incide
engineering

SELECTED PROJECTS

shaping innovation

we shape customers needs with an innovative and sustainable approach

incide engineering

Incide Engineering was founded in 1998, and in **over twenty years of growth** the company has transformed itself from a family reality to an organized structure of **over 60 people**, with a multisectoral and multidisciplinary offer, maintaining the care and attention to the customer typical of a "craft" company.

An international culture has led Incide to face **foreign markets**, and today the company offers direct assistance to its customers with **offices located in different countries.**

A professional approach to the market and customer satisfaction are the leading principles of corporate policies, which are applied in our daily work methods. The training of personnel and the use of **new design methodologies** are aimed at professional services up to date and in step with the market and the need for product **innovation**.

Incide Engineering is able to achieve quality self-development and to **solve various and complex technical industrial design problems**, involving different disciplines and market sectors.

We always seek the challenge to improve, to be dynamic and flexible, the quality of our work, the satisfaction of our customers for stable relationships.

International References

Private Clients

Leonardo SpA
Aeroporti di Roma SpA
SEA Aeroporti Milano SpA
Piaggio Aerospace SpA
Milano Serravalle SpA
Enologica Vason spa
Golfetto Sangati Srl
SogeMi srl
Medtronics SpA
Red Graniti SpA
Thales Aeropace SpA

Public Administrations

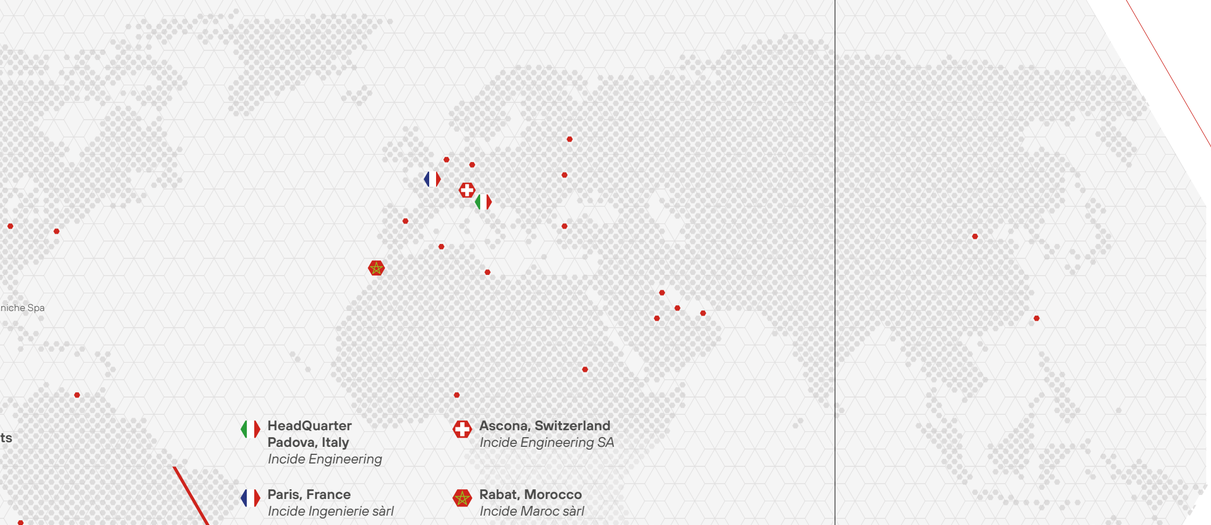
Ministero della Difesa
Magistrato alle Acque
Comune di Tempio Pausania
Comune di Selvazzano
Comune di Abano Terme
Comune di Albaredo
Comune di Fidenza
Coni Servizi SpA
Enac - Ente Nazionale per l'Aviazione Civile
Ospedale S.S. Giovanni Milano
Università di Padova
U.L.S.S. N.1
Università degli Studi Padova
U.L.S.S.N.16 di Padova
ULSS N.6 EUGANEA

Contractors

Cimolai SpA
ICM SpA
Carron SpA
Danieli & C. Officine Meccaniche Spa
Fincantieri Infrastructure
Giordano & C. S.p.A.
Mulmix SpA
Pichler SpA
Gualini SpA
Permasteelisa SpA
Cefla SpA

International Clients

Bouygues – France
Vinci Group– France
Fayat Group -France
Heberger - Germany
ArcelorMittal - Luxemburg
Jet Inernational – Maroc
ONDA - Maroc
ONCF – Maroc
Advance Vision Maroc
Sepsi Maroc
GE Enterprise – Senagal
Adjaye Associates – Ghana
Ghafari Assocites – USA
JVK Cimolai - Russia



HeadQuarter
Padova, Italy
Incide Engineering

Ascona, Switzerland
Incide Engineering SA

Paris, France
Incide Ingenierie sàrl

Rabat, Morocco
Incide Maroc sàrl

UNI EN ISO 9001:2015
TÜV Certification n° 50 100 16960 Rev.001
UNI EN ISO 14001:2015
TÜV Certification n° 50 100 17045
UNI ISO 45001:2023
TÜV Certification n° 50 100 17044 Rev.001
UNI/PdR 125:2022
TÜV Certification n° 50 100 17606

A world wide company

The competence, the language skills of the personnel and an up to date communication system, allow Incide Engineering to work in close connection with its **customers around the world**.

Knowledge of the most important names and **international codes**, give to Incide Engineering, the capability to compare utility with the global market of engineer services.

+4
Branches

+30
Countries

+27
Years experience

3,5 Mln €
Turnover 2022

5,4 Mln €
Turnover 2023

5,7 Mln €
Turnover 2024

+4
Certifications

+60
Employed

+400
Projects

A conscious choice

ECO-Certifications

- **EGE - ENERGY MANAGEMENT EXPERT** - Civil SectorCertification UNI CEI 11339:2009 n° 18-05416
- **CAM - ECO-DESIGNER** - Construction Sector Certification ISO/IEC 17024 n° AEP017

Symbiosis with the environment for energy and economic savings

A modern buildings, which does not harm the environment, but even supports it... A virtuous relationship between nature and man: the dwelling becomes an active part of the landscape. It is inspired by it by taking part in it without weighing it down. Building environmentally sustainable buildings is a conscious choice, born from the heart, to improve and respect the environment in which we live.

Our mission: Sustainable Engineering & Design

Sustainable engineering and design are essential for the **future of our planet**. Man-made climate change, the continuing growth of the world's population and the increasing consumption of natural resources are **global challenges that affect us all**. The building industry has a special role to play in tackling the problems ahead, as it is responsible for a large proportion of all emissions and **resource consumption** worldwide.

Environmentally Sustainable buildings

From material choice to thestructural and systems solutions any design choice is under the banner of environmental sustainability, energy conservation and healthfulness. Ecological buildings guarantee to have a high level of thermal insulation thanks to good window frames, ventilation with heat recovery, airtightness and the absence of thermal bridges.

All this makes ecological buildings:

- **COMFORTABLE FOR INDOOR CLIMATE**
- **ENERGY EFFICIENT BECAUSE THEY USE RENEWABLE SOURCES OFFERED BY NATURE**
- **HEALTHY THANKS TO THE AIR SANITATION SYSTEM,COMPLETELY SUSTAINABLE AND SAFE**
- **EARTHQUAKE-RESISTANT AND FIREPROOF**

Net Zero Whole Life Carbon

Delivering Zero

Offset to below Zero

A factor of safety should be applied to take us below zero to account for unce tainties in calculation methods

Create woodlands and use timber

Invest in additional renewable energy capacity off-site

Minimise the Performance Gap

Quality assurance is vital to build high performing housing as designed

Procure quality over price

Adopt post-occupancy evaluation to verify and disclose building performance

Measure energy consumption after at least one year of occupation and report building annual peak energy demand

Verify embodied carbon data and report average annual carbon content of the heat supplied ($KgCO_2$ /kWh)

Minimise Embodied Carbon

Upfront carbon (A1-A5 excluding sequestered carbon) of less than 300kg $CO_2e/m2$. The carbon we emit now has much greater impact than carbon emitted in the future

Embodied carbon (A 1 to C4) less than 400kg CO_2e/m^2

Minimise Energy Demand

Total Energy Use Intensity less than 35 $kWh/m^2/yr$

Fabric first approach with space heating demand of less than 15 $kWh/m^2/yr$

Use Renewable Energy

Low carbon means not using gas and oil to heat our homes

Use sources of renewable electricity

Natural material

Use of natural building materials, which has a lot of advantages. Generally, natural material is non-toxic, does not leak chemical vapour into the building and is safe to handle and touch. It also means that as timber ages, it does so naturally.

Reduce carbon footprint

Timber is made from carbon drawn from the atmosphere. This carbon would otherwise be adding to the greenhouse effect. Using timber in buildings stores the carbon for as long as the building stands or the timber is used.

Energy efficient buildings

Wood helps to minimise energy consumption in several ways. Life cycle of a product studies show that wood and timber frame houses significantly outperform steel and concrete.

Low in production energy

It takes very little energy to convert the wood in trees to the timber used in building. This means that the embodied energy in timber is low. In fact it is the lowest of almost all common building materials.

Timber solutions

The use of natural material can help reduce energy needs when A timber frame allows more space for insulation than a brick building, and wood itself also has naturally thermally insulating properties. A better insulated home requires less energy which typically means less fossil fuel use.

Ecology and sustainability

People have been building with timber for thousands of years. Timber is ecological and sustainable and a truly renewable building material; it is grown quicker than it is used. Most of the main timber supplying countries have long-standing policies to re-grow more timber than is felled.

Easy to work

Natural material is versatile and can be used in a wide variety of ways. Being light, it is easy to install and can be worked with simple equipment. This reduces the energy needed for construction. Different species of tree produce timber of differing colours, textures and functional qualities.

Off site constructions

The speed of the build is quicker with timber. A natural frame can be partly pre-cut, modulated, and built to precision making build time much quicker than for a brick build. Time is also saved since less building debris is around to clear.

Full-services competences

The integrated services offered by the company, start from the preliminary and **conceptual design up to final and construction design phases**, trought a value engineering approach. Our approach to "building solutions" is to design phases and on creating **mutidisciplinary solutions** for our clients.

Using the most **advanced softwares solutions** the company develops the engineering and architecture design with **full BIM technology**, giving to the project an integrated design approach, anticipating problems and having a real time view of the construction. The different internal professionals ensure the full coverage of all the skills offered.

Incide Engineering offers a full range of integrated engineering, architectural design and consulting services to support its Customers in the development of complex projects.

Private and Public projects

We work with public and private clients to develop design documents for permits, authorisations and tender documents.

Preliminary design

- Cost estimation
- Planning
- Specifications
- Feasibility studies

Final & Detail design

- Peer Review
- Architectural Permits and Permit Projects
- Sustainability and environmental design
- Structural and seismic authorisations
- Structural assessment of existing buildings
- Fire protection authorisations
- Energy assessment of the envelope
- Energy analysis
- Mechanical and electrical solutions
- Renewable energy solutions
- LEED and sustainability approach and certifications
- BOM
- Tender documents

Tender assistance

- Contracts forms
- Product specifications
- Contractor bid evaluation
- Contract signature assistance

Project & Construction management

- Project planning
- Time management
- Cost
- Commissioning

Design & Buid projects

We assist **general Contractors** and **specialised construction companies** from the tender to the design and construction phases by sending design teams to the construction site.

- Technical tender proposal
- Value Engineering
- Integrated detail design (architectural, structural and MEP)
- BIM models and BIM construction management
- Shop drawings using 3D BIM models and parametric design (architectural, structural and MEP)
- Construction planning
- Erection design
- On-site assistance

Integrated Engineering

- Structural engineering
- Civil engineering
- Mechanical & Electrical
- Tensile structures
- Fire engineering
- Installation methodologies

Architecture & Envelope

- Facade engineering
- Architecture
- Interior design
- Bim coordination
- Multidisciplinary coordination

Consulting activities

- Project management
- Construction management
- Safety management
- Commissioning
- Testing

Integrated Engineering

more about

From the **tallest towers** and the **longest spans**, to innovative building systems and materials, we are committed to creating the best solutions through our **technical ingenuity**, our pursuit of excellence, and responsiveness to client needs.

The multidisciplinary engineering division **collaborates with architects**, **builders** and at the end client's service, to develop structural and plant engineering projects, able to meet the expectations in terms of **suitability**, **optimisation of materials** and operation within **budget limits**.

FULL-SERVICES COMPETENCES

STRUCTURAL ENGINEERING

Steel, timber & concrete and mixed structures

- FEM modeling
- Seismic analysis
- Detail drawings
- Shop drawings

Special structures

- Port cranes
- Structures for industrial plant
- Industrial piping & machine pedestal
- Industrial ducts & chimney
- Special analysis

Installation and erection metodologies

- Erection design - Costruction sequencies
- Temporary stage stability
- Lfting with stand jack
- Lifting tools design

Tensile structures

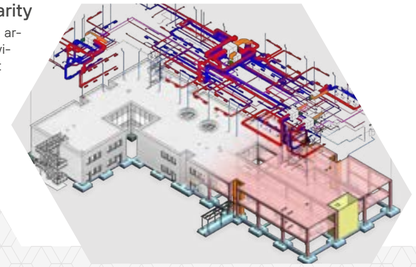
- From the concept to installation
- Specialised FEM modelling
- Executive and constructive 3D modeling

The structural design process carried out by Incide Engineering arises from a pre-design phase through simplified calculation schemes that come from both theoretical know-how and years of experience in the sector, to then develop detailed analyzes using **models and finite elements** of the entire structure, according with structural drawings and load conditions, in order to obtain an **accurate representation of the structural functioning**.

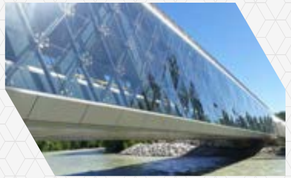
Multidisciplinarity

Full range of integrated engineering, architectural design and consultancy services to support clients in the development of complex projects

Antonio Vivaldi & Renato Simoni School Complex
Albaredo d'Adige | Italy



MEP ENGINEERING

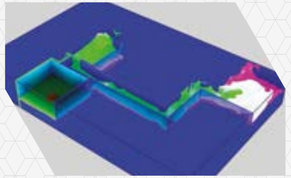


Civil engineering

Geotechnical engineering, Special foundation design, Designof roads and bridges, and all complimentary Infrastructural constructions.

Mechanical systems engineering

Development of all types of air conditioning, ventilation and industrial plant systems, for the various types of product sectors.



Fire engineering

We manages the fire safety of buildings, from the definition of risk to the application of active and passive protection solutions. We use fire engineering solutions with CFD methodologies to solve complex projects

Electrical and special systems

Design of power plants & medium-low voltage distribution, lighting & special systems, integrating the regulations and building automation systems.

Architectural & Envelope

more about

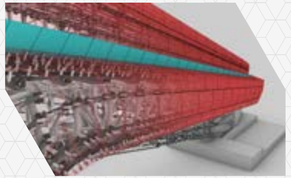
Incide provides **architectural design** and consultancy, to architects, builders and Public and Private operators **in all phases of the project**. We start from the concept and research of materials for proposing the construction scheme that we develop to the detail.

We offer a **suite of specialist analyzes** (Structural, Energy & Solar, Thermal & Acoustic and windy analyzes) to solve complex design challenges, improve buildability, maximize energy efficiency and increase safety.

Façade division analyses and proposes design solutions **maximizing performance**, **safety** and **energy efficiency**.

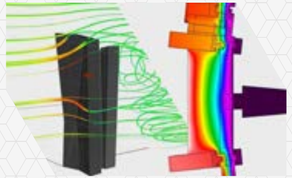
FULL-SERVICES COMPETENCES

Services offered



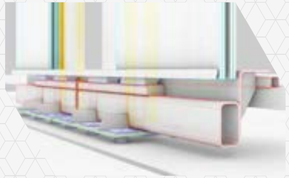
Concept, bidding, detailed design and Engineering

We select the systems that will best suit the design intent, satisfy budget constraints and address constructability considerations and we develop the façade diagrams to include drawings, preliminary calculations in order to finalise **façade performance** criteria.



Thermal & acoustic design, wind, energy & solar analysis

Thermal design for facades systems using standards or the **FEM analysis approach** using the most advanced and powerful software. We provide complete engineering support for the acoustic performance of building envelopes.



BIM models & shop drawings

Our 3D parametric and BIM capabilities allow us to work directly with a variety of manufacturers worldwide. We **support facade manufacturers** in the production of final and shop drawings.

Facade structures

We can carry out structural design for façade systems, include **structural steel**, **aluminium** and **timber frames**. We can develop detail calculations for custom systems and structural details.

Consultancy activities

more about

Consultancy activities of such as Assistance on Tenders, Works Supervision, Safety Coordination, and Commissioning complete the list of services that Incide is able to provide in a completely professional way.

We manage complex projects accurately and **in line with contractual deadlines**, using BIM software and parametric design.

FULL-SERVICES COMPETENCES

Services offered

Project management

Assistance in the processes of design definition, feasibility and execution phases, construction planning, **coordination** and management, planning and **control of project activities**.

Construction management

Complex infrastructures, restoration of historic buildings, contemporary and innovative buildings, gardens, small schools, shopping centers, with **public and private clients**.

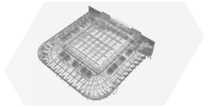
Safety coordination

Prevent accidents during the execution of the works, **analysing and evaluating the risks** pertinent to each particular activity taking place on-site.

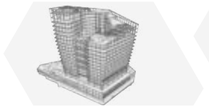
Testing and Commissioning

We follow the start-up and **testing of building** and **plant engineering systems**, up to the phases of delivery to the client and the taking charge by end users.

Structural Engineering



La Défense Arena - Paris | France
6000 ton steel roofing
Liebherr LR113500 crawler crane

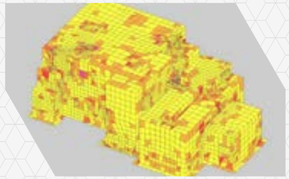


ArcelorMittal Tower | Luxembourg
9000 ton steel
3000 mc concrete

Qatar Airways Maintenace Hangar Doha
190x510 m Plan dimensions
260 m Large hangar free light

The use of **FEM models**, using software chosen according to the type of project and place of intervention, represents the normal method of analysing steel structures. The FEM analyses are developed with a level of detail suitable for the type of solution required, using beam, shelll or solid element models. The solutions obtained are compared with manual analyses or simplified reference models.

Services offered



Reinforced concrete structures

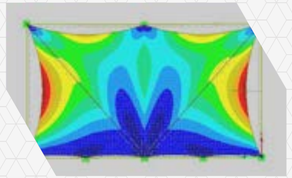
We develop projects with reinforced concrete structures, starting from the analysis of the most efficient solution, to the development of structural analysis in the static and dynamic field. Structural analysis aimed at **seismic improvement** are skills that Incide totally possesses.

Steel structures

Profound **knowledge of the complexity of steel structures**, which derives from twenty years experience alongside builders and architects, from structures with large lights, to tall towers, providing cutting-edge services in all **international regulatory contexts**.

Timber structures

We start from the concept and research of materials for proposing the construction scheme that we develop to the detail. We offer a suite of specialist analyzes, improve buildability, **maximize energy efficiency** and increase safety.



Tensile structures & FEM modeling

Tender design - Value Engineering Concept and Schematic Design 3D models - Detailed Design and construction documents - Parametric solutions and optimisation - Assembly projects - Thermal and acoustical analyses - Cutting pattern design.

Special structures

From conceptual design to the development of calculations using finite elements, to the production of final and construction drawings, the interoperability of processes through BIM, up to the study of assembly phases

We carry out specialised structures projects for the **Agri-food sector**, in the field of **Industrial plant** engineering, **Mechanical engineering** and Pressure and Atmospheric Containers.

Services offered

Plants for the Agri-food sector

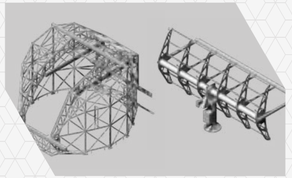
Structural and mechanical design of **machines for handling grain**, **silos** for storage and buildings for plants for processing the food product cycle. We design complex silos and their load-bearing structures, in accordance with the most common international regulations.

Silos, Derricks & steel industrial chimneys

The final and detail design of Derriks and industrial chimneys is developed considering vortex shedding effects and **aero-elastic stability** according to CICIND, EC and ASME standards. The analyses can also define the characteristics of structural damping devices.

Industrial plant structures

Industrial plant steel structures design is a complex discipline that involves **Structural, Mechanical and industrial engineering**. The knowledge of the processes that take place in the plant is required to provide an accurate design of the steel structures.



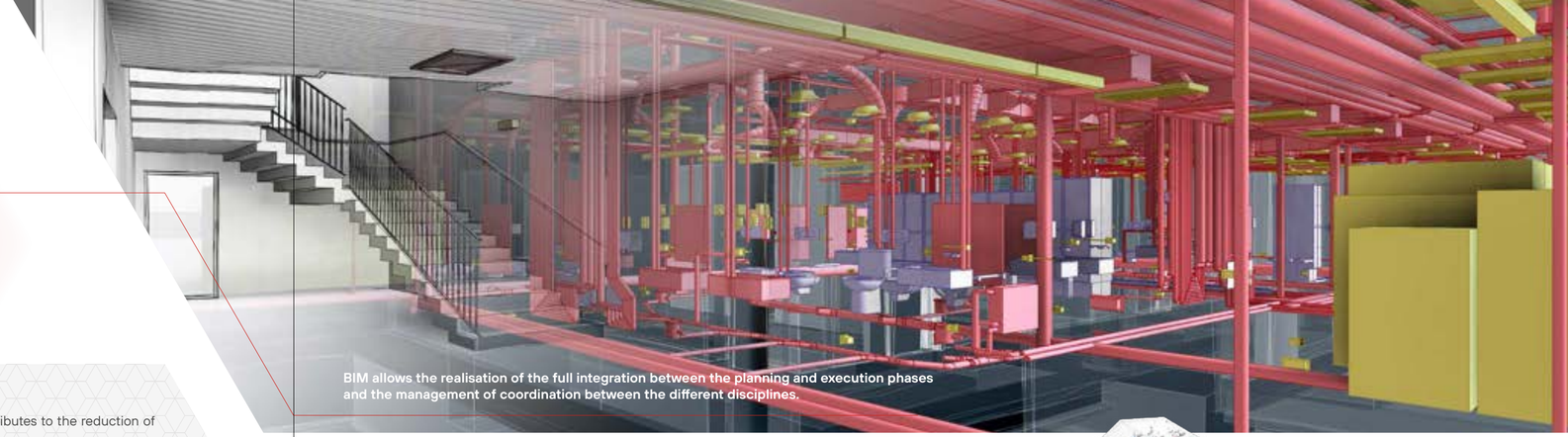
Specialised analyses

In addition, Incide has experience in various types of **special components**, for which specific sizing and analysis parameters are used. Projects are necessarily managed from their conceptual development phase up to the construction design phase.

MEP Engineering

more about

Through its internal system design team, Incide manages to provide customers, architects and developers with total integration of the various design disciplines, in order to optimise the design processes to guarantee the overall



BIM allows the realisation of the full integration between the planning and execution phases and the management of coordination between the different disciplines.

The correct design of the **Electrical** and **Mechanical Systems** of buildings or in the infrastructure sector is a fundamental component of the building complex and ensures its correct functioning and the achievement of high standards of comfort, but energy saving strategies and the supervision and the scrupulous control of the systems contributes to the reduction of maintenance costs.

Services offered:

- **Technical and economic feasibility**
- **Technical management & supervision of works**
- **Energy analysis of buildings**
- **Full integrated bim model**
- **Final & Executive design**

MEP Certifications:

- **EGE - ENERGY MANAGEMENT EXPERT - Civil SectorCertification UNI CEI 11339:2009 n° 18-05416**
- **CAM - ECO-DESIGNER - Construction Sector Certification ISO/IEC 17024 n° AEP017**

Energy Efficiency

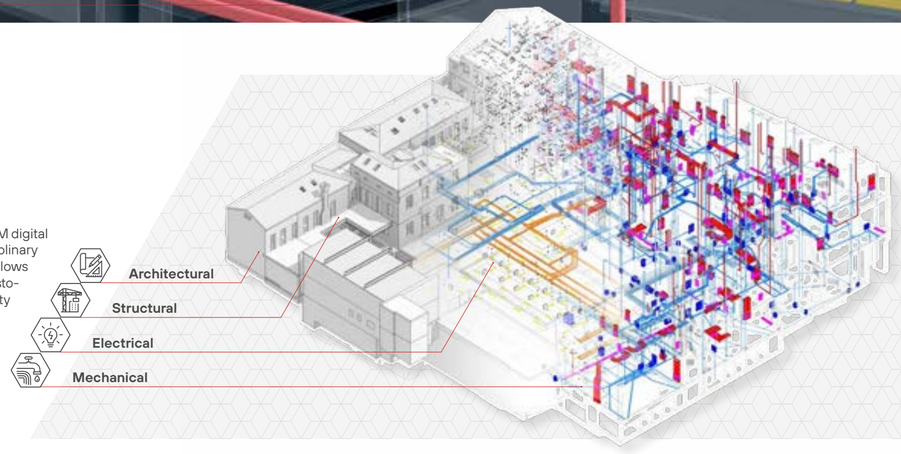
The design of plant systems aimed at the **reduction of energy costs and CO_2 emissions** requires excellent knowledge of the complex building system. The energy-plant engineering strategy adopted is a Mean, Lean, Green approach: **Reduction of energy consumption** through the adoption of passive project measures to reduce demand MEAN; **Optimisation of system efficiency** through the use of energy efficient systems and devices LEAN; **Use of renewable technologies and energy sources** GREEN.

LEED certification support activities

High-performance LEED buildings address sustainable development throughout the building's entire life cycle: from the beginning with the building's site selection and design all the way through to the end of the building's life. Sustainable buildings are significantly better than standard buildings. They **use less energy**, **save money over time,** provide better occupant **health** and **comfort**.

BIM MEP

The design of the systems is carried out using BIM digital information models, which allow total interdisciplinary coordination from the first design phases. This allows a **reduction in time**, the transmission to the customer of **real visual information**, and the possibility of managing multidisciplinary design information within the same environment, including **cost**, **time** and **facility management analyses** Incide has introduced the professional skills for a full BIM approach to projects.



Mechanical systems

The design of mechanical systems includes the development of all types of air conditioning, ventilation and industrial plant systems, for the various types of product sectors. Incide is able to support its clients **from the first design stages**, towards the most efficient plant solutions capable of providing **maximum comfort and energy efficiency**.

Services offered

HVAC systems
Air conditioning and ventilation systems for civil and industrial sectors; local regulation of treated air and temperature, free-cooling systems and antibacterial air treatments.

Water and waste water systems
Water supply, distribution and disposal systems in residential, commercial and industrial buildings, for the reduction of water consumption and waste water treatment.

Methane, technical & medical gas
Incide designs special systems for the management, storage and distribution of civil, hospital or industrial gases, offering solutions accredited by over ten years of experience.

Fire-fighting, smoke and heat extraction systems
Fire-fighting sprinkler and hydrant networks and smoke and heat extraction systems for hospitals, public and industrial buildings, and airport infrastructures.

Discharge & rainwater recycling
Incide designs systems for conveying and recovering rainwater for sanitary use or for irrigating outdoor areas, with ecological recovery and high cost savings.

Compressed air systems
Calculation and design of compressed air systems for industrial, hospital or special use in full compliance with current regulations.

Control and regulation systems
We offer consumption control and management systems (BMS) using electrovalves, automated shutters and temperature and pressure sensors.

Industrial special systems
Derricks and steel industrial chimneys, Thermal power plants and Oli&Gas plants, Industrial ducts and Storage and pressure vessels.

Electrical & special systems

The design of electrical systems, from power plants to medium-low voltage distribution, to lighting and special systems, are carried out in total synergy with the design of mechanical systems, integrating the aspects of **regulations** and **building automation systems**.

Services offered

Civil & industrial installations
Ordinary, emergency and security lighting installations and all types of electrical installations in ordinary, uninterruptible power supply and GE-powered installations.

Switchboards & Transformer rooms
Choice of components to obtain a continuous level of service (transformers, power factor correction devices, circuit breakers, power centre and distribution switchboards).

MV/LV photovoltaic systems
Photovoltaic systems with or without a storage system in order to provide the customer a continuous level of energy to obtain an adequate production performance.

Intrusion detection & video surveillance
For the protection of personal and material safety, we design special anti-intrusion and video surveillance systems based on customer requirements.

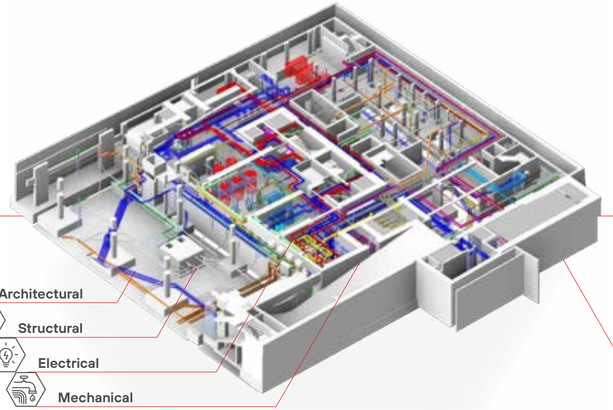
Fire detection systems
Sophisticated fire detection and alarm signalling, with technologies capable of detecting the beginnings of fires with or without smoke development.

Structured cabling
Data systems with the highest standards required for transmission networks and telephone signals, selected to satisfy every customer requirement.

Supervision systems
Useful for controlling and monitoring MEP components. Latest-generation devices, all useful parameters are made accessible, even remotely.

Access control
Special systems for access control to protected internal and external areas. The traceability is guaranteed by the latest generation of databases and software.

Professional BIM approach



Incide has introduced the competences and professional skills for a full BIM approach to projects. The BIM allows the realisation of the **full integration between the planning and execution phases** and the **management of coordination** between the different disciplines.

Using the most advanced software, we develops engineering and architectural disciplines using BIM 3D models, giving to the project a integrated design approach, **anticipating problems** and having a **real time view of constructions**.

The 10 dimensions of BIM

BIM is now articulated in a multidimensional structure that responds to increasingly advanced and specific needs. The first dimensions of BIM, 1D and 2D, are related to research and two-dimensional modelling, which provides the basis for subsequent design levels. 3D brings BIM to the complete **visual representation** of the building, while 4D integrates the **temporal dimension**, enabling accurate planning of construction phases. 5D introduces cost **management**, facilitating budget control at all stages of the project. The 6D, also known as the Performance dimension, focuses on **energy efficiency** and **environmental impact**, making it possible to analyse the building's energy performance according to consumption and emissions. The seventh dimension 7D, the heart of **Green BIM**, concerns the **building's life cycle** management and includes Facility Management. Finally, the last three dimensions. 8D, focusing on **safety**, 9D for **lean construction** and 10D for **construction industrialisation**. Complete the picture by offering tools to optimise time, reduce waste and improve the sustainability of the entire building process.

1D
Scratch Point
- RESEARCH
- IMPLEMENTATION
- CONCEPT DESIGN

2D
Vector
- PRODUCTION
- IMPLEMENTATION
- DS DEVELOPMENT
- SUSTANIBILITY

3D
Shape
- REPRESENTATION
- IMPLEMENTATION
- FINAL DOCS
- SUSTANIBILITY

4D
Time
- PRODUCTION
- SYSTEMS
- SIMULATIONS

5D
Cost
- PRODUCTION
- CONTRACTS
- SUSTAINABILITY

6D
Performance
- RESULTS
- VALUE ENGINEERING
- SAVE ESTIMATION
- RE-DESIGN

7D
Sustainability
- ASSESSMENT
- CERTIFICATION
- IMPLEMENTATION

8D
Safety
- RISK ASSESSMENT
- IMPLEMENTATION
- EVALUATION

9D
Lean Construction
- PROCESS IMPROVEMENT
- WASTE MINIMIZATION
- IMPLEMENTATION

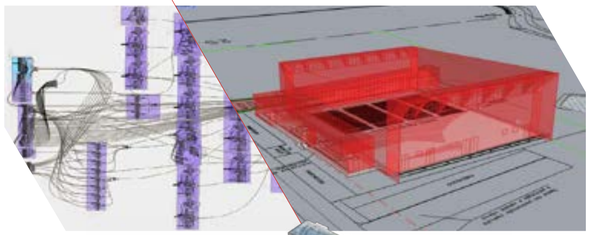
10D
Industrialized Construction
- DIGITAL FABRICATION
- AUTOMATION
- ADVANCED TECHNOLOGIES

Computational design & Parametric modelling

BIM approach means: coordination and efficient design, time saving, verification of interferences, anticipating mistakes, ensuring on-site work continuity and cost optimisation

Incide has acquired skills for the development of parametric and interoperable models in order to **manage complex projects** with innovative methodologies in order to overcome the geometric constraints, speed up the design process, and **reduce the typical errors of human operation**. This approach allows the structuring and creation of virtual 3D models, by concatenating and automating processes by acting on specific parameters. A well-structured parametric definition allows **fast and accurate changes to projects or study**, in a relatively simple way, a series of possibilities or alternatives starting from the assigned numerical (dimensional, quantitative, etc.) or formal assumptions.

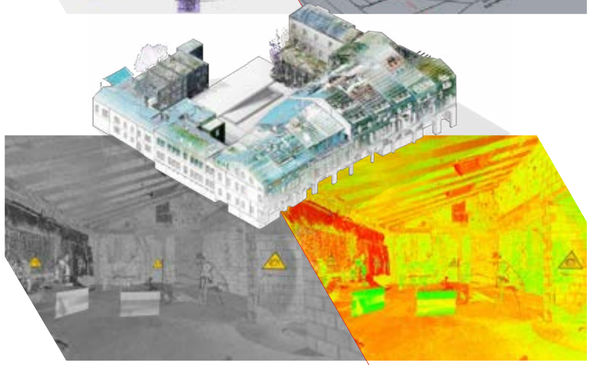
Modelling of parameterized components **reduces modification times** and helps in the **evaluation of different design scenarios**.



Laser scanner metric survey

The integration of laser scanning surveys with BIM enables the creation of highly accurate digital models through **point clouds**, eliminating measurement errors and ensuring **fidelity between design and the real building**. This technology shortens survey times, optimizes resources, and prevents costly corrections. Additionally, it **detects clashes** and interferences between existing structures and systems, improving project management and collaboration.

The combined use of BIM and laser scanning makes construction processes more precise, faster, and sustainable while **reducing costs and unforeseen issues**.



Selected projects

Thanks to the **heterogeneity** and **complexity** of the projects developed, Incide Engineering has acquired high skills in **different market categories**.

The experience developed by offering multidisciplinary services of high technical values, offers for each of these categories a solid basis in method, international construction codes and implementation constraints, to guarantee an efficient customer support.

- Aviation
- Commercial
- Residential & Housing
- Industrial complex
- Sport & spectacle
- Retail
- Industrial plants
- Infrastructures
- Restauration
- Military infrastructures
- Health
- Hotel

Project capabilities in the Aviation Sector

Incide Engineering has built an important reputation across the nation for devising innovative, cost-effective solutions for aviation design.

Orly Airport Junction Building - Paris, France

We provide full spectrum of engineering services for **airport terminals**, **hangars**, **parking structures** and **cargo facilities**.

Our services include feasibility studies, design, peer review, construction administration, computer analysis, wind analysis, seismic design, value engineering and quality control, building-envelope investigation and analysis, rehabilitation recommendation and design, retrofits and renovations.

Services offered

Aeronautical industries

Incide is **partner for the most known private aeronautical companies**, such as Leonardo Group companies including Leonardo Elicotteri, Leonardo Velivoli e Aerostrutture, Superjet International (Sukhoi), in the development of industrial aeronautical facilities, and cooperating with **Airway Companies**, for designing their **Technical Support Facilities**.

Incide Engineering provides a full range of services: Site Master Plan/Production and logistics building design/Long Span Structural Design/Architectural Design/Mechanical & Electrical Systems Design/Construction Management/Consultancy Services.

Facilities for aeronautical companies

We have designed a series of **infrastructures for industries operating in the aeronautical sector**, including:

Aeronautical industry plants/Flight lines and Assembly line for helicopters and airplanes/Maintenance Hangars/Painting hangars/Engine Test Hangars/Fuel Test Hangars/Gyroscopic Pads/Helicopter landing Pads/Pilot Training Centers.

Airport design

We apply high level strategic thinking to develop a **master plan/concept design** and planning strategy for terminals, **airside planning and commercial development**. We are able to communicate with airport operational management/stakeholders to develop their programs and lead "in house" teams in client organisations.

We offer a full range of airport sector services, including: Airport master planning / Airport layout plan development / Airport feasibility and final studies / Aviation system development / Airspace and obstruction analyses / Cost estimations/Airport development/Redevelopment planning and future proofing.

Airport facilities design

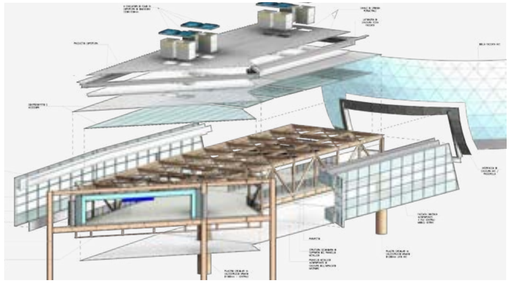
We have experience in the design of different types of buildings annexed to airports: Runways, taxiways and aprons/Terminal buildings/Control towers/Cargo terminal buildings/Maintenance hangars /Live animal terminal buildings/Engine test pads/Fuel reservoirs.

Conceptual **analysis of terminal functions** to resolve the key issues of aircraft access, baggage handling/conveyor routing, number of floor levels, segregation areas and boarding/arrival zones. We develop terminal **planning strategy** to minimise the footprint and optimise available areas. We integrate of commercial area planning and operational requirements.

Fiumicino Airport Terminal 3

Services: Structural engineering/Architecture/Facade engineering/BIM
Markets: Aviation/Infrastructures

/ Location: **Rome - Italy**
/ Year: **2016**
/ Owner: **Aeroporti di Roma ADR**
/ Client: **Cimolai S.p.a. Permasteelisa S.p.a.**
/ Architect: **Incide Engineering S.r.l.**



Incide has provided design activities for the Leonardo da Vinci airport in Rome in three phases linked to different orders: The first phase concerns the structural and architectural design of the footbridges that connect Terminal 3 with the AVC and platform C, as well as the bridges to the boardings.

The second phase involved the design of the supporting structures of the conveyor belts for the new baggage handling system from Terminal 1 at the Ex-cargo building.

In the third phase, detailed design of the cladding facades of all walkways and jetty C was provided, including a supporting steel structure.

The project was developed using the BIM approach, in order to easily manage and integrate the structures, facades and systems.

Orly Airport T Orly 3

Services: Steel Structure Detail Design
Markets: Aviation/Infrastructures/Commercial

/ Location: **Paris - France**
/ Year: **2016**
/ Owner: **Paris Airport**
/ Client: **JV Omba / Simeon**
/ Architect: **-**

The Bâtiment de Jonction project is an extension of the two existing Terminals at Orly Airport (South and West).

The total area of the new building is about 80,000 square metres and the plan dimensions are 260 m long and 125 m wide. The overall height is about 23 m. The project has made the time spent by passengers at the airport more comfortable before embarking, providing more modern facilities that meet the highest international standards.

Incide Engineering provided structural steel design services for the 3 floors of the terminal; a complete BIM model was developed using different software linked to each other in order to achieve a correct integration between the disciplines.

Fiumicino Airport - Terminal B

Services: Electrical & Mechanical engineering/Fire protection engineering/BIM coordination
Markets: Aviation/Infrastructures

/ Location: **Rome - Italy**
/ Year: **2021**
/ Owner: **Aeroporti di Roma ADR**
/ Client: **ADR Ingegneria**
/ Architect: **-**

Incide took care of the preliminary and executive design of the entire Pier B of the Leonardo da Vinci International Airport (Fiumicino - Rome), subject to a global redevelopment with **LEED Gold** objective.

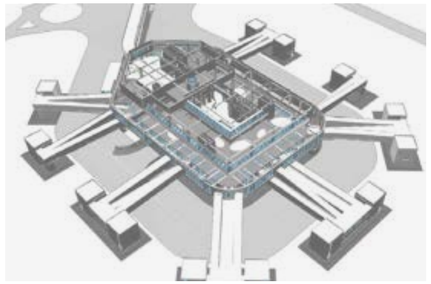
It envisages the complete renovation of the two existing sub-stations, the transformation of the aeraulic system into all-air, new switchboards and electrical systems, the creation of new technical rooms for electrical and TLC switchboards with dedicated air conditioning, the aesthetic and functional integration of all the ceiling installations with coloured ribbons that have the dual function of embellishment and signposting for passengers.

It was a work of continuous interdisciplinary co-ordination and integration with the architectural part, with external consultants and with the client, with very ambitious time objectives, which the Incide's team was able to carry out skilfully despite the inevitable and frequent difficulties.

Satellites A and B Malpensa Airport T1

Services: Architecture/Structural eng./Civil engineering/MEP engineering/Facade engineering /BIM
Markets: Aviation/Infrastructures

/ Location: **Milano - Italy**
/ Year: **2022**
/ Owner: **SEA S.p.a.**
/ Client: **SEA S.p.a.**
/ Architect: **Incide Engineering (RTI: SAB-CREW)**



Incide supported Società Esercizi Aeroportuali (SEA Milano) by developing the **architectural**, **structural** and **MEP design** for the redevelopment of satellites A and B of Terminal 1 at Malpensa airport.

SEA wished to functionally upgrade Satellite A in order to increase its capacity by allowing thirteen aircraft to land instead of the current ten, with the aim of significantly increasing the number of passengers transported by so-called 'low cost' airlines.

For Satellite B, on the other hand, punctual works were carried out aimed at the flexible configuration and division of Schengen/non-Schengen passenger flows. The main intervention involved **partitioning the satellite** and the corridors connecting it to the terminal by means of opaque aluminium frames. A complete re-layout of the satellite was then carried out, which implied the **adaptation of installations** and the **redevelopment of some spaces** with a new use as connecting bridges, warehouses and toilets.

Expansion of Mohamed V International Airport

Services: Structural engineering / Civil engineering / Electrical & Mechanical engineerings / Fire protection / BIM coordination / Project management

Markets: Aviation / Infrastructures

/ Location: **Casablanca - Morocco**
/ Year: **2022**
/ Owner: **Office National Des Aeroports**
/ Client: **Jet Contractors**
/ Architect: **Azzedine Baddou Architecte**

Incide Engineering was involved by Jet Contractors for the executive study of the extension of Casablanca International Airport, in order to realize two separate and totally different interventions:

Domestic module of 80x60m (departures, national arrivals and international transits); design of the structural steel mesh coordinated with the routes of the transit flows. Design of the curvilinear staggered double-pitch roof and foundations, in coordination with existing neighbouring structures.

Central Module (international arrivals and transits connected with the existing T1 and T2 terminals); intervention developed for 3 buildings located in the heart of the airport, continuous with each other but structurally separated.

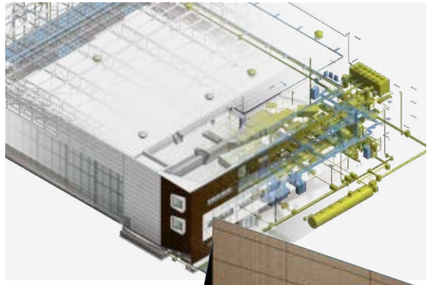
Both projects were developed on a **BIM platform with coordination of the MEP/HVAC systems** according to the guidelines of the architectural office.

Hangar PG109 Ciampino Airport

Services: Architecture / Structure / Civil / MEP engineering / Fire protection / Facade engineering / BIM

Markets: Aviation / Infrastructures

/ Location: **Aeroporto Pastine - Ciampino (RM)**
/ Year: **2020**
/ Owner: **Aeroporti di Roma**
/ Client: **Aeroporti di Roma**
/ Architect: **Incide Engineering S.r.l.**



The project concerns the demolition and new construction of an hangar for the sheltering and maintenance of general aviation aircraft, at the G.B. Pastine airport in Ciampino (RM). The new hangar is used partly for the shelter and maintenance of aircraft, and partly for offices, training areas and general aviation representative rooms.

The activity developed from the feasibility study to the preliminary and executive BIM design integrated and coordinated between the **civil, structures, architectural and MEP disciplines**, with computation in Team System CPM, structural and energy calculations and design aimed at **LEED certification**.

The completeness of the assignment, for all disciplines and the various stages of progress (feasibility study, preliminary design, executive design), allowed the team to develop a strong overall link between the various skills and software associated with them.

Qatar Airways Maintenance Hangar

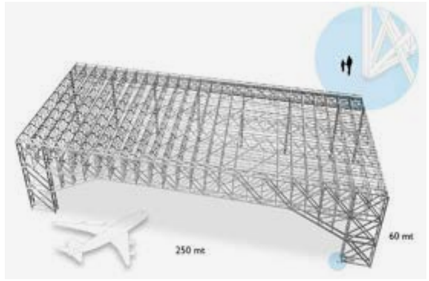
Services: Structural engineering
Markets: Aviation/Infrastructures

/ Location: **Doha - Qatar**
/ Year: **2010**
/ Owner: **Qatar Airways**
/ Client: **Cimolai S.p.a.**
/ Architect: **-**

The complex in Doha International Airport has two hangars, one with a **250 meter-span and the other with a 220-meter span**.

The structures will accommodate eight wide body and four narrow body aircraft, including two A380s. The design of the structure's layout and column spacing ensures flexible aircraft parking and maximum maintenance efficiency. Mezzanine levels allow direct access to the upper floors of the aircraft. Floor mounted docks for servicing the aircraft and overhead cranes further ease maintenance access and safety.

Incide Engineering provided structural design services for the steel superstructure of whole building (**about 21,000 tons**).



Cargo Terminal Facility

Services: Structural engineering
Markets: Aviation/Infrastructures

/ Location: **Doha - Qatar**
/ Year: **2010**
/ Owner: **Qatar Airways**
/ Client: **Cimolai S.p.a.**
/ Architect: **-**

Incide Engineering provided **structural design services** for a one-story, **850'000 m²** cargo warehouse facility at the new Doha International Airport. A partial mezzanine supports an automated warehouse storage and retrieval system, a main feature of the structure.

Other major areas of the facility included high bay storage areas, work stations for lifting and breakdown of unit load devices (ULDs) and storage areas for special cargo. The facility has the capacity to process 750'000 tons of cargo per year, making it one of the **20 largest cargo facilities in the world**.

Commercial buildings

Successful commercial building designs reflect the expectations of local tenants and incorporate local construction practices.

We offer our design experience for **Commercial Buildings** to Investors, Builders and Architects all around the world.

Different cultures reflect different ergonomics and proxemics; this results in various room sizes as well as different approaches to mechanical systems and equipment. The aesthetic styles are also influenced by these cultural differences; Incide's multidisciplinary team starts from these analyses to develop and define project ideas for commercial buildings.

Exo building - Dublin, Ireland

Services offered

Commercial Buildings

Our multidisciplinary professionals offer expertise throughout a **building's life cycle**.

We provide technical support and quality reviews through the **testing**, **fabrication**, and **building phases** until construction is completed. We plan maintenance programmes, and guide owners on extensions, adaptive reuses, restoration and renovation.

We carry out Seismic Analyses and retrofit assessment, and we can assess when a building no longer contributes to the built environment.

Office Buildings

We are able to provide a high level of innovation and quality in the **design and construction** of office buildings, providing a turnkey service for small shops up to medium-sized retail outlets.

We assist clients throughout the implementation process, providing **technical evaluations**, **preliminary and final studies**, **lighting design**, arrangement and decoration of interiors, as well as completing municipal paperwork processes.

Building performance and sustainability

Building owners and managers have ever-increasing expectations for high performance regarding humidity management, **thermal comfort**, and noise control, as well as new challenges such as **environmental sustainability** and **safety**.

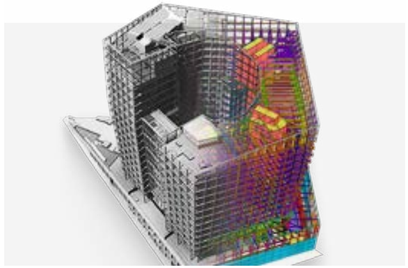
We optimise your time

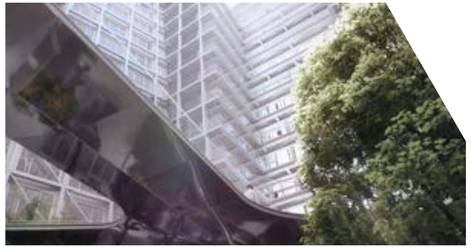
Almost always, times for renewal and layout are very narrow, compressed into very short periods often during planned closure periods; we have, over time, developed a method that allows us to realise all the individual phases in the **shortest possible time**.

ArcelorMittal Tower - New headquarters

Services: Steel & concrete structures/BIM
Markets: Commercial

/ Location: **Luxembourg**
/ Year: **2024**
/ Owner: **ArcelorMittal**
/ Client: **ArcelorMittal**
/ Architect: **Wilmotte & Associated**





The new world headquarters of the Luxembourg - Indian Arcelor Mittal Group in Luxembourg.

The tower building with 5 floors underground and 16 floors above ground was designed by the Paris-based architecture firm Wilmotte, following an architectural competition. Incide has been contracted by the selected group of companies for the construction of the technical assistance activities for the tender, and subsequently the engineering activities preparatory to the development of the construction design of the steel and concrete structures.

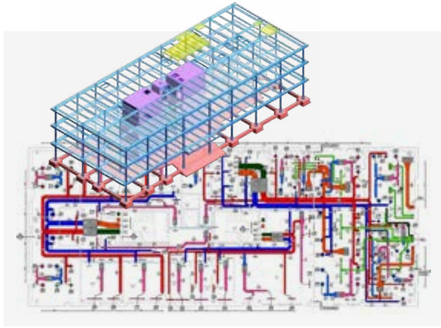
The design will be developed in a BIM environment, both for the steel and concrete part using Tekla software, for a total and perfect coordination of the works.

Final verifications of the structure will complete the assignment, together with the BIM coordination of the structural disciplines and the interaction with the other design parts.

New headquarters Enologica Vason

Services: Structure/Civil/MEP/Special structure/Construction Management/BIM
Markets: Commercial

/ Location: **Verona - Italy**
/ Year: **2021**
/ Owner: **Enologica Vason SpA**
/ Client: **Enologica Vason SpA**
/ Architect: **Arch. Enrico Savoia - Studio ES architettura**



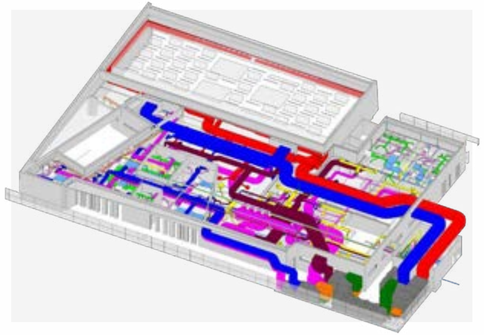
Incide developed the structural and plant design of the new headquarters of the Enologica Vason company. The office building, which houses administrative and commercial offices and an innovative Research & Development and Quality Control laboratory, was designed using BIM models coordinated between the different disciplines.

The air-to-air Climate Control (VRF) and Ventilation (VMC) systems allowed for maximum autonomy of use in the different zones according to the required climatic needs, guaranteeing reduced consumption of resources. DHW was ensured by means of 2 heat pumps with built-in storage. Special systems were designed for the laboratories, such as: compressed air, methane and technical gas, server room air conditioning, and water osmosis and demineralisation plant. The electrical systems designed were: lighting, emergency, motive power, telephony-data, fire detection and alarm, anti-intrusion, photovoltaic and earth and equipotential bonding systems.

Leonardo company canteen

Services: Architecture / Structure / Civil / MEP / Fire prevention / Construction management / Safety / Commissioning/Bim
Markets: Industrial complex/Commercial

/ Location: **La Spezia - Italy**
/ Year: **2018**
/ Owner: **Leonardo Global Solutions S.p.A**
/ Client: **Leonardo Global Solutions S.p.A.**
/ Architect: **Incide Engineering S.r.l.**



A project for the construction of a canteen building at the Leonardo S.p.a. plant in La Spezia. Incide was entrusted with the design services (preliminary analysis and feasibility study, final design, execution of fact-finding investigations on the buildings and on the ground, ...) and execution of the works (works management, Works Manager and Safety Coordinator, etc.).

The building with a useful area of 2,400 square metres, has dining rooms suitable for up to 600 users, completely designed and with high energy efficiency criteria.

The design choices made included the insertion of sound-absorbing materials on the ceiling and on the wall to decrease the reverberation time values and obtain acceptable "intelligibility" values.

Extension of Ganmar offices

Services: Structural engineering/Electrical engineering/Mechanical engineering/BIM
Markets: Commercial buildings

/ Location: **Verona - Italy**
/ Year: **2018**
/ Owner: **Ganmar S.r.l.**
/ Client: **Ganmar S.r.l.**
/ Architect: **E.S. Studio - Arch. Enrico Savoia**

Incide Engineering provided the structural and plant design for the expansion and renovation of the offices of Ganmar S.r.l. The main building was enlarged through the construction of a new building attached to the existing one.

The part of the existing building has been renovated and insulated with the complete renovation of the heating, cooling and domestic hot water production systems. Incide carried out the inalexecutive structural and plant design, in accordance with the new rules on energy efficiency.

Restoration of Antirion offices

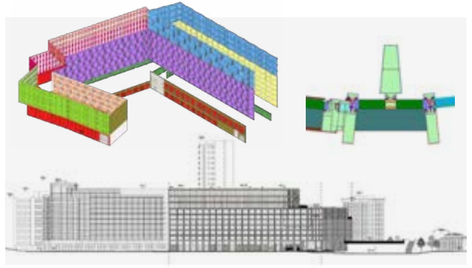
Services: Facade engineering/Bim & multidiscplipinary coordination
Markets: Commercial buildings/Restoration

/ Location: **Milan - Italy**
/ Year: **2020**
/ Owner: **Antirion SGR S.p.A.**
/ Client: **Gualini S.p.A.**
/ Architect: **Onsitestudio**

The building the project concerned, located in Via Don Luigi Sturzo 45 in Milan, is an irregular plan building consisting of 3 buildings connected together, of different heights and underground levels.

The entire property owned by the Antirion group is used for offices. The glazed facades are of the type with uprights and crosspieces with external covers, divided into 9 different types for the size of the glazed module and for the presence of architectural elements or sunblind slats.

Incide Engineering carried out the final design of the facades, following structural, thermal and system checks.



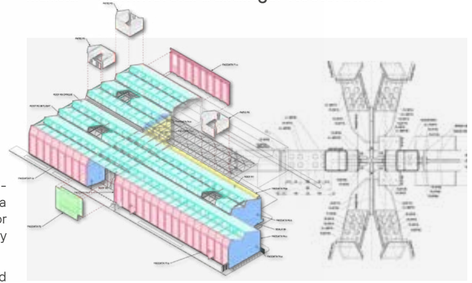
Luxottica headquarters in Milan

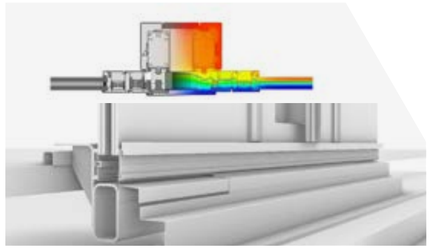
Services: Facade engineering/Structural engineering/Bim & multidiscplipinary coordination
Markets: Commercial buildings/Restoration

/ Location: **Milan - Italy**
/ Year: **2020**
/ Owner: **Tortona 35 S.r.l.**
/ Client: **Pichler projects S.r.l.**
/ Architect: **Park Associati**

Incide Engineering has developed the engineering of the facades of the new Luxottica foundation in Milan, a restoration project for a building from the early 1900s carried out by the firm Park Associati.

The facades on which the study and detailed final design was developed were divided into 4 types of glazed and perforated sheet metal facades plus glazed skylights on the roof and the opaque part of the roof and load-bearing structure, composed of main building and secondary beams. Structure and heat loss occurred for each type of facade, with integrated deformation analysis of the proposed windows.





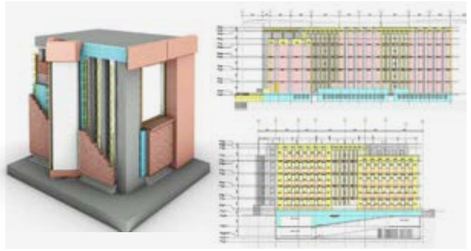
IFC offices Dakar

Services: Facade engineering/Bim & multidiscplipinary coordination
Markets: Commercial buildings

/ Location: **Dakar - Senegal**
/ Year: **2020**
/ Owner: **International Financial Corporation**
/ Client: **Generale d'Enterprise**
/ Architect: **Adjaye Associates**

A project regarding a new office building of the International Financial Corporation (IFC) built in Dakar, Senegal. The building includes 6 interconnected blocks with 2 service blocks and connecting corridors.

Incide Engineering developed the engineering of the facades. These consisted in prefabricated modules made of concrete and GFRC fiberglass reinforced concrete, cladding in compressed and stabilized local earth bricks, windows and doors. The metal profiles were dimensioned, the thermal and acoustic coefficients verified, the assembly system engineered and the components coded. Finally, the final drawings for production were provided.



Real estate and Restoration

The design of residential buildings requires a particular focus and attention paid to client needs, aimed at transforming a design activity into a dream realization

Restoration of Palazzo Roccabonella - Padova, Italy

The **internal architecture department** provides high-level design of homes, interior design, renovation and gardens.

We carry out technical evaluations, **preliminary** and **executive** studies, architectural and structural design, **interior design** and lighting, with particular attention paid to construction details and the choice of materials from a sustainable perspective.

Services offered

Private sector housing

Incide Engineering performs most of the design process for private housing. **Structural design**, **architecture**, **interior** and **outdoor design**, lighting, decorating and even custom furniture are all included in our services.

Decorating

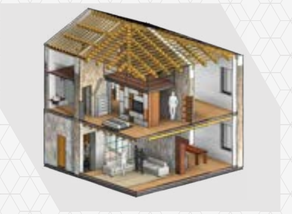
We supply a wide range of **high-quality home furniture** and accessories made in Italy, carefully selected from the finest Italian products. For those who appreciate fine craftsmanship, quality materials and authentic design, our collection of fine furniture is the ultimate choice.

For those who appreciate refined craftsmanship, quality materials and authentic design, our furniture design proposals are the best choice.

Renovation

Incide's architects, considering the souls of buildings and client aspirations, develop the whole building renovation design process.

Renovation means improving and upgrading, using original material, but using new construction techniques, based on sustainability, energy saving, structural safety, modernity and, mainly, client aspirations and budgets.



Sustainability & ESD energy efficient green homes

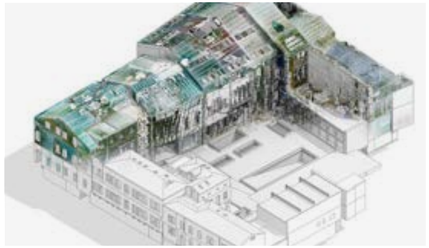
Environmentally Sustainable Design is not an optional extra. We build it into the design from the onset and see it as our responsibility to do so.

We make a big effort to keep up to date with trends, emerging technologies and innovations in the industry.

Restoration of Palazzo Roccabonella

Services: Architecture/Structual engineering/Civil/MEP/Construction management/Safety coordination
Markets: Industrial complex/Restoration

/ Location: **Padua - Italy**
/ Year: **2020**
/ Owner: **Impresa Carron S.p.A.**
/ Client: **Impresa Carron S.p.A.**
/ Architect: **Arch. Albano Salmaso**



The complete design for a refined balance between old and new, to create environments full of charm in the heart of Padua. Based on the contact of the surfaces, the place was transformed for a conservative restoration of a 17th century building.

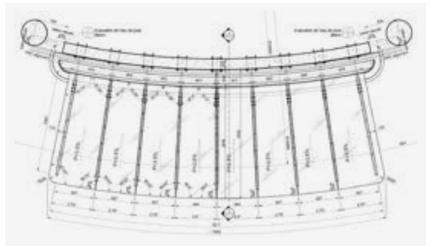
The elements were installed within the ancient walls, with frescoes and decorations, with light becoming the protagonist to mark the materials and signs of aging. Innovative systems intertwine in a silent, invisible, manner to create dynamic and elegant environments in the city centre.

Giò Ponti left his "mark" on the Palazzo Roccabonella and almost 90 years later Incide Engineering began a project for the "metamorphosis" of the main body and its appurtenances to create new homes, bimmersed in a combination of history and modernity.

Sporting d'Hiver

Services: Facade engineering/Structural engineering/Bim & multidiscplipinary coordination
Markets: Residential & housing/Commercial

/ Location: **Monaco - France**
/ Year: **2017**
/ Owner: **Société des Bains de Mer**
/ Client: **Permasteelisa S.p.a.**
/ Architect: **Rogers Stirk Harbour + Partners**



The contract concerns the detailed design of the facade of the **Sporting d'Hiver luxury complex** in Monaco.

The complex includes seven glass buildings for residential use, at the foot of which lies a new luxury shopping area.

It has curved glass facades, with stainless steel and aluminium finishes. Incide Engineering developed the final engineering and structural design of the components.

Training Center A.Marchetti

Services: Architecture/Structure/MEP/Fire protection/Construction management/Safety/Commissioning
Markets: Industrial complex/Restoration

/ Location: **Varese - Italy**
/ Year: **2005-2008**
/ Owner: **AgustaWestland S.p.A.**
/ Client: **AgustaWestland S.p.A.**
/ Architect: **Incide Engineering S.r.l.**

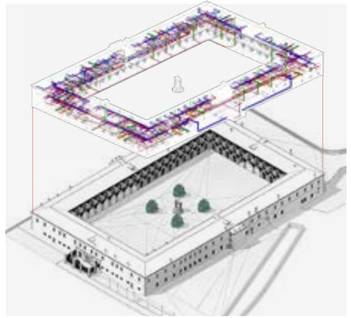
The new training centre for pilots and maintenance personnel of AgustaWestland was established on the old industrial site of SIAI Marchetti.

The site was abandoned in 1990 and INCIDE was appointed in 2005 to develop a project for the restoration of part of the site to create a new training centre, that has to include Full Flight Simulator, Classroms, Management Office, Training for Maintenance of Helicopters. The A.Marchetti Training Academy in Sesto Calende, Italy, has 18 dedicated classrooms and a maintenance training hangar with two full systems trainers linked with multi-screen Computer Based Training systems.

Restoration ex caserma Pepe e Bellemo

Services: Structural engineering/Civil engineering/Electrical engineering/MEP/Fire protection/Bim/Project management/Safety coordination
Markets: Residential & housing/Restoration

/ Location: **Venice Lido - Italy**
/ Year: **2022**
/ Owner: **Università Cà Foscari**
/ Client: **Università Cà Foscari**
/ Architect: **Arch. Alberto Albertini**
Consorzio di Progettazione



The project involves the conversion of the former Pepe Barracks from a disused military district to a university residence and related services. The building, **dating back to 1596**, was used for centuries for the stationing and housing of soldiers. The restoration envisages the construction of 207 accommodation places divided into one- and two-bed mini-apartments. There will also be common areas for dining, recreation and study, as well as spaces for the management and maintenance of the buildings in the entire area.

Incide was in charge of the **final structural design** with interventions of Consolidations.

In addition, Incide provided **project management services, safety manager and developed the fire and plant design** in order to bring the buildings to Class **A3** (plus six classes compared to the existing) all developed on a BIM platform.

Industrial buildings

The company works with major EPC contractors from around the world, giving advice and providing services to develop power plants, infrastructure projects, industrial plants and oil and gas production sites

Faco JSF plant - Cameri (NO), Italy

The experience in managing important industries of Incide, has resulted in significant experience in **Industrial Complex** and **Plant design**.

We work on projects around the world in compliance with the **most common international regulations**. We cover the **entire engineering process**, from structural to mechanical, electrical and piping systems, providing **complete and integrated design services** and **consultancy** to help clients in their construction activities. We follow the most up to date **international regulations** and **design standards**: ANSI, Stoomwezen - API - EN 13480 - ASME VIII div.1 e 2 - BS5500 - AD-Merkblatt - VSR e VSG, CODAP - CICIND, EC.

Services offered

Industrial Plants

Incide has gained experience in Industrial Plants design, covering most of disciplines. Incide has experience in the following types of industrial plants:

- **Power Generation**: Conventional plants (coal, gas, biomass, etc.)
- **Hydroelectric plants**
- **Nuclear plants**
- **Chemical - Iron & Steel - Cement - Water Treatment - Transformation**
- **Oil & Gas**: Offshore and Onshore - LNG
- Biodiesel Production
- Refinery

Special structures for Industrial plants

We are able to easily manage special steel structures design, using the most modern and up to date design technology, with 3D finite element model approach, and parametric drawing modelling.

- **Port cranes** and unloaders for the **agri-food sector**
- **Storage tanks** and **pressure vessels** (atmospheric tanks, pressure vessels, heat exchangers, silos)
- Steel **industrial chimneys**
- Industrial hot and cold **air ducts**

Industrial Complexes

We start from the studies of the production layouts up to the detailed design, from the development of **new production** plants to extensions and **restructuring** of the existing ones.

We have designed various production plants:

- **Industrial buildings**
- **Agriculture and food**
- **Warehouses**
- **Manufacturing**
- **Aerospace and aviation**
- **Purification**
- **Painting**

Industrial services

The industrial sector has disciplines that involve **Civil** engineering, **Structural**, **Mechanical**, **Electrical** sytems, **Architecture** and Industrial engineering.

Knowledge of the processes and experience in coordination of all disciplines in the industrial process is required to provide accurate design. This leads to a **complex design process**, that Incide is able to manage easily.

F35 Aircraft Assembly and MRO&U Plant

Services: Architecture/Structure/Civil engineering/MEP/Special structure/Fire prevention/Tensile structure /Project management

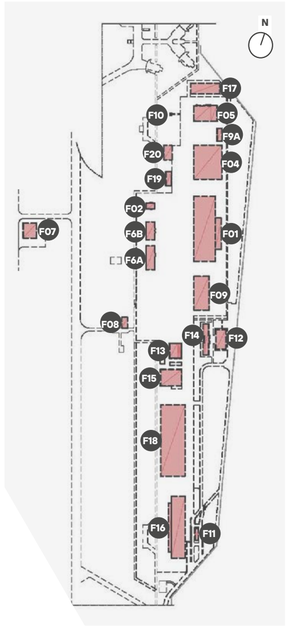
Markets: Aviation/Industrial complex/Commercial buildings

/ Location: **Cameri (NO) - Italy**
/ Year: **2011-2014**
/ Owner: **Italian Ministry of Defence**
/ Client: **Maltauro SpA Building Construction Company**
/ Architect: **Incide Engineering S.r.l.**

The FACO JSF plant is located inside the military airport of Cameri (NO) and manufactures wing components and carries out the final assembly of F35 aircraft.

The entire site occupies about 500,000 square metres and includes about twenty buildings (production, technology, logistics and services) with a covered area of over 100,000 m2.

Incide was responsible for the architectural, structural, final civil engineering project and managed the general coordination of the project.









F01-AIRCRAFT ASSEMBLY
F02-AIRCRAFT TESTING
F04-AIRCRAFT PAINTING
F05-SAILPLANE TESTING
F6B-ENGINE TESTS
F07-ENGINE TESTS
F6A-SAILPLANE TESTING
F08-SAILPLANE TESTING
F09-WAREHOUSE
F9A-AIRCRAFT WAREHOUSE
F10-EXPLOSIVES DEPOT
F11-GUARDROOM
F12-COMPANY CANTEEN
F13-BUILDING MAINTENANCE
F14-OFFICES
F15-TECHNOLOGY CENTRE
F16-AIRCRAFT PARTS PRODUCTION
F17-ECO-PLATEA
F18-PRODUCTION AND ASSEMBLY
F19-FIRE BRIGADE HEADQUARTERS
F20-AIRCRAFT STATION

LIATEC helicopters plant

Services: Architecture/Structural engineering/MEP/Fire protection/Project management

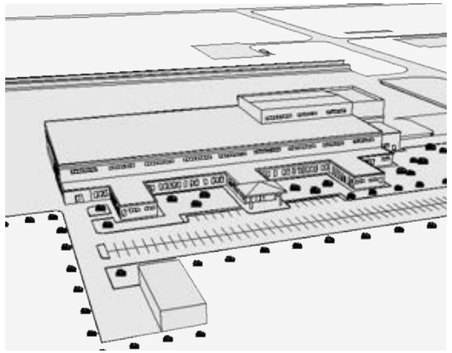
Markets: Aviation/Industrial complex

/ Location: **Abu Aisha - Libya**
/ Year: **2009**
/ Owner: **AgustaWestland S.p.A.**
/ Client: **AgustaWestland S.p.A.**
/ Architect: **Incide Engineering S.r.l.**

The project concerns the design in the airport area of Abou Aisha, of a plant for the assembly and maintenance of airplanes and helicopters.

The plant is managed by L.I.A.TE.C. (Lybian Italian Aicraft Technology Company) a Joint Venture between Finmeccanica, Agusta and Lybian Company. It was built on an area of approximately 150.000 square metres inside the Abou Aisha airport and consists in the following structures: Assembly and maintenance hangar (8325 square metres) - Painting booth - Management and technical offices - Lunch room and prayer room (252 square metres) - Guard post - Parking areas and connection track.

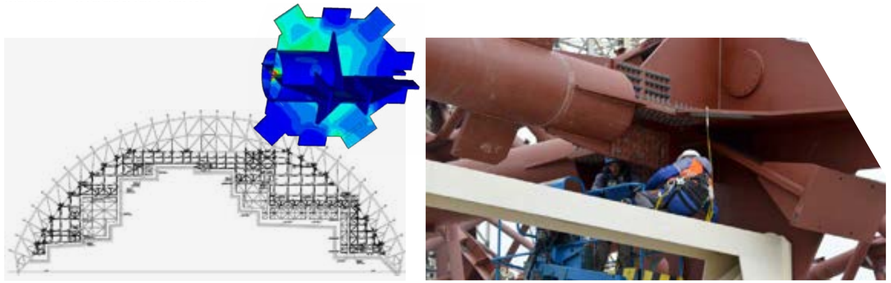
Incide provided the complete architectural and structural design and the detailed design of the electrical systems (Medium voltage Room, Lighting, Communication and Low Voltage) and mechanical systems (Heating and Conditioning, Fire Protection, Plumbing, Compressed Air, Irrigation system and Sanitary Water).



NSC Chernobyl Nuclear Power Plant

Services: Structural engineering/East and West Wall/Nodal Connections & Lifting Equipment Design
Markets: Industrial Plants

/ Location: **Chernobyl - Ukraine**
/ Year: **2015**
/ Owner: **Commission of European Communities Government of Ukraine**
/ Client: **Cimolai S.p.A.**
/ Architect: **Novarka - Vinci - Bouygues**



The Safe Confinement (NSC) is the structure intended to contain radioactive leaks from Chernobyl Nuclear Plant no.4 Reactor, part of which was destroyed during the plant failure in 1986. The Steel Fabricator Cimolai Contract included the **design, production and construction of the main and secondary steel structures of the shelter**.

Incide Engineering supported the Cimolai technical office in the following activities:

Calculation of nodal connections of East and West walls

Structural Calculation of openable walls during positioning (Tilting panels)

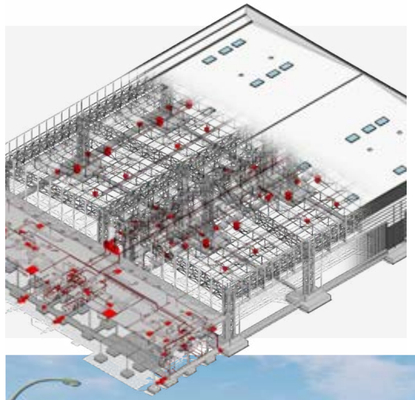
Check lifting equipment (trolleys, strain jack, special devices)

Verification of secondary structures (leaded internal gangways, 96m external staircase, external platforms for lifting winches tilting panel (winch).

Leonardo plant in Algeria

Services: Architecture/Structure/MEP/Fire prevention/BIM
Markets: Aviation/Industrial complex

/ Location: **Ain Arnat - Algeria**
/ Year: **2018**
/ Owner: **Ministry of Defense - Algeria**
/ Client: **Leonardo S.p.A.**
/ Architect: **Incide Engineering S.r.l.**



Project for a new industrial complex at the Ain Arnat air base in Algeria. The site includes an assembly line, an aircraft maintenance and overhaul centre, and an AW139 / AW149 / AW169 / AW101 helicopter training centre.

Incide carried out the study of the site for the architectural project, civil engineering, structural dimensioning, as well as the supply of drinking water, electrical and natural gas connections to carry out the design of the mechanical and electrical and fire prevention systems.

The site includes 11 buildings of various uses and sizes; including the assembly and maintenance centre, pilot training buildings, administration, guard and service buildings. Access and circulation roads, main entrance, traffic flow and parking areas were designed.

Alenia Aermacchi Grottaglie plant

Services: Architecture / Structural engineering / MEP / Fire prevention / Construction management / Safety coordination / Commissioning
Markets: Aviation / Industrial complex

/ Location: **Taranto - Italy**
/ Year: **2014**
/ Owner: **Alenia Aermacchi S.p.a.**
/ Client: **Finmeccanica S.p.a.**
/ Architect: **Incide Engineering S.r.l.**

A project consisting in the enlargement of an existing production plant for the fiber carbon Fueselage of the Boeing 787 Aircraft. A New Clean Room of 15'000 sqm, an Office Building of 3'000 sqm and a new heating and Cooling Systems were installed.

Incide engineering provided services for **detail design and construction management** for three story Office Building, of about 3'000 sqm, built in the AleniaAermacchi Plant in Grottaglie Taranto.

The building has a steel structure with composite floors, and external walls with ventilated facades.

NH90 Helicopter Assembly Facility

Services: Architecture / Structure / Civil / MEP / Fire prevention / Commissioning / Construction management
Markets: Industrial complex / Aviation

/ Location: **Venice - Italy**
/ Year: **2010**
/ Owner: **AgustaWestland S.p.A.**
/ Client: **Leonardo S.p.A.**
/ Architect: **Incide Engineering S.r.l.**

The project consists in the full renovation of an aeronautical facility in order to install a new assembly facility for NH90 Helicopters, manufactured by AugustaWestland S.p.A..

The site, constructed in the late 1960s, has been totally refurbished, in order to developed a **new, modern aeronautical facility**.

New offices have constructed for **about 3'000 sqm**, inside the building, for the administration and management of customers.

Incide Engineering provided archietectural, structural, civil plant and electrical design services, the design of fire prevention systems, works management, up to commissioning.

Lifeco Storage

Services: Architecture/Structure/MEP/Fire prevention
Markets: Industrial complex

/ Location: **Marsa el Brega - Libya**
/ Year: **2014**
/ Owner: **Lifeco Lybia**
/ Client: **Maltauro S.p.A.**
/ Architect: **Incide Engineering S.r.l.**

Incide Engineering was contacted for the final design of a new Lifeco warehouse in Libya.

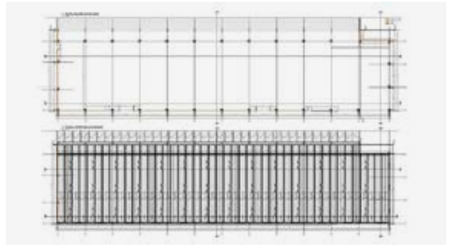
Two 101x51xh8m warehouses were designed containing offices, meeting rooms and services. They consist in quartz reinforced concrete flooring, prefabricated concrete walls, reinforced concrete cover with aluminium coating, concrete walls with anti-collision protection and translucent coating, industrial doors with folding opening and electric gates, ventilation towers, smoke dischargers on the roof and an external shed roof.

The designed external infrastructure include roads, squares and parking lots, sewage systems with collection tanks and underground tanks for the storage of drinking water, external canopies and fire protection

RED building restoration

Services: Structural engineering/MEP/Commissioning/BIM
Markets: Industrial complex/Commercial buildings

/ Location: **Verona - Italy**
/ Year: **2017**
/ Owner: **RED Graniti S.p.A.**
/ Client: **RED Graniti S.p.A.**
/ Architect: **E.S. Studio - Arch. Enrico Savoia**



Final structural and plant design project for the extension of a building for artisan and management offices use for Red Graniti S.p.A. in the municipality of Cavaion Veronese.

The building extension covered 3,100 square metres for the prefabricated part for artisan use and 193 square metres extension for the new office area.

Outside the aforementioned structure there is a 32ton bridge crane with a 110m long rail for which the structures and foundations were designed, calculating the dynamic load variables. The office extension area was developed using a steel structure with a collaborating sheet metal deck and foundation slabs.

Incide also provided services for the integration of electrical systems, testing and commissioning.

Renovation of Leonardo company canteen

Services: Architecture / Structural & Civil engineering / MEP / Special structure / Fire protection / Facade / Interior design / Bim / Project & Construction management / Safety coordination / Commissioning

Markets: Industrial complex / Restoration

/ Location: **La Spezia - Italy**
/ Year: **2025**
/ Owner: **Leonardo Global Solutions S.p.A.**
/ Client: **Leonardo Global Solutions S.p.A.**
/ Architect: **Incide Engineering S.r.l.**

Incide Engineering was responsible for the structural, architectural and MEP design of the redevelopment of the F4 building of the Leonardo facility (formerly Oto Melara) in La Spezia, intended to house the company canteen and related services.

The intervention involved approximately 6,400 square metres across two levels and included of structural consolidation and seismic improvement works (new foundations on piles, steel/RC bracing, encasement for the existing basement RC columns and structural reinforcements), functional reorganisation of the spaces and MEP systems upgrade. The new layout includes a canteen (600 seats), kitchens, union offices, assembly hall, changing rooms and services.

A complete restyling of the facades was also carried out included the installation of sandwich panel cladding and the replacement of windows and doors, with the objective to improve the energy efficiency and aesthetic-functional aspects of the building."

Sport & Spectacle

Building projects designed for the sports and enetrtainment sector express a high representative value, so their design takes into account the need to make them real iconic architectural symbols

Grand Théâtre de Rabat - Rabat, Morocco

Entertainment halls, Arenas, Football stadiums, Gymnasiums, multi-purpose facilities and Swimming pools.

The classification of infrastructures designed for Sports and Entertainment activities is a decidedly heterogeneous reality, not attributable to a typical unitary matrix. Incide undertakes the design of these big facilities through an efficient and modern approach, analysing the constants and **seeking standardization** even in works of a **very complex design**.

Services offered

Football stadiums

We base Stadium projects on the need to create people-friendly facilities with the maximum levels of **comfort** and **safety**.

Football stadiums are increasingly regarded as **architectural symbols** within the **urban landscape** that have a massive impact on the surrounding communities and infrastructure.

We develop projects maximising their commercial potential, by incorporating a broad range of facilities and usages.

Sports Facilities

We have experience in the design of sports facilities and **multi-purpose sports facilities**. Our services range from architecture to structural design, including system design and acoustics.

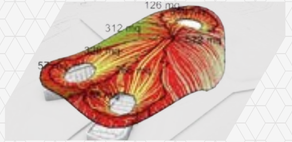
We carry out projects using a BIM platform in order to be able to manage the much the interpolated information of clients in a simple and timely manner.

Arenas & Entertainment Halls

Successful entertainment building projects reflect the expectations of local needs.

We are able to develop complete projects for these types of buildings, starting from the **basic layout** up to the **executive construction details**.

We provide consultancy services for construction management and safety coordination.



Latest construction technology

We use the latest construction technology in order to realise the best possible facilities.

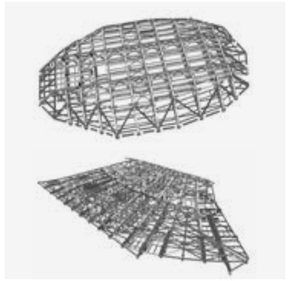
Incide Engineering provides **complete services** for the design of stadiums and arenas in compliance with the most up-to-date and **certified safety standards**:/Architectural design /Structural design/MEP systems design/Interior design/Construction management/Decorations /Lighting/Mechanical Engineering/Electrical Systems.

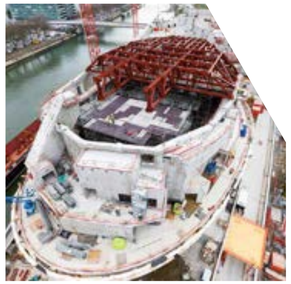
Teatro Pala Magnolia - Abano T. (PD), Italy
Parametric analysis of rainwater flows

La Seine Musicale

Services: Structural steel design / Bim & multidiscplipinary coordination
Markets: Sport & Entertainment

/ Location: **Paris - France**
/ Year: **2015**
/ Owner: **Hauts-de-Seine**
/ Client: **Buygues Costruction**
/ Architect: **Shigeru Ban, Jean de Gastines**





La Seine Musicale is located in a point downstream of Seguin Island, in an area of 2.35 hectares, owned by the Municipality of Boulogne-Billancourt. The whole project was developed on about 280 meters along the Seine.

The building was designed to provide the best possible musical experience thanks to exceptional acoustics, and there is space for concerts, exhibitions, permanent and temporary strcutures, sporting very high level and high radiation, both in the field of dissemination of shows than in the creation and practice.

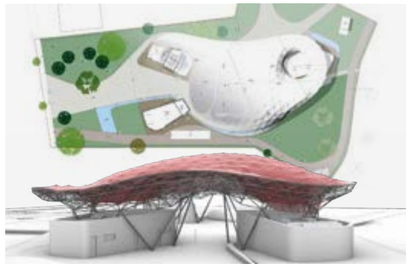
It will be create spaces for concerts, exhibitions, permanent or temporary facilities, sports courses or cultural walks, childrens' play areas, restaurants, shops selling items related to art and culture.

Incide Engineering was apponted in order to develop the detailed design of the steel structure and particularly: review and optimise the steel structure, final esign and of the steel structures and assembly.

Multipurpose facility Parco Urbano Termale

Services: Architecture / Structure / Civil / MEP / Special structure / Fire prevention / Tensile structure / Bim coordination / Project management
Markets: Sport & Entertainment / Commercial

/ Location: **Abano Terme - Italy**
/ Year: **2024**
/ Owner: **Comune di Abano Terme**
/ Client: **Comune di Abano Terme**
/ Architect: **Incide Engineering S.r.l.**



Project for a new multi-purpose centre to replace the former Magnolia theatre within the Parco Urbano Termale in Abano Terme (PD). The new intervention has a total value of more than Euro 3 million.

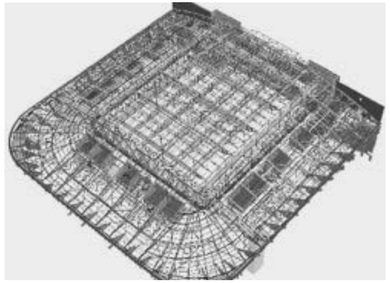
The new structure dialogues with the park in a fluid manner, upgrading its use and positioning the theatre in such a way as to facilitate the connection between the pedestrian area and the Urban Park. A **new sinuous roof**, realised by **means of a steel structure covered by a translucent membrane** that wraps the multifunctional plate and three bodies with the functions of warehouse and changing rooms for the artists, bar and toilets.

The project was carried out in a **synergetic manner between Incide's architectural/ structural department and the administration** of Abano, grasping and interpreting the guidelines provided by the client to develop a high-tech project developed with parametric design technologies.

La Défense Arena

Services: Structural engineering/Design of the assembly and temporary structures
Markets: Sport & Entertainment

/ Location: **Paris - France**
/ Year: **2015**
/ Owner: **Racing Arena**
/ Client: **GTM of Vinci**
/ Architect: **Atelier Christian de Portzamparc**



The Défense Arena is a polyvalent structure owned by Racing Arena Group, originally conceived as a covered stadium for Racing 92 (15,175 spectators) that will be used in many other configurations for any type of shows (15,000 spectators). Incide Engineering carried out the **structural design and managed the assembly of the temporary steel sroof supporting structures**.

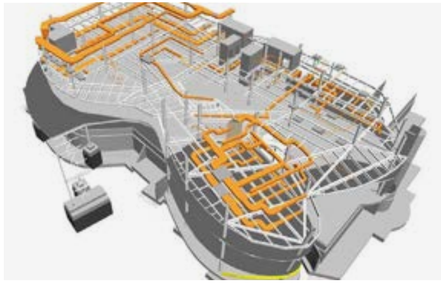
The activities required a very hard work of coordination with all enterprises in order to make possible the realisation of all lifting using one of the **biggest Crawler Cranes in Europe**; secondary lifting will be made also using internal/external mobile cranes and civil crane.

The main roof was lifted by one time lifting operation using 12 Strand jacks placed on the top of the roof.

FRMF Royal Moroccan Football Federation

Services: Structure/Civil/MEP eng./Special structure/Facade engineering/Bim/Project management
Markets: Sport & Entertainment/Infrastructures

/ Location: **Rabat - Marocco**
/ Year: **20022**
/ Owner: **Agence Nationale des Equipements Publics**
/ Client: **Jet Contractors**
/ Architect: **Moura Aziz El Kohen**



Incide provided design activities for the construction of the New Headquarters of the Morocco Football Federation (Centre Sportif Maâmora), located in Salè Rabat (over 2000m²).

The first part of the assignment concerned the design executed for Jet Contractors, of the **civil works** (foundations), the **steel structures** of the building and the **facades realised** with a final aluminium-glass package. The second part of the assignment concerned the design performed for Sepsi of the **HVAC systems**.

The design developed was supported by **on-site coordination by Incide Maroc** due to the need for continuous coordination with the Architect (designer), GC, Sepsi and the Final Client (Ministry). This was to allow for an optimisation of the project development time.

The project was developed using the BIM approach in order to easily manage and integrate structures, facades and installations.

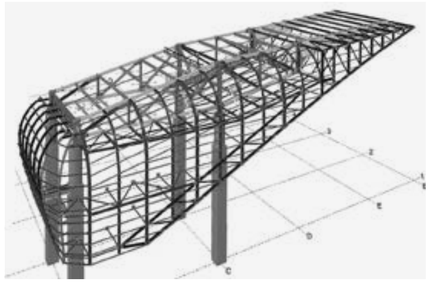
Friuli Stadium Renovation

Services: Structural engineering/Facade engineering
Markets: Sport & Entertainment

/ Location: **Udine - Italy**
/ Year: **2015**
/ Owner: **Municipality of Udine**
/ Client: **Cimolai S.p.A.**
/ Architect: **-**

The newly designed Friuli Stadium aims to fully reach and satisfy international championship requirments, **approved by UEFA standards**. The refubrishment consisted in athletic field removal and renewal of the three wings of the stadium. Only the west arche was kept as it was. The terraces were rebuilt closer to the field. Site works began on the 5th of june 2013 and the new stadium was officially inaugurated on the 17th of january 2015, for a total cost of 50 millions Euros.

Cimolai S.p.A was awarded the metal carpentry contract for final design and works, then Incide was commissioned as consultant for the **design of the metal structures** including the erection project and the 3D modelling using the Tekla Structures BIM environment. Incide also provided facade and main roof structural design.



Grand Théâtre de Rabat

Services: Facade Design/Steel Structure/BIM coordination
Markets: Sport & Entertainment

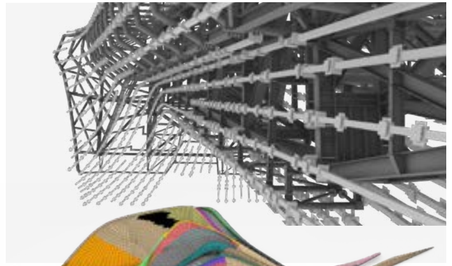
/ Location: **Rabat - Morocco**
/ Year: **2017**
/ Owner: **Agence pour l'Aménagement de la Vallée du Bouregreg**
/ Client: **Jet Contractor**
/ Architect: **Zaha Hadid Architects**

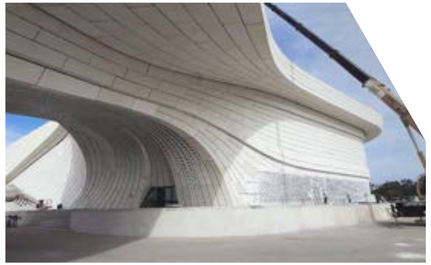
The "Grand Théâtre de Rabat" designed by Zaha Hadid is located on the Bouregreg River between the ancient twin cities of Rabat and Salé.

The project included an 1,800 seat theatre, an open-air amphitheatre with a capacity of 7,000 people, a second experimental performance/rehearsal spaces and a restaurant for 350 people. Incide carrie out the **engineering of GRC panels for the facade**, secondary structures for fastening the facade coverings, the structural design of metal parts, checks on the windows and coordiantion of the works.

Incide performed facade detail engineering, 3D structural & skin facades models, glass and detail design.

The **parametric design** using the Rhinoceros / Grassoper / Tekla applications was used to solve the complex geometry of the facade panels and the supporting steel structures.





Selvazzano swimming pool complex

Services: Architecture/Civil engineering/Electrical engineering
Markets: Commercial/Sport & Entertainment

/ Location: **Padua - Italy**
/ Year: **2017**
/ Owner: **Municipality Selvazzano Dentro**
/ Client: **Municipality Selvazzano Dentro**
/ Architect: **Incide Engineering S.r.l.**

Final architectural project for a new multifunctional swimming facility suitable for hosting sports events of the Italian Swimming Federation, created by the municipal administration of Selvazzano Dentro (PD).

The design choices made by Incide Engineering both on an architectural, technological and plant engineering level complied with the regulations.

The swimming facility covers a total area of 16,765 square metres and is easily accessible from the new car parks designed east of the sports facility and is connected by the new road system. Accessibility is also ensured by cycle and pedestrian paths also for people with reduced motor and/or sensory skills.

CONI multi-purpose hall Acqua Cetosa

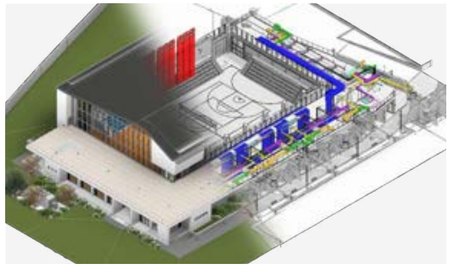
Services: Electrical engineering/Mechanical engineering
Markets: Sport & Entertainment

/ Location: **Rome - Italy**
/ Year: **2017**
/ Owner: **Roma Capitale**
/ Client: **Sport e Salute S.p.A.**
/ Architect: **Arch. Annibale Vitellozzi**

Incide Engineering managed the final project for the construction of mechanical, electrical and fire prevention systems for the new sports complex at the C.P.O. "Giulio Onesti" of Rome.

The final project, completed by the graphics, specialist reports and economic documents, formed the basis for the preparation of the tender documentation for the execution of the works.

The calculation of the dispersion power and energy needs for the decision on and sizing of the heating system was carried out in accordance with the provisions of Law 10/91, as amended, with its additions, references and implementing decrees.



MECA preliminary project

Services: Structural engineeringl/Facade engineering
Markets: Sport & Entertainment

/ Location: **Bordeaux - France**
/ Year: **2015**
/ Owner: **Conseil régional d'Aquitaine**
/ Client: **Castel & Fromaget**
/ Architect: **BIG & Freaks Architects**

Incide Engineering developed the preliminary project for the roofing and cladding of the Meca cultural center in Bordeaux.

The roof was designed as a steel reticular body resting on the two concrete bases of the building. The reticule assembly phases were planned with the use of temporary beams supporting the secondary beams in mind, considering the means, timing and spaces available for manoeuvers.

The ventilated facade was designed using steel substructures to support the prefabricated concrete cladding.

Turin Filadelfia stadium

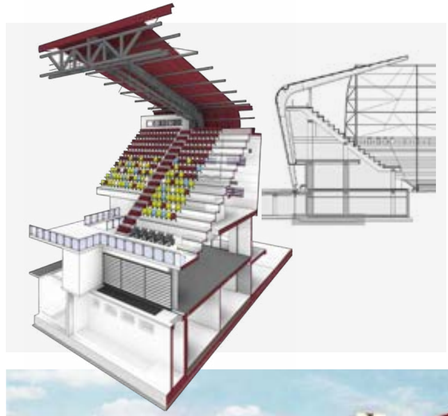
Services: Architecture/Structural engineering/MEP/Facade engineering/BIM
Markets: Sport & Entertainment

/ Location: **Turin - Italy**
/ Year: **2014**
/ Owner: **Torino Calcio S.p.A.**
/ Client: **ICI Coop**
/ Architect: **Incide Engineering S.r.l.**

Incide participated in the tender for the design of the new Turin stadium, setting up a project for two UEFA football fields, one for Torino Fotball Club training and the other for the team's matches. The main field will be heated by an undergrass heating system.

On the main side there will be a covered grandstand capable to host up to 2,000 spectators, with a pressroom, commentary room, toilets and disabled access via an elevator built inside the building.

Under the grandstand there will be a covered parking for the players of each team, and a basement floor that will host changing rooms, therapy rooms, referee areas and an infirmary.



Retail & Hotel

We provide our experience i regard to hotels and shops in several countries around the world with a unique perspective on the basic characteristics and differences in the Hotel and Retail sector

Incide Engineering offers **expert services in the Retail and Hotel sectors**, with a emphasis on structural engineering and MEP design (Mechanical, Electrical, and Plumbing).

For Retail, Incide focus on defining the format, designing furnishings, and optimizing equipment and merchandise layouts. In the Hotel sector Incide provide structural evaluations, MEP design, technical assessments, lighting design, interior decoration, and permit support. Incide's team ensures high-quality, innovative designs, creating personalized and functional spaces for both industries.

WATCH VIDEO

Galfa Tower - Milano, Italy

Services offered

Hotels

Incide Engineering's experience assists clients throughout the implementation process, providing technical evaluations, studies, preliminary and executive studies, lighting design, arrangement of interior decorations, completing municipal permit papaerwork through marketing and communication processes.

Incide's highly qualified specialists and professionals are able to provide a **high level of innovation and quality** in the design and decoration of all hotel areas.

Restaurants & Wineries

Our design experience in the **food industry buildings** allows us to speed up implementation time.

Every project is a true collaboration with the tastes, needs and **budgets of clients**. Before the execution phase, our technical personnel analyse every aesthetic and techncial detail.

Our goal is to put the **client's ideas into practice through custom design** of interiors for restaurants, wine shops, wineries and fast food outlets.

Approach to the Retail sector

A **shop project**, be it large or small, must be able to give its best in terms of response and end user satisfaction. In order to achieve the best result, the design must be inspired by client needs.

Our approach to designing Retail buildings basically consists in four phases:

- Definition of the format
- Furnishings design
- Equipment and layout design
- Merchandise layout

Layout design and interior

Incide is able to organise and optimally set up the arrangement of furniture and interior **display areas**, as well as the definition of **internal routesi.**

The product layout defines the position of the equipment and their exhibition areas, improving the **organisation of the commercial area**.

Our professionals are able to guide clients in the choice of the aggregation criterion for different types of merchandise aimed at facilitating the customer purchasing process, as well as facilitating coverage the whole display surface.

Galfa tower

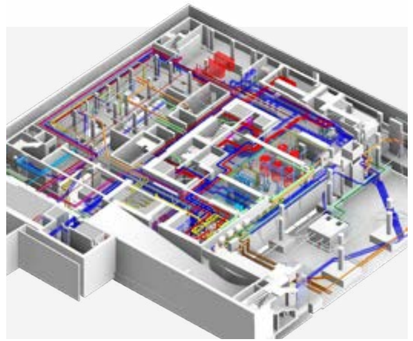
Services: Electrical engineering/Mechanical engineering/BIM
Markets: Commercial buildings/Renovations and restorations/Hotel

/ Location: **Milan - Italy**
/ Year: **2017**
/ Owner: **UnipolSai Assicurazioni S.p.A**
/ Client: **UNIPOL Insurance**
/ Architect: **Melchiorre Bega**

The project concerned the total restoration of torre Galfa, an existing 30 story tower in Milan city centre, aimed to be converted to Hotels, Office and Residential apartments.

Incide was appointed for the final mechanical and electrical plants design, with the requirement following a BIM approach (using Revit software).

The scope of the BIM was the facility management of the building by the end user.



WATCH VIDEO

Aspire Tower Doha

Services: Structural engineering
Markets: Commercial buildings/Sport & Entertainment/Hotel

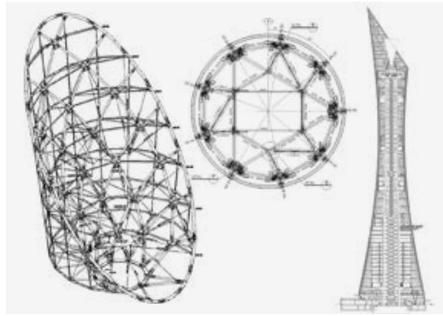
/ Location: **Doha - Qatar**
/ Year: **2006**
/ Owner: **Qatar Ministry Of Sport**
/ Client: **Cimolai S.p.A.**
/ Architect: **Hadi Simaan & Arup**

The **318 metre** Aspire Tower is currently the tallest structure in Doha. The tower was designed to support the Olympic flame for the 2008 Olympic Games, and then become a high-end hotel, with revolving restaurant and sports museum.

The project consisted in a cylindrical concrete core, covered with a steel reticular structure.

Incide Engineering provided assistance, during the construction phases, to the **structural design** developed by Cimolai SpA, designing the Cone and Petal structures on the top of the Tower.

Incide has also provided the calculations for the elevation of the structure and the design of **temporary steel structures**.



Ristop Darsena City

Services: Architecture / Civil engineering / MEP engineering / Fire prevention / Project management / Construction management / Safety coordination / Commissioning
Markets: Commercial / Retail

/ Location: **Ferrara - Italy**
/ Year: **2006**
/ Owner: **Ristop S.r.l.**
/ Client: **Lambda S.p.a.**
/ Architect: **Incide Engineering S.r.l.**

Architectural project that involved the use of wood, steel and calibrated colours to create a warm and welcoming environment for moments of refreshment and conviviality.

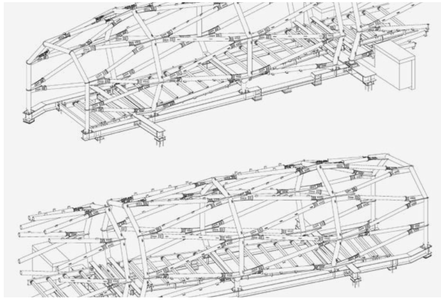
A space recovered and furnished with essentiality where the ergonomics of the paths, an accurate plant design, the play of light derived from a careful lighting study have created an ideal environment for a quick break during a journey, to discover a particular and convivial place to stop and relax.

A mix of recommendations designed by Incide Engineering for the Ristop restaurant in Ferrara.

Bovid Catwalk

Services: Architecture / Structural engineering / Facade engineering / Bim & multidiscplipinary coordination
Markets: Hotel / Commercial buildings / Infrastructure

/ Location: **Chelyabinsk - Russia**
/ Year: **2015**
/ Owner: **Vidgof Hotel Chelyabinsk**
/ Client: **JV "KONAR-Cimolai"**
/ Architect: **Incide Engineering S.r.l.**



Incide fully designed a catwalk that was **14 metres high and 77.6 metres long** for horizontal communication between the buildings of the "Bovid" business centre.

The shape of the facility resembles a transparent cylinder, composed of several sections. The unusual shape of the structure is formed by octagons which are compiled with bearing rings, rotated relative to each other to 22.5°. The glass modules have a triangular shape. Each 4.18 m long section accounts for 16 equal triangles, and there are 273 triangles for the whole catwalk.

This is the first and so far the only facility in **Chelyabinsk made from completely translucent Guardian glass** with a Schuco aluminium profile.

Infrastructures and Healthcare

Incide Engineering offers end-to-end engineering solutions for the Infrastructure and Healthcare sectors, managing projects from feasibility studies to detailed construction drawings. Our multidisciplinary expertise spans structural, civil, and MEP engineering, as well as architectural design, ensuring high-quality, efficient, and sustainable developments.

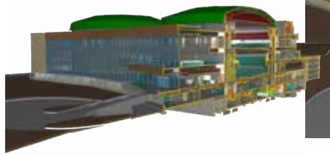
In the Healthcare sector, we design hospitals, clinics, and medical research facilities with a focus on safety, functionality, and advanced technology integration. For Infrastructure, we provide engineering solutions for civil structures, transportation hubs, bridges and urban developments, optimizing resilience, efficiency, and long-term performance. With a commitment to innovation and excellence, we help shape the future of essential public and private facilities.

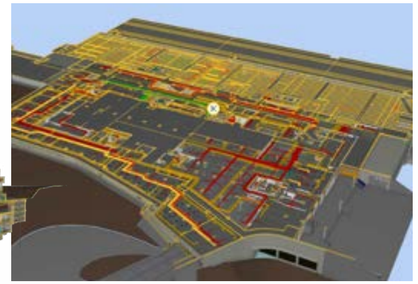
LSST Telescope structure - Coquimbo, Chile

New ONU headquarters - Geneva

Services: Electrical engineering/Mechanical engineering/BIM
Markets: Infrastructures

/ Location: **Geneva - Switzerland**
/ Year: **2022-24**
/ Owner: **ONU Geneva**
/ Client: **/**
/ Architect: **ATI Project**





School Complex in Villa Ferro

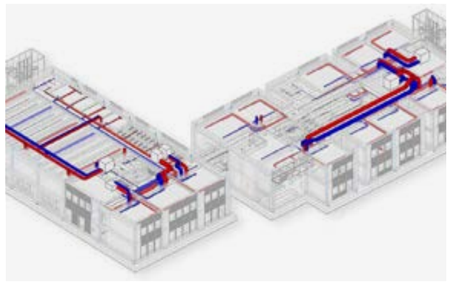
Services: Structure/Civil/MEP/Fire protection & Safety/Construction Management/BIM/Commissioning
Markets: Infrastructures

/ Location: **Fidenza - Italy**
/ Year: **2023**
/ Owner: **Comune di Fidenza (PR)**
/ Client: **Comune di Fidenza (PR)**
/ Architect: **Vittorio Grassi Architects**

Following the awarding of a competition in partnership with the architectural firm VGA, Incide carried out the tasks of structural and plant design, works management, fire-fighting and safety for the demolition and new construction of the New Villa Ferro School Complex in Fidenza (Parma).

The building is spread over two buildings connected by a glass walkway and was designed and built to minimise energy consumption and carbon emissions throughout its life cycle. The global energy demand of the school's plant system is covered by the photovoltaic system positioned on the roof, which covers the entire energy demand and allows the building to be classified as NZEB-20% (Nearly Zero Energy Building) . The energy class achieved by the building is A4, the best in terms of efficiency and energy saving.

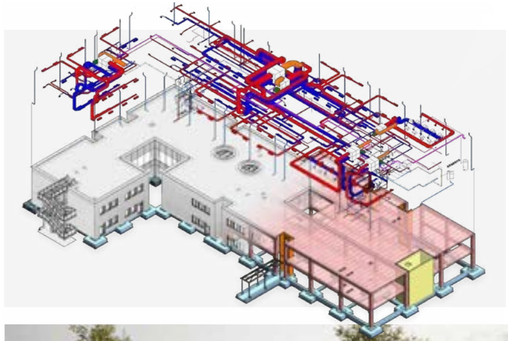
The structural design was developed from a basic module of 7.5x7.5 m that guarantees future possible modifications and transformations. All disciplines were designed using BIM platform.



Antonio Vivaldi & Renato Simoni School Complex

Services: Structure/Civil/MEP/Fire protection/BIM/Safety/Construction management/Commissioning
Markets: Infrastructures

/ Location: **Albaredo d'Adige (VR) - Italy**
/ Year: **2023**
/ Owner: **Comune di Albaredo d'Adige**
/ Client: **Comune di Albaredo d'Adige**
/ Architect: **Vittorio Grassi Architetto**



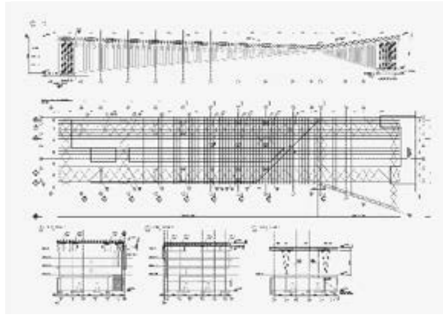
Following the awarding of a competition in partnership with the VGA architecture studio, Incide carried out the tasks of structural and plant design, works management, fire prevention and safety for the new A. Vivaldi (primary school) and R. Simoni (secondary school) school complex in Albaredo D'Adige.

The project, recipient of PNRR funding for the mitigation of climate change, **was designed and built to minimise energy consumption** and carbon emissions throughout its entire life cycle; the construction solutions, materials and components used guarantee compliance with the CAM in force, while the global primary non-renewable energy demand is 20% lower than that resulting from the requirements for a **nearly zero energy building (NZEB)**. From a structural point of view, the latest regulations in accordance with current earthquake-proof design standards have been complied with. **All disciplines were designed using BIM platform.**

Rabat Ville train station

Services: Structural engineering/Bim & multidisciplipinary coordination/Civil engineering
Markets: Commercial buildings/Infrastructure

/ Location: **Rabat - Morocco**
/ Year: **2017-2019**
/ Owner: **ONCF**
/ Client: **Jet Contractor (Morocco)**
/ Architect: **Abdelouahed Mountassir**



Incide provided structural design services for the steel roof of the new Rabat Ville railway station, a modern three-storey building with a glass facade.

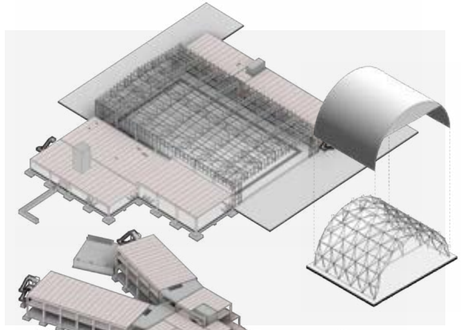
The modular roof mimics an ancient Moroccan decorative element reinterpreted in a modern way. The supporting structure of the roof is consists in three-dimensional trusses with a height of 2 metres which ensure significant structural capacity. The roofing consists in bent sheet metal modules which create an efficient filter on the overlying glass layer.

A project developed using the BIM approach, in order to coordinate the design but also to exchange information from one model to another to interpolate both the fem structural analysis and the wind analysis.

Internation Flight Training School - Cagliari

Services: Structure/Civil/Special structure/Tensile structure/Fire protection/BIM
Markets: Aviation/Industrial complex/Military infrastructure/Sport & spectacle/Residential & housing

/ Location: **Decimomannu (CA) - Italy**
/ Year: **2020**
/ Owner: **Leonardo Aircraft / Italian Air Force**
/ Client: **Leonardo Aircraft**
/ Architect: **Studio Amati Architetti / AICOM Engineering System**



Incide carried out the structural design activity for the IFTS International Flight Training School located inside the military airport of Decimomannu (Cagliari - Italy).

Given the different functions that the complex will have to perform, 8 different types of buildings have been identified, for a total of 24 buildings.

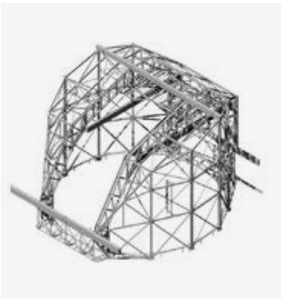
The types of structures vary from cast-in-situ reinforced concrete buildings, prefabricated reinforced concrete buildings, underground tanks, secondary structures and roofing of metal carpentry hangars and geodetic structures with tensioned sheets.

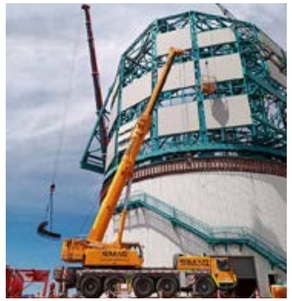
The entire project was developed with BIM technology, integrating the coordination between the architectural and plant engineering disciplines through the BIM360 platform.

LSST Telescope structure

Services: Structural engineering/Special structure
Markets: Industrial complex/Infrastructure

/ Location: **Coquimbo - Chile**
/ Year: **2017**
/ Owner: **National Science Foundation**
/ Client: **G.M.I. General Montaggi Industriali S.r.l.**
/ Architect: **-**





The Large Synoptic Survey Telescope (LSST) is a reflecting telescope capable of carrying out an observation campaign by photographing the entire nocturnal celestial vault of the southern hemisphere visible from the north of Chile, providing detailed information of the night sky. With its **8.4mt main mirror** it is one of the largest telescopes in the world.

Incide has provided a structural design service (development of the **3D model using the TEKLA Structures** software) and development of workshop construction drawings, assembly and mounting of the Dome's metal structures, coordinated with all the planned mechanical and handling interfaces.

Hall 4 Ai Colli hospital

Services: Architecture/Structure/Civil/MEP engineering/Special structure/Fire prevention/Bim/Construction management/Safety coordination
Markets: Health/Restauration

/ Location: **Padua - Italy**
/ Year: **2022**
/ Owner: **Unitá locale socio sanitaria n°16**
/ Client: **ULSS 16**
/ Architect: **Incide Engineering S.r.l.**

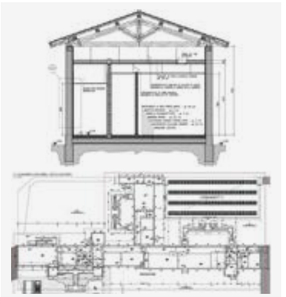
The aim of the project is the recovery and functional upgrading of pavilion 4 of the Social Health Complex ai Colli in Padua and the creation of a homogeneous area dedicated to psychiatric and rehabilitation territorial functions.

This intervention takes the form of an overall restructuring of 3,920 square metres of gross surface area and consists of a coordinated set of interventions for technical, regulatory and functional adaptation: Static adaptation and seismic improvement; Construction of 3 new stairwells, 2 new lift shafts, 1 new high bay; Electrical, mechanical and fire protection systems; Replacement or restoration of windows and doors; Internal renovation to adapt the spaces to the changed health functions in accordance with current standards, and to ensure the removal of architectural barriers, fire safety; Renovation of the roof and facades and replacement or restoration of windows and doors; Arrangement of the external areas; Work necessary to connect the pavilion to the networks of all the plant and sewage services.

Hall 3 Ai Colli hospital

Services: Architecture/Structure/Civil/MEP engineering/Special structure
Markets: Health/Restauration

/ Location: **Padua - Italy**
/ Year: **2017**
/ Owner: **Unitá locale socio sanitaria n°16**
/ Client: **ULSS 16**
/ Architect: **Incide Engineering S.r.l.**



The ULSS (Health Authority) 16 of Padua, as part of a reorganisation and enhancement of the existing real estate assets, commissioned Incide Engineering for the final design, safety coordination during the design and execution phase, for the realisation of the restoration of Pavilion no. 3, second excerpt of the "ai Colli" healthcare complex to build a daytime educational center for the disabled (CEOD).

The total area of the intervention was **960 square metres** out of the 3,500 in pavilion 3.

The planning phases concerned the final/authorisation project, fire prevention practices and CSP L. 81/08 activities.

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