



COURSE OVERVIEW TM0493 **Operational Excellence for Oil & Gas Operations**

Course Title

Operational Excellence for Oil & Gas Operations

Course Date/Venue

October 04-08, 2026/Sur Meeting Room, Royal Tulip Muscat, Oman

Course Reference

TM0493

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



This practical and highly-interactive course includes real-life case studies where participants will be engaged in a series of interactive small groups and class workshops.

This course is designed to equip participants with practical frameworks, tools, and techniques for improving operational reliability, safety, efficiency, cost performance, workforce effectiveness and continuous improvement across oil & gas operations.



Further, the course will also discuss the operational excellence frameworks and management systems; the oil and gas operating value chain, operational performance management, operational discipline and standardized work; the leadership and culture for operational excellence, process mapping and operational workflow analysis; and the lean operations in the oil and gas industry.



Moreover, the course will cover the asset reliability and availability improvement, maintenance excellence, overall equipment effectiveness and asset performance; the root cause analysis and problem solving, process safety within operational excellence, operational risk assessment and management; the process hazard analysis, management of change (MOC), permit-to-work and control of work; and the emergency preparedness and operational resilience.

During this interactive course, participants will learn the continuous improvement methodologies, production optimization and loss management; the data-driven operational decision-making, digital operational excellence, performance benchmarking and gap analysis; the structured problem solving and improvement projects including human performance and operational excellence; the competency and workforce capability, contractor and supply chain operational excellence and operational excellence auditing and assurance; and the continuous improvement and OE culture and develop an operational excellence roadmap.

Course Objectives/Outcomes & Benefits for the Participants

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain an in-depth knowledge on operational excellence for oil & gas operations
- Discuss the operational excellence in oil and gas, operational excellence frameworks and management systems
- Interpret oil and gas operating value chain and apply operational performance management, operational discipline and standardized work
- Carryout leadership and culture for operational excellence, process mapping and operational workflow analysis including lean operations in the oil and gas industry
- Employ asset reliability and availability improvement, maintenance excellence, overall equipment effectiveness and asset performance
- Apply root cause analysis and problem solving, process safety within operational excellence as well as operational risk assessment and management
- Implement process hazard analysis, management of change (MOC), permit-to-work and control of work, emergency preparedness and operational resilience
- Apply continuous improvement methodologies, production optimization and loss management
- Carryout data-driven operational decision-making, digital operational excellence, performance benchmarking and gap analysis
- Apply structured problem solving and improvement projects including human performance and operational excellence
- Explain competency and workforce capability, contractor and supply chain operational excellence and operational excellence auditing and assurance
- Sustain continuous improvement and OE culture and develop an operational excellence roadmap

Excusive Smart Training Kit - H-STK®



*Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of operational excellence for oil & gas operations for operations managers, production managers, operations supervisors, production/process engineers, maintenance & reliability managers, HSE/process safety professionals, asset managers, and operational excellence/continuous improvement specialists.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Fee

US\$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

Course Certificate(s)

Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations:

-  British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

-  The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Dr. John Petrus, PhD, MSc, BSc, is a **Senior Reservoir Engineer & Geologist** with over **30 years** of **onshore & offshore** experience within the **Oil & Gas, Refinery** and **Petroleum** industries. His wide experience covers in the areas of **Operational Excellence for Oil & Gas Operations, Advanced Analytics** in Oil & Gas **Production Technology & Engineering, Well Completions, Well Logs, Well Stimulation & Production Logging, Well Completion Design & Operation, Well Surveillance, Well Testing, Well Stimulation & Control and Workover Planning, Completions & Workover, Hole Cleaning & Logging, Servicing and Work-Over Operations, Wellhead Operations, Maintenance & Testing, Petrophysics/Interpretation of Well Composite, Reservoir & Tubing Performance, Practical Reservoir Engineering, Clastic Exploration & Reservoir Sedimentology, Carbonate Reservoir Characterization & Modeling, Seismic Interpretation, Mapping & Reservoir Modelling, Reservoir Geology, Integrating Geoscience into Carbonate Reservoir Management, Faulted & Fractured Reservoirs, Fractured Hydrocarbon Reservoirs, Analyses, Characterization & Modelling of Fractured Reservoirs & Prospects, Fracture Reservoir Modeling Using Petrel, Reservoir Engineering Applied Research, Artificial Lift, Artificial Lift System Selection & Design, Electrical Submersible Pumps (ESP), Enhance Oil Recovery (EOR), Hydraulic Fracturing, Sand Control Techniques, Perforating Methods & Design, Perforating Operations, Petroleum Exploration & Production, Hydrocarbon Exploration & Production, Exploration & Production, Play Assessment & Prospect Evaluation, Formation Evaluation, Petroleum Engineering Practices, Petroleum Hydrogeology & Hydrodynamics, Project Uncertainty, Decision Analysis & Risk Management, Decision Analysis & Uncertainty Management, Exploration & Development Geology, Sedimentology & Sequence Stratigraphy, Structural Interpretation in Exploration & Development, Petrel Geology, Geomodeling, Structural Geology, Applied Structural Geology in Hydrocarbon Exploration, Petrophysics, Geology of the Oil & Gas Field, Geophysics, Geothermal, Geochemical & Geo-Engineering and Drilling Applied Research, Field Geological Outcrop Mapping & Digital Cartography, Geological Modelling, Geoscience Management in E&P, Geoscience Modelling, Geological Mapping, Structural Geology-Tectonics, Structural Analysis, Tectonic Modelling and Numerical Simulation of Fractured Prospects & Reservoirs, Fracture Network Analysis & Modelling, Prospect Generation, Global Networking, Research and Technology Development Management for Fault & Fracture Analyses & Modelling, Fracture Modelling, Dynamic Modelling, Structural Model using Petrel, G&G Seismic & Well Data Modelling, GIS System Management, Database Management, Strategic Planning, Best Practices and Workflow, Quality Management, Project Management and Risk Assessment & Uncertainty Evaluation. Further, he is also well-versed in **seismic interpretation, mapping & reservoir modelling tools** like **Petrel** software, **LandMark, Seisworks, Geoframe, Zmap** and has extensive knowledge in **MSDos, Unix, AutoCAD, MAP, Overlay, Quicksurf, 3DStudio, Esri ArcGIS, Visual Lisp, Fortran-77** and **Clipper**. Moreover, he is a world **expert** in **analysis and modelling of fractured prospects and reservoirs** and a **specialist and developer of fracture modelling software tools** such as **FPDM, FMX and DMX** Protocols.**

During his career life, Dr. Petrus held significant positions and dedication as the **Executive Director, Senior Geoscience Advisor, Exploration Manager, Project Manager, Manager, Chief Geologist, Chief of Exploration, Chief of Geoscience, Senior Geosciences Engineer, Senior Explorationist, Senior Geologist, Geologist, Senior Geoscientist, Geomodeller, Geoscientist, CPR Editor, Resources Auditor, Project Leader, Technical Leader, Team Leader, Scientific Researcher and Senior Instructor/Trainer** from various international companies and universities such as the **Dragon Oil Holding Plc., ENOC, MENA, ENI Group of Companies, Ocre Geoscience Services (OGS), Burren RPL, Ministry of Oil-Iraq, Eni Corporate University, Stanford University, European Universities, European Research Institutes, NorskHydro Oil Company, Oil E&P Companies**, just to name a few.

Dr. Petrus has a **PhD in Geology and Tectonophysics** and **Master's and Bachelor's degree in Earth Sciences** from the **Utrecht University, The Netherlands**. Further, he is a **Certified Instructor/Trainer, a Certified Trainer/Assessor/Internal Verifier** by the **Institute of Leadership & Management (ILM)**, a **Secretary and Treasurer of Board of Directors of Multicultural Centre, Association Steunfonds SSH/SSR** and **Founding Member of Sfera Association**. He has further published several scientific publications, journals, research papers and books and delivered numerous trainings, workshops, courses, seminars and conferences internationally.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the workshop for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: Sunday, 04th of October 2026

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0930	Understanding Operational Excellence in Oil & Gas Definition, Principles, and Objectives of Operational Excellence • Evolution from Operational Management to Operational Excellence • Key Characteristics of High-Performing Oil & Gas Operations • Balancing Safety, Reliability, Production, Cost, and Sustainability
0930 – 0945	Break
0945 – 1030	Operational Excellence Frameworks & Management Systems Structure of an Effective OE Management System • Leadership, Governance, Standards, and Accountability • Integration of HSE, Operations, Maintenance, and Asset Management • Translating Corporate OE Strategy into Frontline Execution
1030 – 1130	Understanding the Oil & Gas Operating Value Chain Upstream Exploration, Drilling, Production, and Processing Operations • Midstream Gathering, Transportation, Storage, and Terminal Operations • Downstream Refining and Hydrocarbon Processing Operations • Identifying Critical Interfaces, Dependencies, and Operational Risks
1130 – 1215	Operational Performance Management Establishing Operational Goals and Performance Expectations • Leading Versus Lagging Performance Indicators • Developing Effective Operational Excellence KPIs • Using Dashboards and Performance Reviews to Drive Action
1215 – 1230	Break
1230 – 1330	Operational Discipline & Standardized Work Principles and Importance of Operational Discipline • Standard Operating Procedures and Operating Instructions • Shift Routines, Logbooks, Handovers, and Communication • Managing Deviations from Established Operating Standards
1330 – 1400	Leadership & Culture for Operational Excellence Leadership Behaviors that Influence Operational Performance • Building Ownership and Accountability at All Organizational Levels • Developing a Proactive Safety and Performance Culture • Employee Engagement and Frontline Empowerment
1400 – 1420	Application Assess the Maturity of an Oil & Gas Operation Against Core Operational Excellence Dimensions and Identify Priority Improvement Areas
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day One

Day 2: Monday, 05th of October 2026

0730 – 0830	Process Mapping & Operational Workflow Analysis Mapping End-to-End Operational Processes • SIPOC and High-Level Process Mapping • Identifying Bottlenecks, Constraints, and Non-Value-Added Activities • Redesigning Workflows for Improved Operational Efficiency
0830 – 0930	Lean Operations in the Oil & Gas Industry Lean Principles Adapted to Oil & Gas Operations • Identifying the Eight Forms of Operational Waste • Value-Added Versus Non-Value-Added Activities • Applying 5S and Visual Management in Operating Environments
0930 – 0945	Break
0945 – 1100	Asset Reliability & Availability Improvement Reliability, Availability, Maintainability, and Utilization Concepts • Understanding Equipment Failure Patterns • Identifying Bad Actors and Chronic Equipment Problems • Developing Reliability Improvement Priorities
1100 – 1215	Maintenance Excellence Preventive, Predictive, Corrective, and Condition-Based Maintenance • Maintenance Planning, Scheduling, and Work Execution • Managing Maintenance Backlogs and Priorities • Measuring Maintenance Effectiveness and Schedule Compliance
1215 – 1230	Break
1230 – 1330	Overall Equipment Effectiveness & Asset Performance Understanding Availability, Performance, and Quality Losses • Applying OEE Concepts to Rotating and Process Equipment • Production Loss and Downtime Analysis • Developing Asset Performance Improvement Actions
1330 – 1400	Root Cause Analysis & Problem Solving Differentiating Symptoms, Immediate Causes, and Root Causes • Applying the 5 Whys Methodology • Fishbone/Cause-and-Effect Analysis • Developing Corrective and Preventive Actions that Prevent Recurrence
1400 – 1420	Application Analyze an Equipment Reliability or Production-Loss Scenario, Conduct Root Cause Analysis and Develop an Improvement Action Plan
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

Day 3: Tuesday, 06th of October 2026

0730 – 0830	Process Safety within Operational Excellence Personal Safety Versus Process Safety • Major Accident Hazards in Oil & Gas Operations • Process Safety Barriers and Critical Controls • Learning from Major Oil & Gas Incidents
0830 – 0930	Operational Risk Assessment & Management Hazard Identification and Risk Assessment Principles • Risk Matrices and Risk-Ranking Methodologies • Bow-Tie Analysis and Barrier Management • Maintaining Controls for High-Consequence Operational Risks
0930 – 0945	Break
0945 – 1100	Process Hazard Analysis Fundamentals of HAZID and HAZOP • Understanding Nodes, Deviations, Causes, and Consequences • Identifying Safeguards and Recommendations • Linking Hazard Studies with Operating Procedures and Controls

1100 – 1215	Management of Change (MOC) Identifying Technical, Organizational, and Procedural Changes • Risk Assessment Requirements for Proposed Changes • Approval, Communication, Implementation, and Documentation • Pre-Startup Reviews and Post-Implementation Verification
1215 – 1230	Break
1230 – 1330	Permit-to-Work & Control of Work Principles of Effective Control-of-Work Systems • Permit Types and Authorization Responsibilities • Isolation, Lockout/Tagout, and Energy Control • Simultaneous Operations and Contractor Coordination
1330 – 1400	Emergency Preparedness & Operational Resilience Identification of Credible Emergency Scenarios • Emergency Response Roles and Command Structures • Business Continuity and Operational Recovery • Emergency Exercises, Drills, Learning, and Improvement
1400 – 1420	Application Develop a Bow-Tie Model for a Major Operational Hazard, Identifying Threats, Preventive Barriers, Consequences and Mitigation Controls
1420 – 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

Day 4: Wednesday, 07th of October 2026

0730 – 0830	Continuous Improvement Methodologies PDCA and Continuous Improvement Cycles • Kaizen Principles for Operational Environments • DMAIC Methodology for Structured Improvement • Selecting the Appropriate Improvement Methodology
0830 – 0930	Production Optimization & Loss Management Identifying Production Constraints and Operating Losses • Planned Versus Unplanned Production Losses • Production Deferral and Opportunity-Loss Analysis • Prioritizing Production Optimization Opportunities
0930 – 0945	Break
0945 – 1100	Data-Driven Operational Decision-Making Converting Operational Data into Actionable Information • Selecting Meaningful Performance Measures • Trend Analysis and Early Warning Indicators • Using Daily and Weekly Performance Reviews Effectively
1100 – 1215	Digital Operational Excellence Digital Transformation Opportunities in Oil & Gas Operations • Industrial IoT and Connected Equipment • Predictive Analytics and Condition Monitoring • Digital Twins, Remote Operations, and Intelligent Workflow
1215 – 1230	Break
1230 – 1330	Performance Benchmarking & Gap Analysis Internal Versus External Benchmarking • Selecting Relevant Operational Benchmarks • Identifying Performance Gaps and Underlying Causes • Converting Benchmarking Findings into Improvement Initiatives
1330 – 1400	Structured Problem Solving & Improvement Projects Defining Problems and Establishing Improvement Objectives • Pareto Analysis and Prioritization Techniques • Developing Countermeasures and Improvement Solutions • Tracking Benefits and Sustaining Improvement Gains

1400 - 1420	Application Use Operational Performance Data to Identify a Priority Improvement Opportunity and Develop a Structured Improvement Project Using PDCA or DMAIC
1420 - 1430	Recap Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Four

Day 5: Thursday, 08th of October 2026

0730 - 0830	Human Performance & Operational Excellence Understanding Human Factors in Operational Performance • Error-Likely Situations and Performance-Shaping Factors • Reducing Human Error through System and Workplace Design • Learning from Normal Work and Frontline Experience
0830 - 0930	Competency & Workforce Capability Identifying Competency Requirements for Critical Roles • Competency Assessment and Gap Analysis • Developing Technical and Operational Capabilities • Coaching, Mentoring, and Knowledge Transfer
0930 - 0945	Break
0945 - 1100	Contractor & Supply Chain Operational Excellence Contractor Selection and Prequalification • Aligning Contractors with OE and HSE Expectations • Contractor Performance Monitoring and Evaluation • Managing Operational Interfaces with Suppliers and Contractors
1100 - 1215	Operational Excellence Auditing & Assurance Purpose and Structure of OE Assurance Programs • Developing Audit Protocols and Assessment Criteria • Identifying Findings, Gaps, and Improvement Opportunities • Corrective-Action Tracking and Verification of Effectiveness
1215 - 1230	Break
1230 - 1300	Sustaining Continuous Improvement & OE Culture Creating Employee Ownership of Improvement • Recognition and Reinforcement of Desired Behaviors • Capturing and Sharing Lessons Learned • Preventing Regression to Previous Operating Practices
1300 - 1330	Developing an Operational Excellence Roadmap Conducting an OE Maturity Assessment • Defining the Desired Future State • Prioritizing Short-, Medium-, and Long-Term Initiatives • Establishing KPIs, Responsibilities, Milestones, and Governance
1330 - 1345	Application / Capstone Develop and Present an Operational Excellence Improvement Roadmap for a Selected Oil & Gas Facility or Operation, Integrating Safety, Reliability, Production, Cost, People and Continuous Improvement Priorities
1345 - 1400	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1400 - 1415	POST-TEST
1415 - 1430	Presentation of Course Certificates
1430	Lunch & End of Course

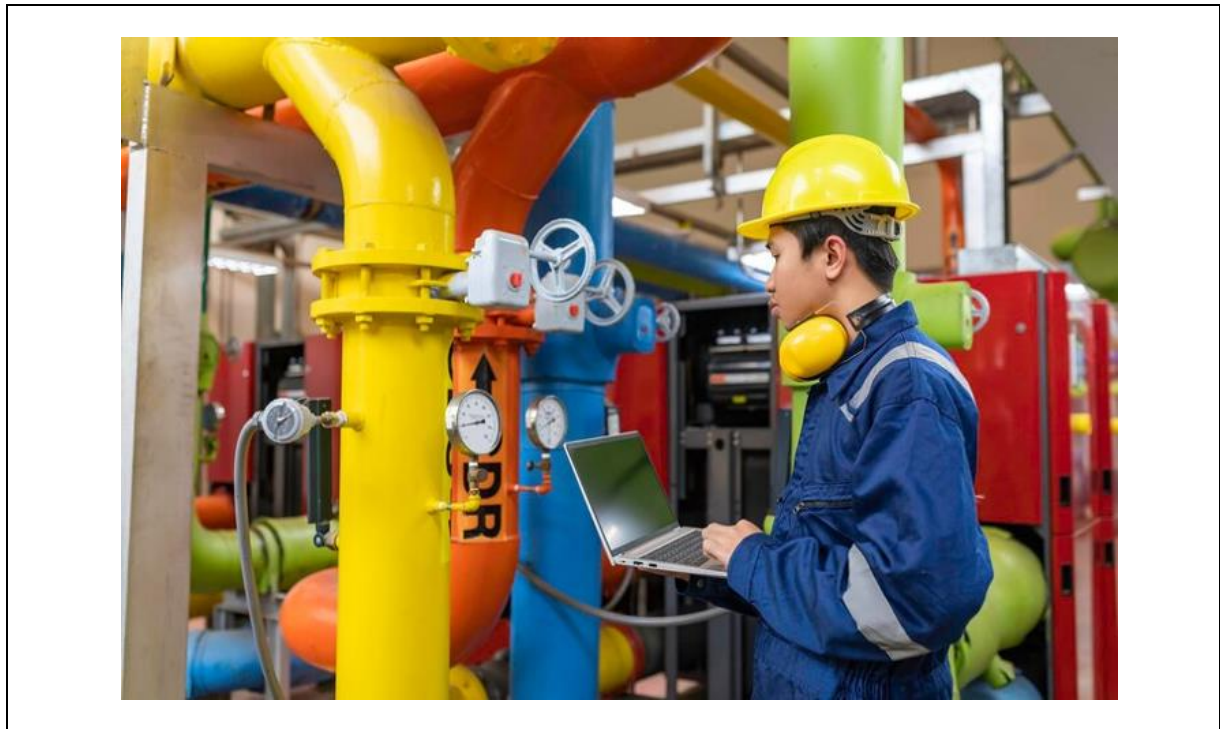
Overall Learning Outcomes

By the end of the course, participants shall be able to:

- Explain the principles and business value of Operational Excellence
- Evaluate operational performance using appropriate KPIs
- Identify process inefficiencies and production losses
- Improve equipment reliability and maintenance performance
- Apply structured root cause analysis and continuous improvement techniques
- Strengthen process safety and operational risk controls
- Leverage operational data and digital technologies
- Develop a practical OE roadmap for an oil & gas organization

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-



Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org