

**Report of  
ITU CIS CoE Face-to-face Training on  
New and Advanced Technologies of Digital Television  
and Related Video Applications  
Odessa, Ukraine, 3-6 November 2015**

The ITU CIS CoE Face-to-face Training on New and Advanced Technologies of Digital Television and Related Video Applications was organized jointly by the International Telecommunication Union and the Alexander Popov Odessa National Academy of Telecommunications (ONAT) as part of the Digital Audio Broadcasting programme under the auspices of the ITU Centres of Excellence for CIS and held in Odessa, Ukraine, from 3 to 6 November 2015.

The training was delivered in Russian.

The training lessons were delivered by: Mr. Oleg Gafaizen, Doctor of Science (Engineering), Head of Television and Radiobroadcasting Department, ONAT, Vice Chairman, SG 6, ITU-R; Mr. Volodymyr Balyar, PhD, Assistant Professor, Television and Radiobroadcasting Department, ONAT; Ms. Olena Osharovska, PhD, Assistant Professor, Television and Radiobroadcasting Department, ONAT; Ms. Iryna Politova, Senior Researcher, Head of Research Development Department, ONAT.

The training was attended by 23 participants, of whom 4 participated on-site, and 19 - remotely.

The training was aimed at familiarization the participants with the current and future systems and standards for digital television, in particular the system of digital production and broadcasting, media compression, evaluation and management of picture quality and sound.

At the opening ceremony, the participants were greeted by Mr. Vadym Kaptur, Pro-rector for scientific work, OANT; and via video conference network by Mr. Orozobek Kaiykov, Head, ITU Area Office for CIS.



*Opening of the training*

The training covered following issues:

- general characteristics and directions of further development of digital television systems and television, audio and multimedia broadcasting at various levels, as well as other videoinformational systems;
- standard definition television (SDTV) systems;

- digital high-definition television (HDTV) systems with the picture aspect ratio 720×1280 and 1080;
- ultra high definition television (UHDTV) systems;
- stereoscopic (3DTV) and multi-angle (FVT) television;
- multimedia and interactive video applications;
- video information and digital cinema systems;
- the main approaches of strategic development of companies working in the field of digital television and the determination of tariffs for services of digital television.



*On-site participants and lecturers of the training*

The training participants studied theoretical aspects of digital television technology and related video applications and passed the practical training on models of systems and their components. Also, participants were actively involved in group discussions and informal discussions.

During the 4 days of the training, trainers daily checked the level of knowledge of the participants. Final test was conducted on the last day of the training, which was successfully passed by all participants.

**Evaluation matrix**

**COE WORKSHOP ON NEW AND ADVANCED TECHNOLOGIES OF DIGITAL TELEVISION AND RELATED VIDEO APPLICATIONS, Odessa, Ukraine, 3-6 November 2015**

№	Name	Surname	Score			Weighted Score			Total Score
			Attendance	Participation (Group work, Pop Quiz)	Exam	Attendance (10%)	Participation (Group work, Pop Quiz) 30%	Exam (60%)	
1	Tamerlan	Sarbanov	95	95	95	10	29	57	95
2	Artem	Tregubov	95	95	94	10	29	56	94
3	Imanbek	Bizakov	95	95	90	10	29	54	92
4	Atai	Begaliev	95	95	90	10	29	54	92
5	Janubek	Kubataliev	95	95	87	10	29	52	90
6	Aljoi	Bohshov	95	95	95	10	29	57	95
7	Nurbek	Alaychiev	95	95	95	10	29	57	95
8	Nurlan	Kenesibaev	95	95	90	10	29	54	92
9	Rinat	Bakytov	95	95	87	10	29	52	90
10	Askarbek	Karmyshakov	95	95	92	10	29	55	93
11	Myktarbek	Jumabaev	95	95	92	10	29	55	93
12	Valery	Borodin	95	95	95	10	29	57	95
13	Grigori	Vershinin	95	95	95	10	29	57	95
14	Islam	Kudabergenov	95	95	87	10	29	52	90
15	Bekzhan	Bagyshbekov	95	95	85	10	29	51	89
16	Valeriy	Borshchov	95	95	95	10	29	57	95
17	Volodymyr	Vikulin	85	90	90	9	27	54	90
18	Serhiy	Kl'ovan	95	95	95	10	29	57	95
19	Dmytro	Roslyakov	75	87	85	8	26	51	85
20	Vyacheslav	Lypovoy	75	87	85	8	26	51	85
21	Kostyantyn	Kapatsyna	95	95	95	10	29	57	95
22	Oleksii	Sabadyrov	94	95	95	9	29	57	95
23	Kostiantyn	Prakhn	95	94	95	10	28	57	95

Upon completion of the training, the trainers expressed thanks to the participants for their active participation, while the participants thanked the trainers for this opportunity to increase the level of their professional knowledge.

Both participants and trainers recommend to increase number of practical exercises and enable remote participants to take part in them.