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بروجاكس للتدريب والتطوير  
Projacs Training and Development

# Repair and Strengthening Historical Buildings

## إصلاح وتعزيز المباني التاريخية

22 – 26 July 2019

Beirut / Lebanon

A Member of:



PROJACS ACADEMY



[ProjacsAcademy.com](http://ProjacsAcademy.com)



### Introduction

This course is designed for the Managers and Engineers who deals with the repair and restoration of the historical building. The course aims to increase the knowledge and skill of the participant about the material used in rehabilitation and repair works specially for bearing wall system used in the old building. This course will develop the skill of the engineer in assessing the building and take the decision and lead the projects of repair of the historical building.

### Objectives

By the end of this course practitioners shall learn to:

- 1 - Characterization of defects in buildings in general.
2. Reasons for defects in historical buildings
- 3 - different construction systems of historical buildings
4. Ways to repair defects in historic buildings.
- 5 - Characterization of materials used in the treatment of historic buildings.

### Who Should Attend?

This course is planned to meet the needs of all the structural consultants, site engineers, the supervision engineers and the site supervisor of the repair projects.

### Course Outline

#### DAY 1:

- 1) Structural systems for archaeological buildings.
- 2) Components of buildings and structural analysis
- 3) Materials used in the construction of archaeological buildings
- 4) case studies from the country.

#### DAY 2:

- 1) Development of the methods of construction in ancient architecture
- 2) Factors affecting the safety and safety of archaeological buildings
- 3) Forms of defects in archaeological buildings and their causes
- 4) some videos for case studies for the defects and the methodology of tracing.

### DAY 3:

- 1) Studying the balance of old buildings to resist vertical loads.
- 2) Studying the balance of old buildings to resist side loads.
- 3) Maintenance and restoration materials for archaeological buildings

### DAY 4:

- 1) Uses and methods of applying the materials of repair and restoration in archaeological buildings
- 2) The stages of preparation of archaeological restoration projects
- 3) Effect of earthquakes on installations

### DAY 5:

- 1) Preparation of reports on archeological sites
- 2) case studies

## Training Method

### Pre-assessment

- Live group instruction
- Use of real-world examples, case studies and exercises
- Interactive participation and discussion
- Power point presentation, LCD and flip chart
- Group activities and tests
- Each participant receives a binder containing a copy of the presentation
- slides and handouts
- Post-assessment

### Program Support

This program is supported by interactive discussions, role-play, and case studies and highlight the techniques available to the participants.

### Schedule

#### The course agenda will be as follows:

- |                     |                  |
|---------------------|------------------|
| • Technical Session | 08.30-10.00 am   |
| • Coffee Break      | 10.00-10.15 am   |
| • Technical Session | 10.15-12.15 noon |
| • Coffee Break      | 12.15-12.45 pm   |
| • Technical Session | 12.45-02.30 pm   |
| • Course Ends       | 02.30 pm         |

### Course Fees\*

- **2,950USD**  
*\*VAT is Excluded If Applicable*

### مقدمة

تم تصميم هذا البرنامج عن مشاريع ترميم المباني الاثرية وذلك ليزيد من معرفة المهندس المشارك عن مواد الترميم واسلوب ترميم المباني القديمة وخاصة المعتمدة على نظام الحوائط الحاملة والمباني الاثرية بالاضافة الى كيفية اعداد الدراسة الخاصة بالترميم ومساعدة المهندس على اتخاذ القرار في ترميم المبنى بالاضافة الى كيفية مواجهة المشاكل وادارة الازمات التي تواجه اعمال الترميم.

### أهداف البرنامج

في نهاية هذه الدورة المتدربين سوف يتمكن المتدربون من:

- ١-توصيف العيوب في المباني عامة.
- ٢- أسباب العيوب في المباني التاريخية
- ٣-النظم الانشائية المختلفة للمباني التاريخية
- ٤-طرق اصلاح العيوب في المباني التاريخية.
- ٥-توصيف المواد المستخدمة في علاج المباني التاريخية.

### الحضور

تم تصميم هذه الدورة لتلبية احتياجات جميع الاستشاريين الانشائيين ومهندسي الموقع ومهندسي الإشراف والمشرف على الموقع لمشاريع الإصلاح.