The Abdus Salam International Centre for Theoretical Physics

Online Training Course on

Data Privacy, Security & Governance
1 June – 7 July 2021

TRAINING COURSE OUTLINE

COURSE DESCRIPTION

Title	**Data Privacy, Security & Governance**
Objectives	This course lays the foundation for a clear understanding of some key issues associated with protecting Data as information assets, determining the levels of protection and management needed to mitigate and report common security challenges of Data leaks, theft and loss. The objectives of the course are to: • Provide an introduction of the field of Data Science in relation to Privacy, Security and Governance. • Present a spectrum of tool, techniques and procedures suitable for continous evaluation ofDatas ecurity and privacy. • Data Governance including staffing and planning for detection of breaches, multi level response (technical and managerial) as well as analysis and reporting of Data security incidences including examination of pre- and post-incident procedures.
Dates	1 June – 7 July 2021
Duration	5 weeks
Registration deadline	31 May 2021
Training fees	USD 150
Course code	21OI26515EUR-E

DESCRIPTION OF THE TRAINING COURSE
The course reviews relevant terms and background from the field of information security. This is followed by a broad overview of the collection and analysis of data; leading to the dentification of valuable data and how to secure data against common threats such as loss

of privacy arising from data breaches theft or loss and the aggregation or integration of data. Practical sessions and discussion will cover pertinent issues of Data Governance such as data security controls, international legislative issues, digital data forensics as well as Privacy and ethical issues.

LEARNING OUTCOMES

By the end of the course, participants will understand
1.   Security and privacy issues in the processes of collection, analysis and presents of data.
2.   Governance related issues with data storage, handling and processing as well as common approaches to data governance.
3.   Will be able to develop blueprints for securing enterprise data against loss of Privacy, and theft or loss of data.
4.   Will be able to develop and implement planned or coordinated response to data privacy and security incidences.

TARGET POPULATION

This course is ideal for business decision-makers, researchers and security professionals, education practitioners involved in teaching and learning online.

ENTRY REQUIREMENTS

No prior knowledge is required.

TUTORS/INSTRUCTORS

NAME OF TUTOR(S)/INSTRUCTOR(S)	CONTACT DETAILS
James Uhomoibhi	j.uhomoibhi@ulster.ac.uk
Clement Onime	onime@ictp.it
Solomon Gizaw Tulu	solomong@aau.edu.et

TRAINING COURSE CONTENTS

Introduction: Basic overview of different types of Data (anonymous & non-anonymous), security, privacy and governance, personal security, from computers to online security
Personal Data Security & Privacy: Concepts of individual digital footprints, digital identity, passwords and biometric authentication. Threats: Viruses, Trojans & Malware.
Data at rest: Data storage formats, common encryption techniques, issues of insider threat, device sharing and data backup.
Data in motion: Data transmission and encoding, network related issues such as man-in-the-middle attacks., Secure Sockets Layers, Wireless Networks & drive-by threats.
Governance: Enterprise security (Firewalls, Intrusion Detection and Prevention, Legal Laws and Liabilities, issues of data aggregation, integration or use of derived data.
Advanced concepts: Big-Data, Enterprise Authentication Systems, Enterprise Storage Systems, Single Sign-On, Self-Defending Networks, Issues of Data Privacy, security and governances on Cloud Computing Platforms: (Public, Private & Hybrid)

Practical Case-studies & examples: drawn from Data collection, mining, Machine Learning and Artificial Intelligence as well as from participants.
Best practices: Tips and recommendations including strong passwords, safe-browsing, safe sharing of personal information. Use of wireless networks, IoT devices

TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Week 1	Introduction and Personal Data Security & Privacy	Zoom lessons, Self-paced learning using slides, group interactions, Case-study & Homework 1
Week 2	Data at Rest and Data in Motion	Zoom lessons, Self-paced learning using slides, group interactions, Case-study & Homework 2
Week 3	Governance, case studies & best practices	Zoom lessons, Self-paced learning using slides, group interactions, Case-study & Homework 3
Week 4	Advanced concepts, case studies & best practices	Zoom lessons, Self-paced learning using slides, group interactions, Case-Study & Homework 4
Week 5	Case studies, best practices, examples from participants	Zoom lessons, Presentations, practical examples and case-studies by participants Final Exam

METHODOLOGY (Didactic approach)

Teaching methods will include lecture, discussion, and case study as appropriate. These will be delivered by both academic staff and invited key speakers from industry. While Covid-19 pandemic persists the delivery of this course will be conducted online utilizing open and easily accessible platform.

EVALUATION AND GRADING

60% of the grade is based on a final written examination. The examination are cumulative and given in a varied format. An in-class review will be held prior to each examination.

40% of the grade is based on keeping a project notebook/learning journal. Students are asked to obtain a small notebook to enter their answers and comments to the various homework/group exercises issued in class.

Course coordinator:	ITU coordinator:
Name: Clement Onime Email address: onime@ictp.it	Name: AnaMaria Meshkurti Email address: ana.maria.meshkurti@itu.int

REGISTRATION AND PAYMENT

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 course 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/data-privacy-security-governance

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 150 per participant is applied for this training. Payment should be made via the online system using the link mentioned above for training registration at https://academy.itu.int/training-courses/full-catalogue/data-privacy-security-governance

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 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 150
Payment Reference:	CoE-EUR 26515-P.40595.1.09

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.