

# ALTEN Global Technologies



ALTEN Global Technologies Private Limited (ALTEN GT) is part of the ALTEN Group of companies with primary focus on Aerospace, Automotive, Embedded & Enterprise products and engineering services.

Alten GT has also a strong presence in the Digital Technology Services area. With over 110 talented engineers, Alten GT has a solid foundation in Digital Technology Services including Cloud and IoT Application development, Mobile and Web Applications and DevOps. Alten GT's forte has been demonstrated successfully in several areas including Agile/DevOps Methodology, Web Applications and Mobile Apps (Android/iOS), GUI/Enterprise/Desktop Applications and IoT/Cloud Technology/Data Analytics/AI&ML.



## Digital Technology Offerings

### ABOUT US



**FOUNDED IN**  
1991



**550+**  
**ENGINEERS**



**BASED IN**  
**BANGALORE**  
**INDIA**



**CMMI V2.2 DEV**  
**LEVEL 5**  
**ISO 9001: 2015**  
**AS 9100: 2016**



#### VISION

To build the best Engineering Brand in the world.



#### MISSION

We shall provide innovative Products and Services to our customers in the field of Aerospace, Automotive, Embedded and other Safety Critical Systems including Commercial Systems.

We shall strive to be the most trusted partner to our customers, consistently exceeding the expectations through Innovation, Commitment and Passion for Excellence.



#### VALUES

- Innovation
- Passion
- Excellence
- Nimble
- Integrity Fairness
- Social Responsibility
- Reliability & Safety

#### QUALITY



DQS Inc.

#### ALTEN Global Technologies

(Formerly Accord Global Technology Solutions Pvt. Ltd.)

ISO 9001:2015  
AS9100:2016 Rev D  
CMMI Level 5 V2.2

### 31 Years of Excellence in Product Engineering Services



#### Our International Presence

### Our Business Areas & Expertise



#### GNSS - OUR CENTER OF EXCELLENCE

Our GNSS R & D center has 7 PhD Holders, with 15+ IP Filings, 70+ publications. Being vertically integrated, we provide GNSS chipset, modules & products for Air, Naval, Land & Space



#### AEROSPACE PRODUCT ENGINEERING

Designed, manufactured many Build-to-Spec Aerospace Products, including their certification. Involved system & Software Engineering Services on Major Aircraft Programs



#### DIGITAL TECHNOLOGY

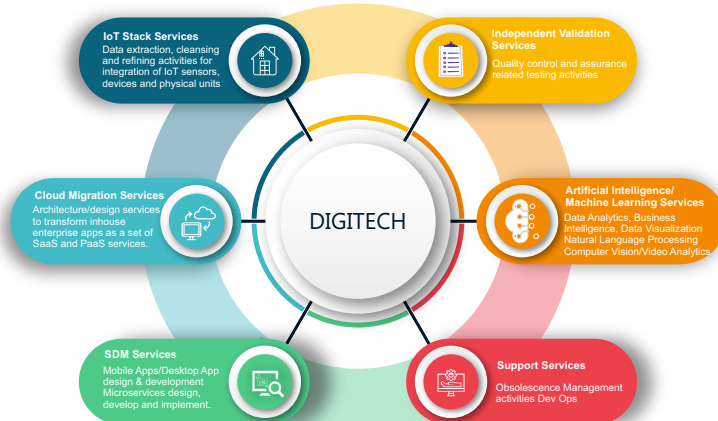
Built a solid foundation in Digital Technology Services on Cloud and IoT, AI/ML, Mobile and Web Apps & DevOps



#### AUTOMOTIVE SOLUTIONS & SERVICES

Build Telematics Solutions Gateway Unit, Body Control Module meeting functional safety requirements. Currently developing futuristic solutions on BMS, ADAS

### Our Digital Technologies services at a glance



### CAPABILITIES



IoT Stack



AI/ML



Mobile Apps



Cloud Computing



Web Apps



Testing



DevOps



Hardware

## DevOps

- Agile Software development
- Continuous Integration and Continuous Delivery
- Microservices
- Infrastructure as Code



## Web and Mobile Applications

- UI UX Modelling
- Full Stack Web Development
- Responsive Web Design
- Security – JWT, OAuth2
- Front end: ReactJS, AngularJS, JSP, JS, BS4, CSS, HTML5
- Backend: NodeJS, Java, PHP
- Native ANDROID (Java/Kotlin)
- Native iOS (Objective-C/Swift)
- Mobile Web



## AI/ML Service Offerings



Deep Learning Apps



Image/Video Analytics



Data Analytics

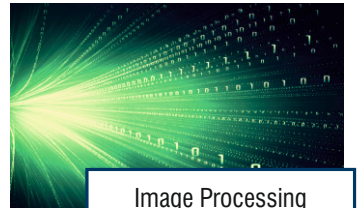
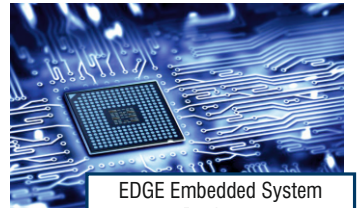


Image Processing



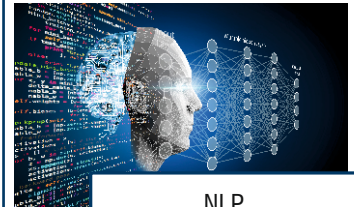
ML Model Development



EDGE Embedded System Deployment

## IoT and Home Automation

- Device design and development
- Embedded Firmware & RTOS
- Sensors
- Protocol stacks : HTTP/HTTP2/TCP/UDP/TLS  
MQTT/RabbitMQ/ZMQ/KAFKA/ZIGBY
- Microservices/API Gateway
- Mobile/Web App
- Big Data Analytics - AI/ML
- Logs – Log4js, Grafana, Prometheus
- Secure Boot, Secure FOTA
- End to End Secure data transfer
- Firmware OTA, L1, L2, L3 Config OTA
- Industry 4.0 Ready



NLP



AI as a Service

## Data Analytics

- Optimized Business intelligent engine
- Dashboard Generation
- Data Profiling
- Alerts & Notification
- Automated Report Analysis
- Centralized Data Collection



## AI/ML Competencies



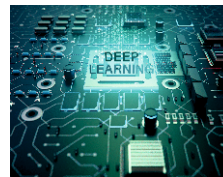
Deep Neural Networks and Convolutional Neural Networks



Machine Learning Algorithm Design and Development



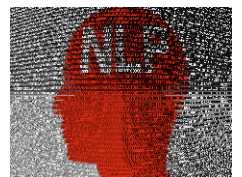
Traditional Image Processing Algorithms and Applications



EDGE Computing Leveraging CUDA and cuDNN



Logistic Regression and Neural Network based Data Analytics



Natural Language Processing – Text Recognition

## Cloud Services

- Infrastructure as a service (IaaS)
- Platform as a service (PaaS)
- Private cloud and hybrid cloud
- Test and development
- Data analytics
- File storage Services
- Continuous Integration and Continuous Deployment
- Virtualization and Container Orchestration



# SOLUTIONS SHOWCASE



## IOT/Cloud Solution for Leading HVAC Company

- IoT-Cloud Solution to control Home ACs via Smartphone & Smart Speakers
- Contactless transfer of AC equipment configuration to mobile through NFC
- Enterprise Software to define VRF HVAC system for a given premise
- Control VRF HVAC Systems in commercial environment via Mobile Apps

## Solutions for Home Automation

- Design of IoT Hub Hardware for Home Automation for a leading US based Home Automation Company
- Test Framework Development for Smart Home Common and Application Gateway for a Major player in Smart Home Systems in Europe.



## IoT based Industrial Solutions

- Design of Sensor Gateway for a IOT/Cloud enabled Windmills for European Customer
- Hardware Design of IoT Hub for Home Automation for a leading US based Home Automation Company

## Full Fledged Fleet Management Solution

- Fleet Administration
- Vehicle Grouping
- User Account Management (Multiple Roles)
- Driver Management
- Fleet Level Reports
- Charts and Visual reports
- Predictive Maintenance (Reminders)
- Routes and Trip Management
- Report Automation
- SMS and Email Notifications
- FCM Push Notifications
- Data Analytics



## Solutions Developed in our AI/ML Labs Using Edge Computing

- Smart City Solutions - Automatic Number Plate Detection
- Avionics - Wire Marking Identification
- Automotive - ADAS – Driver Behaviour Monitoring and Drowsiness Detection
- Automotive - Data Analytics & Predictive Modelling for BMS
- Automotive - ADAS –Obstacle Detection and Collision Warning
- Traditional Image Processing

## 100+ ENGINEERS HIGHLY SKILLED IN DIGITAL TECHNOLOGIES



## Life Cycle Tools

### > Requirements Management

- DOORS
- ReMa (Our Tool)

### > Software Design

- Mentor Graphics Case Tool
- Rhapsody
- Teamwork/Ada
- Easy case

### > Software Testing

- RTRT
- IPL Cantata
- VectorCAST C/C++
- LDRA
- SmartTester for C (Our Tool)
- SmartAct for assembly (Our Tool)
- IPL AdaTEST
- Logiscope and Lint
- TPM (Test Process Management Tool)
- National Instruments PXI

### > Coverage Analysis

- C-Cover
- Logiscope
- VectorCAST Cover
- Code Trax for C (Our Tool)

### > Project Management

- MS-Project
- Smartworks Project Planner(Our Tool)

### > Configuration Management

- ClearCase
- CVS
- RCS
- PVCS
- SVN
- GIT, Tortoise SVN

### > Development Environments

- IntelliJ IDEA
- Android Studio
- Xcode
- Visual Studio 2019  
(VB, VC++, C#, Asp.net)
- NI LabWindows, LabVIEW
- Embedded Wizard GUI development Tool
- JavaScript: React/Angular/NodeJS
- Python: Django
- Eclipse

### > DevOps

- Microsoft Azure
- AWS CodeCommit
- Kubernetes, Docker

### > Cloud Computing Platforms

- Amazon Web Services (AWS)
  - AWS Fundamentals : IAM, EC2, Load Balancing, Auto Scaling, EBS, Route 53, RDS, ElastiCache, S3
  - Deploy an application : AWS Elastic Beanstalk, CICD, CodeCommit, CodePipeline, CodeBuild, CodeDeploy
  - Infrastructure as code: AWS CloudFormation
  - Monitoring, Troubleshooting & Audit : AWS CloudWatch, CloudTrail
  - AWS Integration & Messaging : SQS, SNS, Kinesis
  - AWS Serverless : AWS Lambda, DynamoDB, API Gateway
  - Docker in AWS : ECS, ECR & Fargate
  - AWS Security Best Practices : KMS, Encryption SDK, SSM ParameterStore, IAM Policies

### > AI/ML

- Tensorflow, Pytorch
- YOLO v5
- AWS, EDGE Servers and Devices – NVIDIA DeepStream, Google Colab
- Python, C++, CUDA Programming, Open MP

### > Microsoft Azure

### > Google Cloud Platform

## Microservices

- JAVA: Spring Boot, Spring Cloud, Spring Data JPA, Hibernate

## Software Engineering Tools

### > RTOS

- GreenHills Integrity
- VxWorks
- MS-WinCE
- DSP-OS
- VDK
- MicroC/OS
- FreeRTOS
- Unison RTOS

### > Compilers

- C/C++/Ada 83 Compilers for various hardware platforms(Power PC, TI DSP, ADSP etc.)
- HW Platforms (Renesas, Texas Instrument, Microchip)

## Issue Tracking Tool

- JIRA
- Trac
- GitLab

