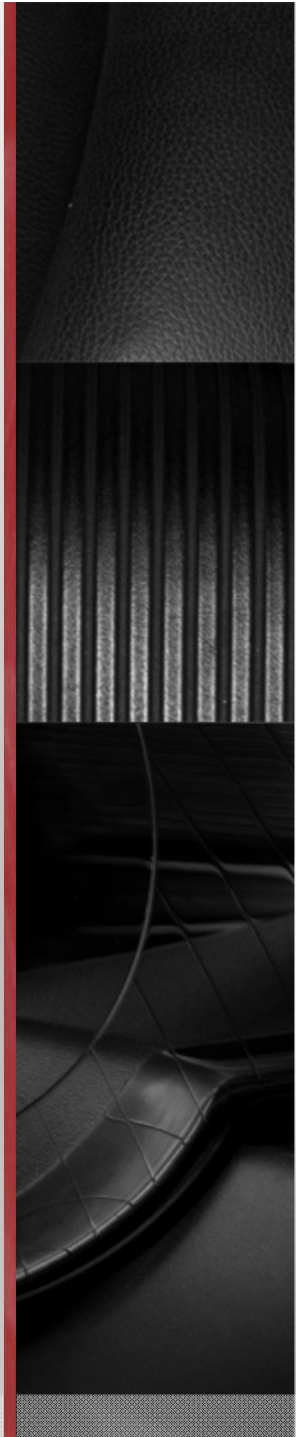


COORDINATION OF QOSTP DEVELOPMENT

Prof. Ing. Jan Holub, Ph.D.

FEE CTU

Head of Dept. of Measurement 13138





Quality of Service Training Program - QoSTP

- Designed for anyone who wants to enhance professional knowledge while working in the field of QoS
 - national regulatory authorities
 - manufacturers
 - operators
 - Researchers
 - Etc.
- Available to any professional who has previously graduated with a first level university degree (Bachelor of Sciences).
- Students entering the QoSTP may be from different institutional levels, from technical to managerial, and with different backgrounds (engineering, economics, legal, etc.).



QoSTP Course Organization – Obligatory and Elective Modules

OM0 Overview Module

OM1 Introduction - Quality of Service and Quality of Experience

OM2 Subjective assessment of voice quality

OM3 Objective assessment of voice quality

OM4 QoS and QoE for Multimedia and assessment methods

OM5 Regulatory Aspects of QoS

EM1.1 Telephony

EM1.2 Network performance and OAM for performance measurement

EM2.1 Hands-free communication and user interfaces in vehicles

EM2.2 Traffic management

EM3.1 QoS for mobile services

EM3.2 Bitrate measurement of Internet connections

EM4.1 Deployed QoS Management Technologies

Project flow

- Concept design (December 2013):
https://academy.itu.int/download.php?filename=Report_on_Quality_of_Service_Training_Programme.pdf
- Expert selection and contracting (Oct 2014)
- Syllabus card development (Nov 2014)
- Syllabus card review (Nov 2014)
- Slides 1.0 development (December 2014)
- Slides 1.0 review, feedback collection and dissemination (Jan 2015)
- Final slides development (Sep 2015)
- Final slides editorial and formatting changes (Jul 2016)
- Deliverables ready and submitted (Jun 2017)
https://academy.itu.int/index.php?option=com_content&view=article&id=101&Itemid=642&lang=en

Quality Assurance Process


- ITU Human Capacity Building Division strict quality assurance process is applied
- Several review rounds through the course development process
- Reviewed by the top scientists and experts in the field
- Once the product is out, it is of the highest quality

	Task	Assigned To	Start	End	Dur	%	2014			2015		
							Oct	Nov	Dec	Jan	Feb	Mar
	QoS ^{TP} Development		28/10/14	2/3/15	90							
1	Agreement on project timing	coordinator&experts	28/10/14	31/10/14	4							
2	Syllabus card development	experts	1/11/14	7/11/14	5							
3	Syllabus card review	coordinator&Webb	8/11/14	10/11/14	1							
4	Slides V1.0 development	experts	8/11/14	21/12/14	30							
5	Slide review, feedback collection and dissemination	coordinator&reviewers&Webb	22/12/14	23/1/15	25							
6	Final slides development	experts	24/1/15	28/2/15	25							
7	Deliverables ready and submitted	coordinator	1/3/15	2/3/15	1							

Lessons learned from Coordinator's point of view:

- It is easy to work with enthusiastic experts eager to share their knowledge (even if underpaid)
- Experts do not appreciate (deliver) less creative work (even if overpaid)
- Additional requirements are difficult to implement (the later the worse)
- Syllabus Card is a great concept of assuring course balance and consistency (but must be kept updated all the time)

ITU Academy Quality of Service Training Programme COURSE SYLLABUS CARD					
<small>Denotes fields to be filled by responsible expert</small>					
<i>General references</i>					
<i>QoSIP Ref. No.</i>	<i>Course Subject</i>				
OM1	Introduction and Overview - Quality of Service and Quality of Experience				
<i>Distribution of course hours by study forms</i>					
<i>ECTS Credits</i>	<i>Lectures (min 30 hrs)</i>	<i>Supervised practical/lab exercises</i>	<i>Consultation hours</i>	<i>Self-study (not more than 75 hrs)</i>	<i>Total</i>
6	32	0	44	74	150
<i>Course objectives</i>					
This module will impart an understanding of the concepts of QoS and QoE. It will cover the different viewpoints of the various types of stakeholder involved in telecommunications (i.e., ICT) and a high-level comparison of standardized assessment methods for QoS and QoE in ITU-T and other Standard Development Organizations (SDOs). Those following this module will acquire knowledge which is essential for any technical work or decision making related to the quality of ICT media, including Quality of Service (QoS) as well as Quality of Experience (QoE). That is covering high level understanding of QoS and QoE and their assessment, considering primarily ITU-T recommendations, and compared with recommendations from other SDOs.					
<i>Course study methods</i>					
The course study method will be the following:					
- Duration of the course is 4 weeks (each week is based on 2 hours of lectures-presentations per day, from Tuesday to Friday, i.e., 8 hours of lectures per week, which covers in total 32 hours of lectures given in the distribution of the course hours);					
- Course materials (presentations) will be made available on weekly basis via the ITU Academy;					
- Discussion forums will be organized on the ITU Academy based on discussion topics given on daily basis (from Tuesday to Friday each week), where students are highly encouraged to participate and interact with instructors and other students (this part covers in total 44 consultation hours in the distribution of the course hours, or 11 consultation hours per week – e.g., forum participation, email consultation, etc.);					
- Quiz tests will be assigned weekly (one per week, each Monday), or there will be one final Quiz test (the last Monday). In all cases the student assessment shall be performed mandatory through the ITU Academy.					
- All announcements for all events (materials, quizzes and forums) will be given several days prior to the event by the course tutor (via the News Forum in the ITU Academy; a pages for the course).					
<i>Learning outcomes A: knowledge</i>					
Upon completion of this course, participants will have:					
<ul style="list-style-type: none"> ▪ Knowledge on ITU-T QoS definitions and framework, as well as different QoS/QoE recommendations; ▪ Knowledge regarding existing QoS solutions standardized by the IETF; ▪ Knowledge regarding QoS parameters and their measurements; ▪ Knowledge about NGN and its QoS framework; 					



Thank you for your attention!

holubjan@fel.cvut.cz

+420 602 649 654

Skype: mesaqin1