Curriculum Vitae

# Yong-Kuk Jeong

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### Career

Mar. 2018 - now

Research Institute of Marine Systems Engineering, Seoul National University (SNU), Seoul, Rep. of Korea

Postdoctoral Researcher

### **Education**

| Sep. 2011 -<br>Feb. 2018 | Seoul National University (SNU), Seoul, Rep. of Korea  |  |  |  |
|--------------------------|--|--|--|--|
|                          | <ul> <li>Ph.D. in Engineering (Major: Naval Architecture and Ocean Engineering)</li> <li>Adviser: Prof. Jong Gye Shin</li> </ul>                             |  |  |  |
| Mar. 2007 -<br>Feb. 2011 | Seoul National University (SNU), Seoul, Rep. of Korea  |  |  |  |
|                          | <ul> <li>B.S. degree, GPA 3.57/4.30 (Major: Naval Architecture and Ocean<br/>Engineering, Department of Naval Architecture and Ocean Engineering)</li> </ul> |  |  |  |

# **Research Interests**

Research Areas Shipyard Logistics Simulation Ship Production Management Discrete Event System Simulation Life Cycle Assessment Combinatorial Optimization Algorithm

# Research Papers (\*: Ph.D. Dissertation Essays)

- Yong-Kuk Jeong, Youngmin Kim, Su Heon Ju, Jong-Gye Shin, Jong-Choel Kim and Jong Hun Woo, (2018), Development of an optimization program for spatial layout considering the vulnerability of a naval vessel, *Journal of Ship Production and Design* (Accepted).
- Jong Moo Lee, Yong-Kuk Jeong, and Jong Hun Woo, (2018), Development of an Evaluation Framework of Production Planning for the Shipbuilding Industry, *International Journal of Computer Integrated Manufacturing* (Published Online).
- Youngmin Kim, Jong Hun Woo, Yong-Kuk Jeong, Jong-Gye Shin, (2018), Computational Shipyard Dynamics, *Journal of Ship Production and Design* (Published Online).
- Yong-Kuk Jeong\*, SuHeon Ju, Huiqiang Shen, Dong Kun Lee, Jong Gye Shin, Cheolho Ryu, (2018), An analysis of shipyard spatial arrangement planning problem and a spatial arrangement algorithm considering free space and unplaced block, *International Journal of Advanced Manufacturing Technology*, 95, pp. 4307-4325. (\*Corresponding Author)
- Yong-Kuk Jeong, Philippe Lee, and Jong Hun Woo, (2017), Shipyard Block Logistics Simulation Using Process-centric Discrete Event Simulation Method, *Journal of Ship* Production and Design, 33(3), pp. 1-12.
- Jong Hun Woo, Youngmin Kim, Yong-Kuk Jeong, and Jong-Gye Shin, (2016), A Research on Simulation Framework for the Advancement of Supplying Management Competency, *Journal* of Ship Production and Design, 32(4), pp. 1-20.
- SeungHoon Nam, Dong Kun Lee, Yong-Kuk Jeong, Philippe Lee, and Jong-Gye Shin, (2016), Environmental Impact Assessment of Composite Small Craft Manufacturing Using the Work Breakdown Structure, *International Journal of Precision Engineering and Manufacturing—Green Technology*, 3(3), pp. 261-272.
- Dong Kun Lee, Yong-Kuk Jeong, Jong Gye Shin, and Dae-Kyun Oh, (2014), Optimized Design of Electric Propulsion System for Small Crafts using the Differential Evolution Algorithm, *International Journal of Precision Engineering and Manufacturing-Green Technology*, 1(3), pp. 229-240.
- DongKun Lee, YoungMin Kim, YongKuk Jeong, and Jong Gye Shin, (2014), Simulation-based Work Plan Verification in Shipyards, *Journal of Ship Production and Design*, 30(1), pp. 1-9.

# Conference Proceedings (the name of the presenter is underlined)

- Yong-Kuk Jeong, Hui-Qiang Shen, SeungHoon Nam, Youngmin Kim, Jong-Gye Shin, Philippe Lee, Jae Ho Choi, and Jong Hun Woo, (2017), Verification and Validation of Shipyard Logistics Simulation System and Its Use Case Identification, WSC 2017, Las Vegas, NV, 3-6 December, 2017.
- <u>Hui-Qiang Shen</u>, Yong-Kuk Jeong, Seung-Hoon Nam, Youngmin Kim, Jong-Gye Shin, Dong Kun Lee, and Daekyun Oh, (2017), A Hierarchical Simulation Model for Workload Analysis of Ship Block Erection Process, WSC 2017, Las Vegas, NV, 3-6 December, 2017.
- Su Heon Ju, Yong-Kuk Jeong, Seunghyeok Son, Young Gi Min, Jong-Gye, Shin, JongChul Kim, Jong Hun Woo, and Philippe Lee, (2017), A layout design framework considering relations between internal space and external shape of naval vessels at the conceptual design, *ISOPE* 2017, San Francisco, CA, June 25–30, 2017.
- Yong-Kuk Jeong, Seung Hoon Nam, Youngmin Kim, Jong-Gye Shin, Young-Ki Min, Jong Hun Woo, Jae-Ho Choi, Sang-Hoon Kim, and Dae-Kyun Oh, (2017), A modeling and simulation method for multi-layered supply chain management in shipbuilding industries, ACM SIGSIM PADS 2017, NTU Singapore, 24-26 May, 2017.
- Byeongseop Kim, Yong-Kuk Jeong, Seunghyeok Son, Philippe Lee, Yonggil Lee, and Jong Hun Woo, (2017), The Extended Process-Centric Modeling Method for Logistics Simulation in Shipyards Considering Stock Areas, *COMPIT 2017*, Cardiff UK, 15-17 May, 2017.
- Yong-Kuk Jeong, Byeong-Seop Kim, Jong-Gye Shin, Philippe Lee, Jong Hun Woo, and Jong Moo Lee, (2016), A Ship Block Logistics Support System based on the Shipyard Simulation Framework, WSC 2016, Arlington VA, 11-14 December, 2016.
- <u>Seung-hyoek Son</u>, Youngmin Kim, Inhyuck Hwang, Hui Giang Shen, Yong-Kuk Jeong, Cheolho Ryu, Jong-Gye Shin, (2015), Design and Development of Manufacturing Information Calculation System for Formation of Curved Hull Plates, *MOTSP 2015*, Brela Croatia, 10-12 June, 2015.
- Yong-Kuk Jeong, Philippe Lee, SeungHoon Nam, Dong Kun Lee, Jong-Gye Shin, (2015), Development of the Methodology for Environmental Impact of Composite Boats Manufacturing Process, CIRP LCE 2015, Sydney Australia, 7-9 April, 2015.
- · <u>Jong-Gye Shin</u>, Dong Hyun Ahn, Seung Hoon Nam, and **Yong-Kuk Jeong**, (2014), An Introduction to Small boat PLM Technology, *ICOR 2014*, Fiji, 13-15 October, 2014
- Jong-Gye Shin, Seung Hoon Nam, and Yong-Kuk JEONG, (2014), Generic Work Breakdown Structure for Sailing Yacht Lifecycle Management, ICOR 2014, Fiji, 13-15 October, 2014.

### **Research Projects**

Oct. 2016 -

#### National IT Industry Promotion Agency, Republic of Korea

now

 Project: Development of manufacturing strategy and execution simulation for shipyard manufacturing cost

Oct. 2014 - now

Ministry of Trade, Industry & Energy, Republic of Korea

 Project: Development of simulation based production management system for middle-sized shipbuilding companies

Ministry of National Defense, Republic of Korea

Sep. 2012 - Dec. 2017

· Project: Advanced Naval Vessel Research Laboratory

Daewoo Shipbuilding & Marine Engineering Co., Ltd. (DSME)

June. 2016 -Nov. 2016

· Project: Development of the block arrangement algorithm and module

Daewoo Shipbuilding & Marine Engineering Co., Ltd. (DSME)

Aug. 2015 -Nov. 2015

Project: Preliminary research on building digital shipyard framework

# Course-Work Training (Overall GPA: 3.97/4.30)

- · Topics in Ship Production Engineering
- Topics in Ship Structural Design
- · Simulation-based Manufacturing Systems
- · Systems Engineering Management
- Product Lifecycle on Systems Engineering
- Shipyard Layout Planning and Spatial Planning
- Technology Valuation Assessment
- · Integer Programs
- · Theory of Scheduling
- · Managerial Statistics

# **Awards and Honors**

| Mar. 2012 -<br>Aug. 2013 | STX Foundation   |
|--------------------------|--|
| Nov. 2012                | Encouragement Award, Korean Institute of Industrial Engineers.                         |
| Feb. 2011                | The Society of Naval Architects of Korea   |
| Mar. 2007 -<br>Feb. 2011 | National Scholarship For Science and Engineering, Korea Student Aid Foundation (KOSAF) |

# **Other Information**

| Language            |   | Korean: native language English: fluent (speaking, reading), intermediate (writing)  |
|---------------------|---|--|
| Technical<br>Skills | • | Simulation Analysis: DELMIA QUEST, AnyLogic, Simio Programming Language: C#, HTML, Python Proficient in MS-office: Word, Excel, PowerPoint |

# References

#### Dr. Shin, Jong Gye

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#### Dr. Woo, Jong Hun

Professor of Korea Maritime and Ocean University, Busan, Rep. of Korea

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