

CHARTERED 
INSTITUTE OF PROFESSIONAL CERTIFICATIONS

QUANTIFICATION OF DELAY AND DISRUPTION 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.**

Led by Angus Faulkner, a renowned construction commercial disputes advisor, this program will equip you with the knowledge to **identify, analyze, and quantify delay and disruption** in construction and engineering projects. Using a comprehensive overview of the concepts, principles, and methods used in the quantification of delay and disruption, participants will learn about the different types of delays and disruptions that can occur in construction projects, including **critical path delays, concurrent delays, and force majeure events**. You will also learn about the various tools and techniques used to **analyze and quantify delay and disruption, such as critical path analysis, as-planned vs. as-built analysis, and schedule impact analysis**.

This program will also cover the **legal and contractual aspects of delay and disruption analysis**, including the various provisions contained in standard forms of construction contracts and the **role of expert witnesses in delay and disruption claims**. Participants will learn about the principles of causation and the concept of concurrency, as well as the importance of contemporaneous records and the use of historical data in delay and disruption analysis.

Upon successful completion of the program, you will earn the coveted **Certification in Quantification of Delay and Disruption in Construction and 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. We look forward to welcoming you to this program.

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 DELAY ANALYSIS**

**DISRUPTION MEASUREMENT
CONCURRENT DELAYS
RECORD KEEPING
PRODUCTIVITY ANALYSIS METHODS**

**DELAY COST CALCULATION
CRITICAL PATH DETERMINATION
CRITICAL PATH ANALYSIS
EXTENSION OF TIME REGIMES**

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

**AS-BUILT SCHEDULE ANALYSIS
DELAY AND DISRUPTION COST ANALYSIS**

YOUR FACULTY DIRECTOR



Angus Faulkner

Trusted Expert in Construction Dispute Resolution

Angus Faulkner is a distinguished civil engineer and commercial disputes advisor with 24 years of extensive experience in the infrastructure and resources industries. He is highly sought after for his expert advice on time and risk issues in major construction projects. As Principal at E3 Advisory, Angus specializes in dispute resolution, with a **proven track record in litigation, arbitration, adjudication, and mediation.**

Throughout his career, **Angus has served as an expert witness in arbitration proceedings and has produced strategic "time to complete" reviews for multi-billion-dollar projects.** He has worked on projects across five continents, in various sectors including energy, defense, transport, resources, health, and commercial.

Prior to his current role, he has held positions as a structural designer and field engineer, supervising construction activities on site, as well as a construction planner and consultant on projects in Australia, the United Kingdom, Dubai, Africa, the Caribbean, Turkey, India, and Singapore.

He is highly respected for his extensive knowledge and unwavering dedication to excellence. Angus Faulkner is a trusted advisor and sought-after expert in the field of construction dispute resolution.

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 - OVERVIEW OF CONSTRUCTION DELAY AND DISRUPTION

- Examples of major cost over-runs on construction projects
- The impact on contractors and project owners
- A system dynamics view of delay and disruption
- The difference between prolongation costs, productivity costs, and other costs

MODULE 2 - OVERVIEW OF THE LEGAL FRAMEWORK

- The legal framework for construction delay and disruption claims
- Review of contractual provisions related to delay and disruption
- The role of contracts on construction projects

MODULE 3 - EXTENSION OF TIME REGIMES

- The concept of Practical Completion
- The Prevention Principle
- Typical considerations for an extension of time

MODULE 4 - PROJECT SCHEDULING TECHNIQUES

- Overview of project scheduling techniques
- Understanding critical path analysis
- Types of activity logic links in a critical path programme
- Indicators of programme quality
- Methods for updating and re-baselining programmes

MODULE 5 - DELAY ANALYSIS

- Types of delay analysis under the SCL Protocol and AACE guidance notes
- Factors to consider when choosing a delay analysis method
- The importance of the critical path
- Assessing concurrent delay
- Common sense in delay analysis

MODULE 6 - DISRUPTION ANALYSIS

- Production as a measure of output
- Ideal case: Direct measurement of disruption using project records
- Usual case: A productivity analysis is required
- Available productivity analysis methods



PROGRAM AGENDA

MODULE 7 - RECORD KEEPING DURING DELAY AND DISRUPTION EVENTS

- The importance of contemporaneous project records
- Types of project records

MODULE 8 - QUANTIFICATION OF LOSS FROM DELAY

- Direct vs Indirect / Time-related Costs
- Examples of Time-related Costs
- Identifying relevant periods of Time-related Costs for quantification of loss from delay

MODULE 9 - QUANTIFICATION OF LOSS FROM DISRUPTION

- Quantification of Loss from Disruption
- Demonstrating the casual link between claimed events and disruption impact
- Demonstrating that the tender allowance was adequate
- Considering the impact of other potential disruption causes

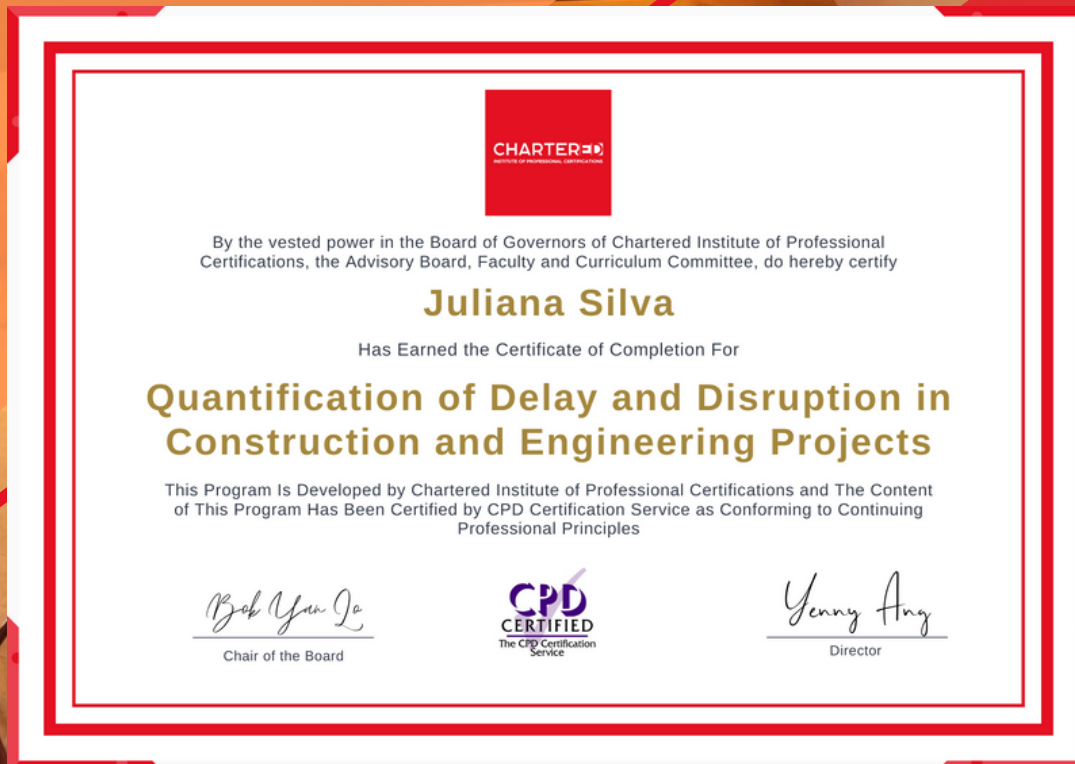
MODULE 10 - LIQUIDATED DAMAGES

- The concept of Liquidated Damages for delay
- Other types of Liquidated Damages
- Benefits of Liquidated Damages for the owner and contractor

MODULE 11 - DISPUTE RESOLUTION PROCESSES

- Dispute resolution processes
- The role of expert witnesses in construction delay and disruption disputes

YOUR CHARTER DESIGNATION



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

After successfully attending this program, you will earn the industry-recognized certification in **Quantification of Delay and Disruption in Construction and 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
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
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
Phone: +44 (020) 335 57898
Address: Chartered Institute of Professional Certifications
86-90 Paul Street
London, EC2A 4NE

USA Enquiries

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