



**WORKSHOP ON  
ENGINEERING FUNDAMENTALS FOR BROADCASTERS  
15-19 December 2014, Kuala Lumpur**

*Broadcast Technology has evolved many folds over the past two decades and its effects are visible at every level of the broadcast value chain. For some broadcasters long gone are the days of analogue equipment while there are others who are struggling to integrate the old with the new because they are unable to part ways with them just yet. The major changes we have seen can be summarised as; the move from analogue to digital equipment and techniques, integration and use of IT, the move from SD to HD and incorporation of IP platforms. It is the young engineers who have started their careers in the midst of all these changes who are struggling to learn and grasp these new systems without having much guidance on the much necessary engineering basics of handling audio video systems and networks.*

*Noting this need the ABU has teamed up with selected industry experts to provide a guided approach for the young and upcoming engineers to understand some of the fundamentals that they may have missed but are necessary to help them move forward. This training workshop will address selected topics focusing on some of the fundamentals of audio and video systems, engineering techniques and applications that have helped the engineering veterans to embrace and handle these with confidence. It will also serve as a handy refresher for those who feel a quick flash back could help them in a similar way.*

**Programme Outline (Draft)**

<b>15-Dec: Day 1 - Basics of Audio and Video</b>	
0900-0930hrs	Opening Session
0930-1030hrs	Evolution of Audio and Video and the broadcast value chain
1100-1230hrs	Understanding Video – theory, concepts, capture, processing and applications
1230-1400hrs	Lunch Break
1400-1530hrs	Understanding Audio – theory, concepts, capture, processing and applications
1600-1730hrs	Audio Video integration
<b>16-Dec: Day 2 - Concepts of ADC, signal processing in the value chain</b>	
0900-1030hrs	Analogue to Digital Conversion
1100-1230hrs	Digital Video Fundamentals
1230-1400hrs	Lunch Break
1400-1530hrs	Digital Audio Fundamentals
1600-1730hrs	Digital Audio and Video systems
<b>17-Dec: Day 3 – DTV Distribution and Advances</b>	
0900-1030hrs	MPEG Video schemes and standards
1100-1230hrs	DTV Distribution and Transmission Systems
1230-1400hrs	Lunch Break
1400-1530hrs	Standard Definition to High Definition TV
1600-1730hrs	High Definition to Ultra High Definition and beyond

<b>18-Dec: Day 4 – Converged IT Environment</b>	
0900-1030hrs	IT integration and Networked Environment
1100-1230hrs	SAN and NAS Technologies and Systems
1230-1400hrs	Lunch Break
1400-1530hrs	Networked Studio Environment and Workflow
1600-1730hrs	Workflow Automation
<b>19-Dec: Day 5 – Online content and new media basics</b>	
0900-1030hrs	Moving to New Media Platforms
1100-1230hrs	Encoding and delivery of audio and video over the internet
1230-1400hrs	Lunch Break
1400-1530hrs	Hands-on session with creating and distributing online content
1600-1700hrs	Discussion and Q&A
1700-1730hrs	Evaluation and Closing

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