



ITU Centres of Excellence Network for CIS

The Alexander Popov Odessa National Academy of Telecommunications (ONAT)

Workshop on

**New and Advanced Technologies of Digital Television and Related Video Applications
Odessa, Ukraine, 18-21 August 2015**

WORKSHOP OUTLINE

COURSE DESCRIPTION

Title	New and Advanced Technologies of Digital Television and Related Video Applications, Odessa, Ukraine, 18-21 August 2015
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	18-21 August 2015
Duration	4 days
Registration deadline	11 August 2015
Workshop fees	<ul style="list-style-type: none">• Face-to-face participation with simultaneous interpretation into English – USD 200;• Face-to-face participation without simultaneous interpretation into English – USD 100;• Remote participation without simultaneous interpretation into English – 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.

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. Vadim Kaptur Vice-rector for Scientific Work The Alexander Popov Odessa National Academy of Telecommunications	Email: vadim.kaptur@onat.edu.ua
Ms. Irina Politova Head Research Development Department The Alexander Popov Odessa National Academy of Telecommunications	Telephone: +38 048 705 0384 Telephone/Fax: +38 048 705 0305 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

18 August 2015, Tuesday	Time; Start time	Topics/Activities
18/08/2015	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)
19 August 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)
20 August 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: Formation of digital multiprogram streams for distribution
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)

21 August 2015, Friday	Time; Start time	Topics/Activities
09:00-12:15	Morning Session	<ul style="list-style-type: none"> • Lecture 7: Multimedia and interactive video applications • Lecture 8: Video information and digital cinema systems
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

<p>Workshop coordinator: Ms. Irina Politova Email: rdd@onat.edu.ua</p>	<p>ITU coordinator: Mr. Andrei Untila Email: andrei.untila@itu.int</p>
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REGISTRATION AND PAYMENT

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

A workshop fee of USD 200 per participant for face-to-face participation with simultaneous interpretation; USD 100 for face-to-face participation without simultaneous interpretation and USD 50 for remote participation without simultaneous interpretation 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.