



STRATEGIC ALLIANCE



البعء العالمى للتعليم و التدريب  
GLOBAL DIMENSION FOR EDUCATION AND TRAINING



رؤية  
VISION  
2030  
المملكة العربية السعودية  
KINGDOM OF SAUDI ARABIA

Developping the opportunities presented  
by Industry 4.0 in the best possible way!

# INTRODUCTION

## Global Dimension & Ultimate Solutions

**Ultimate Solutions** provides top-notch Rapid Product Development solutions along with its dedication to customer support in both software & hardware products development & manufacturing in the Middle East region to provide business and people with virtual universes to imagine sustainable innovations with the latest affordable technologies worldwide.

Ultimate Solutions is a multinational company headquartered in Jeddah - Saudi Arabia. It has clients all over the Middle East. No matter where you are, we're never too far away. Our offices and agents are located all over the region, we have offices in **Jeddah - Saudi Arabia, Abu Dhabi in UAE and Cairo in Egypt.**

In January 2018 **Global Dimension** became the **strategic partner** for Ultimate Solutions in **Saudi Arabia** to help in implementing the industry 4.0 technologies in Saudi Arabia and all across the Middle East.

**Global Dimension** is part of Almojel Group of Companies, solutions offered by Global Dimension are a complete integrated set of engineering practices that transfer high - end engineering expertise to all industry clients, and gives them access to state of the art know how, and cutting edge technological tools.



## Our Plan for bringing the future to the Kingdom Includes:

- 1- Bringing industrial technologies to Saudi Arabia and the Middle East.
- 2- Enabling companies to understand the industry 4.0 technologies and identify the opportunities of benefitting from the Industry 4.0 by providing live demos, training courses and consultation services.
- 3- Training the Saudi engineers (both students and graduates) who will be responsible for designing and developing the transformation plans for the Industry 4.0 in companies.
- 4- Helping existing factories implement the industry 4.0 technologies and the operational excellence principles.
- 5- Eliminate the obstacles to the smooth transition to Industry 4.0 and provide all the needed information.



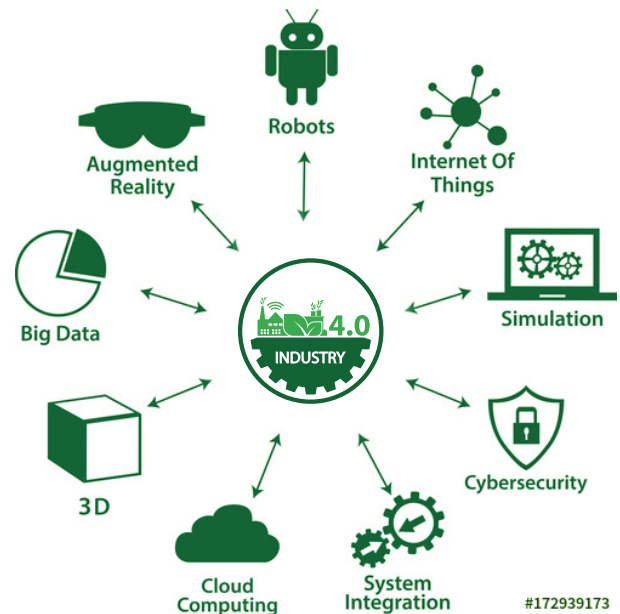
# TABLE OF CONTENT

01   Introduction	2
02   Table of contents	3
03   Industry 4.0	4
04   Industry 4.0 Advantages	4
05   Industry 4.0 Challenges	4
06   Our Efforts	5
07   Our Industrial Strategy	5
08   Our Technical Strategy	6
09   Our Industry 4.0 Technologies	7
10   3D Scanning Solutions	8
11   3D Printing Solutions	9
12   Machinery Solutions	10
13   Advanced Analytics Solutions	11
14   Digital Management	12
15   Services	13
16   Notes	14

## INDUSTRY 4.0

The industry 4.0 is based on implementing a group of modern technologies on the production value chains that would increase production efficiency and establish new business models that are consistent with the targeted transformational achievements.

**Saudi Arabia** with its respectable industrial base, combined with our company's specialization in **Industry 4.0** technologies, can create favorable growth conditions and environment to enable vital sectors to achieve rapid growth in the coming years and meet our aspirations by enabling leading industrial businesses to use modern technologies that will assist them to increase competitiveness and productivity.



## INDUSTRY 4.0 ADVANTAGES

Applying the industry 4.0 technologies is expected to lead to:

- Generating an economic impact on the Kingdom's industrial sectors.
- Expected improvement in the annual income.
- Research quality and outputs improvement
- Saving costs by automating the process and minimizing human mistake.
- Providing highly-skilled and special jobs that shall attract national talents and increase women's participation in the labor market.

## INDUSTRY 4.0 CHALLENGES

Our purpose is to tackle the major challenges hindering the industry 4.0 transformation of the Kingdom. These challenges are:

- Lack of knowledge among companies and individuals of industry 4.0 opportunities.
- Lack of awareness of Industry 4.0 effectiveness and benefits for the industrial sector.
- High cost for system upgrade from current conventional production equipment to the level of the industry 4.0
- Limitation of human resources that are qualified to deal with these technologies.



## OUR EFFORTS

With the industrial sector fast growth rate, we are honored to play the role of the enabler and facilitator in order to:

- Increase the competitive advantage for existing industries.
- Expand existing value chains and developing new ones.
- Develop the environmental system for industry 4.0 technologies.
- Create the need for new high-skill jobs that attract the national labor force.



## OUR INDUSTRIAL STRATEGY

We are working on implementing the technologies of the industry 4.0 in multiple sectors including:



Educational



Aerospace and  
Defense



Oil & Gas



Automotives



Machinery and  
Equipment



Medical  
Supplies



Food Processing



Energy and  
Power Utilities

As a result of industry 4.0 replacing the traditional mechanisms that are currently being on the production value chains, industrial companies should move forward to upgrade their work implementation methodology to meet the new prospects of operational efficiency. Our aim is to encourage companies to adopt Industry 4.0 technologies, and offer solutions to leading companies in different industry sectors who seek new opportunities for a better performance.

# TECHNICAL STRATEGY

Our Strategy is based on providing a complete Industry 4.0 lab for all Industry 4.0 enthusiasts in Saudi Arabia, is one of our motivational factors.

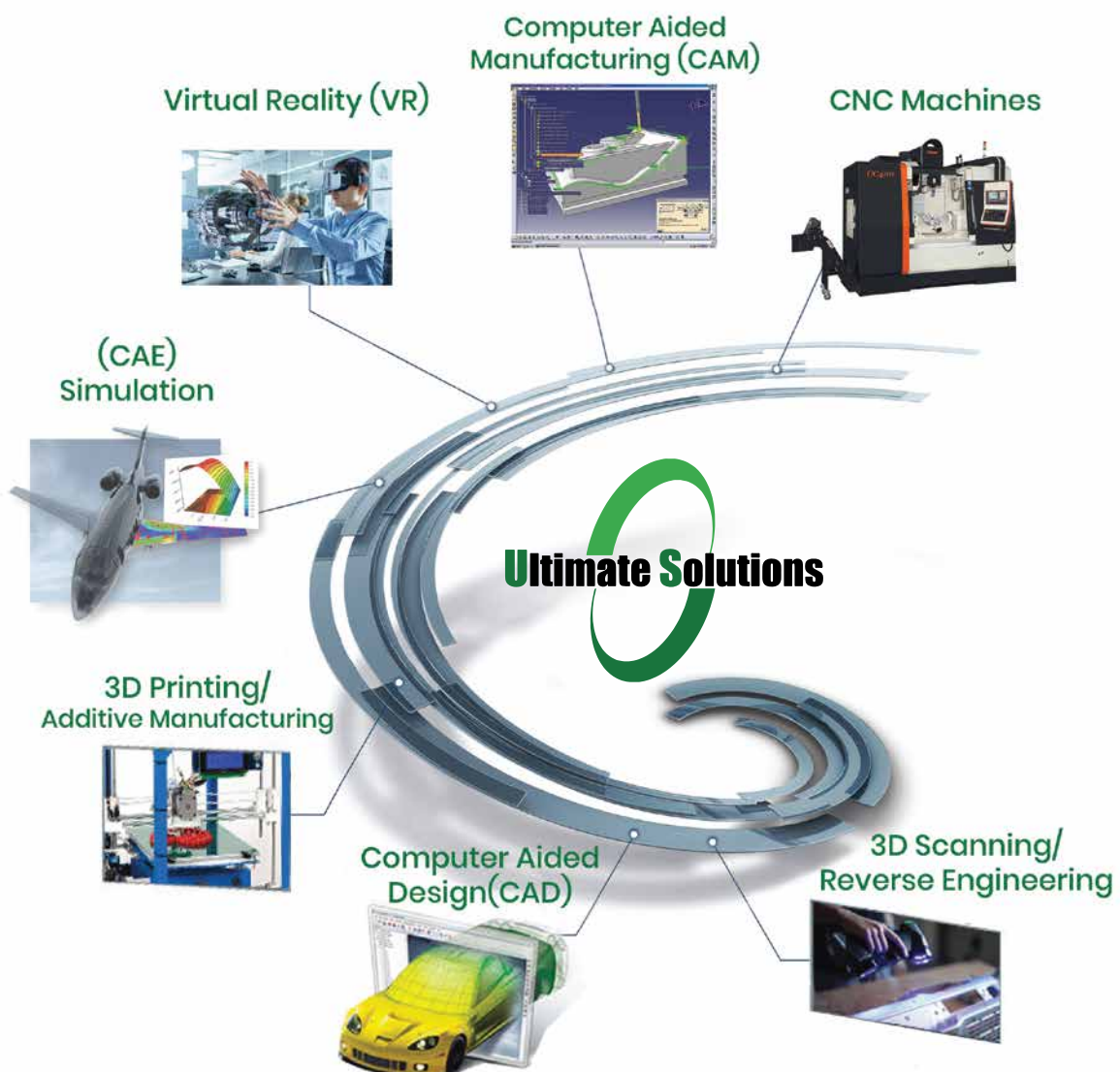
These factors are:

**1- Complete Industry 4.0 Technology Lab:** For exploring and experiencing by employing the industry 4.0 technologies. We want to facilitate the use of the industry for those who prefer renting the service instead of buying the hardware. Any businesses and individuals in Saudi Arabia and the Middle East can now develop and produce using our available technology in each and every field of the industry 4.0

**2- Training Center for both theoretical and practical education:** Providing trainings at various levels that suit beginner and the advanced levels in various industry 4.0 technologies.





**3- Licenses for advanced computer software for product lifecycle management:** Including CAD, CAM and CAE softwares.

**4- Production machinery and hardware that are compatible with the industry 4.0:** Including sheet metal machinery, cnc machine centers, tube processing machines, 3D printers and 3D scanners.



## OUR INDUSTRY 4.0 TECHNOLOGIES

The industry 4.0 focuses on future sectors and includes a wide group of advanced technologies, Global Dimension and Ultimate Solutions realized the benefits of the 4th industrial revolution for the future of Production in the Kingdom and the Middle East and focused on the most prominent industrial and technology pillars, which are:

 <b>3D Scanning and Printing</b>	<ol style="list-style-type: none"> <li>1. 3D printed products</li> <li>2. 3D printing tooling</li> <li>3. 3D scanning of parts</li> <li>4. Reverse Engineering</li> <li>5. Inspection and Quality Control</li> </ol>
 <b>Machinery/ automation</b>	<ol style="list-style-type: none"> <li>6. Multi axis machines (CNCs)</li> <li>7. Tube processing Machines</li> <li>8. Laser Cutting Machines</li> <li>9. Sheet Metal Machinery</li> <li>10. Automation</li> <li>11. Tools</li> </ol>
 <b>Advanced Analytics</b>	<ol style="list-style-type: none"> <li>12. Predictive maintenance</li> <li>13. Remote Monitoring and control</li> <li>14. Virtual reality (VR) and Augmented reality (AR)</li> <li>15. Digital Performance management</li> <li>16. Digital quality management</li> </ol>
 <b>Digital Management</b>	<ol style="list-style-type: none"> <li>17. Product Lifecycle Management and Digital Simulations</li> <li>18. Computer Aided Design (CAD) Software</li> <li>19. Computer Aided Manufacturing (CAM) Software</li> <li>20. Smart energy consumption</li> <li>21. Scheduling and Shift Planning</li> </ol>

Aiding  
industry  
**leaders**  
move in to  
**Industry 4.0!**





## 3D SCANNING

With the increasing adoption to industry 4.0 in the Kingdom, it became an essential need to increase the inspection quality and maximize throughput, whilst reducing costs right down the production line.

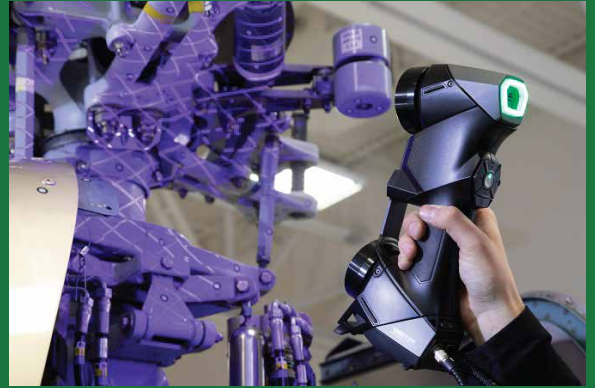
Our 3D Scanning solutions make your manufacturing processes faster and more accurate than ever before. We know that in order for this to happen old metrology solutions are no longer enough to achieve the maximum potential of your production line, instead we brought you integration of autonomous processes and easy-to-use top international quality hardware to fully embrace manufacturing of the future.

In order to move forward into Industry 4.0, manufacturers need to implement intelligent manufacturing practices with the best approaches and equipment we can provide!

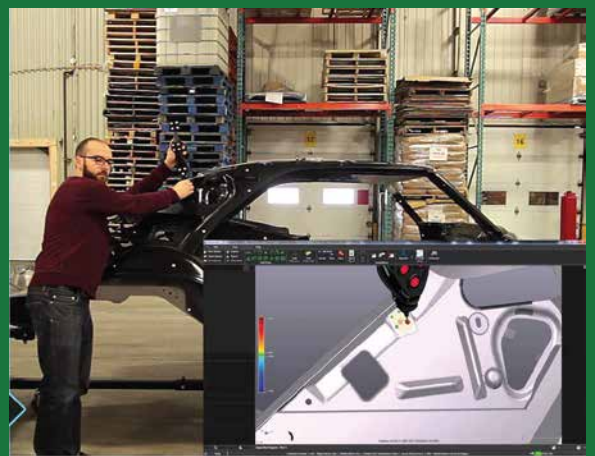
Our wide range of metrology and 3D scanning solutions include:

- Fastest Turnkey Coordinate Measuring Machines (CMM).
- High Accuracy Portable 3d Scanners.
- Shop Floor 3d Scanning And Probing System.
- Large-Scale Metrology Solutions.
- 3d Scanning Services.
- Reverse Engineering Services.
- Quality Control and Inspection services.
- Calibration Services.
- Personalized Application Development.
- Training And Consultation.
- Closed-Loop Operation.
- Cloud Monitoring.

### High accuracy portable 3D scanners



Easy 3D scanning in the lab, on the shop floor, or out in the field



### Premium horizontal arm CMM

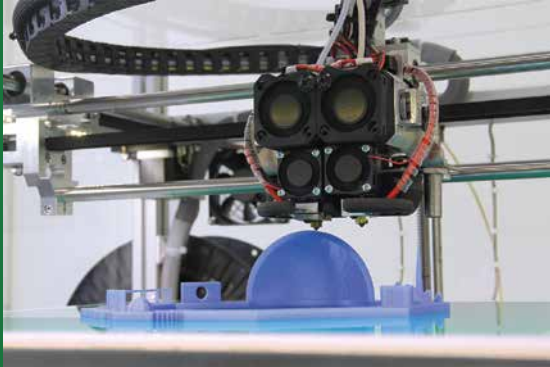


### Large scale metrology solution





## 3D PRINTING



High Precision Plastic 3D printing



Metal 3D Printing



Colored 3D printing



Rapid Prototyping: 3D Printed Jet Engine

3D printing is one of the main areas where you can explore opportunities based on future trends. Concurrent growth in supporting industries, alongside thriving new technologies, will place 3D printing as one of the most demanded technologies in Saudi Arabia. Being one of the first leading companies who brought this technology to the Kingdom and the Middle East, we have both the experience and the resources to bring the latest, highest quality 3D printers to support industries across the region and guiding you to the most suitable 3D printing solution for you that will accelerate your productivity growth.

Our aim is to help sectors in the future to implement 3D printing technologies across the value chain; and ease their industry 4.0 adoption.

Our High-end wide range of 3D printing solutions will help you address current challenges and improve your business!

Our 3D printing Solutions include:

- Establishing and acquiring 3D printing technology.
- High quality Metal and Plastic 3D printers.
- Wide range in 3D printing machine sizes (from 12 x 12 x 12 cm printing area to 100 x 100 x 100 cm printing area)
- Local maintenance and consultation service.
- Available consumables and wide range of printing materials.
- 3D printing training sessions.
- Metal and Plastic 3D printing service.

# MACHINERY

From our Knowledge that industry 4.0 is based on implementing a group of modern technologies on the production value chains that would increase production efficiency, and with the industrial sector continuous growth in the Middle East, especially Saudi Arabia with Vision 2030, we were keen to provide modern, high quality, advanced, Industry 4.0 compatible machinery.

Having worked within the industry for over 13 years, our experience and expertise covers most of production industries.

Ultimate Solutions' machinery solutions will help you invest in the future of your business by providing reliable diversified solutions in both machinery types and ranges for your specific needs! With our innovative approach, we help businesses get their production line moving forward and achieving their business goals.

Our Machinery Solutions include:

## Intelligent productivity CNC Machine Center :

- Milling Machines
- CNC Lathes
- Tube and Bar Processing Machines

## High-Tech CNC Sheet Metal Machining Centers:

- Laser & Plasma Cutting Machines
- Press Brake Machines
- Shear Machines
- CNC Punch Press Machines

### Precise and High-Tech CNC Sheet Metal Machining Centers



### Heavy Duty CNC Lathes



### High Speed 5-axis CNC Milling Machine

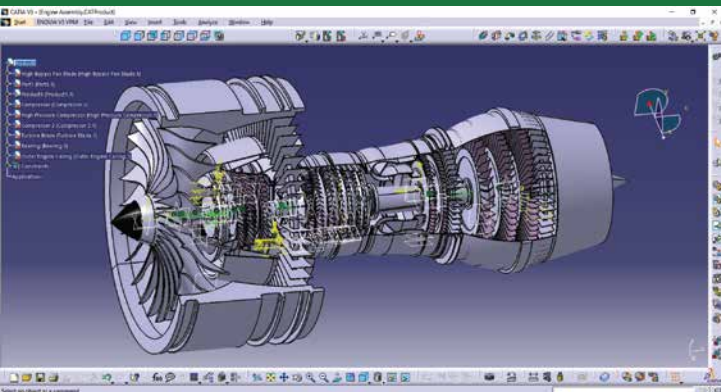


### CNC Tube + Pipe Benders and Tube cutting machines





# ADVANCED ANALYTICS



high performance CAD software



Fully manage the product lifecycle



Digital Twin



Augmented reality (AR)

Driving Innovation with knowledge-driven Decisions.

Businesses today are swamped with data. Valuable insights are hidden among these data, leading to inefficiencies across the entire organization.

Organizations therefore need a scalable framework. Our Solutions support you through the whole process from accessing and aggregating data to advanced analytics, modeling and reporting. We will help you get the most of your data without the need for experts! Ultimate Solutions made the best of analytics applicable to PLM while leveraging the richness and the full potential of product design and manufacturing processes.

Our PLM Analytics solution reveals, measures and analyzes PLM data to deeply understand and improve product development processes in all PLM areas.

Our PLM Analytics solutions include:

- Fully manage the product lifecycle, from design to traceability of changes, cost, quality and issue analytics.
- Real-time PLM status to executives.
- Automate the blending and preparation of data for analysis
- Easily implement advanced analytics and machine learning models into end-to-end workflows.
- Develop powerful applications in a graphically-based, code-free environment.
- Creation of digital twin for digital manufacturing and simulation.

# DIGITAL MANAGEMENT

Industry 4.0 technological advances have led to a radical transformation of our working methods. Greater productivity, reduced costs, continuous search for quality and improvement.

We were up to the challenge and brought the most innovative solutions to help you in your development and in maintaining an optimum level of productivity and efficiency.

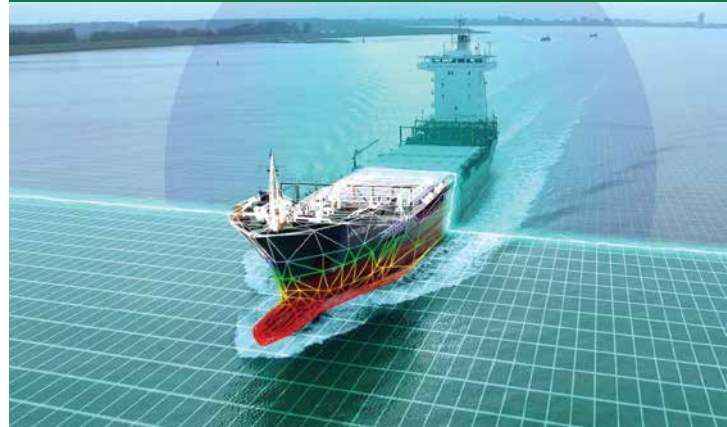
Ultimate Solutions provides companies with a different economic model driven by new technologies through systematic digitalization that help them explore new production approaches and thrive and survive market transformations. Major companies and institutes in Saudi Arabia, that are considering industry of the future, can benefit from our wide range of digital solutions. Which Includes:

- Product Lifecycle Management (PLM).
- Computer Aided Design (CAD).
- Computer Aided Manufacturing (CAM).
- Computer Aided Engineering (CAE).
- Digital Simulations.
- Business Experience Platform.
- Collaboration Software.
- Information Intelligence.

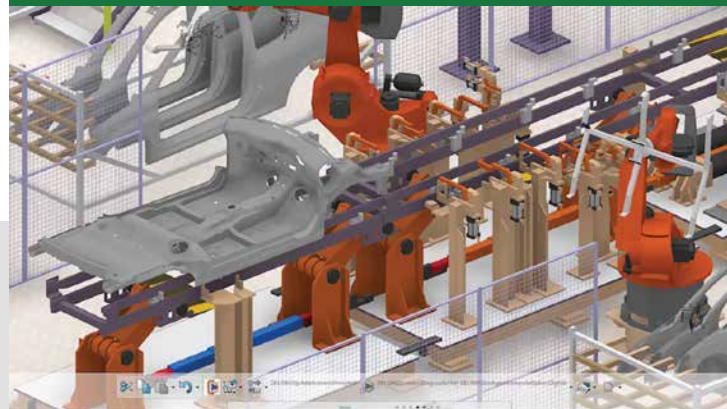
Jet Engine CAD Model



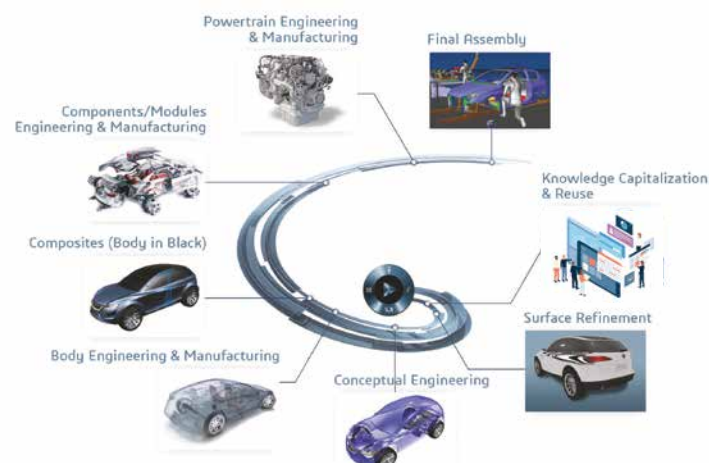
Product and Environment Simulation



Digital Manufacturing



Product Life Cycle Management (PLM)





# SERVICES

## ENGINEERING SERVICES

Ultimate Solutions provides expert engineering services to an ever-growing customers from all over the Kingdom. Our team of experienced engineers and technicians has earned a reputation for effectiveness and professionalism and are recognized for their commitment to meet our customers' requirements with responsiveness and adaptability.

Our team is a multidisciplinary team of experts, thriving on any challenge. After more than 13 years in business, Ultimate Solutions has built a solid track record as a trustworthy engineering services provider to major companies from many industries, such as aerospace, mass transportation, recreational products, oil & gas and consumer products.

- 3D Printing Services
- Reverse Engineering Services
- 3D Scanning Services
- Engineering Analysis Services
- Quality Inspection Services
- CNC Maintenance Services

## TRAINING SERVICES

Custom comprehensive technical training services are your hassle-free solution to not only sustainably address your human capital training challenges but also improve your overall engineering productivity.

Whether you are an SMB or multi-national company, count on our experts to train your staff on a variety of topics, including:

- Basic Mechanical Design modeling.
- Advanced Mechanical Design modeling.
- Reverse Engineering and Inspection.
- Engineering Analysis (FEA).
- Computational fluid dynamics (CFD).

## NOTES

## NOTES



البعء العالمى للتعللم و التءرب  
GLOBAL DIMENSION FOR EDUCATION AND TRAINING

## GLOBAL DIMENSION

Phone : +966-11-419-6379

Fax : +966-11-419-6384

6733 Abi Bakr As Siddig Road  
Al Taawun | Riyadh 12475-2573  
P. O. Box: 92462 | Zip Code: 11653  
Kingdom of Saudi Arabia

[www.gd.sa](http://www.gd.sa)



## ULTIMATE SOLUTIONS

Phone : +966 12 6601516  
+966126653089

Fax : +966 12 6677697

Al Medina road – Al Sharafeah  
El Khayyat tower First floor – Office 11,  
P.O. box 50332 | Jeddah 21523  
Kingdom of Saudi Arabia

[www.ultimatesolutions-sa.com](http://www.ultimatesolutions-sa.com)