## 24th Offshore Symposium 2019

Houston, Texas, USA 20 February 2019

ISBN: 978-1-5108-8381-9

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2019) by Society of Naval Architects and Marine Engineers (SNAME) Texas Section All rights reserved.

Printed by Curran Associates, Inc. (2019)

For permission requests, please contact Society of Naval Architects and Marine Engineers (SNAME) Texas Section at the address below.

Society of Naval Architects and Marine Engineers (SNAME) Texas Section 99 Canal Center Plaza, Suite 310 Alexandria, VA 22314 USA

Phone: +1-703-997-6701

www.sname.org/texassection

## Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400 Fax: 845-758-2633 Email: curran@proceedings.com Web: www.proceedings.com



## The 24<sup>th</sup> Offshore Symposium

Feb 20, 2019 | Houston, Texas

www.snamesymposium.com Room - Red Oak Ballroom A Room - Pecan Room - Elm Time 7:00am - 8:30am Breakfast and Registration - Live Oak 7:30am - 8:30am Ethics Course, presented by TBPE 8:30am - 10:00am Panel Discussion: Room: Red Oak "Adapting Mooring Design and Standards for the Next Generation of Offshore Platforms" Ballroom A-B 10:00am - 10:20am Coffee Break: Sponsored by GustoMSC Morning Session I: Soil Structure Interaction Mornina Session II: Analytical Moorina Morning Session III: Deepwater Optimization Numerical Study on OPB/IPB Interlink Angle with Jack-up Spud Can Foundation Fixity for Various Clay Strength Fueling Strategy for Offshore Facilities - a Study Profiles Underwater Chain Stopper System Woo Chul Chung, Heon Yong Kang, Moo Hyun Kim 39 Anup Srivastava 78 J. S. Templeton, III 1 Chevron SAGE USA, Inc Texas A&M University High Strength and High Stiffness Rope for Permanent Investigating Opportunities and Challenges for Unmanned Challenges of Using Residual Curvature Method in Deep Deepwater Mooring: Technology Development and Water Pipelines **Floating Production Facilities** Challenges Tanner J. Powell, Qiang Bai, Mark Brunner, Shawn Searle 10:20am - 11:50am Xiaohong Chen, Sue Wang, Mark Ausborn, Zhen Li 5 2 Anders Martin Moe, Gaurav Singhal, Astrid Barros, Paul Erb Genesis Oil and Gas, TechnipFMC Wood, Woodside Energy LTD 13 94 ABS, Exxonmobil Design and Installation of Dynamically Installed Piles for **Deepwater Mooring** Dissection, Measurement and Analysis of a Recovered **Roadmap for Selecting Cost Efficient Deepwater** X.Y. Zhang, F. Yong, Y.P. Li, J.T. Yi, F.H. Lee, X. Chen, S.Q. Damaged Flexible Riser Investments wang 28 ABS, National University of Singapore, Hohai University, Wang Colin C. Duffett Shiladitya Basu, Tirtharaj Bhaumik 66 Wood PLC KBR/Granherne, KBR/GVA 106 Chongqing University Luncheon Keynote: "Blue Oceans: Offshore and Ship Research for Future Maritime Challenges" 11:50am - 1:20pm Dr. Bas Buchner, President, MARIN (Maritime Research Institute Netherlands) Room : Magnolia **SNAME Membership Awards** 1:20pm - 1:30pm **Coffee Break** Afternoon Session I: Student Program Afternoon Session II: Mooring Design Afternoon Session III: SNAME T&R Panels Review of Offshore Mooring System Life Extension -**Challenges and Recommendations** Overview: Aifeng Yao, Qinghe Zhang OC-10 Ocean Renewables 123 Chevron, ABS **OC-8** Wind Technologies Assessment of Nearshore FSRU/FLNG Mooring 1:30pm - 3:00pm Amitava Guha, Sue Wang Student Poster Session 139 ABS Panel Session: The Evolution of Deepwater Disconnectable Moorings OC 9 Robustness Checks for Floating Systems Jason D. Pasternak, Daniel J. Alonso, John T. Shelton III, Ginny R. Whisenhunt 171 154 Delmar Systems, Inc. Coffee Break: Sponsored by Halton Marine Americas 3:00pm - 3:20pm Closing Session II: Hydrodynamics Closing Session III: Offshore Structure Reliability Closing Session I: Improving Operation Standards Explosion Proof Technology Application on Tier 3 and Tier 4 Demonstrating Target Safety Level for Life Extension of A Distributed Vorticity Model for Flow Past a 3-D Hydrofoil Final Engines (Electronic engines application) **Offshore Structures** Piotr Szalewski, Grzegorz Malinowski, Jenny Yan Lu 271 Chunlin Wu, Spyros A. Kinnas Joseph Tovlin 224 N/A University of Texas at Austin MIRETTI DNV GL Houston Hybrid Induction - Oxygen Cutting Process for Faster, More Experimental Investigation of a Dropped Model Rocket in A Comprehensive Framework to Develop Resilient Offshore Efficient, and Less Costly Scrapping of Off-Shore Petroleum the Towing Tank of the University of New Orleans Structures 3:20pm - 4:50pm Platforms Hallie Collopy, Xiaochuan Yu, Yi Li, Ken Hagimoto, Haozhan Alberto Morandi Jerald E. Jones, Valerie L. Rhoades, James R. Dydo 287 Meng, Scott Arbeiter 243 GustoMSC US, Inc. 193 EnergynTech, Inc., Gatekey Engineering University of New Orleans Virtual Multimodal Automated Object Detection with Deep Applying 3D Viscous/Inviscid Interaction Method to Predict Investigating Impact of Revised DNVGL-OTG-13 Guideline on Neural Networks Flows Around Wings and Propellers Air Gap Predictions for Semisubmersibles Nikolaos Mitsakos, Sanat Upadhyay, Manos Papadakis Weikang Du, Spyros A. Kinnas Gaurav Singhal, Jun Cheng, Joao Pessoa, Anders Martin Moe 254 University of Houston, LOLAARK LLC 202 University of Texas at Austin Wood 302 Reception: Sponsored by SOFEC 4:50pm - 6:30pm