jun-eng.kr

A leader of shipbuilding & offshore plant

JUN ENGINEERING





SHIPBUILDING/OFFSHORE Basic/Production DESIGN Technical Consulting





CEO Introduction



Jeon, Hyeong Jin / CEO

- Current) CEO, JUN ENGINEERING Co., Ltd.
- Former) Section Chief of Wiring Design, SPP Shipbuilding Co., Ltd.
- Former) Samsung Heavy Industries Co., Ltd. Marine Design Sector
- SME Technical Development Support Project Judge
- ISO 9001/14001 Screening Examiner
- Venture business certificate for Shipbuilding/offshore plant technical service (design)
- Designation as SME with Outstanding Employee Development
- Awarded Commendation from Ministry of SMEs and Startups(MSS)

Management Philosophy

Challenging Spirit Company that seeks everyone's development with the belief of success through endless challenges of passion and ambition

Trust Management •-Company that practices process compliance and quality satisfaction by prioritizing customer's promise

A future pioneer of shipbuilding/offshore engineering industry,

JUN ENGINEERING Co., Ltd. is here for you.

Everyone at JUN ENGINEERING pursues coexistence with shipyards through reasonable and transparent ethical management, and considers customer satisfaction and reliability as our core value.

Based on confidence in the drawing quality and customer's trust, JUN ENGINEERING is preparing for a new leap as the top engineering company through the development of various high value-added vessel types and endless efforts for cost reduction.

We will be the partner that prioritizes in more accurate and faster delivery in shipbuilding/offshore design by pursuing the maximization of customer satisfaction.

I sincerely appreciate our customers for their endless love and support, and will meet your satisfaction as the top engineering company and the best partner, through quality satisfaction and on-time delivery.

Please continue to support and trust our endless

We will overcome and become the best shipbuilding company that offers a total solution.

-)@(

Ø

JUN ENGINEERING CEO Jeon, Hyeong Jin

Creative Management

Company that provides foundation to demonstrate each employee's competence and creates values based on it

> **Vision Management** Company that is faithful to the present and predicts the future to grow together

••• History

2017

Established JUN ENGINEERING 06

- 09 Certified as venture business
- Established R&D department 10
- Registered as a member of 11 Korea International Trade Association

2018

- Established company research institute 01
- Selected for 2018 Generation Convergence 05 Start-up Campus Project (Ministry of SMEs and Startups)
- **07** Established smart factory
- Developed cable program 08 Patent applied for method to measure cable in vessel (No. 10-2018-0096663)
- **10** Established a corporation

Won 2nd prize in Youngsan University Generation Convergence Start-up 12 **Campus Committee Investment Competition** Selected for Start-up Growth & Technical Development Project (MSS) Attracted 100 million-won investment (Angel Club) Applied for trademark (40-2018-0179681) Designated as SME with Outstanding Employee Development

2019

- **05** Patent applied for model ship production method using 3D printer (10-2019-0051350)
- **07** Completed cable program development Obtained ISO 14001:2015
- 12 Awarded Commendation from Ministry of SMEs and Startups(MSS) Conducted CABLE PROGRAM Development Certified as Family-friendly Company

2020

- Opened Ulsan Chosun Offshore High Tech Town Branch 01
- 04 Selected as the 7th NEST by Korea Credit Guarantee Fund

••• **Business Areas**





Shipbuilding & Offshore plant Design

Cable-measuring Ship parts & program development ship model production for small & medium shipbuilders



Retrofit design /BWTS/SCRUBBER



Design Areas

1 Design ship types

- TANKER(Crude Oil Tanker, Product Carrier, Chemical Tanker)
- Container Ship, Bulk Carrier
- Offshore(Platform, Drill Ship, FPSO & FSU, Jack-up Rig, Semi Submersible Rig)
- Offshore Supply Vessels(AHTS)
- Fishery inspection boat, Fishery resource research ship, small merchant ship, barge, response vessel, coastal liner



2 Design drawing

- GENERAL ARRANGEMENT
- MACHINERY ARRANGEMENT
- CONSTRUCTION, ASSEMBLY DRAWING
- MIDSHIP SECTION & (TRANSVERSE) TYPICAL BHD CONST. STANDARD DRAWING
- DIAGRAM (PIPING, ACCOMMODATION, ELECTRIC)
- ARRANGEMENT
- INSTALLATION, MFG. DRAWING All Area

Annual Capacity

General merchant ships(TANKER, BULK, Etc.) – 4 Project

- TANKER(Product, Chemical, Crude Oil Tanker, Etc.)
- Container Ship(1,700TEU, 2,500TEU, 3,600TEU, Etc.)
- BULK CARRIER(35K, 59K, 82K, 170K, Etc.)

Offshore, Offshore Supply Vessels (AHTS) – 1 Project

- PLATFORM, DRILL SHIP, FPSO & FSU
- JACK-UP LIG, SEMI SUBMERSIBLE RIG
- OFFSHORE SUPPLY VESSELS(AHTS)

Small ships and special purpose vessels – 5 Project

- 3.5K, 6.6K, 11K, 13K Oil/Chemical Tanker
- Fishery inspection boat, fishery resource research ship, marine patrol ship
- Response vessel, coastal liner, barge







••• **Retrofit Design**

BWTS(Ballast Water Treatment System)

SCRUBBER



- Design work for remodeling related to scrubber installation in vessels
- Design work for remodeling related to ballast water installation in vessels
- There are many requests for quotations and consultations, and the market is rapidly expanding

*Installation of BWTS is mandatory in about 50,000 vessels around the world, about 600 vessels expected in Korea

Cable Program for Small/Medium Shipbuilders

Program 20.2ver development completed





| Program Construction



. . . **Measuring Improvement in Major Equipment** (MSBD, CONSOLE, PANELS)



| Intellectual Property Right

| Name of Intellectual Property Right | Method of measuring cable l |
|--|-----------------------------------|
| Applicant | Jeon, Hyeong J (4-2018-046390- |

B) MSB-440V FEERDER PANEL NO.1/2 & 220V FEEDER PANEL



Automatic recognition of breaker location through Diagram/Vendor DWG program analysis



$\bullet \bullet \bullet$ Ship Model 3D Printing

| Process Automation



Production Request

• Confirm maker drawing

database

information

Discuss scale

• Confirm information through

Discuss omission and outfitting





- Modeling by deck Outfitting (medium size)
- modeling • Outfitting (small size)
- modeling Confirm hole and section

Modeling

- frame position • Hull and outfitting thickness
- setting

Check slicing program errorControl supporter position • Convert G code

Output

- Output by hull section
- Output by outfitting size



Post-processing

- Supporter control
- Reinforce output
- Apply putty and primer Sanding and color
- Dry

출원번호통지서

| Ship Model Production Using 3D Printing



| Intellectual Property Right

| Name of Intellectual Property Right | Model ship production method using 3D printer |
|--|--|
| Applicant | JUN ENGINEERING Co., Ltd. (1-2018-078908-3) |











••• Shipbuilding equipment and ship model using 3D printer











Project in Development

| Ship-designing technique using VR/AR

- Maintenance operator can perform equipment inspection and vessel maintenance/repair without deep understanding in vessel or engine, by obtaining the necessary data immediately
- Maintenance record is saved in the server and removes unnecessary waste factors in maintenance data collection even if maintenance operator changes or maintenance log is lost

2D drawing



3D drawing (AR function included)

| joon-eng 30 | | | |
|-------------|--------|---|--|
| | 3D 설계도 | | |
| | 2D 설계도 | 0 | |
| | 세부사항 | | |

| OWNER . | 국 컵 수 산 과 약 원 제3 Mail 용통수 1600통 글 시험조사선 | 3D 설계도 | |
|-------------------------|---|----------|---|
| 14 10 14 10 14 10 | BA INNE & ABLAC | | J |
| THE TOTAL | 건 조 사 양 서 | 2D 설계도 | 1 |
| (4,1) | | TO BUILT | |
| BUILDER | | | |
| DESIGNER | CHEMIN KOREA MARTIME SERVICES CO., LTD. | 세부사항 | |
| 85+ 1605 d | HB3.45 BKSC PART | AT-18 | |

Design details

Fishery/Fish Farm Management Water Drone

- Fishery & fish farm management (water temperature check, salinity check, fish shoal detection)
- Stable operation through outstanding restoration even if it is flipped
- Sea theft prevention
- Automation of aquaculture through detachable feedbox



Domestic/Overseas Partners

• Outstanding-quality design (hull fitting) turnkey agreement, design/ship model/cable program package sales





HUDONG ZHUNGHUA SHIPBUILDING CO., LTD / DALIAN SHIPBUILDING INDUSTRY CO., LTD / SHANGHAI WAIGAOQIAO SHIPBUILDING CO., LTD]







Vietnam

Four Companies including electrical equipment manufacturers, import and export specialized companies, and trading companies.



[BERI INDUSTRIES CO., LTD / CHI VIET ENERGY LIMITED / RI NY CO., LTD / SLT VINA]

Equipment



| Korea's largest 3D printer (FDM-type)



In-house server



| 3D printers and other equipment



Certificates









Headquarters

#B-102/103, 501, Jinju-daero, Jinju-si, Gyeongsangnam-do, Republic of Korea (Gyeongsang National University BI Center)

Ulsan Branch

16, Techno saneop-ro 55beon-gil, Nam-gu, Ulsan, Republic of Korea (shipbuilding & marine high-tech Town 605)

T +82 55-761-0635 F +82 504-473-0607 E juneng0214@naver.com