



Training Course Outline

ITU and National Telecommunications Institute for Policy Research Innovation and Training (NTIPRIT)

Title	Role of ICT in Disaster Management
Modality	Online instructor-led
Level	Intermediate
Dates	29 July – 2 August 2024
Duration	TBD
Language	English
Region	World or Multi-Regional
Registration type	Application and selection
Registration deadline	
Training fees	Free

Description	<p>The course, "Role of ICT in Disaster Management," is structured to illuminate the pivotal role of Information and Communication Technology (ICT) in the spectrum of disaster management phases—mitigation, preparedness, response, and recovery. Encompassing a well-rounded curriculum, this course delves into Disaster Management (DM) Framework, including regulatory, legal, and policy frameworks that enable the use of technologies for DM, and the roles and responsibilities of each of administration involved in Disaster Risk Reduction (DRR) at the country level. The course also covers how ICTs and other digital technologies can be used to implement Early Warning Dissemination Systems (EWDS) using the Common Alerting Protocol (CAP), and how satellite applications can bolster the efficiency and efficacy of disaster management initiatives. Through real-world case studies, participants will get gain actionable insights into the strategic application of ICT in enhancing disaster resilience and safeguarding lives and assets.</p>
Training topics	<p><i>Emergency telecommunications</i></p> <p><i>ICTs and the environment</i></p>
Certification	<p><i>Certificate</i></p>
Code	<p>TBD</p>

1. TARGET POPULATION

The target audience for this course are Telecom engineers / professionals working in the area of Disaster Management.

2. ENTRY REQUIREMENTS

Bachelor's Degree in Telecommunications/ ICT or related field with 5 years or more experience in ICT domain/ Disaster Management domain.

3. TRAINING OBJECTIVES

Participants will be empowered with in-depth insights and practical skills. At the end of the training, they will be able to:

- Employ key actions towards the strategic application of ICT in all disaster management phases.
- Describe the comprehensive disaster management framework.
- Apply telecommunications technologies for robust disaster preparedness and agile response.
- Formulate Standard operating procedures (SOP) for telecommunications in disaster contexts.
- Design and deploy effective early warning systems and Priority Call Routing.

The course aims to enhance participants' capabilities in deploying ICT tools for reducing disaster risks, improving response efforts, and ultimately saving lives and properties. Through a mix of theoretical knowledge and case studies, participants will learn the importance of ICT in making disaster management efforts more efficient and effective.

3. METHODOLOGY

The pedagogical approach encompasses:

- Expert lectures from seasoned professionals in disaster management and ICT.
- Analytical case studies on telecom measures during disasters.
- Daily quizzes to reinforce learning, culminating in a comprehensive assessment for certification.

4. ASSESSMENT AND GRADING

Participants will undergo daily quizzes and a final assessment test on the last day. The quizzes will be objective, hosted on the ITU Academy Platform, with a passing threshold set at 60%. The final test comprises 10 questions, with a passing mark of 70%. Out of the 10 questions 5 questions will be short answer questions of approx. 25 words and 5 questions will be long answer type of approx. 100 words each.

An overall grade of 70% is required to receive the ITU certificate of completion for this course.

5. TRAINING DETAILS & INSTRUCTIONAL APPROACH

Day	Sessions/Topics covered	Key learning points (detail learning outcomes)	Training activities details
Day 1	Session-1 Registration Inauguration and Introduction	Welcome Address Introduction of Participants Course Brief Inaugural Address	Every session will have Reading materials There will be a Quiz every day after the second session. Dr. Amir Ali Khan, NIDM
	Session-2 Disaster Management Framework	Examine regulatory, legal and policy frameworks that enable the use of technologies for DM. Analyze the adoption of necessary measures which address the three dimensions of disaster risk (exposure to hazards, vulnerability and capacity, and hazard's characteristics) in order to prevent the creation of new risk, reduce existing risk and increase resilience.	
Day 2	Session-3 ICT for Disaster Management	Describe the role of telecommunication along with other modern means of communications for risk and Mitigation efforts after disaster as well as in efforts of saving lives and property. Determine actions for enabling infrastructure of telecom and their impact on the coordination and effectiveness of agencies involved in relief and rescue.	Mr. Sanjay Agrawal, DDG-DM, DoT

	<p>Session-4</p> <p>Standard Operating Procedure for telecommunication services for responding to disasters</p>	<p>Explain the roles and responsibilities of each of the administrations involved in DRR at the country level. ITU Best Practices.</p>	<p>Mr. Chaitanya Shukla, Dir. DM, DoT</p>
Day 3	<p>Session-5</p> <p>Public Safety Network</p>	<p>Explore the Integrated Network for Public protection and Disaster Relief Agencies e.g. FirstNet of USA, PPDR in India</p>	<p>Mr. Sanjay Agrawal, DDG-DM, DoT</p>
	<p>Session-6</p> <p>Early Warning Systems, Common Alert Protocol (CAP)</p>	<p>Analyze early warning systems which enable to effectively broadcast about upcoming disaster to the citizens of potentially affected areas. Clarify the rationale for providing timely alerts and notifications to individuals and communities about impending disasters, allowing them to take necessary precautions and evacuate if needed. Evaluate actions for preparing communities psychologically and reduce panic among citizens in order to give government and other agencies a head start to implement evacuation plan seamlessly and effectively.</p>	<p>Mr. Niraj Kant Kushwaha, C-DOT</p>
Day 4	<p>Session-7</p> <p>Priority Call Routing (PCR) and Intra-Circle Roaming (ICR)</p>	<p>Discuss the implementation of Priority Call Routing as a solution to give 1st preference to the calls of Local authorities, dealing with emergency system like police, ambulance etc. (specifically in contexts where separate networks to handle congestion/load or loss of network during natural disaster do not exist).</p>	<p>Mr. Ashwani Mahaur, Director-DM, DoT</p>

	Session-8 Geospatial Technologies (GIS) for Disaster Management	Characterize the role of GIS in disaster management List existing valuable tools and technologies for collecting, analyzing, and visualizing geospatial data.	Dr. KHV Durga Rao, ISRO
Day 5	Session-9 Applications of Satellite Technologies in Disaster Management	Evaluate the role of satellite communications in emergency response efforts, with an emphasis on seamless coordination, reliable connectivity and real-time communication in the face of climate disasters, natural calamities, war zones and other large scale emergency responses.	Mr. Ashish Tayal, GM-INMARSAT
	Session-10 Case Study	Implement Telecom Related Measures during Disasters- Real Case Description.	Mr. Subrat Prusty, Director-T, DoT
	Final knowledge assessment Feedback and evaluation	ICT Division	Mr. Deb Kumar Chakrabarti, DG-NTIPRIT Mr. Atul Sinha, DDG-NTIPRIT Final training course test

6. TUTORS/INSTRUCTORS

Name of tutor(s)/instructor(s)	Title	Contact details

The panel of speakers will have senior officers / subject matter experts from DoT and NTIPRIT, National Institute of Disaster Management (NIDM), subject matter experts from Telecom/ICT Industry, Regulator & Academia having wide experience in the related fields.

7. TRAINING COURSE COORDINATION

Course coordinator	ITU co-ordinator
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