


## RESUME Dr. Walter L. Kuehnlein

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<b>Born</b> 1959	<ul style="list-style-type: none"> <li>Nationality: German</li> <li>Languages: German, English</li> </ul>
<b>Involvement</b>	<ul style="list-style-type: none"> <li>Past Chairman of ATC 2018, <a href="http://www.arctictechnologyconference.org">www.arctictechnologyconference.org</a></li> <li>Chairman of the Board of Directors of the German Association for Marine Technology (GMT), <a href="http://www.marine-technology.eu">www.marine-technology.eu</a> (since 2008)</li> <li>Chair of Polar and Arctic Sciences and Technology Symposium of OMAE-Conferences, <a href="http://www.omae.org">www.omae.org</a> since 2002)</li> <li>Advisor Offshore for international magazine Ship&amp;Offshore, <a href="http://www.shipandoffshore.net">www.shipandoffshore.net</a> (since 2009)</li> <li>Member of the German Offshore Committee of DNV-GL, <a href="http://www.dnvgl.com">www.dnvgl.com</a> (since 2005)</li> <li>Lectureship: "Ice Engineering" at Hamburg University of Technology, <a href="http://www.tuhh.de">www.tuhh.de</a> (since 2013)</li> </ul>
<b>Offshore Certificates</b>	<ul style="list-style-type: none"> <li>BOSIET / CA-EBS</li> <li>MIST / Vantage</li> <li>H2S</li> </ul>
<b>2008 till present</b>	<p><b>Managing Director</b></p>  <p><b>sea2ice Ltd. &amp; Co. KG</b>        Am Kaiserkai 69, 20457 Hamburg, Germany - <a href="http://www.sea2ice.com">www.sea2ice.com</a></p>
2017	<ul style="list-style-type: none"> <li>Consulting: Concept for operating in the Arctic</li> <li>Consulting: Exploration concept for ice covered waters</li> <li>Workshop Facilitator: Ice engineering</li> <li>Marine Warranty Surveyor: Rig move</li> <li>Consulting: Offshore wind parks in part-time ice-covered waters</li> <li>Workshop Facilitator: Advanced offshore rig moving</li> <li>Workshop Facilitator: Design philosophies for Arctic approach</li> <li>Installation Manager for jacket installation</li> </ul>
2016	<ul style="list-style-type: none"> <li>Workshop Facilitator: Advanced offshore rig moving</li> <li>Chairman Arctic Technology Conference ATC 2016, in St. John's, Newfoundland, Canada</li> <li>Consulting: Offshore wind parks in part-time ice-covered waters</li> <li>Marine Warranty Surveyor: Rig move in North Sea</li> <li>Consulting: Structure in ice covered waters</li> <li>Workshop Facilitator: Advanced approach to the Arctic</li> <li>Workshop Facilitator: Design philosophies for Arctic approach</li> <li>Consulting: Arctic loading terminal</li> <li>Workshop Facilitator: Future (of) Arctic gas projects</li> </ul>
2015	<ul style="list-style-type: none"> <li>Workshop Facilitator: Advanced offshore rig moving</li> <li>Consulting: Arctic loading terminal</li> <li>Consulting: Design philosophy for Arctic approach</li> <li>Marine Warranty Surveyor: Rig move in North Sea</li> <li>Review of evacuation / rescue concept</li> <li>Chair of Ian Jordaan Honoring Symposium on Ice Engineering @ OMAE 2015</li> <li>Review of Arctic operations concept</li> <li>Consulting: Mooring analysis for drilling rig</li> <li>Rig Move with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea</li> </ul>

	<ul style="list-style-type: none"> <li>• Vice Chairman of ATC 2015 (Arctic Technology Conference)</li> <li>• Consulting: Rig Move Procedure, North Caspian Sea</li> <li>• Co-organizer of 3<sup>rd</sup> Business Offshore Conference in Hamburg</li> <li>• Consulting: General approach to arctic waters</li> <li>• Consulting: Offshore wind park in part-time ice covered waters</li> <li>• Consulting: Project approach for arctic regions</li> </ul>
2014	<ul style="list-style-type: none"> <li>• Chairman at 10<sup>th</sup> Arctic Oil&amp;Gas Conference in Oslo</li> <li>• Consulting: Offshore wind project in part-time ice covered waters</li> <li>• Consulting: Arctic drilling rig</li> <li>• Installation Manager for jacket installation</li> <li>• Consulting: Arctic loading terminal</li> <li>• Consulting: Ice Management - philosophies and strategies</li> <li>• Workshop Facilitator: Concepts and philosophies for ice covered waters</li> <li>• Workshop Facilitator: Arctic operational concept for an arctic offshore installation</li> <li>• Consulting: Supervision of ice model tests</li> <li>• Consulting: Offshore installation concept</li> <li>• Member of ATC 2014 Committee (Arctic Technology Conference)</li> <li>• Consulting: Arctic offshore operation concept</li> <li>• Marine Warranty Surveyor: Rig move in North Sea</li> </ul>
2007 - 2013	Associate Editor for Journal of Offshore Mechanics and Arctic Engineering, an ASME Journal (limited to 2 x 3 years)
2013	<ul style="list-style-type: none"> <li>• Consulting: Supervision of ice model tests</li> <li>• Chairman at 9<sup>th</sup> Arctic Oil&amp;Gas Conference in Oslo</li> <li>• Rig Move with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea</li> <li>• Installation Coordinator for relocation of an offshore gas production platform (North Sea)</li> <li>• Installation Manager for offshore wind (MOAB) transformer substation (North Sea)</li> <li>• Study: Exploration concept in arctic waters</li> <li>• Chair at 2<sup>nd</sup> Business Offshore Conference in Hamburg</li> <li>• Consulting: Ocean renewable energy converter</li> </ul>
2012	<ul style="list-style-type: none"> <li>• Installation Manager for offshore wind (MOAB) transformer substation</li> <li>• Member of ATC 2012 Committee (Arctic Technology Conference)</li> <li>• Technical Chair of OMAE2012 in Rio de Janeiro</li> <li>• Development of installation concept for offshore wind park</li> <li>• Consulting and design review of offshore wind park concept</li> <li>• Rig Move with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea</li> <li>• Consulting: Rig move procedure</li> <li>• Consulting: Drilling concept development for North Caspian</li> </ul>
2005 - 2011	Lectureship: "Ocean Engineering" at the University of Duisburg-Essen, Institute of Ship Technology, Ocean Engineering and Transport Systems
2011	<ul style="list-style-type: none"> <li>• Design review: Offshore wind park</li> <li>• Chair at 1<sup>st</sup> Business Offshore Conference in Hamburg</li> <li>• Chairman: 7<sup>th</sup> Arctic Oil &amp; Gas Conference in Oslo</li> <li>• Marine Rep. for Jackup Rig Move, North Sea</li> <li>• Chairman of Ocean, Offshore and Arctic Engineering (OOAE) Division of ASME</li> <li>• Design review: Offshore wind installation vessel</li> <li>• Workshop: Design philosophies for offshore structures in ice, special tailor made, operational optimized concepts</li> <li>• Design review: Offshore concept for ice covered waters</li> <li>• ASME Short Courses: "Ice Engineering"</li> <li>• Rig Move with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea: responsible for de-grounding and grounding operation</li> <li>• Consulting: Rig move procedure</li> <li>• Consulting: Offshore project North Caspian Sea</li> </ul>

	<ul style="list-style-type: none"> <li>Chairman: 2<sup>nd</sup> Arctic Oil &amp; Gas North America conference in Houston, Texas</li> <li>Consulting: Offshore wind energy converter in (part time) ice covered seas</li> <li>Arctic Technology Conference, ATC 2011, in Houston, member of Technical Program Committee</li> </ul>
2010	<ul style="list-style-type: none"> <li>Consulting: Conceptual study for an operational optimized offshore structure for ice covered waters</li> <li>Company Courses: "Ice Engineering"</li> <li>ASME Short Course: "Ice Engineering" (8h)</li> <li>Rig Moves with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea: responsible for de-ballasting/de-grounding and ballasting/grounding operation</li> <li>Consulting: Rig move procedures</li> </ul>
2009	<ul style="list-style-type: none"> <li>Consulting: Offshore structures in ice – operational optimized concepts</li> <li>Workshop: Design philosophies for offshore structures in ice, special tailor made concepts, operational optimized for each location –increasing safety and decreasing costs</li> <li>Consulting: Offshore structures for the North Caspian Sea</li> <li>Consulting: Mooring analysis and mooring layout of floating marina jetties</li> <li>ASME Short Course: "Ice Engineering" (8h)</li> <li>Rig Moves with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea: responsible for all de-ballasting/de-grounding and ballasting/grounding operations</li> <li>Consulting: Rig move procedures</li> <li>Consulting: Jack-up drilling rig for the North Caspian Sea</li> </ul>
2008	<ul style="list-style-type: none"> <li>Special course: Design philosophies for offshore structures in ice –increasing safety and reduced costs</li> <li>Consulting: Offshore structures in ice:</li> <li>Consulting: Evaluation of ice conditions and consequences for offshore wind energy converters</li> <li>Rig Moves with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea: responsible for de-ballasting/de-grounding and ballasting/grounding operation</li> <li>Consulting: Rig move procedures</li> </ul>
2006	Chairman of Ocean, Offshore and Arctic Engineering Conference (OMAE 2006) in Hamburg, Germany, <a href="http://www.OMAE2006.com">www.OMAE2006.com</a>
2001 - 2009	<p><b>Hamburg Ship Model Basin</b> Director and Head of the Ice &amp; Offshore Department</p> <ul style="list-style-type: none"> <li>Ice model tests</li> <li>Leader of innumerable industrial projects (offshore structures, vessels and operations in ice and open waters)</li> <li>Ice and sea trials</li> <li>Ice barriers for shallow waters</li> <li>Leader of the EU-research project STRICE (<a href="http://www.strice.org">www.strice.org</a>)</li> <li>Offshore and Seakeeping Tests</li> <li>Research Projects ROLL-S and SinSee: capsizing model tests with totally freely running models including optical registration of all degrees of freedom</li> <li>Model tests under special sea conditions, like freak waves, etc.</li> <li>Manoeuvring tests</li> </ul> <p><b>Special projects</b> Parker Drilling Company, North Caspian Project, all Rig Moves with Parker Rig 257 (<i>Sunkar</i>) in the North Caspian Sea</p> <ul style="list-style-type: none"> <li>Responsible for de-grounding and grounding operation during rig moves</li> <li>Consulting: generation of rig move procedures</li> </ul>
1997 - 2001	<b>IMPac Offshore Engineering GmbH, Hamburg</b> Project Manager
2000	Parker Drilling Company, North Caspian Project <ul style="list-style-type: none"> <li>Stability analysis of Rig 257</li> <li>Statistic: environmental loads</li> </ul>

	<ul style="list-style-type: none"> <li>• Responsible for de-ballasting and ballasting operation during rig moves</li> <li>• Weight and ballast calculations</li> <li>• Generation of Rig Move Procedures</li> <li>• Modification of rescue systems</li> </ul> <p>OKIOC, Drilling Operations in the North Caspian</p> <ul style="list-style-type: none"> <li>• Alternative drilling concepts</li> <li>• Hybrid drilling concepts</li> </ul>
1999	<p>OKIOC (Offshore Kazakhstan International Operating Company), Drilling Operations in the North Caspian</p> <ul style="list-style-type: none"> <li>• Conceptual studies for drilling rigs to be used in the North Caspian</li> <li>• Ice force analysis for winter operations</li> </ul> <p>Parker Drilling Company, North Caspian Project</p> <ul style="list-style-type: none"> <li>• Verification and evaluation of original design philosophies</li> <li>• Adjustment of full-scale measurement system</li> <li>• Tow-out and Installation Procedures</li> <li>• Operation manuals</li> <li>• Floating stability, ballast- and weight-calculations</li> <li>• Dead weight survey</li> <li>• Motion analysis of Parker Rig 257</li> </ul>
1998-1999	<p>Parker Drilling Company, Astrakhan, Russia, Rig Upgrade Manager, North Caspian Project</p> <p>Fully responsible for upgrade construction of Parker Rig 257 (<i>Sunkar</i>)</p>
1998	<p>Parker Drilling Company, New Iberia, USA Engineering Manager, North Caspian Project</p> <p>Responsible for engineering of the ice classed drilling barge rig: Parker Rig 257</p> <ul style="list-style-type: none"> <li>• Design philosophy</li> <li>• Safety philosophy</li> <li>• Environmental protection philosophy</li> <li>• Detail engineering of drilling rig</li> <li>• Connecting procedure (connecting in floating mode)</li> <li>• Safety analyses</li> <li>• Reliability, availability and maintenance analyses (RAM)</li> <li>• Negotiations with client</li> </ul>
1997	<p>OKIOC (Offshore Kazakhstan International Operating Company) Drilling Operations in the North Caspian</p> <ul style="list-style-type: none"> <li>• Development of global drilling concept</li> <li>• Overall stability concept for drilling rig under special consideration of the environmental loads: waves, wind, current, and ice forces</li> <li>• Basic engineering of drilling barge</li> <li>• Development of full-scale measurement system for the determination of ice, wave, wind and current forces</li> <li>• Design of steel pads to be used as foundation for drilling rigs</li> <li>• Ice force studies for drilling rigs in the North Caspian</li> </ul>
<b>1986 - 1997</b>	<b>Berlin University of Technology</b>
1995 - 1997	<p>Senior Research Engineer Project: Optimization of vertical wave absorbers</p> <ul style="list-style-type: none"> <li>• Generation of extreme (nonlinear) transient wave packets (freak waves)</li> <li>• Seakeeping tests with (nonlinear) transient wave trains</li> <li>• Numerical modelling of vertical wave absorbers</li> </ul>
1996	Special project: hydrodynamic investigations of submerged bodies
1995	Special project: hydrodynamic investigations of oil recovery vessels
1992 - 1995	<p>Senior Research Engineer Project: Optimization of seakeeping tests</p> <ul style="list-style-type: none"> <li>• Generation of problem oriented transient wave packets</li> <li>• Seakeeping tests with self-propelled models (oblique waves)</li> </ul>

	<ul style="list-style-type: none"> <li>• Seakeeping tests with semi submersibles</li> </ul>
1994	<ul style="list-style-type: none"> <li>• Hydrodynamic optimization of coupled systems</li> <li>• Conception of sidewall wave absorbers for the wave tank of the University of New Orleans</li> </ul>
1993	<ul style="list-style-type: none"> <li>• Analysis of ship wave systems (fast catamarans) Berlin and Trondheim, Norway, Supervisor of the Full Scale Tests in Norway</li> <li>• Hydrodynamic investigations of oil recovery vessels</li> </ul>
1992	Special project: inauguration of the wave maker system at the Technical University of Istanbul
1989 - 1991	Research Engineer Project: Wave damping of oil / chemical spill recovery vessels Patent: Wave attenuation systems
1986 - 1989	Research Project Project: Laser-Doppler-Anemometer (LDA) measurements in waves
<b>Education:</b>	
1997	Doctorate: Dr.-Ing. (Ph.D.) Institute of Naval Architecture, Marine and Ocean Engineering Faculty of Transport and Communications, and Applied Mechanics, Berlin University of Technology Thesis: "Seakeeping Tests with Transient Wave Packets" (Summa cum laude, Weinblum-Award, Werner-von-Siemens-Award)
1983 - 1989	Study: Civil and Hydraulic Engineer, Berlin University of Technology Master Thesis: "Hydrodynamic Optimization of a Circular Shaped Wave Breaker" (Dipl.-Ing. / Master)