



PAPAIOANNOU
ENGINEERING



P – Group

Engineering Network

Integrated Engineering Services



Dear Madame – Sir,

In this brief booklet we are presenting to you the structure and the activities of PAPAIOANNOU ENGINEERING (P-Group Engineering Network).

Our group is actively involved in several types of projects such as:

- Harbour & coastal engineering projects
- Hydraulics projects
- Road projects
- Building projects
- Investment projects

Our main specialization is focused on harbour and infrastructure projects as well as on steel eco – friendly (bioclimatic) and water - energy independent luxury residences.

I would kindly ask you to review this presentation, where you can get a better insight of who we are and what we do and I would be glad to provide you with more details of our engineering services.

Looking forward to hearing from you.

Yours Sincerely,

P – Group Engineering Network



About

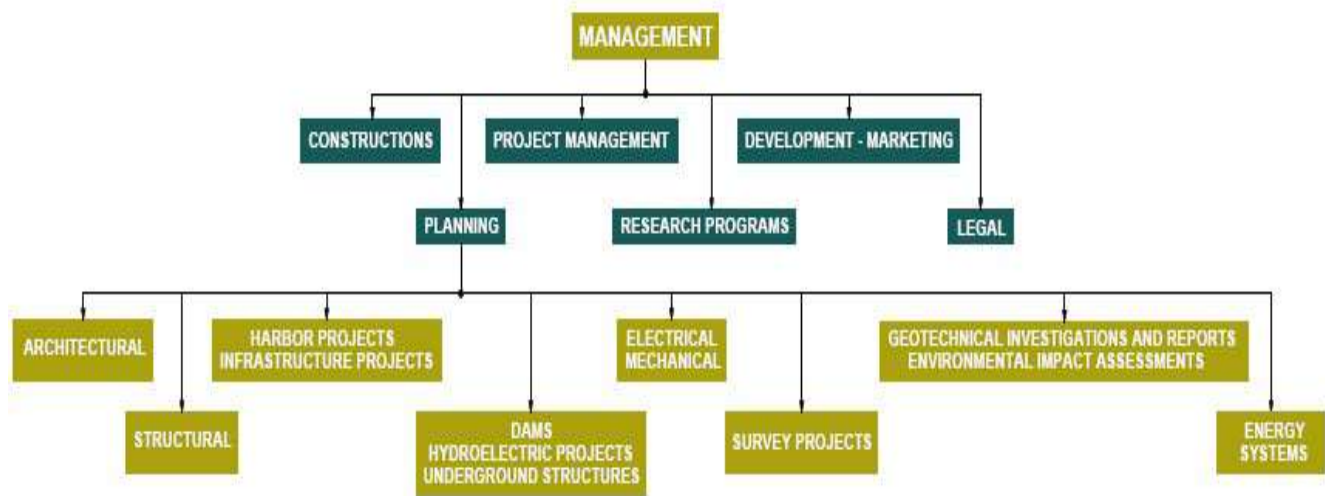
PAPAIOANNOU ENGINEERING (P – Group Engineering Network) is actively engaged in the technical design and eco-friendly construction with emphasis on innovative project execution. Our team is comprised of top notch engineers with years of experience in technical projects implementation and project management that has come as a result of our exposure to a variety of diversified projects types and scales.

Our implementation philosophy is guided by a step-by-step approach principle with regards to project planning and roll-out that we have turned into a dynamic shelf-tuned and cost effective procedure, so to achieve excellent results at competitive prices. The idea has always been to place our customer at the center of every new creation and fulfill the client's vision. In practice, our team creates a fully customized plan that takes into account our customer's vision, capacity and timelines. The output of this process is characterized by paramount quality at the lowest possible cost and in a timely fashion.



Our listen-and-act methodology leads to creations that match our client's dream and are realized within a given timeline and budget. We take pride in executing high caliber technical projects of top architectural design and ergonomic value. We like designing today the way you will live and work in the future.

Structure

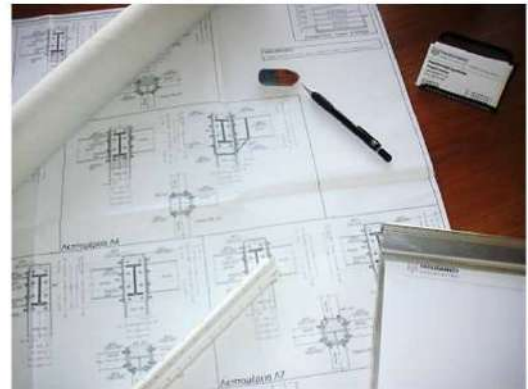


Methodology

"Step by step" well organized project's phases implementation.

PROJECT PHASE A' : INTEGRATED DESIGN

- ✓ Client's needs and desires determination
- ✓ Project's parameters definition
- ✓ Integrated project's phases planning
- ✓ Project's pre-costing calculation (BUDGET)
- ✓ Project's cash-optimization
- ✓ Project's operation chart flow – Gantt Chart



PROJECT PHASE B' : LICENCING

PROJECT PHASE C' : CONSTRUCTION

- ✓ Engineering survey
- ✓ Project management
- ✓ Project reporting
- ✓ Services quality control
- ✓ Project start up





Specialization

MODERN STEEL ECO – FRIENDLY (BIOCLIMATIC) BUILDINGS

- High level architectural design
- Optimum energy consumption
- Perfect adaptation to end user requirements

STEEL FRAME BUILDING & MODERN MATERIALS - CONSTRUCTION METHODS

MODERN

Innovative systems and operating opportunities

STEEL

Safety : excellent resistance during an earthquake

Speed : Rapid frame building construction

ECO-FRIENDLY

Totally compatible design with the natural environment

QUALITY

Use of certified materials

MONEY SAVINGS

1. Total control of construction costs
2. Building's energy consumption minimization





Targets



TARGETS

BUILDING PROJECTS

- Bioclimatic design
- High aesthetics
- Functionality
- Construction systems optimization
- Innovative - certified materials implementation
- Construction costs optimization
- Energy consumption minimization

INFRASTRUCTURE PROJECTS

- Rational design evaluation parameters
- Functional design
- Optimization of needs – available funds
- Low maintenance costs
- Functional infrastructures for development of tourist investment

INDUSTRIAL PROJECTS

- Functional design supporting production optimization
- EPM infrastructure optimization
- Energy consumption minimization

PROJECT MANAGEMENT

- Zero deviation from the specifications of the project
- Project management rational whole process
- Implementation of pioneer Project monitoring systems
- Competitive project management costs
- Projects delivery time compression

RESEARCH & DEVELOPMENT

- Development of innovative manufacturing methods in our projects
- Application of modern technologies and materials in our projects

REAL ESTATE

- Sales Network Expansion
- Investors Network Development
- Successful combination of investment projects in real estate
- Development of incentives for further investments



Policy

Engineering Group policy

1. All clients are equal regardless of the size of their work
2. Each client's wishes are respected and there is always an optimal solution to his/her problem
3. Proper design ↔ integrated planning
4. Integrated Design ↔ Optimum construction costs
5. Absolute compliance with the law
6. ENVIRONMENTAL CONSCIOUSNESS during the planning and execution of projects
7. Priority to HEALTH & SAFETY at work
8. Adherence to procedures and quality standards
9. Each partner effort rewarded
10. Inviolable deviation from the policy

Corporate Social Responsibility

P - Group Engineering evaluates and supports new efforts in science and culture of young people.

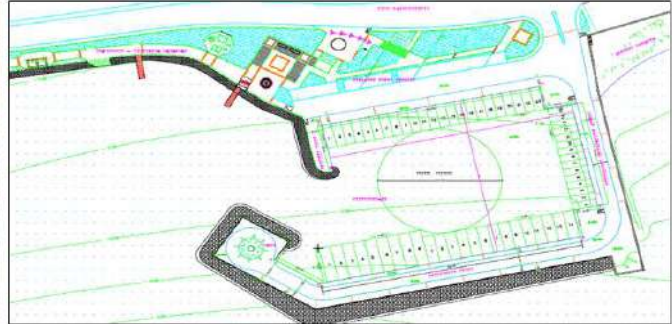
Recently he has undertaken to support the Greek champion alpine ski Papaioannou Natalia which, alongside the university studies of the science of sports and physical education, participates in international events aiming at upcoming Olympic Games and World Championships, showing young people that study and sports can be combined at will and strong organized effort.





Activities

Infrastructure projects



P-Group Engineering Network is involved in various and types of infrastructure projects.

A. INFRASTRUCTURE PROJECTS DESIGN

- A1. Harbour and Coastal Engineering projects
- A2. Hydraulic projects
- A3. Road projects
- A4. Urban planning – regeneration projects

B. PUBLIC PROJECTS CONSTRUCTION

- B1. Building projects
- B2. Road projects

Residential projects



P-Group Engineering Network is focused on :

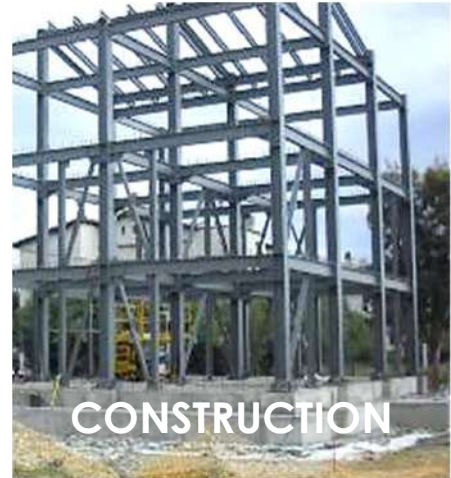
- ✓ **Eco – friendly buildings constructions**
- ✓ **Luxury interior design**

giving the chance to the final users of residential projects to enjoy luxury residences adopting ecological consciousness.



Activities

Consulting engineering



P-Group Engineering Network is involved in diversified kind of projects providing consulting engineering services due to the internal structure of the engineering team.

The long term successful engineering experience in project design and construction is the main qualification of the engineers of P-Group Engineering Network.

Project management

Project Management



P-Group Engineering Network follows standard project management procedures by providing:

- ✓ **Strict adherence to schedules**
- ✓ **Ultimate financial control of the whole project**
- ✓ **Daily reporting**
- ✓ **Weekly financial review of the project to the employer**



Activities

Research & development



P-Group Engineering Network reserves established principle of participation in research projects, always aiming to develop new methods in the field of building construction and civil works in general.

Our highly skilled engineers constantly monitor the technology of modern materials, supporting all our work.

Modern era of data requires constant updating of new technologies and application of modern methods and techniques that contribute to:

- ✓ **quality of life**
- ✓ **environmental protection**
- ✓ **optimal daily needs**
- ✓ **economical daily needs**

Real Estate development



P-Group Engineering Network is expanding its business activities by investing in manufacturing and selling of modern bioclimatic (eco – friendly) residences.

The current economic situation is an opportunity for its business plans and therefore P-Group invests step by step in real estate.

The current combination :

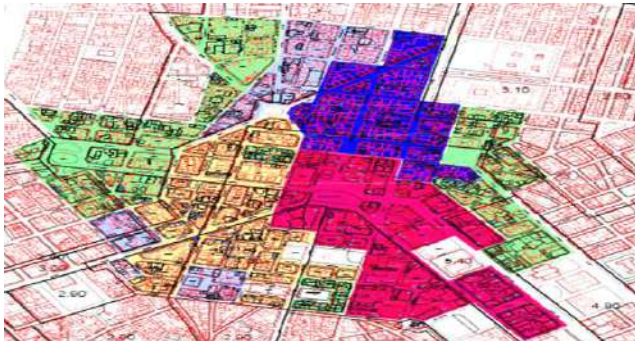
- ✓ **Attractive land values**
- ✓ **Modern building systems and**
- ✓ **Fully controlled manufacturing cost of modern housing**

enables P-Group Engineering Network to remain active in the field of real estate providing residences at competitive prices while ensuring:

- ✓ **High quality**
- ✓ **Modern comforts and technological infrastructures**
- ✓ **Full compliance with the principles of bioclimatic design**

Activities

Investment projects



Real Estate Investment projects

Athens Down Town
The right city to invest...

P-Group Engineering Network is acting as a specialized techno – economic consultant of its customers in investment property projects.

Specifically, unlike the common response of simply buying and selling properties, P-Group is operating as a specialized consultant of its customers by providing integrated and secure services (**integrated planning • costing • technical-analysis • assessment of current values • drafting viable business plans**) aiming to achieve successful transactions between buyers and sellers of real estate securing the interests of both parties.

Drone – aerial engineering consulting services



Using the professional drones of our engineering group, we provide comprehensive services in **data collection • inspection • video recording** in technical and construction projects, as well as reports in inaccessible areas.

The results of the aerial shots are analyzed and evaluated by specialized engineers of our engineering team who compile **technical drawings • tables of measurements • detailed reports** depending on the current needs of each project.

Our drone – aerial services are the best value for money integrated engineering support solutions and promotional material in real estate development and investment projects.

Services

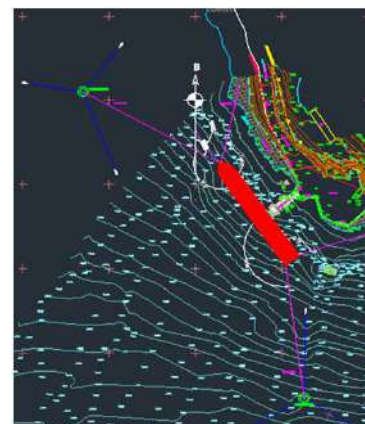
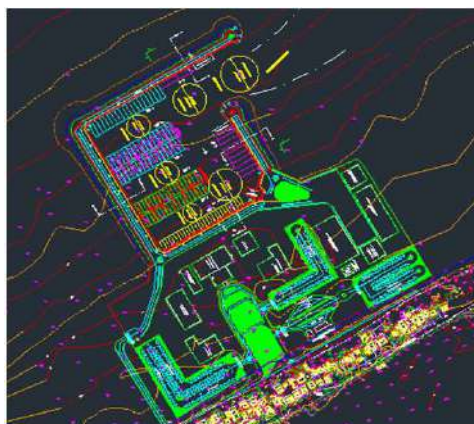
1. Safe inspection & reporting

Construction works inspection • Approach of inaccessible areas and spots • Inspection and measurements over excavations and earthworks projects • Stockpile measurements

2. Topographic surveying – 3D modeling – video

Aerial imaging – Orthophotos • 3D modelling of terrain and buildings • Video recording of the existing terrain • Promotional video based on project's needs

Indicative projects



A. INFRASTRUCTURE PROJECTS

A1 HARBOUR PROJECTS DESIGN

A1.1	Design of harbour and service works area at Eleusis
A1.2	Port general design at North Sporades island
A1.3	Dock design project at Perama
A1.4	Preliminary design of cargo area at Eleusis
A1.5	Western dock extension design of Port in a North Aegean sea island
A1.6	Quay wall design at North Aegean sea Island
A1.7	Quay wall design of a Hotel at Saronikos gulf island
A1.8	Design of a Container Terminal
A1.9	Coastal design of a Port in Peloponnese
A1.10	Coastal design of a port at North Aegean sea Island
A1.11	Fishing harbour designs at North Aegean sea islands
A1.12	Fishing port design at Central Aegean sea island
A1.13	Project of simulation of coastal sea water circulation in a gulf of a South Aegean sea island in order to estimate the environmental consequences in the round sea area due to the construction of power supply unit
A1.14	Underwater investigation and stability estimation of quay wall at an industrial area - Calculations of hydrodynamic forces on tanker ships - Design of moorings
A1.15	Reconstruction of breakwater for the protection of the exit of the cooling canal of power supply units
A1.16	Consulting – Supervision of project : "Sea bottom excavation at the exit of the cooling canal of a power supply unit and reconstruction of the breakwater"
A1.17	Coastal design of a port in Saronikos gulf island
A1.18	Sea current data processing and sediment transportation at a Central Aegean sea island
A1.19	New marina design at Central Aegean sea island
A1.20	Underwater investigations and stability estimation quay walls at Saronikos gulf islands
A1.21	Coastal design of a marina at Central Aegean sea island
A1.22	Marina design at a large scale hotel complex in Athens riviera (Preliminary study)
A1.23	Coastal design of marina at a large scale hotel complex in Athens riviera
A1.24	Preliminary design of a power station harbor in Albania



Indicative projects

A1.25 Mooring buoy system design for cargo ships at Central Aegean sea island

A1.26 Design of a new marina for yachts at Saronikos gulf island

A2 HYDRAULIC PROJECTS DESIGN

A2.1 Agricultural area stream settlement

A2.2 Water supply hydraulic network for villages in Peloponnese

A2.3 Hydraulic pipe network design (from drills to irrigation tank) at a canoe – kayak installations

A2.4 Pressure pipe line design of an eastern suburb in Athens

A2.5 Design of the waste water treatment installation and the submerged disposal pipe at a small city in Attica

A2.6 Design of the waste water treatment installation and the submerged disposal pipe at a small village in North Aegean sea island

A2.7 Hydraulic design of waste water pipes to the treatment area and the submerged disposal pipe of a small city at North Aegean sea island

A2.8 Hydraulic design of waste water pipes to the treatment area and submerged disposal pipe of a small city at South Aegean sea island

A2.9 Design of irrigation system for an agriculture area in central Greece

A2.10 Hydraulic design of the water «in-take» of a power station unit

A3 ROAD PROJECTS DESIGN

A3.1 Participation in Hydraulic works planning of International Highway PATRA – ATHENS – THESSALONIKI – EVZONI

A4 MILITARY PROJECTS

A4.1 Planning of soldiers fortification network for military unit

A4.2 Planning & supervision of small buildings foundation in a steep slope area

A4.3 Planning and supervision of additional shelter of Transportation Division of military unit

A4.4 Planning and supervision of paved corridors between buildings of military unit

A4.5 Surveying of military unit

A4.6 Design of steering signs of military unit

A4.7 Supervision of villas renovation

A4.8 Supervision of several residences renovation program

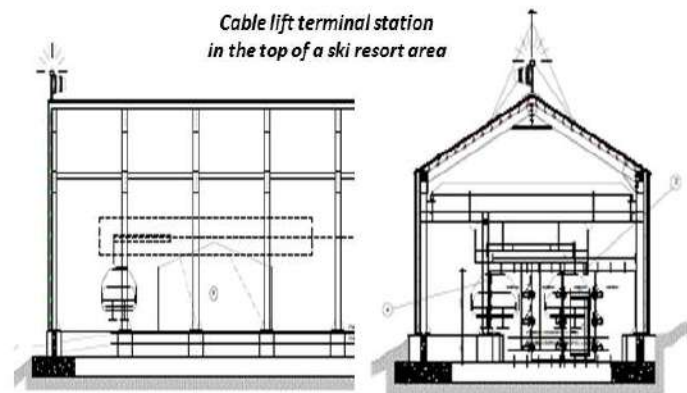
A4.9 Supervision of several infrastructure projects in a military unit



Indicative projects

A5	PUBLIC PROJECTS CONSTRUCTION
A5.1	Building projects
A5.1.1	HELLENIC AIR FORCE : Several renovations of buildings infrastructures
A5.2	ROAD PROJECTS
A5.2.1	HELLENIC REPUBLIC : Pavements reconstruction and small road projects in municipalities of Central Greece

Indicative projects

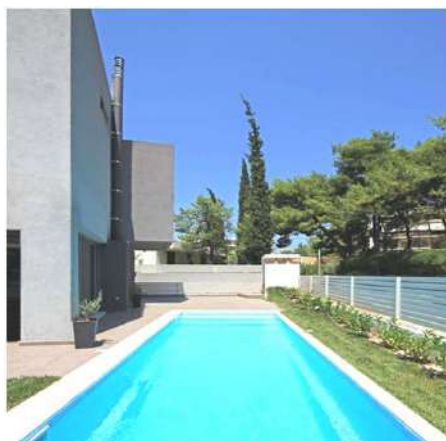


B. INDUSTRIAL PROJECTS

- | | |
|-----|--|
| B1 | Recycling unit (building & infrastructure projects) in Attica industrial area |
| B2 | Steel shelter design of cable lift terminal station in the top of a ski resort area |
| B3 | Preliminary design of a power station (carbon unit) in Albania |
| B4 | Sales Administration, Industrial Process Dynamic and Control, Production Optimization, Quality Control of an industry at North Greece |
| B5 | Research, Design and Development of New Industrial Product, and compliance to the International Protocol and Standards, experimental production of hydrated lime for building applications of an industry at North Greece |
| B6 | Planning and design of a hydrated lime for building applications industrial unit, co-operation with ICAP (business consultants), to file the final investment presentation to the development act program authorities of an industry at North Greece |
| B7 | Assistance Construction Supervision, Application plan and design, Assistance project management during the erecting of Lime Plant - Limestone processing plant of an industry at North Greece |
| B8 | Assistance Construction Supervision, Application plan and design, Assistance project management during the erecting of Hydrated Lime Plant of an industry at North Greece |
| B9 | Assistance Construction Supervision, Application plan and design, Assistance project management during the erecting of packing, bulk storage plant and packed products warehouse of an industry at North Greece |
| B10 | Sales Strategy Administration assistance, Product Promotion, Sales Management, Sales and Transport Administration and Programming of an industry at North Greece |
| B11 | Industrial Process Dynamic and Control, Production Optimization, Quality Control, compliance of the products to the International Protocol and Standards of an industry at North Greece |



Indicative projects



C. RESIDENTIAL PROJECTS

C1 Luxury residences *(indicative projects)*

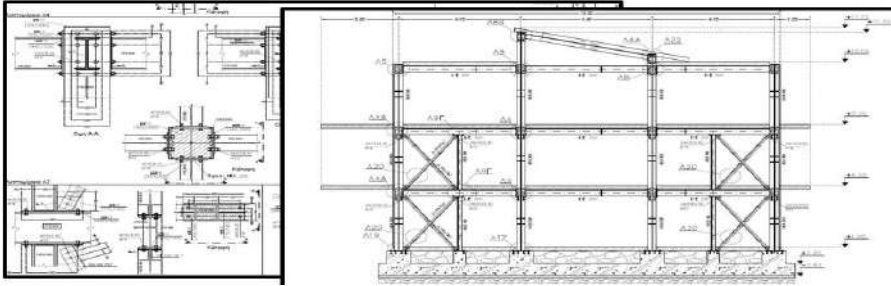
- C1.1 Modern steel building in Melissia, Attica, Greece
- C1.2 Modern steel building of residences in Drafi, Attica, Greece
- C1.3 Modern steel luxury villa in Stockholm, Sweden
- C1.4 Modern steel building in Artemida, Attica, Greece
- C1.5 2 floors metal building adding and strengthening of the existing old building, Attica, Greece

C2 Renovations - Interior design *(indicative projects)*

- C2.1 Renovation of listed building in old town of Nafplion
- C2.2 Renovation of old residence in Papagos, Athens, Greece
- C2.3 Renovation of old residence in Vrilissia, Athens, Greece
- C2.4 Renovation of old residence in Holargos, Athens, Greece
- C2.5 Renovation of old building in Eretria
- C2.6 Interior design of lofts in Stockholm, Sweden



Indicative projects



**Consulting
Engineering**

D. CONSLUTING ENGINEERING (participation in engineering groups)

D1 Harbour projects

- D1.1 Infrastructure & super-structure works of a port in Peloponnese
- D1.2 Coastal protection works in a fishing harbour in Peloponnese
- D1.3 Rowing facilities at an athletic center
- D1.4 Software Development for mooring system (calculations)
- D1.5 Elaboration of Safety and Health documents for harbor works
- D1.6 Safety and Health documents for a port in Central Aegean sea island
- D1.7 Safety and Health documents for a port in Peloponnese

D2 Geotechnical projects

- D2.1 Software Development for calculation of piled foundations
- D2.2 Analytical result evaluation of soil sampling in old electrical transformers storage area at an industrial zone in Attica, following a decontamination project

D3 Real Estate projects

- D3.1 Participation in preliminary planning study of infrastructure projects of a new urban area at Centeal Greece area
- D3.2 Participation in real estate study for the evaluation of super markets properties
- D3.3 Participation in real estate study for the cost evaluation of an old tower in Corfu
- D3.4 Autopsy & technical assessment of public properties
- D3.5 Autopsy & technical assessment of public property in a harbour area
- D3.6 Autopsy & technical assessment of public property in a camping and public forest in Peloponnese
- D3.7 Autopsy & technical assessment of thermal springs Resort in North Greece
- D3.8 Autopsy & technical assessment of thermal springs Resort in Peloponnese
- D3.9 Preliminary reconstruction study of buildings in a camping in Peloponnese



Indicative projects

Research & Development



E. RESEARCH & DEVELOPMENT

- | | |
|----|---|
| E1 | Engineering group participation to the research team of Harbour Works Laboratory (H.W.L.) of National Technical University of Athens (N.T.U.A.) |
| E2 | 2nd IMA Conference on Wind over Waves Fundamentals : Forecasting and Application, Cambridge, UK : "Sea Surface Roughness Parameterization" |
| E3 | Participation in research projects of a University: 1. Innovative software for buildings assessments (technical and economical evaluation - cadastral data analysis) 2. Autopsies – Technical and economical evaluation – Cadastral data analysis in a large scale number of buildings 3. Data entry and cadastral maps composition (G.I.S. background) |
| E4 | Participation in an European Union project : Eco Green village (Planning parameters determination - Model design - Technical drawings) |



Indicative projects



F. REAL ESTATE DEVELOPMENT – INVESTMENT PROJECTS

- F1 Paros island : Investment project in Punda
- F2 Large scale Real Estate investment project in Kos island - South East Aegean Sea - Greece
4 season “Golden Resort & Spa”
Green energy 5* Hotel and luxury villas complex with moorings infrastructure
- F3 New building of eco-friendly residences in Agia Paraskevi – Cholargos, Athens
- F4 Mykonos island : North cape panoramic view complex of green energy luxury villas
- F5 Evia island investment project : Seaside green energy luxury villa (bioclimatic residences) in Eretria
- F6 Arachova project : Steel buildings cluster of ECO – FRIENDLY traditional residences in Arachova - Parnassos
- F7 Lefkadi project : Steel buildings cluster of ECO – FRIENDLY residences in Lefkadi - Evia island
- F8 Artemida project : Steel buildings cluster of ECO – FRIENDLY residences in Artemida - 10' from Athens International Airport - Attica
- F9 Evia residences : Steel building of ECO – FRIENDLY residences in Eretria - Evia island
- F10 Apollo-maison project : Luxury cluster of residences in Naxos island



Photo gallery

Design oh harbour projects



Underwater inspection of marine works



Construction & supervision of marine works



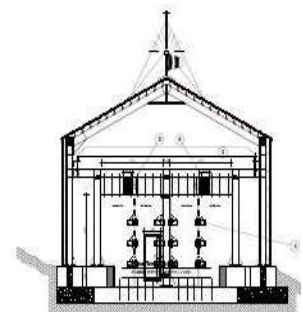
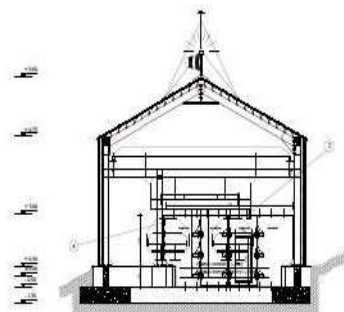
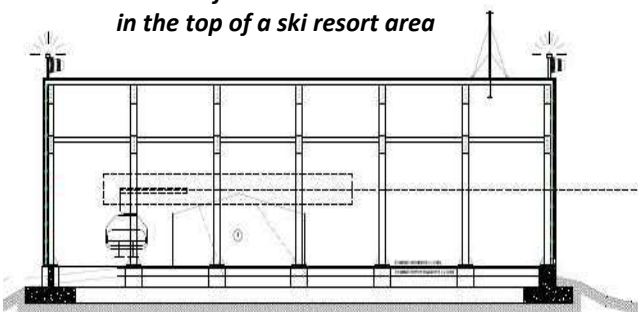


Photo gallery

Industrial projects



*Cable lift terminal station
in the top of a ski resort area*



Infrastructure projects





Photo gallery

Luxury residences





Photo gallery

Steel eco-friendly residences

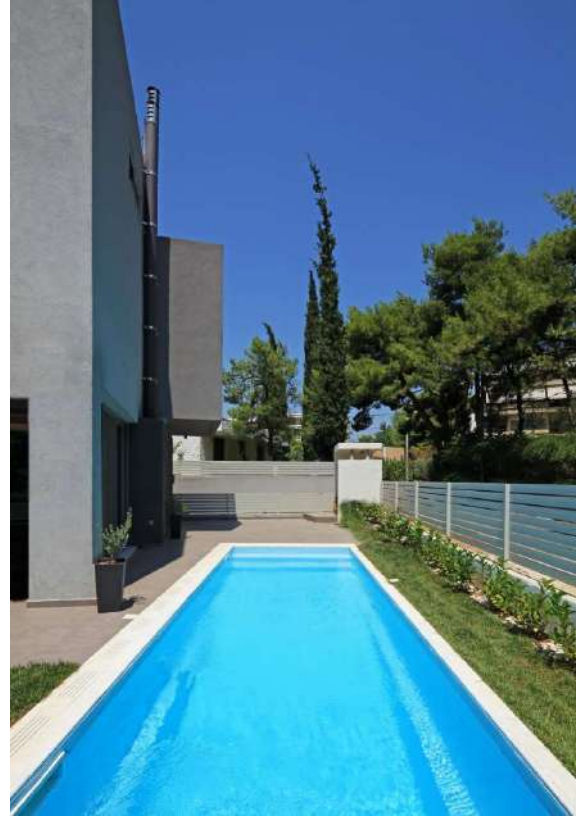




Photo gallery

Steel eco-friendly residences





Photo gallery

Steel eco-friendly buildings





Photo gallery

Interior – exterior design







PAPAIOANNOU
ENGINEERING

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P – Group

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