ShipTech-ICON
Create • Enhance • Sustain

SHIP TECHNOLOGY INDUSTRIAL CONSULTANCY (SHIPTECH-ICON)

Kochi, India

CITTIC, CUSAT TBI,
Cochin University of Science and Technology,
COCHIN -22

For the Iconic Designs that Stick-on

www.Shiptech-ICON.com

Ship Technology Industrial Consultancy (ShipTech-ICON)

Company Profile

ShipTech-ICON (STICON) is a promising Marine and Ship design start-up based in Kochi, India. ShipTech-ICON provides functional and ergonomically sound Ship designs and commercially viable and technologically sound solutions to the Marine Ship/Boat building industry and Oil & Gas Industry.

ShipTech-ICON is a small company specializing in design and analysis of fixed and floating structures and for marine operations in the offshore industry. ShipTech-ICON's size indicates that it does not have large company overheads and is flexible enough to set up project teams to meet the requirements of its clients. ShipTech-ICON's in-house expertise includes a set of Naval Architects, Marine and Mechanical Engineers, who are known in the Marine and Oil & Gas industry for their Technical know-how, Sound engineering practices and Creative design flair.

ShipTech-ICON is incubated under and operating from Cochin University of Science And Technology (CUSAT) premises.

Vision and Mission of ShipTech-ICON

The vision of ShipTech-ICON is to be a leading workforce in the industry to bring about change to the Indian Ship/Boat building industry with their creative, innovative and optimised designs. The view of STICON design is to be bringing about change in the way Marine and Inland Vessels are being built in this part of the world, to reduce the amount of wastage in the Production facilities and thereby bring about optimised CAPEX gains to the Owner.

The ShipTech-ICON mission is to bring about sustainable change in the way industry operates Marine and Inland Vessels whereby reducing the carbon footprint of the industry by sustainable methods. The ShipTech-ICON mission also includes providing innovative designs to facilitate the changing face of Indian Marine Industry.

Our Naval Architects and Engineers are highly skilled and experienced in doing a wide spectrum of projects starting from Ship Basic Design, Oil and Gas FPSO designs, Detailed engineering, project management, site supervision, Production engineering & Technical support for both Marine and Offshore projects.
We also have tie ups with various builders enabling us to undertake ship production in steel and FRP.

PROJECT PORTFOLIO

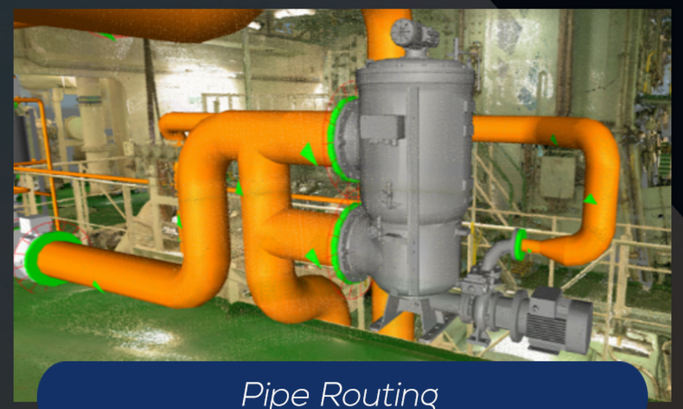
Ship Design
Our significant projects include -

- Design supervision and technical consultancy
  [300T POL Barge for KSINC]
  [GPS based tracking system for KSINC barges]

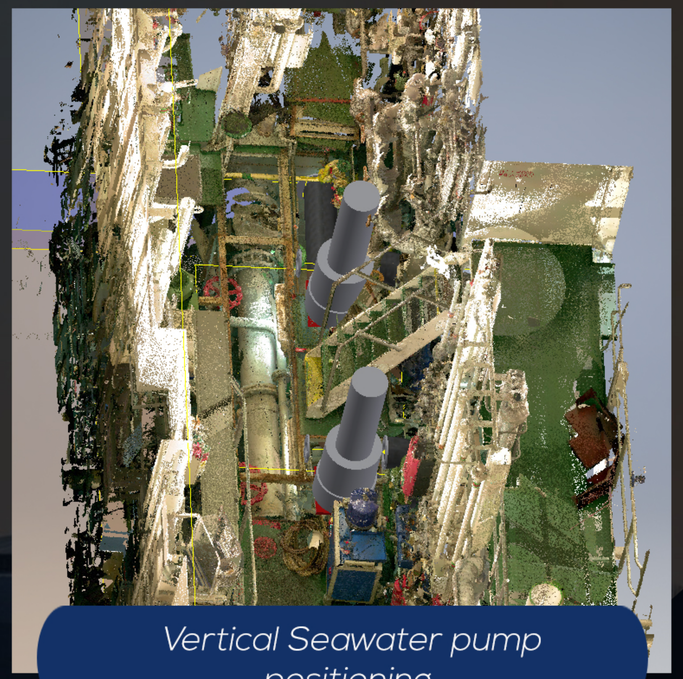
- Our designs in service
  [6-seater FRP boat]
  [5-seater FRP boat]
  [120-Pax House boat]
  [Shikkara boats]
  [Ro-Ro Jankar]
  [16m Inland work boat [Steel] for Cochin]

- Our designs under construction
  [50 passenger Ferry for Andamans (IRClass)]
  [150T Crane barge for ISRF (CSL)]
  [Drum Pontoon Barge for civil construction (KWA, Mavoor)]

- Engineering services
  CFD analysis for exhaust gas flow from marine engines
  Scrubber retrofit engineering (equipment layout, piping production dwgs etc.)
  FEM analysis for ship equipment



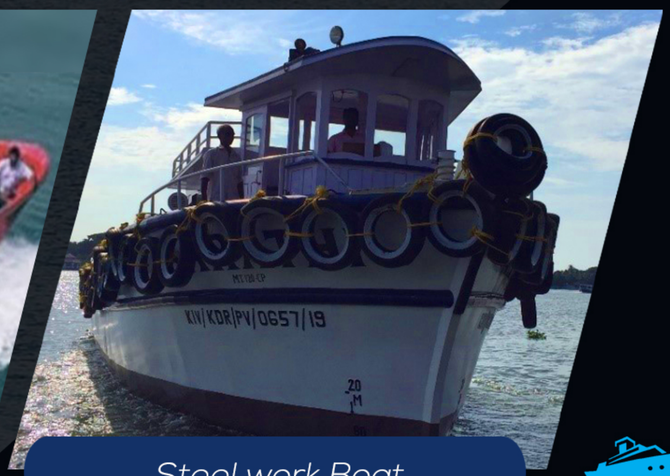
Pipe Routing



Vertical Seawater pump positioning

50 Pax Passenger boat for Andamans

Six- seater Speed Boat



Steel work Boat

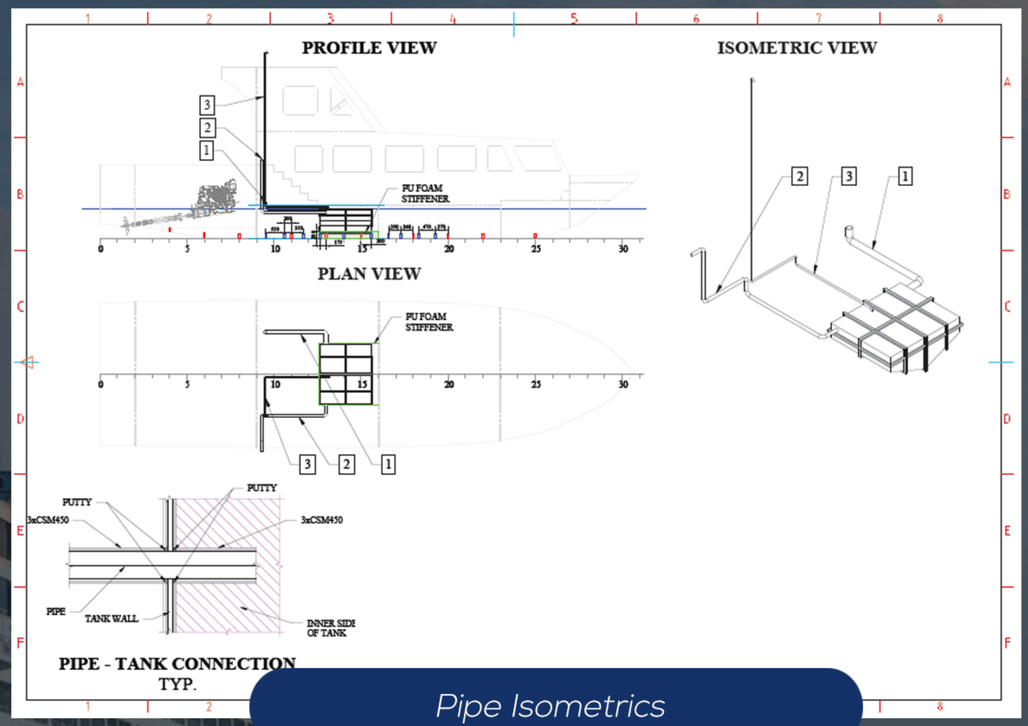
Piping design & Engineering Services Include:

- Piping 2D/3D modelling
- Preliminary piping layout
- Preparation of preliminary & detailed GADs, BOMs/MTOs, etc.
- Preparation of equipment datasheets
- Piping design and drafting services help with the development of design and standard drawings

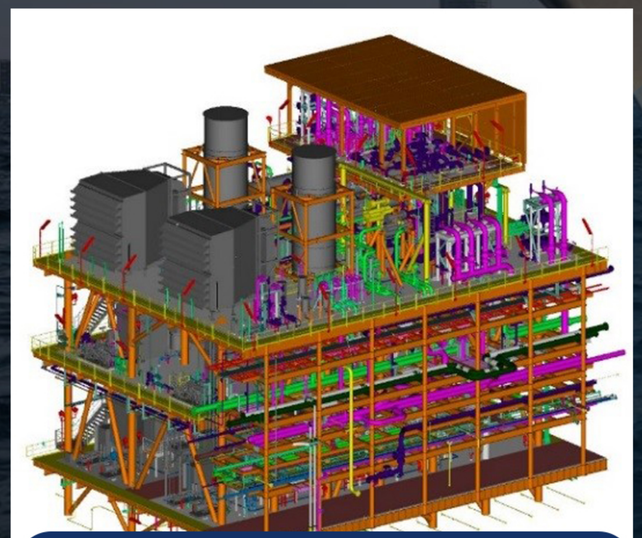
- Expansion of piping material specifications (PMS)
- Construction of line list according to P&ID
- Preparation of isometrics
- Stress Analysis
- Special support preparation
- Preparation of datasheets and requisition for spring hangers, expansion joints, snubbers, slide plates, etc.

- Pipe design & drafting support layouts
- Pipe support detail drawings
- Pipe support markings based on industry standards and special requirements

- Standardization of pipe support

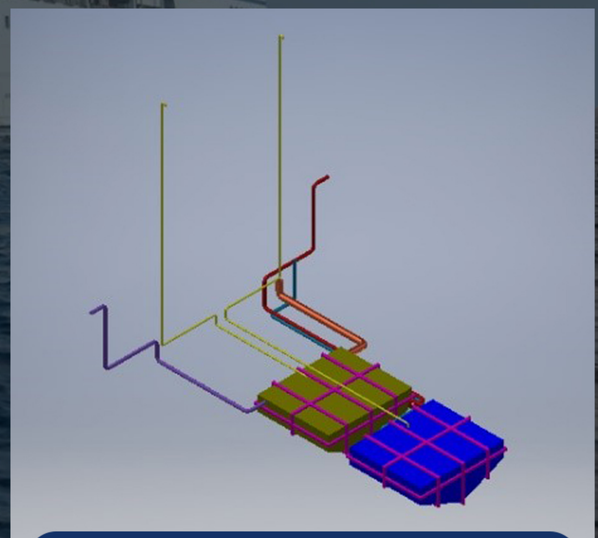


Pipe Isometrics



Angola - Hp Compressor-Iso View-1

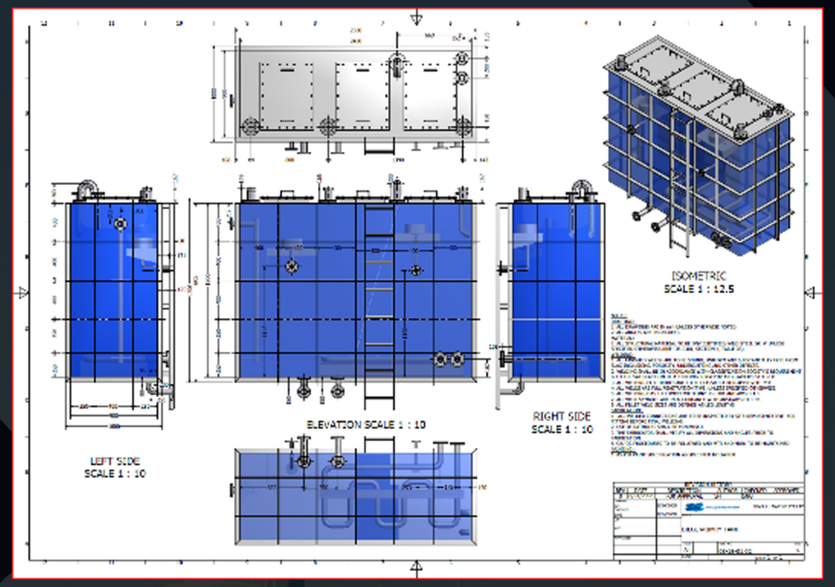
FPSO-Condensate Dewatering-Iso View-1



Pipe ISO Model

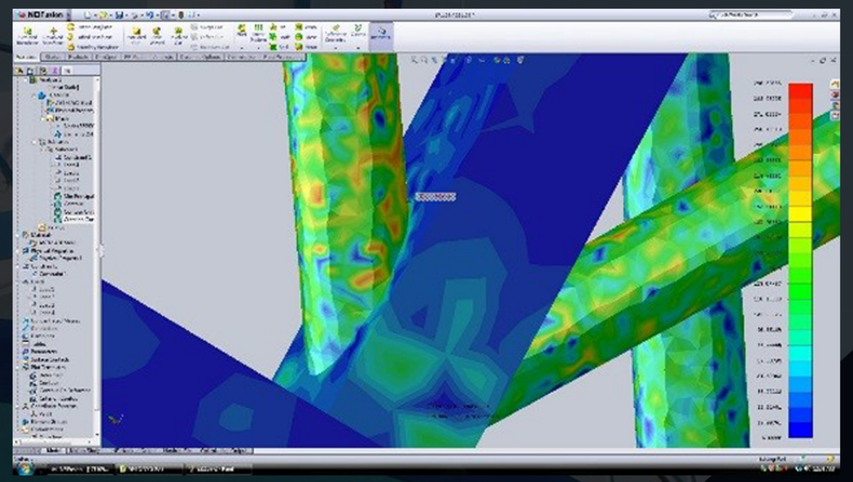
Design Services offered include

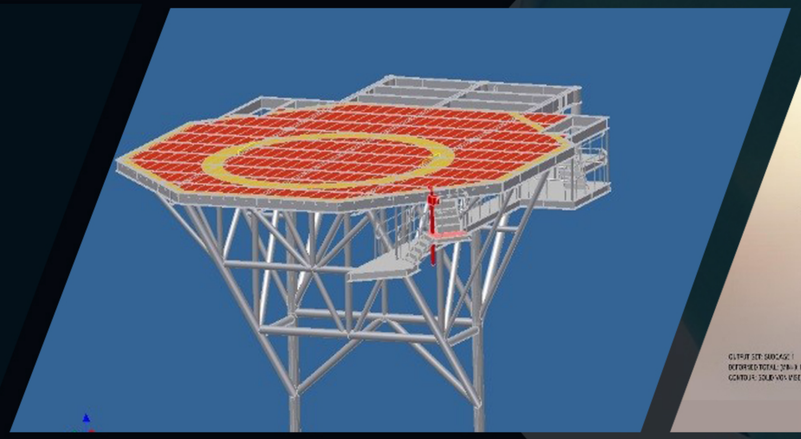
- Basic Design of Offshore Cranes, Heave compensated Gangways
- Design of Offshore lift related equipments like LARS etc.
- Vessel and offshore design to Classification Society rules such as ABS, LR, DNV, BV.
- Crane design, analysis of Booms, Gantry, winch sizing calculations
- Steelwork design to national rules such as BS5950, NS3472, ASME, NORSOK.
- Design modifications for tanker to FSO/FPSO conversions.
- Piping schematics design and layouts for Ships' piping systems, Cargo systems etc.
- Electrical Single line diagrams, Load Analyses, Cable tray layouts etc.

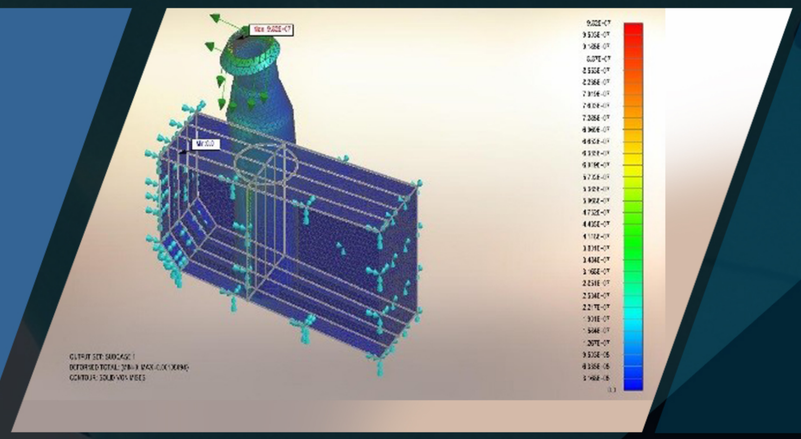


Recent experience

- Design of an LNG loader crane.
- Design and Linear Static Analysis of a 45-ton Crane Boom.
- Design of a 30m long Heave compensating Telescopic gangway.
- Multi-body interaction analysis of an Offshore Support Vessel with an FPSO using ANSYS AQWA.
- Conversion of a Single Hull Oil Tanker into a Methanol Carrier including Damage Stability Study and Fatigue Assessment.
- Global Analysis of a Jack up rig.
- Design of crane pedestals and support structure for an offshore support vessel.
- Analysis of Crane boom and design drawings for the same.
- SPS compliance review for an offshore support vessel.
- Design and Analysis of structures including helideck, Flare tower, and module supports for a dynamically positioned FPSO on a site-specific criterion.

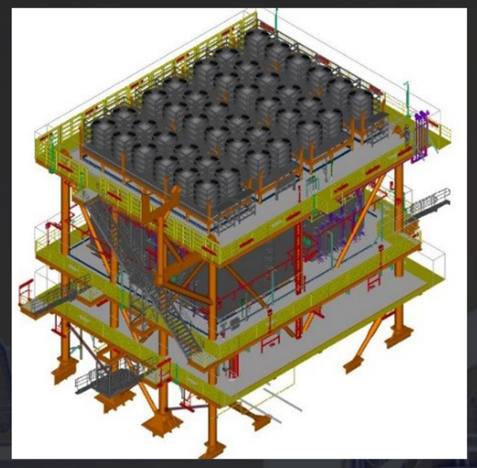
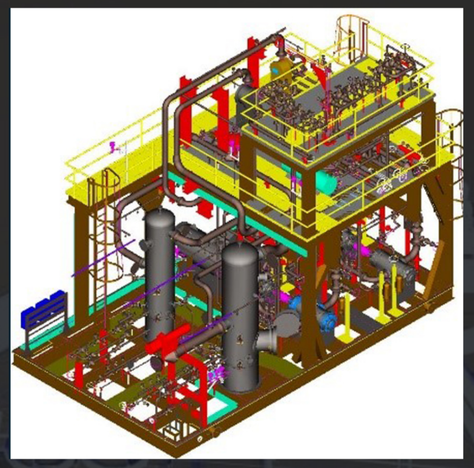


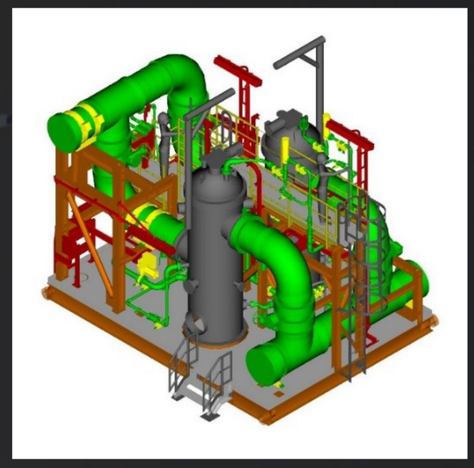
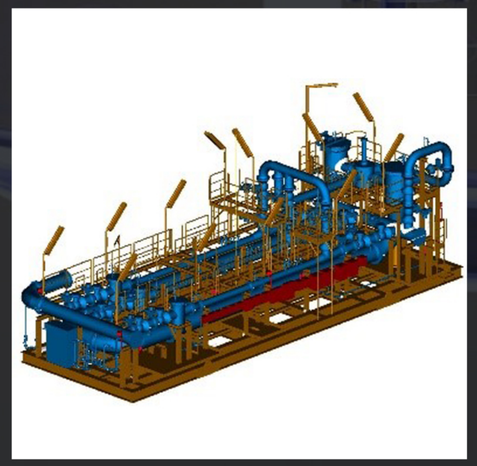
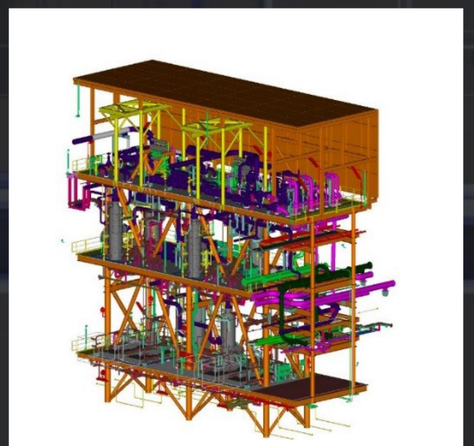
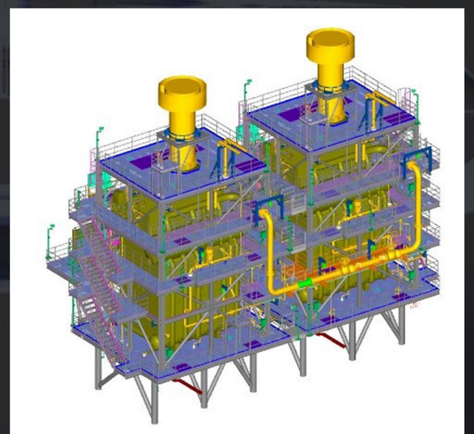


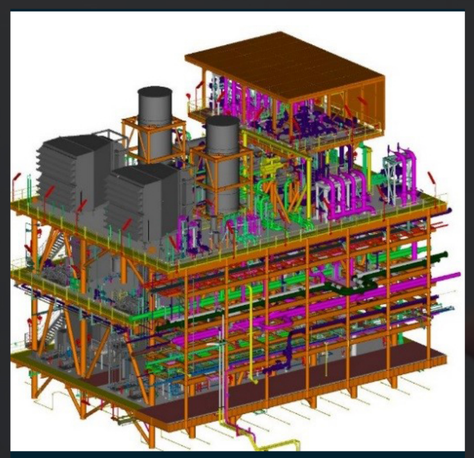


DESIGN PORTFOLIO

The 3D models done with AVEVA 3D are as below: -

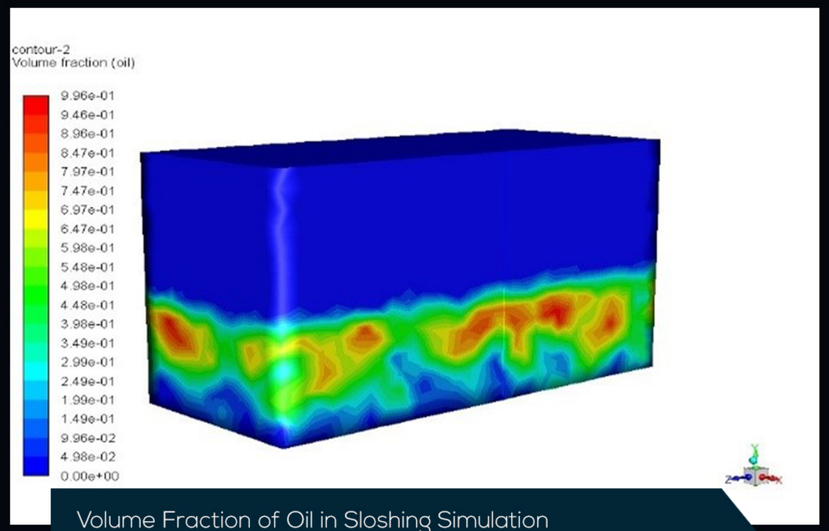







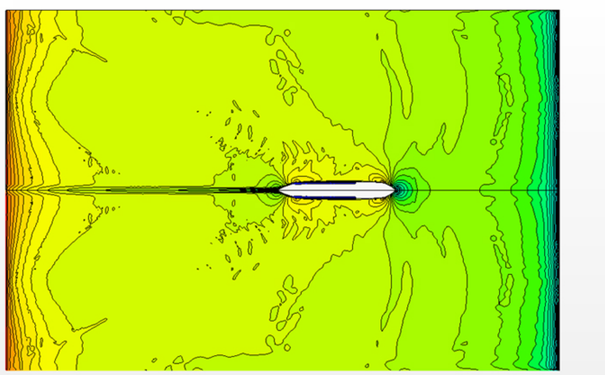
HYDRODYNAMICS PORTFOLIO

ShipTech-ICON has expertise in performing hydrodynamic analysis to predict the performance of vessels in the dynamic marine environment and covers ship resistance & propulsion, mooring analysis, pipe flow simulations and multi-body interaction analysis. Our in-house team of naval architects and hydrodynamics engineers are competent in assisting clients for engineering solutions to complete project on schedule and on budget. Resistance and propulsion calculations are done primarily during the new-build designs. Multi body stimulations involve interactions of more than one vessel or platforms with each other for offshore activities. Sloshing analyses are performed to determine dynamic pressures generated in tanks due to vessel motions.

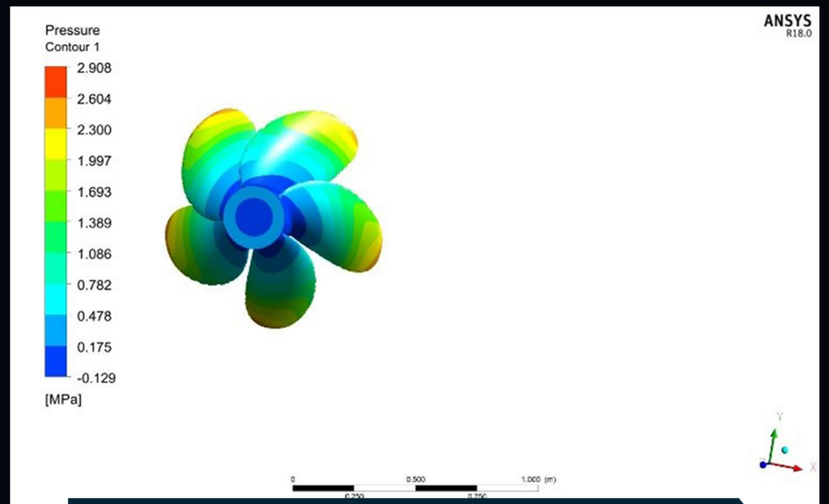
Multi-Body Interaction analysis of a Floating Dock & Vessel



Volume Fraction of Oil in Sloshing Simulation



Velocity contour of bare hull resistance simulation



Pressure Distribution on propeller

KEY DIFFERENTIATORS

- Start-up incubated under Cochin University:
- The Dept. of Ship Technology, CUSAT offers highly specialized engineering consulting and research capabilities aimed at identifying practical and efficient solutions to clients' needs across the main disciplines of construction technology, engineering and industrial design. This expertise is delivered to corporate and government clients from academic staff in the Dept. of Ship Technology, CUSAT

- Skilled resource availability from both Industrial and Academic fraternity.
- Naval Architects
- Structural Engineers
- Hydrodynamic Experts
- Mechanical Engineers
- Marine Engineers
- Vessel Performance Analyst
- Industrial Automation Expertsystem.

METHOD OF OPERATION

ShipTech-ICON operates commercial engagement with the business community through our Consulting business. This provides business partners with a single clear point of access to CUSAT DOST leading edge research and delivery of projects using high calibre staff. This dedicated unit, comprised of professionals with extensive corporate experience, can be the catalyst to help your business keep in touch and up to date. We invite you to discuss with us some of the issues your business is facing.
All projects facilitated by ShipTech-ICON are allocated to a project manager who acts as the primary point of contact between the COMPANY, University and client. This ensures and maintains a consistent high quality of delivery tailored to commercial imperatives.
For information on consultancy services, assistance in finding an engineering specialist to meet your particular needs, or information on current commercialization opportunities please contact:

PRODUCTS

OCEAN BLUE:-

FRP hull with OBM. Ideal for Sport Fishing, Recreational Purposes & Work in harsh offshore waterways.

L :- 5.90 m
B :- 2.40 m
Capacity :- 10 Pax

PATROL VESSEL :-

FRP hull with Stern drive. Speeds of 55 knots can be achieved through the use of composite materials & a smart design

Length :- 14.5 m
Beam :- 3.5 m
Crew :- 8 Nos

WORK BOAT:-

The composite construction and straightforward onboard systems ensure an easy to maintain vessel that is light and easily transportable anywhere in the world.

Length :- 11.9 m
Beam :- 4.0 m
Capacity :- Upto 20 Pax

PRODUCTS

THE SHIFT:-

A combination of stunning design, quality and race-bred technology. A revolutionary performance experience at all speeds.

Length :-10-12 m
Top speed :-45-50 knots
Capacity:- 2-4 pax

MANTA:-

With a bold exterior concealing a spacious interior, this addition is sure to delight the adventurous with its incredible performance and sea-keeping, fantastic handling and ability to reach speeds up to 38 knots.

Length :- 19.17 m
Top speed :- 36-38 knots
Berths :- 6- 8 Pax

PRIME:-

Provocative, cutting edge, exhilarating - announcing the highly anticipated, all-new PRIME Class.

Length :-10-12 m
Top speed :- 20-25 knots
Capacity:- 3-5 pax

D'LEAP

INNATE RICHNESS

D'LEAP reveals its fascination within fraction of seconds with a fluid yet sharp dynamic fly line. It's design give a wave of enthusiasm that become stronger from the very first glance.

DESCRIPTION

D'LEAP is a classic example of quality designs from ShipTech-ICON which exhibits best performance of speed, aesthetics and luxury. D'LEAP is an electric yatch which contributes to sustainability as well. The interior is designed with maximum comfort and utmost luxury to the passengers.

LENGTH : 15.50 m
BREADTH : 4.10 m
DEPTH : 1.8 m
APPROX DRAFT : 0.9 m
STATION SPACING : 0.5 m
PASSENGER CAPACITY : 50+4

ENGINE : 2 x Inboard 110 HP
MATERIAL : FRP
SPEED : 8 knots
DISPLACEMENT (LIGHTSHIP) : 14.54 t
DISPLACEMENT (FULLY LOADED) :21.47 t

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