

ABU Technology

TOPIC AREAS AND PROJECTS

Revised: October 2024

TOPIC AREA: PRODUCTION

Chairman: Mr Kazim Pektas, TRT, kazim.pektas@trt.net.tr

Secretary: ABU-TD, td@abu.org.my

	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
1.	Ultra High Definition TV and Advanced Immersive Sensory Media Systems P/UHDAISM (TBD)	1. Monitor developments regarding UHD TV, and study its technical specifications. 2. Monitor developments regarding advanced immersive sensory media and study its technical specifications. 3. Study use cases of advanced immersive sensory media like VR, AR, 360° video, 3D video, audio, and haptic to enhance the audience experience. 4. Study the possibility of a programme exchange technology in ABU region.	1. Report to members on UHD TV developments, including applications and technical aspects. 2. Report to members on the latest technologies on advanced immersive sensory media. 3. Report to members on use cases on advanced immersive sensory media within broadcast and media organization. 4. Contributions to relevant working parties in ITU-R SG6, when necessary. Time Period: Oct 2024	Mr. Kimihiro TOMIYAMA tomiyaama.k-fk@nhk.or.jp Co-Project Manager: Mr Byung Sun KIM, KBS bskim2000@kbs.co.kr Mr Halil Us, TRT halil.us@trt.net.tr Zhou Yun, ABS/RTPRC zhouyun@abs.ac.cn Hu Xiao, ABS/RTPRC huxiao@abs.ac.cn Mr. P.S.Srivastava pss_18@yahoo.com
2.	Systems for people with special needs P/SN	1. Study activities related to broadcast service for people with special needs done by other organisations 2. Make possible contributions to international forums or organizations if necessary	1. Report to members outlining broadcast service and systems in place to serve people with special needs 2. Contributions to relevant international forums or organizations Time Period: Oct 2024	Ms. Reiko TAKOU takou.r-go@nhk.or.jp Mr D Birlananth, Prasar Bharati birlananth@prasarbharati.gov.in Mr. R.P. Joshi rpjoshi.delhi@gmail.com KBS, TBS, RTPRC, TRT
3.	IT -based Production System and file-based workflows P/ITPS	1. Study use cases of IT -based programme production systems, which are implemented, or being implemented in broadcasters' facilities. 2. Gather the information about operational know-how in total production chain of the systems above. 3. Collaborate with P/RTA if necessary, especially in metadata or storage issues. 4. Prepare a monograph on IT -based programme production systems if possible.	1. Report to members outlining use cases of IT-based programme production systems and the information about operational know-how in total production chain of the above systems. 2. Monograph on IT -based programme production systems. Time Period: Oct 2024	Mr Okan Salman, TRT okan.salman@trt.net.tr Co-Project Manager Mr Daeyang Kim, KBS kimdaevang@kbs.co.kr Mr Gökhan Tikit, TRT gokhan.tikit@trt.net.tr Mr Nguyen Duc Tue, VTV tuend72@vtv.gov.vn Mr P S Srivastava, DDI pss_18@yahoo.com Mr. R.P. Joshi rpjoshi.delhi@gmail.com Mr Alireza Abedin, IRIB a_abedini@irib.ir CCTV/RTPRC;TDM;TVB [Manufacturers]

	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
4.	Big Data, Personalisation and Artificial Intelligence P/BDAI	1. Study use cases of Big Data and technologies like Artificial Intelligence (AI) within broadcasting and media organisations. 2. Gather information about how Data analysis is used for personalisation and how it can be utilised by broadcasters. 3. Study how AI technologies can be deployed and used within production environment and other related applications for broadcasters.	1. Report to members on use cases and applications of Big Data and AI within broadcast and media organisations. 2. Report on the use of Data analytics for personalisation and to understand audience requirements and preferences. Time Period: Oct 2024	Project Manager Dr Byunghee Jung, KBS bhjung@kbs.co.kr Co-Project Manager Mr. Taro MIYAZAKI miyazaki.t-jw@nhk.or.jp Dr Sansung KIM, KBS TRI sansung@kbs.co.kr Li xiao, ABS/RTPRC lix@abs.ac.cn Zhao Ming, ABS/RTPRC zhaoming@abs.ac.cn Zheng Ruidi, ABS/RTPRC zhengruidi@abs.ac.cn Ms. Wang Yi, ABP/RTPRC wangyiamy@abp2003.cn

TOPIC AREA: DISTRIBUTION

Chairman: Dr Hirokazu Kamoda, kamoda.h-ci@nhk.or.jp

Secretary: ABU-TD, td@abu.org.my

	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
1.	Next Generation Terrestrial Broadcasting D/NGTB	1. Investigate next generation broadcasting technologies for delivering UHD service. 2. Investigate efforts toward the realization of next-generation terrestrial broadcasting. 3. Investigate mobile reception of digital broadcasting services. 4. Study on TVWS (TV White Spaces). 5. Study/follow studies on the development of 5G technology and its broadcast related delivery/contribution and other applications	1. Preparation of report, including next generation broadcasting technologies. 2. Information on efforts toward the realization of next-generation terrestrial broadcasting. 3. Preparation of report on mobile broadcasting, including those on broadcasting to handheld/mobile devices. 4. Include report on 5G technologies and its developments Time period: Oct 2024	Mr Singo Asakura asakura.s-ie@nhk.or.jp Co-Project Manager: Dr Jeon Sungho jeonsh@kbs.co.kr Mr Chen Delin, ABS/RTPRC chendelin@abs.ac.cn Mr Halil Us, TRT halil.us@trt.net.tr Mr. D.P. Singh dpsingh@prasarbharati.gov.in Mr Rajesh Meena meena@prasarbharati.gov.in Mr A K Mangalgi amangalgi@yahoo.com Zhang Yu, ABS/RTPRC zhangyu@abs.ac.cn Xiao Jingting, ABS/RTPRC xiaojingting@abs.ac.cn KBS
2.	Integrated Broadcast-Broadband and OTT D/IBBOTT	1. Study the specifications of the various Integrated Broadcast-Broadband (IBB) platforms. 2. Investigation of developments concerning software standards (APIs, EPGs, subtitle, etc). 3. Investigation and consideration on technologies to enhance broadcasting services in various aspects. 4. Study on information security for broadcasting services via airwave and/or communication network (Content protection, Conditional access, Digital Rights Management system, etc). 5. Study on cyber security in broadcasting industry for protecting the broadcasting systems.	1. A report on technologies on the various IBB platforms. 2. Prepare a requirement of the subtitles in the ABU region. 3. Survey of information security for broadcasting services via airwave and/or communication network. 4. Survey of cyber security in broadcasting industry for protecting the broadcasting systems. Time period: Oct 2024	Dr Go Ohtake, NHK ohtake.g-fw@nhk.or.jp Co-Project Manager: Mr A K Mangalgi amangalgi@yahoo.com Mr. R.P. Joshi rpjoshi.delhi@gmail.com Dr Hirokazu Kamoda, NHK kamoda.h-ci@nhk.or.jp Mr Hiroki Endo, NHK endou.h-hc@nhk.or.jp Zhang Dingjing, ABS/RTPRC zhangdingjing@abs.ac.cn Zhang Yu, ABS/RTPRC zhangyu@abs.ac.cn Zhang Wei, ABS/RTPRC zhangwei@abs.ac.cn He Jing, ABS/RTPRC hejing@abs.ac.cn Wang Lei, ABS/RTPRC wanglei@abs.ac.cn
3.	Satellite Broadcasting D/SB	1. Investigate latest satellite broadcasting technologies for delivering UHD service. 2. Study the specification of latest satellite broadcasting system. 3. Investigate advanced satellite	1. Report on technologies on the latest satellite systems for UHDTV broadcasting. 2. Report on specification of the latest satellite broadcasting systems. 3. Survey of the latest topics on advanced satellite	Mr Masashi Kamei, NHK kamei.m-kw@nhk.or.jp Co-Project Managers:

	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
		broadcasting technologies using Ka band, etc.	broadcasting technologies using Ka band, etc Time period: Oct 2024	Mr K K Rao kkrao@prasarbharati.gov.in TRT IRIB
4.	Digital Sound Broadcasting Systems D/DSBS	1. Follow developments in respect of digitally modulated radio transmissions in broadcasting and examine issues related to transition from analogue services to digital applications and implementation. 2. Examine issues related to transition from analogue services to digital applications in the FM band. 3. Examine implementation in the Medium and Short wave band	1. An information document on digital radio in all relevant, including relevant information about the ITU-R recommended system(s) and digital receiver developments. 2. A report on implementation issues and possibilities. Time period: Oct 2024	Project Manager Co-Project Managers: IRIB RRI TRT

TOPIC AREA: TRAINING AND SERVICES**Chairman: Mr. Prakash Veer, Prasara Bharati** p.veer@gov.in**Secretary: ABU-TD,** td@abu.org.my

	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
1.	Technical Training Priorities and Members Requirements TS/TTPMR	- Periodically conduct surveys among members to understand the requirements and priority areas by members and based on these suggest topics for training. - Identify requirement of Technical Advisory Services for Member organisations - Work with ABU Media Academy to develop: - curriculum-based training programmes - a certification system with different levels - effective monitoring and assessing methods to evaluate how beneficial the training workshops/seminars have been to members. - Collaborate with AMA and other established Media Training Academies of members	- Survey Report on Member requirements - List of Priority Areas, Topics and Program Schedule for training - Certification and Evaluation Template - Database of training academies and training programmes offered by them - Database of Production/ B'cast Technology/ equipment used by Members - Database of Resource Persons along with Topics, Time period: Oct 2024	Project Manager: Mr. Prakash Veer, Prasara Bharati p.veer@gov.in Co-Project Managers: Mr. J.B.Roy, Prasara Bharati jbroy@prasarbharati.gov.in Mr. Ravinder Kumar, Prasara Bharati ravinderkumar@prasarbharati.gov.in Contributors:
2.	Skill Development Programme for Managerial, and Occupational Safety TS/ SDPMOS	- Identify and develop training programmes for non-technical, managerial, financial and occupational safety and skills enhancement - Conduct surveys to study members requirements on these areas such as General management, Health & Safety considerations. - Explore the best possible ways of delivery of such training and good practice methods within the industry	- List of non-technical, managerial, financial Skills courses that can be organised. - Identify and suggest at least one such topic to be included in the TD training calendar annually based on member requirements - Find out Standard Operating Procedures (SOP) and best practice methods adopted by members on different situations and work environment in general - develop standard code of conduct and work ethics information manual - Develop a disaster recovery and response manual that can be used in technical areas Time period: Oct 2024	Project Manager: Mr. R.K.Joshi, Prasara Bharati rkjoshi@prasarbharati.gov.in Co-Project Managers: Mr. Ravinder Kumar, Prasara Bharati ravinderkumar@prasarbharati.gov.in Dr. D.K. Mazumder, Prasara Bharati dkmazumder@prasarbharati.gov.in Mr. Ashok Kr. Panigrahi, Prasara Bharati akpanigrahi1@prasarbharati.gov.in Contributors:
3	Technical Skill Building and Knowledge Sharing TS/TSBKS OR High-Tech Exposure & Knowledge Sharing TS/TEKS	- Work with industry partners and international events to identify applicable training opportunities available in broadcasting field eg: ITU, IABM, SMPTE etc. - Explore and develop a staff exchange or short-term attachment programme among members. - Explore easy ways how redundant or in excess equipment from members can be acquired and utilised by other members who can use them.	- MoU with Industry Partners - Guidelines for staff exchange programme - Members' Information Exchange platform Time period: Oct 2024	Project Manager: Mr. K. Murugan , Prasara Bharati murugan_k@prasarbharati.gov.in Co-Project Managers: Mr Devesh Kumar, Prasara Bharati devesh@prasarbharati.gov.in Mr. J. B. Roy, Prasara Bharati jbroy@prasarbharati.gov.in Contributors:

TOPIC AREA: SPECTRUM

Chairperson: Dr Li Leilei, RTPRC, lileilei@abp2003.cn

Secretary: Veysel Binbay, ABU-TD, veysel@abu.org.my

WRC-27 ISSUES				
	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
1.	to consider a possible new primary allocation to the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz and a possible new primary allocation to the broadcasting-satellite service (space-to-Earth) in the frequency band 17.3-17.8 GHz in Region 3, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, and to consider equivalent power flux-density limits to be applied in Regions 1 and 3 to nongeostationary-satellite systems in the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz, in accordance with Resolution 726 (WRC-23); (WRC-27 AI 1.4)	1. Follow developments of studies in relevant SGs and WPs of ITU-R to identify and possible impact on Broadcasting Services. 2. Possible impact on broadcasting service in Asia-Pacific Area.	1. From time to time, circulate among ABU members, relevant information on sharing studies. 2. Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager Co-Project Managers: Mr. Rajeev Kumar rajeev00kumar@yahoo.com Contributors:
2.	to consider technical and regulatory measures for fixed-satellite service satellite networks/systems in the frequency bands 37.5-42.5 GHz (space-to-Earth), 42.5-43.5 GHz (Earth-to-space), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) for equitable access to these frequency bands, in accordance with Resolution 131 (WRC-23); (WRC-27 AI 1.6)	1. Follow developments of studies in relevant SGs and WPs of ITU-R to identify and possible impact on Broadcasting Services. 2. Possible impact on broadcasting service in Asia-Pacific Area.	1. From time to time, circulate among ABU members, relevant information on sharing studies. 2. Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager Co-Project Managers: Mr. Rajendra Kumar rkumar@prasarbharati.gov.in Contributors:

WRC-27 ISSUES				
	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
3.	to consider appropriate regulatory actions to update Appendix 26 to the Radio Regulations in support of aeronautical mobile (OR) high frequency modernization, in accordance with Resolution 411 (WRC-23); (WRC-27 AI 1.9)	- Follow developments of study results in relevant SGs and WPs of ITU-R - Possible impact on broadcasting service in Asia-Pacific Area.	- From time to time, circulate among ABU members, relevant information on sharing studies. - Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager Co-Project Managers: Mr. Rajeev Kumar rajeev00kumar@yahoo.co.in Contributors:
4	to consider developing power flux-density and equivalent isotropically radiated power limits for inclusion in Article 21 of the Radio Regulations for the fixed-satellite, mobile-satellite and broadcasting-satellite services to protect the fixed and mobile services in the frequency bands 71-76 GHz and 81-86 GHz, in accordance with Resolution 775 (Rev.WRC-23); (WRC-27 AI 1.10)	- Follow developments of study results on relevant SGs and WPs of ITU-R - Possible impact on broadcasting services.	- From time to time, circulate among ABU members, relevant information on sharing studies. - Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager: Dr. Li Leilei lileilei@abp2003.cn Co-Project Managers:
5	to consider studies on possible new allocations to the mobile-satellite service for direct connectivity between space stations and International Mobile Telecommunications (IMT) user equipment to complement terrestrial IMT network coverage, in accordance with Resolution 253 (WRC-23); (WRC-27 AI 1.13)	- Follow developments of study results on relevant SGs and WPs of ITU-R - Possible impact on broadcasting services.	- From time to time, circulate among ABU members, relevant information on sharing studies. - Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager: Dr. Li Leilei lileilei@abp2003.cn Co-Project Managers:

WRC-27 ISSUES				
	PROJECT TOPIC	TASKS	DELIVERABLES	PROJECT MANAGER
6	to consider regulatory provisions for receive-only space weather sensors and their protection in the Radio Regulations, taking into account the results of ITU Radiocommunication Sector studies, in accordance with Resolution 682 (WRC-23); (WRC-27 AI 1.17)	1. Follow developments of study results on relevant SGs and WPs of ITU-R 2. Possible impact on broadcasting services.	1. From time to time, circulate among ABU members, relevant information on sharing studies. 2. Preparation of ABU contributions to the relevant SGs and WPs of ITU-R, APT and others. Reports: As required. Time Period: Oct 2024	Project Manager: Dr. Li Leilei lleilei@abp2003.cn Co-Project Managers: