACT - TRACKING THE TRANSFORMATION

Globally nations, corporations and businesses are focusing in putting up a comprehensive framework of energy management measures due to the crucial need to save energy and reduce greenhouse gas emissions. The renewed policy focus and determinants to improve an enterprise's energy performance sustainably, imposes the requirement to establish and implement standardized process-based energy management structure. The ISO 50001 Energy Management System (EnMS) standard published on 15th June 2011 is a globally accepted framework for managing energy, and creating a viable method for establishing policy, program, and a culture of energy and asset management which is accurate, repeatable, timely, and very importantly, cost effective in financial and environmental aspects.

The present pandemic also reiterates the critical need for having management strategies for enterprises to increase energy efficiency, and to plan a green deal. This tracking the transformation to ISO 50001:2018 certification by FACT is a brief on the learning's, niggling challenges faced, relied inherent strengths & skills, support platforms that bridged the transition and gradual integration of the system to work.

## FACT – Pioneers in Progress

Agriculture has always been the mainstay of our country & civilization. Even though agrarian by culture, the cultivable land had been losing its fertility through long years of repeated cultivation, dawned too late and the focus on need of fertilizers were driven home by the after effects of the Second World War which severed the traditional sources of import of food grains aggravating the hunger problem of the masses. The farsighted administrators of the erstwhile Travancore State, King of Travancore, Sri Chitra Thirunal and his Diwan Dr. C.P. Ramaswamy Iyer were the visionaries who started the South India's tryst with chemical fertilisers and food reliance



FACT wood gasification plant, the first of its kind in the world

with the incorporation of The Fertilisers and Chemicals Travancore Ltd. (FACT) the first large scale chemical factory for fertilisers in India on 22-09-1943, on the banks of river Periyar at Udyogamandal, Eloor.

FACT started commercial production on 26-06-1947 just before independence, with a 75 TPD Ammonia & 150 TPD Ammonium Sulphate Plant. The unique feat in the ammonia production was the world's first wood gasification process plant for production of ammonia sourced from wood cut from forest.

The journey of FACT had just began. FACT became a Kerala State Public Sector Enterprise on 15th August 1960 and on 21st November 1962, the Government of India became the major shareholder. In the momentous journey, FACT has many unique records and landmarks like being the first major Nitrogenous fertilizer unit & the first Phosphate fertilizer manufacturer in India. FACT also transformed in size and shape over the decades with the completion of the 2nd stage expansion in 1962, the 3rd stage of expansion in 1965, the 4th stage expansion in 1970, which saw the establishment of another production unit in Ambalamedu, the FACT Cochin Division. FACT also saw

the setting up of FACT Engineering and Design Organisation (FEDO) and FACT Engineering Works (FEW), the Marketing division covering entire South India. Vide diversification plans from the traditional field of Fertilisers and Chemicals, 50000 TPA Caprolactam Plant was commissioned at Udyogamandal in 1990. Today FACT is a 2500 crore turnover public sector with a chequered history.

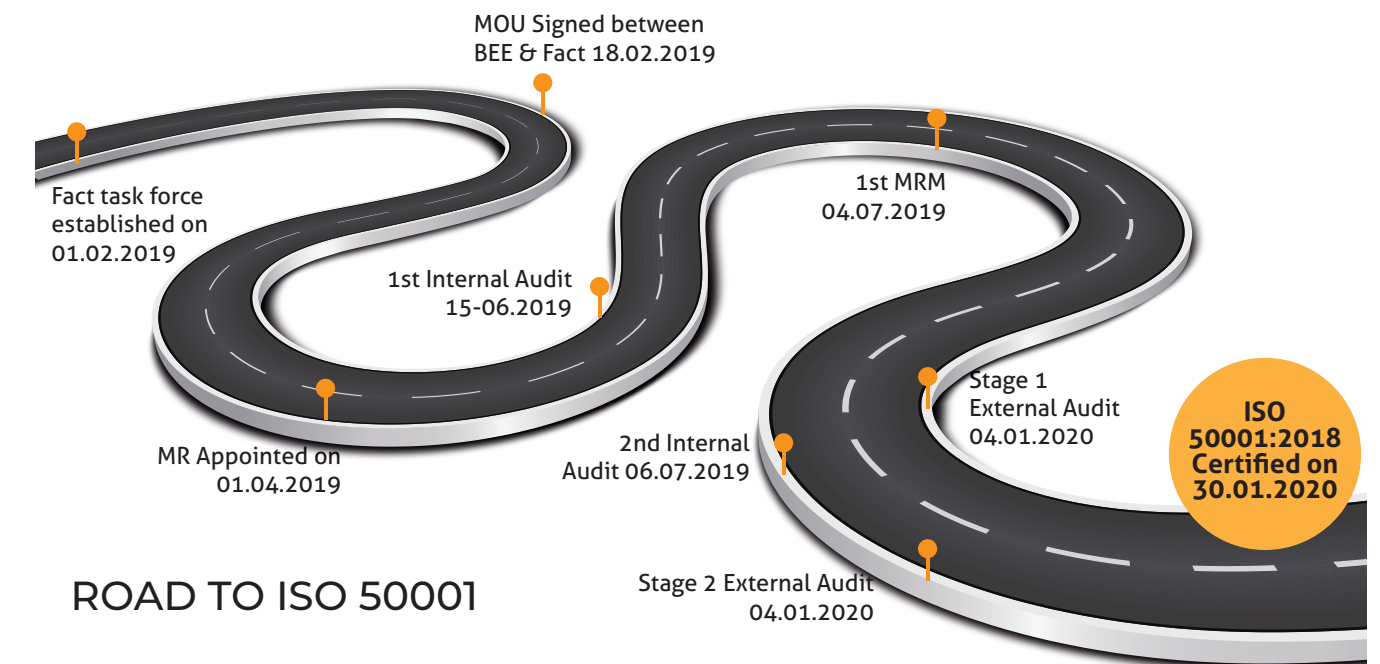
FACT always had given importance to HSE & energy management in the work ethos and corporate philosophy. This led FACT to establish the first Effluent Treatment Plant in Kerala's industrial front in the seventies, has the oldest safety department constituted in 1948 and on the energy front, has a unique distinction of producing ammonia from solid (wood), liquid (naphtha) & gas (RLNG-Regassified Liquid Natural Gas). FACT also is the first industrial unit in Kerala to switchover to Natural gas after availability of Natural Gas in the RLNG terminal at Kochi. FACT Udyogamandal Complex was certified already for ISO 9001:2015 & ISO 14001:2015.

In fact, the 900 TPD Ammonia Plant at Udyogamandal, commissioned in 1998 with no urea downstream plant having a good energy efficient profile also has

the unique distinction of the country's first ever online feed change over from Naphtha to RLNG on 05.10.2013.

## Commencement of the ISO 50001:2018 Journey

Reducing energy and improving energy efficiency of the products was the deliverable, focused by FACT and always was a prime mover in its business concerns. Hence FACT Udyogamandal Complex had ISO 50001 included in the draft MoU between FACT and Ministry of Fertilisers. Being an ISO 9001 and 14001 certified company, FACT headed towards achieving the next milestone of ISO 50001 for Energy Management Systems. In the meantime, Bureau of Energy Efficiency (BEE) selected FACT-Udyogamandal Complex (Designated Consumer) as one of the companies of the two firms from the fertiliser public sector, for the pilot project for the implementation of ISO 50001:2018 in India. There were total ten companies selected for the Pilot Project from different sectors. The MOU with BEE was signed on 18th February, 2019 at The India Habitat Center, New Delhi following



which M/s Quality Council of India (QCI) was appointed the Implementation & Monitoring Agency by BEE for FACT-UC.

As part of the agreement a Steering Committee, ISO Project team and a project Nodal officer for assisting the QCI and BEE for implementation of ISO 50001 was needed and a Task Force was constituted for achieving ISO 50001:2018.

The task force ensured the objective of ISO 50001:2018 certification for FACT-UC Ammonia Complex on 30th January 2020 without any non-conformity in the possible shortest time. Along with, 14 of the taskforce members also became accredited internal auditors certified by QCI successfully.

FACT-UC highlighted this, of ISO 50001:2018 certification achievement in the Bureau of Energy Efficiency (BEE), Government of India, Ministry of Power in the one day workshop on 19th Feb 2020 at Vizag, Andhra Pradesh to facilitate implementation of ISO 50001 within the high energy intensive industries of India, to sensitize and spread awareness among the stakeholders (PAT DCs and SDA's officials).

## The Transformation Journey

FACT constituted the task force on 1st February 2019 with 16 members for achieving the ISO 50001 certification. MR was appointed on 1st April 2019. QCI visited FACT in March and commenced the training activities with

documentation of ISO. The opening meeting and ISO 50001 awareness training by QCI was done on 28th & 29th March 2019. Energy Policy, Energy Objectives & Targets were established. Training & awareness among Energy Management Team for ISO 50001 implementation, documentation requirements, verification of determined SEU's & issues was done

by QCI during the visit on 26th & 27th April 2019. Documentation review was done and inputs for improving the same was given by QCI during the visit on 16th to 18th May 2019. QCI gave Internal Auditors training to 14 members and conducted the 1st Internal Audit between 12th & 15th June 2019. The 1st MRM and the second Internal Audit

was conducted between 04th July & 6th July 2019. FACT identified the Certifying Body by issuing the work order on 24.10.2019. The Stage 1 Audit was conducted on 3rd & 4th January 2020 followed by the Stage 2 Audit on 27th & 28th January 2020 culminating in the certification for ISO 50001:2018 on 30th January 2020.



## Benefits, Best Practices, Energy Savings

The general benefits of ISO 50001 in FACT include the following:

- FACT developed a policy for more efficient use of energy
- Energy efficiency targets and objectives were established
- The data was used to better understand and make decisions concerning energy use and consumption
- The results of energy efficiency improvements are measurable
- Continual improvement of the energy management system is possible
- EnMS creates awareness and a commitment about energy (i.e. consumption, use, efficiency, renewable sources) within FACT.
- ISO 50001-based EnMS allows FACT to gain credible external visibility of energy saving actions there

Plan	Do	Check	Act
Task force for ISO implementation was constituted in addition to the existing energy management cell	Awareness was given by distribution of ISO 50001:2018 study material	Monitoring, measurement, evaluation & reports generated	Process & audit Non – conformity Corrective action taken
Scope was fixed as manufacture of ammonia & synthesis gas	Posters were displayed at strategic locations	Legal register was established	For continual improvement actions taken
Boundary was fixed as ammonia complex	Awareness training By QCI/FACT Team	Evaluation of legal & other requirements was done & compliance register established	Benefits of ISO
Issues and needs & expectations of interested parties was listed	Internal auditors training by QCI	Internal audit was conducted	
<a href="#">Energy Policy</a> was established	Suggestions scheme to receive inputs from employees on energy saving measures was implemented	Management review done	
Energy review was conducted	Apex manual & controlling procedure inline with ISO 50001:2018 standard established		
Energy baseline/energy performance indicators established	All ISO documents were uploaded in fact intranet for access to all employees		
Objectives & targets fixed	Operational control, responsibility for all SEU's		
Action plan for data collection stipulated	Conditions in work orders was revised to include use of energy efficient equipments/services		
	Codes for electrical items purchase was revised to incorporate bee labelled items		



Table: PDCA model in FACT-UC Ammonia Complex

by reducing energy costs and improving contribution.

- The benefits of ISO implementation include forming methods to monitor, assess and improve energy having an estimated energy saving potential of 0.799 MMBTU/MT Ammonia

ISO 50001:2018 also integrated in some best practices like the Suggestion scheme in which suggestions are initiated from the grass root level, the walkthrough audit conducted by various disciplines, the revision of the work orders to include the energy efficient workmanship, materials, equipment's, services etc. for all works involving contract works too, revision of the purchase procedure to opt for BEE star rated equipment etc. being a few to list.

With an extensive evaluation, 337 Energy uses were identified of which 41 SEUs (Significant Energy Uses) were listed. All of them were monitored against the established Baselines. Thirteen EnPI's (Energy performance Indicators) were recognized to check for deviations from the normal. FACT selected four critical deviations comprising of, the Steam flow to Process Air compressor, Refrigeration Compressor and two Cooling water pumps' Turbines.

Subsequently action plan was drawn on the basis of the well-established proposed energy saving of 0.799 MMBTU / MT of Ammonia i.e. a saving of Rs. 410 / MT of Ammonia. Considering the production plan of 267600 MT of Ammonia during 2020-21 FY it is estimated to contribute Rs. 1097 Lakhs to the company

### Achieved/Projected Results After Implementation of ISO 5001:2018

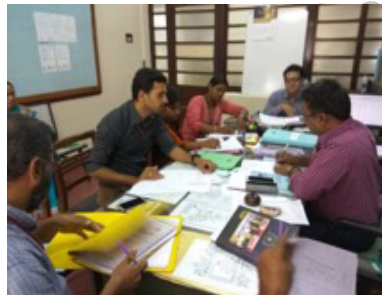
Name of the Company	Product Produced	Unit (MT/MU/ any Other)	Cost Savings Per Unit	Annual Average Production in MT/MU	Annual Saving Potential to the Company in Lakhs (Approx.)
THE FERTILISERS AND CHEMICALS TRAVANCORE LIMITED	AMMONIA	MT	Rs. 410	267600 MT	1097

### ISO 5001:2018 in FACT- A Journey, not a Destination

Any journey has many important memoirs and it would be not fair enough to highlight the association FACT had with Quality Council of India. QCI/

NBQP representatives were the guides, mentors, friends who travelled with the team in the journey to certification, clarifying doubts and guiding us in the journey showing us new perspectives. FACT is honoured to associate with QCI & BEE in the pursuit to improve energy management system. ISO 5001:2018 is in itself a journey to benchmark high

energy performance achievements by systematic planning, checking and acting on reducing the deviance. The first step of the ISO 5001:2018 certification has been covered and never-ending journey in pursuit of energy management and improvement has begun.





# THE BEACON OF SUSTAINABILITY IN HOSPITALITY – THE ASHOK, NEW DELHI

Vijay Dutt, General Manager – The Ashok, New Delhi

Sustainability has evolved from being a mere buzzword to being one of most indispensable aspects, a clarion call, in the world that we live in. Businesses and society have understood the criticality of adopting sustainable approaches to operations and have been consistently putting in efforts to actualize the same. Likewise, through many decades, hoteliers and the hospitality industry also, have realized the business criticality of sustainability as it relates to hotel development and operations.

The hospitality industry has historically been blamed for manifesting adverse environmental

impact. Be it through humongous energy and water consumption, use of non-perishable items and mammoth solid and hazardous waste creation. Hotels guzzle down tons of energy for their HVAC operations, lighting, fuel, and other power needs.

The Recent advancements in technology, widespread use of renewable sources of energy (solar, geothermal, wind, water etc.) have improved the economics by leveraging these kinds of alternative methods. On the social front, there has been a remarkable shift in the recent times, as demonstrated by

Corporate Social Responsibility (CSR) programs, and a move towards green buildings for new development projects.

## The Cost Factor

The cost factor always takes the priority seat and the reduction of operating costs acts as a compelling business incentive for hoteliers. Various cost reduction and efficiency management strategies can be achieved if hoteliers apply sustainable operating procedures and implement emerging environment-friendly technologies. Today, hotels are actively adopting the three Rs, i.e. – reduce consumption, reuse items, and recycle waste. As businesses and industries around the world has severely been impacted by the COVID 19 pandemic, the need for sustainable solutions has attained prime importance.

## Governing affairs

Current environmental regulations targeted toward the hotel sector are largely focused on facility operations such as water management, hazardous materials handling, and environmental health and safety. However, a wide range of present and future legislative activities are centered on sustainable hotel design, construction methods, and operational approaches.

## The Brand Equity

Most major hotel brands have incorporated some level of sustainability platform into their brand definition. Several brands have been repositioned to cater to a younger generation of more environmentally and socially active customers.

How the novel Coronavirus has impacted the Industry had made us all realize that there is significant work that needs to be done to make the hospitality industry an economically sustainable sector and insulate it from any other such major crisis. It can prove to be daunting, to say the least. But the truth remains that no matter what, every measure, every step

taken to reduce carbon footprint at every level of the industry, counts and is in fact very crucial.

We, at The Ashok, New Delhi, have always viewed sustainability as a topmost priority. We recently received an ISO 50001:2018 Energy Management System (EnMS) certification for managing our hotel's energy requirement efficiently.

The roots of the hotel dates back to almost 6 decades. It was only this land on which the hotel was built under the able mentorship of Hon'ble first Prime Minister of India, Shri. Jawaharlal Nehru. The Ashok was designed by architect E.B. Doctor. The architectural style is an Indo-Modernist hallmark and the work was completed in 1956. Since then, the Ashok has been hosting world leaders and distinguished dignitaries from around the world. The hotel derives its name from The Great emperor Ashok and is ITDC's flagship property.

The Ashok has 550 guest rooms and is also the home to the largest pillar-less convention hall nestled in the heart of New Delhi. The Ashok, New Delhi has envisaged all the modern-day amenities which a 5-star deluxe property should have.

By design, the hotel's landscape significantly reduces heat impact and offers a cooler microclimate. On-site sewage management and reuse of treated wastewater for cooling towers and landscaping have enabled the hotel to achieve a zero-discharge status. Rainwater is recharged back into the ground with the help of recharge pits. Waste management and treatment are also in place, and all the kitchen waste is treated through on-site composting. Chiller and lighting upgrades have been carried out, and controls have been installed in guest rooms to bring down annual energy costs. Further, retrofits and solar PV systems have been installed for overall energy savings.

**As per the directions by Quality Council of India (QCI), The Ashok, New Delhi had adopted the following practices to boost sustainability in its property:**

- Training and development sessions by QCI & BEE to the management & staff, creating awareness about the certifications and its meanings.
- The Formation of the EnMS team and the nomination of MR (Management Representative) for making roadmap to achieve the target of ISO 50001:2018 certification to the Hotel.
- Pre- and post-implementation energy data comparison & identification and finalization of energy planning, energy review, energy baseline, energy performance indicators, energy objectives, energy targets and energy management action plans etc.
- Identification of OCPs and implementing them, conducting Survey for different activities and carrying out the Gap Analysis.
- The Identification and finalization of energy planning and various other energy indicators.
- Performing review of the performance and measurement and preparation of energy management system objective and its target and directions given to the employees for routine tracking, control and monitoring the same.
- The hotel also has put in place various energy tracking software for continuous monitoring.
- The hotel also conducts regular internal audits to ensure smooth working.
- Conduct of internal auditor training and assist internal auditor in conducting internal audits, Management review and taking corrective actions for non-conformities.

The certification received is the ISO 50001:2018. It is an international energy management and efficiency improvement standard awarded to organizations who ensure that energy spending is actively managed, emissions

are reduced and there is an awareness about the importance of sustainable energy management among the employees.

The Ashok Hotel epitomizes heritage and grandeur, with sustainability embedded at its very core. The hotel was built in an era when sustainability was an inherent construction practice, and the hotel continues to live by it, even today. The application of the best practices to stay true to all of the principles of environmental protection and also spreading the message that efficient

energy management is the only way to make sure that your business stays sustainable in the long run.

In 2017, The Ashok Hotel, New Delhi became the first government-owned existing commercial building in India to be LEED Gold certified under the LEED rating system, and also the oldest hotel property in Asia to earn any level of LEED certification.

'Sustainable hospitality should not translate into 'one company putting its best foot forward given the current

market scenario. It rather means an entire Industry that comes together, stands together to face environmental & societal challenges by exploring ideas, solutions, and strategies on how to develop future hotels and how to manage operations sustainably.'

**Potential savings achieved / to be achieved by the unit through identification & monitoring of SEUs under EnMS by end of Mar 31, 2020/Dec 31, 2020.**

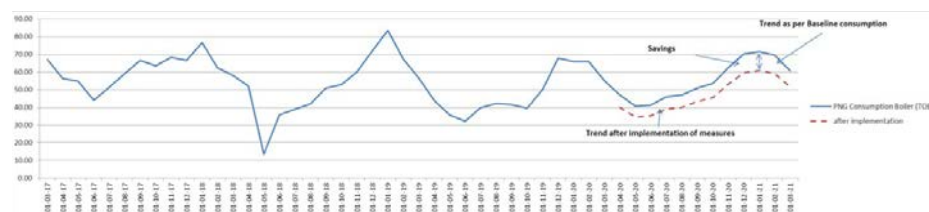


# AIR INDIA: A STEP FORWARD IN AREA OF SUSTAINABILITY AND QUALITY IN AVIATION

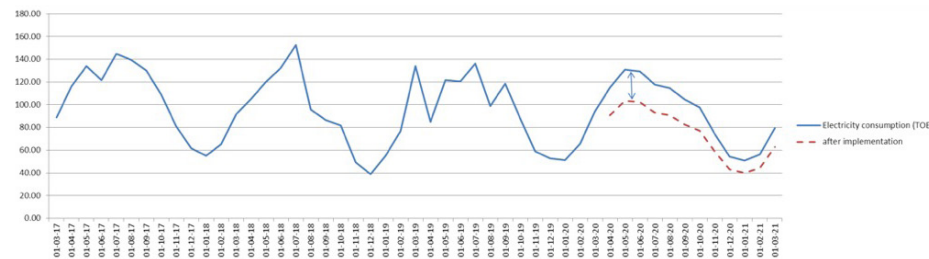
Specific Energy Consumption Trend from Baseline to Target Year (Estimated)



1) Potential saving in PNG Consumption



2) Potential saving in Electricity Consumption



Air India Ltd. is the national airline of India with 127 aircraft. Air India Ltd. is a public sector company formed after the merger of erstwhile Air India and erstwhile Indian Airlines. It has a fleet of varied type of aircraft consisting of the latest state of the art Boeing 787 Dreamliner, Boeing 777, and Boeing 747 aircraft for international operations and Airbus A319, A320, A320-neo and A321 aircraft for domestic operations.

Air India has well defined core values such as caring for passengers, integrity with intellectual honesty, openness, fairness & trust and commitment to excellence in safety and environmental sustainability. Air India is focused on the environmental policy of its operations thus, it is beneficial both economically

and environmentally. Air India has been a pioneer on climate and environmental protection issues and is a role model for the Indian aviation industry.

Air India is the first airline in India to establish an Environment Management System (EMS). The EMS is responsible for maintaining data and information pertaining to fuel consumption, carbon emissions, energy demand, etc. and developing future action plans to reduce the carbon footprint of the airline and identify and comply with legal and other regulatory obligations. The EMS permits Air India to determine the significance of its environmental aspects and set objectives and targets. It also provides a framework for monitoring requirements, internal assessments and management review.

In July 2015, Air India successfully completed Stage I assessment of the IATA Environment Assessment Program (IEnvA). The IEnvA program uses environmental standards and recommended practices developed specifically for the aviation sector by a joint team of environmental experts from within and outside the industry. These environmental standards are based on recognized environmental management system principles, such as ISO 14001. Assessments are conducted by accredited independent organizations with competencies in aviation and environmental auditing.

**Air India also focusses on aspect of environmental sustainability which helps it reduce the fuel consumption.**



**The fuel efficiency and Greenhouse gas reductions have been contributed by the following measures:**

- Additional attention to planning
- High accuracy of the flight planning system and in the execution of the flights
- Increased situational awareness
- Crew discipline to follow the flight plan
- Availability of appropriate analytical tools and statistics
- Adequate training to pilots and other operational personnel
- A feedback mechanism to inform employees as airline policy
- Setting efficiency targets and measurement of performance data within specified timelines

In addition to same, Air India has also introduced new aircrafts with technology to save fuel.

Air India introduced the "Boeing 787 Dreamliner" into its fleet and has 27 Boeing 787 aircrafts. The 787 family provides airline an unmatched fuel efficiency, resulting in exceptional environmental performance. The revolutionary design of these aircrafts made up of composite materials make up 50% of the primary structure. Its wings, tail, nose and flight deck windows have all been engineered for the maximum aerodynamic efficiency, reducing fuel burn. Advances in engine technology is the biggest contributor to overall fuel efficiency improvements on the Dreamliner. The 787 features new engines from General Electric that represent nearly two generations jump in technology.

The Boeing 787 airplane is manufactured using fewer hazardous materials, consumes 20% less fuel and produces 20% fewer CO2 emissions. The 787 is also quieter both inside and out. And, at the end of the airplane's service life, the materials used for the 787 are recyclable. The 787 Dreamliner, indeed, offers features to match Air India's dream of becoming an Energy Efficient and

Environmentally Sustainable Airline.

Air India also introduced the new fleet or aircrafts Airbus A320 Neo which has cutting-edge aero-engine which sets new standards for noise reduction to extend that the noise footprint is reduced by half. The next generation engines have 15% less fuel, reducing carbon dioxide emissions accordingly. Nitrogen oxide emissions are even reduced by 22% thanks to a new combustion chamber, the TAPS II (Twin-Annular, Pre-Mixing Swirler).

**Energy conservation Methods**

The Air India Environment Management Systems runs the companywide Energy Conservation program and sets targets and actions for all departments. Air India has adopted an integrated approach to fuel savings which covers every phase of flight, from flight planning to the flight phase and on the ground.

In addition, Air India has also moved forward to respect Environmental Sustainability for the year 2019 by following way:

**EU-ETS**

Air India implemented EU-ETS scheme and in March 2020, submitted its Emissions Report and surrendered the carbon credits due to emissions from intra-Europe flights.

**DGCA ENVIRONMENT REPORT**

Air India Environment Management Systems submitted Annual Carbon Footprint reports from ATF emissions to comply with DGCA environment Circular on climate change initiatives and local air quality monitoring in civil aviation dated 5th August 2015 for all the three AOP's Air India, Alliance Air and Air India Express.

**CORSIA**

The Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) was adopted at the 39th session of the ICAO Assembly in 2016. The ICAO Council approved this adoption of a global market-based measure scheme to address CO2 emissions from international aviation on 27th June 2018. The aim is to address any annual increase in total CO2 emissions from international civil aviation above 2020 levels and contribute to the industry's commitment to carbon neutral growth from 2020. This market-based measure was adopted based on ICAO's aspirational goal of Carbon Neutral Growth beyond 2020 levels.

The scheme, which aims to cap net emissions from 2020, starts with a pilot phase in 2021 but Air India and its subsidiary Air India Express with annual CO2 emissions above 10,000 tonnes will have to measure and report their emissions during 2019 and 2020 so as to establish a baseline.

CORSIA scheme has mainly two design elements, viz., Monitoring, Reporting & Verification (MRV) and Offsetting. MRV is a system to capture fuel consumptions from international operations and to calculate the carbon emissions thereon for reporting to DGCA, India annually. Whereas, in offsetting it is required to offset carbon emissions from its international operations which is due to increase in emissions levels compared to the baseline emissions.

The CORSIA verification pertaining to international flights of Air India and its subsidiary Air India Express covering the period 1st January 2019 to 31st December 2019 was conducted in the month of February - March 2020 by NABCB accredited verification body M/s TUV India Pvt. Ltd a DGCA accredited verifier with oversight by DGCA. The assessment was observed by officials from DGCA and NABCB, QCI.

**AIR INDIA HAS ALSO TAKEN ENVIRONMENTAL MEASURES WHICH INCLUDE:**

- Ban on Single use Plastics in all Air India Flights
- Tree Plantation Programs
  - Environment Awareness Campaigns
  - Green Productivity Week
  - No Car Day
  - No Plastic Bags Day

Launch of 50 kwp grid type solar power plant at Engineering Complex, Delhi Airport.

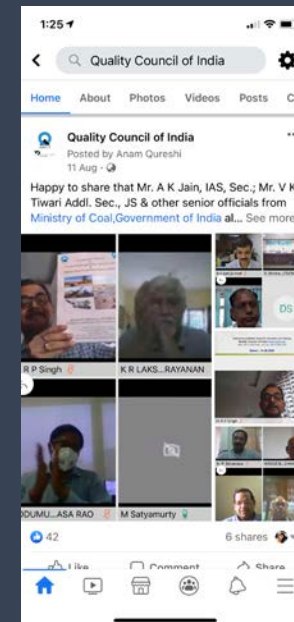
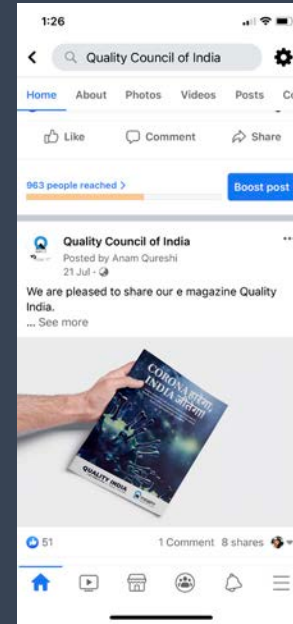
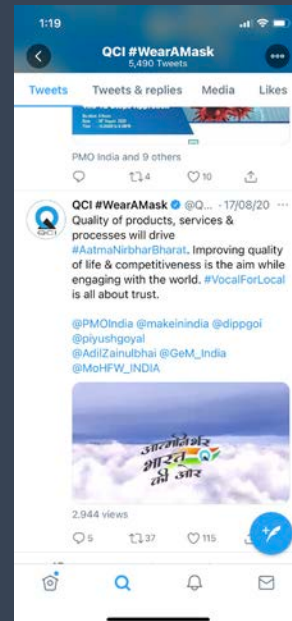
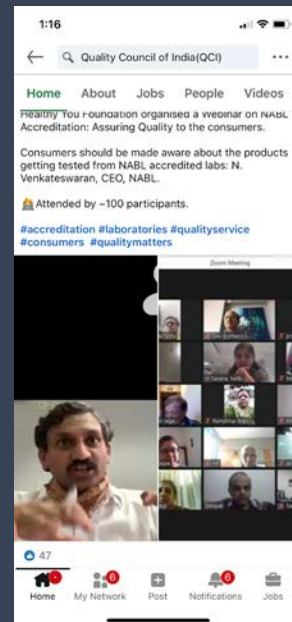
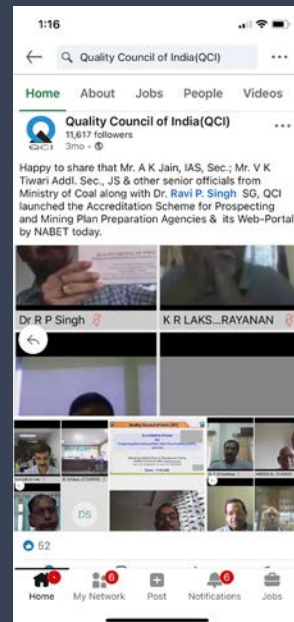
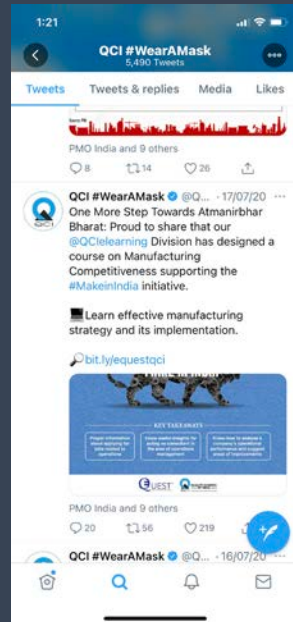
Besides this Air India Quality Management System (QMS) ensures continued suitability, adequacy and effectiveness of the entire organisation. It ensures continual quality and safety

improvements in all areas of operation including the Safety Management System for all AOCs, SBUs and Subsidiaries. Air India Corporate QMS Department is certified with prestigious internationally recognized ISO 9001 Quality Management Systems Certification since the year 2014 through M/s Bureau of Indian Standards (BIS).

In addition to above Air India has been accolated with awards and have taken other multiple activities in area of Sustainable environment and Quality.



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# BLENDDED AND ONLINE LEARNING- FUTURE OF EDUCATION: INSIGHTS ON SCHOOL & HOUSEHOLD SURVEY ON EDUCATION IN TIMES OF COVID-19



**Ms. Madhu Ahluwalia**  
Sr. Advisor, NABET



**Ms. Adiba Faiz**  
Accreditation Officer, NABET

In the wake of COVID-19, the schools have been shut by state and Central government as a measure to contain the spread of the disease impacting more than 26 crore children in India. The sudden lockdown due to pandemic has thrust schools and teachers of both public and private institutions into remote teaching mode. At this juncture, therefore, it is essential

to review some of the recent experiences and derive some useful lessons.

A comprehensive school survey to understand the adaptability, effectiveness of online education and interventions being implemented in the wake of COVID-19 induced situations was conducted by National



Accreditation Board for Education and Training (NABET), a constituent board of Quality Council of India (QCI) -- an autonomous and national accreditation body under DPIIT, Ministry of Commerce and Industry, GoI. The survey was conducted with the objective to get insights on effectiveness of online education and to understand the issues being faced by the stakeholders (Principals, Teachers, Parents and Students). Primary Sampling Units (PSUs) were schools and principals, teachers, students and parents associated with these PSUs constituted Secondary Sampling Units (SSUs).

5000+ stakeholders participated in telephonic and web survey from PAN India. Experts from Indian Statistical Institute, Kolkata gave their inputs on the data collected in terms of sample selection. The suggestions were:

- Since the data collected had majority of the responses from Delhi-NCR, it was advised to consider Delhi-NCR region only
- The number of Aided schools in comparison to government and private schools were less, these can be merged with government schools.

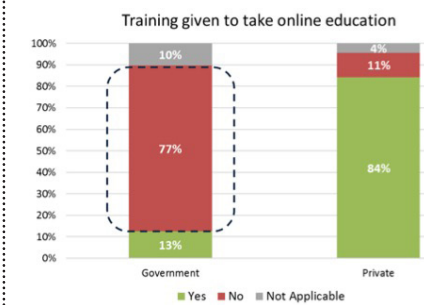
Telephone and web survey of 785 students, 458 teachers, 351 parents and 312 principals conducted in Delhi-NCR. Cumulative & disaggregated analysis of opinion of different stakeholders related to key issues have been performed only on the responses from Delhi-NCR (1906 responses).

## CRUCIAL FINDINGS OF THE SURVEY WITH RESPECT TO THE PEDAGOGICAL CHALLENGES ARISING OUT OF

### COVID-19 INDUCED SITUATIONS ARE:

Technical difficulties with online teaching tools-Teacher Training:

Dichotomous division of Government & Private schools in relation to status of trained staff for online education



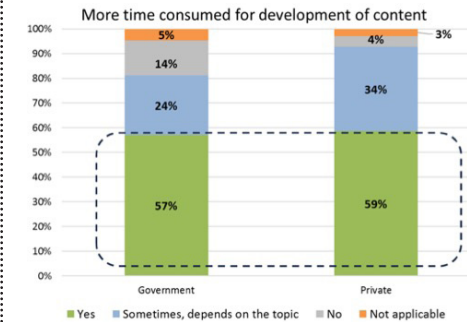
For the first time ever, schools in India have moved to online education to mitigate the effect of pandemic on education. It's a struggle for schools, teachers and students.

Due to digital divide, the worst affected were government and private schools. With 84% of teachers in private schools being trained on necessary skills to conduct online education as compared to only 13% of their government counterparts making it is easier for them to build and deliver effective lessons through synchronous or asynchronous modes

Hence, affecting millions of students studying in government & low budget private schools.

Time-consuming e-resources

Painstaking efforts by teachers to provide online education and holding classes through online platforms.



With lack of proper training on use as well as development of e-content, teachers of both government and private schools are struggling to create material and are overworked.

The efforts that the teachers have to expend in providing online education cannot be compared with normal physical classroom.

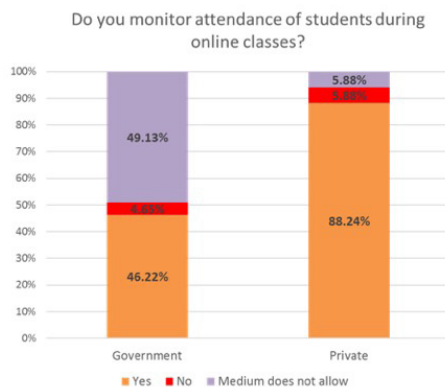
Teachers reported that they are not accustomed to developing content and material for online classes. Training sessions with hand-on experiences on designing, developing and delivering online courses will help them conduct classes effectively.

## Attendance

**Low and irregular attendance: Attendance management is one of the key challenges.**

Government school teachers are grappling with multipronged challenges, one of them is monitoring of attendance with only 46% of them able to do so. However, as a result of lack of training and awareness about different platforms 49% of them reported that the online

Type of Survey	No. of Principals	No. of Teachers	No. of Parents	No. of Students	Total Respondents
Telephonic	265	280	215	707	1467
Web	47	178	136	78	439



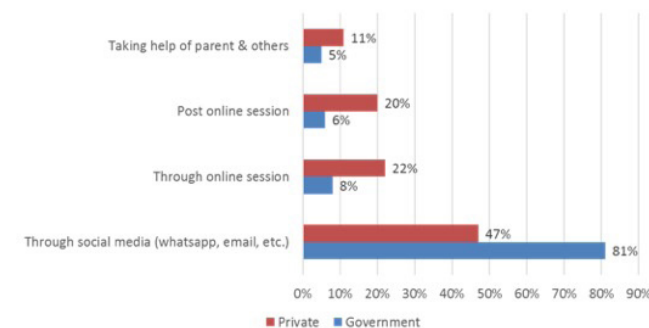
medium they are using does not allow monitoring of attendance. Conversely, 88% private school teachers are monitoring attendance of students during online classes with ease and they are using platforms that allows them to monitor attendance.

### Effectiveness of Online teaching

#### Clarity of Concepts: Modalities for resolving queries & doubts of students

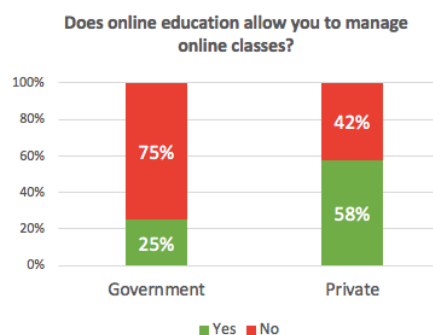
Online education is posing challenges before government schools to leverage techniques for real-time interaction with students. 81% government school teachers are using platforms like WhatsApp and emails to interact with students. However, 45% private school teachers are able to interact with students on real-time basis during online classes with dedicated online doubt clearing sessions, etc.

### Managing online classes



### Skills for managing online classes

Managing online classes is quite a challenging task for government school teachers as 75% teachers felt that online medium has meagre scope for managing online classes.



Conversely, 58% of private school teachers are able to manage online classes with ease.

However, 42% private school teachers are grappling with managing online classes. This indicates that managing online classes require different set of customized social skills as online classroom management is a delicate balance. When teaching online, teachers need to make the transition to student ownership much more quickly.

Apart from the five major findings, the survey also gives insights about Impact of COVID-19 on all stakeholders of School Education System, Effectiveness of the steps taken to mitigate the effect of COVID-19 and Strategies to enhance school education system post COVID-19 based on learning.

# HOW TO MAKE SCHOOLS SAFE FOR REOPENING?

FEED at NABET is supporting school management to create reopening protocol post COVID-19 lockdown and providing safety guidelines to respond to, mitigate and recover from a possible pandemic or epidemic outbreak



**Mr. Saurabh Arora**  
Assistant Director, NABET



**Ms. Aqsa Zaidi**  
Assistant Director, NABET

The COVID-19 lockdown affected 26 crores of the school-going population of India. Students have been either grasping with hours of online learning or trying to make sense of the gap in their learning experience. Parents have found themselves fulfilling responsibilities of childcare and education at home. As our country proceeds to phase out from the lockdown, the return to schools can be considered as a welcome albeit a daunting step. To support the process, the Formal Education Excellence Division (FEED) at the National Accreditation Board for Education and Training (NABET) has launched a set of online workshops to provide one-stop guidance for creating reopening plans. The workshops titled 'Preparing Schools for Pandemic (PSP)' aim to equip participants with the knowledge of reopening protocol post COVID-19 lockdown and providing safety guidelines to

respond to, mitigate and recover from a possible pandemic or epidemic outbreak. Every school is perplexed over how to maintain safety and simultaneously ensure uninterrupted learning post lockdown. While leading organisations have recommended actions on what to do, NABET Preparing Schools for Pandemic Workshops inform participants what to do as well as how to do it.

Taking note of recommended frameworks by WHO, UNICEF and World Bank, as well as reopening plans from a host of countries like Denmark, England, United States, Taiwan, United Kingdom, Hong Kong and Thailand, NABET has contextualised international best-practices to the Indian scenario to create the workshop module and learning material for school management. The workshops provide insight into reopening planning on four key parameters:

## Governance & Management

Essential managerial high-level decisions to be undertaken by school regarding their reopening plan.

## Physical Infrastructure

Covers all probable touchpoints of students and staff from their transport to their exit from the school premises

## Teaching & Learning

New methodologies to be adopted in the post lockdown scenario, with added emphasis on blended learning.

## Health & Hygiene

Provisions to be made to secure the safety and health of the children and to detect and mitigate diseases as early as possible

In May 2020, NABET released a set of guiding directives which provided an overview of the measures for safe school reopening. These guiding directives were circulated to State Education Departments and individual private schools. The Preparing Schools for Pandemic Workshop is modelled on these guidelines. The PSP Workshop is modelled in two stages: 1) One-Day Awareness Workshop that provide a brief overview of the safety practices and provides guiding directives to schools, and 2) Two-Day Training Workshops that offer deep insights into safety procedures and teaching & learning practices and provides relevant checklists and templates to schools.

A series of five online 1-day Awareness Workshops have been conducted for schools. The Awareness Workshops saw participation from 231 participants across 20 states of India and abroad, being attended by all kinds of school types across Tier 1 and Tier 2 cities and a host of school stakeholders. "It was thoughtfully prepared and presented. A lot of foresight had been used and all possible situations had been visualised and dealt with. It left zero doubt in the minds of attendees," reported one of the participants post the workshop, "It emphasized the role of school leadership for re-opening schools post lockdown, and further

stressed on precautions, preparedness and mitigation for school re-opening. Through images, videos and PPT workshop showed a comparative study on re-opening of schools in different countries."

Ahead of the stipulated 21 September

2020 date set for reopening of schools by a number of state governments, NABET has also launched a series of 2-day online workshops covering in detail the guidelines for preparing schools for operating under the pandemic. The first workshop was launched on 28th and 29th August 2020

and saw participation of 60 participants from 17 states of Indian and abroad. The workshop was found helpful to the participants with many appreciating its comprehensiveness and practicality. "This workshop has catered to many practical issues in these uncertain situations when we are grappling with authentic and executable information. Looking forward to guidance even beyond this session in future once SOP from Ministry of Education is out. Thanks a lot for addressing our concerns or apprehensions," wrote one of the participants post the workshop. Seeing widespread demand, NABET has launched five more Training Workshops in the month of September and October to support as many schools before reopening begins across the country.



# VIRTUAL ASSESSMENT – NEW MODEL, A WAY FORWARD



**Dr Kumudita Talwar**

Deputy Director, NABH

A new model has been conceptualized in tough COVID times proving an age-old saying that innovations and inventions are a gift of necessity.

The aspirations to achieve the goal bring ideas and thoughts and truly this has happened in an unprecedented situation created by COVID-19 world over.

There was no time to think and evolve new ideas, when the nations started announcing lockdowns bringing a complete halt to all activities except for a few facilities like healthcare and its ancillaries. The focus grew on expanding health infrastructure, capacity building, equipment, service providers, healthcare workers aiming at a high standard of quality care. Many guidelines and SOPs were issued and updated to match the changing scenario. Thus, health system faced a challenge to cope up demands at optimum price with a promise of high standard healthcare to all. The public and private sector committed equally in this endeavor as expected by public and governing bodies as two important stakeholders.

In a period, shorter than imagined, the systems have adapted and evolved very strategic methodology to continue working and achieve new heights through new technology and methodology. There has been a tremendous load on policy makers, programme designers, and organizational heads to fight at a war footing to strike a balance between increased demands and existing facilities. The jobs and tasks in pipeline had to be redesigned – may

it be a medical teaching, examinations, new recruitments, affiliations, accreditations and certifications by virtual assessments.

## New Normal Model

The quality care is a right of all. This has been achieved by exemplary work of the specialized team as a great vision on "planning and execution" principle. This was necessitated to keep up the continued professionalism in job but with different vision through virtual assessment and periodic evaluation. The base model remained the same with the parameters of evaluation unchanged. A few additions had to be done under COVID guidelines.

### Model design had following aims under considerations:

1. To Identify need-based model to update and accredit and certify a facility for its size and capacity.
2. To ensure availability of essential basic and emergency facilities.
3. To upgrade or continue the existing or additional speciality in house.
4. To make it more patient /staff friendly.
5. To make it COVID compatible.

6. To maintain contact with facilities for data analysis if required.
7. To continue the process of certification and accreditations in continuity as ongoing process.
8. To generate funds for survival of the institutions and system.

the Virtual assessment team of NABH Moderator, Hospital representative, Assessor and the IT person.

### Machine

In this context the machine is the replica of the Tools required to get the Virtual assessment process done. An online platform was sorted, the online Link

Laptop/Desktop with Wifi/LAN cable and camera, also with two mobile phones with good internet connectivity and camera. The assessors were also asked to study the documents in the portal before the assessment and understand any Non-compliances raised earlier and still Open at the Desktop Assessment stage.

The specified data/tools were collected beforehand so that verification could be done on day of inspection. The previous guidelines were followed in true letter and spirit. The team in NABH secretariat was designated particular tasks and information. A virtual tour was planned from entrance to exit.

The data so obtained was compiled and utilized to form a report and presented

### Limitations of the Virtual Mode of Assessment

There has been a continuous learning during this journey and few limitations have also come at the forefront.

- The hospitals try to hide the Gaps and mislead the Assessment team.

### How We Evolved

We all evolved over the last six months and gave new dimensions to our thought process but based on some logical thinking. For Virtual onsite assessments we worked on the model of 3 Ms:

### Methodology, Manpower and Machine

#### Methodology

We thought how we could do the Virtual onsite assessment, the idea evolved that it has to be in the same way as we do the in-person Onsite assessment. Starting from the main entrance of the hospital and all through in side hospital building, interacting on the way with the staff and inspecting through each corner of the hospital-Virtual Hospital Tour.

#### Manpower

Based on the methodology we needed manpower as a second step to conduct the Virtual assessment, so an NABH Moderator was introduced who is a pivot of the assessment and will coordinate between hospital and the assessors. The NABH moderator will also be instrumental in conducting the Live session of the Virtual onsite assessment. On the similar grounds the hospital also had to provide a representative for conducting the Virtual assessment. The Information and the technology team of the NABH was also involved for smoothly running the Virtual assessment. The pool of assessors was sorted and requisite consents taken. So, this completed



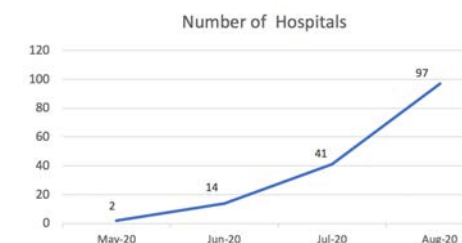
shared with the Hospital and testing for the link done one day prior. Also, we had to enhance the Assessor with more information prior to the assessment about the hospital, so a list of Mandatory documents or Tools for information were introduced that the Hospital had to send like few Photographs, a floor plan and the lists of employees with credentials, so that the assessors has the look and feel of the hospital and the Scope of services that it caters to. The hospital had to be ready with tools like a

### The Pilot Project

A pilot project was designed to conduct in 2 centers for its suitability, validity and practicality in COVID times. The stakeholders on both ends were prepared and trained for this experiment. The requirements, methodology, prerequisites were all explained. A team on ground was identified and the responsibilities marked. An assessor was chosen and explained the process to start with.

to the competent authority for new learnings for evolving the process.

### The Outcome of four Months (May 2020-Aug 2020)



- The Internet connectivity has to be very good, which is not possible in many remote/rural areas
- Third party employees or outsourced coordinators hired by the hospital to conduct the assessment from their sides
- Still a challenge to conduct assessment in more than 500 bedded hospital

### A Way Forward

An NABH secretariat team is constantly working to overcome the challenges faced and trying to evolve the model of Virtual assessments on daily basis. The aim of the model is to be highly efficient without any loopholes. Also, time and cost effective for all the stake holders involved.

The basic parameters of essential quality healthcare as applicable to patient care. Seemingly are fulfilled in near totality being effective, efficacious, efficient, accessible, affordable, appropriate with changing scenario with COVID for each one with equality, confidentiality at all times whenever needed ensuring an optimum care with no added additional complications with acceptable norms of Hospital /customer satisfaction.

The virtual assessment aspires to fulfill all benchmarks of quality care which can be improved upon on feedback, experience understanding the limitations of virtual as compared to physical and the positive achievements without compromise.

As we grow with our experience we are committed to be fair and genuine to both stakeholders - providers and consumers in good spirit and let this institution and system win the crisis.

Moving ahead with times is going to be with hurdles but surely, we will cross them over smoothly with Quality unbiased.



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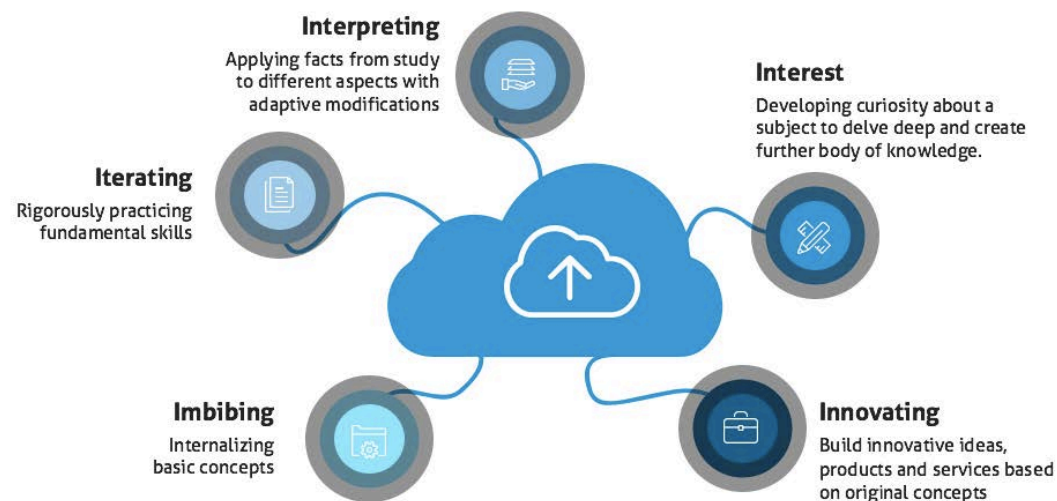
**AASHISH JAIN**

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# EDUCATION 4.0: A BRIEF REVIEW

According to Swami Vivekananda, "Education builds character, strengthens the mind, expands the intellect, and can get someone to stand on one's feet." The modern era is surrounded by technologies that get better and better every day. Consequently, the modes of education are also changing, and today the world is looking for Education 4.0.

Education 4.0 (E4.0) originates from Industry Revolution 4.0 (IR4.0), in which industries attempt to be fully computerized using advanced technologies such as Artificial Intelligence (AI) and the Internet of Things (IoT) to minimize human interference, big data, cloud computing, robotics, smart sensors, etc. The E4.0 is based on these technologies, with which learners can learn anything from anywhere, anytime and in any case. It allows them to learn at their own pace and prepares them for industry by bridging the gap between the needs of industry and education. The aim of



**Fig.1: 5 I's of Education 4.0**

E4.0 is to impart theoretical knowledge beyond a classroom setting while transmitting practical/experimental knowledge face to face. The E4.0 aims to make education a real-time experience that enables a learner to have analytical, problem-solving, and unconventional thinking skills to explore new opportunities around them. Education 4.0 can also be explained as an education based on the 5 Is i.e. Imbibing, Iterating, Interpreting, Interest,

and Innovation, as depicted in Figure 1. The evolution of education started as E1.0 with classroom teaching and is now looking for E4.0 with learning everywhere. Although most educational institutions still focus on E1.0 and claim to be E3.0 based learning which is not fully implemented at all. Table 1 is a summary comparison of E1.0, E2.0, E3.0 and E4.0:

Features/ Characteristics	Education 1.0	Education 2.0	Education 3.0	Education 4.0
Knowledge	Dictated	Socially Constructed	Contextually reinvented	Rigorously innovations
Technology	Seized to the classroom (Digital Refugees)	Choicely Adopted (Digital Immigrants)	Everywhere (Digital World)	Everywhere to everyone (Digital Universe)
Content Arrangements	Traditional copy-right printed material	Copyright and free/ open educational resources within the discipline	Free/Open educational resources reusable in multiple disciplines	Free/Open educational resources reusable in multiple disciplines
Pedagogy	Authoritative (Teacher to the student)	Communicative & Collaborative (Teacher to students, students to students)	Co-Constructive (Teacher to students to the teacher)	Co-Creative & Innovative (Technology-driven in different ways by different people)
Learning Environment	School building	School building or online	Everywhere	Everywhere
Teachers	Trained Professionals	Trained Professionals	Everyone	Everyone
Learning Experience	Classroom-based	Peer-based	Self-learning	Self-paced learning
Learning Activities	Traditional pen-copy based	Traditional pen-copy based with little use of technology	Open, flexible learning activities with more use of technology	Open, project-based learning with extensive use of technology
Hardware and Software	Expensive and ignored mostly	Open source at a lower cost with some usage	Open source at low cost with purposely used	Open source at low cost with purposely used
Industry View	Assembly line workers	As ill-prepared assembly line workers	Co-workers and entrepreneurs	Collaborators, entrepreneurs

**Table 1: Comparison between Education 1.0, Education 2.0, Education 3.0, and Education 4.0**

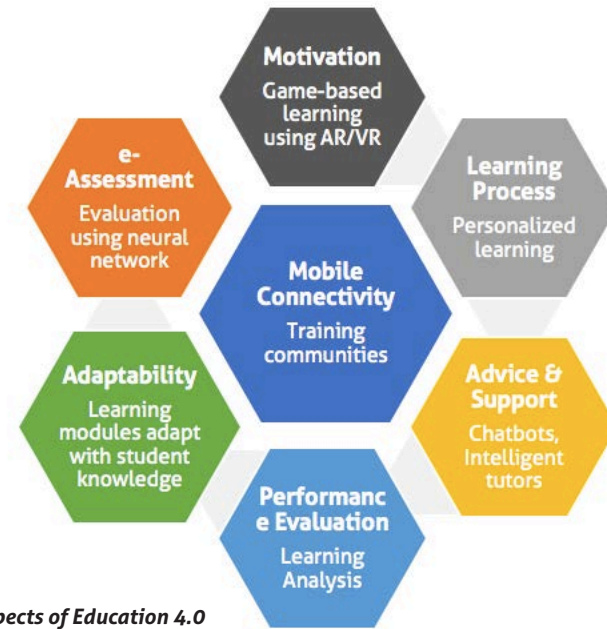






**MS. SARIKA AGARWAL**

QCI/NBQP registered FSMS Principal Consultant



**Fig. 2: Aspects of Education 4.0**

Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, explains: "We must develop a comprehensive and globally shared view of how technology is affecting our lives and reshaping our economic, social, cultural, and human environments. There has never been a time of greater promise, or greater peril." Industrialists, entrepreneurs, government officials and executives around the world are discussing the future of work and the changes that automation and technology will bring about. But are we updating our education system in terms of content and delivery at a similar pace? They are concerned about the harsh reality of education systems not being updated according to the needs of the industry, which are changing rapidly day by day. As one of the real-time situations facing the world today, the emergence of the COVID-19 pandemic has drawn more attention to rescaling and redesigning curricula, teaching methods, and learning environments for students and teachers. Due to the COVID-19 pandemic, most schools are teaching using online resources such as Zoom, Google Meet, MS Team, Cisco Webex, etc., but they

are not getting the results they want because teachers, students and parents are not trained to use these resources properly, especially in rural and remote areas.

From a future point of view, E4.0 is the need of the hour for the world. Government officials need to understand that the industry is becoming automated, seeking skills such as problem solving, digital skills, creative thinking, and teamwork, and evolving rapidly with technology. Therefore, the education system must also be improved to meet their needs. The learning experiences in E4.0 will be different and unique and will address the topic of sustainable employment. The role of the teacher would be more of a facilitator and catalyst of the personalization of growth that requires transformation, including key areas such as student learning experience, employability, excellent research, social impact, etc. in their methodology, to focus more on results-oriented teaching to maintain traditional methods. Cutting-edge technologies like AI, IoT, Big Data, etc. will be the real pioneers who will help develop the skills of industry-based learners. Figure 2

shows the different aspects of E4.0.

The National Education Policy 2020 (NEP) proposed by the Indian government is visionary and meets the goals of E4.0. The NEP focuses on the teaching of Information and Communication echnologies (ICT) and enables primary school students to learn in their native language. This change in Indian education policy will help students to have effective learning experiences and help teachers to learn new technologies which will become their tool to facilitate their teaching process. According to the NEP, there would be subject-specific communities that would decide on the curriculum that ensures that the students' learning experience meets the specific needs of the industry. This will help them stay busy and keep up to date with what is going on around them.

The education system is the backbone of any country and enables a first-year student to find a competent resource to educate their nation. However, this can only happen if the education system meets the demands of the country's society or industry.

# FOOD SAFETY VS. FOOD DEFENSE

If you are confused, let me assure you, you are not the only one. We are asked this question so many times that we thought we would put this piece together.

Let us start from the beginning. As per Wikipedia Food defense is the protection of food products from intentional contamination or adulteration by biological, chemical, physical, or radiological agents introduced for the purpose of causing harm. It addresses additional concerns including physical, personnel and operational security.

Food safety, on the other hand, gets compromised due to ignorance, mistakes or simply because of not following the processes. It is unintentional outcome.

This can be depicted in using the adjoining risk matrix. In addition to the food safety and food defense, there is also Food fraud, which is based on intentional deception for economic gain; and Food quality, which may also be affected by profit-driven behavior but without intention to cause harm.

Food protection is the umbrella term encompassing both food defense and food safety. These six terms are often conflated. Along with protecting the food system, food defense also deals with prevention, protection, mitigation, response and recovery from intentional acts of adulteration.

Food Risk Matrix			
Consequence	Gain: economic	Food quality	Food fraud
	Harm: Public health, economic, or terror	Food safety	Food defense
		Unintentional	Intentional
		Action	

The purpose of a food defense program is to protect foods from intentional adulteration and to reduce impact of an attack on the food system. The hazards that needs to be addressed for both food safety as well as food defense are same. (Biological, Chemical (including Allergen), Physical and Radiological).

Hazards in food can come from raw material, packaging material, equipment, personnel and environment which can be reduced to an acceptable level during the processing and handling to ensure consumers get safe food. These hazards are identified using HACCP where 12 steps are followed to identify and control hazards. A food safety plan is what helps managing these hazards. The control measure identified in the Food Safety Plan needs to be monitored and verified at a set frequency to ensure that control

points are capable of handling these hazards.

Hazards in food may also be introduced intentionally. The reason for intentional adulteration can be from a disgruntled employee, terrorism or economically motivated adulteration. This is all for profit gain but in the end, it affects the food safety. Like a HACCP, a TACCP (Threat Assessment and Critical Control Point) study is required to identify sources of tampering, intentional adulteration of food, and food defense. The process for TACCP is described in PAS96:2017 and tools like CRAVER plus can help ease the process. Here is a quick rundown on what you need to do.

1. Establish a Food Defense team
2. Conduct Threat Assessment to identify and evaluate potential threats and vulnerabilities
3. Identify and select proportionate mitigation measures
4. Document the threat assessment, mitigation measures, verification and incident management procedures in a Food Defense Plan supported by the Food Safety Management System
5. Develop an effective training and communication strategy and implement the Food Defense Plan

The threats thus identified may be graded using the following parameters:

<b>Criticality</b>	measure of public health and economic impacts of an attack
<b>Accessibility</b>	ability to physically access and egress from target
<b>Recuperability</b>	ability of system to recover from an attack
<b>Vulnerability</b>	ease of accomplishing attack
<b>Effect</b>	amount of direct loss from an attack as measured by loss in production
<b>Recognizability</b>	ease of identifying target
<b>Shock</b>	the combined health, economic, and psychological impacts of an attack

If the threat becomes a significant risk, a mitigation strategy must be identified which could be at any point in the supply chain. Good supply chain management coupled with regular audits and quality assurance analysis can help safeguard companies from threats originating outside the facility.

While strategies to mitigate the threats may be specific to each organization and how it handles its material through the supply chain, there are a few generic ones that apply to most organizations.

## Physical Measures

These help secure the product by controlling the physical access to the facility/product

- Secure the facility perimeter and perform periodic checks
- Use controlled-access procedures for people or vehicles entering the plant or parking area
- Install an alarm system, cameras and sufficient lighting
- Designate restricted areas for authorized employees, restrict non-employees to non-production areas

- Limit access to control systems
- Use tamper-evident or tamper-resistant packaging
- Maintain key and lock control processes for all entry and exit points

## Policy Measures

This helps reduce the threats through people

- Use a system to identify personnel by their specific functions
- Conduct background checks on all employees and contractors who will be working in sensitive operations
- Train employees on food defense and security awareness, including recognition of suspicious behavior or individuals

## Management Measures

This help contain the issue if the threats were to materialize

- Maintain records to allow easy trace-back and trace-forward of materials and products
- Implement an inventory control system
- In a nutshell managing both food safety and food defense needs planning. Food Safety Plan prevents a system failure whereas Food Defense plan prevents a system attack. Both need to be handled to ensure food moving out of your premises is safe for consumption as per its intended use.
- The hazards that need to be managed are similar but the intentions are different. Food safety hazards are anticipated and handled whereas food defense threats are not.



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# THE EXCELLENCY IN MANUFACTURING

The first step to Excellency in Manufacturing is the "Quality." The ultimate goal of any business is to make profit. Growth of any company depends on its profitability; Profitability comes from customer's satisfaction. Customer satisfaction is directly related to product's "Quality" and "Performance" supported by service. ISO definition of Quality is **"a degree which is a set of inherent characteristics of fulfils of requirement"**

Quality is remembered long after the cost is forgotten

Above are old and all known sentences, nothing new, but still we need to think and do a lot for **Excellency in Manufacturing** and **ZED** production in our Industry. In a Manufacturing Unit daily routine of production activity is, like a child goes to school everyday morning and child's mother reminds the child everyday about Dos and Don'ts in school. Similarly, all the standards – Quality control tools -Training etc are necessary as sincere and regular practice.

To achieve excellency in manufacturing there is no space for any complacency-negligence or deviation of any standards or activities This remains the key reason why quality must be an integral part of manufacturing.

Presently, when COVID-19 has broken the ribs of many manufacturing units, sustainability and rolling of economy are now two major challenges to run and float in a race of cutthroat competitiveness; financial strength of many companies are in bad shape, gasping for oxygen to survive and to bounce back to the market to regain the market share with financial strength for smooth business operation. The managers in manufacturing units are thinking many out of the box ideas to find a way to get out from this present crisis. Studying new ideas for new products by minimizing cost and zero waste plans.

Conformity of Standards is a major challenge in manufacturing today. There is a requirement of many technical regulations and standards and legal compliances, issued by the Govt for product characteristics – production process and production methods as mandatory compliance along with safety measures supported by environment friendly work culture.

For Indian exporters, the above requirements become bigger challenges when complying the regulation and standards required by the foreign country which are different and more stringent than Indian regulation and standards.

In peace time, Army prepare themselves

in many ways to face big challenge if needed to go for a real war. COVID -19 has given us the opportunity to prepare ourselves to fight the biggest challenge in manufacturing when we will soon start manufacturing again with full strength. It is important for a manufacturing unit to identify the potential improvement opportunities and areas in the production flow and in process. If the root cause of Quality issue & wastage is identified, maximum problems are solved immediately. In present situation, when America -Europe and Japan are studying feasibility for new manufacturing facility in a new country, India can play as a global game changer. The **ZED** model manufacturing, **Zero Effect Zero Defect** is the key point to play as a game changer. For any Industry to achieve **ZED** category product, regular worker training process - skill and competency mapping- implementation of standards is needed, before putting the trained workforce on production line as we cannot accept repeat mistakes, otherwise it will be a short-lived program or short-lived desire & dream.

For implementation of **ZED** production, the first key requirement is awareness drive and training from manager to supervisor level and finally to worker level.

For achieving **Excellency in Manufacturing**, another key point is

delivery commitment to customer; it must be same as that in Japan- South Korea - Europe and America, where delivery commitments are mostly honoured because the delivery schedule announced by the company after thorough study and calculation of many important and essential aspects in a manufacturing unit. Sometime, the customers become unhappy in beginning, knowing the longer delivery schedule; the same customer becomes happy and satisfied at the end, when the company honours the delivery schedule as per their commitment.

Whereas in India we generally experience failure of delivery commitment in various manufacturing sectors, because Indian manufacturers make customer happy and satisfied in the beginning. At the time of securing orders, they commit highly optimistic delivery schedule by accepting customer's all the demands, without backward calculation of man power-supply chain management -inventory control - parts availability – machineries and equipment - finance planning - training -competency level of workforce -and Quality control.

A failed delivery commitment makes the customer unhappy and unsatisfied, develops negative thoughts about the supplier. If unfortunately, the product performance fails during initial stage after supply, the customer becomes upset and sometime aggressive to supplier. Such incidents shake customer's confidence level about the product and company and also reduces the opportunity of repeat orders. The customer, whom the supplier made very happy in the beginning, becomes very unhappy when things mentioned above happen with him.

In many manufacturing sectors, the missing areas are -- various training for different level and accountability, result oriented training of managers-supervisors and workers. Very few employees are found with seriousness to learn and deliver performance, many employees opt training merely for a certificate which may help them to secure next job with higher salary slab. In general, companies also seldom ask for any result or output from employees

after a specific and expensive training course on company cost.

Japanese and European companies operating in India send their key managers - supervisors to Japan or Europe for crash course for extensive production training of a specific subject and to learn the company's work culture - system & work environment. For a first-time visitor to Japan and Europe, employee's focus is divided in two parts -- One part on training in company, second part is tourism in that foreign country. After his return from abroad , the employee shares with their colleagues more stories about sightseeing of Europe or Japan than his learning of technical - engineering – work system – work process -Quality control - - supply chain -inventory management - or Delivery ON TIME .

In a 24 x7 manufacturing unit, it has been observed that periodical machine maintenance is not given much importance or priority in many companies. We are still in CAPA (Corrective Action and Preventive Action) which is now an old concept; it is time for predictive maintenance plan, which will predict an expected failure of a running mechanical or PLC board. For predictive maintenance, the first thing is - basic maintenance training of operator about a high precision PLC controlled automatic machine which he is operating.

Presently, complete training of operator or supervisor about basic maintenance of a high precision machine is not sufficient, which may affect in two ways: One, if the operator is not trained with basic maintenance knowledge , he or she may cause breakdown of the machine ; second is - if trained with complete basic knowledge ,the operator may switch over to the unit of competitor company. This situation can be managed with training to a team as backup support so that production never suffers if one trained operator suddenly leaves. The manufacturing must not depend on a Man, but it depends on a company's strong system.

If the operator is not trained with basic maintenance knowledge, even for a small and minor breakdown he will stop the machine and wait for the maintenance

staff to rectify the fault, to restart the production; at the end of the day, we would calculate the production loss for down time of the machine. An example is given below how quality is affected when the operator has no knowledge about minor abnormal behaviour of a high precision sophisticated machine, it becomes a more serious problem when the machine is old and has lived its life.

When the operator is unable to notice or recognize the minor abnormal behaviour of the machine, and the machine is producing defective products with quality problem, if the operator ignores the minor problem of the machine, but focussed on his production target, the operator will stop, only when the machine will stop. During this process the machine and operator have already produced number of defective products, which may be detected at final quality Inspection stage. It may be returned back for re-work if delivery schedule allows time; if the delivery schedule is very urgent , not allowing time for rework, the minor defect in product will be ignored and the product may be sent to the market, sometime may be without notice of company management. If the product is a domestic consumable items, and the end user complains about quality , it causes a bad name to the brand; if it is not a domestic consumable item, and for commercial use , the market feedback reports may be the same negative from the customers. Considering the above example, today's trend has already started in factories to minimize the maintenance team members and develop a skilled operator who will run the machine for production as well as repair the machine when needed.

For achieving excellency in manufacturing, in coming days, skill development and knowledge transfer to the machine operator will be the key area to be developed in all manufacturing sectors, a trained machine operator with basic operational and technical knowledge will automatically prevent major breakdown of the machine saving production loss – time and money.

Loyalty to company by the workforce is always a question mark in mind of many Industries' managers, sometimes they are not in favour of training -investment

on workers, perhaps sometimes managers are right sometimes not. Study reveals that Japanese workers or supervisor-managers working in Japan, most of them, for 25-30 years is common. Japanese generally do not think about change of company, the reason being the strong relationship and bonding between Employer and Employee.

To develop strong relationship and healthy work environment in Indian manufacturing sectors between Employers and Employees, a big improvement is the need of the hour by our HR department in manufacturing sectors.

If India wants to produce **ZED category products** and achieve **excellency in Manufacturing**, HR department has a very vital role to play as a game changer in the company to make this dream come true. We need to build and work as a bridge between company and workforce so that whenever a worker is in need of any help and support, he can smoothly cross the bridge and can share his problem the HR department. The HR department should not be like a barbed fencing. This gap between company Management and workforce is the weakest point for any Manufacturing sector that dreams for excellency in Manufacturing and ZED category products. The more this point is ignored the more the gap becomes wider.

When we target for Excellency in

Manufacturing -Quality – **ZED production- ISO Standards – ON TIME** delivery, we forget that the workers who work with their hands have the major role to achieve company's dreams. The Excellence in Manufacturing faces a Dinosaur like challenge when the workforce is being exploited and ignored by the company. When a worker always has job insecurity and uncertain future at the back of his mind, it will not be justified to expect ZED category products from those workers.

We are aware that whenever there is a common crisis, common issue, common demand, all the workers suddenly become united and overnight a Union is formed that raises its flag with various genuine and ingenuine demands. When a Union is formed, the company and the HR department take it as a challenge and do their best to defeat the Union. Unfortunately, we all know the famous safety awareness slogan, "A big fire happens when we fail to notice a Spark."

If we want to be a game changer in Manufacturing sector, we need to consider to resolve some of the above explained issues to achieve huge positive results by which we will stand tall and high and play like a real game changer in **Excellency in Manufacturing**. Major International Manufacturers are expecting something big from India, now it is our turn to stand up and encash the opportunities to move forward in life for our country, for our Industry, for ourselves and finally for our next generation.





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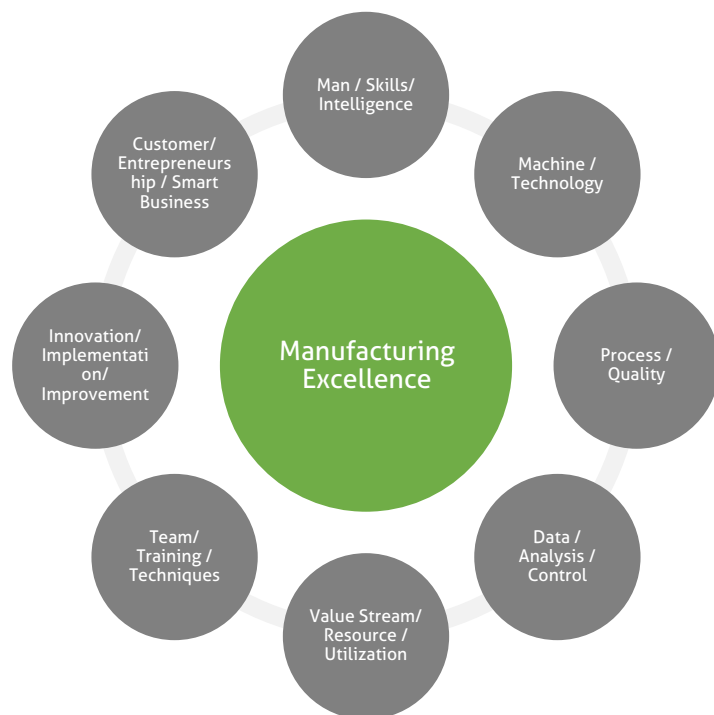
# MSME MANUFACTURING EFFICIENCY MODEL

MSME manufacturing efficiency model for competitiveness with low cost production planning Internal strategy guidelines for improving quality and productivity through best use of techniques for enhancing the efficiency with systemization & sustainability

### Purpose of The Model

The purpose of this model is to provide a technical support for Indian SMEs that are searching for the improvement techniques and methods for their plants & small manufacturing set ups. To support the MSME manufacturing sectors on the Process design and organization efficiency improvement as per global competitiveness, this structure of the model is developed on envisaging very low cost and less handholding with minimum support from experts. SMEs could use this model for self-learning for implementation, sustainable growth and improvement.

Our country is manufacturing through approximately 300 SME clusters in various states with various techniques, processes, technologies, human skills, input materials, various seasons in organized & unorganized shop floors, lack of skills & techniques and with lack of professionalism & entrepreneurship.



A structured is required on which entrepreneurs could focus for efficient shop-floor and better customer access.

This developed Model is the result of encouragement from Prime Minister's campaign on 'Made in India' for developing India as an International Manufacturing-Hub. It is possible with Techniques, Planning, Entrepreneurship and Competitiveness with Price, Quality, Delivery and Services. This Model has some unique features that it has developed as per working experiences in National and international SMEs like Taiwan, Japan and Singapore etc.

### Coverage and Speciality

This model is a guideline on how to plan, implement, practice and improve your manufacturing system as competitive and smart to clasp and attract the international customers. Indian SMEs could develop entrepreneurship on various techniques & technologies of manufacturing for process with this promotional model.

This model also follows the techniques of Zero Defects and Theories of Edward Deming, Scott Sink, Masaki Mai, Ishikawa and Business Excellence of Malcom Baldrige with the Techniques Lean-Six Sigma, TQM & TPM etc. It also caters to the Smart Business Process, Smart Technology and Techniques with Smart Solutions in Problems & Working in the SMEs. This is a first improvement model, developed focusing on Indian industries' efficiency and competitiveness.

Small Businesses in India could follow the Initial Productivity and Quality techniques for improvement and then follow other techniques for traditional state-of-the-art manufacturing system.

Based on Productivity and Quality Research, this model is a contribution to our country's Manufacturing System. It will help shop floors and will be available to the SMEs for their use & benefit without any consultancy fees for their self-improvement.

### The Basic Features

Knowledge and Learning on Organization Excellence and Customer Access. It consists of Knowledge gap in the shop floor of the SMEs, is Customer demand oriented and driven, enables the SMEs to be vendor of multinational brands, as per the implementation in Indian condition.

### Productivity

Review and revise the systems & processes with reengineering approach as per the client's requirement, balancing the low and high level of technical interventions, encourage both team and individual excellencies.

### Quality and System

This model suggests the priority on Quality, sustainability and optimum utilization of resources, basics of 7QC tools as per the adaptability in the vendor's level, requires techniques as per applicable in the vendors' organization, skills & system, and focuses on skills and is team based.

### Control and Monitoring

Suggests to develop the formats and mis as per requirement and overall plant management and organization / plant scorecard-based monitoring.

### Lean Six-Sigma

Implement as per the balancing of lean improvement, six sigma measurement techniques and cost saving techniques on material, process time, energy, inventory, rework etc.

### MIS, Data, Recording, Cost and Analysis

To develop the required formats, data as per requirement and statistical analysis process for better controlling the plant.

### Techniques as Smart Factory, Efficiency and Competitiveness

It also suggests the SMEs to include the competitiveness in the national and international market, smart factory on the preparedness of smart manufacturing (I 4.0), blend with international techniques with Indian approach and covers as per the vendors' required level of interventions.

### Sustainability

Develop the shop floor / Plant with SoPs, Formats & data for productivity & quality, check points etc. for C&M. It is a forward-looking model with continuous improvement healing process.

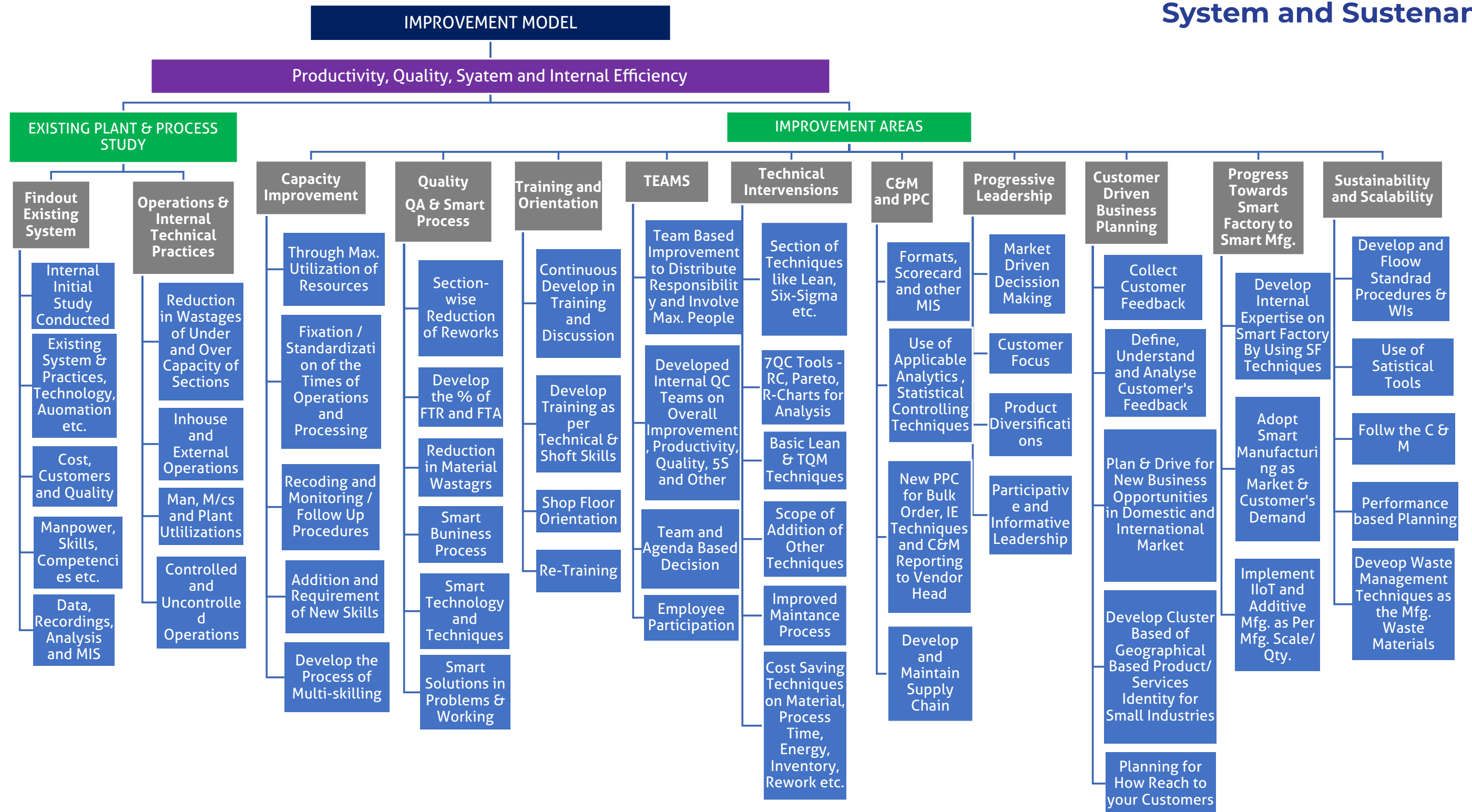
### Customer-Driven Business Planning

This includes: collect customers' feedback and define, understand and analyse customers' feedback & implement with PDCA cycle, plan & drive for new business opportunities in domestic and international market, develop cluster base of geographical based products/ services identity for small industries and planning for how to reach to your customers.

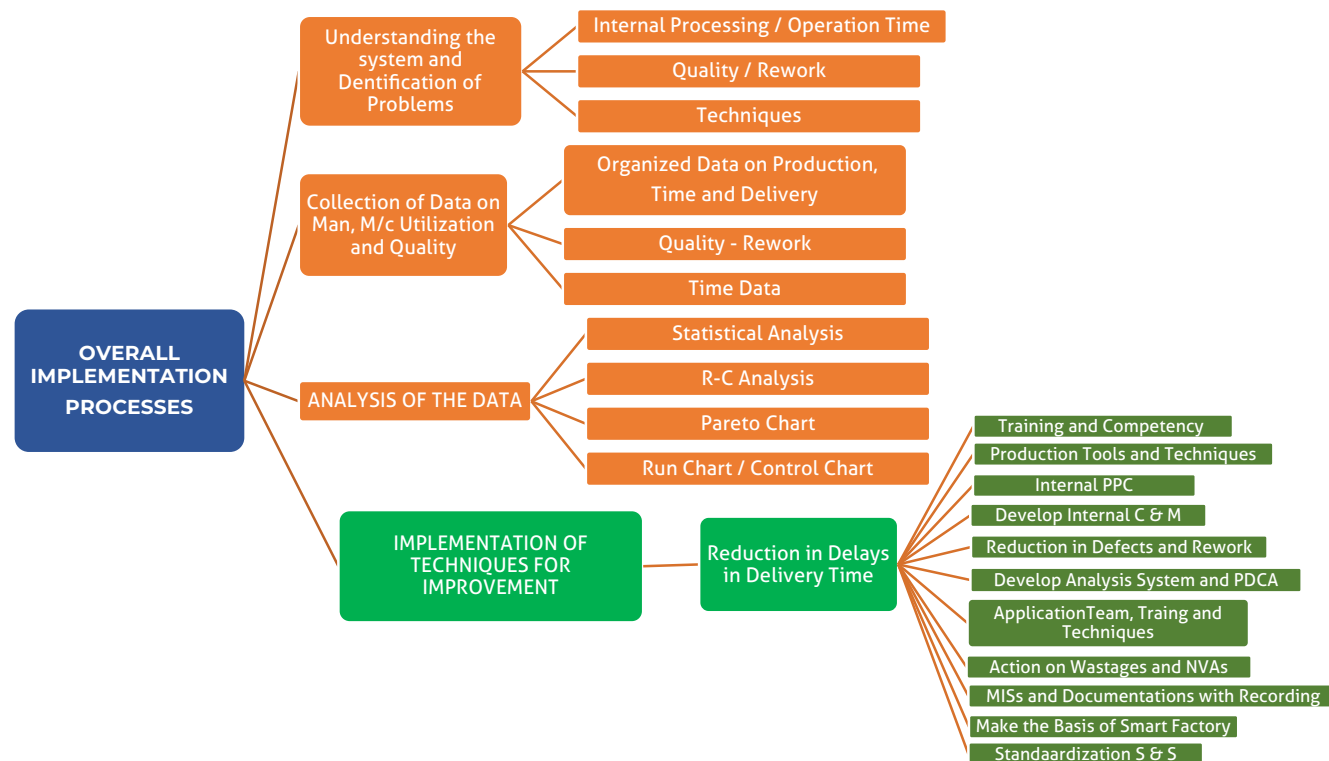
Progress Towards Smart Factory to Smart Manufacturing as per Industry 4.0

Organization should develop internal expertise on smart factory by using SF (Smart Factory) techniques, adopt smart manufacturing as market & customers' demand and implement IIoT and additive manufacturing as per manufacturing scale and quantity.

# Model for Cost Saving, Best Techniques, Wastage Reduction and Smart Manufacturing Process with System and Sustenance



## Overall Study and Implementation Methodology



### Conclusion

To become a world manufacturing hub and more competitive than China, India has to adopt an efficient manufacturing Technique. It is not difficult, rather a disciplined method to intervene the above-mentioned techniques with the culture of continuous improvement through human intelligence, process reengineering, customer focus, entrepreneurship acumen, smart shop floor. Workmen, Karigars, Operators, Supervisors, Plant Heads and Owners have to be trained and specialised in their respective professions. The target should be how to access the market & value creation for customers with innovation and techniques. This model is an overall guideline on which areas an organization should plan for improvement in Efficiency, Quality, Cost and Delivery.



**DEEPAK BANDYOPADHYAY**

Management Consultant

# MANAGEMENT AND APPROACHABILITY

## Dichotomy

The terms related to "Management" are authentically defined "ISO 9000:2015, Quality management systems – Fundamentals and vocabulary". Other terms used in this document are briefly defined below:

### Approach

To come near, a proposition, a way of dealing with something, the act of approaching, a path, method, programme, strategy, reaching, act of drawing near, etc.

### Approachable

Accessible, ease to talk with, sociability and congeniality

### Approachability

An attribute of being easy to meet or deal with

## Importance of Approachability

Approachability is centred on cordial relationship between employer and

employee which should be preserved. Guarding against an existential crisis in an organization can be by an approachable leadership at the top so that the veiled but vital information may reach the top timely. Approachability builds trust; to be patiently and resolutely cultivated with the initiative from the top. Some of the leaders in industries who had faith in approachability include Mr Rattan Tata, Netaji Subhash Chandra Bose, Field Marshal Sam Manekshaw and Dr Verghese Kurien.

All ISO standards on management systems require identification of risks in all activities, only possible through approachability, based on a concise, value laden and inspirational common belief system.

## Signs of Good Approachability

- Visible empowerment of the workers
- Cordiality within the organization
- Team members do not complain; they give honest feedback and constructive suggestions, with commitment
- The top management adopts an

"open door" policy towards the team members and share vision with them

- The leaders at every level discuss the problems and potential problems, with the team members and respect their suggestions, even if those which may appear to be ridiculous at the first glance

People with sound professional acumen are normally serene in their disposition and are easier to communicate with. Conversely, people with shaky and doubtful competence are introvert and unenthusiastic communicators.

## Elements Which Augments Approachability

Advertisement in media makes approachability much easier, such as:

- In production organizations, documented information on the product such as specification of the product, details of parts, assembly, installation, commissioning, maintenance norms, disposal at end of life, emergency response and complaint lodging, through "user/owner manuals", engineering drawings, etc.

- In service industries the documented information on availability, scale, tariff and location of services is made available to the customers.

## Good Effects of Approachability

- Approachability breeds leaders at all rungs of hierarchical ladder in new initiatives with minimal formal authority, generating enthusiasm and commitment.
- Approachability strengthens interpersonal relations, fellow-feelings, mutual concerns and respect and balanced results in SWOT (Strengths, Weaknesses, Opportunity and Threats) analysis. Thus, a better planning is generated.
- Approachability develops and improves operational skills through effective trainings.
- Approachability reinforces self assurances/confidence in dealing with conflicting situations in carrying out challenging assignments.
- Approachability eases decision making processes by:
  - Systematic collection of information/data through formal and informal meetings and walk-a-talk.
  - Prioritizing through cost-benefit analysis, estimation of return on investments and formulation of standard operating practices.
  - Use of innovative talents in the workforce, harnessing their depth and diameter of knowledge and experience.
  - Pre-empting the short, medium and long-term implications of policies in decision making.
- Approachability results in improvements and innovation through:
  - Effective conceptual thinking,

- Clarity, accuracy and quality consciousness,
- Better time, space and fund management,
- Effective internal and external customer service,
- Improved and broadened networking and
- Effective meeting of organizational commitments to customers, social needs and compliance of legal requirements.

## Impediments to Good Approachability

They are mainly the situational difference in status in sets of people, such as:

- employer and employee in an organization,
- hierarchical levels within the employees,
- teacher and taught in an educational institution,
- teacher and management in an educational institution,
- the clergyman and the devotee at a religious place,
- health care provider and the patient in a health care organization,
- leader and citizen in society/politics,
- parents and children in a family,
- male and female in a family/society,
- racial differences in society,
- age differences in society,
- the haves and the have-not's in society,
- weak and the strong in a society,
- service departments in Government and the general public, and so on.

When such differentials are:

- marginal, the approachability is of a higher order.

- substantial, the approachability is of a low order but amenable for improvements and
- insurmountable, approachability is conspicuous by its absence.

In the 'employer and employee' situation, good approachability is seen when the employer understands the needs and expectations of the employees and is active to meet those. Cordiality prevails through the sunshine and dark days in such organization. Both sides will be losers on account of fear or distrust, resulting chaos, intrigues, backbiting, bullying, threatening, sabotaging and loss of resources and reputation of the organization. Tolerance, benevolence, righteousness, meticulous adherence to norms (without fear and favour) and a spiritual outlook can effectively reduce fear and distrust.

## Tools for Augmenting Approachability

- Adherence to the principles of quality management system (Para 1.1 of ISO 9001:2015, Quality management systems – Requirements), which creates a fertile land for sowing the seed of approachability.
- Adaptation of six sigma, lean manufacturing, 5S, Kaizen, tool box talks, sharing the hopes and aspirations of the team members as also their fears and hopes, etc, on a foundation of reason instead of prejudices or paradigm.
- Adaptation of psychometrics, a technique in psychology, in which psychological parameters of workers are monitored through theories and methods developed over years. It encompasses assessment of knowledge, ability to utilize knowledge and skill, attitude, academic attainments and personality traits of workers. Normally the workers are submissive to their superiors. They lose spirit due to directive and suppressive attitude of supervisors

and become shy to express their observations on work, work techniques, work ambiance and available tools and tackles.

## Visibility of Good Approachability

- Consistency and constancy of purpose maintained.
- New industrial techniques in production and service delivery adopted.
- Not orienting the business only on profit margin; instead using proactive methods in production, service delivery and customer satisfaction.
- Culture of learning through self education and self improvement, broadening knowledge horizon, encouraging everybody to document their professional experiences, etc, established.
- Culture of cordiality to drive out fear and jealousy established and unnecessary competitions avoided.
- Qualitative parameters and not the quantitative figures of performance established.
- Culture of encouragement, rewards and awards established.

- Multilingual culture, especially in international interactions as in airlines and international banking, thus shrinking physical and emotional distances at interfaces established.
- Eye contact, attentive listening, body language devoid of agitated gestures encouraged.
- Open questions during interactions, inspections and audits.
- Established culture of dissemination and adaptation of realistic and factual information and not to tall claims and unfounded conjectures.
- Sincere activities in fulfilling promises.
- Restating, reflecting and summarizing adopted during discussions.
- Encouraging and validating and avoiding being judgemental.
- Promoting automation.
- Promoting stage wise monitoring of work process and work progress, for quick correction and corrective actions.

## Methods in Approachability

For establishing good approachability, one needs to be a bit spiritually inclined. This is like developing an attitude of transparency. In approachability, frankness is needed in discussions and in conduct of FMEA (Failure, Mode & Effect Analysis) and SWOT analysis (Strengths, Weaknesses, Opportunities and Threats).

In approachability, empathy is needed with a tinge of sympathy and not the other way round; because empathy is an ability to understand and share the feelings of another person, while sympathy is a feeling of pity and sorrow for someone else's misfortune. Self-respecting people will not like sympathy while they may willingly accept empathy. Empathy is powerful but it is hard to get right; needs caution and realistic assumptions, if made any. Empathy needs to be crafted carefully, with appropriate words, body language and intonation, so as not to remotely injure the feelings of the person; otherwise the purpose of approachability will be eroded.

Since approachability is essentially based on communication, it will be worthwhile to review the cardinal steps in communication, which are as follows:

Step No	Step Element	By	Explanation
1	Ideation	Sender	To crystallize thought as to what to communicate.
2	Codification	Sender	To put thought into a code (language, sign or gesture) which the receiver will be able to comprehend.
3	Transmission	Sender	To use appropriate means or tools to transmit thoughts to the intended receiver.
4	Reception	Receiver	To receive the matter, using compatible gadgets.
5	De-codification	Receiver	To comprehend the intent and content of message received.
6	Response or Reaction	Receiver	To formulate his response or reaction.

Note: Any aberration in any of the above six step elements will abort the communication.

## Conclusion

Approachability is a slow but sure way to effective communications. A group needs mainly two things to be cohesive in a team namely (i) a shared interest and (ii) a commonly accepted way to communicate.



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Non-Members	₹ 70,000	₹ 90,000	₹ 2,20,000	₹ 2,00,000	₹ 2,50,000
Member (10% Discount)	₹ 63,000	₹ 81,000	₹ 1,98,000	₹ 1,80,000	₹ 2,25,000

**JACKET AD: ₹ 1,60,000**

\* Payment to be made by cheque/ DD drawn in favour of Quality Council of India

**Mechanical Data**

Bleed Size : 21.6 cms x 29.4 cms  
Non-Bleed Size : 21.13 cms x 28.76 cm

**Other Informations**

Language : English  
Frequency : Quarterly

For further details, please contact: **Ms. Anam Qureshi** - anam.qureshi@qcin.org | +91 9899514911  
**Ms. Shalini Mukherjee** - shalini@qcin.org | +91 9999195426

**Quality Council of India**

Institution of Engineers Building, 11<sup>th</sup> Floor, 2 - Bahadur Shah Zafar Marg, New Delhi - 110002, India.  
Tel: +91-11- 2337 9321 | Fax: 91-11-2337 8678 | Email: info@qcin.org

## Professional Membership Scheme

Dear Quality Aspirants / Professionals,  
Warm greetings !

NBQP is one of the five constituent Boards of QCI. The "Professional Membership Scheme" is one of the initiatives which is being operated by the NBQP in order to make "Nationwide Quality Movement" a reality, as well as integrate the organizations, institutions and individuals working in the field of quality.

This "scheme" is open for all as per their eligibility and it would give you an edge over the other Professionals/ Corporates as QCI has earned the reputation of being a very credible, successful and highly sought after accreditation/ registration institution. Besides getting the membership certificate, a copy of quarterly "Quality India" magazine and an opportunity for placing articles/ads in it, discounted registration for the Awareness/Training programs & events such as Conclaves, Seminars/Workshops, access to the upcoming Knowledge Repository etc. will be provided.

If you have the passion to become a part of this movement for quality promotion, stay abreast with the latest on the quality front, connect with other professionals, advance your knowledge and career, or grow your reputation as a thought leader, this membership would put you on the right track.

**Best Regards,**  
CEO-NBQP(QCI)

For any membership related queries, you may connect:  
**Mr. Kushal Kanwar**

**Work: +91-11-23321274 / 23323415 | Ext: 307 / 302**  
**Mob.: 09654170686 / 09717062729**

# QCI PROFESSIONAL MEMBERSHIP SCHEME

**TO BECOME A MEMBER**  
**APPLY NOW!**

Any Accreditation with QCI (NABL, NABH, NABET, NABCB and ZED rated MSME) can avail 10% discount on membership fee

[www.nbqp.qci.org.in](http://www.nbqp.qci.org.in)