**Retraining CA academic staff on IBDA by EU experts in CA partner HEIs - KYRGYZSTAN – JULY 2022**

V1 / WP2 / Task 2.4

July 1, 2022



Establishment of training and research centers and courses development on intelligent big data analysis in Central Asia-ELBA

**610170-EPP-1-2019-1-ES-EPPKA2-CBHE-JP**

Table of Contents

[Logistics 2](#_Toc107739421)

[Wireless Network 2](#_Toc107739422)

[Zoom Links 2](#_Toc107739423)

[Installation instructions 3](#_Toc107739424)

[Professors 3](#_Toc107739425)

[Teaching materials 3](#_Toc107739426)

[Programme 4](#_Toc107739427)

# Logistics

To be conducted at Kyrgyz State Technical University named after I. Razzakov (KSTU)

From July 4, 2022 to July 8, 2022

**Location:**

Kyrgyz State Technical University named after I. Razzakov, 66 Ch. Aitmatov Av., Bishkek

**Rooms & Hours:**

Rooms 2/434

# Wireless Network

**To be announced**

# Zoom Links

For those ELBA participants who cannot join the retraining event, we have prepared the following Zoom connection. All CA partners will be able to join the workshops and sessions that are scheduled for 4-8 July, 2022 at the KSTU:

Topic: ELBA - Retraining seminars, IBDA

Time: July 4, 2022 09:00 Bishkek

 July 5, 2022 09:00 Bishkek

 July 6, 2022 09:00 Bishkek

 July 7, 2022 09:00 Bishkek

 July 8, 2022 09:00 Bishkek

Join Zoom Meeting

https://upr-si.zoom.us/j/81442620864?pwd=YURGOTdWYWZidS9DZUVQdzRZTTdPUT09

Meeting ID: 814 4262 0864

Passcode: 123456

# Installation instructions

Install **Anaconda** from <https://www.anaconda.com/products/individual>

Use the installer that suits with your operating system (Windows / MacOS / Linux)

If you work with Linux you´ll have to change the permissions of the file

after downloading to make it executable (chmod +x <filename>) and then run the installer

(sh <filename>).

Install the **Orange DM** suite by following the instructions on their webpage (<https://orangedatamining.com/download/>) for your operating system. You shall install the **orange3** package inside Anaconda by essentially issuing the following commands in an Anaconda prompt window:

conda config --add channels conda-forge

conda install orange3

# Professors

The retraining organized by the University of Primorska at the Kyrgyz State Technical University will be run by **Assist. prof. Branko Kavšek**.

**Assist. prof. Branko Kavšek**, Ph.D. Assistant Professor in Computer Science at The Faculty of Mathematics, Natural Sciences and Information Technologies (UP FAMNIT) – University of Primorska in Koper and Researcher at the Artificial Intelligence Laboratory (AI LAB) – “Jožef Stefan” Institute in Ljubljana.

His research includes machine learning, data mining, association rules, graphs, time series and data analysis in general. He closely collaborates with researchers from the Artificial Intelligence Laboratory and the Department of Information Sciences and Technologies.

He teaches courses Formal Languages and Computability, Introduction to Machine Learning and Data Mining, and Intelligent Systems to both undergraduate and master’s students at the university where he is the coordinator of the undergraduate study program Computer Science and vice head of the Department of Information Sciences and Technologies.

# Teaching materials

All the teaching materials will be uploaded to a freely accessible e-classroom located here

<https://e.famnit.upr.si/course/view.php?id=4926>

# Programme

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| **Day 1, July 4 (ROOM: 2/434)** |
| 09:00 – 10:30 | **Introduction, setting up, checking the Python and Orange installation** |
| 10:30 – 11:00 | Short break |
| 11:00 – 12:30 | **Getting to know orange – widgets, the data workflow, loading the data** |
| 12:30 – 14:00 | Lunch break |
| 14:00 – 15:30 | **Basic data exploration** |
| 15:30 – 16:00 | Short break |
| 16:00 – 17:30 | **Hands-on ETL on example datasets in Orange (part 1)** |

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| **Day 2, July 5 (ROOM: 2/434)** |
| 09:00 – 10:30 | **Hands-on ETL on example datasets in Orange (part 2)** |
| 10:30 – 11:00 | Short break |
| 11:00 – 12:30 | **Classification, model inspection and evaluation** |
| 12:30 – 14:00 | Lunch break |
| 14:00 – 15:30 | **More classifiers, how to correctly perform test and score** |
| 15:30 – 16:00 | Short break |
| 16:00 – 17:30 | **ELBA – meetings** |

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| **Day 3, July 6 (ROOM: 2/434)** |
| 09:00 – 10:30 | **Clustering – k-means and hierarchical** |
| 10:30 – 11:00 | Short break |
| 11:00 – 12:30 | **Linear regression, regularization and nearest neighbours** |
| 12:30 – 14:00 | Lunch break |
| 14:00 – 15:30 | **Add-ons in Orange** |
| 15:30 – 16:00 | Short break |
| 16:00 – 17:30 | **ELBA – meetings** |

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| **Day 4, July 7 (ROOM: 2/434)** |
| 09:00 – 10:30 | **Working with image data in Orange (part 1)** |
| 10:30 – 11:00 | Short break |
| 11:00 – 12:30 | **Working with image data in Orange (part 2)** |
| 12:30 – 14:00 | Lunch break |
| 14:00 – 15:30 | **Text mining in Orange (part 1)** |
| 15:30 – 16:00 | Short break |
| 16:00 – 17:30 | **ELBA – project meetings** |

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| **Day 5, July 8 (ROOM: 2/434)** |
| 09:00 – 10:30 | **Text mining in Orange (part 2)** |
| 10:30 – 11:00 | Short break |
| 11:00 – 12:00 | **Wrapping it all up – a data mining pipeline example demonstration** |
| 12:00 – 12:30 | Short break |
| 12:30 – 13:30 | **Closing ceremony – certificate awarding, group photo and official end of the re-training** |