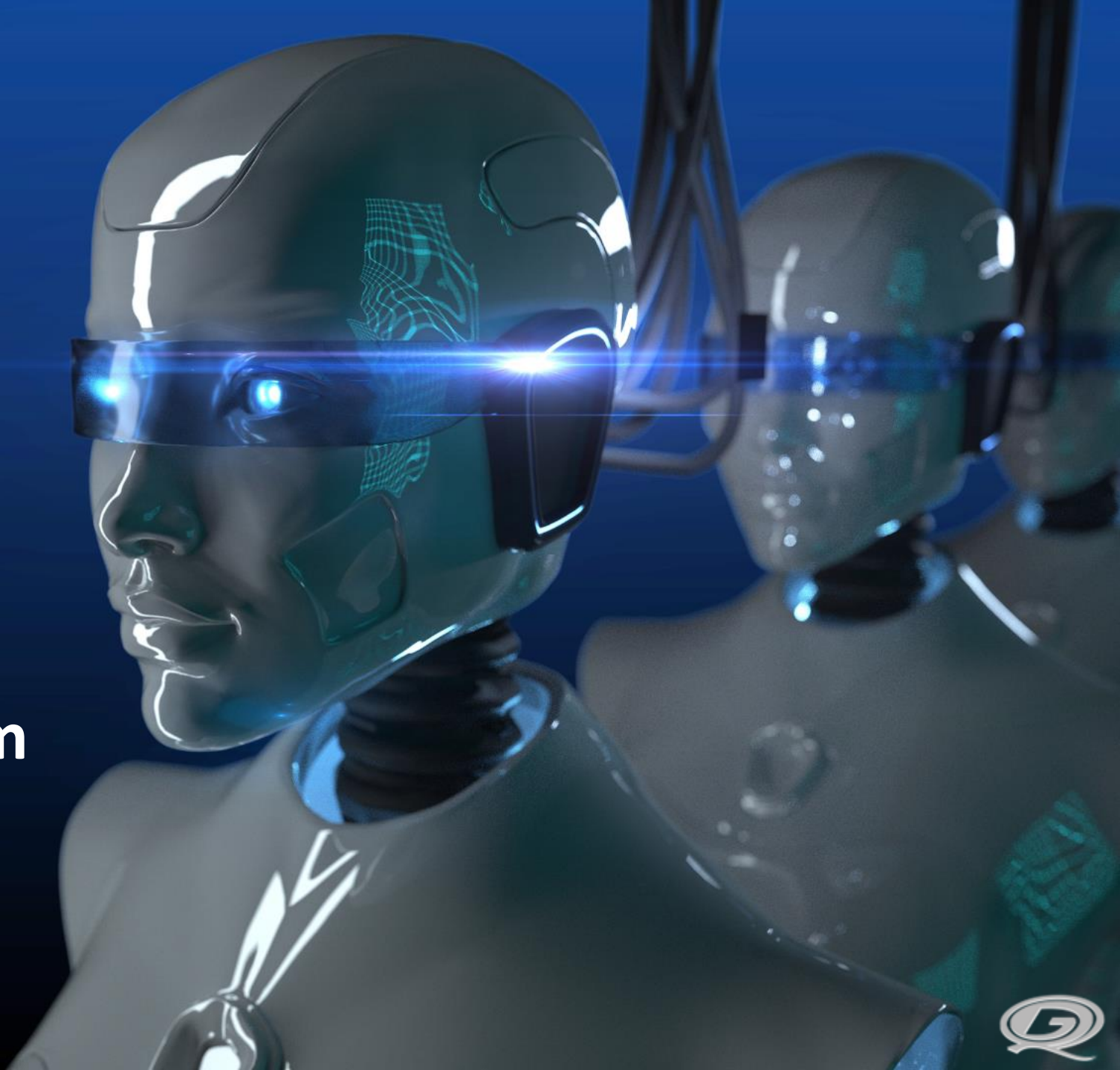




مجموعه دبي للجودة
Dubai Quality Group

IAIDL Basic Program

(International AI Driving License)



CONTENT

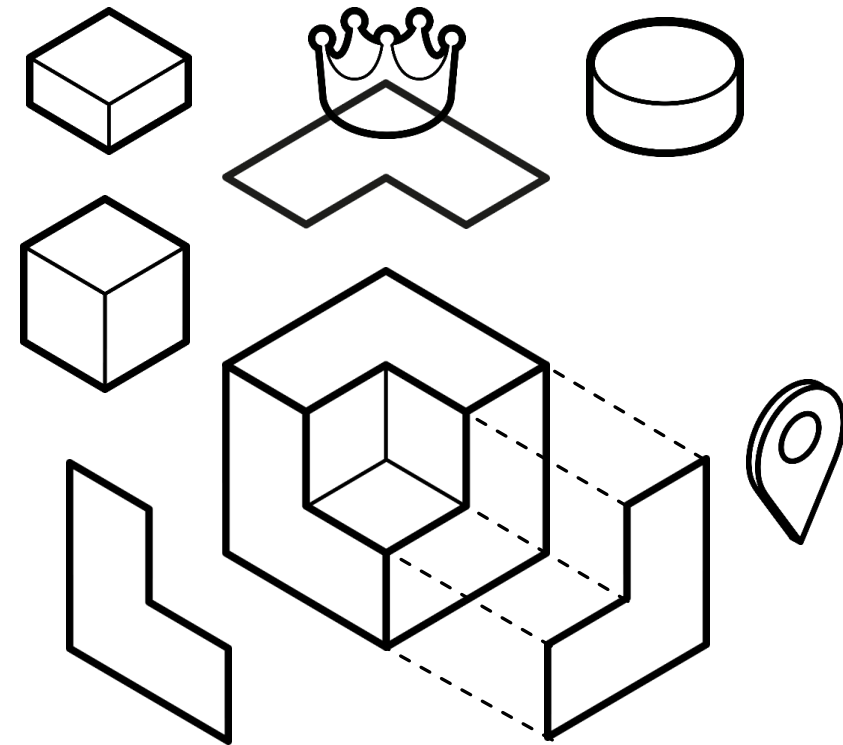
1. About IAIDL

2. IAIDL & Achieving the Positive Citizenship

3. IAIDL Levels & Modules

4. Consultation Services

5. References





About IAIDL



Why IAIDL?

1. IAIDL partners with industry experts to develop rigorous, high-stakes exams and engaging training products
2. IAIDL has developed exams to conform with the American National Standards Institute (ANSI)/International Organization for Standardization (ISO) 17024:2012 standard
3. IAIDL exams have been accredited by several international organizations including the following:
 - U.S. Department of Defense (DoD) to fulfill Directive 8570/8140 requirements
 - UK GCHQ Certified Training (GCT)
 - Skills Development Scotland
 - Bahrain Tamkeen
 - Malaysia Human Resources Development Fund (HRDF)
 - Singapore CITREP+
 - KHDA Dubai
 - Oman Ministry of Education
 - IPA Jordan
4. IAIDL is the only global provider of industry-validated, vendor-neutral, emerging technology certifications
5. IAIDL is the only exam accredited by ANSI/ISO 17024
6. AIMA assessor is the only high-stakes, vendor-neutral exam available globally
7. IAIDL exams have been completed by candidates in over 92 countries
8. IAIDL participates in several boards and working groups helping to shape the certification industry
9. IAIDL partners with industry experts to develop its training products and exams
10. IAIDL exams are accredited under the ANSI/ISO/IEC 17024 standard and approved by the U.S. Department of Defense (DoD) to fulfill Directive 8570/8140 requirements, UK's GCHQ, Malaysia HRDF, and other accrediting bodies



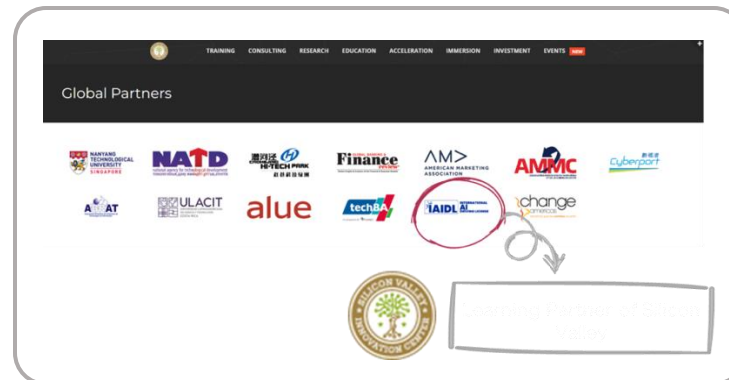
IAIDL as a leading practice in I-Transformation

IAIDL was established in June 2016 as an American International research and innovation program office focused on harnessing the scientific and economic potential of AI and FMT to boost global competitiveness and correlate it with the Global AI index. It does this by directing AI and FMT research and innovation of strategic interest, developing international level of AI and FMT systems, and building AI and FMT talents and capabilities to catalyse industry transformation.

For more details: <https://iaidl.org/about-2/>



Association and affiliation



Date: 23rd September 2020
Confirmation of Tortoise AI Membership

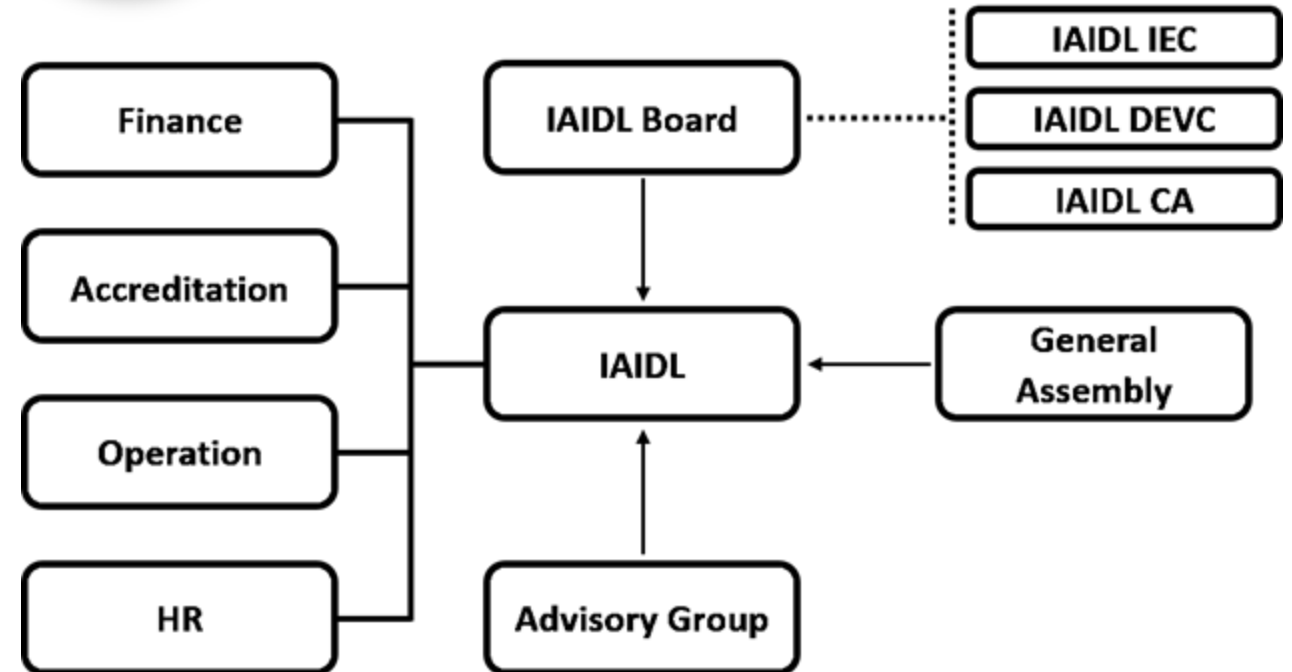
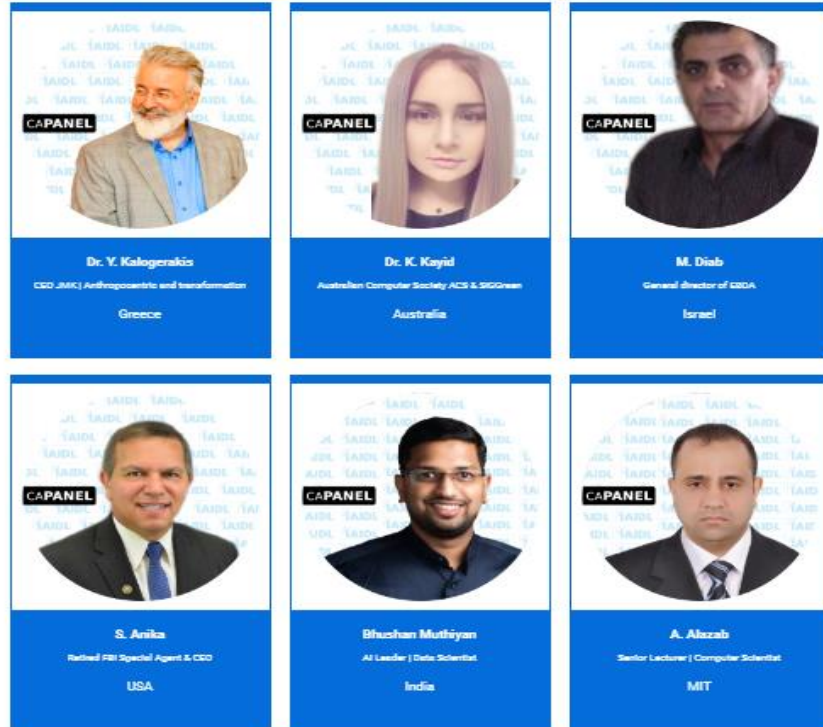
Dear IAIDL Management,



Welcome to the Tortoise AI Network. We're thrilled that you're joining our community of business leaders, expert academics and policy-makers from around the world to take part in cutting-edge conversations around AI, its metrics and its impact.

This is a letter of confirmation that IAIDL is a member of the Tortoise AI Network and a knowledge partner for the Tortoise AI Index.





The Board is the core governance body of the Organization and reports to the General Assembly. It meets three times a year and is made up of 20 member bodies, the IAIDL Officers and the Chairs of the Policy Development Committees IAIDL Confirmatory Assessment, Advisory Groups and Partners, IAIDL IEC, and IAIDL DEVC.

— Bring in the **philosophers!**

ΑΚΑΔΗΜΙΑ



ΔΟΧΝΩΝ



Some great minds
exist **TODAY !**



University of
Oxford
Oxford



Stanford
University
Stanford



University of
Cambridge
Cambridge



Harvard
University
Cambridge



Massachusetts
Institute of
Cambridge



University of
California
Berkeley



Columbia
University
New York



Princeton
University
Princeton



University of
Toronto - St.
Toronto



National
University of
Singapore

IAIDL

INTERNATIONAL
AI
DRIVING LICENSE

The
Economist

EVENTS

South & China

JMK

IAIDL COMPATIBILITY AND RELEVANCE



**Silicon Valley
Innovation Center**



**Global AI
Index**



**Organisation for Economic
Co-operation and
Development**



**Smart Industry
Readiness Index**



**World Economic
Forum**



SDGs



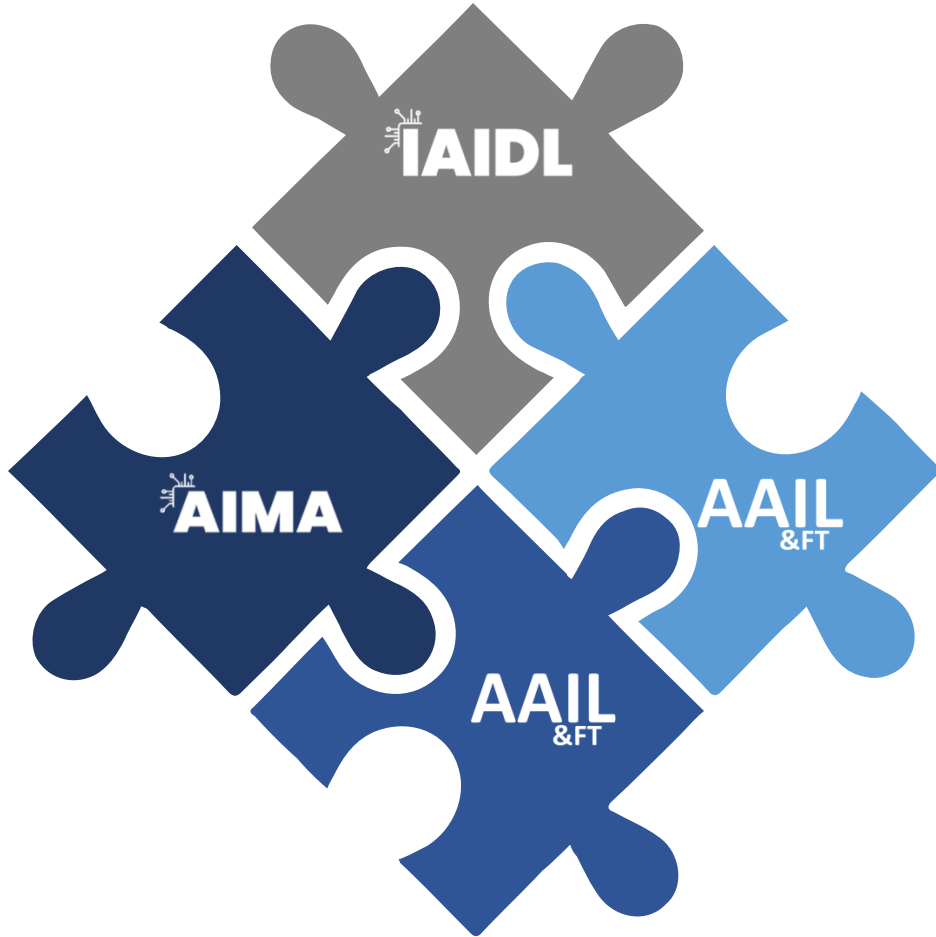
EFQM



**McKinsey &
Company**



IAIDL Services



Certification and Training

IAIDL programs are for any professional wishing to become fully competent in the use of AI tools and common applications of future tools. Skills enable different age group to understand and use AI to improve their personal and professional lives. IAIDL modules provide a practical program of up-to-date skills and knowledge areas which are validated by a test

AIMA

AIMA is the only AI-based assessment compatible with EFQM model, founded to assess all role players affecting the overall implementation of AI and future management tools in an organisation through diagnostic analysis.

IAIDL Accredited Lab and AI & FMT Center of Excellence

The IAIDL Accredited Lab will help the organizations and entities to form an integrated environment that is fully equipped with the main 8 tools to generate ideas and transform the organization using the CWS priority model. The IAIDL LAB will help organizations to build their own POC's in a clear methodology to foster their transformation according to 4.0 International Standards

IAIDL Endorsed Product

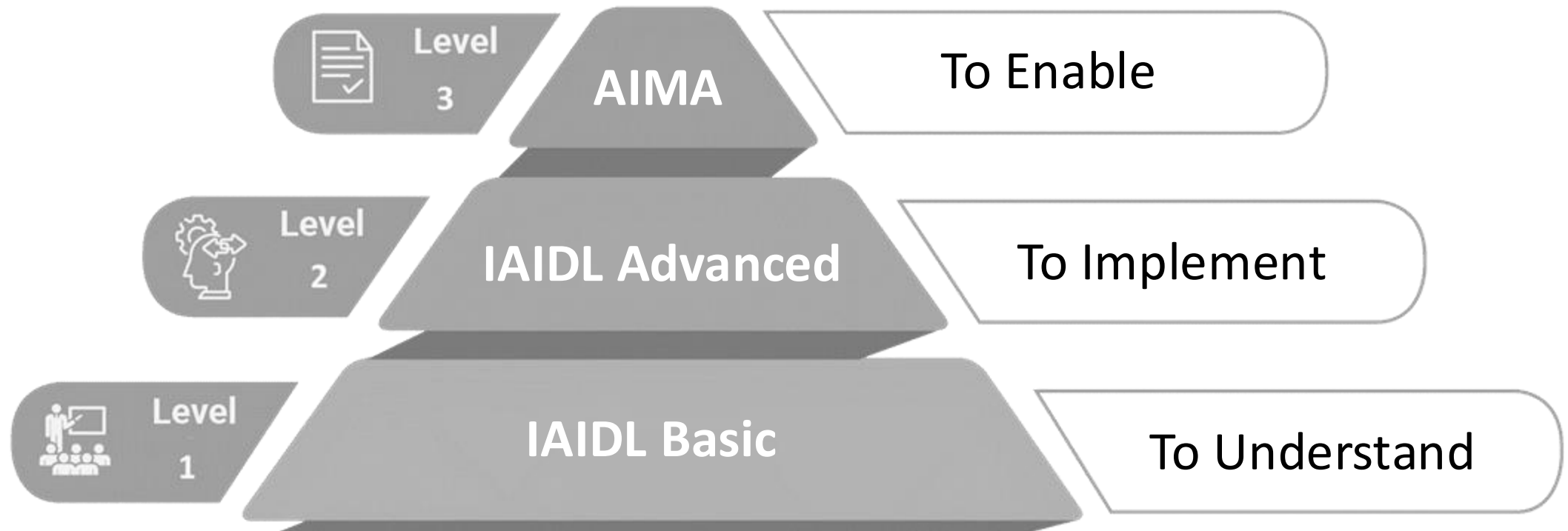
The IAIDL Endorsement is the validation of a specific, individual or enterprise innovative product that a business has conceived and implemented using one of the future management tools.

Endorsements serve as a means of validating the business' efforts and outcomes, without requiring the business to reveal confidential details to the public through a world class certification

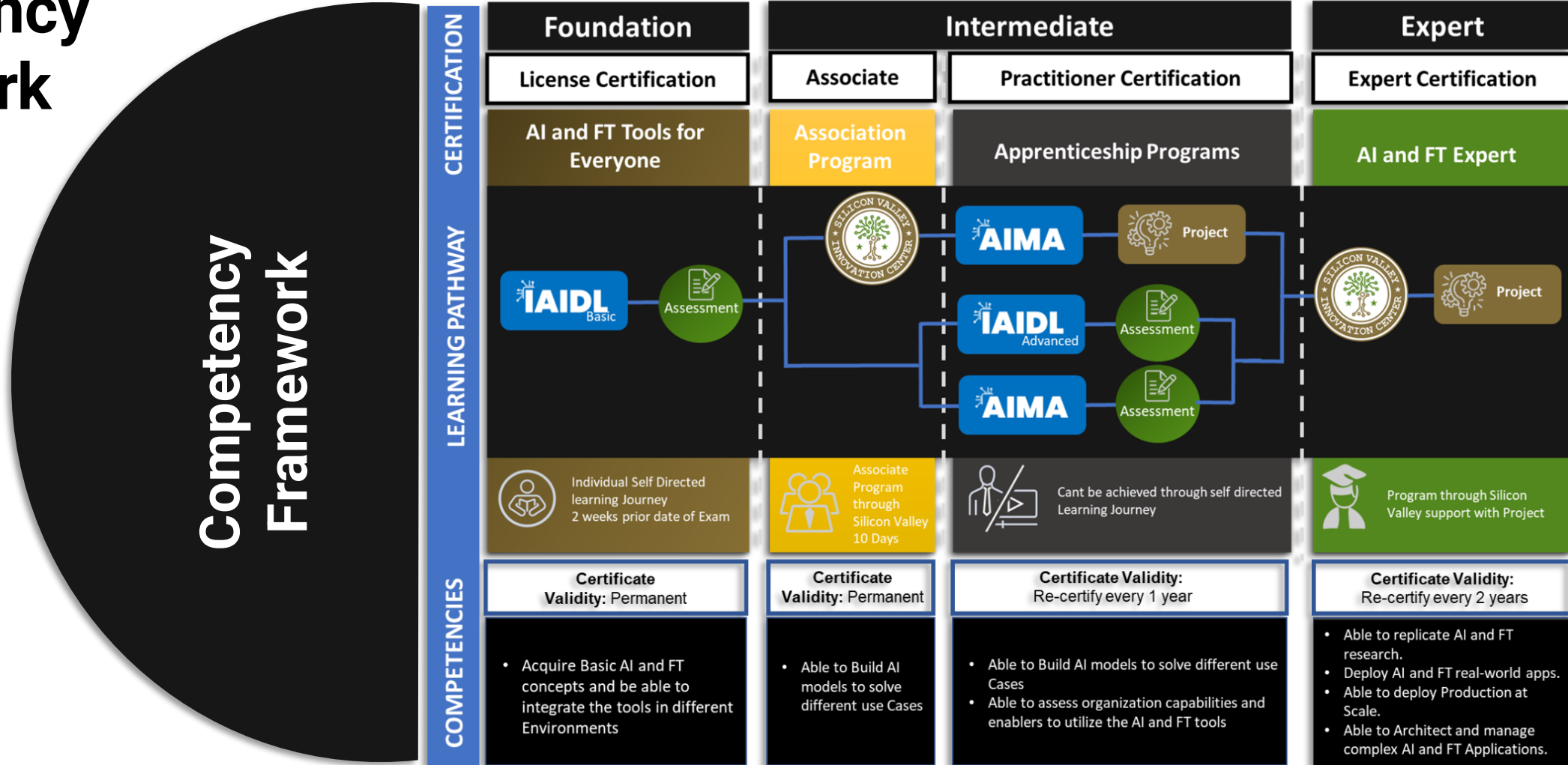


IAIDL & Achieving the Positive Citizenship

Alignment between Bloom's taxonomy and Competency-based training for AI



IAIDL Competency Framework

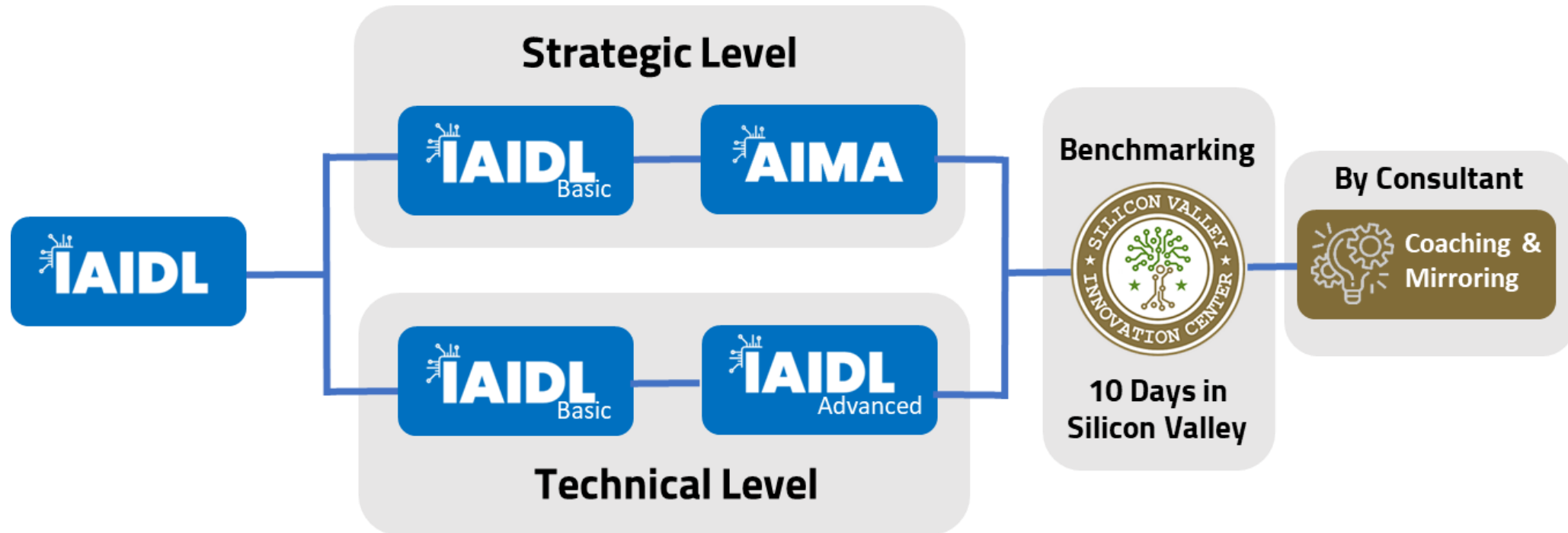




IAIDL & Achieving the Positive Citizenship

Certificate	IAIDL Basic 	IAIDL Advance 	AIMA Assessor 	IAIDL Expert 
Target Audience	Technical & Non Technical	Technical	Non Technical, Managerial	Technical, Managerial
Competency-based Course Briefing	IAIDL basic Intensive and Comprehensive competency-based Program for anyone who wishes to become fully competent in the use of a AI and future tools without a previous knowledge in programming through using different effective user-friendly tools. Basic level certification is aimed to help Leaders, Job Seekers, Employees from all sector make sense of the rapidly changing Tools shaping our future. Additionally, Improve essential future competencies required for successful agile businesses all over the world.	is an Intensive and Comprehensive competency-based Program to enable the Innovation teams, Transformation teams, IT Professionals, technology managers, and Directors who wishes to become fully competent in the use and implementation of AI and future tools. IAIDL-Advanced modules provide a technical program of up-to-date skills and knowledge areas which are validated by an assessment targeting candidates with prior knowledge of programming.	is an Intensive and Comprehensive competency-based Program for Excellency specialist , strategic directors , quality managers who wishes to become fully competent in utilizing AIMA tools and implement it in organizations. AIMA provide a holistic view with correlation of Global AI index to analyze the results and align it with organization overall structure. AIMA assessor will be able to provide AI-Based Road Map for organizations in different sectors and industries.	The purpose of this program is to immerse in Silicon Valley's Artificial Intelligence Industry. This program agenda is built around interactive discussions with the senior executives of top Silicon Valley companies, university professors and investors as well as visits and presentations with innovative startups and product demos. The program is a chance for participants to gain experience-based knowledge from like-minded executives and companies and to learn about the latest trends in disruptive technologies and trends in AI Field.

Suggested Track for Organizations





IAIDL Levels & Modules



IAIDL Basic

For Positive Citizenship



Duration: 5 Days + 1 Day Exam (30 Hours)



Learning Outcome

- ✓ Building the positive citizenship
- ✓ Understand the eight technology tools of managing the future.
- ✓ Understand the impact of artificial intelligence and future management tools
- ✓ The ability to describe the different future management tools
- ✓ The ability to combine the initial knowledge of artificial intelligence and future management tools in real-time applications without prior knowledge in programming.
- ✓ The ability to discuss the importance of each tool and its application and integrate the basic principles of artificial intelligence and future management tools.





IAIDL Basic

For Positive Citizenship



Program Outline

Introduction

Main Outline

- The concept of the Fourth Industrial Revolution
- The Transformation model
- Concepts and Technologies (artificial intelligence & future management tools)
- Challenges and opportunities in the Fourth Industrial Revolution
- Innovation and Artificial Intelligence
- The Eight Future Management Tools
- Artificial Intelligence & Future Management Tools Maturity Assessment
- Building Artificial Intelligence Transformation Teams
- Success Stories

Customized Outline

- AI and Intelligence society, T-shape transformational leader T-skill blocks “Mckinsey Transformational leadership Framework”.
- Leading practices and Case studies of AI and the main 8 supportive future management tools for Positive Emirati citizenship
- Strategic , tactical , operational initiatives for digital citizens
- Artificial intelligence and FMT ecosystem ,strategies ,and Industry 4.0 Required organizational competencies



IAIDL Basic

For Positive Citizenship



Program Outline

BlockChain (Cryptocurrency, NFT, Smart Contract)

Main Outline

Chapter (1) Introduction

- What is Blockchain?
- How BC work?
- What makes BC different?
- What are the BC categories?
- Public vs. Private BC
- Advantages of BC

- Types of Cryptography
- Nodes
- Hashing
- Merkle Tree

Chapter (3) BC Eco Systems

- BC Players
- BC Technologies

Chapter (2) Technical Knowledge

- Distributed Ledger
- Blocks in BC
- Block Header Block Identifier
- Merkle Tree
- Transaction
- Private Key
- Cryptography in BC
- Importance of Cryptography

Chapter (4) BC Mining

Chapter (5) BC Applications

- BC Drawbacks
- Green house of open source BC projects, using different frameworks
- Build Smart Contract



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using Blockchain
- Build your organization BC, NFT, SMART CONTRACT strategies to align, and optimize organization performance

IAIDL Basic

For Positive Citizenship



Program Outline

Autonomous Objects

Main Outline

Chapter (1) Introduction

- What are Autonomous Objects?
- Autonomous Objects' History
- Concepts of Autonomous Objects

Chapter (2) Components and Mechanism

- Parts
- Mechanisms
- Types

Chapter (3) Flying Drones

- Powers Affecting the Flying

Chapter (4) Applications of Drones

- Safety and Security
- Air Feature of Agriculture

- Press from Sky
- Other Applications for Drones

Chapter (5) Flying Drones Licenses

- Obtaining License for Drones
- Integrated Drone System
- Scopes of UAV
- Drones and AI

Chapter (6) Practice

- Using the RDS Stimulation



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using Autonomous Objects
- Technical OKR's for Autonomous Objects



IAIDL Basic

For Positive Citizenship



Program Outline

Internet of Things

Main Outline

Chapter (1) Introduction

- What is Internet of Things (IoT)?
- History of IoT
- Rise of IoT
- Machine-to-Machine Communications

Chapter (2) How IoT Works

- IoT & M2M
- IoT with Key Technologies
- IoT Working Principle

Chapter (3) IoT Revolution

- The Fourth Industrial Revolution
- IoT in Smart Cities
- IoT in Healthcare
- Additional IoT Applications

Chapter (4) Importance of IoT

- Efficient Available Resource Utilization
- Benefits of IoT

Chapter (6) Security and Privacy

- Privacy Challenges & Risks
- Vulnerability to Hacking
- Trust Considerations
- Data Protection
- Future of IoT
- Limitation of IOT



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using IOT
- Learn Hfi standardization, Wave



IAIDL Basic

For Positive Citizenship



Program Outline

Robotics

Main Outline

Chapter (1) Introduction

- What is Robotics?
- About Robotics
- Definition of robots
- Fundamentals of Robotics

Chapter (2) Robotics History

Chapter (3) Era of Industrial Devices

- Basics of Robotics
- Uses of robots

Chapter (4) Components of Robots

- Basic Parts of Robots
- Types of Robots

Chapter (5) Robotics in AI

- Programming Languages

Chapter (6) Robotics in ML & DL

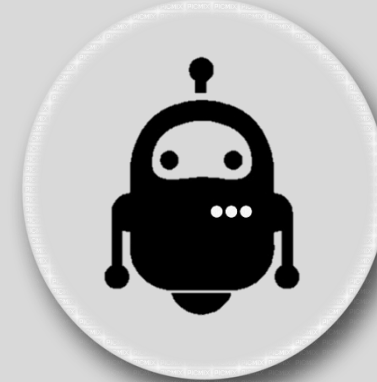
- Robotic in Machine Learning
- Robotics in Deep Learning

Chapter (7) Robots at Home

- SANBOT
- Future of Robots

Chapter (8) Robotics Technologies

- Algorithms and Software



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using Robotics
- Operational Initiatives using RPA –robotics process automation

IAIDL Basic

For Positive Citizenship



Program Outline

3D Printing

Main Outline

Chapter (1) Introduction

- Introduction
- What is 3D Printing?
- History of 3D Printing

Chapter (2) 3D Printing Process

- Using Matter Control Application

Chapter (3) 3D Printing Importance

- Diversity of 3D Printing Applications
- The Ability to Copy Designs
- Low 3D Printing Cost
- Easily Make Various Adjustments
- Accurate Design and Perfect Finished Product
- Multiple Medical Uses

Chapter (4) 3D Printing Materials

Chapter (5) 3D Printing Technologies

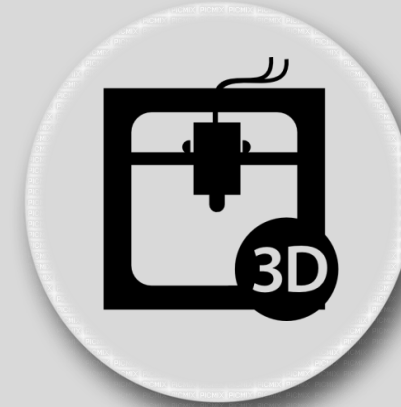
- Stereo-Lithography (SLA)
- Fused Deposition Modelling (FDM)
- Digital Light Processing (DLP)
- Selective Laser Sintering (SLS)

Chapter (6) Strategy for 3D Printing

- Strategy Scope

Chapter (7) 3D Printing and AI

- Raise of 3D Printing
- AI for Measuring Materials
- 3D Printing for AI
- Principle of Printing
- 3D Printing Challenges
- Future of 3D Printing



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using 3D Printing

IAIDL Basic

For Positive Citizenship



Program Outline

Metaverse (VR, AR and XR)

Main Outline

Chapter (1) Introduction

- What is virtually?
- History of Virtually?
- Types of virtually

Chapter (2) Virtual Reality

- About Virtual Reality
- Definition of Virtual Reality
- Old Virtual Reality
- Exploring Current VR
- Types of VR
- Importance of VR
- Virtual Reality Experiences' Integration
- Popular VR Glasses
- Virtual Reality Software
- VR Tools, Devices and Applications

Chapter (3) Augmented Reality

- About Augmented Reality
- History of AR
- Methods of AR
- Augmented Reality Devices
- Benefits of AR

Chapter (4) VR, AR and XR

- Similarities
- Differences
- Integrations
- Future of VR, AR and XR

Chapter (5) Practical Session

- Using Unity Application



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using Metaverse

IAIDL Basic

For Positive Citizenship



Program Outline

Smart Big Data

Main Outline

Chapter (1) Introduction

- What is Big Data?
- Types of Big Data
- Big Data Overview
- Big Data Dimensions
- Facts of Big Data

Chapter (2) Data Science

- Data Science vs. Data Analytics
- What is Data Science?
- What is data analytics?
- Differences between DS and DA
- Case Study

Chapter (3) Extracting Big Data

- Data Extraction and Big Data
- Benefits of Big Data

- Acceleration Plan
- Big Data Usability
- Big Data Pipeline
- Big Data Management

Chapter (4) Data Visualization

- Types of Visualizations
- Big Data Sources
- Big Data Architecture
- Big Data Solutions' Structure

Chapter (5) Hadoop DFS

- Hadoop Distributed File System
- About Hadoop
- Hadoop Components
- SQL vs. Hadoop
- Big Data Warehouses
- Big Data Uses
- Big Data Best Practices



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using Smart Big Data

IAIDL Basic

For Positive Citizenship



Program Outline

Artificial Intelligence

Main Outline

Chapter (1) Introduction

- What is AI?
- History of AI
- Why AI is Important?

Chapter (2) A Deep Look at AI

- Human Intelligence vs. Artificial Intelligence
- Categories of AI
- AI in Real Life
- Demand for AI
- Programming Languages for AI

Chapter (3) Machine Learning

- Simplifying Machine Learning
- Machine Learning Process
- Machine Learning Features

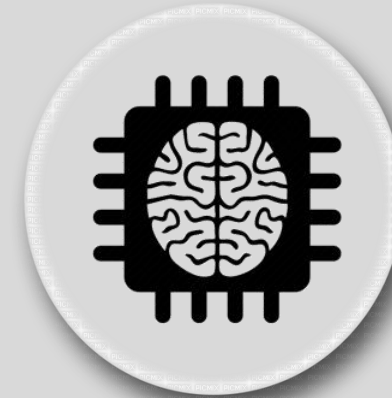
- Types of Machine Learning
- Machine Learning Terms
- Machine Learning Process and Algorithm
- Comparing ML Types
- Machine Learning Algorithms
- Who Uses Machine Learning?
- Programmer at Glance

Chapter (4) Deep Learning

- Deep Learning in AI
- Neural Networks
- Example for Deep Learning
- Multilayer Perceptron Algorithm

Chapter (5) Practical Applications

- RapidMiner Studio
- Application Interface
- Deep Learning Studio



Customized Outline

- Use cases and projects within the United Arab Emirates and worldwide.
- How to Build a Competitive Advantage using AI



IAIDL Basic

For Positive Citizenship



Program Outline

Brief About AIMA

Main Outline

- The concept of AI & FMT Maturity Assessment
- The Importance of AI & FMT Maturity Assessment
- Best international practices in AI & FMT Maturity Assessment and AIMA tools as a leading practice.
- How to apply AIMA to enterprises.



Customized Outline

- How can we develop a competitive advantage for the UAE and understand AI strategy?
- Align with Oman 2040, Oman strategy, and future foresight objectives.
- Align Oman Values with Transformational Leadership.



IAIDL Basic

For Positive Citizenship



Program Outline

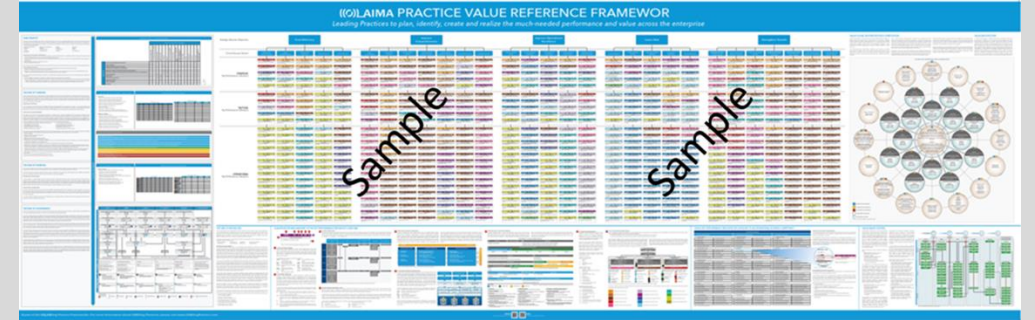
Value Proposition

Main Outline

**Value Proposition for AI & FMT using Technology
Value Tree and Exponential Growth**

Customized Outline

Full-day gamification case study using AI & FMT tools and value map (building your I-transformation map for your organization)



IAIDL Basic

For Positive Citizenship



Supportive Tools

Duration: 1 Day

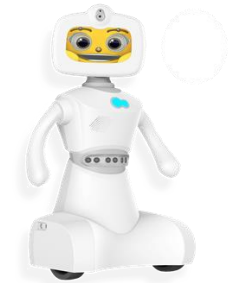
Supportive tools that will be used during the delivery of IAIDL Basic, IAIDL Advanced and AIMA in which the candidates will be able to deal and develop effectively deferent case studies and applications



VR Machine



Drone



Open Source Robot



PC

Required Software

- ROS Application
- Unity / Varwin
- RDS Simulator
- Moodi
- Aurdino
- RapiMiner
- Ethereum
- Hadoop
- Matter Control



3d Printer



IOT kit



AIMA Assessor

For Positive Citizenship



Duration: 3 Days + 1 Day Exam (18 Hours)



Learning Outcome

- ✔ Provide the participants with an insight about the importance of Future Management tools across business lines.
- ✔ Focus on the fundamental process of data management and the techniques to strategically analyze data to reach deep learning model in accelerated organization behavior.
- ✔ Create a clear picture of the report outcomes by establishing a relationship between the different categories and process areas.
- ✔ Help in implementation of leading practices of future Management tools with the services implementation.
- ✔ Accelerate the transformation toward data drive organizations





AIMA Assessor

For Positive Citizenship



Program Outline

An Introduction to the AIMA

- THE AIMA AUTHORIZED AI and FMT ASSESSOR®
- Critical Pillar Rationale
- AIMA PROCESS
- COMPATIBILITY AND RELEVANCE
- AIMA AND THE 'WORLD ECONOMIC FORM'
- CODE OF CONDUCT

Concepts in AI and FMT Maturity

- Concepts in AI and FMT Maturity

SCORING GUIDELINES — AI MATURITY ASSESSMENT TOOL

Evaluation approach

- Introduction
- General Guidelines
- AI Maturity Levels
- Levels of AIMA 3 not 5
- Assessment Process
- DETAILED ASSESSMENT APPROACH
- Targeted Dialogue Forms

AIMA at a glance

- Transformation Culture
- The Tool
- The Organization

AIMA Input and Organization DNA with the AI and FMT tools

- AI and FMT strategy
 - Transformation & Leadership
 - Values/ Beliefs of transformation
 - Technology adaptability
 - Culture & Environment
- PROCEDURES AGILITY
 - Transformed service structure.
 - Governance Processes
 - Governance Metrics
 - Roles & Responsibilities in transformation Journey
- AI and FMT finance and investment
 - Funding
 - Budget Management
 - External Investment

- Transformation enablers and Implementation
 - Tools insights
 - Talents development and competencies management
 - Technology and FMT Infrastructure
 - Environment and ecosystems

- Ai and FMT tools Maturity
 - Engagement

- Intelligence and tech innov Imposition
 - Recognition & Rewards
 - ICT & Public Relations
 - Research and development “pocs”

Report Reflections and Action Plan

- How to Read the AIMA

Follow-up on AIMA Report

- THE AIMA FOLLOW UP PROCESS
- AIMA® Assessment Lead Time

Global AI Index and AIMA

- Structure of AI index
- Why capacity
- Benefits of Reflections
- Capacity and Intensity Rationale
- Cross reference attributes and Supportive maturity indicators



Thank You!

For Inquiries Contact:

-  **Thaer Rahal**
-  **thaer.rah@dqg.org**
-  **+971 56 545 7412**

