INDIA METEOROLOGICAL DEPARTMENT

STANDARD OPERATING PROCEDURE

FOR

TRAINING ACTIVITIES

IN

INDIA METEOROLOGICAL DEPARTMENT

2020

Foreword

India Meteorological Department (IMD) is the National Meteorological Service of India and the principal government agency in all matters relating to Operational Meteorology (weather forecasting), Climatology and allied subjects. Capacity building in the field of Operational Weather & Climate Services and in the allied fields has always been one of the prime thrust areas of the India Meteorological Department. Acknowledging the importance of the above, formal training in General Meteorology commenced at IMD in 1943 at Pune, pioneering the meteorological education in India. Acknowledging the importance of Meteorological Instruments & Tele-communication in improvement of weather services in the country, formal training in the above aspects started at IMD, New Delhi in 1970s. Since then, the training activities in IMD have undergone significant changes in the spheres of training infra structure, capabilities, objectives and contents keeping pace with latest developments in the field of operational meteorology and for catering to the needs of meteorological personnel at different levels. IMD has also established training centres at Chennai and Kolkata for catering to the regional needs. The training activities at Pune and New Delhi are World Meteorological Organisation (WMO) recognized Regional Training Centre (RTC) (Earlier known as Regional Meteorological Training Centre) since 1986. Being RTC components, IMD training have national as well as international commitments towards capacity building in different aspects of operational meteorology.

IMD has undergone major transformation in terms of state of the art observational platforms, meteorological data transmission & processing, numerical weather prediction, research & development activities and sector specific services. Designing and conducting different trainings for fulfilment above commitments is also an operational service. Training activities of IMD have also kept pace with this modernization through modern infrastructure, latest forecasters' work station for the trainees, providing training in blended mode through virtual class room, facilities to remotely register for training courses through training web portal; and a fully furnished hostel etc. However, need for a Standard Operating Procedures (SOP) for Training activities was being felt for quite some time.

Acknowledging above need, a committee of scientist from various IMD offices was constituted to prepare an SOP for training. The committee members performed their task remarkably well, by sharing their experience generously in the development of SOP. The uniqueness of this SOP are the key features like Virtual Class room, Training Web -Portal, faculty development program, constitution of a training advisory committee, Constitution of cells like Academic cell, Examination Cell & result cell, etc.

I express my deep appreciation to the members of the committee, viz., Dr Somenath Dutta, Sc F, Sh. P S Kannan, Sc E, Smt Samanti Sarkar, Sc E, Dr Kuldeep Srivastava, Sc E, Sh. Saurabh Adhikari, Sc E and Sh. Sunny Chug, Sc C, involved for their long hours of work in drafting and finalizing this document. I also put on record my appreciation for Sh. S.C Bhan, Scientist F for reviewing this document.

Date: 21st December 2020
Place: New Delhi

Mrutyunjoy Mohapatra

VISION

To transform the existing IMD training facility into an international centre of excellence in the training of Operational Weather & Climate Services and of other allied services, like Meteorological Instruments, data communication & processing, Information technology, Agricultural Meteorology, Remote Sense Meteorology, etc., with the state of the art hi-tech teaching aids infrastructures, like Virtual Class room, Training Web portal and various other facilities at par with any Institute of national & International Repute.

MISSION

Building and strengthening of the capacity of personnel in the field of Operational Weather & Climate services and in other allied fields for meeting their required job competencies as set by WMO, ICAO and other standard international agencies for providing highest level of operational Weather and Climate services.

Content

1. Introduction

1.1. Background: IMD is the National Meteorological Service of India and principal government agency in all matters relating to Operational Meteorology (weather forecasting), Climatology and allied subjects. Formal training in General Meteorology started at IMD, Pune in 1943 and that in Meteorological Instrumentation & Telecommunication in mid-1970s at IMD, New Delhi. IMD Training facilities at Pune and New Delhi has been recognized as Regional Meteorological Training Centre (presently known as Regional Training Centre - RTC) by the World Meteorological Organization (WMO) in 1986. Since 1988, the training centres of India Meteorological Department (IMD) at Pune and New Delhi are functioning as WMO RTC in the fields of General Meteorology, Climate/Climatology, Agricultural Meteorology, Aviation Meteorology, Seismology and Meteorological instruments & telecommunication.

1.2. Operational importance of Training Activities in IMD: Science of Meteorology & Climatology is multi-disciplinary in nature. Previously, formal academic institutes did not have any curricula on above multi-disciplinary subjects. Although as on today, there are some institutes which have curricula on Atmospheric Science/ Environmental Science/ Oceanography etc., they hardly address the operational aspects of these subjects. IMD and some other organizations such as the Indian Air Force, Indian Navy and Coast Guard recruit scientific personnel in Group-A and Group-B (non-gazetted) cadres, most of whom are not from the background of Atmospheric Science or Meteorology. Hence capacity building in different aspects of the above fields of the personnel recruited in IMD other organizations at different levels is very much essential.

1.3. Objectives:

1.3.1. Building and strengthening of Capacity of IMD personnel, at different levels, in the field of operational Weather & Climate Services, Hydrometeorology, Agriculture Meteorology, Meteorological Instruments, Communication & Information System, enabling them to meet their required job competencies to keep pace with latest developments in operation & upkeep of meteorological observation systems, data communication & processing and operational weather forecasting.

1.3.2. Building and strengthening of Capacity of the personnel from NM&HSs of the countries in Afro-Asia & Pacific regions, in the field of operational Weather & Climate Services, Hydrometeorology, Agriculture Meteorology, Meteorological Instruments, Communication & Information System, enabling them to meet their required job competencies.

1.3.3. Building and strengthening of Capacity of the people from other Government of India departments, in the field of operational Weather & Climate Services, Hydrometeorology, Agriculture Meteorology, Meteorological Instruments, Communication & Information System, enabling them to meet their required job competencies.

1.3.4. Development, augmentation and maintenance of training related infrastructure regularly

1.3.5. To monitor, evaluate and update the training curricula and processes for further improvements and to cater to the emerging trends & future needs.

1.3.6. Community capacity development in enhancing awareness among common people, stake holders about interpretation and application of weather & climate service's products.

1.3.7. To develop online and offline short training contents/modules.

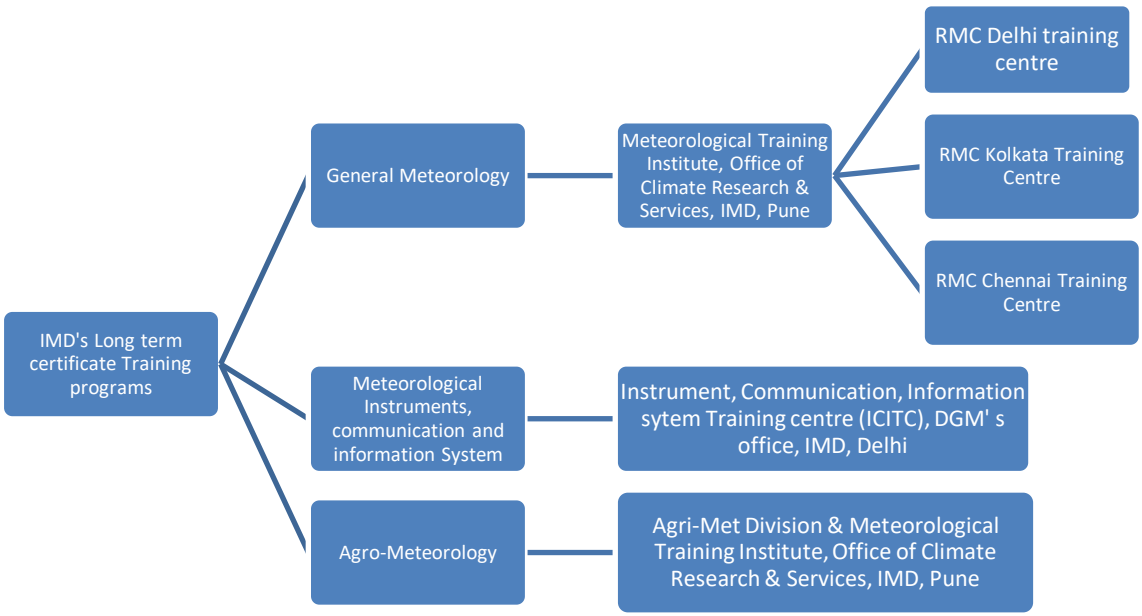
1.3.8. To upgrade the knowledge, skill & aptitude of trainers/training resource personnel through a faculty development program.

1.4. Commitments: Being nodal Govt agency in the relevant field and the owners of two RTC components of WMO, IMD is committed to

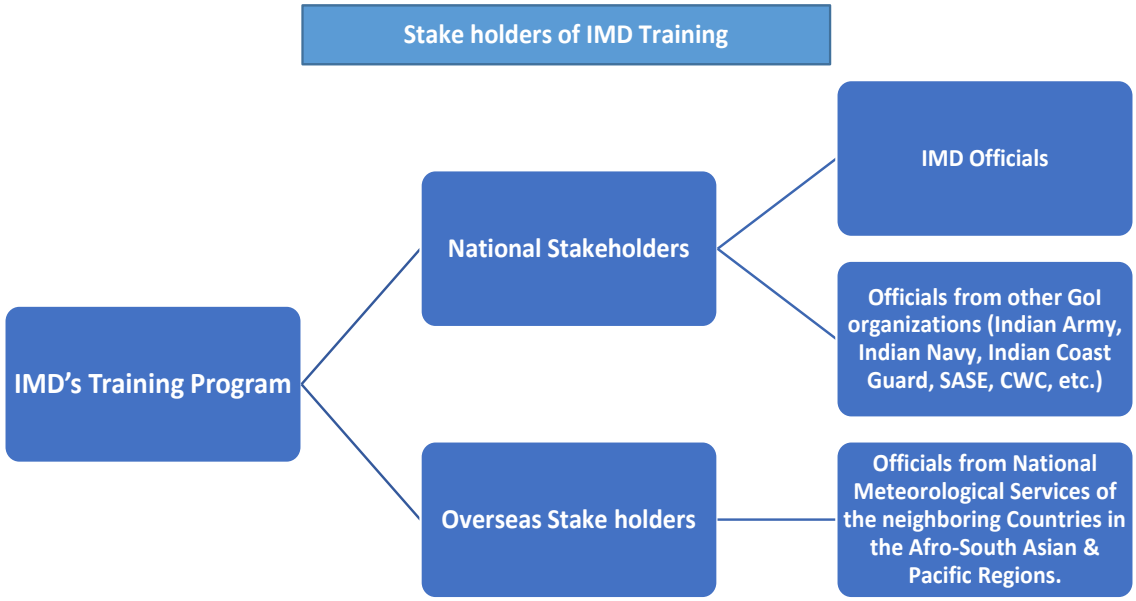
1.4.1. **B**uilding & developing capacity of the meteorological personnel of IMD and those of other government organizations, viz., Indian Navy, Indian Coast Guard, Indian Army, CWC etc in different aspects of Operational Meteorology, Climatology and Instruments & Telecommunication who are directly or indirectly involved in above fields and also of the personnel of NM&HS of neighboring countries in the Afro-Asia & Pacific regions; and

1.4.2. **T**o continuously enhance the knowledge, skill and aptitude (for maintaining and enhancing job competencies) of the personnel, engaged directly or indirectly in the above fields, time to time.

2. **Present Training activities:** To fulfill above mentioned commitments, IMD designs and conducts various long term (4-12 months) routine certificate training programs and short-term (one to a few weeks) customized tailor-made training/refresher training courses for the meteorological personnel working at different levels. Long term certified training programs are in the disciplines of General Meteorology (Weather & Climate services), Meteorological Instruments - Communication & Information system and in Agro-Meteorology. Organizational structure of these certified trainings is shown in the figure below:

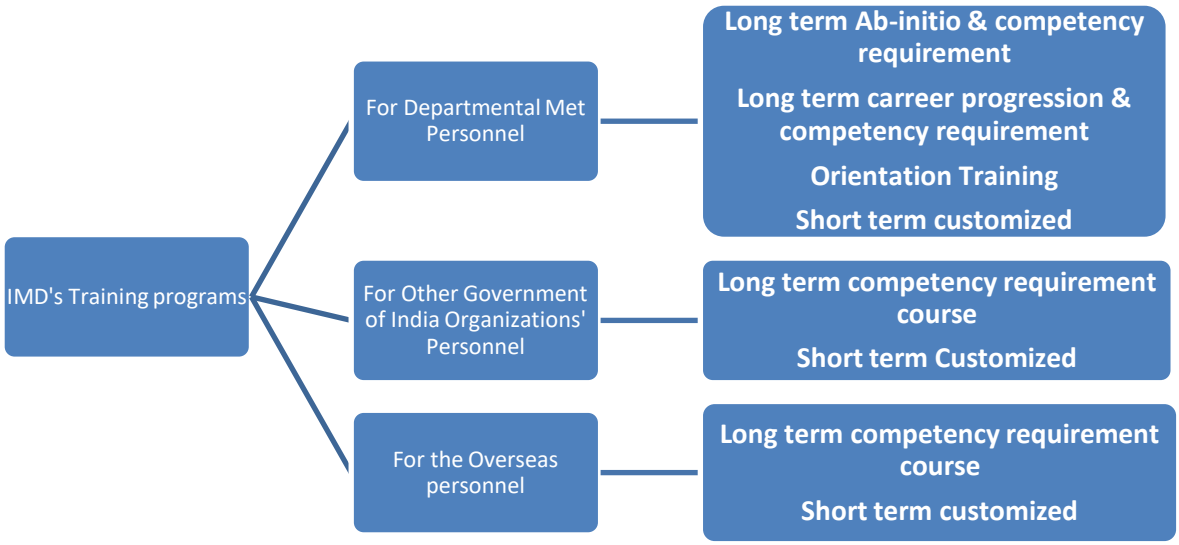


Stake holders of IMD's training service is shown in the figure given below:



Details of training courses offered by IMD is discussed in the next section.

2.1. Broad classification: A broad classification of training programs offered by IMD is given in below diagram, details of which are discussed below:



Number of personnel trained in General Meteorology discipline in different levels and that of overseas personnel trained are given in annexure-I pictorially.

2.2. Long term Ab-initio & competency requirement certificate training programs:

2.2.1. Meteorologist Gr-II Training course:

Duration: 12 months.

Disciplines: General Meteorology, Agriculture Meteorology and Meteorological Instruments, Communication & Information system.

Target audience: Fresh recruited Trainee Meteorologist Gr-II (Group-A officers of IMD, recruited directly through UPSC).

Learning objectives /Expected skills to be developed:

- Preparation & dissemination of weather analyses, forecasts and warnings.
- Formulation of weather forecasts, warnings and advisories for sectoral applications (agriculture, aviation, shipping, fishing, hydrology, power, health etc), emergency services and industry for assistance in better application of weather forecasts and warnings for efficient operation of weather sensitive activities,
- Create & manage climate data sets; ensure the quality of climate information and derive products.
- Create and/or interpret climate forecasts and model outputs for sector specific applications
- Communicate climatological information with users.
- Able to carry out research work independently or in group.
- Design, maintenance, calibration and operation of meteorological instruments; and quality control of observations.
- Process, generate products and generate application products from the observation platforms
- Design, maintain and operate communication network,
- Development of competencies to work efficiently as Meteorological Forecasters.

Competency: This course fulfils the WMO BIP-M requirements for competency.

2.2.2. Integrated Meteorological Training Course (IMTC)

Duration: 4 months.

Disciplines: Integration of all disciplines, viz., General Meteorology, Agriculture Meteorology and Meteorological Instruments, Communication & information system.

Target audience: Fresh recruited scientific assistants of IMD (Group-B non-gazetted staffs of IMD, recruited directly through SSC) for their next promotion to Group-B gazetted officer (Met-A/B); and Meteorological technicians from other Govt of India organizations (Indian Army, SASE, etc.) and NMHS of the neighboring countries in Afro-Asian-pacific region.

Learning objectives /Expected skills to be developed:

- Acquire basic knowledge on methods of meteorological observations and data analysis
- Taking, reporting & plotting of meteorological observation
- Acquire basic knowledge concerning physical principles and atmospheric interactions, a basic description of weather systems, and a basic description of the general circulation of the atmosphere and climate variations;
- Application of basic knowledge to observe and monitor the atmosphere and interpret commonly used meteorological diagrams and products
- Meteorological data communication, quality checks, archival and retrieval.
- Operation, upkeep and preliminary maintenance of observation and information systems including development & maintenance of websites.
- Assistance in the design, maintenance and calibration of Met instruments and communication network,
- Assist in preparation of Agrimet bulletins and etc.
- Assisting in preparation of weather and Climate analysis/report & advisories/bulletins for sectoral applications (agriculture, aviation, shipping, fishing, hydrology, power, health etc.), emergency services and industry.
- Assist in scientific analysis & research work.
- Development of competencies to work efficiently as Aeronautical Meteorological observer.
- The acquisition of basic knowledge concerning physical principles and atmospheric interactions, methods of measurement and data analysis, a basic description of weather systems, and a basic description of the general circulation of the atmosphere and climate variations;

- The application of basic knowledge to observe and monitor the atmosphere and interpret commonly used meteorological diagrams and products;

Competency: This course fulfils the WMO BIP-MT requirements for competency.

2.3. Long term career progression & competency requirement training programs for departmental personnel.

2.3.1. Intermediate training course:

Duration: 4 months.

Disciplines: General Meteorology and Meteorological Instruments, Communication & information system.

Target audience: Scientific assistants (SAs) (Group-B non-gazetted staffs) of IMD, promoted from senior observer (S.O).

Learning objectives /Expected skills to be developed: Taking, reporting & plotting of Meteorological observation, data processing. Assisting in preparation of weather and Climate analysis/report & different bulletins, assisting in scientific research work, in developing & maintaining websites of different offices/divisions of IMD. Assistance in the Design, maintenance and calibration of Met instruments, design & maintenance of communication network, preparation of Agrimet bulletins and etc. Development of competencies to work efficiently as Aeronautical Meteorological observer.

Competency: This course fulfils the WMO BIP-MT requirements for competency.

2.3.2. Forecasters Training course (FTC) & Advanced training in Instruments, Communication & Information System (ATICIS)

Duration: 6 months.

Disciplines: General Meteorology for FTC and Meteorological Instruments, Communication & information system for ATICIS.

Target audience: Group-B level gazetted officers (all Meteorologist-A & B), for their next promotion to Group-A level.

Learning objectives /Expected skills to be developed:

- **To provide supports to the Scientists in** Preparation & dissemination of weather analyses, forecasts, warnings etc.

- **To provide supports to the Scientists in** production and delivery of climate services.
- **To provide supports to the Scientists in** Design, maintenance and calibration of Met instruments; design and maintenance of communication network,
- Preparation of Agrimet and other user specific bulletins etc.
- Development of competencies to work efficiently as Meteorological Forecasters.

Competency: This course fulfils the WMO BIP-M requirements for competency.

2.4. Long term competency requirement courses for personnel from Other Govt of India Organizations and from NMHS of neighboring countries:

2.4.1. Advanced Meteorological Training Course:

Duration: 12 months.

Disciplines: General Meteorology, Agriculture Meteorology and Meteorological Instruments, Communication & information system.

Target audience: Group-A officers from other Govt of India organizations (Indian Navy, Indian Coast Guard, etc.) and NMHSs of the neighboring countries in Afro-Asian-pacific region.

Learning objectives /Expected skills to be developed:

- Preparation & dissemination of weather analyses, forecasts and warnings.
- Formulation of weather forecasts, warnings and advisories for sectoral applications (agriculture, aviation, shipping, fishing, hydrology, power, health etc), emergency services and industry for assistance in better application of weather forecasts and warnings for efficient operation of weather sensitive activities,
- Create & manage climate data sets; ensure the quality of climate information and derive products.
- Create and/or interpret climate forecasts and model outputs for sector specific applications
- Communicate climatological information with users.
- Able to carry out research work independently or in group.

- Design, maintenance, calibration and operation of meteorological instruments; and quality control of observations.
- Process, generate products and generate application products from the observation platforms
- Design, maintain and operate communication network,
- Development of competencies to work efficiently as Meteorological Forecasters.

Competency: This course fulfils the WMO BIP-M requirements for competency.

2.5. Orientation Training course for Multi-Tasking Staff & part time observation personnel:

Duration: 3 months.

Disciplines: Observation, Basic Met Theory, inspection of observatory

Target audience: MTS personnel of IMD and Part time observer.

Learning objectives /Expected skills to be developed:

- Taking and reporting of Meteorological observation,
- Upkeep of Meteorological observatories and maintain local data sets
- Assisting in inspection of observatory, assisting in repair of office equipment.
- Assist on preparation of different reports

2.6. Short term customized tailor-made training course/Advanced refresher training course:

Short duration (one to a few weeks) on specialized topics are designed and conducted to upgrade knowledge & skill of Meteorological personnel. Training divisions organizes, short term advanced refresher courses for the officers and staffs. List of such advanced refresher courses, conducted till date is given in annexure-II. At present advanced refresher course on Aviation Meteorology is conducted once in 3-5 years. Officers who have successfully completed GOTC (ab-initio Met-II or Scientist-B training)/AMTC/FTC/ATICIS participate advanced refresher course and Scientific

Assistants/Met-A/Met-B who has completed IMTC are eligible to join a Refresher course.

3. Training Methodology

A. Admission:

3.1. Eligibility Criteria for admission:

3.1.1. Trainee Met-II training: For directly recruited Trainee Met-II in IMD through UPSC with Post graduation in Physics, Mathematics, Computer Science/Application, Meteorology/Oceanography/Atmospheric Science, Agriculture/Agriculture Meteorology/Agriculture Physics/Agriculture Statistics, Electronics, Instrumentation or/and Graduate engineering in Mechanical, Electronics & Tele-Communication/Communication, Civil, Computer Science with 1st class.

3.1.2. Integrated Meteorological Training Course: For directly recruited Scientific Assistants (SAs) in IMD through SSC or nominated by other Government of India Organization or by NMHSs of other countries, with Graduation in Science with Physics & Mathematics as compulsory subjects, Degree/diploma in Mechanical, Electronics & Tele-Communication/Communication, Civil, Computer Science Engineering with 1st class.

3.1.3. Intermediate Training Course: For IMD personnel promoted from SO to SA or personnel nominated by Head of other Govt of India Organization or Heads of NMHS of other countries, with Graduate in Science with Physics & Mathematics as compulsory subjects, followed by successfully completion of Basic/Elementary (WMO-Class IV) training course in Meteorology, further followed by minimum 5 years working experience in the cadre of Senior Observer (S.O) or equivalent in IMD or in NHMS of neighbouring countries.

3.1.4. Forecasters Training course (FTC) & Advanced training in Instruments, Communication & Information System (ATICIS): For IMD

Group-B Gazetted officers (Met-B/Met-A), promoted from SA to Met-A or Met-A to Met-B or personnel nominated by other Government of India Organization or by NMHSs of other countries, with Graduation in Science with Physics & Mathematics as compulsory subjects, followed by successfully completion of **Intermediate Training Course** or **Integrated Meteorological Training Course (BIP-MT course)**, further followed by minimum 5 years working experience in the cadre of Met-A or equivalent in IMD or in NHMS of neighbouring countries.

3.1.5. Advanced Meteorological Training Course: For personnel nominated by other Government of India Organization or by NMHSs of other countries, with Graduate or Post Graduate in Science with Physics & Mathematics as compulsory subjects or Graduate engineers in Mechanical, Electronics & Tele-Communication/Communication, Civil, Computer Science discipline.

3.1.6. Orientation Training program for IMD MTS personnel & part time observer: Passed SSC/Matriculation/10^{th} Std.

3.1.7. Short term customized: Successfully completion of concerned long term certificate training course along with working experience of at least 5 years.

4. Admission process & Contact details: Admission process has been linked with training calendar given in annexure III. To facilitate more departmental officials to participate in the FTC & ATICIS, a couple of recommendations have been suggested in annexure-IV.

Contact details: MTI: Head, Meteorological Training Institute, Office of Climate Research and Services, India Meteorological Department, IMD Colony Campus, Dr Homi Bhaba Road, Pune-411008, Maharashtra State, India. Email: mtipune@imd.gov.in.

ICITC: Head, Instruments, Communication & Information system Training Centre, Office of Director General of Meteorology, India Meteorological Department, Mausam Bhavan, Lodi Road, New Delhi-110003, India. Email id: icitrg.centre@imd.gov.in

B. Execution of Training

4.1. At present, for a given subject same official(s) teaches, sets question paper and evaluates answer books. To avoid any types of biasness in the training system, it is recommended to **constitute three disjoint cells of scientists**, viz., **academic cell, examination cell and result cell** for each subject of IMD's routine long-term training courses with specific terms and conditions. Details of these three cells along with their proposed task is given as recommendation in Annexure-IV.

4.2. Training delivery mechanisms:

Presently training delivery is done through a blended mode, consisting of both Physical presence mode and distance learning mode. Local participants can join a course by physically attending it, where as remote participants join through distance learning mode (online & off line both). Similarly, local resource personnel can take a training session being physically present in the class room. In both modes resource personnel impart the training using White board & Pen, Power point presentation and video etc. Trainees who are present physically in the classroom shall attend the class directly; and remote trainees shall participate via distance learning mode. Distance learning has both online and offline versions. Through the online version, using generic online software, remote participants can concurrently interact with the resource person as well as with other participants. If any trainee due to any reasons, like non-matching of time zone (especially for overseas participant) or being pre-occupied with other office work in exigency, may join the training through off line by accessing saved recorded lectures.

4.3. Training evaluation process:

4.3.1. Training examination process: 30% of the total marks are allocated to internal assessment. Mode of internal assessment consists of Multiple-Choice Questions type test, solving problems/puzzles, making presentations, completing practical assignments, etc., as deemed to be convenient/suitable to a particular subject. Remaining 70% are done through written Examination only. At the end of each routine long-term training course, there is a viva-voce examination. The viva-voce board consists 3 members from IMD, 1 from other MoES institute, wherever available and 1 retired IMD personnel, available locally. Passing criteria and gradation of results is following the approved recommendation of latest Syllabus Review committee, given in annexure-V. However, considering the near future blended method of training, certain

recommendations have been made in annexure-IV, aiming at expediting the declaration of training results.

4.3.2. Training feedback mechanism: Feedback is taken from the trainees, from the owners of the trainees and from trainers/training managers also. Feedback form used to obtain trainee's feedback is given at annexure-VIII. Feedback forms neither have any name nor is it to be signed. All feedbacks are analysed at length at the end of course meeting and there it is decided which feedback can be addressed and which one can't with proper reason. Necessary actions are initiated to address the Addressable feedbacks at the earliest.

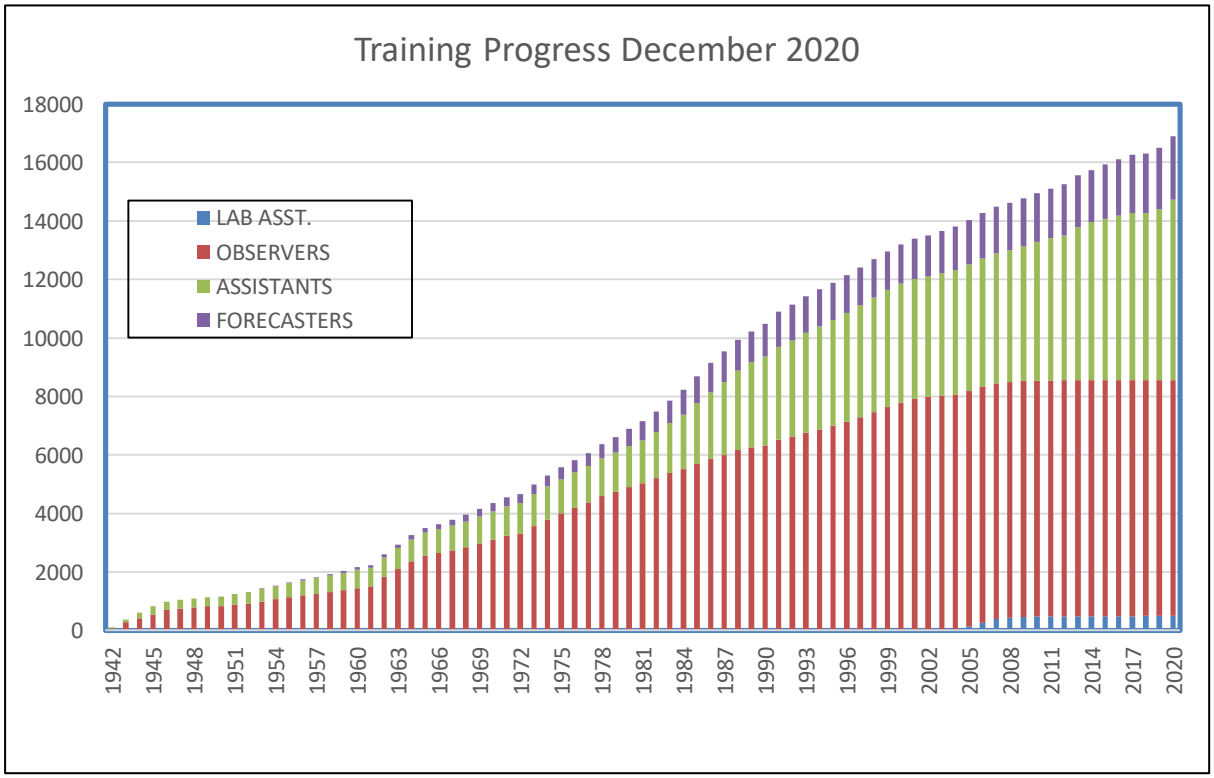
5. Syllabus revision process: Syllabi of all routine training courses are revised periodically, every 3-5 years. Syllabi revision process is initiated jointly by MTI & ICITC, after completion of 3 years of implementation of last revised syllabi. MTI & ICITC, jointly, identify different subjects in the regular training courses. For each such subject, 3-5 known experts are identified to form a subcommittee. Such subcommittees are proposed to the competent authority of IMD. After obtaining approval from competent authority, each member of the subcommittee, is approached through email along with the existing syllabi of concerned subject, with a request to revise the existing one by necessary modifications. Inputs received from each member of the subcommittee are compiled at MTI & ICITC to form a consolidated proposed revised syllabus. These compiled proposed syllabi of different subjects for different routine training courses are brainstormed by a committee for final review of training syllabi, formed by Director General of Meteorology. This committee, generally chaired by a senior expert with Head MTI/ICITC as member secretary and a few serving/retired scientists/academicians/operational Meteorologists as members, recommends the revised syllabi for all training courses and the passing/gradation of results criteria. Recommended syllabus and other recommendations of the report are sent to IMD HQs where an internal committee consisting of heads of all technical divisions provide their comments on relevant parts of the recommended syllabi. MTI & ICITC jointly incorporate those comments in the recommended syllabus and again forwarded to DGM for final approval. After obtaining DGM's approval, the final approved revised syllabi is implemented. Entire approval process is done through the Head, Organization division of IMD, HQ only. Sitting fees/honorarium and TA to the members of sub-committees and final review committee are paid as per the existing rules. Latest revised syllabi of all

long term certificate training courses are uploaded in the website of IMD training imdpune.gov.in/training/ **Training calendar:** All routine long tern training programmes, viz., AMTC, FTC, IMTC, etc., are executed following training calendar. Tentative calendar with expected month of commencement is same as the training calendar, which is given in Annexure III. The actual calendar is uploaded in the IMD's training services website about 3 months in advance and updated periodically.

6. **Training Infrastructure:** At present all the 4 training centres of IMD, viz., Pune, Delhi, Chennai and Kolkata, consist of training building and hostels. Training building consists of necessary number of class rooms equipped with traditional Black board Chalk Duster/ white board pen as well as audio-visual facilities, like smart interactive board, Video wall, etc. Hostel is equipped with self-contained rooms. Training centres and hostels are Wi-Fi enabled and have backup for uninterrupted power supply. Each training centre is also equipped with an operational observatory, which is utilised for hands on practical observation session.

7. **Suggested Recommendations:** Recommendations on following aspects, aiming at a better and more effective delivery of IMD's training services, have been given in annexure-IV, for consideration to implement.
   - **Admission process.**
   - **Examination cum result declaration process.**
   - **Formation of three disjoint cells of Scientists, viz., Academic cell, Examination cell and Evaluation/Result cell.**
   - **Monitoring & maintenance and quality assurance of Training.**
   - **Faculty development program.**
   - **Revamping Training infrastructure.**
   - **Introduction of a blended learning mode in IMD's training system through Virtual Classroom and training web portal integrated together.**
   - **Upgradation of the status of IMD Training centre to a National Training Centre**.
   - **Well defined Training need analysis system.**
   - **Rewarding successful trainees.**
   - **Training Information System.**

- **Collaborative programs**.
- **Other issues related to OJT of Met-II training:**
- **Training calendar.**
- **Preparation of short-term training modules.**
- **Development of audio-visual training Tools/Contents.**



FOREIGN TRAINEES TRAINED IN GENERAL METEOROLOGY TILL DECEMBER 2019 = 284

AFGHANISTAN	19	GHANA	01	LESOTHO	10	NEPAL	05	SRI LANKA	27	UAE	02
BANGLADESH	11	IRAN	02	MALDIVES	30	NEW GUINEA	02	SUDAN	05	UGANDA	01
BHUTAN	20	INDONESIA	02	MAURITIUS	22	NIGERIA	12	SYRIA	09	VANUATU	01
DOHA QATAR	02	KENYA	01	MALAYSIA	11	OMAN	03	TANZANIA	02	VIETNAM	06
EAST AFRICA	03	KOREA	03	MONGOLIA	02	PHILIPPINES	04	THAILAND	03	YEMEN	14
ETHIOPIA	35	LAOS	04	MYANMAR	02	SEYCHELLES	01	TRINIDAD & TOBAGO	01	ZAMBIA	01
										FIJI	05

Annexure-I

Annexure-II

ADVANCED REFRESHER COURSES CONDUCTED SO FAR

1.	June 1970	Stratospheric Meteorology	32	Sept. 2005	2nd Batch of Aviation Refresher course for SO & SA's
2.	March 1971	Numerical Weather Prediction	33	Sept. 2006	Multistake holder consultation workshop cum seminar on Communicating Meteorology
3.	May 1972	Hydrometeorology	34	Feb. 2007	Special Refresher Course on General Meteorology for Salt Commission Personals & salt manufacturers
4.	March 1974	Agricultural Meteorology	35	May 2007	Met. Training course for observers of Army/SASE, (Conducted at MMC Srinagar) under project PARWAT
5.	Feb. 1975	*Satellite Meteorology*	36	July 2007	Direct Trainer skills course conducted jointly by MoES & IMD at CTI, Pune
6.	Oct. 1975	Aeronautical Meteorology	37	Sept. 2007	Met Training course for observers of Army/SASE, (Conducted at MMC Srinagar) under project PARWAT
7.	Feb. 1976	Tropical Cyclones	38	Sept. 2007	Direct Trainer skills course conducted jointly by MoES & IMD at Goa.
8.	Dec. 1976	Numerical Weather Prediction	39	Dec 2007	First Advanced course on Astronomy
9.	Feb. 1977	Agricultural Meteorology	40	May 2008	Met. Training course for observers of Army/SASE, (Conducted at MMC Srinagar) under project PARWAT.
10.	Dec. 1977	Atmospheric Waves	41	May 2008	Refresher Course on Hydrometeorology for staff working at FMO.
11.	Feb. 1984	Synoptic Analysis in Tropics with special reference in Aeronautical Meteorology	42	May 2008	Met. Training course for observers of Army/SASE, (Conducted at MMC Srinagar) under project PARWAT.
12.	April 1989	Short Range Weather Prediction including use of	43	July 2009	Mid level update Course for Naval met. officers

		Numerical Weather Prediction products			
13.	Jan. 1991	Cyclone Warning	44	Nov. 2009	Aviation Meteorology.
14.	Sept. 1991	Aviation Meteorology	45	March 2010	Workshop for Journalists under Outreach Programme
15.	Sept. 1992	Cyclone Warning (Emphasizing operational aspects and use of PCs in operational work)	46	March 2010	Workshop for Teachers under Outreach Programme
16.	Dec. 1993	Aviation Meteorology (SAARC Seminar cum Training Workshop)	47	Sept. 2010	WMO CLIPS Workshop on Urban Climatology
17.	Sept. 1994	Satellite and Radar inputs for Cyclone Warning (Conducted at New Delhi)	48	Sept. 2011	Aviation Refresher Course
18.	May 1995	Operational Numerical Weather Prediction models	49	Nov. 2011	Mid-level update Course for Naval met. Officers
19.	Dec. 1995	SAARC Seminar cum Workshop on Tropical Cyclones and Forecasting (Conducted at Calcutta)	50	Nov. 2012	Application of DWR Products in NWP
20.	Jan. 1996	LRF and Climate Change	51	Dec. 2013	Short term Training course in General Meteorology
21.	April 1996	Mesoscale systems and circulation with special emphasis on Tropical cyclones	52	Nov. 2014	WMO Group Training Course “Instrument Maintenance & Calibration”
22.	Nov. 1996	Aviation Meteorology	53	Aug. 2015	Operational Climate Services
23.	Sept. 1996	SAARC Training Workshop on Long Range Weather Forecasting and Climate Change	54	Dec. 2016	WMO Group Training Course “Instrument Maintenance & Calibration”
24.	May 2002	Aviation Meteorology	55	March 2017	Aviation Meteorology
25.	Sept. 2002	Special Refresher Course on General Meteorology for Naval Officers	56	Feb. 2018	Refresher course on Interpretation of NWP products for weather forecasting services
26.	Dec. 2002	Special Refresher Course on General Meteorology for Salt Commission Personals & salt manufacturers	57	March 2018	Refresher course on Diagnostic / Synoptic Meteorology
27	April 2004	Numerical Weather Prediction	58	Nov. 2019	Advanced Refresher course in “Aviation Meteorology”
28	May 2004	Environmental Meteorology	59	Dec. 2019	International Training Workshop on “Operational

					Climate Services"
29	May 2004	1st National Workshop for Port Meteorological Officer's	60	Jan. 2020	Advanced Refresher course in "extreme Weather Events"
30	June 2004	Special Refresher Course on General Meteorology for Naval Officers	61	March 2020	Training Course on "Agro-meteorology Forecasting, Translation & Dissemination"
31	April 2005	1st Batch of Aviation Refresher course for SO & SA's	63	Nov. 2020	Advanced Refresher course in "Aviation Meteorology"

Annexure-III

Training Calendar

Training course	Duration in months	Date of commencement	Last date of acceptance of nomination	Date of uploading in WMO GC.	Date of initiation/Planning of process.
IMTC	4	I. 1st working day of 2nd week of January in each year. II. 1st working day of 3rd week of May in each year. III. 1st working day of 3rd week of Sept in each year.	For overseas participants at least 10 working weeks, for national non-departmental participants at least 4 working weeks and for departmental participants at least 2 working weeks before the date of commencement of each batch of the training.	Announcement of training commencement for all batches along with other necessary details of the specific training course should be uploaded in the last week of December of the previous year.	2 months before the date of commencement of each batch of the training.
FTC & ATICIS	6	I. 1st working day of 2nd week of March in each year. II. 1st working day of 2nd week of September in each year.	For overseas participants at least 10 working weeks, for national non-departmental participants at least 4 working weeks and for departmental participants at	Announcement of training commencement for all batches along with other necessary details of the specific training course should be uploaded in the last week of December of the previous year.	2 months before the date of commencement of each batch of the training.

			least 2 working weeks before the date of commencement of each batch of the training.		
AMTC	12	1st working day of 2nd week of September in each year.	For overseas participants at least 10 working weeks and for national non-departmental participants at least 4 working weeks before the date of commencement.	Announcement of training commencement along with other necessary details of the specific training course should be uploaded in the last week of December of the previous year.	3 months before the date of commencement of each batch of the training.
Ab-initio Group-A officers training Course (Ab-initio Trainee Met-II/ Scientist-B course).	12	I. 1st working day of 2nd week of April in each year. II. 1st working day of 2nd week of July in each year. III. 1st working day of 2ndweek of October in each year.	At least 2 working weeks before the date of commencement of each batch of the training.	Not applicable	3 months before the date of commencement of each batch of the training.
Orientation	3	I. 1st working	At least 2	Not applicable	2 months before

training		day of 2nd week of April in each year. II. 1st working day of 2nd week of July in each year. III. 1st working day of 2nd week of October in each year.	working weeks before the date of commencement of each batch of the training.		the date of commencement of each batch of the training.
Short term customized	5 per with 1-2 weeks duration	Jan, March, May, Oct, Dec.	At least 1 working weeks before the date of commencement of each batch of the training.	Announcement of training commencement along with other necessary details of the specific training course should be uploaded 3 months before any such course	3 months before the date of commencement of each batch of the training.
Foreign trainees' course in agricultural meteorology	6 months	1st January & 1st July (as & when informed by HQ, New Delhi). Short term courses are also organized as per the demand from the countries.			
Summer	4	1st week of June to			

placement course	weeks	last week of June.			
AMFU training course for technical officers/ nodal officers of AMFUs	2 weeks	As and when required			
Short term training course for SMS (Subject matter specialist) of DAMUs, KVK	1 week	As and when required			
Development of CRM tools for risk management in Agriculture	One week	As and when required			

Annexure-IV

Recommendations

1. **Admission process:** For departmental personnel, especially departmental Group-B gazetted officers for their 6 months FTC & ATICIS training programs, mean age should be preferably 45 years, with maximum age 50 years. Moreover, if a potential candidate can't participate in such training program by physical presence, due to organizational reasons or personnel reasons, then such candidate shall register, through training web portal, for joining the program in distance learning mode, through virtual class room. Such request should be clearly mentioned in the admission form.
2. **Examination-cum-result declaration process:** As the training methodology is going to be in a blended mode, hence for conduction of final examination of remote participants following method is recommended:

   Trainee appearing for examination should be provided a PC equipped with internet connection and webcam. In the examination hall candidates/trainees appearing for examination should be provided with internet connection and webcam. Question paper can be uploaded as an assignment in the google classroom for respective subjects, 15 minutes before commencement of examination. Trainee shall download it and write the exam on the answer book. After examination, each page of answer book should be scanned and scanned answer books should be uploaded by the trainee as completed assignment in the google classroom. Entire process should be done under strict invigilation of an official nominated by the Head of office/centre, where exam is being conducted for remote trainee. Soft copies of answer books, thus received at MTI/ICITC, should be immediately forwarded to concerned examiner, requesting to send evaluated answer books within 3 weeks. It will enable MTI/ICITC to declare result within 6 weeks of completion of exam.
3. **Formation of three disjoint cells of Scientists, viz., Academic cell, Examination cell and Evaluation/Result cell. Proposed structure and task of these three cells given below:**

   Scientists under Academic Cell are entrusted upon to take classes of respective subjects of different training courses of IMD. Teaching/Instruction process of any subject for any course should be completed by at least 2 weeks before the commencement of

examination. Remaining 2 weeks should be utilized as interactive session for clearing doubts or clarifying to queries of the trainees.

Scientists under examination cell are entrusted upon preparing question bank and preparing question papers of examinations. Training divisions (MTI & ICITC) at Pune & Delhi shall provide last 10 batches question papers and question bank to this cell facilitating preparation of question paper. Responsibility of preparing question paper shall be given to two scientists of this cell. Selection of this pair of scientists shall have rotation within the cell from year to year. One will prepare 50% of the question paper and the second one shall prepare remaining 50% of the question paper. Head MTI/ICITC shall finally compile these to form the complete question paper. Entire process shall be coordinated by MTI & ICITC. It must be ensured that no question has come out of syllabus.

Scientists under evaluation cell are entrusted upon evaluation of answer books of training examination. Each paper shall be evaluated by two scientists within the cell. Selection of this pair of scientists shall have rotation within the cell from year to year. If the marks awarded by the two scientists is within one standard deviation, then the final marks to be awarded is the average of them. However, if the marks awarded by the two scientists exceed by one standard deviation, then the paper will be checked by a 3rd examiner, a 3rd scientist within this cell. Third examiner shall be appointed by training head. Then the marks awarded by the third examiner shall be taken as the final marks to be awarded. Results of examination of any training course should come out within 60 days of the date completion of the said training course.

4. Monitoring & maintenance and quality assurance of Training: To monitor & maintain and for quality assurance of IMD's training service, it is recommended to constitute a Training Advisory committee (TAC), the constituents and functions of this committee is given Below:

TAC is proposed to be chaired by DGM, IMD, with Head MTI & ICITC as joint member secretaries, representative from Secretary MoES, members from other MoES institutes, retired scientists/academicians/operational Meteorologists. Overall function of this committee is to monitor and maintain the overall standard/quality of performance of different components of the training activities, completing the entire revision process of training syllabi in coordination with MTI & ICITC and for time to time advising & helping the IMD training authority regarding training policy, training curricula and quality assurance of training service. Tenure of this committee should be 5 years,

facilitating it to complete the process of training syllabi revision once during its tenure. This committee shall meet once or twice in a year, discussing all the training feed backs and other relevant issues, followed by issuance of necessary advices to the heads of MTI & ICITC for addressing the concerned issues. Sitting fees and TA to the members attending the 6 monthly or yearly meeting may be paid as per the existing rules.

5. Faculty development program: To enhance knowledge, Skill & attitude of departmental resource personnel and elimination of inbreeding in IMD training system, it is recommended to introduce a systematic faculty development program, details of which is given Below:

Faculties for all the routine long-term certificate training courses are mostly (75-80 %) drawn from among serving personnel of IMD. These serving personnel are mostly with academic background in Physics, Mathematics, Agronomy, Geophysics, Civil engineering, Electronics & communication etc. Most of them acquire their academic background in Meteorology, through their ab-initio departmental training in above mentioned discipline. This situation is most likely to bring inbreeding in IMD training system. To enhance the knowledge, skill and attitude of the IMD faculties and to reduce this inbreeding in IMD training, a faculty development program should be introduced. Following this program, DoPT institutes, like IST&M, YASHADA, etc should be approached for organising the cycle of Training of Trainers, in which on yearly basis about 20 IMD personnel from all over India, engaged in teaching, can join such programs. Also 10 IMD personnel, on an annual basis, teaching core subjects in different training, should be send to reputed institutes for enhancing their knowledge and skill of teaching those subjects.

6. Revamping Training infrastructure: MTI at Pune and ICITC at New Delhi are two components of WMO RTC, owned by IMD. To keep pace with the other RTC components in the developed & developing countries, training infrastructure of IMD needs to be matched with that of RTCs in the above-mentioned countries. In view of that, it is recommended that training infrastructure of IMD, including training building, training hostel, Library, Training vehicle, training website, etc., to be fully revamped. Details of it is given below.

Construction of new training building: The present training building at Pune was constructed in 1993 with provision of only 4 class rooms for conducting regular training classes in addition to an auditorium and a conference hall. The class rooms are not enough. The library room is also not very spacious. There are no rooms for the visiting

faculty members. There are no study rooms for the trainees. The rooms are also not spacious enough for the existing faculty members. Space problems are also being faced while organizing workshop/seminars for the professional courses in different disciplines. It is recommended to construct a new (G+1) training building with enough class rooms, equipped with state-of-the-art teaching facilities, enabled with conduction of both physical mode and distance learning mode (on line & offline both), computer lab, NWP lab, Synoptic lab & instrument lab, examination hall etc. The lab should be spacious enough & equipped to accommodate about 40 trainees at a time. Computer lab and NWP lab are recommended to be equipped with LAN and high-speed broadband Internet facilities.

Training Website: Training divisions (MTI at Pune & ICITC at New Delhi) should have a very good website, containing static & dynamic pages. Static pages should contain general information, like location, climate information of the place, Historical back ground of IMD training, its objectives, commitments, different types of training programs offered along with their learning objectives, information about the link for training e-web portal, general information about IMD's virtual training class & programs, etc. Dynamic pages should contain yearly training calendar, information about the results out of different routine long term certificate training courses, information about holding of any short-term tailor-made refresher courses, etc. **Conversion of parts of the old training building into a modern library with on-line reference facility:** The existing library is not spacious enough to accommodate about 40 trainees at a time. This library although has many books but has a very few journals. In the existing setup, trainees and faculty members do not have facilities for using library after office hours or on holidays. It is recommended to convert the existing training building partly into a modern library with on-line reference facility, with sufficiently long hours of operation.

Construction of Gymnasium Room and Recreation room Facilities: This training centre does not have games and recreation facilities for the trainees/ faculty members. It is recommended for provision of a gymnasium and recreation facilities at the campus.

Observatory: Training centres should have a well-developed operational weather observatory for hands on practical exercise on observation of all Meteorological parameters.

Office transport: As the Pune & Delhi training centres are functioning as two components of WMO RTC, owned by IMD, hence to keep pace with the status of other RTCs, office transports should be possessed by these two centres. Office transports shall

be utilized for commutation of guest faculties/dignitaries/ foreign trainees between their residence/airport/railway station and the training centres. It will also be utilized for the academic excursion trips, connected to a specific training program, of the trainees.

7. Introduction of a blended learning mode in IMD's training system through Virtual Classroom and training web portal integrated together: Blended learning mode should be introduced in IMD's training program by establishing virtual class room and training web portal integrated each other. Details of virtual class room and training web portal are given below:

Establishment of Virtual Classroom and training web portal integrated together: Blended learning method is recommended to introduce in IMD's training program by establishing virtual class room & training web portal facilities, integrated together.

Virtual class room: This facility will enable conduction of training program in both modes, viz., by physically presence mode and distance learning mode. Participants, who can come to the training centre, they will have training in Physical presence mode and those who can't come to the training centre, shall join the training in distance learning mode, through Virtual Classroom. Mode of joining in a training program shall be decided by the in charge of parent office of the participant, in consultation with Training Heads, analysing the real situation. Virtual Classroom facility should have both online and offline version. This facility shall enable recording of every training session, including all discussions, and save them. If one trainee, due to any unforeseen situation (arisen from personal cause or office cause) fails to attend a training session live online or by physical presence, he/she would be able to get the entire training session (including all discussions, materials, etc.) via off line version by accessing those recorded sessions. However, admission to any training program, via distance learning mode requires an online registration through training Web portal.

Training e-web portal: The web-portal will serve as a link between outside world and IMD virtual classrooms. Through web portal any outside trainee (National & International) will get an opportunity to join in training programmes of IMD. It will serve as an IT platform to enable trainees to be a participant in training courses conducted by IMD. Any trainee desiring to be participant will need to fulfil criteria's: PR nomination letter along with PR certification on his latest photograph in case of international trainee. The web e-portal will first automatically register the trainee seeking documents, like 1) B. Sc. degree with Physics & Mathematics, 2) BIP-MT certification, 3) English language proficiency, etc. The trainee will then have access to training

schedule, course materials through web e-portal (both in on-line mode and off-line mode) and join the training through virtual class room. The registered trainee will have to fulfil 90% attendance to give online exam for his selected course and will also get his certification in online mode. The thrust areas of this proposal are to have a portal to cater to training for requirements of various training programmes being organized by MTI/ IMD. The portal of IMD is expected to function as a link between trainees and trainers. It should also serve as a new e-learning and content management portal with integration of virtual classroom project that supports live online classes for distance learning and remote education and thus it will integrate the virtual classroom manager with an e-portal. Having dedicated web portal will have an advantage in training programmes of IMD as it will be cost effective and will save money and save travelling time of instructors. Prime aim of establishing a web portal is hosting training to simultaneously impart training and share the resources/notes to a remote location (national/international) via authenticated login. A conceptual data flow diagram for the training e-web portal is given in Annexure-VII.

8. Upgradation of the status of IMD Training centre to a National Training Centre: Although IMD is rendering training services to the Nation, but till today Training Establishment of IMD is not able to enjoy the status of a National training centres, like, National Water Academy, Lal Bahadur Shastri National Academy of Administration, etc. Once this status is achieved, IMD personnel & Serving personnel from other institutes with adequate qualification, academic aptitude and teaching/research experience can be posted on deputation basis to training, the minimum tenure of which is 5 years. During deputation faculty members will be eligible to get 30% teaching allowance besides their normal pay. Initiative should be taken for this.

9. Well defined Training need analysis system: A well-defined training need analysis (TNA) system should be in place formally in IMD's training program. Training needs analysis ideally and crucially is based on the Evaluation of Training (EoT). Evaluation of a concluded training event is based on the integrated analyses of participants' feedback, stakeholders' feedback, trainer's feedback, and the training manager's feedback. Above EoT, followed by TNA program should be done systematically in collaboration with YASHADA, Pune and IST&M, New Delhi. It is proposed that in each technical division of IMD, there should have a small HRD component, which is entrusted upon with the assignment of systematically identifying the gap between the existing competency and

required competency in the official in that division. Based on this only officials of the division should be sent for appropriate training.

10. Rewarding successful trainees: To make the long-term certificate training courses attractive to the departmental trainees and to motivate them towards learning process, it is suggested to introduce a system of rewarding successful trainees. It is known that for encouraging the use of Hindi language in-office activity, already there is a scheme of offering one annual advance increment for one year and also a cash award, to the Govt official after successful completion of Hindi training. In the similar line, to enhance motivation & interest among IMD personnel (SA, Met-A, Met-B) for undergoing above training very actively, it is proposed to give one advance increment to all trainees, who have completed the training courses successfully, for one year only along with one-time cash award to those successful trainees who stand 1st, 2nd & 3rd. By the implementation of the above, motivation & interest to undergo the departmental training among departmental SA, Met-A, & Met-B shall be enhanced very significantly, leading to an enhanced delivery in their profession.

11. Training Information System: The information on training imparted to all employees of IMD should be maintained in electronic format at one place so that training information analysis could be conducted easily, and people sent for training based on need. The said data base may also have details of educational qualifications for the employees. This information should be accessible to IMD Establishment section (HQ) through training e-web portal.

12. Collaborative programs: Training divisions should have routine collaborative program with academic/research institutes at national & overseas levels, like other MoES institutes, IITs, IISERs, Universities, NOAA, MFI, UK Met office, COMET, NPTEL, etc. Scientists from these institutes should be invited for longer durations for theme-based training for the senior officers of IMD and also for in-house faculty development program. Faculty members should be encouraged to undertake research in addition to imparting training

13. Other issues: In the GOTC training (ab-initio Met-II or Scientist-B training) program a small component of needs to be added in the On the Job Training program. After completion of one-year training, Scientist 'B's may be sent to field stations for about 1 months (4 working weeks), after which they should be called back to the Institute for a short duration of 2-3 weeks for sharing field experience as well as to provide

feedback on training and its applicability in the field. This will help the institute in upgrading the course content and the system.

14. Training calendar: All training programmes should be executed following a fixed training calendar, which is given in Annexure-III. This training calendar should be uploaded in the IMD's training services website and it should be updated periodically. Suitable persons should be fixed to maintain and monitor the training calendar.

15. Preparation of short-term training modules and development of audio-visual Tools/Contents:

14.1.Advanced Refresher courses: Training divisions should organize, at least six in a year, short term advanced refresher courses (online/physical/blended mode, whichever is feasible) for the officers and staffs. Important topics for such courses are given in Annexure-VI. Aviation Meteorology refresher/advanced refresher course should be conducted every year. Refresher/ Advanced Refresher course on Airport Meteorological Instruments, may preferably organized at the stations, where the airports are located. This will ensure maximum participation. Officers who have successfully completed GOTC (ab-initio Met-II or Scientist-B training)/AMTC/FTC/ATICIS can join advanced refresher course and Scientific Assistants/Met-A/Met-B who has completed IMTC are eligible to join a Refresher course. Nominating an officer/staff from a particular technical division for a specific refresher (advanced refresher) course should be based on a systematic training need analysis, done by the division itself. After returning from a refresher course, change in the knowledge, skill & attitude of the concerned official should be noted formally, to ensure whether the course has really improved the trained official. Each officer should mandatorily attend at least one refresher/advanced refresher course in every five years. If necessary, this may be linked with their promotional aspect. Information about the refresher/advanced refresher courses attended by any IMD scientific personnel should be stored electronically by training divisions and this information should be accessible by IMD, HQ Establishment through training e-web portal. Calendar of the refresher courses, planned for a given year, should be displayed in the training website by 25th December of previous year. Training division should obtain the necessary administrative approval cum expenditure sanction for conducting all planned refresher courses, in the first quarter of the year.

14.2.Training modules: Training division should collaborate with NPTEL, IITs, IISc, IISERs, COMET, UKO Met office college, RTCs in the advanced countries, etc. for preparation of audio-visual training contents for different short-term training modules,

like atmospheric general circulation (Dishpan experiments etc.), Cloud physics, thunderstorm, data assimilation, convective parameterization, tropical cyclone, tornedo, Interaction between westerly and easterly waves, Low level wind shear and turbulence, etc. Topics of such contents will be decided in consultation with training advisory committee. As this involved expenditure towards payment of remuneration of the experts and software/ hard ware requirements, hence training division should indicate separate budget for this in its annual budget.

Annexure-V

Grading process:

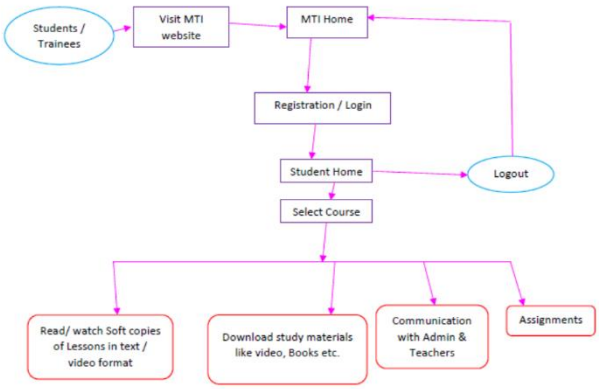
Category	**Percentage of marks obtained**
Passed, Outstanding	90 and above
Passed, Excellent	80.1 to 89.9
Passed, Very Good	70 to 80
Passed, Good	60 to 69.9
Passed	50 to 59.9

Annexure-VI

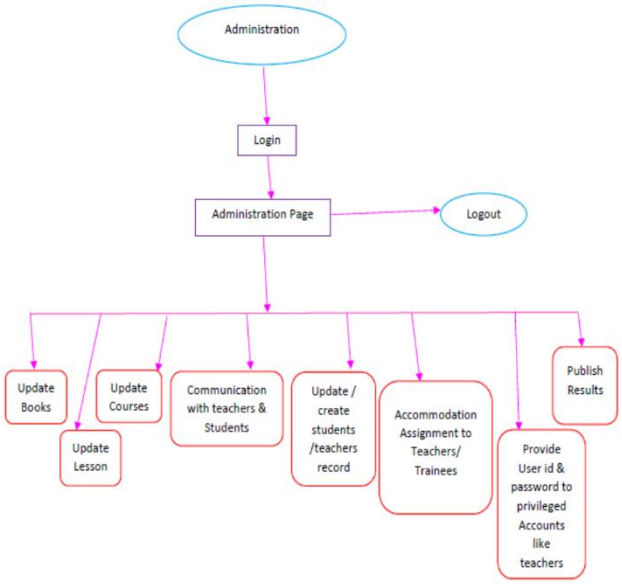
Different topics for Refresher courses

1. Aviation Meteorology,
2. Severe weather forecasting & warning services,
3. Interpretation and application of Satellite and Radar products in weather forecasting,
4. Data assimilation,
5. Physical Parameterization,
6. Interpretation and application of NWP products,
7. Tropical Cyclone,
8. Mesoscale weather systems,
9. Monsoon, Impact based weather and climate services,
10. Climate data management,
11. Global observing systems,
12. climate monitoring and prediction,
13. climate applications,
14. Observational network,
15. Hydrology,
16. Meteorological instruments-their design, calibration and maintenance,
17. Environmental Meteorology- Air pollution,
18. Atmospheric waves,
19. Physics and dynamics of upper atmosphere,
20. Atmospheric Chemistry, Urban Meteorology,
21. Agriculture Meteorology,
22. Radar Maintenance
23. Radiation Meteorology
24. Cloud Physics
25. Advanced atmospheric thermodynamics, etc**.**

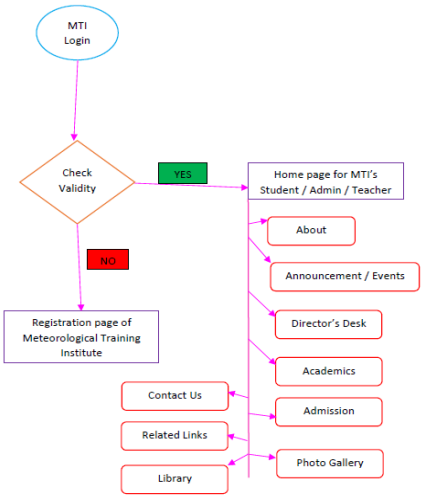
Registration Module for Meteorological Training Institute (MTI) Students / Trainees



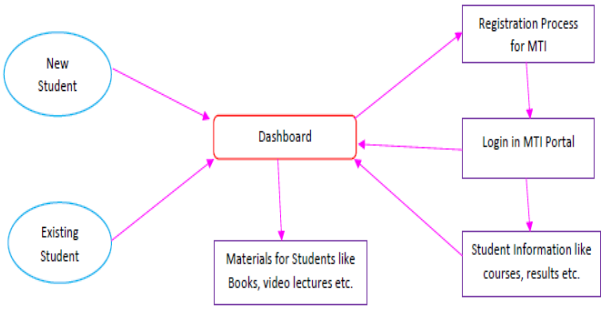
Meteorological Training Institute (MTI) Administration Module



Data Flow Diagram for Meteorological Training Institute Web E-Portal



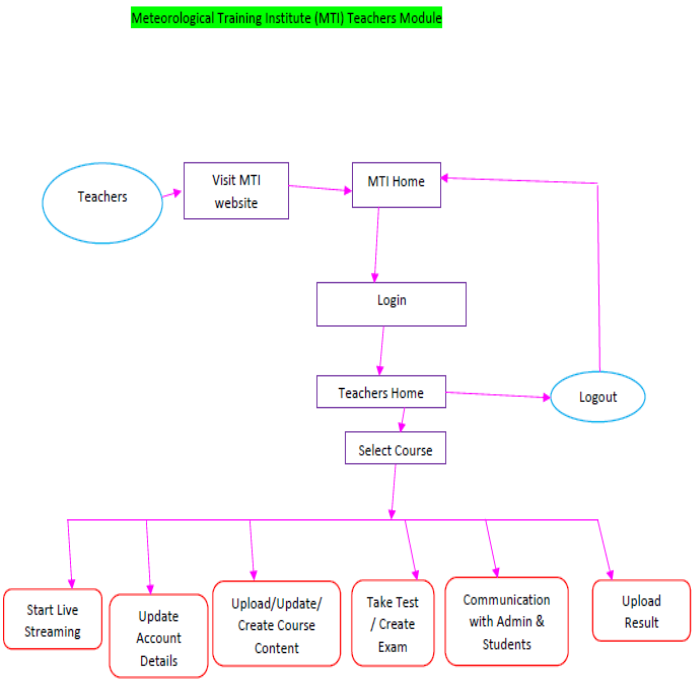
Meteorological Training Institute Student Data flow Diagram

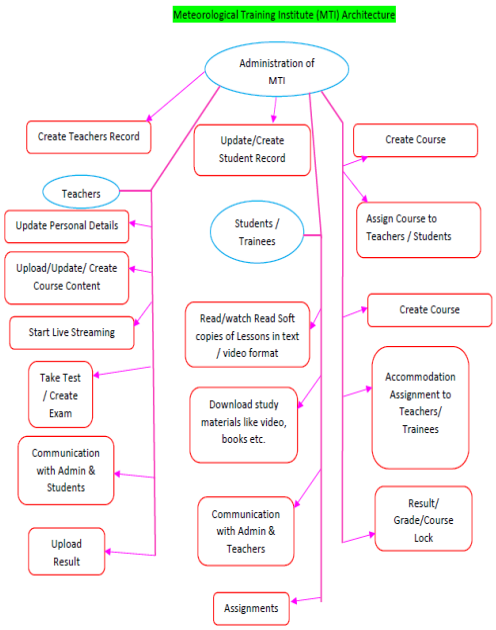


Student Personal Data like Results and bio data can only be access by student and Administration.

Privileges are different for Teaches, Admin and Students after Login into the MTI Web E-Portal Home page

Annexure-**VII**


Meteorological Training Institute (MTI) Teachers Module
Teachers
Visit MTI website
MTI Home
Login
Teachers Home
Logout
Select Course
Start Live Streaming
Update Account Details
Upload/Update/ Create Course Content
Take Test / Create Exam
Communication with Admin & Students
Upload Result


Meteorological Training Institute (MTI) Architecture
Administration of MTI
Create Teachers Record
Update/Create Student Record
Create Course
Teachers
Students / Trainees
Assign Course to Teachers / Students
Update Personal Details
Upload/Update/ Create Course Content
Start Live Streaming
Take Test / Create Exam
Communication with Admin & Students
Upload Result
Read/watch Read Soft copies of Lessons in text / video format
Download study materials like video, books etc.
Communication with Admin & Teachers
Assignments
Create Course
Accommodation Assignment to Teachers/ Trainees
Result/ Grade/Course Lock

Annexure-VIII

FEEDBACK FORM FOR TRAINEES

Course Title : _____ **Venue :** _____

Starting Date : _____ **Duration :** _____

I. General Feedback:

Ratings by Participants on the scale of 10

10	***9***		***8***	***7***	***6***		***5***	***4***	***3***		***2***	***1***	***0***

← **Tick mark in relevant boxes** →

1. Structure of Course Content

Very Well Planned		Well Planed			Less Planed			Just OK		

2. Interaction with Faculty

Excellent		Very Good			Satisfying			Just OK		

3. Usefulness of Course

Excellent		Very Good			Satisfying			Just OK		

4. Food Quality

Excellent		Very Good			Satisfying			Just OK		

4. Overall Impression

Very Beneficial		Beneficial			Less Beneficial			Not Beneficial		

II. Admin. Feedback:

1. Assistance provided in the Institute

Excellent		Very Good			Satisfying			Just OK		

2. Infrastructure Facilities

Excellent	Very Good	Satisfying	Just OK

Your suggestions / comments for further improvements (in brief):

III. Academic Feedback:

1. Course Material

Very Useful			Useful			Less Useful			Not Useful		

2. Teaching of Faculty

Excellent			Very Good			Good			Satisfactory		

2a. Specific comments if any regarding teaching of faculty:

3. Hands on session (Where required)

Very Useful			Useful			Less Useful			Not Useful		

4. Which topic of the subject you found:

Most Useful	**Least Useful**

The Institute is grateful for your valuable and open hearted suggestions. We would try to implement them in letter and spirit. We pray almighty for your bright and prosperous future life.

One final question:

In future if one (among your friend/colleagues) needs a meteorological training, would you recommend your department for this IMD training? (Y / N) Pl. tick mark only.

For office use only: