



## The 32nd International Ocean and Polar Engineering (in-person) Conference Ocean Arctic Energy

June 6-10, 2022

*Join us at the in-person ISOPE-2022 Conference with delayed celebration of the 30th Conference*

Since ISOPE-1992, the annual ISOPE conference has been the world's largest technical conference of its kind with papers, *and the proceedings with all papers peer-reviewed and paginated, and indexed by Scopus, EI Compendex, Thomson ISTP, Web of Science, Google Scholar, Chemical Abstracts and more.* Following the then-record-breaking attendance at ISOPE-2007 Lisbon, the conference set new records with 1,700+ abstracts for ISOPE-2015 Hawaii. The 2022 conference is being organized by the Technical Program Committee (TPC) of the International Society of Ocean and Polar Engineers (ISOPE) with 30+ cooperating organizations. Its objective is to provide a timely international forum for researchers and engineers. ISOPE-2022 Conference is back as an in-person (face-to-face) Conference.



## First Call For Papers

Update at  
[www.isope.org](http://www.isope.org)

Online submission <https://www.isope.org/online-submission/>

<b>DEADLINES</b>	Abstract Submission	<b>October 20, 2021</b>
	Manuscript for Review	January 20, 2022
	Final Manuscript due	March 28, 2022

Prospective authors are invited to submit an abstract in 300-400 words to: (1) **Online abstract submission (see above) or email [meetings@isope.org](mailto:meetings@isope.org)**; (2) **One of TPC members** (session organizers, see backside); or (3) **ISOPE-2022 TPC, 495 North Whisman Road, Suite 300, Mountain View, California 94043-5711, USA** (Phone 1-650-254-1871; Fax 1-650-254-2308), observing the above key dates. Abstract should emphasize the significance of the results and/or the originality. Abstract must include the paper title, all authors' and co-authors' names, affiliations, full addresses, and telephone and fax numbers and E-mail address of the corresponding author.

Some 140+ technical and industry sessions with participation from some 50+ countries will emphasize tentative topics:

### OFFSHORE TECHNOLOGY & OCEAN ENGINEERING, DIGITAL

AI, Control Simulation, Digitalization, Deeper Water, Floatover-install, Decommissioning Subsea Installation & Operation FPSO, SPAR, TLP, VLFS, Compliant Struct LNG, FSRU, FLNG, LNG Bunker & Storage Floating, Bridge, Underwater/Floating Tunnel, AquaFarm, DP System, Mooring, Hybrid CFD, Hydroelasticity, Asset Integrity, SHM

### DEEP-OCEAN MINING, GAS HYDRATES

Exploration, Environment, Technology, Design

### ISO, Codes and Standards, Rules, Regulation

CLEAN ENERGY TECH, OCEAN, WIND Hydrogen Tech, LNG Tech, Ammonia, Wind Energy/Turbines, Ocean Energy: Waves, Tidal, Current, OTEC, Hybrid system, Aero-, Hydro-, Geo-Mechanics, Floating:Install, Noise, Control Simulation/Test, Optimization, Energy Storage

### OCEAN, ARCTIC ENVIRONMENT

Clean Water, Ocean Debris, Micro Plastic, Oil Spills, Contamination, Cleanup, CCS, Emission, Remote Sensing, Sensors, Monitoring/Impact,

### GEOTECHNICAL ENGINEERING

Numerical Modeling, Liquefaction, Scour Physical/Centrifuge Modelling, Geohazards Turbine Foundation, Design, Install, Pile-Soil, Suction Pile, Anchor, Big Data, Soil, Stability,

### OFFSHORE MECHANICS

#### HYDRODYNAMICS & CFD

CFD, Hybrid modeling, Comparative Study, CCP-WSI, Measurements/ Digitalization, Waves; Load, Impact Load, Hydroelasticity Metocean, Rogue waves, Slammering, Wave-Struct Interactions, Bubble, Renewables Data-driven modelling/Machine learning Vortex Shedding, VIV (FIV), Suppression SYMPOSIA: SLOSHING, TSUNAMI, SPH,

#### COASTAL ENGINEERING & CFD

CFD, MPS, ANN, Learning, GIS, Tsunami, Typhoon, Storm Surge, Hydrodynamics, Waves, Internal Waves, Morphodynamics, Structures, Breakwaters, Port, Ecosystem Particle Methods for Ocean and Coastal Symp

*Innovation, AI, Machine Learning, ANN, Digital, Big Data, New Modeling, Mechanics Vortex Shedding, FIV, VIV Suppression*

#### SUBSEA, PIPELINES, RISERS, AI

Slugging induced Fatigue, Digitalization, HPHT, Deepwater 3D Riser Mechanics, Stability, Buckling, Flow Assurance, Pipe Soil interactions, Flexible Pipe, Umbilicals, Composite Pipe

#### MECHANICS, RISK & RELIABILITY

Risk, Safety and Reliability, Earthquake, Collision, Impact, Damage Mechanics Structural Mechanics, Ultimate Strength, SHM

### ARCTIC SCIENCE & TECH Symposium

Infrastructure, Arctic Harbor, Environment Arctic Navigation, Arctic Route, Safety, Ice Mechanics, Iceberg, Icing, Ice Management Structures, Pipelines, Design, Permafrost Model Ice Basin, Risk & Safety Assessment Remote Sensing, Polar Meteorology, Pack Ice

### HIGH-PERFORMANCE MATERIALS

Cryogenic Materials, Arctic Materials Symp Environment Assisted Cracking (EAC) Symp Asset Integrity, Welding Technology Fatigue, Fracture, Structural Integrity, Tubular Structures Renewable Energy Materials & Structures Natural Disaster Monitoring (NDT, remote) Knowledge Management, Functional Coating, Nanotechnology, Materials, Smart Structures High Strength Materials,

### ADVANCED SHIP TECHNOLOGY

Clean Fuel Technology, Hydrogen, Ammonia, LNG, Electric, Clean compliance, Ship Emission, , Smart Ship, MASS, Hydrodynamics, Resistance, Optimization, Adv Propulsion, Cavitation, ASV, USV, Navigation, Maneuver, DP Control, Simulation Digital; Big data, Learning, IoT

### UNDERWATER TECHNOLOGY

Deep-Ocean Observation, Operations, CFD, Robotics, Control, Dynamics, Design, Sensing, Navigation, Launch & Recovery AUV, ROV, Gliders, Seafloor Vehicles, Tunnel

**PAPER REVIEW AND PUBLICATIONS:** All papers are rigorously **peer-reviewed** prior to acceptance. The accepted papers will be included in the Conference proceedings, available at the Conference and for worldwide distribution; digital files at [www.onepetro.org/ISOPE](http://www.onepetro.org/ISOPE). Papers of archival value will be considered for further review for the *International Journal of Offshore and Polar Engineering, SCI-E (ISSN 1053-5381)*—[www.isope.org](http://www.isope.org).

Send abstracts in 300-400 words to (1) ISOPE TPC Online ([www.isope.org](http://www.isope.org)) or (2) any of the members in the ISOPE Technical Program Committee (TPC) in the partial list below: **Abstract Deadline: October 20, 2021**

**Dear Colleagues,**

On behalf of ISOPE-2022 Conference TPC, we would like to invite your abstract for possible presentation at the 32nd International Ocean and Polar (Arctic) Engineering Conference, Shanghai, June 6–10, 2022. In addition to strong sessions on the existing popular ISOPE topics, we continue to promote **additional specialty symposia** and focus sessions on emerging topics as listed on the front side.

**ISOPE-2022 Shanghai (in-person) Conference Technical Program Committee (TPC) and Local Committee**

**AUSTRALIA:** Dr. A Nezamian (ALCM Solutions); Prof. D-S Jeng (Griffith U); Dr M S Hossain (U Western Australia); Prof. M Zhao, Dr. P Hu (Western Sydney U, Australia); **BRAZIL:** Prof. GFM Souza (U Sao Paulo); **CANADA:** Dr. B J Buckham (U Victoria); Dr. S Etienne (Ecole Polytech de Montreal); Mr. D Fissel (ASL Environ); Dr. E Martin (AKAC Inc); Dr. M Sayed, Ms. I Kubat (NRC Canada, Ottawa), Dr. S Islam, Dr J Wang (NRC Canada, St John's); Prof. J Q Shang (U Western Ontario); Dr. R Taylor (C-CORE);

**CHINA:** Mr. LS Song (COSL); Profs. B Teng, D Ning, W Shi, Y Wang, X Zhen (Dalian U of Tech); Prof. FP Gao, Dr. WG Qi (Inst of Mechanics, CAS); Prof. GJ Chen (China U Petroleum); Dr. G He (Harbin Inst Tech); Prof. A-M Zhang (Harbin Eng U); Prof. TQ Li, Dr. L Zhu (Wuhan U Tech); Profs. H Liu, D C Wan, BL Wang, Dr. DF Liang, LF Xiao, JH Wang (Shanghai Jiao Tong U), Dr. Z Lu (China Geological Survey); Prof. Y Shen (Hainan U); Dr. A M Wang (COOEC); Prof. S Wang (CAS); Prof. G Xu (Huazhong U Sci Tech), Dr. H Cao (Hohai U), Dr. L Zhu (Wuhan U of Tech); W Wang (CSSRC); MB Liu (Beijing Univ); GY Zhang (DUT); W Wang (CSSRC); C Liu (SJTU); GY Zhang (DUT);

**CYPRUS:** Dr. C Michailides (Cyprus U of Tech); **DENMARK:** Prof. J D Sørensen (Aalborg U and DTU Wind); Dr. A Natarajan (DTU); Dr. T Sabaliauskas (Aalborg U); **FINLAND:** S Hirdaris (Aalto Univ); **FRANCE:** Mr. L Brosset (GTT); Dr. L Diebold (Bureau Veritas); Dr. N Loukachenko (Arcelor Mittal); Mr Robert Bridges (TOTAL SA), Dr. E Giry (SAIPEM, S.A.); **GERMANY:** Dr. F Adam (Universität Rostock); Prof. A Baeten (Augsburg U Appl Sci); Dr. S Herion (Karlsruhe Inst Tech), Dr. YP Hong, Q Hisette (HSVA); Dr. S Lochte-Holtgreven (City U of Appl Sci); Dr. D Matha, Mr. F Wendt (Rambøll); Dr. G Schriever (Biolab Forschungsinstitut); Mr. W Popko (Jörss – Blunck – Ordemann GmbH); Dr. F Vorpahl (Windsy GmbH); MA Maksoud (TUHH); **GREECE:** Profs. D C Angelides, T Karambas, E Loukogeorgaki (Aristotle U Thessaloniki); Prof. G Triantafyllou, E E Theotokoglou, K Belibassis (Nat'l Tech U Athens); Prof. A Dimas (U of Patras); **IRELAND:** Prof. F Dias (U College Dublin); **ITALY:** Prof. G Conte (UNIVOM); Dr. M Fellini (INSEAN); Mr. F Lalli (ISPRA); Prof. M La Rocca, Dr. A. Montessori (U Roma); Dr. A Fonzo (C.S.M.); Dr. M Martelli (U of Genova); Dr. L Martinelli (U of Padova); Prof. P Ruol (U Padova); Prof. R Archetti (U Bologna); Prof. D Vicinanza (Second U Naples); Dr. P Prestinini (U Roma Tre);

**INDIA:** Dr. G A Ramadas, K Gopakuma (NIOT); Dr. V Sriram (IIT Madras);

**JAPAN:** Prof. T Kawabata (U Tokyo); Prof. S Hirabayashi, Dr. R Gonçalves (U of Tokyo); Prof. T Yao, M Kashiwagi, T Matsui, N Osawa, H Suzuki, Dr. S Araki, M Minoura (Osaka U); Prof. S Yamaguchi, Dr. Y Liu (Kyushu U); Drs. K Hase, T Handa, N Ishikawa, S Igi (JFE Steel); Prof. T Hiraishi, Dr. A Khayyer (Kyoto U); Dr. H Kawai, K Hirayama (PARI); Mr. K Honda (NILIM); Dr. N Inukai (Nagaoka U of Tech); Dr. S Ishibashi (JAMSTEC); Prof. K Kawasaki (Hydro-soft Tech Inst); Dr. S-Y Kim (Tottori U); Dr. T Nakamura (Nagoya U); Prof. H Murakawa (JWRI, Osaka U); Prof. S Nagata (Saga U, IOES); Prof. Y Nishi (Yokohama Nat' U); Dr. C Ma (NMRI); Dr. N Tenma (AIST); Dr. T Hara (NipponSteel-Sumitomo Metal); Prof. A Usui (Kochi U); Prof. Y Yamamoto, N Sakagami (Tokai U); Dr. T Zhu (Class NK); **KOREA:** Prof. C-K Chung (Seoul Nat'l U); Prof. Y Kim, Dr. B S Jang, YS Lim, B W Nam (Seoul Nat'l U); Dr. S-W Hong (TMO Solution); SY Hong, H-G Sung, S K Cho, K H Kim (KRISO); Dr. J-H Cha (Mokpo Nat'l U); Prof. Y W Choo (Kongju Nat'l U); Dr. O S Kwon (KIOST); Prof. S S Kim (Hanyang U); Prof. H-I Park, Sunho Park (Korea Maritime & Ocean U); Dr. S H Van (Safe Tech Research),

**NETHERLANDS:** Prof. A M Gresnigt, Dr. A Antonini (TU Delft); Dr. P Meijers (Deltares); Mr. Y-H Kim (Lloyds Register EMEA); Dr. P Liu (INTECSEA BV); Dr. S Schreier (TU Delft); Z Sulaiman (CustoMSC B.V.); **NORWAY:** Dr. O M Akselsen (SINTEF); Prof. M Muskulus, Dr. A D Jenkins (Uni Computing); Dr. J Jia (Aker Solutions); Dr. Irina Didenkulova (U of Oslo); Prof. D Karunakaran (Subsea7; U Stavanger), Profs. I Langen, O Gudmestad, R M C Ratnayake (U Stavanger); Dr. N A Marchenko (Univ Centre in Svalbard (UNIS)); Dr. E Østby (DNV GL); Dr. L Oosterkamp (Equinor); Dr. N Ye (MARINTEK); Dr. M Eidem, A Minoretti (Norwegian Public Road Admin); **POLAND:** Dr. T Abramowski (InterOceanMetal); **PORTUGAL:** Prof. AJNA Sarmento (Lisbon Tech U-IST); **RUSSIA:** Prof. A S Bolshev (Saint Petersburg State Polytech U); Dr. I Buzin, Mr. A V Chernov (AARI); Dr. S L Karlinsky (RUBIN, St. Petersburg State Marine Tech U); Dr. V Pavlenko (Russian Academy of Sci.).

**SINGAPORE:** Prof. CF Leung (Nat'l U Singapore); **SPAIN:** Ms. M F Lecca (Alstom Wind); **SRI LANKA:** Dr. DPC Laknath (Lanka Hydraulic Inst); **SWEDEN:** Dr. W Mao (Chalmers U of Tech); **TAIWAN:** Prof. R-Y Yang, H-T Hu, H-J Tang (Nat'l Cheng Kung U); Profs. L-K Chien, W-P Huang (Nat'l Taiwan Ocean U); Dr. K-C Lu (NCREE); **THAILAND:** Prof. S Chueepsakul, Dr. N Charusrojthanadech (King Mongkut's U Tech); **TURKEY:** Prof. O Kirca, O Yagci (Istanbul U Tech); **UNITED KINGDOM:** Dr. S D Abyaneh (TechnipFMC); Dr. E Ransley, Dr. S Zheng (Plymouth U); Drs. A Kolios, E Boulougouris (U of Strathclyde); Dr. Yongwon Lee (Lloyd's Register); Dr. Q Liang (Loughborough U); Dr. F K Lim (2H Offshore); Dr. H Polezhayeva (Surrey); Prof. L Qian (Manchester Metropolitan U); Prof. QW Ma, Dr. S Yan (City, U of London); Dr. G E Varelis (PDL Solutions); Mr. S Maleki (TWI); Dr. Z Xie (Cardiff U); Dr. J Zang (U Bath)

**USA:** Dr. H W Jin, N Ma, H J Jun (ExxonMobil Res & Eng.); Dr. C R Bostater (Florida Inst Tech); Dr. YS Cao (C-Z Marine Tech); Dr. C-Y Chen (Oil Field Dev Eng); Mr. YJ Chen (DMAR Eng); Profs. J Niedzwiecki, H-C Chen, Dr. J Figlus (Texas A & M U); Prof. J S Chung (ISOPE); Dr. A Goupee (U Maine); Dr. A S Duggal, A H Izadparast (SOFEC); Dr. W C Kan, Dr. E J Wright (Formerly ExxonMobil); Mr. J Jin, Dr. Howard H Wang, Dr. Hongbin Wang (ExxonMobil Global Project Co.); Dr. J K Na (EWI); Dr. P Jukes (The Jukes Group); Dr. L Lai (Genesis Oil & Gas); Dr. Zhongwei Li (EXMAR Offshore Co.); Dr. Zhiling Li (BP); Dr. P Lomonaco (Oregon State U) Drs. D Matskevitch, D Mitchell, N S Thirumalai (ExxonMobil Upstream Res); Prof. R H Knapp, Dr. P Cross, Dr. D Gedikli (U Hawaii); Dr. S H Lee (Glosten Assoc.); Mr. W H Lee (DNV-GL); Dr. A Majed (IntecSea); Dr. T Makogon (Houston); Dr. T Mathai (NREL); Dr. B-F Peng (Oil Field Development Engineering Houston); Mr. Ali Reza (Exponent); Dr. S Sundararaman (2H Offshore); Mr. K-M Tjok (Fugro Geoconsult); Profs. M Triantafyllou, N M Patrikalakis, T P Sapsis (MIT, Mechanical/Ocean Eng); Prof. H G Wheat (U Texas at Austin); Mr. M Wu (Trafigura Trading), Dr. X Yu (U New Orleans)

**Sponsor: ISOPE. Cooperating Organizations and Societies:** USA - ASCE, Canada - CSCE, CAPP, China - CSOE, CSNAME, CSTAM, Germany – DKMM, GMT, EIT (Thailand), IAHR, IEA-OES, E Australia, INAE (India); IRO (The Netherlands), Japan - JASNAOE, JSMS: Korea - KSCE, KSOE, KAOST, NPF (Norway), OES, SPRI, PII (Indonesia), RAS (Russia), SOBENA (Brazil), SSSS (Singapore), TCG (Greece), TOC (Turkey), TSOE, USME (Ukraine), VTT (Finland)