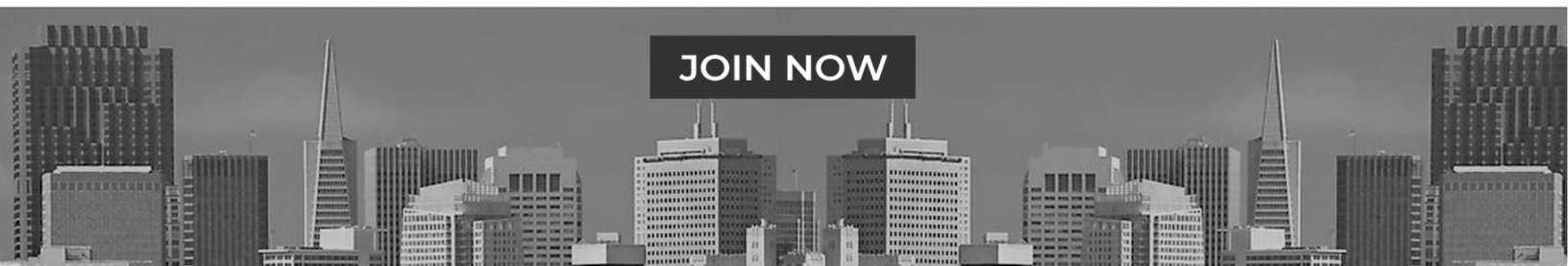
International Management Research
and Technology Consortium – LLC - USA

AI – CLSSGB
AI POWERED
CERTIFED LEAN
SIX SIGMA
GREEN BELT

www.imrtc.org
consortium@imrtc.org

Bridging The Gap Between
Academia and The Industry
Worldwide!

Contents



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IMRTC

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AI CERTIFIED LEAN SIX SIGMA GREEN BELT (AI - CLSSGB)

INTRODUCTION

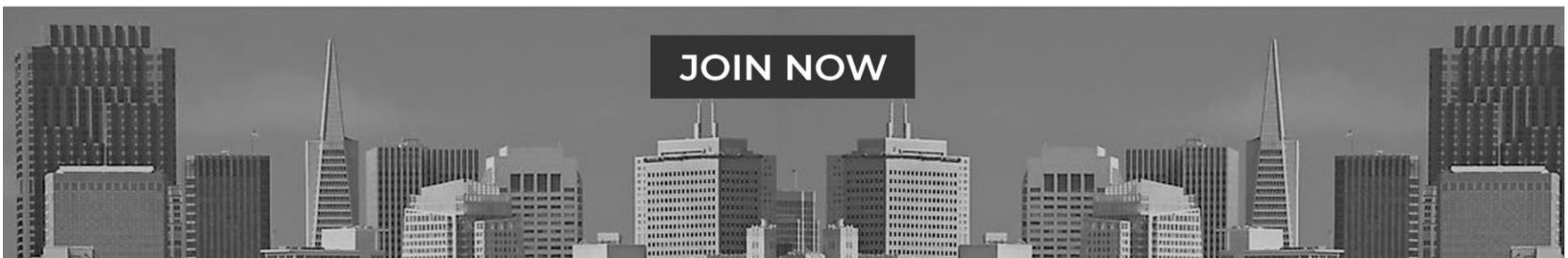
There is a global need of market and requires competent Six Sigma Certified Green Belt Managers, who know about the Lean process and optimization of business processes with business process re-engineering techniques and methodologies. Being a recognized consortium, IMRTC devise a comprehensive curriculum of lean six sigma green belt with emerging technologies of AI. IMRTC recognize the need of market with the consultation, senior members, executives and consultants and has come up with a comprehensive certification program that is **AI CERTIFIED LEAN SIX SIGMA GREEN BELT (AI - CLSSGB)**

ABOUT AI - CLSSGB

AI LEAN SIX SIGMA GREEN BELT - CLSSGB is required to develop the necessary expertise and skills for Quality, Production, Operations, and Service related people. The ultimate goal of this certification is: the management can increase the productivity of the organization by reducing cost effective outcomes through lean processes and using of latest advanced technology of AI (Artificial Intelligence) to make it more effective and efficient. AI LEAN SIX SIGMA GREEN BELT – AI CLSSGB content covers the areas of Quality Cycle, Lean Management, Qualitative and Quantitative Assessment of Processes, and strategic approaches to operational Management of businesses through information technology ERP, CRM and AI systems. The program follows a systematic learning format with a hands-on approach including a lot of exercises, quizzes, audio-visual aids, case studies, practice sessions, and case studies for the development of the project.

AUDIENCE

Anyone belongs from Quality, Production, Manufacturing and/or Service Industry, can avail this excellent professional qualifications. It is most suitable for Managers, executive assistants and supervisor in any sector, who are involved directly or indirectly with it.



AI - CERTIFIED LEAN SIX SIGMA GREEN BELT (CLSSGB)

THE CREDENTIALS

The Candidates who are looking to have this certification need a proper training of 36 Professional Training Hours (PTH) from any recognized institute and approved professional trainers of IMRTC. After passing the certification examination, the candidates can use the credentials AI CERTIFIED LEAN SIX SIGMA GREEN – AI CLSSGB with their names.

PRE-REQUISITE:

Bachelor's degree (high school professional diploma, associate's degree or the global equivalent)

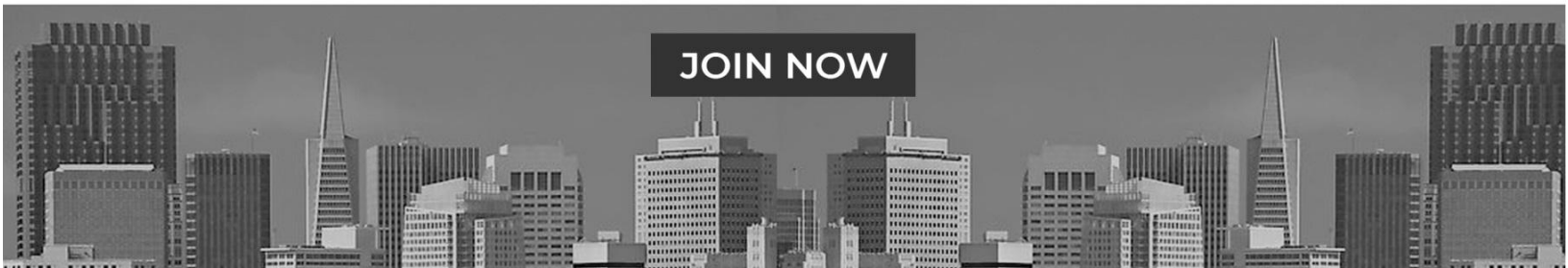
One years of professional experience in Quality, Manufacturing or Any Service Industry

AI CERTIFIED LEAN SIX SIGMA GREEN BELT (AI CLSSGB)

PROFESSIONAL BENEFITS OF PROGRAM

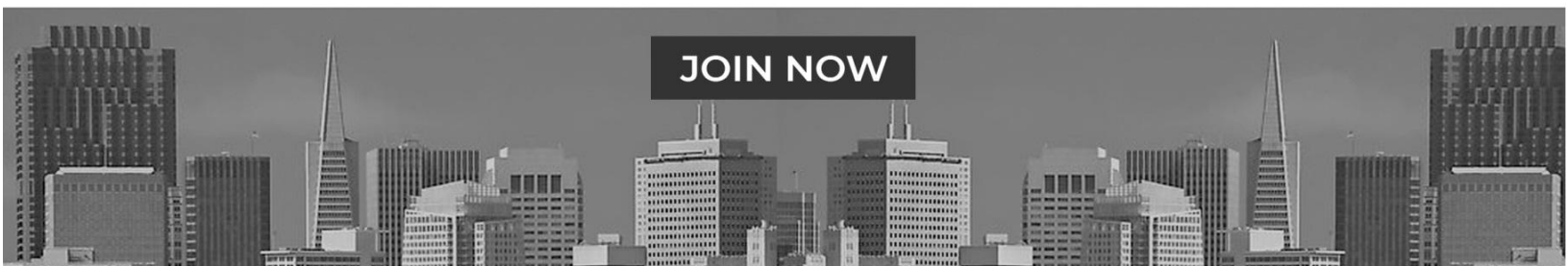
An **AI Certified Lean Six Sigma Green Belt (AI CLSSGB)** is a valuable credential that demonstrates expertise in improving problem solving and analytical skills, ability to lead process improvement project, increases cross industry applicability, reducing waste, and driving quality improvements and improved organizational impacts. Here are the key benefits of earning this certification:

1. **Career Advancement**
   - An AI-CLSSGB certification enhances your resume and makes you a strong candidate for leadership and managerial roles in various industries.
   - Employers value professionals who can drive process improvements and manage cross-functional teams effectively.
2. **Increased Earning Potential**
   - Certified professionals often earn higher salaries due to their specialized skills and ability to deliver measurable business results.
   - A AI-Six Sigma Green Belt certification is often associated with premium roles in organizations.
3. **Expanded Career Opportunities**
   - Industries such as manufacturing, healthcare, IT, finance, logistics, and consulting frequently seek Lean Six Sigma Green Belts.
   - The certification demonstrates versatility and relevance across sectors.
4. **Leadership Skills**
   - Green Belts are trained to lead and mentor teams, fostering leadership qualities essential for project and change management.
5. **Improved problem solving and analytical skills**
   - Green Belt professionals learn to apply statistical tools and problem-solving methodologies to identify inefficiencies, improve processes, and reduce variability. This training helps develop strong analytical skills that can be applied to various business scenarios.



PROGRAM STRUCTURE

Total Domains	8
Lectures	Lectures can be delivered through partners and trainers
Accredited Trainers	Can Deliver the lectures
One Credit Hour	10 Learning Hours
Total Credits Required	3.6 Credit Hours
Registration Process	Register through our partners / Trainer
Assessment	Online / Paper based
Passing Criteria	70 percent

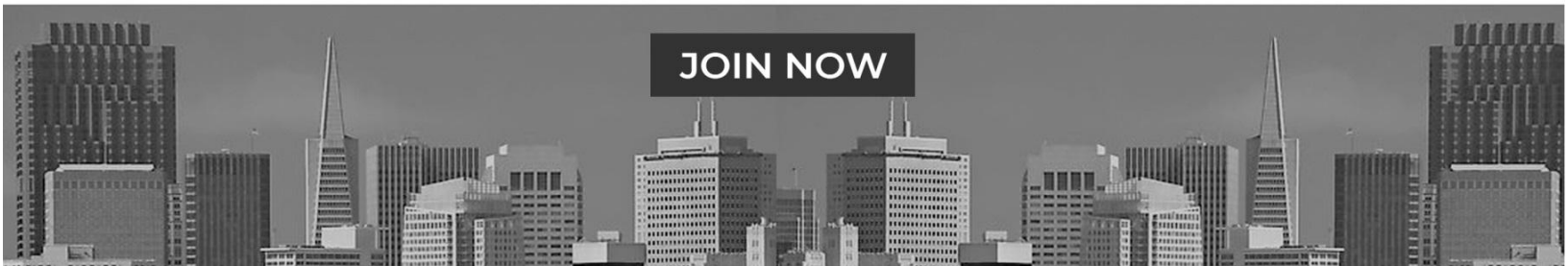


PROGRESSION OF THE PROGRAM

Total Credentials	=	3.6 Credit Hours
One Credit Hour	=	10 Learning hours
Final Assessment	=	Online or physical assessment shall be taken by IMRTC Examination Department

AWARDING OF AI - CLSSGB CERTIFICATION

After getting 70 percent marks from the examination, the candidate will be awarded the AI-CLSSGB Certification from IMRTC USA.



COURSE CONTENTS

AI powered Certified Lean Six Sigma Green Belt Covers theory, process and practices of Lean and Six sigma skills

DOMAIN 1: Define Phase

DOMAIN 2: Measure Phase

DOMAIN 3: Analyze Phase

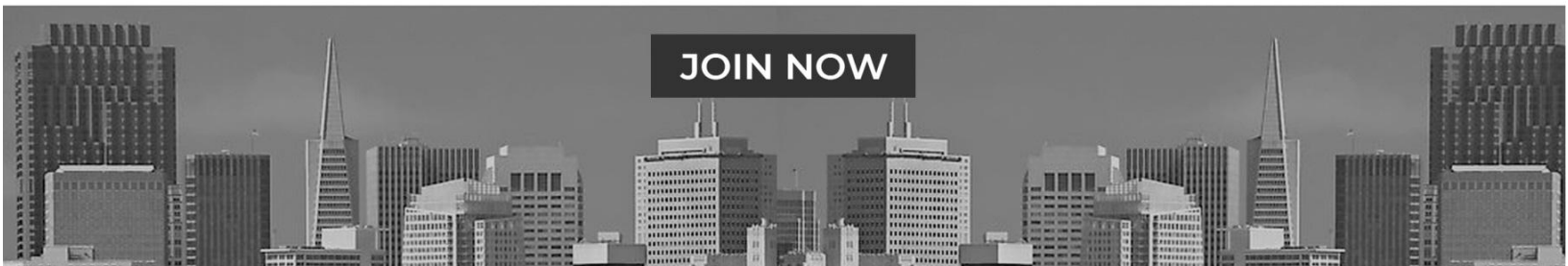
DOMAIN 4: Improve Phase

DOMAIN 5: Control Phase

DOMAIN 6: Lean Tools

DOMAIN 7: Statistical Tools and Techniques

DOMAIN 8: Project Management and Teamwork



DOMAINS AND TASKS

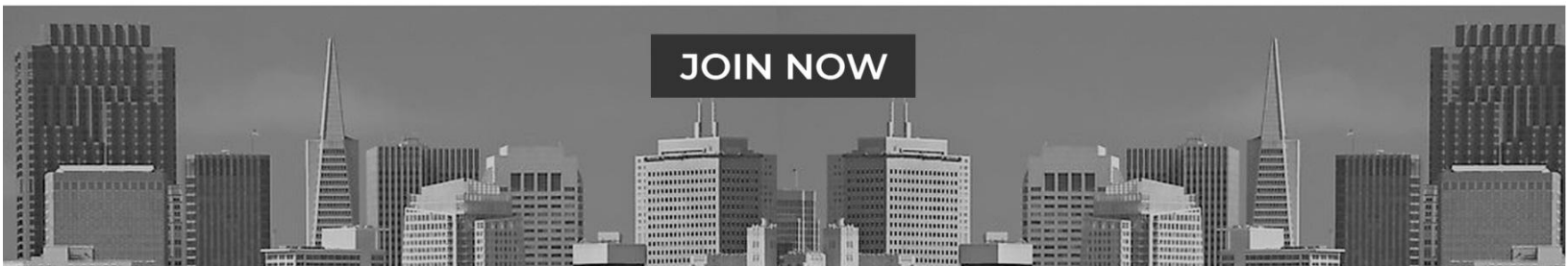
In this document, you will find an updated structure for the IMRTC Standard Examination Content. Based on Experience Consultants and stakeholders, we have devised and simplified the format so that the IMRTC Examination System can be easier to understand and interpret.

The domain and task are well-defined on the following pages:

Domain: Defined as the high-level knowledge area that is essential to the practice of AI -CLSSBGB.

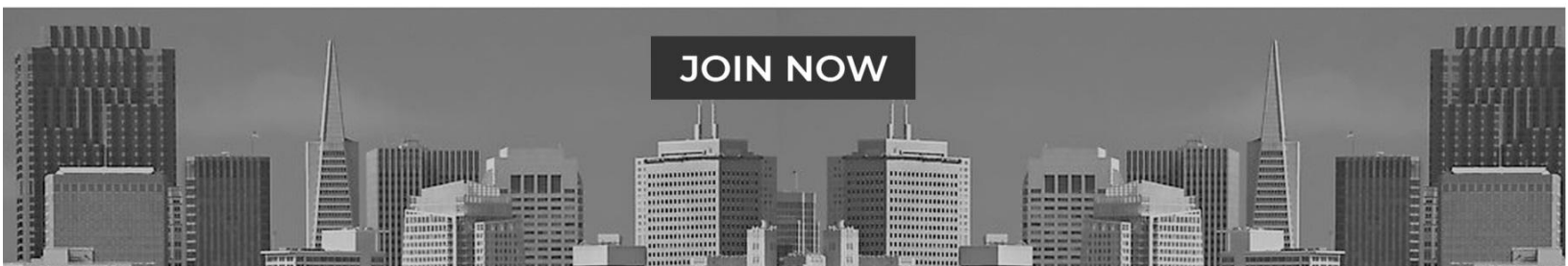
Tasks: The underlying responsibilities of the Quality Consultants within each domain area.

AI - CLSSBB Course examination will include all tasks for a domain and will adhere to the percentage of coverage at the domain level as outlined in the further pages.



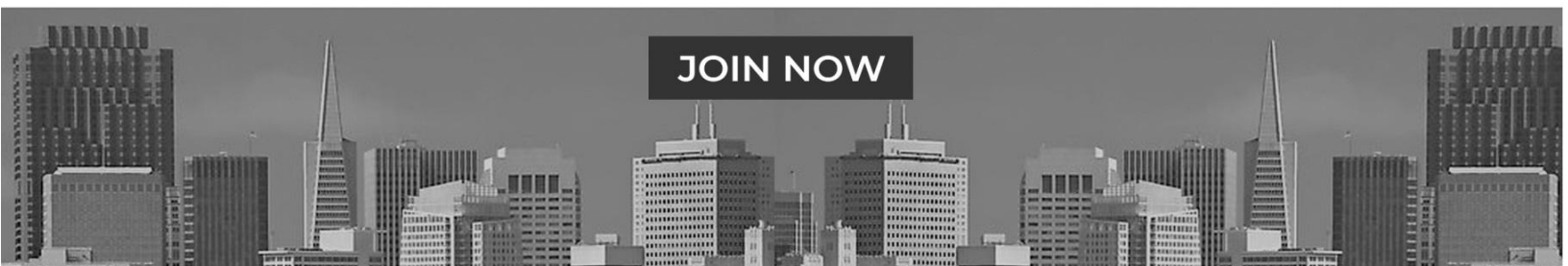
KNOWLEDGE AREAS

Domain 1: DEFINE PHASE	
Task 1	Project Identification and Selection Identifying improvement opportunities aligned with business objectives. Defining the scope and goals of the project.
Task 2	Voice of the Customer (VoC) Gathering and translating customer requirements into measurable objectives.
Task 3	Project Charter Development Documenting project objectives, scope, team members, and milestones. Stakeholder Analysis Identifying and managing stakeholders to ensure project success.
Task 4	Fundamentals of AI Understanding of NLP (Natural Language Processing) tools Learn how that customer feedbacks, surveys, emails and social media pain point can be encountered through AI techniques. Machine learning models can assess historical project data to predict potential ROI and select high-impact initiatives.



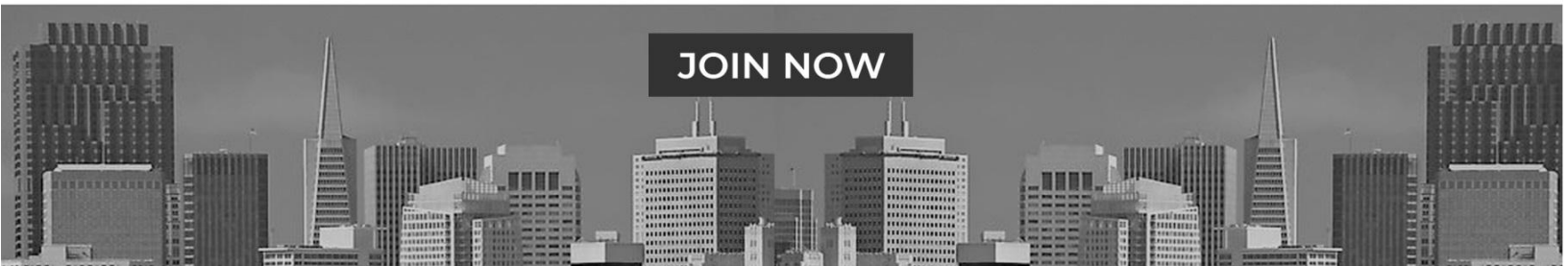
KNOWLEDGE AREAS

Domain 2: MEASURE PHASE	
Task 1	**Process Mapping and Documentation** Creating detailed process maps (e.g., SIPOC, value stream mapping).
Task 2	**Data Collection and Sampling** Designing data collection plans. Sampling techniques to ensure data reliability
Task 3	**Measurement System Analysis (MSA)** Evaluating the accuracy and precision of measurement systems.
Task 4	**Descriptive Statistics** Understanding central tendency, dispersion, and data distribution.
Task 5	**Baseline Performance Metrics** Calculating process capability indices (Cp, Cpk, Pp, Ppk).
Task 6	Learn and understand that how automated process mapping can be done through AI Computer Vision to read SOPs or workflows and covert into the digital process maps Learn and understand AI sampling and data collection techniques Learn predictive analytics to find the gaps and detect anomalies in available data Learn IoT (Internet of things) for understanding of latest trend of technology that integrates with other systems and provide real-time information



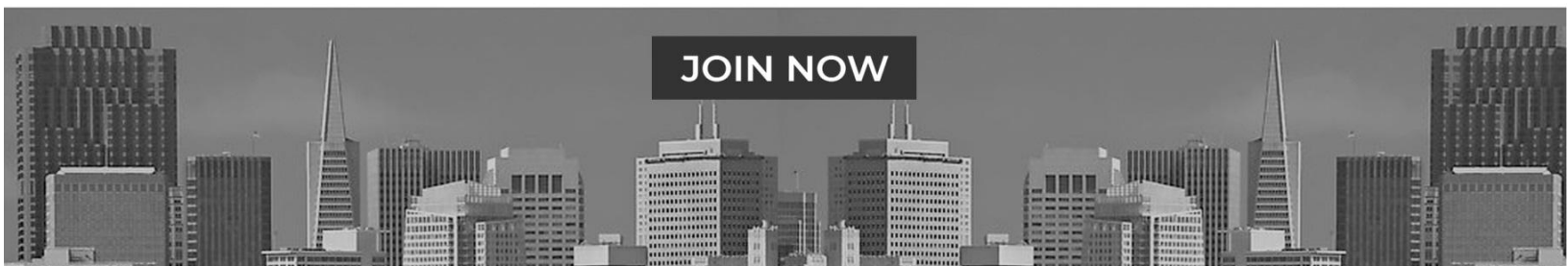
KNOWLEDGE AREAS

Domain 3: ANALYZE PHASE	
Task 1	**Data Analysis Tools** Hypothesis testing (e.g., t-tests, ANOVA, Chi-square tests). Correlation and regression analysis.
Task 2	**Root Cause Analysis (RCA)** Using tools like Fishbone diagrams, Pareto charts, and 5 Whys
Task 3	**Failure Mode and Effects Analysis (FMEA)** Identifying potential risks and their impact on the process.
Task 4	**Process Variability Analysis** Analyzing sources of variation in the process.
Task 5	**AI Modelling** Learn and Understand that how AI algorithms can provide Hypothesis testing on the available datasets by using different statistical modelling techniques Learn and Understand by using AI Predictive Analytics Provide the reports of Risks and root cause analysis by using Machine learning techniques to detect correlations and causes beyond what standard statistical tools find Learn and Understand about AI Driven anomaly detection to find the abnormal pattern in production or service delivery. Learn and Understand AI Natural Language with text-based complaints to classify issues automatically



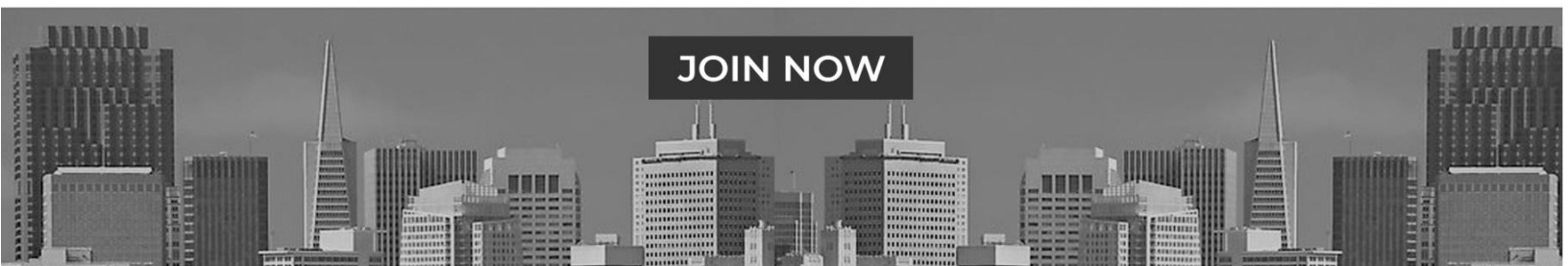
KNOWLEDGE AREAS

Domain 4: IMPROVE PHASE	
Task 1	**Brainstorming and Solution Development** Generating and prioritizing potential solutions.
Task 2	**Lean Tools and Techniques** Implementing tools like 5S, Kaizen, and Kanban.
Task 3	**Design of Experiments (DOE)** Conducting experiments to optimize process parameters.
Task 4	**Cost-Benefit Analysis** Evaluating the feasibility and impact of proposed solutions.
Task 5	**Learn and Understand AI-assisted brainstorming**: Generative AI tools to suggest process improvements based on global best practices. **Learn and Understand Digital twin simulations**: Test proposed changes in a virtual model before actual implementation. **Learn and Understand AI-driven optimization**: Use genetic algorithms or reinforcement learning to find optimal process parameters.



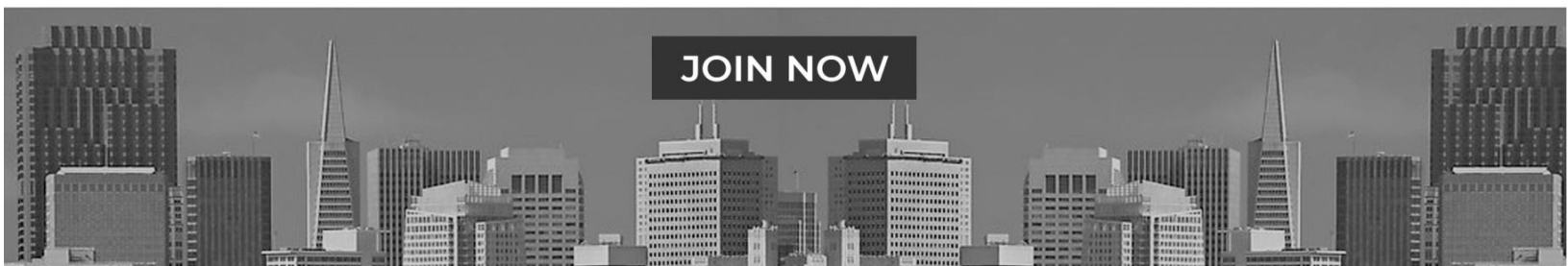
KNOWLEDGE AREAS

Domain 5: CONTROL PHASE	
Task 1	**Control Plan Development** Documenting steps to sustain improvements.
Task 2	**Statistical Process Control (SPC)** Using control charts to monitor process performance.
Task 3	**Mistake Proofing (Poka-Yoke)** Implementing error-proofing techniques.
Task 4	**Sustainability Measures** Ensuring long-term adoption of improvements.
Task 5	**Project Closure and Handover** Transitioning ownership to process owners and documenting lessons learned
Task 6	Learn and Understand that by Using Real-time AI monitoring dashboard connects with SPC charts to send automated alerts when performance drifts. Learn and Understand that by Using Predictive maintenance techniques of AI anticipate equipment failures and reduce downtime. Learn and Understand that by Using that how Chatbots helpful for standard operating procedures and provide guidance through AI assistants.



KNOWLEDGE AREAS

Domain 6: LEAN TOOLS	
Task 1	Waste identification and elimination (e.g., TIMWOOD: Transportation, Inventory, Motion, Waiting, Overproduction, Over processing, Defects).
Task 2	Value Stream Mapping (VSM) for process flow analysis
Task 3	Continuous Flow and Pull Systems
Task 4	Learn and understanding of AI Computer vision to find waste detection**,** motion, defects, or misplacement in production through AI cameras**.** Learn and understanding of AI-enhanced value stream mapping through Process mining software generating live value stream maps from ERP logs.

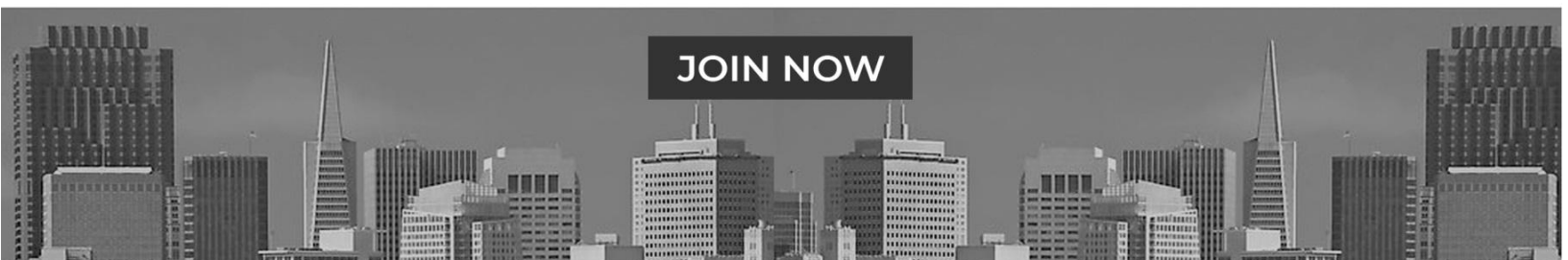


KNOWLEDGE AREAS

Domain 7: STATISTICAL TOOLS AND TECHNIQUES	
Task 1	**Data Analysis and Statistical Methods** Basic understanding of statistics (mean, median, mode, standard deviation) Applying statistical tools for analyzing data and making informed decisions Use of software tools like Minitab or Excel for analysis
Task 2	**Tools & Techniques:** • Descriptive Statistics • Hypothesis Testing • Confidence Intervals • Analysis of Variance (ANOVA) • Regression Analysis • Control Charts
Task 3	Learn Data Science with python Using different data models and generate the patterns by using AI algorithms Integrate Excel with AI and develop the data patterns accordingly

KNOWLEDGE AREAS

Domain 8: PROJECT MANAGEMENT AND TEAMWORK	
Task 1	**Managing Projects and Leading Teams** Understanding project management principles and frameworks (e.g., DMAIC) Leading project teams and effectively communicating project progress Time management, task allocation, and resource management Managing change and engaging stakeholders
Task 2	**Tools & Techniques:** Gantt Charts Work Breakdown Structure (WBS) Team Roles and Dynamics Communication Plans
Task 3	Learn and understand that AI Project Management AI Performance Evaluation, comparison, drifts and variance analysis

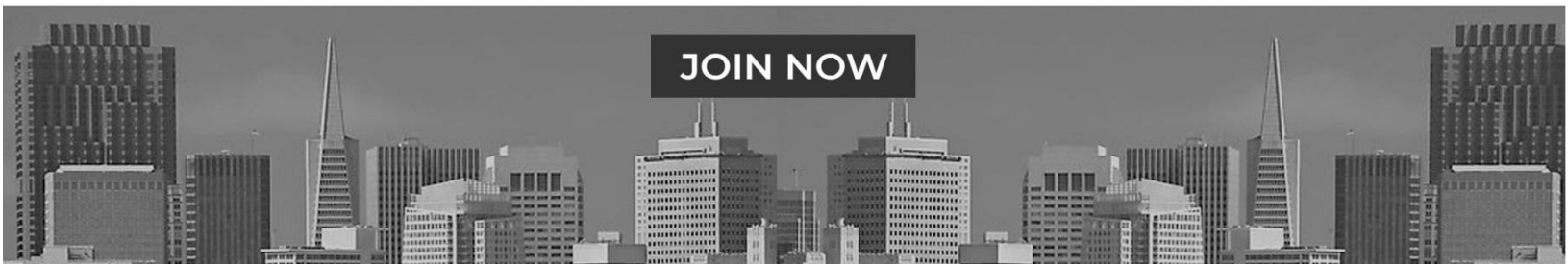


ASSESSMENT OF PROGRAM (ONLINE/PHYSICAL)

- The exam paper will be online/physical as per the choice of the candidate, but it is preferable to give the exam online.
- The exam paper will cover the above topics domain-wise.
- The Passing marks will be 70%.
- Internal Marks can be adjusted in the final marks through accredited trainers by obtaining prior permission from our Examination Department of IMRTC.
- Those candidates who cannot be able to give online tests due to online facility. So they are allowed paper-based examinations. Otherwise, the partner must arrange the center for the online exam as per the guidelines of the Examination Department
- Assessment will be done according to the domains and tasks mentioned above through our online methodology

EVALUATION AND GRADING

- The student will be examined through exams conducted by IMRTC LLC USA. Total marks for passing the CERTIFICATION/DIPLOMA will be 70 out of 100.



AI CLSSBB ELIGIBILITY REQUIREMENTS

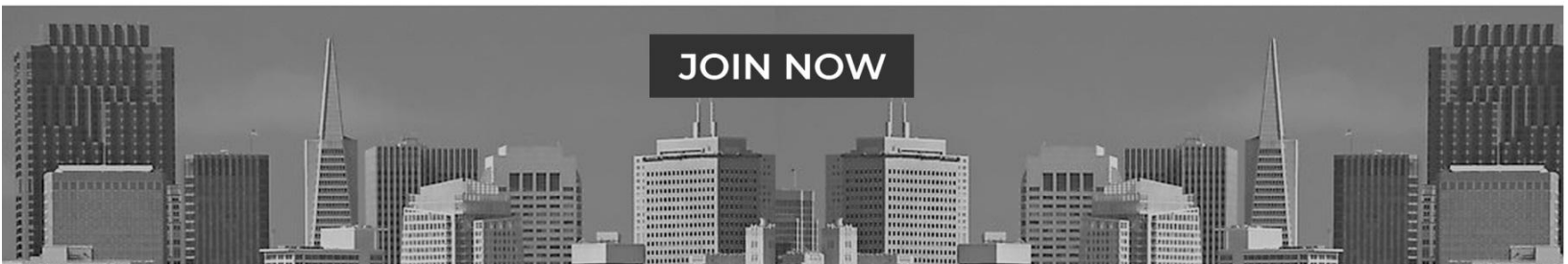
To be eligible for the AI-Certified Lean Six Sigma Green Belt for any level, the candidates must have a 2 years Bachelor degree pass or equivalent by having One-Year market experience. The candidate should have to submit the credentials

Educational Background	**Certification / Diploma**
Bachelor degree Passed or Equivalent	Must be earned from any partner institute about 4 Credit hours course training
Professional Experience	**Certification / Diploma**
One year Minimum Professional Experience Required	From any professional organization or company

REGISTRATION AND PAYMENT PROCESS

REGISTRATION PROCESS

Registration of the program is to be completed through our registered partners and if the partners are not available in your city or country then you can download this registration form and submit the fee in our bank account directly and wait for the email or contact from our Registration or Examination Department. For further information to our examination department contact at registration@imrtc.org.



IMRTC EXAMINATION SYSTEM

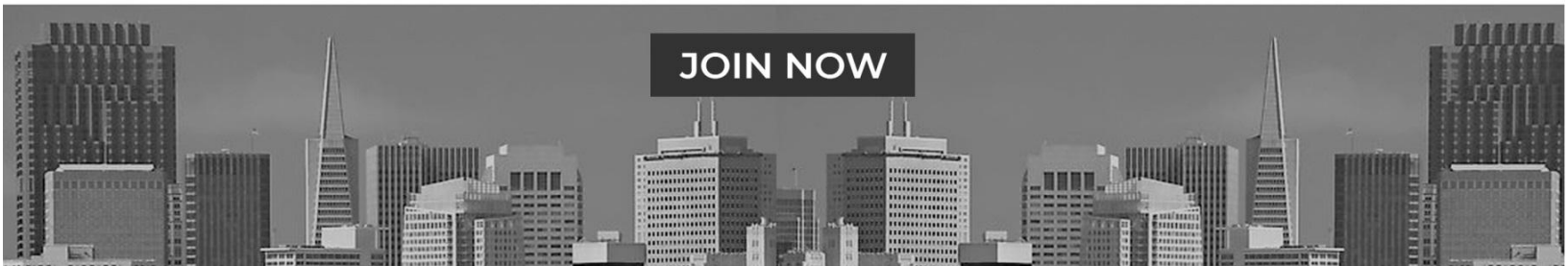
AI CERTIFIED LEAN SIX SIGMA GREEN BELT CERTIFICATION

PARTNER INSTITUTE INTERNAL EXAMINATION SYSTEM

The concerned partner/institute/trainer will take examinations online and submit to the International Management Research and Technology Consortium Examination Department.

IMRTC ONLINE EXAM SYSTEM

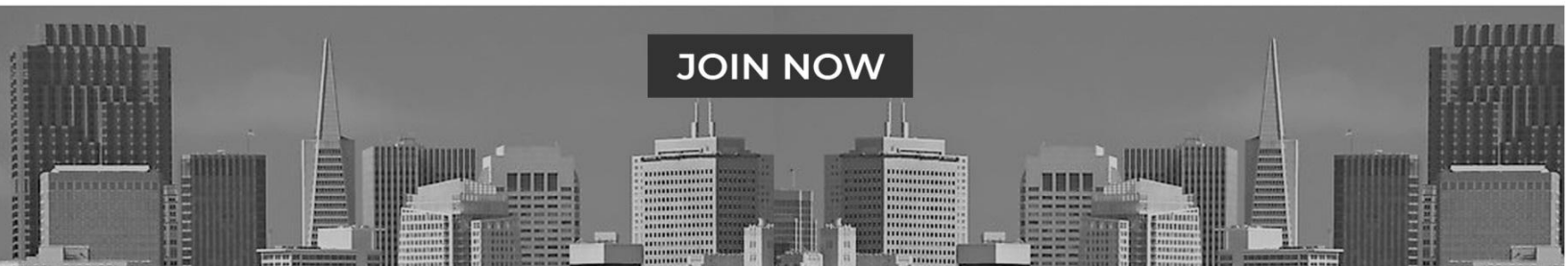
IMRTC will provide access to all partners to schedule the exams of the particular courses of any individual candidates. Therefore, according to the availability, the partner institutes will schedule the exam of individual candidates' subjects or courses/certifications.



FEES STRUCTURE

CERTIFIED LEAN SIX SIGMA GREEN BELT

S. No	Description	Fees
1.	Membership Fee	USD 50
2.	Examination Fee For Non Members	USD 299
3.	Examination Fee For Non Members	USD 199

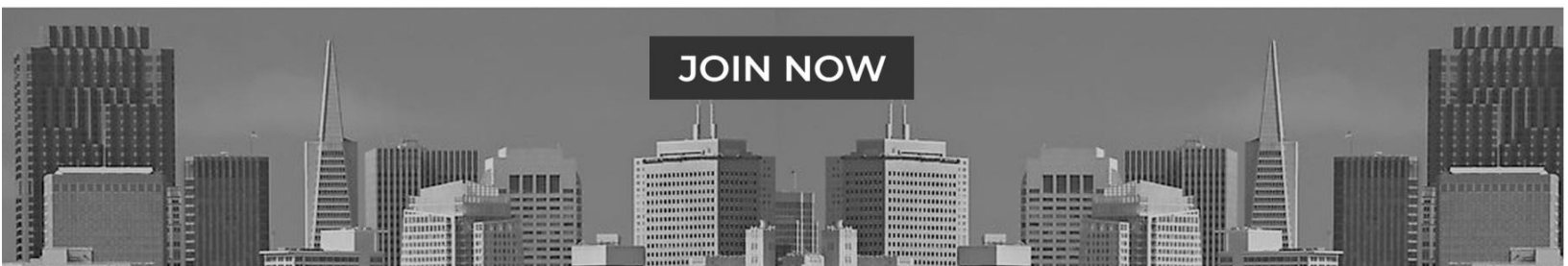


PROCESS OF CERTIFICATION

To get the certification, 36-Professional training hours as PTH is mandatory from any concerned professional trainer or Partner, and participants should have to submit their training PTH with the Examination Application Form with the attachments of required qualifications and other experience certificates/letters. The Paper is based on 100 Questions with MCQs and 70% passing marks is required to pass the exam. Further, if the Project is also included in your exam, marks will be distributed according to course & certification.

TERMS & CONDITIONS RELATED TO EXAMINATION AND CERTIFICATION

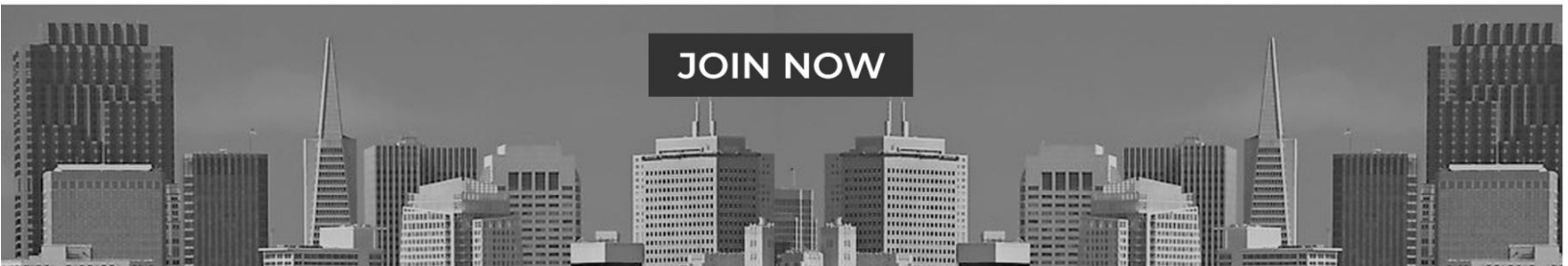
- The 36-Training-hours as PTH are valid up to one year.
- If the candidate is failed in the examination then S/he has one more chance to attempt the paper within a year, and if the candidate cannot not passed, then they have to pay the examination fee and re-appear in the examination.
- If the candidate has not passed the examination within one year and after sometime S/he would like to appear in the examination then candidate must to resubmit 36-Professional-Training-hours as PTH again required to appear in the examination.
- The examination system is online and candidate can book the exam anytime according to his or her availability.
- Those countries, who do not have the facility of online examination facility then they can give the paper based examination, which can be sent to authorized partner / trainers / examiner. The assessment time will be a month and we will be sent the results to concerned partner.
- The candidate will get the certificate within one month and administration will sent to the concerned partners.
- To maintain the worth and eligibility in the market, the candidate must have to renew their membership on yearly basis.



EXAM CONTENT PERCENTAGE

The table below prescribes the proportions of examination questions from each section or Knowledge Areas defined above. The exam will be based on multiple choice questions, fill in the blanks and letter writing.

CONTENT	DOMAIN WISE PERCENTAGE
DOMAIN I	11%
DOMAIN II	11%
DOMAIN III	11%
DOMAIN IV	11%
DOMAIN V	11%
DOMAIN VI	15%
DOMAIN VII	15%
DOMAIN VIII	15%



CONTACT DETAILS

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