



**ITU Centre of Excellence Network for CIS
The O.S. Popov Odessa National Academy of Telecommunications (ONAT)**

Face-to-face Training on

**Digital Television and Related Video Applications: Technical and Policy Aspects
Odessa, Ukraine, 3-6 November 2015**

TRAINING OUTLINE

COURSE DESCRIPTION

Title	Digital Television and Related Video Applications: Technical and Policy Aspects
Method of delivery	Face-to-face
Objectives	<ul style="list-style-type: none">• To equip participants with an understanding of current and future wireless broadband technologies and services.• The workshop will enable participants to contribute to the implementation and development of digital television and operate digital television and related video applications.
Dates	3-6 November 2015
Duration	4 days
Registration deadline	28 October 2015
Workshop fees	<ul style="list-style-type: none">• Face-to-face participation – USD 100;• Remote participation – USD 50.
Course code	

LEARNING OUTCOMES

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

- Understand the digital television regulatory framework;
- Be aware of the trends in the developments of and use of video applications;
- Understand and operate standard definition television (SDTV) systems, including principles underlying the system construction, characteristics and parameters, studio and transport interfaces, image quality, methods and parameters of compression of a picture on series standard of MPEG, VC-1, SVC and others;
- Understand and operate digital high-definition television (HDTV) systems with the picture aspect ratio 720×1280 and 1080×1920, including characteristics and parameters, studio and transport interfaces, image quality, methods and parameters of compression of a picture on series standard of MPEG and other;

- Understand and operate ultra high definition television (UHDTV) systems, including the UHDTV characteristics and parameters, studio and transport interfaces, image quality, methods and parameters of compression of a picture on series standard of MPEG;
- Understand and operate stereoscopic (3DTV) and multi-angle (FVT) television, including features of shoot and formation, characteristics and parameters, image quality, methods and parameters of compression of a picture on series standard of MPEG;
- Form digital multiprogram streams for distribution through the path of software production and broadcast channel;
- Understand and operate multimedia and interactive video applications, including wideband video delivery system, IP-broadcast;
- Understand and operate video information and digital cinema systems: features of formation, characteristics and parameters, image quality;
- Understand of the basic approach of policy formation for companies working in the field of digital television and the determination of tariffs for digital television services.

TARGET POPULATION

This workshop is targeted at technical staff, engineers, senior and mid-level management staff of communications service providers, telecommunication and broadcasting companies. It is also of interest to employees of Communication Administrations dealing with the issues of digital television, audio and multimedia broadcasting.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Mr. Volodymyr Balyar Senior Lecturer of the Department of Television and Radio Broadcasting The O.S. Popov Odessa National Academy of Telecommunications	Email: balyar.vb@onat.edu.ua
Mr. Oleg Gofaizen Head of the Department of Television and Radio Broadcasting The O.S. Popov Odessa National Academy of Telecommunications	Email: oleg.gofaizen@gmail.com
Mr. Vadym Kaptur Vice-rector of Scientific Work The O.S. Popov Odessa National Academy of Telecommunications	Email: vadim.kaptur@onat.edu.ua
Ms. Iryna Politova Head Research Development Department The O.S. Popov Odessa National Academy of Telecommunications	Email: rdd@onat.edu.ua

EVALUATION

Besides the final assignment score, participants will be evaluated according to their substantive posts on the discussion forum, active participation in sessions and other course activities, reflecting both the quantity and quality of time spent on the training.

WORKSHOP SCHEDULE AND CONTENTS / AGENDA

Agenda

3 November 2015, Tuesday	Time; Start time	Topics/Activities
03/11/2015	08:30-09:00	Registration
09:00-12:30	Morning Session	<ul style="list-style-type: none"> • Lecture 1: General characteristics and directions of further development of digital television systems and television, audio and multimedia broadcasting at various levels, as well as other video information systems • Lecture 2: System of digital standard definition television (SDTV)
13:30-15:30	Afternoon Session	<ul style="list-style-type: none"> • Practical training on models of systems and their components (not accessible for remote participants) • Testing (for remote participants Tests will send by email)
4 November 2015, Wednesday	Time; Start time	Topics/Activities
09:00-12:15	Morning Session	<ul style="list-style-type: none"> • Lecture 3: Systems of digital high-definition television (HDTV) the picture aspect ratio 720×1280 and 1080×1920 • Lecture 4: Systems Digital Ultra high definition television (UHDTV)
13:30-15:30	Afternoon Session	<ul style="list-style-type: none"> • Practical training on models of systems and their components (not accessible for remote participants) • Testing (for remote participants Tests will send by email)
5 November 2015, Thursday	Time; Start time	Topics/Activities
09:00-12:15	Morning Session	<ul style="list-style-type: none"> • Lecture 5: Systems digital stereoscopic (3DTV) and multi-angle (FVT) TV • Lecture 6: Multimedia and interactive video applications
13:30-15:30	Afternoon Session	<ul style="list-style-type: none"> • Practical training on models of systems and their components (not accessible for remote participants) • Testing (for remote participants Tests

		will send by email)
6 November 2015, Friday	Time; Start time	Topics/Activities
09:00-12:15	Morning Session	<ul style="list-style-type: none"> • Lecture 7: Video information and digital cinema systems • Lecture 8: Basic approach of policy formation for companies working in the field of digital television and the determination of tariffs for digital television services
12:15-13:15	Afternoon Session	<ul style="list-style-type: none"> • Final test (for remote participants Tests will send by email) • Closure ceremony

METHODOLOGY

The workshop will include Instructor-led presentations, case studies, group exercises and assignments.

All announcements for all events (materials, quizzes and forums) will be given several days prior to the event by the training tutor.

WORKSHOP COORDINATION

Workshop coordinator: Ms. Irvna Politova Email: rdd@onat.edu.ua	ITU coordinator: Mr. Andrei Untila Email: andrei.untila@itu.int
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REGISTRATION AND PAYMENT

Registration and payment should be made online at <http://academy.itu.int/>

A workshop fee of USD 100 for face-to-face participation without simultaneous interpretation into English and USD 50 for remote participation without simultaneous interpretation into English is applied for this workshop. Payment instructions can be found at the afore mentioned link.

In addition, for eLearning trainings, participants (or their entities) will have to bear costs for Internet access.

Registration on ITU Academy Portal

Please note that to be able to register for the course you MUST first create an account in the ITU Academy portal at the following address:

https://academy.itu.int/index.php?option=com_hikashop&view=user&layout=form&Itemid=559&lang=en

Training Registration

Registration and payment should be made online at <http://academy.itu.int/>

When you have an existing account or created a new account, you can register for the training online at the following

link: https://academy.itu.int/index.php?searchword=technical%20organization&searchphrase=all&Itemid=378&option=com_search&lang=en

You can also register by following the steps below:

- Go to ITU Academy website home page
- On the upper hand corner, you will find search option
- Type the name of the course in the space provided and search
- When the course appears, select “book this course” and follow easy instructions to register.

Payment

A training fee of **USD 100** per participant is applied for this **face-to-face training** and of **USD 50** for **remote participation**.

1. On-line payment

It is encouraged to make payment via the online system using the link mentioned above for training registration

at: https://academy.itu.int/index.php?searchword=technical%20organization&searchphrase=all&Itemid=378&option=com_search&lang=en

However, please note that only the fee of USD 100 can be issued on-line. The training fee of **USD 50 will have to be made by bank transfer** by following the instructions at point 2. below.

2. Payment by bank transfer

Where it is not possible to make payment via the online system, a bank transfer may be done on the ITU Bank account shown below. In this case, it is **IMPERATIVE** that the applicant submits the following documents and information in advance to the ITU Coordinator:

- Proof of bank transfer payment
- Completed Registration Form
- Username and e-mail address as registered on the ITU Academy.

Failure to submit the above documents may result in the applicant not being registered for the training.

ITU BANK ACCOUNT DETAILS:

Name and Address of Bank:	UBS SA Case postale 2600 CH 1211 Geneva 2 Switzerland
Beneficiary:	Union Internationale des Télécommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 50 or USD 100
Payment Reference:	CoE-CIS 14344 – P.40594.1.03