

**CHARTERED**   
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

# QUANTIFICATION OF DELAYS AND DISRUPTIONS IN CONSTRUCTION AND ENGINEERING PROJECTS

**Fully Accredited  
By:**

Chartered Institute of  
Professional Certifications

CPD  
Certification Service



# PROGRAM OVERVIEW

The construction industry is plagued with delays, with 98% of projects experiencing some form of delay, according to Arcadis. With projects running an average of 20 months behind schedule, it's no surprise that construction disputes can cost up to \$37 million for mega-projects and \$19 million for large projects. Without proper quantification and management of delay and disruption, the risk of companies suffering from project overrun and financial losses is severe and it could cause major legal disputes or even reputation damage.

This certified program is designed to enhance your expertise and proficiency in identifying, quantifying, and managing delays and disruptions in construction and engineering projects. You will gain a comprehensive understanding of crucial topics in **delay analysis methodologies, including forensic schedule analysis, time impact analysis, and productivity loss analysis**. The program will delve into the intricacies of schedule delay analysis techniques, such as the As-Planned vs. As-Built method, the Impacted As-Planned method, and the Time Impact Analysis method. Furthermore, this program will **thoroughly explore the various approaches used in quantifying delays and disruptions, including evaluation of delay types, cost implications, and their applicability across different project sectors and regions**. You will learn how to accurately assess the impact of delays on project schedules, budgets, and resources, enabling you to make informed decisions and develop effective mitigation strategies.

## ACCREDITATIONS



4.8



4.6





# PROGRAM OVERVIEW

With a focus on real-world case studies, this program will extensively cover a range of delay and disruption scenarios, including **project-related delays, design changes, unforeseen site conditions, and supply chain disruptions**. You will gain insights into the root causes of delays, such as inadequate planning, poor communication, scope creep, and resource constraints. Additionally, you will acquire the necessary skills to effectively **assess and navigate contractual provisions, claims management, and dispute resolution processes related to delays and disruptions**. The program will provide guidance on **drafting and interpreting delay-related contract clauses, managing claims documentation, and engaging in alternative dispute resolution methods**. By examining these practical examples, this program will provide valuable insights into common pitfalls, costly mistakes, best practices, and successful strategies for managing and mitigating delays and disruptions.

Upon successful completion of the program, you will earn the coveted **Certification in Quantification of Delay & Disruption in Construction & Engineering Projects**. This certification will elevate your professional credentials and showcase your mastery of the key principles on **quantification methods for delay and disrupted construction and engineering projects**. This industry-recognized certification holds lifelong validity, offering a testament to your expertise and commitment to excellence in the construction industry.

## ACCREDITATIONS



4.8




4.6



# KEY SKILLS YOU WILL GAIN

## From This Program



**QUANTIFICATION OF LOSS FROM DELAY  
QUANTIFICATION OF LOSS FROM DISRUPTION  
PROJECT SCHEDULING TECHNIQUES  
FORENSIC SCHEDULE ANALYSIS**

**FORENSIC DELAY ANALYSIS  
DISRUPTION MEASUREMENT  
CONCURRENT DELAYS  
DELAY COST CALCULATION**

**CRITICAL PATH DETERMINATION  
CRITICAL PATH ANALYSIS  
COST OVERRUN EVALUATION  
DOCUMENTATION MANAGEMENT**

**CONTRACTUAL PROCEDURES FOR CLAIMS  
LIQUIDATED DAMAGES  
CONSTRUCTION LAW  
TIME-IMPACT ANALYSIS (TIA)  
SCL PROTOCOLS**

**TIME SLICE METHOD  
AS-BUILT SCHEDULE ANALYSIS**

# YOUR FACULTY DIRECTOR



## Amaël Olivier

### An Award Winning Construction Delay Expert

Amaël Olivier is a distinguished construction delay expert and the founder of Orizo Consult International. He provides expert services throughout all project phases, **from tendering to commissioning, with a particular emphasis on delay analysis and disruption quantification.** With over 12 years of specialized experience in this field, Amaël has established himself as a prominent figure in quantifying delays and disruptions in construction and engineering projects. His extensive expertise spans **over 30 projects across more than 25 jurisdictions globally, encompassing sectors such as major buildings, infrastructure, industrial, energy, and more.**

As a respected speaker at the French Institute of Contract Management (ICM) and the Spanish and Ibero-American Club of Arbitration (CEIA), Amaël imparts his vast knowledge to project managers, lawyers, and peers. He is also the **author of the 'Delay Analysis 101' and 'Cutting Edge Delay Analysis' newsletters.** In recognition of his outstanding contributions to the field, Amaël was named the **Future Leader in the Construction Expert Witness field by Lexology Who's Who Legal (WWL) in 2024.** His dedication to advancing the practice of quantifying delays and disruptions in construction projects makes him a highly sought-after expert and educator.

# OUR PARTICIPANTS

Over 70% of FORTUNE 500 Companies Have Attended Our Accredited Programs Before



Goldman Sachs



SAMSUNG



ExxonMobil



BURBERRY



citi



IKEA



VOLVO



HYUNDAI



Pfizer

Life is our life's work



Nestlé



# PROGRAM AGENDA

## MODULE 1 - INTRODUCTION

- Lesson 1 - Introduction to Delay Analysis
- Lesson 2 - Understand the Context of Delay Analysis
- Lesson 3 - Different Methods of Delay Analysis
- Lesson 4 - Difference Between Delay and Disruption

## MODULE 2 - PROJECT SCHEDULING

- Lesson 1 - Gantt Charts
- Lesson 2 - Critical Path and Float
- Lesson 3 - Scope

## MODULE 3 - DELAY PERSPECTIVES

- Lesson 1 - As-Planned Delay
- Lesson 2 - As-Built Delay
- Lesson 3 - Float

## MODULE 4 - DELAY OR DISRUPTION?

- Lesson 1 - Disruption is a Type of Delay
- Lesson 2 - Loss of Productivity
- Lesson 3 - Method of Disruption Analysis

## MODULE 5 - CRITICAL PATH PERSPECTIVES

- Lesson 1 - As-Planned Critical Path (Prospective)
- Lesson 2 - Actual Critical Path (Contemporaneous)
- Lesson 3 - As-Built Critical Path (Retrospective)

## MODULE 6 - DELAY ANALYSIS METHODS

- Lesson 1 - Guideline References: SCL Protocol vs. AACE
- Lesson 2 - Method Overviews
- Lesson 3 - Suitability
  - Record Type Requirements
  - Dispute Maturity (Time Distance From the Events)
  - Jurisdiction

## MODULE 7 - THE IMPACTED AS-PLANNED AND TIME IMPACT METHODS

- Lesson 1 - Based on a Prospective Critical Path
- Lesson 2 - Full Implementation
- Lesson 3 - Record Keeping (Including How AI Can Help)



# PROGRAM AGENDA

## MODULE 8 - CASE STUDY

- Lesson 1 - Practicing the Impacted As-Planned Method
- Lesson 2 - Practicing the Time Impact Method

## MODULE 9 - THE TIME SLICE METHOD

- Lesson 1 - Based on a Contemporaneous Critical Path
- Lesson 2 - Full Implementation
- Lesson 3 - Record Keeping (Including How AI Can Help)

## MODULE 10 - THE AS-PLANNED VS. AS-BUILT WINDOWS METHOD

- Lesson 1 - Based on a Contemporaneous Critical Path
- Lesson 2 - Full Implementation
- Lesson 3 - Record Keeping (Including How AI Can Help)

## MODULE 11 - CASE STUDY

- Lesson 1 - Practicing the Time Slice Method
- Lesson 2 - Practicing the As-Planned vs. As-Built Windows Method

## MODULE 12 - THE COLLAPSED AS-BUILT AND RETROSPECTIVE LONGEST PATH METHODS

- Lesson 1 - Based on a Contemporaneous Critical Path
- Lesson 2 - Full Implementation
- Lesson 3 - Record Keeping (Including How AI Can Help)

## MODULE 13 - CASE STUDY

- Case Study 1 - Practicing the Collapsed As-Built Method
- Case Study 2 - Practicing the Retrospective Longest Path Method

## MODULE 14 - FROM DELAY TO MONEY – TYPES OF DELAY AND DISRUPTION DAMAGES

- Lesson 1 - Contractual Causes
  - Liquidated Damages vs Penalties
  - Civil vs Common Law Approaches
  - Time Bars
- Lesson 2 - Damage Types
  - Time vs Effort Related Costs
  - Direct vs Indirect Costs





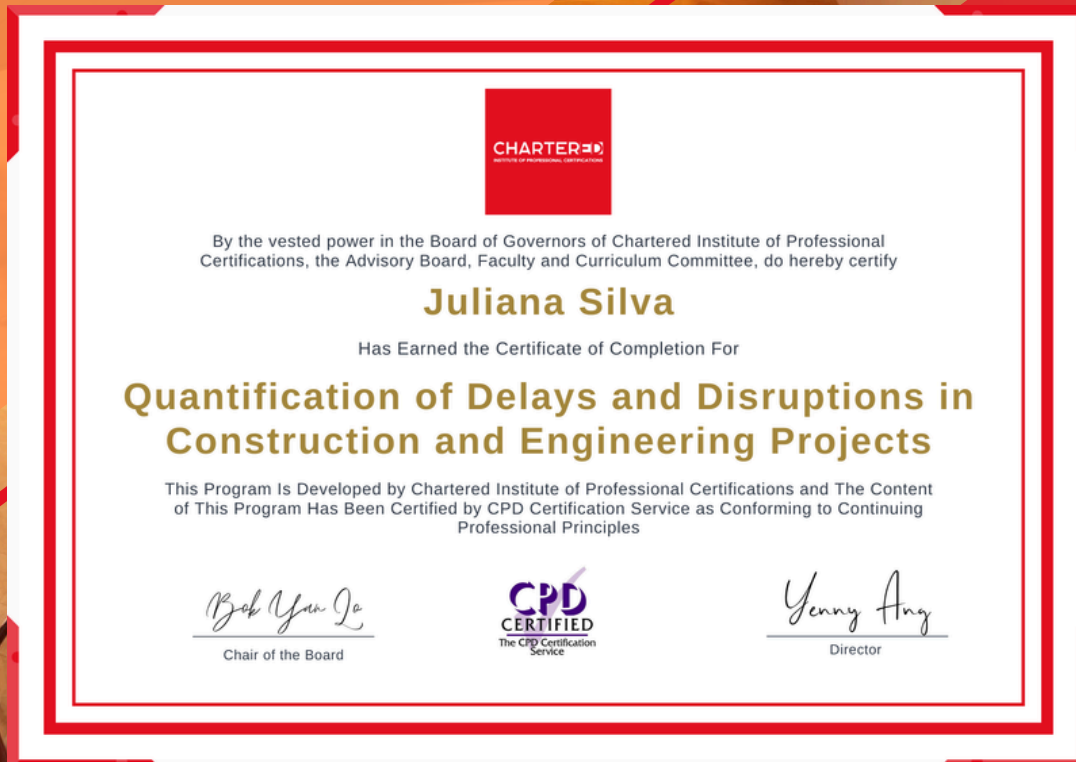
# PROGRAM AGENDA

- Lesson 3 - Legal Concepts
  - Concurrent Delays
  - “Time but No Money”
  - Float Ownership
  - Early Completion Bonus
  - Constructive Acceleration

## MODULE 15 - CASE STUDY

- Case Study 1 - Analyzing a FIDIC Contract
  - Calculating Liquidated Damages
  - Calculating Prolongation Costs
  - Calculating Disruption Costs

# YOUR CHARTER DESIGNATION



Chartered Institute of Professional Certifications' programs are unique as they provide you with professional charter designations and marks that can be used across your lifetime once you have completed our programs.

Upon successfully attending this program, you will earn the industry-recognized **Certification in Quantification of Delays & Disruptions in Construction & Engineering Projects**. This designation, with its lifelong validity, will help distinguish your skillset and demonstrate your expertise in quantifying losses caused by delay and disruption claims.

Developed by the Chartered Institute of Professional Certifications and certified by the CPD Certification Service, the program's content adheres to the highest continuing professional principles. With global demand for this certification, you can confidently add it to your resume, CV, and other professional credentials to showcase your critical knowledge and expertise.

# ABOUT US

49,525

Business Leaders Have Attained Their Chartered Certifications Since 2009

390

Certified and Fully Accredited Programs

87%

Chartered Leaders Have Reported Career Promotions and Enhancements

## Chartered Institute of Professional Certifications

All of Chartered Institute of Professional Certifications programs are fully accredited programs. The professional charters and designations are trademarked credentials that can only be used by professionals who have completed and passed our accredited program. It is also independently accredited by CPD as adhering to the highest standards of continuing professional principles.

**CHARTERED**  
INSTITUTE OF PROFESSIONAL CERTIFICATIONS



# OUR FACULTY DIRECTORS

We Collaborate With  
Instructors From  
Renowned Institutions



**HARVARD**  
UNIVERSITY



**Wharton**  
UNIVERSITY of PENNSYLVANIA



**Stanford University**



**UNIVERSITY OF MICHIGAN**



**THE LONDON SCHOOL  
OF ECONOMICS AND  
POLITICAL SCIENCE**



**Columbia  
Business  
School**

**London  
Business  
School**



# CONTACT US TODAY

We Thank You for Your Ongoing Support  
of Our Programs

## **Singapore and Asia Pacific Enquiries**

Email: [advisor@charteredcertifications.com](mailto:advisor@charteredcertifications.com)  
Phone: +65 6716 9980  
Address: Chartered Institute of Professional Certifications  
1 Gateway Drive  
#20-04 Westgate Tower  
Singapore 608531

## **Australia and New Zealand Enquiries**

Email: [advisor@charteredcertifications.com](mailto:advisor@charteredcertifications.com)  
Phone: +61 3 9909 7310  
Address: Chartered Institute of Professional Certifications  
530 Little Collins Street, Level 1  
Melbourne VIC 3000, Australia

## **UK, Europe and Middle East Enquiries**

Email: [advisor@charteredcertifications.com](mailto:advisor@charteredcertifications.com)  
Phone: +44 (020) 335 57898  
Address: Chartered Institute of Professional Certifications  
86-90 Paul Street  
London, EC2A 4NE

## **USA Enquiries**

Email: [advisor@charteredcertifications.com](mailto:advisor@charteredcertifications.com)  
Phone: +1 888 745 8875  
Address: Chartered Institute of Professional Certifications  
99 Wall Street #3936  
New York, NY 10005