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the European Union

ICT for
KOSOVO'S
Growth

2022

CALL FOR APPLICATIONS FOR ICT TRAINING PROGRAM

Application Period:
25 JULY 2022 - 20 AUGUST 2022

implemented by:
WEglobal

Training Modules:



**CYBER
SECURITY
PROFESSIONAL**



**WEB APPLICATION
DEV.
PROFESSIONAL**



**WEB APPLICATION
DEV.
PRACTITIONER**



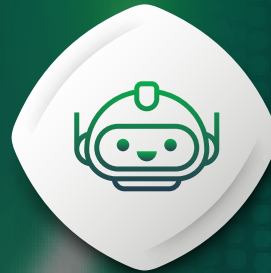
**ENTERPRISE JAVA
& MOBILE APP.
DEVELOPER**



**PYTHON
PROGRAMMING**



**BIG DATA
ANALYTICS
DATA SCIENCE**



**MACHINE
LEARNING**

CRITERIA FOR APPLICATION

SHOULD HAVE

✖ EDUCATION

ICT Related studies
University Degree relevant to field
BS
High School Diploma
Undergraduate

✖ DEGREE

BA
MA, MSC
Up to 1 year
Between 1 and 2 years
More than 2 years

✖ EXPERIENCE IN THE PROGRAMMING LANGUAGES

Fundamental awareness (basic)
Novice (limited experience)
Intermediate (Practical application)
Advanced (Applied theory)
Expert (Recognized Authority)

✖ EXPERIENCE IN CYBER SECURITY

(Only for CyberSecurity applicants)

Up to 1 year
Between 1 and 2 years
More than 2 years

✖ EXPERIENCE IN IT PM

Up to 1 year
Between 1 and 2 years
More than 2 years

✖ ENGLISH LANGUAGE ABILITY

Good English language ability
Understanding ability

✖ LANGUAGE

English
Shqip
Serbian

TECHNICAL CRITERIA

ESSENTIAL CRITERIA

DESIRED CRITERIA

✖ Enterprise Java and Mobile Application Developer	Software Development Experience
✖ Web Application Developer Professional	Software/Web Development Experience
✖ Web Application Development Practitioner	
✖ Python Programming	
✖ Cyber Security Professional	IT/Cyber Security Experience
✖ Big Data Analytics / Data Science	Basic Knowledge on Statistics Fundamental Knowledge on Python Programming
✖ Machine learning	Basic knowledge on Python Programming and Statistics

ENGLISH LANGUAGE UNDERSTANDING

ALBANIAN AND/OR SERBIAN LANGUAGE

UNIVERSITY DIPLOMA

MODULES

- Considering the essential criteria: 100% should be met
- Desired criteria shall be used by the TAT to make a final decision

Short description, What Learns, or Benefits will be produced from course outline

1. Module# 1: Cybersecurity Professional











DESCRIPTION

This Training module aims for the training of individuals who want to understand the general Cyber Security features and get practised in the main aspects of cybersecurity as in the outline as well as get hand-on experience on Offensive and Defensive Security -Ethical Hacking. This training module more focuses on the protection of organizational assets and upon completion of this module of training, you will be able to understand the details of cybersecurity measures and can get employed or initiate business activity in the fields of IT Security

TARGET AUDIENCE

Individuals who have the fundamental IT Systems, Operating Systems, Networking, It Security, Scripting, Programming, and database knowledge. Because the deep-dive activity will exist in the module applicant should have the fundamental background for the IT Systems. One year of experience in the field of IT is preferred.

TRAINING CONTENT

-  Infrastructure security and configuration management
-  Credential management, authentication, and authorization mechanisms
-  SQL injection and defense mechanisms
-  Cross-Site Scripting (XSS), Cross-Site Request Forgery (CSRF/XSRF) protective, and HTTP headers
-  Digital deception
-  Introduction and Information Gathering
-  Vulnerabilities and configuration, identity, and authentication testing
-  Injection attacks Exploitation
-  Password Attacks and post-exploitation
-  Artificial Intelligence in Cyber Security

2. Module# 2: Web Application Development Professional









DESCRIPTION

This Training module aims for the training of individuals who want to specialise in the use of the modern WEB Application development features including the MVC technology, APIs and Frontend frameworks to work as a full-stack web developer. Upon completion of this module, you will be able to start to develop modern professional looks like web applications including the UI and Backend technologies.

TARGET AUDIENCE

Individuals having fundamental IT Systems, OS, Networking, Web technology, Design, Scripting, Programming knowledge. You should have at least one year of programming experience.

TRAINING CONTENT

-  HTML 5
-  CSS
-  Bootstrap 5
-  JAVASCRIPT
-  Ajax
-  jQuery
-  API Development
-  REACT
-  MVC

3. Module# 3: Web Development Practitioner









DESCRIPTION

This Training module aims for the training of individuals who want to specialise in the use of the modern WEB Application development features including the CMS, PHP, Graphics Design, Databases to work as a full-stack web developer. Upon completion of this module, you will be able to start to develop modern professional looks like web applications from scratch.

TARGET AUDIENCE

Individuals having basic IT Systems, OS, Networking, Web technology, Design, Scripting, Programming knowledge. One year of programming experience is preferred.

TRAINING CONTENT

-  HTML 5
-  CSS
-  SEO & publishing
-  BOOTSTRAP 5
-  JAVASCRIPT
-  jQuery
-  Adobe Photoshop
-  WordPress and PHP

4. Module# 4: Enterprise Java and Mobile Application Developer


















DESCRIPTION

This Training module aims for the training of individuals who want to specialize in the development of Enterprise Java applications which is highly demanded by the market. The popular Java Spring Framework will be touched on in detail to enable the full stack application development by using Java technologies. The training on Mobile Application development by using the Kotlin language shall improve the developer to work in the enterprises and governmental organizations. The training will combine Mobile Application development by using the Java language which will improve the developer to develop professional mobile applications by using Java.

TARGET AUDIENCE

Individuals having basic IT Systems, OS, Networking, Web technology, Design, Scripting, Programming. At least one year of programming experience is preferred.

TRAINING CONTENT

-  Basic Program Structure, Compilation, Tools, Console In/Out
-  Intro to Object Oriented Programming: Procedural to OO, Basic Concepts,
-  Class, Object, Interface, Modifiers"
-  Java Anonymous Classes, Anonymous Objects, Functional Interfaces, Lambda Expressions
-  Java Unit Testing
-  Java Database Connectivity: Basic Operations with famous Databases + NoSQL Databases (Firebase, Mondo DB)
-  Java GUI programming
-  Basic Design Patterns: Introduction, Strategies, Implementation, Attacks-Defenses
-  Java Threading
-  Introduction to Spring Framework, Spring Boot, JPA, Hibernate Introduction to Java Micro-
-  hardness Framework (JMH)
-  Android Basic Activity UI manipulation. Using Layouts, handling screen
-  Orientation
-  Android Basic Event Handling: Annotations, Listeners, Dialogs and
-  Notifications
-  Passing and Receiving Data to and from Android Apps and Activities Android Sensors, Location Services (GPS) and Runtime Permissions Android and SQLite Databases
-  Android Audio Interaction: Speech Recognition and Text-To-Speech

5. Module# 5: Python Programming

DESCRIPTION

This Training module aims for the training of individuals who want to study with the Python programming language has an increasing trend in the world and it is already being demanded by the domestic market. Training shall enable the developer to become familiar with data science features whereas to use python in all layers of the programming stack.

TARGET AUDIENCE

Individuals having basic IT Systems, OS, Networking. One year of experience in the field of programming is preferred.

TRAINING CONTENT

- ☒ Introduction to Python, Interpreter, flow control, basic types
- ☒ Python Functions
- ☒ Python Data Structures
- ☒ Python Modules
- ☒ Python In/Out
- ☒ Python Exceptions-Exception Handling, Errors
- ☒ Python Classes
- ☒ Python File Handling
- ☒ Python DB: MySQL, MongoDB
- ☒ Python Machine Learning
- ☒ Python - Django Framework
- ☒ Python-Data Science

6. Module# 6: Big Data Analytics / Data Science

DESCRIPTION

Becoming a data scientist takes more than the understanding of basic skills like statistics and programming in various languages. The need to develop one area of technical analytic expertise while being conversant in many others is very crucial. Going beyond descriptive analytics has become essential to meet the complexities of information requirement for decision making as well as developing strategies to drive greater profitability, improved performance and competitiveness. This course builds expertise in advanced analytics, data mining, predictive modeling. The aim of the course is to introduce the trainees to the important big data management techniques and analytical tools.

TARGET AUDIENCE

Individuals with fundamental knowledge on Business Intelligence, Statistics and basic knowledge on programming with experience in Python. Having fundamental knowledge in python programming will be an advantage

TRAINING CONTENT

- ☒ Data Science Fundamentals
- ☒ Introduction to Visualization
- ☒ Data Processing and Cleaning using Panda-Python
- ☒ Managing Big Data using Apache Hadoop and MongoDB
- ☒ Exploratory Data Analysis and Visualization
- ☒ Data Mining using Python
- ☒ Data Extraction for Enterprise Reporting
- ☒ Advanced Analytics
- ☒ Linear Regression
- ☒ Logistic Regression
- ☒ Big Data Model Diagnostics
- ☒ Supervised and unsupervised learning
- ☒ Random Forest, SVM, clustering
- ☒ Dimensionality reduction
- ☒ Validation, and Evaluation of Machine Learning Methods
- ☒ Advanced Analytic Techniques and Text Mining
- ☒ Simulation of sentimental analysis
- ☒ Optimization and Causal Mechanistic Analysis
- ☒ Time Series and Forecasting
- ☒ Big Data Security
- ☒ Big Data and Apache Hadoop
- ☒ Data Science / Big Data frameworks and RDDs
- ☒ SQL and Data Frames Module

7. Module# 7: Machine Learning

DESCRIPTION

The future is driven by data, and Machine Learning (ML) makes it possible to access and analyze larger amounts of data faster than ever before. The course covers practical issues in Machine learning which includes programming in Python, as well as a wide range of algorithms for supervised and unsupervised learning. The course will also discuss recent applications of machine learning such as recommendation systems, email spam detection, stock market prediction and sentiment analysis to determine the sentiment or opinion of a given text. This course is designed to give you the practical experience you need to quickly apply these techniques to new problems.

TARGET AUDIENCE

The course is dedicated for individuals interested in Machine Learning who have a basic understanding of probabilities, statistics and algebra and fundamental background on IT Programming with focus on python who wants to create added value to the businesses by using powerful Machine Learning tools.

TRAINING CONTENT

- ☒ Introduction to Machine Learning
- ☒ Naive Bayes classifier
- ☒ Support Vector Machine
- ☒ K-Nearest Neighbors
- ☒ Bayesian Machine Learning
- ☒ Bootstrap and Re-sampling methods
- ☒ Deep Learning and Optimization techniques
- ☒ Python programming for ML
- ☒ Supervised Learning Techniques
- ☒ Unsupervised Learning Techniques
- ☒ Reinforcement Learning Techniques
- ☒ Regression Analysis



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Benefits:

Learn the most modern technologies from the best international and Kosovo ICT trainers.

Develop and practice your digital skills to meet the needs of the Kosovo and International markets.

Earn a certificate from "EU support for the competitiveness of Kosovo funded ICT Sector" and

Find paid internships and jobs in IT companies, establish startups or become freelancer

BE PART OF US

The project is supported by the European Union Office in Kosovo, EARK, Ministry of Economy and Kosovo IT companies. Upon completion of the training successfully, the participants will be supported accordingly on finding paid internships and jobs in IT companies, establish startups or become freelancers.

www.e.ictkosovo.eu

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