



## Telecommunication Development Bureau (BDT)

Ref.: BDT/IEE/TND/DM/292 Geneva, 30 October 2017

To:

- Administrations of ITU Member States from CIS region

- Regulators, ITU Sector Members, Associates, Regional Organizations, and Academia from CIS region

Subject: Regional Workshop on Practical Use of Radio Regulations, 14-15 December 2017 and

Regional Spectrum Management Conference, 12-14 December 2017, Yerevan, Republic of

Armenia

Dear Sir/Madam,

On behalf of the International Telecommunication Union (ITU), I am pleased to invite you to the **Regional Workshop on** *Practical Use of Radio Regulations* to be held in Yerevan, Republic of Armenia from **14-15 December 2017** and **Regional Spectrum Management Conference**, from **12-14 December 2017** at the same venue.

The Workshop is organized by the ITU and is being supported by the Ministry of Transport, Communications and Information Technologies of the Republic of Armenia. The Workshop will cover practical use of software and databases developed by the ITU Radiocommunication Bureau to implement provisions of the Radio Regulations in the ITU Member-States. All materials will be available on the ITU website: <a href="http://www.itu.int/en/ITU-D/Regional-Presence/CIS/Pages/EVENTS/2017/12">http://www.itu.int/en/ITU-D/Regional-Presence/CIS/Pages/EVENTS/2017/12</a> Yerevan/12 Yerevan.aspx.

The Workshop will be preceded by the **Regional Spectrum Management Conference**, jointly organized by the ITU, Forum Global and supported by the Ministry of Transport, Communications and Information Technologies of the Republic of Armenia. For further details of this Conference kindly visit the following link <a href="https://eu-ems.com/summary.asp?event\_id=4343&page\_id=9297">https://eu-ems.com/summary.asp?event\_id=4343&page\_id=9297</a>.

Both events are addressed to representatives of ministries, regulators, telecommunications operators, equipment manufacturers and software developers, scientific and project institutes, and other stakeholders of the ITU Member States, Sector Members and Academia.

The draft agendas of the events are attached hereto (Annex 1 and Annex 2).

The events will be conducted in Russian and English with simultaneous interpretation.

There is no participation fee for the events. However, all expenses related to the travel, accommodation and insurance of participants should be covered by your Administration/Organization.



Registration for the Workshop and the Conference would strictly be online at: <a href="https://euems.com/register.asp?event\_id=4343">https://euems.com/register.asp?event\_id=4343</a>.

To encourage the participation of low-income developing countries and subject to the availability of funds, the ITU will grant one full or two partial fellowships per eligible country of the CIS Region. An application for a fellowship must be authorized by the relevant Administration. Those intending to apply for a fellowship are required to complete the Fellowship Form (Annex 4) and send it to the ITU Fellowships Service by email: fellowships@itu.int or by fax: +41 22 730 57 78 no later than 13 November 2017.

Ms. Violeta Aghajanyan, Deputy Head, Department of External Communications and Programmes, Ministry of Transport and Communications of the Republic of Armenia (email: <a href="wioleta.aghajanyan@mtcit.am">wioleta.aghajanyan@mtcit.am</a>; tel.: +374 10 59 00 93; fax.: +374 10 59 00 94) is at your disposal should you have any questions or need clarifications concerning the venue, accommodation etc., regarding the Workshop.

Mr. Farid Nakhli, Programme Officer, ITU Regional Office for CIS (email: <a href="mailto:farid.nakhli@itu.int">farid.nakhli@itu.int</a>; phone: +7 495 926 60 70), is at your disposal should you have any other questions concerning this Workshop.

I look forward to active participation from your Administration/Organization.

Yours faithfully,

[ Original signed ]

Brahima Sanou Director

#### **Annexes:**

- 1. Conference Draft Agenda
- 2. Workshop Draft Agenda
- 3. Practical Information
- 4. Fellowship Request Form
- 5. Visa Support Form
- 6. Hotel Reservation Form







## **Regional Spectrum Management Conference**

Yerevan, Armenia, 12-14 December 2017

#### **DRAFT PROGRAMME**

	December 12, Tuesday
08:30-09:00	Registration of participants
09:00-09:10	<ul> <li>Official Opening of the Conference:         <ul> <li>Ministry of Transport, Communication and Information Technologies of the Republic of Armenia</li> <li>International Telecommunication Union (ITU)</li> <li>Forum Europe</li> </ul> </li> </ul>
09:10-11:10	<ul> <li>Session 1: Fundamentals of Spectrum Management</li> <li>Keynote Presentation - François Rancy, Director, ITU Radiocommunication Bureau</li> <li>Keynote Presentation - Valery Butenko, Director General, FSUE NIIR, Russia, Chairman, RCC Commission on the Regulation of the Use of Radiofrequency Spectrum and Satellite Orbits</li> <li>Keynote Presentation - Victor Strelets, Member of the ITU Radio Regulations Board</li> </ul>
	<ul> <li>High Level Roundtable – Best practices of spectrum management: maximising the potential of spectrum for the countries and for the region (1 hour)</li> <li>What level of co-ordination and sharing of best practice is currently seen across the region, and what bodies and platforms are available to facilitate this?</li> <li>Is this sufficient or are there ways in which it can be improved?</li> <li>What should be the key short-term and long-term goals for regulators and policymakers setting spectrum policy in the region, and how can it be ensured that these are achieved?</li> </ul>
11:10-11:30	Coffee break. Group photo
11:30-13:00	Session 2: Spectrum utilization by terrestrial radiocommunication systems  Session 2a: Digital Switchover and the allocation of the 700MHz and 800MHz bands —  encouraging a coordinated and accelerated approach  • What is the current situation across countries of the region with regards to the digital switchover?  • What approach to the reallocation of the 700 and 800MHz bands are being seen?  • What work is being done to co-ordinate approaches both within the region and also with neighbouring region such as the EU and Asia?
13:00-14:00	Lunch
14:00-15:30	<ul> <li>Session 2 (continued)</li> <li>Session 2b: Spectrum for 5G – preparing for 5G launch and rollout in the region</li> <li>What are the drivers and inhibitors of 5G technologies?</li> <li>What potential does 5G offer for countries, communities, citizens and businesses throughout the region?</li> <li>Which bands are likely to be the 'pioneer' bands and see 5G deployment first both in the region and elsewhere around the world?</li> </ul>
15:30-16:00	Coffee break
16:00-17:30	Session 2 (continued)

	Annex 1		
	Session 2c: Delivering the required connectivity for IoT and future network technologies		
	<ul> <li>What level of co-ordination and standardization is required when it comes to developing and implementing a strategy for IoT networks in the region?</li> </ul>		
	<ul> <li>Is there a need for dedicated and harmonized spectrum for IoT, and in what bands could this be?</li> </ul>		
	<ul> <li>What mix of technologies; licensed and unlicensed spectrum; and new and existing bands will best deliver on the needs of IoT?</li> </ul>		
17:30-19:00	Cocktail Reception		
	December 13, Wednesday		
09:00-10:30	Session 3: Spectrum utilization by space radiocommunication systems		
10:30-11:00	Coffee break		
11:00-12:30	Session 4: Options to meet increasing spectrum requirements		
	Session 4a: Additional options to meet the growing spectrum requirements for mobile broadband		
	Beyond the digital dividend bands, what additional spectrum may be required to handle the growth in demand for mobile data?		
	<ul> <li>How important will bands such as the 2.3GHz, 2.6GHz and 3.4-3.8GHz be in providing a solution?</li> </ul>		
	<ul> <li>When will this additional spectrum be required, and what considerations need to be taken into account when planning additional release and awards?</li> </ul>		
12:30-13:30	Lunch		
13:30-15:00	Session 4 (continued)		
	Session 4b: Increasing efficiency of spectrum usage in the region – tools and technologies		
	<ul> <li>How efficiently is spectrum currently being used within the region and what quality of service is being provided?</li> </ul>		
	• What tools and tochnologies are available to monitor spectrum efficiency and usage? What		

	into account when planning additional release and awards?		
12:30-13:30	Lunch		
13:30-15:00	Session 4 (continued)		
	Session 4b: Increasing efficiency of spectrum usage in the region – tools and technologies		
	<ul> <li>How efficiently is spectrum currently being used within the region and what quality of service is being provided?</li> </ul>		
	<ul> <li>What tools and technologies are available to monitor spectrum efficiency and usage? What options are available to increase this efficiency and where does the balance lie between efficiency and reliability?</li> </ul>		
	<ul> <li>What role can spectrum sharing play in being part of the solution?</li> </ul>		
15:00-15:30	Coffee break		
15:30-17:00	Session 5: Connecting the unconnected: Spectrum policies to help bring affordable		
	connectivity to all		
	<ul> <li>What progress is being made in the objective of breaking down the digital divide and achieving universal coverage?</li> </ul>		
	<ul> <li>What spectrum bands will be most important in finding a solution?</li> <li>What is the right technology mix to deliver this in both an affordable and efficient manner?</li> </ul>		

December 14, Thursday		
09:00-11:00	Session 6: Looking Ahead to WRC-19	
	What will be the key agenda items at WRC-19 for spectrum users in the region?  What we live is a region of the RCC A desiried to the region?	
	<ul> <li>What preliminary positions are from the RCC Administrations on WRC-19 agenda items?</li> </ul>	
11:00-11:30	Coffee break	
11:30-12:00	Wrap-up and closing	



## ITU Regional Workshop "Practical use of Radio Regulations" Yerevan, Armenia, 14-15 December 2017



#### **DRAFT PROGRAMME**

14 December, Thursday		
13:30-14:00	Registration of participants	
14:00-14:30	<ul> <li>Opening:         <ul> <li>Ministry of Transport, Communication and Information Technologies of the Republic of Armenia</li> <li>International Telecommunication Union (ITU)</li> </ul> </li> </ul>	
14:30-15:30	Session 1: Practical use of the Radio regulations	
15:30-16:00	Coffee break	
16:00-17:30	Session 1 (continued)	
	15 December, Friday	
09:30-11:00	Session 2: Software and databases for terrestrial services	
11:00-11:30	Coffee break	
11:30-13:00	Session 2 (continued)	
13:00-14:00	Lunch	
14:00-15:30	Session 3: Software and databases for space services	
15:30-16:00	Coffee break.	
16:00-17:00	Session 3 (continued)	
17:00-17:30	Wrap-up and closing	



### Regional Spectrum Management Conference Yerevan, Republic of Armenia, 12-14 December 2017



#### Regional Workshop on *Practical Use of Radio Regulations* 14-15 December 2017 and

#### PRACTICAL INFORMATION FOR PARTICIPANTS

#### 1. Event venue

The events will be held in Central Hotel located at the address:

7/1, Zakyan Str., Yerevan 0015, Armenia 0010 Telephone: +374 10 600 300, +374 10 600 400

Email: info@centralhotel.am https://centralhotel.am/

#### 2. Registration

Registration will start on 12 December 2017, Tuesday, at 08:30 in the event venue.

#### 3. Event languages

The workshop will be held in Russian and English with simultaneous interpretation.

#### 3. Recommended hotels

#### Central Hotel\*\*\*\*

7/1, Zakyan Str., Yerevan 0015, Armenia 0010 Telephone: +374 10 600 300, +374 10 600 400

Email: info@centralhotel.am https://centralhotel.am/

Room category	Single	Double
Standard	30.000 (≈ 62 USD)	34.000 (≈ 72 USD)
Classic	35.000 (≈ 73 USD)	39.000 (≈ 81 USD)
Deluxe	40.000 (≈ 83 USD)	45.000 (≈ 93 USD)
Luxe	44.000 (≈ 91 USD)	52.000 (≈ 108 USD)

#### **Best Western Congress Hotel\*\*\*\***

1, Italy Str., Yerevan

Telephone: (+374) 10 59 11 99

http://www.congresshotelyerevan.com/bestwestern/

Room category	Rate
Standard	29.500 (≈ 61 USD)
Double	35.000 (≈ 73 USD)
Deluxe	40.000 (≈ 91 USD)

For the event participants, rooms at a special rate are available in Central Hotel (total number of rooms is 24) and Best Western Congress Hotel (30 rooms have been booked by the organizer). Considering the limited number of rooms available at the special price, participants are kindly requested to book rooms in the above hotels in due time.

To book a room in Central Hotel or Best Western Congress Hotel, participants are requested to send the dully filled out Hotel Reservation Form (Annex 6) with copy of title page of the passport attached to the event coordinator Ms. Violeta Aghajanyan by e-mail: <a href="mailto:violet.aghajanyan@gmail.com">violet.aghajanyan@gmail.com</a> or fax: + (374 10) 590094 by 24 November 2017.

Several more hotels (which do not offer a special rate for the event participants) are located within walking distance from the event venue:

#### **Marriott Yerevan**

1, Amiryan Str., Yerevan

Telephone: (+374) 10 599 000

Fax: (+374) 10 599 001

http://www.marriott.com.ru/hotels/travel/evnmc-armenia-marriott-hotel-yerevan/

Deluxe room rate is starting from USD 85.

#### **Hyatt Place Yerevan**

26/1, V.Sargsyan Str., Yerevan Telephone: (+374) 11 22 12 34

Fax: (+374) 11 22 12 35

Email: Yerevan.place@hyatt.com

https://yerevan.place.hyatt.com/ru/hotel/home.html

Standard room rate is starting from USD 75.

#### **Paris Hotel Yerevan**

4/6, Amiryan Str., Yerevan Telephone: (+374) 10 603 000 Email: <a href="mailto:info@parishotel.am">info@parishotel.am</a> www.parishotel.am

Standard room rate is staring from USD 90.84.

Payments are effected in national currency.

#### 5. Transportation

To get to a hotel from Zvartnots International Airport and back, participants can use *C-Media Shuttle Service*, which provides arrival/departure transfer in any direction. The transfer cost makes 5,000 AMD (approximately 11 USD). The arrival transfer is to be ordered ahead of time (at least 3 hours before arrival) via telephone: +374 41 771100.

If travelling without luggage, participants can get from Zvartnots Airport to Central Hotel Republic and back by an express bus, which departs each hour round-the-clock. The express bus stop is located at Mestrop Mashtots Avenue, by Yerevan supermarket, 10 minutes away on food from Central Hotel. The express bus ticket cost is 300 AMD (≈70 cents). Taxi cost from the express bus stop at Mestrop Mashtots Avenue by Yerevan supermarket to Central Hotel makes 600 to 700 AMD (around USD 1.5).

#### 6. Contracts

#### ITU Area Office for CIS, Moscow

Mr. Farid Nakhli Programme Officer Tel.: +7 495 926 60 70 Fax: +7 495 926 60 73

Email: farid.nakhli@itu.int

## Ministry of Transport and Communications of the

Republic of Armenia
Виолетта Агаджанян
Ms. Violet Aghajanyan

Deputy Head, Department of External Communications

and Programmes
Tel.: +374 10 59 00 93
Fax: +374 10 52 38 62

Email: violet.aghajanyan@gmail.com

#### 8. Currency/exchange/banks

National currency unit of the Republic of Armenia is dram (AMD). All payments are done in the national currency. There are currency exchange offices in all cities of the Republic of Armenia. Also, exchange of currency is done by currency exchange offices in hotels and banks.

Banks are open from 9:00 to 17:00, Monday through Friday.

As of 6 November 2017, the exchange rates were as follows:

1 USD = 485.16 AMD 1 EUR = 562.93 AMD 1 RUR = 8.23 AMD

Information on Armenian dram exchange rate is available at the website of the Central Bank of Armenia: <a href="http://cba.am/">http://cba.am/</a>.

#### 9. General information

The Republic of Armenia is located in the east of Armenian Highlands and edged by mountain ranges of Caucasus from the north and from the east. The Republic of Armenia is bordered by Georgia to the north, the Republic of Azerbaijan to the east, Iran and Turkey to the south. The capital of the Republic of Armenia and the largest Armenian city is Yerevan, with land area of 223 km². Yerevan has average height of 900 m to 1,300 m above sea level. Yerevan was founded in 782 BC. Current population of Yerevan is 1,073,700. Yerevan is political, economic, cultural, and scientific centre of the Republic of Armenia and the most significant road junction, which possess two airports and a railroad terminal. The Yerevan metro came into operation in 1981.

#### 10. Climate

Although the Republic of Armenia is located in the latitude of subtropical zone, the climate in the Republic of Armenia is of high-mountain character, continental with hot summer and cold winter.

Average temperature in December is from  $+6^{\circ}$  C to  $+8^{\circ}$  C. However, lower temperatures are also possible.

#### 11. Time zone

Time zone in the Republic of Armenia is 4 hours ahead of Greenvich Mean time (GMT+4).

#### 12. Power supply pressure

Power supply pressure is 220V/50Hz, electric plugs are standard two-pin plugs of European continental type.

#### 13. Communication tools

Fixed-line communication services in the Republic of Armenia are provided by three key providers: Beeline Armenia, VivaCell-MTS, and Orange Armenia.

For telephone calls inside the Republic of Armenia, dialing code is +374 10.

#### 14. Visa

The Republic of Armenia has bilateral agreements on visa-free travel with all CIS countries and the EU.

The workshop participants who need visa support, are kindly requested to send visa support form duly filled out (Annex 5) with copy of passport attached to the event coordinator, Ms. Violet Aghajanyan, e-mail: <a href="mailto:violet.aghajanyanj@gmail.com">violet.aghajanyanj@gmail.com</a>, fax: +37410 52 38 62 by 17 November 2017.



Please return to:

# Региональная конференция по вопросам управления спектром и Региональный семинар МСЭ «Практическое использование Регламента радиосвязи»,

Ереван, Республика Армения, 12-15 декабря 2017 года



# Regional Spectrum Management Conference and ITU Regional Workshop on *Practical Use of Radio Regulations*,

Yerevan, Republic of Armenia, 12-15 December 2017

E-mail: fellowships@itu.int

sion ITU/BDT Tel: +41 22 730 5487 Geneva (Switzerland) Fax: +41 22 730 5778

#### Request for a fellowship to be submitted by 13 November 2017

Participation of women is encouraged Участие женщин приветствуется

**Support Services Divi-**

Country:				-
Name of the Administration or Organizat	ion:			_
Mr. / Ms(family name)	(given	name)		
Title:				
Address:				
Tel.:	Fax:			<del>-</del>
E-mail:				
PASSPORT INFORMATION:				
Date of birth:				
Nationality:	Passport numl	oer:		
Date of issue: In (pl	ace):	Valid until (date):		
CONDITIONS				
1. One full fellowship per eligible country	(Low income countries).			
2. One return ECO class airticket by the m 3. A daily subsistence allowance to cover 3. Imperative that fellows be present from	accommodation, meals and incider	•	ent	
Signature of fellowship candidate:		Date:		
TO VALIDATE FELLOWSHIP REQUEST, NA WITH OFFICIAL STAMP.	ME AND SIGNATURE OF CERTIFYING	OFFICIAL DESIGNATING PARTI	CIPANT MUST BE COM	PLETED BELOW
Signature:		Date:		







## Региональная конференция по вопросам управления спектром Региональный семинар МСЭ «Практическое использование Регламента радиосвязи» Ереван, Республика Армения, 14-15 декабря 2017 года

Regional Spectrum Management Conference
ITU Regional Workshop on *Practical Use of Radio Regulations*Yerevan, Republic of Armenia, 12-15 December 2017

Просьба при заполнении использовать ЗАГЛАВНЫЕ буквы/ Please use CAPITAL letters.

ФОРМА ДЛЯ ПОЛУЧЕНИЯ ВИЗОВОЙ ПОДДЕРЖКИ		
VISA SUPPORT FORM		
Фамилия, имя, отчество:		
Surname, name, second name:		
Пол/Sex:		
Род деятельности/Occupation:		
Название ведомства/компании:		
Institution/Company:		
Должность/Title:		
Адрес/Address:		
Телефон/Tel.:		
Факс/Fax:		
Гражданство/Citizenship:		
Национальность/Nationality:		
Номер паспорта/Passport number:		
Тип паспорта/Passport Type		
Организация, выдавшая		
паспорт/Passport issued by:		
Дата выдачи/Date of issue:		
Годен до/Valid till:		
Дата рождения/Date of birth:		
Место рождения/Place of birth:		
Местожительство (страна, штат,		
город)/Residency (country, state, city):		
Страна и город, где Вы будете		
получать визу/		
Country & city where you will obtain		
visa:		
Дата прибытия в Армению/		
Date of arrival in Armenia:		
Дата отъезда/Date of departure:		

<u>Необходимо также приложить сканированную копию паспорта.</u>
Please attach scan copy of your passport.

Просьба направить заполненную форму **до 13 ноября 2017 года** координатору мероприятий Виолетте Агаджанян, на электронную почту: <u>violeta.aghajanyan@mtcit.am</u> и в Региональное отделение МСЭ на электронную почту: itumoscow@itu.int

Please send the form duly completed **by 13 November 2017** to the events coordinator, Ms. Violeta Aghajanyan by email: <a href="wioleta.aghajanyan@mtcit.am">wioleta.aghajanyan@mtcit.am</a> and to the ITU Regional Office by email: <a href="mailto:itumoscow@itu.int">itumoscow@itu.int</a>



# Региональная конференция по вопросам управления спектром Региональный семинар МСЭ «Практическое использование Регламента радиосвязи» Ереван, Армения, 12-15 декабря 2017 года



## Regional Spectrum Management Conference Regional Workshop on *Practical Use of Radio Regulations* 12-15 December 2017, Yerevan, Republic of Armenia

Форма для бронирования гостиницы Hotel Reservation Form		
Фамилия:		
Surname:		
Имя, отчество:		
Name:		
Название ведомства/компании:		
Institution/Company:		
Должность:		
Title:		
Адрес:		
Address:		
Телефон:		
Tel.:		
Электронная почта:		
Email:		
Дата приезда:		
Arrival date:		
Дата отъезда:		
Departure date:		
Авиарейс/поезд, которым Вы		
прибудете:		
Arriving by flight/train:		
Авиарейс/поезд, которым Вы		
отбудете:		
Departing by flight/train:		
Просьба забронировать номер:	   Категории в Central Hotel □	
	B Best Western Congress Hotel	
	Category in Central Hotel	
Please book a room:	In Best Western Congress Hotel	

Просьба направить заполненную форму и копию титульной страницы паспорта координатору семинара Виолетте Агаджанян email: <u>violet.aghajanyan@gmail.com</u>, факс: + (374 10) 590094 **до 24 ноября 2017 года.** 

Please send the form duly completed with copy of title page of the passport to the workshop coordinator, Ms. Violet Aghajanyan email: <a href="mailto:violet.aghajanyan@gmail.com">violet.aghajanyan@gmail.com</a>, fax: + (374 10) 590094 by **24 November 2017.**