



**ITU Centres of Excellence Network for CIS**

**Institute of Electronics and Telecommunications**

**FACE-TO-FACE Training Course on**

***Information Security. Protection of Information and Communication Channels***

**Bishkek, Kyrgyz Republic  
9-13 December 2019**

**COURSE OUTLINE**

**COURSE DESCRIPTION**

Title	<b><i>Information Security. Protection of Information and Communication Channels</i></b>
Objectives	<ul style="list-style-type: none"><li>• This training course aims to provide participants with a system and holistic picture of the information security in an enterprise, understanding of the nature information security threats, and practical skills to implement measures aimed at information security.</li><li>• The training will allow the participants to personally ensure efficient functioning of the information security system at the enterprise in the future.</li></ul>
Dates	9-13 December 2019
Duration	5 days
Registration deadline	9 December 2019
Training fees	USD 95
Course code	19WS24290CIS-R

**LEARNING OUTCOMES**

Upon completion of the training, the participants will:

- Have notion of types of threats to information security and their classification;
- Have notion of information security in the system of national security;
- Have notion of methods and means of information security;
- Have notion of the organization of information security in automated systems, computer networks, and computers;

- Be able to build an enterprise concept of information security;
- Be able to tune up a secure network on the basis of Mikrotik routers;
- Be able to tune up and analyze secure WI-Fi networks.

## TARGET POPULATION

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The course is targeted at leading experts, top and middle managers of communication providing companies and telecommunication engineers. The course may be also of interest to employees of communication administrations dealing with the development and implementation of information security. The participants are expected to have an understanding of information and communications technologies.

## TUTORS/INSTRUCTORS

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NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
Mr. Igor Zimin Candidate of Science (Engineering) Associate Professor Head of Telecommunications Department IET	Email: <a href="mailto:igorzimin777@mail.ru">igorzimin777@mail.ru</a>
Mr. Kubanychbek Murzakmatov Deputy Chair Telecommunications Department IET	Email: <a href="mailto:murzakmatov.k@gmail.com">murzakmatov.k@gmail.com</a>
Mr. Sergei Koryakin Head, Technical and Internal Control Service JSC Ak-Net	Email: <a href="mailto:srgkoryakin1@gmail.com">srgkoryakin1@gmail.com</a>

## EVALUATION

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In addition to the evaluation based on the results of the training, the participants will be evaluated depending on how actively they participated in the sessions and other training activities, i.e. based on quality and quantity index of time they spent to complete the training.

## TRAINING SCHEDULE AND CONTENTS / AGENDA

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9 December 2019, Monday	Topics/Activities
13:00-13:30	On-site registration of participants
13:30-14:30	Lecture 1: Basic notions of information security. Critical Internet objects <i>I.Zimin</i>
14:30-15:30	Lecture 2: Information security in the system of national security. Critical structure and cybersecurity <i>I.Zimin</i>
15:30-16:00	Coffee break

<b>16:00-17:00</b>	Lecture 3: Legal framework and standards in the field of information security <i>I.Zimin</i>
<b>17:00-18:00</b>	Lecture 4: Information security threats, their classification and analysis <i>S.Koryakin</i>
<b>18:00-19:00</b>	Lecture 5: General information of information security methods and means <i>S.Koryakin</i>
<b>10 December 2019, Tuesday</b>	<b>Topics/Activities</b>
<b>13:00-14:00</b>	Lecture 6: Information security of automated systems <i>S.Koryakin</i>
<b>14:00-15:00</b>	Lecture 7: Information security of computers and computer systems <i>S.Koryakin</i>
<b>15:00-15:30</b>	Coffee break
<b>15:30-19:30</b>	Practical exercise 1: Building an enterprise information security concept <i>S.Koryakin</i>
<b>11 December 2019, Wednesday</b>	<b>Topics/Activities</b>
<b>13:00-15:00</b>	Practical exercise 2: Tuning up network security on the basis of Mikrotik Firewall Chain, Firewall Action <i>S.Koryakin</i>
<b>15:00-15:30</b>	Coffee break
<b>15:30-19:30</b>	Practical exercise 3: Tuning up network security on the basis of Mikrotik routers. Filtering Firewall <i>S.Koryakin</i>
<b>12 December 2019, Thursday</b>	<b>Topics/Activities</b>
<b>13:00-15:00</b>	Practical exercise 4: Tuning up network security on the basis of Mikrotik routers. Showcases of tuning up Firewall <i>S.Koryakin</i>
<b>15:00-15:30</b>	Coffee break
<b>15:30-19:30</b>	Practical exercise 4: Tuning up network security on the basis of Mikrotik routers. Showcases of tuning up Firewall (continued) <i>S.Koryakin</i>
<b>13 December 2019, Friday</b>	<b>Topics/Activities</b>
<b>13:00-15:00</b>	Practical exercise 6: Configuring and tuning up Wi-Fi network. Study of analyser of CommView for WiFi <i>K.Murzakmatov</i>
<b>15:00-15:30</b>	Coffee break
<b>15:30-19:30</b>	Practical exercise 7: Investigating wireless LAN security breaches <i>K.Murzakmatov</i>
<b>19:30-20:00</b>	Final test (for remote participants via email)
<b>20:00-20:30</b>	Round table. Official closing

## METHODOLOGY

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Methodology used for the training course includes individual and group training, guided and supervised by the trainers. Face-to-face training is favorable for this course, which is provided through traditional methods to present material: lessons, workshops, and practices.

Within the framework of the training, modern routers, computers, and other means for wired and wireless communication networks will be used.

The course includes presentations by the trainers, case study, group work and assessment.

## COURSE COORDINATION

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<b>Course coordinator:</b> Ainura Sadyrbaeva Head Advanced Training Faculty Institute of Electronics and Telecommunications Email: <a href="mailto:sad.ainura@mail.ru">sad.ainura@mail.ru</a>	<b>ITU coordinator:</b> Farid Nakhli Programme Officer, Regional Office for CIS Region Email: <a href="mailto:farid.nakhli@itu.int">farid.nakhli@itu.int</a>
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## REGISTRATION AND PAYMENT

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### ITU Academy portal account

Registration and payment should be made online at the ITU Academy portal.

To be able to register for the course you **MUST** first create an account in the ITU Academy portal at the following address: <https://academy.itu.int/index.php/user/register>

### Training registration

When you have an existing account or created a new account, you can register for the course online at the following link:

<https://academy.itu.int/training-courses/full-catalogue/information-security-protection-information-and-communication-channels>

You can also register by finding your desired course in our training catalogue:

<https://academy.itu.int/index.php/training-courses/full-catalogue>.

### Payment

#### 1. On-line payment

A training fee of USD 95 per participant is applied for this training. Payments should be made via the online system using the link mentioned above for training registration at:

<https://academy.itu.int/training-courses/full-catalogue/information-security-protection-information-and-communication-channels>

#### 2. Payment by bank transfer

Where it is not possible to make payment via the online system, select the option for offline payment to generate an invoice using the same link as above. Download the invoice to make a bank transfer to the ITU bank account shown below. Then send the proof of payment/copy of bank transfer slip and the invoice copy to [Hcbmail@itu.int](mailto:Hcbmail@itu.int) and copy the course coordinator.

**All bank transaction fees must be borne by the payer.**

**Failure to submit the above documents may result in the applicant not being registered for the training.**

### 3. Group payment

Should you wish to pay for more than one participant using bank transfer and need one invoice for all of them, create an account as **Institutional Contact**. **Institutional Contacts** are users that represent an organization. Any student can request to be an institutional contact or to belong to any existing organization.

To do this, head to your profile page by clicking on the “**My account**” button in the user menu. At the bottom of this page you should see two buttons:

- a. If you want to **become an institutional contact**, click on the “**Apply to be an Institutional Contact**” button. This will redirect you to a small form that will ask for the organization name. After you fill the name of the organization you want to represent, click on “**continue**” and a request will be created. An ITU Academy manager will manually review this request and accept or deny it accordingly.
- b. If you want to **belong to an existing organization**, click on the “**Request to belong to an Institutional Contact**” button. This will redirect you to a small form that will ask you to select the organization you want to join from an organization list. After you select the correct organization, click on “**continue**”, a request will then be created. The Institutional Contact that represents that organization will manually accept or deny your request to join the organization.

#### ITU BANK ACCOUNT DETAILS:

Name and Address of Bank:	UBS Switzerland AG Case postale 2600 CH 1211 Geneva 2 Switzerland
Beneficiary:	Union Internationale des Télécommunications
Account number:	240-C8108252.2 (USD)
Swift:	UBSWCHZH80A
IBAN	CH54 0024 0240 C810 8252 2
Amount:	USD 95
Payment Reference:	19WS24290CIS-R-P.40594.1.03

### 4. Other method of payment

If due to national regulations, there are restrictions that do not allow for payment to be made using options 1 & 2 above, please contact the ITU coordinator for further assistance.