CONSULTANCY SERVICES

ENGINEERING - DESIGN - ANALYSIS - R&D

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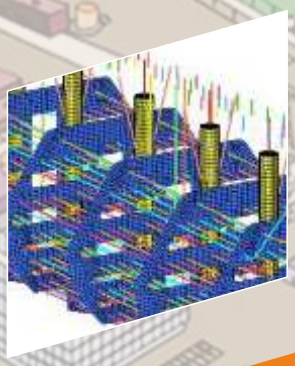
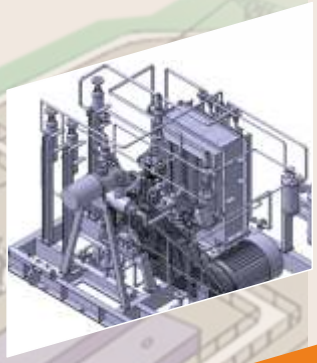
engineering your designs



NUCLEAR POWER PLANT

SEISMIC QUALIFICATION
RCC Code
FINITE ELEMENT ANALYSIS
FEA MECHANICS
WELD QUALIFICATIONS
SUPPORT DESIGN
ANCHORAGE
EMBEDDED PARTS
Static Equipment
ROTARY EQUIPMENT
SUPPORT DESIGN
SEISMIC ANALYSIS
FRS
PRESSURE VESSEL
Skid Design
HEAT EXCHANGERS
FLOOR
RESPONSE
SPECTRA
ASME B & PV
PRESSURE
VESSEL
PIPE STRESS ANALYSIS
FITENESS FOR SERVICE
FFS FINITE ELEMENT ANALYSIS
API
PLANT ENGINEERING
FOUNDATIONS
OBE, SSE
RSS & STEEL
STRUCTURE
PLANT 3D
MODELING
HCLPF
Bolt Design

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OUR OFFERINGS

Seismic Analysis, Seismic Re-evaluation, Seismic margin assessment

- ASME B&PV, RCC, PNAE, API, NEMA, IEEE, EN, DIN etc
- Methods development

Design calculation

- Design by first principles
- Code based design and verification

Design documentation

- 2D/3D modeling, detailing, fabrication manufacturing drawing preparation

Design Verification and Optimization using computer simulation

- FEM Analysis (stress, vibration, non-linear, thermal, Impact, crash, blast, drop test simulations, air shock wave (ASW), air crash (AC) analysis, transient dynamics, frequency response etc)
- CFD analysis (including fluid structure interaction): Electromagnetic analysis Kinematics and dynamics: Multi-physics simulation
- Development of macros, subroutines, and custom built software procedures

Structural Engineering Design

- FRS generation, RCC & Steel structure Design, soil-structure interaction, foundation design

Materials constitutive and Damage modeling

- Fatigue, creep, fracture simulations
- Remaining life assessment and extension (RLA/RLE); Fitness for service (FFS)

Piping and Plant engineering

- Piping sizing, layout preparations and layout optimisation
- Piping GA & Isometric drawings
- Generating & Updating PIDs/PFDs , plant 3D models
- Pressure drop calculation, HVAC design calculations
- Pipeline 2D/3D modelling; re-routing;
- Pipe stress / flexibility analysis
- Supports & hanger design, evaluation & optimisation (location, type, member sizing)
- Anchorage & baseplate design, qualification, optimisation
- BoQ extraction, MTO

Detailed Engineering

Skid Engineering, Design & Optimisation

Design and Qualification of Static & Rotary equipment, pressure parts design including high temperature parts (as per ASME B&PV)

- Pressure vessels, heat exchangers, reactors, valves, compressors, pumps, motors,

Design and development of special purpose equipment /machinery

Simulated ▸ Designed ▸ Delivered

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W H Y ProSIM?

Competence and Expertise

- Expert team with good experience in design, and computer simulation
- In depth knowledge of nuclear codes including ASME, RCC, PNAE, IEEE, API, etc.
- Leaders in seismic analysis and qualification working for Indian, and overseas nuclear projects

Deep Exposure to nuclear ecosystem

- Close working with all players of nuclear ecosystem
- Playing a role of key coordinator between various stake holders (including NPCIL, BARC, IGCAR, AERB,) all major EPC contractors, system integrators, equipment/ component makers
- Working with several European and Indian companies for ITER-I/O and ITER-IN projects
- Active participant of nuclear code rationalization of World Nuclear Association

History of successfully completed projects

- Delivered more than 500 reports related to various systems and packages of nuclear power plant
- Involved with several R&D projects in nuclear waste management, reactor design,

Well Developed Processes

- Project management process (PMP)
- Quality management procedures (QMS)
- ISO – continuous learning, risk assessment
- Information and data security (ISMS)

Nuclear engineering specific in-house assets, IPs

- Macros, subroutines
- SoPs, check lists, procedures

Ability for quick ramp-up

- Training and induction process for rapid absorption of trainees

Networked Expertise

- Close linkage with academic and R&D organisations
- Individuals / institutions with specialized expertise

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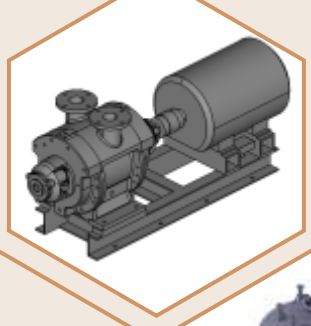

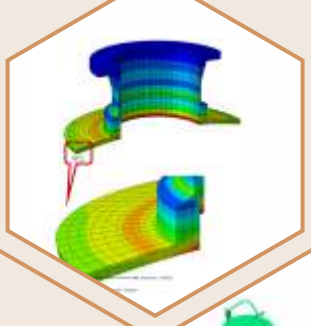

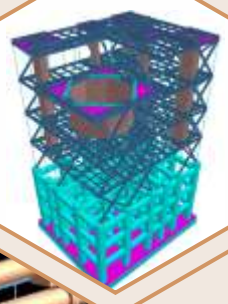

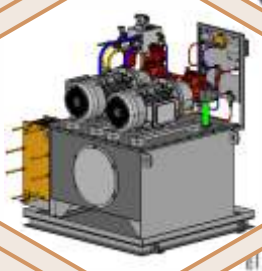





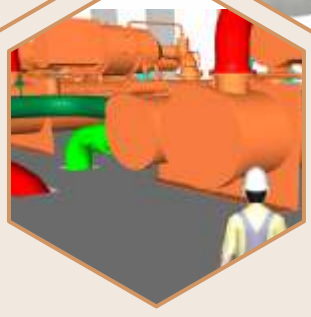

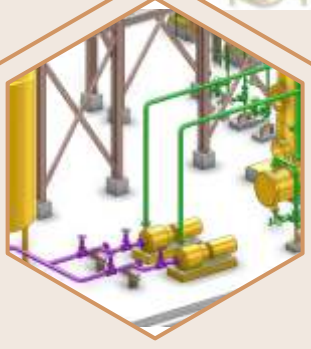

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