Training Course Outline

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

Title	ICT Policy Planning for Good Governance
Modality	Online instructor-led
Level	Intermediate
Dates	13 September – 12 October
Duration	10-Days (20 sessions of 1 Hour each, 2 sessions per day & 2 days per week)
Language	English
Region	World or Multi-Regional
Registration type	Direct registration
Registration deadline	30 August 2023
Training fees	Free

Description	This course explains the linkages between ICT and the development of the Digital Economy as well as the need to establish appropriate policy and regulatory frameworks for the ICT Sector in any country. The impact of broadband and digitization on a country's economy will also be explored. Additionally, the course will discuss the issues and challenges associated with ICT policymaking. Participants will gain deeper insights into technology trends in ICT and their implications on various aspects of the economy and smart society through case studies showcasing the successful implementation of technology stacks that lead to Digital Transformation in different countries. Special emphasis will be placed on critical issues like data privacy, security, and digital sovereignty in the context of international best practices. Furthermore, participants will have the opportunity to work on a small project to develop an ICT Policy for a hypothetical country.
Training topics	*ICT/Telecom regulation*
Certification	*Certificate*
Code	*TBD*

1. TARGET POPULATION

The target audience for this course is Telecom engineers / professionals working in the area of ICT Policy formulation & implementation.

2. ENTRY REQUIREMENTS

Ideally, candidates should possess a Bachelor's Degree in Telecommunications/ICT or a related field, along with at least 5 years of experience in the ICT domain.

3. TRAINING OBJECTIVES

Upon completion of this course, participants will be able to:

1. Understand the role of ICT & Digital economy in a country's economic development.
2. Appreciate the impact of Broadband & Digitization a country's economy.
3. Realize the influence of Regulatory and Policy Frameworks on the ICT sector.
4. Understand the role of the Digital economy in fostering Smart Societies.
5. Understand various aspects of the Digital economy through real-world examples of successful ICT projects implemented worldwide

3. METHODOLOGY

The teaching methodology for this course incorporates various approaches, including:

(i) Engaging lectures delivered by subject matter experts,
(ii) Daily quizzes to reinforce learning,
(iii) Detailed case studies showcasing successful ICT projects that have driven digital transformation in countries, and
(iv) Collaborative group project work with subsequent presentations to encourage practical application of knowledge.

4. ASSESSMENT AND GRADING

Quizzes will account for 20% of the overall course grade. These will be short, objective-type quizzes consisting of 5 questions (1 mark each), held at the end of each day (excluding the first and last day). Participants will have 15 minutes to answer online quizzes on the ITU Academy platform. To pass, participants need to correctly answer at least 3 out of 5 questions (60% threshold).

Group presentations will contribute 20% to the overall course grade. Participants, divided into 2 groups, will present their proposed ICT Policy for a Hypothetical country. Facilitators and fellow participants will offer feedback and suggestions for improvement.

The final individual assessment will make up 60% of the overall course grade. Scheduled on the 9th day of lectures, it will be conducted online and consist of 10 questions. The assessment will include 5 short answer questions (2 marks each, approximately 25 words) and 5 long answer questions (5 marks each, approximately 100 words). Participants will have 1 hour to submit their responses through ITU Academy.

To receive the ITU certificate, participants need to score at least 70% of the total marks overall in the course.

5. TRAINING DETAILS & INSTRUCTIONAL APPROACH

Day / Week / Module	Sessions/Topics covered	Key learning points (detail learning outcomes)	Training activities details
Day 1	**Session-1** **Inauguration Session**	• Welcome Address • Introduction of Participants • Course Brief • Inaugural Address	• Reading materials • Sessions with subject matter experts.
	Briefing about the group projects	• Participants will be divided into two groups. • Briefing on the project "Formulate ICT Policy for a Hypothetical Country." • Interaction with Course Instructors	
	Session-2 **Linkages of ICT & Digital economy with economic development of a country**	Contribution of ICT in development to a country's economic development and role of the digital economy in: (i) Employment Generation & Enablement (ii) Shaping Education (iii) Enabling Healthcare (iv) Smoothening Financial Transactions & Services (v) Contributions towards Sustainable Development Goals (SDGs) (vi) Enabling Disaster Management	

Day 2	**Session-3** **Impact of Broadband & Digitization a country's economy.** **Session-4** **Impact of Policy Framework on the Performance of the ICT Sector** **Session-5** **Impact of Regulatory Framework on the Performance of the ICT Sector**	• Impact of fixed & Mobile broadband at global and regional level. • Econometric Model assessment by ITU. • Impact of fixed & Mobile broadband by level of development. • Correlation between Digitization and Economic Development. • The Necessity of an ICT Policy Framework. • Key Elements of an ICT Policy Framework. • The Impact of Specific Policies, including: (i) National Broadband Policy (ii) Convergent Licensing (iii) Spectrum Sharing (iv) Mobile Number Portability (vi) QOS Policy • The Influence of Regulatory Framework on the Performance of the ICT Sector, covering: (i) Taxation (ii) Government Bureaucratic Processes (iii) Affiliation to International Bodies, etc. • Measuring the Impact of Regulatory Framework in terms of: (i) Capital Investment (ii) Network Deployment (iii) Service Pricing (iv) Consumer Demand	• Reading materials • Sessions with subject matter experts. • Quiz.
Day 3	**Session-6** **ICT Development Index** **Session-7** **ICT Policy Making and Challenges**	• Parameters of the ITU - ICT Development Index, • Measurement of Index Parameters, • Latest ICT Development Index Released by ITU. • Exploring the Public Policy-Making Process, • Addressing Challenges in ICT Policy Making, • Developing Effective Implementation Strategies and Solutions.	• Reading materials • Sessions with subject matter experts. • Quiz.

Day 4	**Session-8** **Interaction with Participants & Discussion on progress of Project work**	Mid-course discussion of participants with the faculty in charge of the course on the topics covered so far. • Review of the progress on project work. • Suggestions for improvement of teaching/learning.	• Reading materials • Sessions with subject matter experts. • Quiz.
Day 5	**Session-9** **Exploring the use of ICT for creating smart societies: Case studies on synergy by integration of citizen-centric services** **Session-10** **Exploring the Digital Economy: Unified platform for online payment revolutionizing impact on the Economy**	• What is a smart society? • Foundational principles for ICT to create smart societies. • Uses of ICT in smart societies. • Need for and synergy by integration of citizen-centric ICT services delivery - Case study of the success story of UMANG. • Examples of use-cases from other countries. • Digital economy and its benefits. • Unified online payment platform and its impact on the economy. • Case study - Success story of UPI. • Examples of successful online payment platforms in other countries (e.g., South Korea, Thailand, Nigeria, U.K., etc.).	• Reading materials • Sessions with subject matter experts. • Quiz.

Day 6	**Session-11** **Exploring the use of ICT in the manufacturing sector and Industry 4.0** **Session-12** **National Digital Identity Framework**	• ICT applications in manufacturing, including CAD, CAE, CAM, PLM, SCM, FMS, • Understanding the role of ICT in the era of Industry 4.0, IoT, and exploring use cases in manufacturing. • Overarching principles for designing, developing, and implementing a national digital identity framework. • Four critical focus areas: (i) Governance model (ii) Approach for fostering adoption (iii) Architectural model (iv) Sustainability model • Examining critical success factors and conflicting principles.	• Reading materials • Sessions with subject matter experts. • Quiz.
Day 7	**Session-13** **Case Study Of World's largest successful implementation of National Digital Identity** **Session-14** **IoT: Changing landscape of ICT**	• Aadhar – the national digital identity of India. Exploring how Aadhar led to financial and social inclusion of the citizens of India. • Examples of digital identity programs in other countries (e.g., Estonia, Oman, Canada, etc.). • Basics of IoT and its technologies. • Use cases of IoT: changing landscape, security challenges in IoT and the relevance of OneM2M standards.	• Reading materials • Sessions with subject matter experts. • Quiz.

Day 8	**Session-15** **Data Security and Privacy:** Who regulates cross sectoral regulatory collaborations-to be included **Session-16** **Challenges in ICT Security and Online safety of consumers**	• Importance and need of data security & privacy. • Collaborative regulation for digital transformation with special reference to Mexico. • The four pillars of ITU G-5 benchmark: (i) National collaborative governance (ii) Policy design principles (iii) Digital development toolbox (iv) Digital economic policy agenda • International best practices for data privacy. • Overview of ICT security, potential risks, and security threats. • Trends in and pillars of security, debunking security myths. • Challenges in security: technological, people, administration, framework, and standards. • Best practices to ensure security and tools & guidelines for online safety of consumers.	• Reading materials • Sessions with subject matter experts. • Quiz.

Day 9	**Session-17 & 18** **Presentation & Evaluation of the Project work from 2 groups in 2 sessions.**	Participants of Group I and Group II will present their ICT Policy Framework for a Hypothetical Country or Region, aiming to practically apply the knowledge gained during the course.	The final assessment test covering all topics will be conducted on the 9th day following Session 18. Participants, divided into 2 groups, will present their proposed ICT Policy for the Hypothetical country. Facilitators and other participants will offer feedback and suggestions for improvement.
Day 10	**Session-19** **Final Assessment Test of 1 hour** **Session-20** **Feedback & Valedictory Session**	Test paper will be shared with- participants and participants will send their answers through ITU Academy.	Final test

6. TUTORS/INSTRUCTORS

Name of tutor(s)/instructor(s)	Title	Contact details
Atul Sinha	DDG(ICT), NTIPRIT	ddg.ict-nti@gov.in
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Dr. Rajesh Sharma	DDG, PMI Geneva	rajesh.sharma25@gov.in
Ms. Saumya Mishra	NPCI	
Ashok Kumar	DDG, NTIPRIT	ddg.wa-nti@gov.in

The above list is only indicative. The panel of speakers will have senior officers / subject matter experts from DoT and NTIPRIT, subject matter experts from Telecom/ICT Industry, Regulator & Academia having wide experience in the related fields.

7. TRAINING COURSE COORDINATION

Course coordinator	ITU coordinator
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