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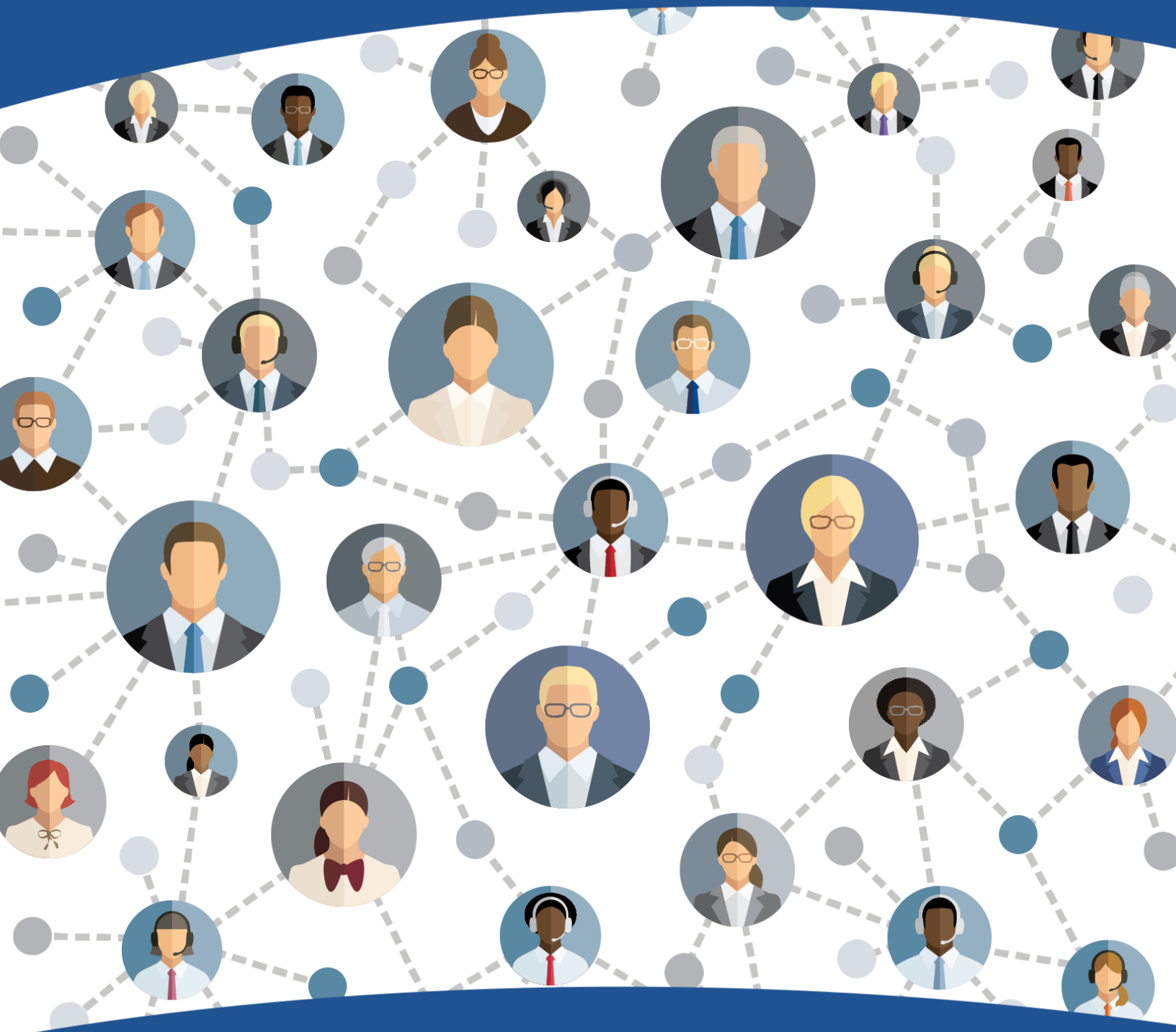

WINNER OF THE AWARD FOR THE BEST TRAINING INSTITUTE IN THE GULF

Process Plant Optimization Technology and Continual Improvement

INTRODUCTION

- Process Plant Optimization plays very important role in today's industrial world. For optimization benefits to be substantial, cost of production including operation interruptions must be kept to a minimum. This requires effective management of maintenance operations and optimization of equipment and plant reliability and availability. This also involves effective inspection and maintenance strategies, planning methods. Plant optimization can be an effective way to achieve improved profitability
- Important aspect of process plant optimization is related to system energy management and energy consumption reduction. Industrial processes and systems offer significant potentials for savings. Process changes such as advanced controls and new technologies also present opportunities for plant optimization.
- This Process Plant Optimization Technology and Continual Improvement training course will provide a comprehensive review of the various aspects of process plant integrity as the essential foundation for sustainable plant profitability and optimization.

OBJECTIVES

- To assist participants in understanding the main elements of plant optimization the way how to achieve and realize potential benefits
- To enhance the business focus of participants and equip them to make more contributions to sustainable plant profitability
- To equip maintenance professionals, planners and engineers with the knowledge to select the most appropriate methodologies for their maintenance decision-making
- To learn how to identify the potential for reduction of energy consumption
- To provide participants with practical and effective methods and tools to perform technical and economic evaluations of the alternatives

TRAINING METHODOLOGY

- This Process Plant Optimization Technology and Continual Improvement training seminar will be conducted along workshop principles with formal lectures and interactive worked examples. The emphasis in this training will be on the explanation of all technical phenomena and providing answers to problems that are encountered in everyday industrial practice related to maintenance, repair and alterations of process equipment. Each learning point will be reinforced with practical examples. There will be ample opportunities for active discussion and sharing professional experiences and exchange that will help solidify the gained knowledge. All course materials will be provided.

ORGANISATIONAL IMPACT

- Optimization of process plant operation, including equipment efficiency, energy consumption and maintenance management, is vital to the budgetary success of the organisation. On completion of this Process Plant Optimization Technology and Continual Improvement training seminar, the delegates will be able to critically analyse the methodologies employed within the organisation and instigate improvements where required.

PERSONAL IMPACT

- Technical knowledge is a key to effective control and peer respect within any process plant organisation. This Process Plant Optimization Technology and Continual Improvement training seminar will enable the delegates to achieve the required level of technical knowledge and skill that will be used effectively in their professional duties. With new knowledge and experience gained during the course, the delegates will achieve a great deal of personal satisfaction.

WHO SHOULD ATTEND?

- Process plant technical professionals: engineers, technicians and operators
- Engineers, supervisors, operations and maintenance personnel, as well as for project engineers
- Engineering and technical personnel involved in improving process plant profitability and energy efficiency

Course Outline

Overview of Optimization Technologies

- Overview of Optimization Technologies for Process Plants
- Elements of Process Plant Optimization Procedure
- Constraints in Optimization: Production, Operation, Economy and Environment
- Optimization Approaches: Mathematical Models and Physical Models – prototype units
- Correlation between Process Optimization and Process Control in Typical Process Plant
- Workshop: Examples and Solutions

Reliability, Availability and Effectiveness

- Relationship between Plant Reliability and Availability
- Optimization of Plant Reliability
- Optimization of Plant Availability through Improved Maintenance
- Analysis of Effectiveness of Individual Equipment
- Optimization of Overall Plant Effectiveness
- Workshop: Examples and Solutions

Best Practices for Energy Consumption

- Optimization Strategies Aimed at Energy Consumption Reduction
- World Standards and Benchmarking Guidelines
- Best Practices in Process Plant Energy Management
- Energy Conservation Check List in Typical Industrial Plants
- Optimization of Heat Production and Steam Distribution and Consumption
- Workshop: Examples and Solutions

Maintenance Management System

- Optimization of Utilization of Piping Systems and Pipelines
- Optimization of Utilization of Pumps, Compressors and Fans
- Optimization of Maintenance Management System and Frequency of Maintenance
- Optimization of Spare Parts Management through Predictive Maintenance
- Optimization of Repair and Alteration Programs in Accordance to Existing Codes
- Workshop: Examples and Solutions

Minimization of Equipment Failure

- Risk Based Inspection (RBI)
- Procedures for Minimizing Risk of Equipment Failure
- Fitness For Service (FFS) Analysis and Estimate of Remaining Life of Equipment
- Optimization of Plant Economy through Planned Equipment Replacement
- Summary and Course Review

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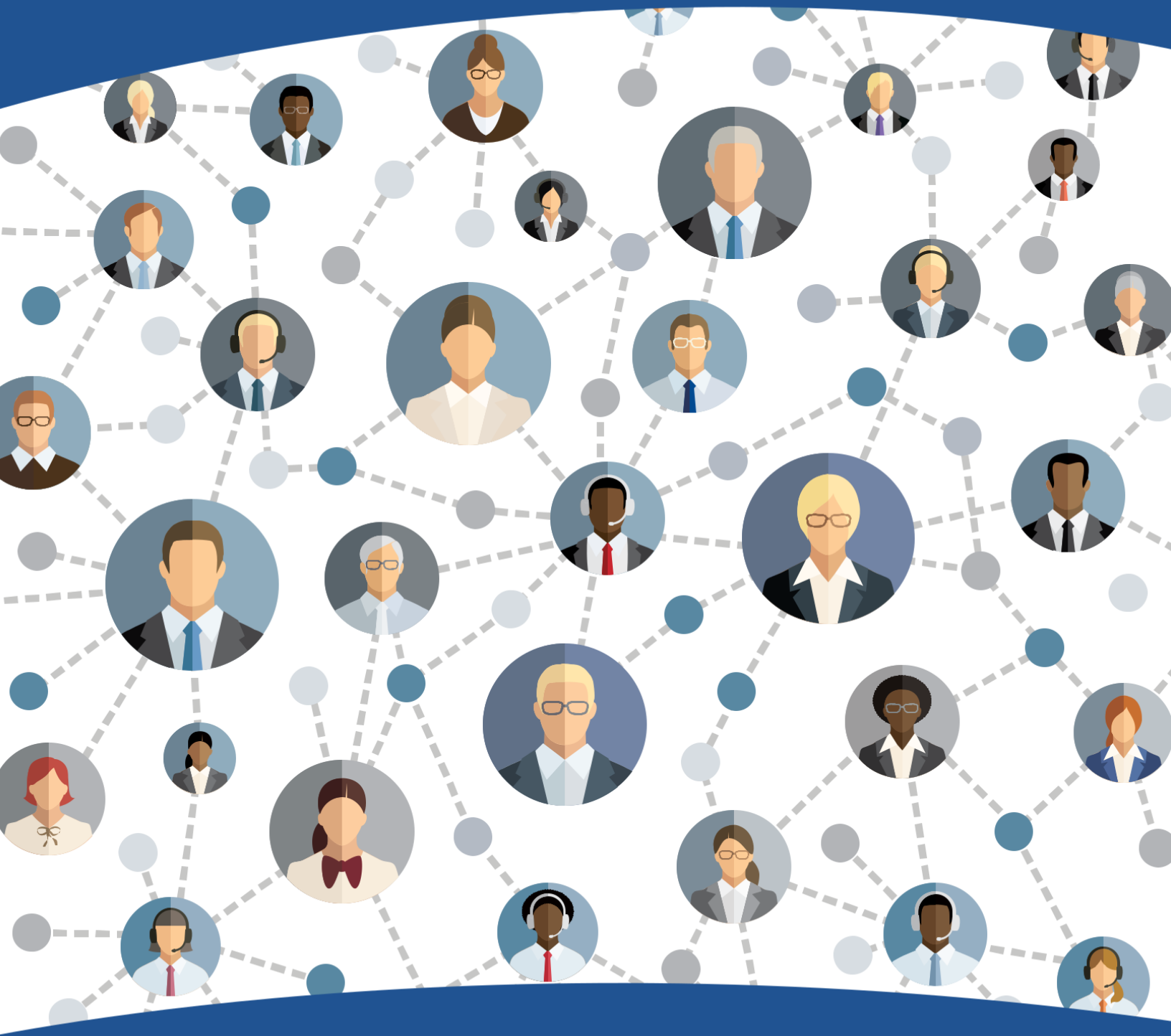

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