COMPANY PROFILE

Architecture, engineering and digital solutions

Design expertise, laboratory evidence and connected information



CONCEPT ILLUSTRATION

TDAC brings together multidisciplinary consultancy, in-house laboratories, instrumentation and monitoring, and engineering software. Our teams collaborate across onshore, marine and industrial projects.

02 / ABOUT TDAC

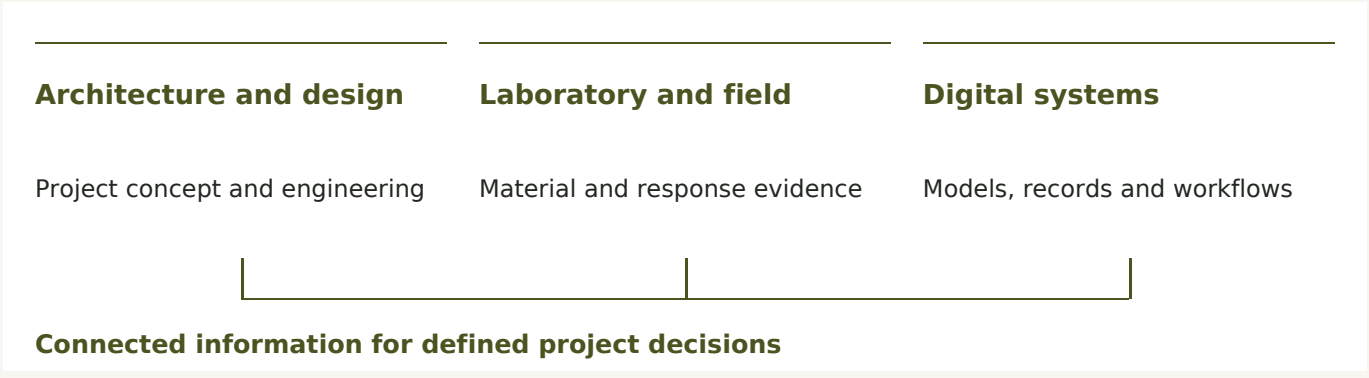
Specialist disciplines. A coordinated approach.

Professional excellence, value engineering and optimal design.

Who we are

TDAC brings together engineers, architects, laboratory specialists and software professionals. Parallel technical verticals collaborate around the same project brief, helping clients address the interfaces between the site, the design, construction and project information.

Our service verticals	What clients receive
Architecture and engineering	Concepts, master plans, technical assessments, calculations and coordinated design outputs.
Laboratories, testing and monitoring	Soil, water and environmental test results, field observations and engineering interpretation.
Software, BIM and AI	Developed specialist tools, models, information systems and agreed digital development packages.



ILLUSTRATIVE SERVICE RELATIONSHIP

Value through collaboration

We assess feasible alternatives, explain the technical basis and coordinate the implications across disciplines. Clients can appoint TDAC for a specialist package or a broader multidisciplinary scope.

03 / ARCHITECTURE AND MASTER PLANNING

Concepts and places with engineering depth

Architectural services coordinated with the site and infrastructure.



CONCEPT ILLUSTRATION

Master planning

Development layouts, site organisation and planning concepts aligned with the client brief and infrastructure needs.

Concept design

Architectural options shaped by intended use, site setting and project requirements.

Architectural services

Design development and coordination with structural, geotechnical and other project disciplines.

Design integration

Site levels, foundation constraints, structures, access and construction considerations assessed together.

Representative outputs: master plans, concept options, architectural drawings and coordinated design information.

04 / ENGINEERING CONSULTANCY

Ground, structures and construction

Equal emphasis on onshore and marine engineering applications.



CONCEPT ILLUSTRATION

Geotechnical engineering

Investigation interpretation, ground models, foundation design, settlement, stability and retaining structures.

Structural engineering

Buildings, bridges, abutments, industrial structures and complex civil works, including construction-stage assessment.

Nearshore and offshore

Jetties, waterfront foundations, offshore geotechnical interpretation and spudcan assessment.

Planning and value engineering

Infrastructure planning, construction sequencing and comparison of feasible designs, quantities and methods.

Value engineering and reviews

Compare foundations, structural arrangements, material quantities and construction sequences against safety, serviceability, site constraints and the project brief.

05 / LABORATORIES AND FIELD SERVICES

Evidence for engineering decisions

In-house soil, water and environmental testing, with field monitoring.



CONCEPT ILLUSTRATION

Soil and geotechnical laboratory

In-house soil testing to support ground characterisation, parameter evaluation and engineering assessment.

Water testing laboratory

Water analysis for the agreed project purpose and water-quality parameters, with laboratory records and reports.

Environmental testing laboratory

Environmental sample testing and project datasets to support environmental assessment and technical review.

Instrumentation and monitoring

Ground and structural response programmes, baseline records, readings and engineering interpretation.

Planned laboratory expansion

TDAC plans to invest in advanced equipment and improved laboratory data systems. The appointment confirms sample types, methods, parameters and reporting requirements.

06 / DEVELOPED SOFTWARE

Specialist tools built around engineering

Geotechnical information and assessment modules already developed.



CONCEPT ILLUSTRATION

Developed software / module	Engineering purpose
Geotechnical data management	Management of geotechnical records and interpreted information.
Geotechnical design modules	Specialist calculation and engineering assessment workflows.
Spudcan penetration analysis	Penetration assessment for offshore geotechnical applications.
Pile drivability analysis	Engineering assessment of pile installation and driving.
CPT interpretation	Processing and interpretation of cone penetration test data.

Software informed by technical practice

Engineering specialists define the meaning of the data and the intended use of results. Development and integration scopes establish inputs, outputs, review and deployment arrangements.

07 / DIGITAL DEVELOPMENT

Models, databases and connected assets

BIM services, digital twin integration and an active software pipeline.



CONCEPT ILLUSTRATION

Point-cloud processing

In development: processing workflows for survey and spatial datasets.

Drafting solutions

In development: tools to support drawing production and drafting workflows.

Database-specific AI agents

In development: specialist agents to retrieve and work with authorised industry databases.

BIM and digital twin integration

Connect models, asset identifiers, design records, inspections and monitoring data around a defined use case. Agree information ownership, validation and update responsibilities.

AI-assisted and calculation outputs follow the review arrangements agreed for their engineering use. Real-time or predictive functions require a defined development package.

08 / SECTORS AND CLIENTS

Infrastructure, industry and the built environment

Services organised around the asset, project setting and client need.

Sector	Typical applications
Roads and bridges	Highways, embankments, retaining structures, bridges and abutments.
Buildings and townships	Architecture, master planning and coordinated civil engineering.
Nearshore and marine	Jetties, waterfront facilities and marine foundations.
Offshore energy and foundations	Offshore wind, geotechnical interpretation and installation assessments.
Oil and gas infrastructure	Tank farms, terminals and associated civil and foundation works.
Heavy industry and manufacturing	Industrial buildings, production facilities and equipment foundations.
Water and utilities	Intake structures, water-related facilities and associated civil works.

Clients we support

Public-sector bodies, private developers, asset owners, contractors and engineering consultants, including international teams seeking specialist support.

Project stages

Concept and feasibility input, design and review, construction support, and agreed inspection, monitoring or information-management assignments.

09 / LEADING FROM THE FRONT

Leading from the front

Experienced leadership across TDAC's collaborating disciplines.

Jayakrishnan Menon

Chief Engineer

19 years of professional experience

Komal H Davra

Environmental Engineer

19 years of professional experience

Niya Merin Zachariah

Lead Geotechnical Engineer

10 years of professional experience

Peter Chacko

Structural Lead

17 years of professional experience

Ar. Anoopa Alex

Chief Architect

18 years of professional experience

Karthik Raj

Project Management and Compliance

17 years of professional experience

Gokul G

Chief Software Architect

18 years of professional experience

Professional credential

Ar. Anoopa Alex is registered with the Council of Architecture, India.

The team combines engineering, environmental, architectural, project management, compliance and software development expertise. Individual experience figures are shown above.

Ernakulam and Bristol

Specialist support for clients in India, the United Kingdom and international markets.

Ernakulam

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United Kingdom

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01

Understand

Define the project need and available evidence.

02

Scope

Agree deliverables, interfaces and responsibilities.

03

Develop

Coordinate specialist work and technical review.

04

Deliver

Issue the agreed package and supporting records.

Start with your project brief

Share the project location, available information, scope, required deliverables and programme so we can define a suitable appointment.