End of Training Report

FACE-TO-FACE Training Course on

THE USE OF ADAPTIVE TECHNOLOGIES TO TRANSMIT VIDEO OVER RADIO CHANNELS

Prepared by

A.S. Popov Odessa National Academy of Telecommunications

NOVEMBER 7, 2019

Training Course Structure
The Workshop was intended for designers of wireless telecommunications systems in a variety of environments. It was also useful for specialists who are engaged in: providing high-quality communication in the urban environment; providing high-quality color reproduction in various shooting and playback conditions; designing antenna systems and improving them by applying adaptive technologies; acoustic design of premises and provision of spatial sound in broadcasting systems; introduction of new systems of visual information compression. The workshop was as well of interest to employees of organizations, enterprises and institutions dealing with the development of adaptive wireless communication systems for the transmission of video content and information.

Training methodology
Within the framework of Face-to-Face training lectures on the following topics were provided:
- The problem of introducing and implementing an adaptive approach to the future progress of video technologies;
- Adaptive technologies in audiovisual systems of different levels;
- The use of adaptive technologies in the end devices of video paths;
- Audiovisual Objects and Metadata;
- Adaptive Antenna Technologies for Wireless Communications Systems;
- LoRaWAN Range Groth Methods;
- Ways to implement automatic correction systems for limiting image clarity in conventional and immersion systems due to the limited depth of field of the optical apparatus;
- Analysis of the use of graphs in the grid coding of 3D objects;
- Microphone systems for recording surround sound.

Duration of training course
Duration of the course is 1 day/ Date: November 7, 2019.

Participants details
- No. of participants registered for the training:41;
- No. of participants that completed the training:31;
- No. of male participants:30;
- No. of female participants:11;
- No of international participants:-;
- No of national participants:31.

Full list of registered participants in a table format with email addresses.

Name	Last name	Country	e-mail address
Yerzhan	Tashmanov	Kazakhstan	tashmanov0781@mail.ru
Alexander	Zadereiko	Ukraine	zadereyko@onua.edu.ua
Anastasia	Asmankina	Ukraine	asmankina@ukr.net
Stanislav	Berko	Ukraine	stas.berko@ukr.net
Tetiana	Bilushchak	Ukraine	tetiana.m.bilushchak@lpnu.ua
Nikolay	Bogomolov	Ukraine	nbogom@yahoo.com
Andriy	Semenov	Ukraine	semenov.a.o@vntu.edu.ua

Oleksandr	Voinalovich	Ukraine	sashavoinalovich@gmail.com
Yuri	Golovin	Ukraine	antares69@ukr.net
Mikhail	Dobrovolsky	Ukraine	ygol59@ukr.net
Solomia	Fedushko	Ukraine	dobrovolskyms@gmail.com
Yuliya	Duinova	Ukraine	felomia@gmail.com
Aleksandr	Savochkin	Belarus	sankoyulia@yandex.ru
Anatoly	Efimenko	Belarus	savochkin_mail@mail.ru
Irina	Shekhovtsova	Ukraine	anatoliy.efimenko@opu.ua
Edward	Zharikov	Ukraine	vladimirgolubenko@ukr.net
Alexander	Zakovorotniy	Ukraine	zharikov.edu@i.ua
Andriy	Tolbatov	Ukraine	arcade@i.ua
Volodimir	Tolbatov	Ukraine	tolbatov@ukr.net
Olena	Tolbatova	Ukraine	tolbatov302@gmail.com
Sergey	Tolbatov	Ukraine	lvinogradova@ukr.net
Aleksandr	V'yunenko	Ukraine	ut2ab@ukr.net
Gennadij	Smolyarov	Ukraine	smolarovga@gmail.com
Vlad	Zinchenko	Ukraine	vladon.zinchenko@ukr.net
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Ivan	Katerynchuk	Ukraine	zxk.ivan@gmail.com
Viktor	Stetsiuk	Ukraine	sv_rt@i.ua
Tetiana	Korobeinikova	Ukraine	tetianatroianovska@gmail.com
Vladimir	Lazebny	Ukraine	director@mitris.com
Yuriy	Serov	Ukraine	volodsl54@gmail.com
Igor	Grigorov	Kazakhstan	svagadzhanova@gmail.com
Dmytro	Mykhalevskiy	Belarus	ra4foc@yandex.ru
Dmitry	Pushal	Ukraine	adotq@ukr.net
Alexey	Onatsky	Ukraine	onatsky@meta.ua
Yuriy	Kobrin	Ukraine	sun7sumy@gmail.com
Siarhei	Palavenia	Ukraine	s.polovenia@gmail.com
Ksenia	Radkevich	Belarus	stat-ksu@yandex.ru
Svitlana	Shurova	Ukraine	krasava66627@gmail.com
Valery	Yunda	Ukraine	Valera.yunda@ukr.net

Training evaluation
Participants took an active part in group discussions and informal discussions. All participants successfully passed the final testing.

Overall training outcome
The instructors noted the high professional level of the participants, expressed their gratitude to the participants for their involvement during the Workshop, the participants thanked the instructors for the opportunity to increase their level of knowledge, which is necessary for them in the professional activities, as well as for the answers to the questions raised by the participants in the framework of their professional activities.

Group photo of workshop participants

Participation

During the Workshop, the participants studied the adaptive models of color transmission and reproduction, as well as usage of adaptive antenna technologies in modern multimedia wireless communication networks.

Assessments

		Score		Weighted Score		
Name	**Surname**	**Attendance**	**Exam**	**Attendance (40%)**	**Exam (60%)**	**Total score**
Vladimir	Lazebny	100	23	**40**	46	86
Alexey	Onatsky	100	18	**40**	36	76
Ksenia	Radkevich	100	28	**40**	56	96
Svitlana	Shurova	100	20	**40**	40	80
Iryna	Svyd	100	21	**40**	42	82
Valery	Yunda	100	didn't try	**40**	0	
Alexander	Zakovorotniy	100	didn't try	**40**	0	
Edward	Zharikov	100	18	**40**	36	76
Yuriy	Serov	100	26	**40**	52	92
Anastasia	Asmankina	100	17	**40**	34	74

Stanislav	Berko	100	29	**40**	58	98
Tetiana	Bilushchak	100	didn't try	**40**	0	
Nikolay	Bogomolov	100	didn't try	**40**	0	
Mikhail	Dobrovolsky	100	18	**40**	36	76
Yuliya	Duinova	100	30	**40**	60	100
Anatoly	Efimenko	100	didn't try	**40**	0	
Solomia	Fedushko	100	16	**40**	32	72
Yuri	Golovin	100	didn't try	**40**	0	
Irina	Shekhovtsova	100	17	**40**	34	74
Igor	Grigorov	100	16	**40**	32	72
Ivan	Katerynchuk	100	didn't try	**40**	0	
Yuriy	Kobrin	100	29	**40**	58	98
Tetiana	Korobeinikova	100	didn't try	**40**	0	
Dmitry	Pushal	100	27	**40**	54	94
Dmytro	Mykhalevskiy	100	19	**40**	38	78
Siarhei	Palavenia	100	17	**40**	34	74
Aleksandr	Savochkin	100	22	**40**	44	84
Andriy	Semenov	100	19	**40**	38	78
Gennadij	Smolyarov	100	26	**40**	52	92
Viktor	Stetsiuk	100	19	**40**	38	78
Yerzhan	Tashmanov	100	didn't try	**40**	0	
Andriy	Tolbatov	100	29	**40**	58	98
Sergey	Tolbatov	100	29	**40**	58	98
Volodimir	Tolbatov	100	29	**40**	58	98
Olena	Tolbatova	100	29	**40**	58	98
Oleksandr	Voinalovich	100	27	**40**	54	94
Aleksandr	V'yunenko	100	28	**40**	56	96
Alexander	Zadereiko	100	didn't try	**40**	0	
Vlad	Zinchenko	100	30	**40**	60	100
Svetlana	Agadzhanova	100	15	**40**	30	70
Margarita	Chuprina	100	28	**40**	56	96

Participants feedback

Participants liked all the reports, but mostly highlighted such reports: "Application of adaptive technologies in terminal devices of video tracts" (Pilyavsky V.V.), and "Analysis of the use of

graphs in grid coding of 3D objects" (Samus N.)

Proposed future trainingcourses

Such topics were proposed by participants: **"**Digital hygiene during the information war";
"Integration of information technologies in archival management".

Recommendations

The main recommendation was to increase the duration of the course, giving more time to discuss emerging issues, and to align more specifically the answers for the Final test during the reports.

End of Training Report

FACE-TO-FACE Training Course on

AUTOMATION OF BROADBAND NETWORKS DESIGNING. SELECTING THE MOST APPROPRIATE SOLUTIONS TO BUILD NETWORK

Prepared by

Odessa National Academy of Telecommunications

Novmber 14, 2019

Training Course Structure
(This training aims to introduce participants to modern methods of telecommunication network designing and the principles of it's automation. It is focused on the aspects of broadband networks designing. Automated selection of the most appropriate solutions to build network using the BroadbandCalculator.online tool is considered. The training will allow participants to contribute personally to the implementation and development of telecommunication networks in future.

Training methodology
The training included Instructor-led presentations, case studies, group exercises and assignments.
Upon completion of this training, participants have had understanding of:
- the position of telecommunications networks designing in the entire designing process;
- modern approaches to choosing the most promising solution for building telecommunications networks;
- method of choosing the most promising solution for building broadband access networks;
- automation of choosing the most promising solution for building broadband access networks

Duration of training course
Duration of this course is 1 day. Date: November 14, 2019

Participants details
- No. of participants registered for the training:33
- No. of participants that completed the training:25
- No. of male participants:24
- No. of female participants:9
- No of international participants:0
- No of national participants:33

Full list of registered participants in a table format with email addresses. The list should NOT be an image. See example below

Name	Last name	Country	e-mail address
Beksultan	Bekmuhambetov	Kazakhstan	info@kts.kz, beksultan.bekmuhambetov@rambler.ru
Olga	Donskaya	Kazakhstan	info@kts.kz, olga.donskaya@rambler.ru
Sergey	Danilkin	Kazakhstan	davion@mail.ru, danilkin.sergey@rambler.ru
Andrey	Rymarenko	Kazakhstan	davion@mail.ru, rymarenko.andrey@rambler.ru
Dmitry	Son	Kazakhstan	support@ttc.kz, son.dmitry@rambler.ru

Inesh	Birzhanova	Kazakhstan	support@ttc.kz, birzhanova.inesh@rambler.ru
Rafik	Huseynov	Kazakhstan	support@ttc.kz, huseynov.rafik@rambler.ru
Dinara	Baimuratova	Kazakhstan	support@ttc.kz, baimuratova.dinara@rambler.ru
Vitaliy	Kuprienko	Kazakhstan	support@ttc.kz kuprienko.vitaliy@rambler.ru
Sergey	Pribelsky	Kazakhstan	valenta-kz@mail.ru, pribelsky.sergey@rambler.ru
Alexander	Novikov	Kazakhstan	valenta-kz@mail.ru, novikov.alexander1@rambler.ru
Yuri	Tseber	Kazakhstan	valenta-kz@mail.ru, tseber.yuri@rambler.ru
Dmitry	Gorchinsky	Kazakhstan	valenta-kz@mail.ru, gorchinsky.dmitry@rambler.ru
Dmitry	Filatov	Kazakhstan	telecom@telecom.kz, filatov.dmitry@rambler.ru
Sergey	Chichenkov	Kazakhstan	telecom@telecom.kz, chichenkov.sergey@rambler.ru
Alexey	Sapelkin	Kazakhstan	telecom@telecom.kz, sapelkin.alexey@rambler.ru
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Kuat	Zhunusov	Kazakhstan	zunusov_k@mail.ru, Zhunusov.Kuat@rambler.ru
Talgat	Zhuaspayev	Kazakhstan	t.zhuaspayev@gmail.com, zhuaspayev.talgat@rambler.ru
Aliya	Sarbassova	Kazakhstan	aliyasarb@mail.ru, sarbassova.aliya@rambler.ru
Nurgul	Uderbaeva	Kazakhstan	Danek_nur@mail.ru, uderbaeva.nurgul@rambler.ru
Vitaliy	Kononchuk	Kazakhstan	it-academy@kineu.kz, Kononchuk.Vitaliy@rambler.ru
Inna	Gerauf	Kazakhstan	inlisiza@mail.ru, gerauf.inna@rambler.ru
Oleg	Rostislavov	Kazakhstan	kinrost@mail.ru, rostislavov.oleg@rambler.ru
Vasiliy	Podvalnyy	Kazakhstan	vasiliy_kosta@mail.ru, podvalnyy.vasiliy@rambler.ru
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Vladimir	Golishko	Kazakhstan	gvalt2010@mail.ru, golishko.vladimir@rambler.ru
Pavel	Balaba	Kazakhstan	gvalt2010@mail.ru, balaba.pavel@rambler.ru
Alexey	Kodola	Kazakhstan	gvalt2010@mail.ru, kodola.alexey@rambler.ru
Sergey	Kachurishin	Kazakhstan	gvalt2010@mail.ru, kachurishin.sergey@rambler.ru
Alisher	Amantaev	Kazakhstan	amantaev@kineu.kz, alisher.amantaev@rambler.ru

Training evaluation
Participants took an active part in group discussions and informal discussions. All participants successfully passed the final testing.

Overall training outcome
The instructors noted the high professional level of the participants, expressed their gratitude to the participants for their involvement during the Workshop, the participants thanked the instructors for the opportunity to increase their level of knowledge, which is necessary for them in the professional activities, as well as for the answers to the questions raised by the participants in the framework of their professional activities.

Participation
Participants attended all classes, took an active part in forums, quizzes and discussions during the training.

Group photo of the Workshop participants

Assessments

Name	Surname	Score			Weighted Score			
		Attendance	**Participation (Group work, pop quiz)**	**Exam**	**Attendance (10%)**	**Participation (Group work, pop quiz) 30%**	**Exam (60%)**	**Total score**
Beksultan	Bekmuhambetov	0	0	0	0	0	0	0
Olga	Donskaya	100	90	100	10	27	60	97
Sergey	Danilkin	0	0	0	0	0	0	0
Andrey	Rymarenko	0	0	0	0	0	0	0
Dmitry	Son	0	0	0	0	0	0	0
Inesh	Birzhanova	100	80	85	10	24	51	85
Rafik	Huseynov	100	80	80	10	24	48	82
Dinara	Baimuratova	0	0	0	0	0	0	0
Vitaliy	Kuprienko	0	0	0	0	0	0	0
Sergey	Pribelsky	100	80	80	10	24	48	82
Alexande	Novikov	100	80	90	10	24	54	88

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Yuri	Tseber	100	80	95	10	24	57	91
Dmitry	Gorchinsky	100	90	85	10	27	51	88
Dmitry	Filatov	100	90	100	10	27	60	97
Sergey	Chichenkov	100	95	90	10	29	54	93
Alexey	Sapelkin	0	0	0	0	0	0	0
Marat	Bayandin	100	95	95	10	29	57	96
Kuat	Zhunusov	100	80	85	10	24	51	85
Talgat	Zhuaspayev	100	80	80	10	24	48	82
Aliya	Sarbassova	100	80	90	10	24	54	88
Nurgul	Uderbaeva	100	80	80	10	24	48	82
Vitaliy	Kononchuk	100	80	90	10	24	54	88
Inna	Gerauf	100	80	90	10	24	54	88
Oleg	Rostislavov	100	80	80	10	24	48	82
Vasiliy	Podvalnyy	100	80	95	10	24	57	91
Yana	Anisimova	100	80	100	10	24	60	94
Vladimir	Golishko	100	80	80	10	24	48	82
Pavel	Balaba	100	90	80	10	27	48	85
Alexey	Kodola	100	80	80	10	24	48	82
Sergey	Kachurishin	0	0	0	0	0	0	0
Alisher	Amantaev	100	80	80	10	24	48	82

Participants feedback
Participant liked everything about this event and they would tke part in ITU Events in future.

Proposed future training courses
Participants asked to address the areas of marketing and IT projects in future events.

Recommendations
The main recommendation was to increase the duration of the course, giving more time to discuss emerging issues, and to align more specifically the answers for the Final test during the reports.