

**No. 52-1/2019-Trg**  
**Government of India**  
**Department of Telecommunications**  
**211, Mahanagar Doorsanchar Bhawan, Old Minto Road, New Delhi-110002**  
**(Training & Capacity Building Division)**

Dated: 12<sup>th</sup> May, 2021

**OFFICE MEMORANDUM**

**Subject: Online Certificate course on “Network Security” for DoT officers by NTIPRIT.**

National Telecommunications Institute for Policy Research, Innovation & Training (NTIPRIT), Ghaziabad has scheduled a 12 week online certificate course on “Network Security” commencing from 17<sup>th</sup> May 2021. NTIPRIT is inviting nominations for this online certificate course. Further details of the program are as under: -

<b>Name of the Course</b>	<b>Certificate course on “Network Security”</b>
<b>Duration / Dates</b>	Commencing from 17 <sup>th</sup> May 2021 (36 Hrs)
<b>Location</b>	Online by NTIPRIT
<b>Eligibility</b>	All DoT officers
<b>Registration Link</b>	<a href="https://tinyurl.com/tz3s6yvf">https://tinyurl.com/tz3s6yvf</a>

2. This course has been designed especially for DoT officers to help them in understanding various aspects of Network security and also facilitate in better monitoring and auditing of the network of service providers.

3. Considering the importance of the Network Security in ICT sector, all the officers of DoT, especially officers from LSAs are requested to actively register for this programme as per details given in the attached brochure (Annex-I).

**How to Apply:**

4. After obtaining the requisite approval of competent authority kindly visit <https://tinyurl.com/tz3s6yvf> , for Registration. Sh. Vishal Dheer, ADG, course coordinator may be contacted for further details at [vishal.dheer@gov.in](mailto:vishal.dheer@gov.in) .

5. The Training programme will be inaugurated by Sh. Anshu Prakash, Secretary Department of Telecommunications on 17<sup>th</sup> May 2021 at 3PM on the occasion of **World Telecommunication and Information Society Day**. All DoT officers are welcome to attend the inaugural session and requested to join 10 minutes before start of the session. Details of weblink for the session is given below:

Platform: Microsoft Teams

Date: 17.05.2021

Time: 1500 Hrs

Link: <https://tinyurl.com/c9v5dtk>

Or

<https://teams.microsoft.com/l/meetup-join/19%3a3e6ab4d54b7b4eaca56a800065a74a14%40thread.tacv2/1620729126680?context=%7b%22Tid%22%3a%22cdc49c9c-fb53-4656-ad39-8eab41da530c%22%2c%22Oid%22%3a%22fac93073-960f-4b86-837d-93a6b4e5cda3%22%7d>



(Prakash Dangi)  
ADG (Training), DoT HQ

To:

1. All Head of LSAs
2. Sr DDG NTIPRIT/ Sr DDG NCCS/ Sr DDG TEC
3. All Sr DDG/ DDG in DoT HQ



## Certificate Course in Network Security

Course starting  
17<sup>th</sup> May 2021

SCAN to register for the course  
or  
Visit: [tinyurl.com/tz3s6yvf](https://tinyurl.com/tz3s6yvf)



### Learn Network Security for a professional Edge

Gain a foundational technical understanding of this important domain through certification course from NTIPRIT, the premier Training Institute of Department of Telecommunications, Government of India.

In line with government's drive to promote e-learning, National Telecommunications Institute (NTIPRIT) announces first of its kind certification course on Network Security to train and certify Officers of Government of India. To start with, this 36- hour certificate course would be made available to Officers of Department of Telecommunications, which later on would be offered to other stakeholders.



### Background

With ever increasing dependence on internet based economy, Network Security has become crucial for business continuity as well as National Security. DoT officers are entrusted with the task of securing telecom networks which are the backbone for delivery of all internet based applications. NTIPRIT has specifically developed a certification course on Network Security for officers of Government of India to help them hone up their knowledge and skills for managing security aspects of telecom networks including 5G, and other new services etc.

The salient features of this course are:

1. Customized for Information and Communication Technology Professionals
2. 36-hour content spread over 12 weeks with 3 sessions/ week of one hour each
3. Content modelled on international certifications
4. Holistic coverage of fundamentals, applications, case studies and audit aspects etc.
5. Blend of sessions by NTIPRIT faculty and experts from Industry including OEMs, TSPs, market leaders and professionals
6. Content delivery in online mode
7. One assignment every week
8. Two exams of 2 hours each-mid term and end of course with a mix of multiple choice and subjective questions
9. Re-attempt of exam allowed
10. Recorded sessions for the course content to be made available

### Training Delivery

The Network Security certification course will be an online Live Training within a virtual classroom environment. There will be 3 sessions per week (every Tuesday, Wednesday and Thursday from 1530hrs to 1630hrs), with each session of 1 hour to best suit the requirements and preferred learning style. Participants can access recorded sessions even if they miss any session.

The Topics covered in this certification course would include:

1	Fundamentals
	OSI & TCP IP Models
	IPv4 and IPv6 Addressing
	Classes of IP Address Classful & Classless Addressing
	Subnetting, Ports & Sockets
2	Network Security Threats
	Malwares
	Botnets
	DDoS
	Injection Attacks
	Packet Sniffing
	MiTM

<b>3</b>	<b>Network Security Controls</b>
	Software and Hardware Controls
	Security Protocols
	Identity & Access Control
	Data Confidentiality, Integrity & Non Repudiation
	Firewalls
	IDS/IPS
	ACL
<b>4</b>	<b>Network Security Policies</b>
	NIST Cyber Security Framework
	GSMA Baseline Security Control
	Security Policy of DoT
<b>5</b>	<b>Physical Security</b>
	Surveillance
	Biometric Readers
	Facilities Security
	Fire Suppression
	Equipment Shielding
	Environment Controls & Protection
	Visitor Management
<b>6</b>	<b>Host Security</b>
	Hardening
	Restricting Applications
	Trusted Operating System
	Updates and Patches
	Group Policies
	File Systems and Hard Drives

<b>7</b>	<b>Firewalls</b>
	Windows Host based Firewalls
	Linux Host based Firewalls iptables
	Network based Firewalls – pfSense
<b>8</b>	<b>Wireless Attacks &amp; Defence</b>
	Wireless Encryptions
	Wireless Access Points
	Wireless Eavesdropping
	WPA & WPS Attacks
	Rouges and Evil Twins
	Securing WiFi Devices
<b>9</b>	<b>Encryption &amp; Cryptography</b>
	Symmetric and Asymmetric Cryptography
	Public Key Cryptography
	Public Key Infrastructure
	Hashing
	Digital Certificates
	Digital Signatures
	Certificate Authorities
<b>10</b>	<b>Monitoring and Auditing</b>
	Protocol Analysers
	Syslog
	SNMP
	Firewalls Logs
	IDS/IPS Logs
	Analytical Tools
	Auditing

<b>11</b>	<b>Mobile Network Security</b>
	3GPP Security Guidelines
	Baseband and Wireless attacks
	UE Initiated DoS
	UE to EPC threats
	UE to UE Threats
	Physical Attacks
	Diameter Attacks
<b>12</b>	<b>Risk &amp; Vulnerability Assessment</b>
	Quantitative Risks
	Qualitative Risks
	Risk Assessment Methodologies
	Vulnerability Assessment
	Penetration Testing
<b>13</b>	<b>Incident Response</b>
	IR Procedures & Planning
	Investigative Data
	Forensic Procedures
	Data Collection Procedures



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Ministry of Communications  
Government of India

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