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|  | ASIA-PACIFIC TELECOMMUNITY  **The 22nd Meeting of the APT Wireless Group (AWG-22)**  25 – 29 September 2017, Busan, Republic of Korea |  |

**CONCEPT NOTE**

1. **Background/Context**

The Terms of References of the APT Wireless Group (AWG) cover the followings:

* Carry out studies and develop outputs to facilitate the harmonization of spectrum usage, the efficient and effective deployment of radiocommunication systems, and the development of new radiocommunication technologies and applications
* Support and assist APT Members in using the radio frequency spectrum and deploying radio network effectively
* Share information on spectrum usage and emerging radiocommunication technologies and applications, within Asia-Pacific region
* Encourage radiocommunication industry research and development, and promote related telecommunication business activities
* Perform technical and operational studies to support for World Radiocommunication Conferences (WRCs) if requested by the APT Preparatory Group for WRCs
* To communicate with, as well as develop APT proposals to related international and regional organizations on radiocommunication matters, as appropriate, to promote interests of APT Members.

The work areas of AWG include: spectrum arrangement and harmonization; spectrum monitoring; spectrum sharing studies; future development of IMT; fixed wireless systems; software defined radios; intelligent transport system; wireless power transmission; modern satellite systems; aeronautical and maritime; PPDR and railway radiocommunication.

Following the outcomes of AWG-21, currently AWG is working on the following work items:

1. Frequency ranges for non-beam WPT for mobile devices
2. Harmonized frequency arrangement in the band 470 – 698 MHz
3. Frequency arrangement in the band 1427-1518 MHz
4. Harmonized frequency arrangement in the band 3 300 – 3 400 MHz
5. Frequency arrangement in the band 4 800 – 4 990 MHz
6. Usage and future plan of the bands 3300 – 3400 MHz
7. Usage and future plan of the bands 4800 – 4990 MHz
8. Frequency usage of the bands 1980 – 2010 MHz and 2170 – 2200 MHz in Asia-Pacific
9. Sharing and compatibility studies for selected frequency bands below 6GHz
10. Sharing and compatibility studies for IMT above 24GHz
11. Spectrum monitoring methodology at the border areas
12. Usage and future plan of frequency bands in relation to studies on WRC-19 Agenda Item 1.13 in Asia-Pacific region
13. Implementation of Public Safety LTE (PS-LTE) mobile broadband capability in Asia-Pacific region
14. Geo-location databases as an enable technology of CRS
15. FWS link performance under severe weather conditions
16. In-band Full Duplex system for FWS
17. Technologies of FWS to provide remote connectivity
18. Survey on operation of SRDs
19. Usages of ITS in APT countries (Rev.2)
20. Frequency Ranges used for non-beam WPT for electric vehicles
21. Current and future usage of unmanned aircraft
22. Survey on usage of the bands 457.5125-457.5875 MHz and 467.5125-467.5875 MHz by the maritime mobile service in Asia-Pacific region
23. Broadband wireless air-to-ground communications links with passenger aircraft
24. System description technologies and implementation of Railway Radiocommunication System between Train and Trackside (RSTT) in APT countries
25. Railway Radiocommunication System for passengers’ access to information and internet services.
26. **Objectives**

During AWG-22, the Working Groups of the AWG will review the work progress on the above mentioned work items based on the input contributions from members and update of relevant ITU-R studies on the work items. AWG-22 will develop outcomes based on decision taken at the meeting.

Further, AWG-22 will also discuss the progress of APT Frequency Information System (AFIS), the implementation of the Strategic Plan of the APT for 2015-2017 and the Workplan of AWG. An in-session workshop on Railway Radiocommunication System will be held during AWG-22. Further, AWG Workshop on ‘Wireless Technology for Future Digital Transformation’ will be held during AWG-22. .

1. **Expected outcomes**

AWG-22 is expected to develop the following tangible outcomes:

* Draft APT Recommendations
* APT Reports
* Liaison Statements to other APT Work Programmes, ITU-R Study Groups and external organizations, if necessary
* Survey questionnaires on the work items, if necessary
* Consider new work items for study.

1. **Arrangement/Activity (if necessary)**

The AWG-22 will be held for four and half working days. The Working Groups and respective Sub-Working Groups and Task Groups will also meet during the working days of AWG-22 and report to the Plenary of AWG-22.

Further, AWG Workshop on ‘Wireless Technologies for Future Digital Transformation’ which had been initiated by the Ministry of Science, ICT and Future Planning (MSIP), Republic of Korea, will be held on the 26 September 2017 at 15:30 – 18:45 hours.

1. **Timing and location**

AWG-22 will be held from 25 to 29 September 2017 in Busan, Republic of Korea. Please be informed that the Opening Ceremony of AWG-22 will be held on 25 September 2017 at 14:00 hours. Delegates of AWG-22 will be given the opportunity to attend the Opening Ceremony of the ITU Telecom 2017 in the morning of 25 September 2017.

1. **Contact persons**

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1. **Tentative Agenda**

Tentative agenda is attached in Annex A. Annex B contains further information on AWG Workshop on ‘Wireless Technologies for Future Digital Transformation’.

**Annex A**

**Provisional Agenda**

1. Opening
2. Adoption of Agenda
3. Summary Record of AWG-21

1. Allocation of the Documents

1. Implementation Status of the Strategic Plan of the APT for 2015 – 2017
2. Objectives and expected outcomes of the Working Groups during AWG-22
3. Consideration of the documents allocated to the Plenary
4. Working Groups/Sub-Working Groups/Task Groups Meetings
5. AWG Workshop on ‘Wireless Technologies for Future Digital Transformation’
6. Consideration of the report of the Working Groups
7. Consideration and approval of the output documents
8. Date and venue of AWG-23
9. Any other matters
10. Closing

**Annex B**

**AWG Workshop on Wireless Technologies for Future Digital Transformation**

Ministry of Science, ICT and Future Planning (MSIP), Republic of Korea, the host of AWG-22 had requested APT to organize a workshop during AWG-22 which could be open to public. The workshop was approved at the plenary session at AWG-21.

**Schedule & Venue**

The open workshop will be held with 2 sessions from 15:30 to 18:45 hours on Tuesday, September 26 2017.

The venue is Haewondae Grand Hotel, Grand Ballroom, which is same as AWG-22

**Workshop Topics**

Following two topics will be covered at the workshop:.

* **Session 1: Role of ITS for Self-Driving (Autonomous) Car**
  + Self-driving cars have been a dream of mankind pretty much since the invention of the automobile, and although we are closer to achieving this than ever, there is still much work to be done. For a self-driving car to function properly and be safe on the road, it needs to be able to communicate with other vehicles and the surrounding infrastructure.
  + Relevance to AWG : **TG ITS**
* **Session 2: Spectrum Management for Internet of Things (IoT)**
  + IoT is one of the hottest topics together with AI and self-driving car. Analysts and market researchers estimate that by the year 2020, at least 20 billion devices will be connected. This session will cover the spectrum management aspects for the deployment of IoT.
  + Relevance to AWG : **WG SPEC**