



Consulting and Training | Reach New Heights

Course Name

Smart Infrastructure Inspection & Monitoring

Sector Name

Civil Engineering

Document Type

Generated by Boostlab

[Click Here To Visit Course](#)

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770



Smart Infrastructure Inspection & Monitoring

Course Introduction

Infrastructure assets can remain operational while deterioration develops gradually beneath the surface. Bridges, tunnels, retaining structures, transportation assets, and other civil infrastructure are exposed to repeated loading, environmental conditions, ageing, movement, and changing service demands. Periodic inspections remain essential, but isolated inspection snapshots may not provide engineers with enough information to understand how an asset is changing over time or where closer attention is required.

Boost Consulting & Training has designed this course to connect traditional engineering inspection with modern infrastructure monitoring practices. Participants will explore how field inspections, sensors, remote monitoring, imaging technologies, digital records, and condition data can work together to improve visibility of asset behavior. The course focuses on selecting technologies according to an engineering need, interpreting monitoring information intelligently, and directing inspection resources toward the locations and changes that matter most.

The main concept of this course is to create a smarter inspection environment in which field engineering and monitoring technology

complement each other to provide earlier, clearer, and more continuous insight into infrastructure conditions.

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Smart Infrastructure Inspection & Monitoring

Target Audience

- ✓ Civil and infrastructure engineers
- ✓ Inspection and maintenance engineers
- ✓ Infrastructure asset management professionals
- ✓ Engineering consultants and technical specialists

ABU DHABI: +971 2 449 6000

ABU DHABI: +971 50 412 3294

DUBAI: +971 4 888 6787

KSA: +966 56 416 0617

EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Smart Infrastructure Inspection & Monitoring

Learning Objectives

- ✓ Develop inspection strategies according to infrastructure type, exposure, condition, and criticality.
- ✓ Identify limitations and information gaps in conventional periodic inspection practices.
- ✓ Select appropriate monitoring technologies for different infrastructure conditions and engineering needs.
- ✓ Understand practical applications of sensors, imaging, remote inspection, and digital monitoring tools.
- ✓ Establish meaningful parameters and locations for infrastructure monitoring.
- ✓ Interpret trends and changes in monitoring data without relying on isolated readings.
- ✓ Combine field inspection findings with monitoring information to improve engineering decisions.
- ✓ Design a practical smart inspection and monitoring approach for infrastructure assets.

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To Visit Course](#)



Smart Infrastructure Inspection & Monitoring

Course Outline

✓ DAY 1

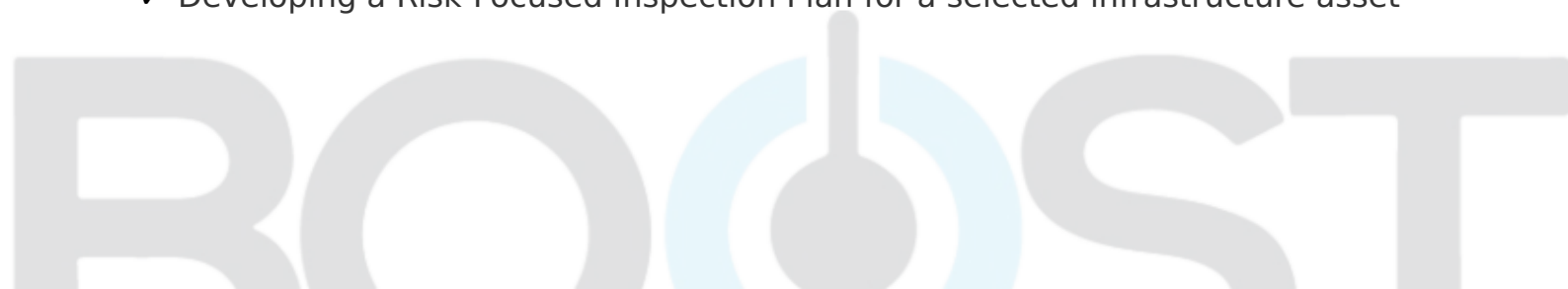
Rethinking Infrastructure Inspection

From Periodic Inspection to Condition Visibility

- ✓ Examining what conventional inspections reveal and what may remain undetected between inspection cycles
- ✓ Relating inspection frequency and depth to asset type, deterioration mechanisms, exposure, and importance
- ✓ Identifying infrastructure conditions that require closer or more continuous observation

Building a Risk-Focused Inspection Strategy

- ✓ Segmenting infrastructure assets and components according to inspection significance
- ✓ Identifying critical locations where deterioration or failure would have greater consequences
- ✓ Developing a Risk-Focused Inspection Plan for a selected infrastructure asset



ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

ROOST

Smart Infrastructure Inspection & Monitoring

Course Outline

✓ DAY 2

Modern Inspection Technologies in the Field

Extending the Engineer's View

- ✓ Exploring practical applications of drones, high-resolution imaging, thermal inspection, and remote visual technologies
- ✓ Using technology to access difficult, hazardous, extensive, or repetitive inspection areas
- ✓ Selecting inspection technologies according to the engineering question rather than technological novelty

Building Reliable Digital Inspection Records

- ✓ Capturing observations consistently through georeferenced images, mobile records, and digital inspection forms
- ✓ Comparing current and historical evidence to identify progression and recurring deterioration
- ✓ Completing a Digital Inspection Challenge using multiple sources of field information

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

ROOST

Smart Infrastructure Inspection & Monitoring

Course Outline

✓ DAY 3

Monitoring Infrastructure Behavior

Selecting What Needs to Be Monitored

- ✓ Identifying parameters such as movement, strain, vibration, displacement, temperature, moisture, and environmental exposure
- ✓ Matching monitoring parameters to anticipated deterioration or performance concerns
- ✓ Selecting monitoring locations that provide useful engineering information rather than unnecessary data volume

Designing Practical Monitoring Arrangements

- ✓ Understanding sensor placement, measurement frequency, baseline conditions, and data-quality requirements
- ✓ Considering accessibility, reliability, maintenance, environmental exposure, and monitoring duration
- ✓ Developing an Infrastructure Monitoring Scheme for a realistic engineering scenario

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

ROOST

Smart Infrastructure Inspection & Monitoring

Course Outline

✓ DAY 4

Turning Monitoring Data into Engineering Insight

Reading Change Over Time

- ✓ Establishing baselines and recognizing trends, cycles, abnormal changes, and persistent deviations
- ✓ Distinguishing meaningful engineering change from normal variation or unreliable measurements
- ✓ Connecting monitoring trends with loading, environmental conditions, maintenance events, and field observations

Managing Thresholds and Engineering Alerts

- ✓ Establishing practical attention, investigation, and intervention thresholds
- ✓ Avoiding excessive alerts that provide little engineering value
- ✓ Completing a Monitoring Data Interpretation Exercise to determine appropriate engineering responses

Smart Infrastructure Inspection & Monitoring

Course Outline

✓ DAY 5

Creating an Integrated Inspection & Monitoring Approach

Connecting Technology with Field Engineering

- ✓ Using monitoring information to target inspections toward locations requiring closer examination
- ✓ Using field findings to validate, challenge, or refine interpretations of monitoring data
- ✓ Determining when additional inspection, testing, monitoring, or engineering analysis is required

Building the Smart Inspection Cycle

- ✓ Integrating inspection schedules, monitoring results, condition records, and engineering actions
- ✓ Defining responsibilities for reviewing information and initiating technical follow-up
- ✓ Developing a Smart Infrastructure Inspection & Monitoring Plan for practical workplace implementation

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

ROOST

Smart Infrastructure Inspection & Monitoring

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Dec. 21, 2026	Dec. 25, 2026	5 days	4250.00 \$	UAE , Dubai
March 21, 2027	March 25, 2027	5 days	4250.00 \$	UAE , Abu Dhabi
May 31, 2027	June 4, 2027	5 days	4950.00 \$	Turkey , Antalya
Sept. 5, 2027	Sept. 9, 2027	5 days	4250.00 \$	KSA , Riyadh

ABU DHABI: +971 2 449 6000
ABU DHABI: +971 50 412 3294
DUBAI: +971 4 888 6787
KSA: +966 56 416 0617
EGYPT: +20 127 111 1770

[Click Here To vist Course](#)

info@boostuae.com info@boostorg.com

Generated by BoostLab •

