# Training course outline

## ITU and The Abdus Salam International Centre for Theoretical Physics

| | |
|---|---|
| Title | **Introduction to Data Protection and Cyber Hygiene** |
| Modality | Online instructor led |
| Dates | 1-26 August 2022 |
| Duration | 4 weeks |
| Registration deadline | 29 July 2022 |
| Training fees | USD 150 |
| Description | Digital data is exposed to various types of threats while traversing data networks across a wide range of platforms. Understanding the types of threats to which data is exposed is as important as understanding how to protect data from vulnerable systems. This course introduces important concepts in maintaining cyber hygiene and preserving data integrity in the cyberspace. |
| Code | 22OI27803EUR-E |

### 1.LEARNING OBJECTIVES

This course teaches how to identify the many digital threats to which various classes of data are exposed. It emphasizes the relevance of maintaining data integrity as a very important aspect of cyber hygiene especially in the post-COVID era.

### 2. LEARNING OUTCOMES

- The importance of data protection for various categories of data in everyday commercial and corporate use.
- Types of data breaches and how to identify them.
- The impacts of data breaches on individuals and corporate organizations.
- How to maintain cyber hygiene and mitigate data breaches.

### 3.TARGET POPULATION

The course is designed for everyone who accesses, uses, manages, or processes any type of digital data in everyday personal, commercial or industrial use, including but not limited to, freelance computer users, bloggers, science scholars, data scientists and managers, business executives, technology students, researchers, information management officers, information technology

professionals, cyber security experts, industry professionals, online marketers, eCommerce practitioners and operators, etc.

## 4.ENTRY REQUIREMENTS

- Ability to read and interpret data from any digital source.
- Basic computer literacy and digital appreciation
- Fundamental knowledge of internet operations
- Ability to operate mobile, web and online digital resources

## 5.TUTOR/INSTRUCTOR

| Name of tutor/instructor | Contact details |
|---|---|
| Kenneth Okereafor, PhD | **Username:** cyberken<br><br>**Website:** https://cyberken.ng/<br><br>**Tel:** +234-802-314-8494<br><br>**Email:** nitelken@yahoo.com<br><br>**Profile :** https://www.researchgate.net/profile/Kenneth-Okereafor |

## 6.TRAINING COURSE SCHEDULE

| Week / Session | Topic | Exercises and interactions |
|---|---|---|
| **Week 1**<br>(1 - 5 Aug, 2022) | Data protection basics | • Introduction to data life cycle<br>• Motivation for data protection<br>• Value-based data protection<br>• Scenario examples of everyday use of data<br>• End of week-1 exercise |
| **Week 2**<br>(8 - 12 Aug, 2022) | The confidentiality, integrity and availability model | • Introduction to the CIA triad<br>• **Confidentiality** threats on data<br>• **Integrity** threats on data<br>• **Availability** threats on data<br>• **Study of data breaches**<br>➢ Personal<br>➢ Corporate<br>➢ Online<br>• End of week-2 exercise |

| | | |
|---|---|---|
| **Week 3**<br>(15 - 19 Aug, 2022) | Data breaches and their impacts | • Impacts of data breaches<br>➢ Data loss<br>➢ Revenue loss<br>➢ Reputation damage<br>➢ Regulatory sanctions<br>➢ Litigations<br>➢ Service disruptions<br>➢ Fatalities<br>➢ Other impacts<br>• End of week-3 exercise |
| **Week 4**<br>(22 - 26 Aug, 2022) | Cyberspace mitigation techniques | • Techniques for data protection<br>• The defence in-depth model<br>• The 3 layers of security countermeasures<br>• How to mitigate and recover from data breaches<br>➢ Individual recovery strategies<br>➢ Corporate recovery strategies<br>• End of course evaluation examination |

## 7.METHODOLOGY (Didactic approach)

- Each week's session starts with a short introductory clip by tutor, followed by the presenter's guide.
- Thereafter, the week's topics are delivered as PDF or PTT presentations.
- End of week exercise is a requirement for commencing the subsequent week.
- End of course evaluation exam in Week 4 is equally mandatory to signify successful completion of training.

## 8.EVALUATION AND GRADING

| | |
|---|---|
| End of week-1 exercise | 20 marks *(pass mark = 12)* |
| End of week-2 exercise | 20 marks *(pass mark = 12)* |
| End of week-3 exercise | 20 marks *(pass mark = 12)* |
| End of course exam | 40 marks *(pass mark = 24)* |
| Total weights | 100 marks *(pass mark = 60)* |

## 9.TRAINING COURSE COORDINATION

| | |
|---|---|
| **ITU coordinator:**<br><br>Name: Elind Sulmina<br>Email address: elind.sulmina@itu.int | **Course coordinator:**<br><br>Name: Clement Onime<br>Email address: onime@ictp.it |