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| **ITU Centres of Excellence Network for Arab Region**  **Centre International des Technologies de l'Environnement de Tunis**  **(CITET)**  **Online Training Course on**  **"How to carry out the Full Life Cycle Assessment"**  **02-06 August 2021**  **TRAINING COURSE OUTLINE** |

**COURSE DESCRIPTION**

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| Title | How to carry out the Full Life Cycle Assessment |
| Objectives | 1. Understand LCA and its relation with environmental decision support, 2. Provide trainees with a full understanding of how to carry out an LCA according to ISO 14040 and ISO 14044 standards, 3. Demonstrate how to use appropriate assumptions and approximations where necessary, 4. Provide an understanding of how to carry out a full environmental assessment including the full set of environmental loads, 5. How to apply LCA concept to an ICT project. |
| Dates | 02 -06 August 2021 |
| Duration | 05 Days (3 hours / day), 14:00-17:00 Tunis Time |
| Registration deadline | 27 July2021 |
| Training fees | 120 USD or 360 TND |
| Course code | 21OI26633ARB-A |

**DESCRIPTION OF THE TRAINING COURSE**

Life cycle assessment (LCA) is an environmental management tool, which can be used to evaluate the impact of a product, a system, or an activity on the environment. LCA is the factual analysis of a product’s entire life cycle in terms of sustainability. Every part of a product’s life cycle – extraction of materials from the environment, the production of the product, the use phase and what happens to the product after it is no longer used – can have an impact on the environment in many ways. With LCA, you can evaluate the environmental impacts of your product or service from the very first to the very last or from cradle to grave.

**LEARNING OUTCOMES**

This course is designed to give an essential overview of life cycle assessment approach. It will help attendees to interpret and evaluate LCA studies and to understand the strengths and weaknesses of this technical environmental tool. The course provides the attendees with knowledge an the methodology of performing a complete LCA study.

**TARGET POPULATION**

This course is designed for anyone who has to conduct, understand or implement LCAs or associated policies, such as: HSE Managers and their collaborators, Directors of industrial sites, organizations under supervision of the ministry in charge of the environment, Consultants.

**ENTRY REQUIREMENTS**

This course has no specific prerequisites.

**TUTORS/INSTRUCTORS**

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| NAME OF TUTOR(S)/INSTRUCTOR(S) | CONTACT DETAILS |
| Mr. Noureddine Hajjeji | Phone: +216 24 040 400  Email: [hajjaji.nour@gmail.com](mailto:hajjaji.nour@gmail.com) |

**TRAINING COURSE CONTENTS**

* Background of life cycle assessment (LCA) and its relation with environmental decision support.
* LCA vs other methods.
* Overview of LCA according to ISO 14040 and ISO 14044 standards.
* In-depth presentation of LCA method according to t ISO 14040 and ISO 14044 standards.
  + LCA goal & scope definition
  + Inventory analysis of extractions and emissions
  + Impact assessment (LCIA)
  + Interpretation
* Presentation of a complete LCA case study.

**TRAINING COURSE SCHEDULE (Tunis Time)**

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| **Week / Session** | **Topic** | **Exercises and interactions** |
| **02 August 2021**  **14h00 to 17h00** | * Background of life cycle assessment (LCA) and its relation with environmental decision support * LCA vs other methods * Overview of LCA according to ISO 14040 and ISO 14044 standards | Course materials and practical examples, discussions |
| **03 August 2021**  **14h00 to 17h00** | * In-depth presentation of LCA method according to t ISO 14040 and ISO 14044 standards:   + LCA goal & scope definition | Course materials and practical examples, exercises, discussions |
| **04 August 2021**  **14h00 to 17h00** | * In-depth presentation of LCA method according to t ISO 14040 and ISO 14044 standards:   + Inventory analysis of extractions and emissions | Course materials and practical examples, exercises, discussions |
| **05 August 2021**  **14h00 to 17h00** | * In-depth presentation of LCA method according to t ISO 14040 and ISO 14044 standards:   + Impact assessment (LCIA)   + Interpretation | Course materials and practical examples, exercises, discussions |
| **06 August 2021**  **14h00 to 17h00** | * Presentation of a complete LCA case study | Course materials and practical examples, discussions |

**METHODOLOGY**

This training is based on both theory and practice:

* Sessions of lectures illustrated with examples based on real cases;
* Practical exercises based on a full case study including role playing and oral presentations.

Course materials: will be available on the website.

Exercises and case studies will be presented every day during the training.

Academic part is 50% and Practical part is 50%.

**EVALUATION AND GRADING**

There will daily short quizzes (10 minutes – 10 questions) at the end of each day to measure the progress of knowledge acquisition.

An online evaluation will be done at the end of the session (MCQ of 30 different questions – 30 Minutes).

**IMPORTANT**: a passing mark of 60%is required for obtaining a completion certificate.

**TRAINING COURSE COORDINATION**

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| **Course coordinator:**  **Mr. Jawhar Abdelkrim**  CITET  Tel: +216 71 206 766  Mobile: +216 51 489 942  Fax: +216 71 206 642  Email:[financement@citet.nat.tn](mailto:financement@citet.nat.tn)  [formation@citet.nat.tn](file:///C:\Users\almahdi\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\MEIVN12A\formation@citet.nat.tn) | **ITU coordinator:**  **Eng. Mustafa Al Mahdi**  Programme Officer  Arab Regional Office-ITU  Tel: +202 3537 1777  Mobile: +20114 117 75 73  Fax : +202 3537 1888  Email:[mustafa-ahmed.al-mahdi@itu.int](mailto:mustafa-ahmed.al-mahdi@itu.int) |

**REGISTRATION AND PAYMENT**

**ITU Academy portalaccount**

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 followinglink: <https://academy.itu.int/training-courses/full-catalogue/how-carry-out-full-life-cycle-assessment>

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 120 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/how-carry-out-full-life-cycle-assessment>

1. **Payment by banktransfer**

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 beborne by the payer**.

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

1. **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:

1. 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.
2. 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 International des Telecommunications

Account number: 240-C8108252.2 (USD)

Swift: UBSWCHZH80A

IBAN CH54 0024 0240 C810 8252 2

Amount: 120 USD

Payment Reference: CoE-ARB26633– WBS No. P.40592.1.08

1. **Othermethod of payment**

If due to national regulations, there are restrictions that do not allow for payment to be made using options 1 & 2 above, you can pay by bank transfer, to the CITET bank account shown below.

Then send the proof of payment / copy of bank transfer slip to the course coordinator [financement@citet.nat.tn](mailto:financement@citet.nat.tn)and copy [formation@citet.nat.tn](mailto:formation@citet.nat.tn).

**CITET BANK ACCOUNT DETAILS:**

Name and Address of Bank: ATB Berge du Lac

Immeuble Regency

1081 Tunis

Tunisie

Beneficiary: Tunis International Centre for Environmental

Technologies

Account number: 01 902 047 1106000286 96 (TND)

Amount: TND 360

Payment Reference: "Payment LCA"