

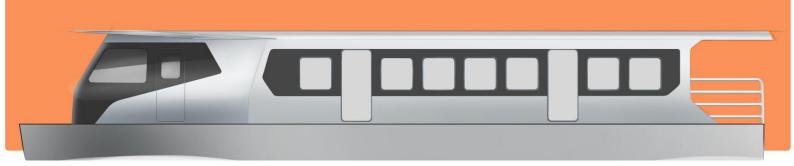
## Our Vision

To satisfy our most demanding clientele, we want to deliver the products with our signature of professionalism and knowledge embedded in it.

We value the core aspects of this industry and pledge to build better products which will suit the exact need or purpose of the very customers we deal with.

Sandith Thandasherry, CEO, Navgathi.





### Introduction

Navgathi was incorporated in the year 2008, With the highest ethical standards and pure dedication to excellence in all operational aspects we aspire to exceed our customer's expectation in marine & offshore Industry. We recognize one of the most challenging issues to the date in environmental conservation and are always trying to incorporate this integral element in all our business activities.

Navgathi, equipped with state of art facilities along with skilled workforce ensures the production and delivery of fast and efficient marine products.



The Team

Director Vidyanand Murunikkara

Advisor Mihin Shah



## Group Companies



NavAlt, a Navgathi group company with its dedicated team of naval architects and engineers together contribute to design and develop commercial solar powered boats.

ADITYA, hailed as the country's first and largest solar powered ferry is the brainchild of this very formation.

Visit us at: www.navaltboats.com



## The Yards

## **NSHI**

@Navgathi Boat Yard, Kodungallur, Kerala

The yard is housed in 1.7 acres of land at Kodungallur, Kerala. Yard has well equipped facilities for construction of IRS class fiberglass boats and capability to construct steel vessels up to 50 meters.

- 30 Meters X 6.5 Metres slipway
- 28 Metres X 10 Metres fabrication skid
- 50 Metres X 10 Metres fabrication skid
- Built Dredgers, Rescue/Ambulance boats, Barges etc.

### **NSHI**

@Century Shipyard, Panavally, Kerala

The yard is housed in 4.5 acres of land in Panavally, Kerala. Shipyard is currently controlled and operated by Navgathi Marine Design & Constructions.

- 95 Meters X 22 Metres slipway
- 45 Metres X 15 Metres fabrication skid
- 30 Metres X 15 Metres fabrication skid
- Built passenger ferries, solar boats, steel boats, dredgers etc.



### The Benefits

#### Eco friendliness.

Efficient structural design and hull form in our conventional diesel ferries with compact engines reduces the fuel usage and emmisions. Total ecofriendly solar boats saves about 90 tonnes of carbon dioxide and 8 tonnes of other harmful emmisions per year. We are transforming the water transportation industry by reducing water pollution due to oil spills.

#### **Comfort and Pleasure.**

Our Diesel boats with efficient design and use of quality materials reduces the commonly found discomforts. The absence of the conventional IC engines in our solar boats provides the passengers and crew an absolute sound free ride along with the less vibration and no smell of fuel. All our boats have well designed spacious interiors, ergonomic cushioned seats to reduce tiredness and entertainments like TV, Music system etc.

#### Cost Effectiveness.

The optimized hull form minimize the drag and the power requirement is subsequently reduced to 1/3rd of similar sized ferry, Hence the operational cost is much lesser in our conventional ferries .Our solar ferries have negligible operating cost due to the absence of fuel. Even in our diesel powered boats have better break even period compared to similar sized conventional boats.



## Product Variants

S.N	Product Variants	Diesel	Solar / Hybrid	Classification
1	Passenger Boats	<b>✓</b>	<b>/</b>	Tourist Boats Ferry Boats Water Taxi
2	Specialised Boats	<b>/</b>	/	Ambulance Boats Search & Rescue Boats
3	Work Boats	/	/	Weed harvesters Skimmers

## Product platforms - Passenger boats

Length	9 - 12 metres	12 - 15 metres	19 - 24 metres
Breadth	3 - 4 metres	5 - 6 metres	7 - 8 metres
Pax Capacity	10 - 30	30 - 60	75 - 150
Speed	6 - 25 Knots	6 - 25 Knots	6 - 25 Knots
Material	GRP Aluminium Steel	GRP Aluminium Steel	GRP Aluminium Steel
Propulsion	Diesel/Electric	Diesel/Electric	Diesel/Electric
Design Classification	Catamaran Mono Hull	Catamaran Mono Hull	Catamaran Mono Hull
Operational Classification	Water taxi Ferry Boats	Ferry Boats Tourist Boats	Ferry Boats Tourist Boats
Rules	IRS/IACS	IRS/IACS	IRS/IACS

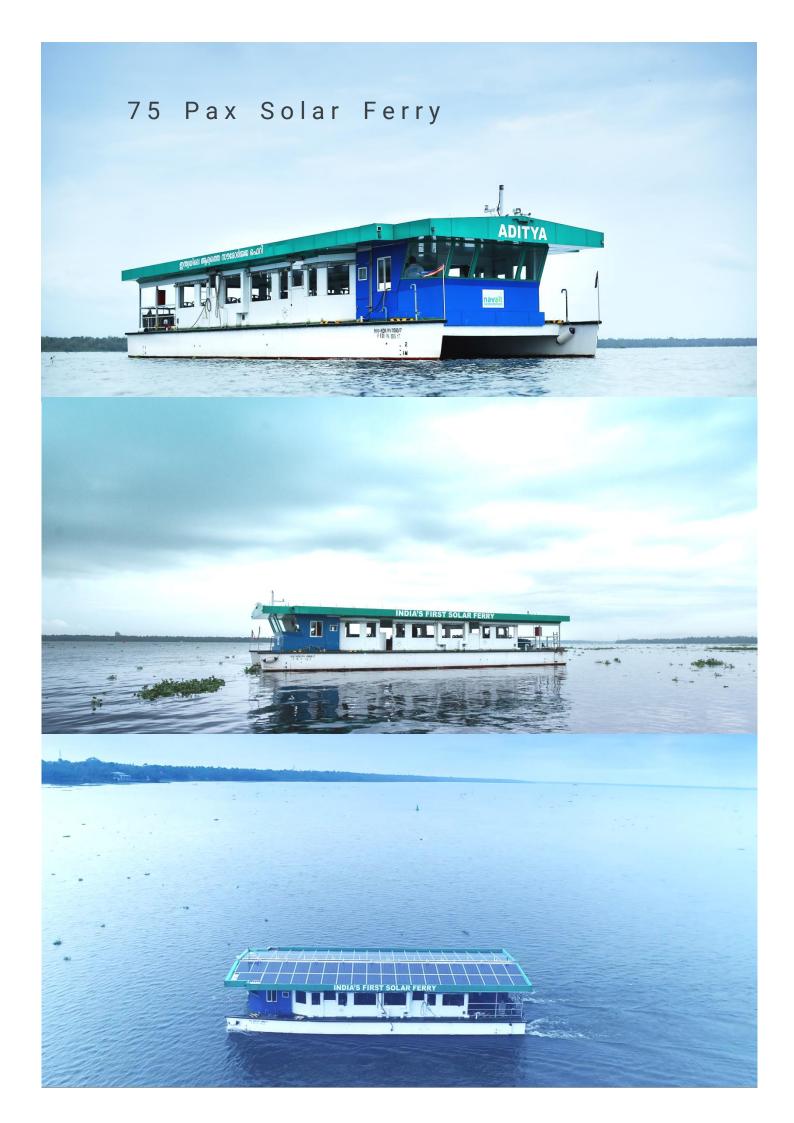
## **Product Platforms - Specialized Boats**

Length	Breadth	Speed	Material	Customizable
8.5 Metres	3.8 Metres	15 - 25 Knots	GRP	Medical Equipments Rescue Equipments
10 - 15 Metres	3.5 Metres	15 - 25 Knots	Steel Aluminium	Medical Equipments Rescue Equipments











# Navgathi Design and Engineering

Navgathi design is a collective platform of different phases or modules that combine to orchestrate design, operations and engineering within the scope of shipping industry.

#### **New Building Project Management**

We have wide experience of project management of vessels in South Korea including the world's largest combination carrier project – eight 319,000 DWT VLOO in HHI. Other projects include ten 37,000 DWT bulk carriers, four 2800 TEU container vessel, four 3600 TEU container vessel, two 263,000 DWT VLOC. Below a summary of our important projects are outlined – both design & construction.

#### **Vessel Conversion Design**

Our team of experience naval architects and engineers can assist shipowners and operators to meet their dynamic need for changing rules and regulations, charter requirements etc by providing various design solutions for retrofits and engineering.





## Design & Engineering

Navgathi provides design & engineering services involved in construction of seagoing vessels, River sea vessels, Inland vessels and Offshore structures.

#### **Concept design**

- Vessel specifications
- Preliminary hull design
- Vessel performance calculations
- Interior arrangements
- Resistance and Powering Calculations

#### Basic design & preparation of class drawings

- Hull design
- Outfitting design
- Structural & mechanical attributes
- Inclining or Stability Tests
- Hydro-statics

#### **Detailed design & Production drawings**

- Production drawings
- 3D modelling
- Lofting & Nesting
- Piping drawings



## New Building Project Management

Navgathi offers a wide range of services in managing complex shipbuilding and offshore construction. We can built a project team from a vast pool of experienced professionals customized to the needs of the client.

We vouch to work for the Client interest and not merely create documentation to satisfy the basic contractual requirements like many third party owner's representative. "Our primary interest is that of the Client and Client only."

We can provide team comprised of expatriates or a team whose main body consists of local engineers, overseen by an expatriate Site Manager. The team for marine project management can consist of naval architects, marine engineers, coating engineers, electric engineers and professional from other related disciplines

#### Our services include:

- Concept Design of Ships
- Shipyard Assessment
- Contract Specification Analysis
- Plan Approval
- New Shipbuilding Supervision



## Retrofit Design

Navgathi provides design services to ship owners all around the world, we can undertake all or part of the technical aspects of the retrofit job from concept and basic design to detail design and supervision.

With an extensive experience in new building and conversion designs, our technical team can provide high quality design service for retrofit projects in all disciplines like Hull structure, Strength calculations, Stability, Deck equipment, Machinery & piping, Electrical & automation design.

#### **Retrofit design services:**

- Ship Survey / 3-D laser scanning
- Feasibility study providing 3-D modelling for space allocation
- Design engineering with detail design, classification drawing packages
- Project management



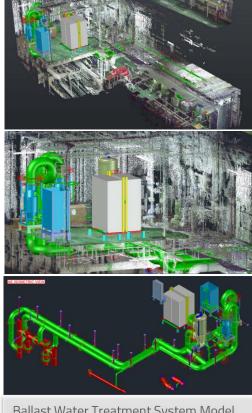
## Regulatory Compliance & Certification

Being experienced in liasoning with different classification societies, we are in a position to deliver design drawings as per the classification society requirements. We can cover all drawing layouts covering general arrangement to safety plans.

These design requirements may broadly fall under any of the following, international legal requirements, domestic legal requirements,

classification society requirements.

- **Ballast Water Management Projects**
- Scrubber Installation
- **OWS Modification**
- CSM upgrade
- Panama Canal modifications
- **Ship System Schematic Drawings**



Ballast Water Treatment System Model

## Safety Advantage

#### **Building under classification society**

Every boat coming out of our yard will satisfy the classification society approval at all stages of design and construction. All Lifesaving and firefighting appliances are checked for quality and ability to handle emergency scenarios.

#### Higher standards of safety & stability

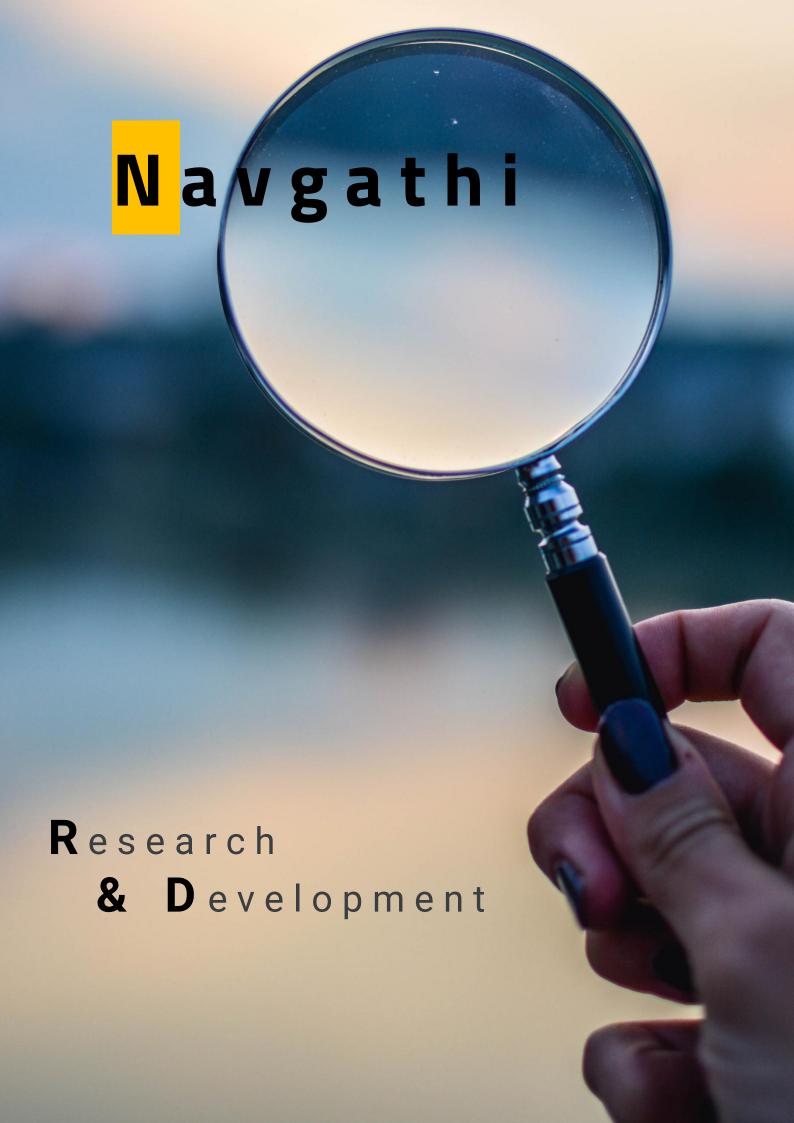
We follow higher standards in safety and stability. Our ferry's are designed and built as a catamaran for higher margin of stability. They are designed for overcrowding by 100% meeting all stability conditions.

#### **Efficient hull**

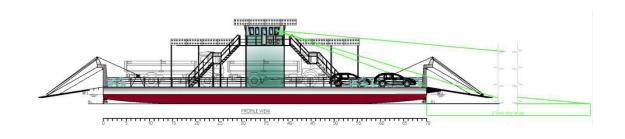
Our ferry boats are lightweight due to the usage of lighter and stronger materials like GRP and aluminium. Efficient structure design and lightweight characteristics generates lesser drag in turn enable our boats to be more efficient. Advanced hull forms used is also an added advantage.

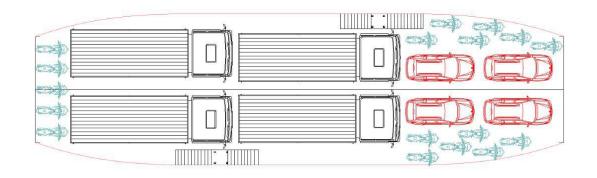
#### **Remote Monitoring**

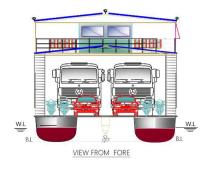
All the operating parameters of the boat are recorded and send to our server from where the technical experts can gather data and monitor the performance of the boat.

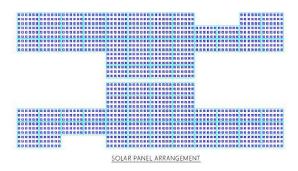


### Solar-Electric RoRo Ferry

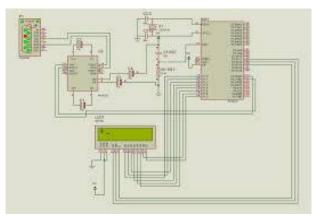


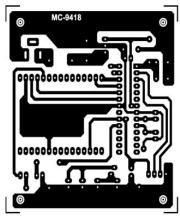


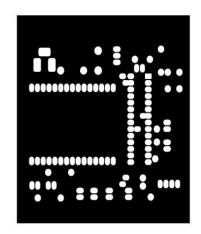


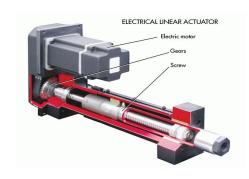


### Advanced Electric Steering







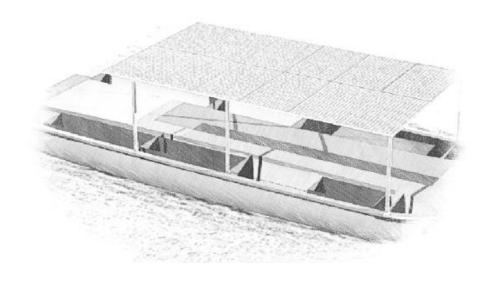


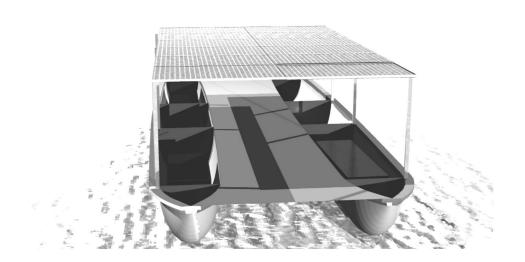




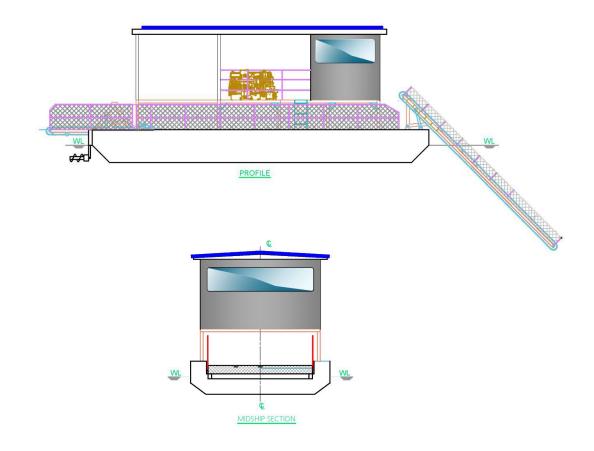


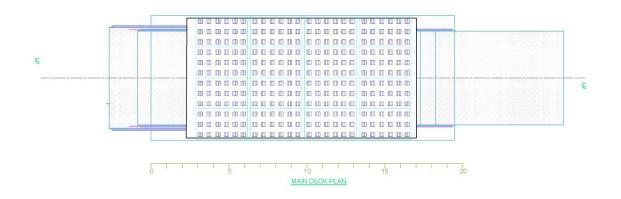
Solar Fishing Boats





Solar Weed-Harvester





### Contact Us

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