

# Systems Engineering Associates

## ● Corporate Profile

■ Company Name	Systems Engineering Associates Inc.
■ Established	October, 1997
■ Paid-in Capital	10,000,000 JPY
■ President	Naoki Nakazawa, Dr. Eng., PE.jp, email: nakazawa@systemseng.jp
■ Address	1-12-5 Tamagawa Den-en-chofu, Setagaya, Tokyo 158-0085, Japan tel: +81-80-1102-8960
■ Associates and their specialties	<p>Doctors (5),</p> <ul style="list-style-type: none"> <li>- Naoki Nakazawa, Dr. Eng. in Arctic Engineering, Hokkaido University</li> <li>- Hideo Suda, Dr. Eng. in Urban Management, Kyoto University</li> <li>- Masayuki Komatsu, Dr. Agriculture &amp; Fisheries, University of Tokyo</li> <li>- Satoshi Akagawa, Ph.D in Geotechnical Engineering, Hokkaido University</li> </ul> <p>Certified Engineers (3),</p> <ul style="list-style-type: none"> <li>- Port and harbor engineering</li> <li>- Hydropower engineering</li> <li>- Soil and foundation engineering</li> <li>- Snow and ice engineering</li> </ul> <p>Engineering Intern (1)- Civil Engineering (6667EIT, Oregon, USA)</p>
■ Services	<p>Planning and Engineering Design,</p> <ul style="list-style-type: none"> <li>- Hydroelectric generation</li> <li>- Ports and harbors</li> <li>- Structural foundation</li> </ul> <p>Consulting and Research Studies,</p> <ul style="list-style-type: none"> <li>- Geotechnical engineering and soil mechanics</li> <li>- Offshore technology</li> <li>- Renewable energy</li> <li>- Ice and frozen ground engineering</li> </ul>
■ Clients	<p>Public Sector</p> <ul style="list-style-type: none"> <li>- The University of Tokyo</li> <li>- Hokkaido University</li> <li>- Engineering Advancement Association of Japan (ENAA)</li> <li>- Japan Oil, Gas and Metals National Corporation (JOGMEC)</li> <li>- The Japan Workvessel Association</li> </ul> <p>Private Sector</p> <ul style="list-style-type: none"> <li>- Mitsubishi Heavy Industries LTD.</li> <li>- Chiyoda Corporation</li> <li>- NTT Facilities Engineering</li> <li>- Fukken Co., Ltd.</li> </ul>

## ● Publishing

2022	Research and Engineering Development on Sea Ice, National Museum of Nature and Science.
2015	Ship-based Carbon Dioxide Capture and Storage for Enhanced Oil Recovery, Offshore Technology Conference 2015, OTC25861-MS.
2014	Ice Load Estimation Methods for LNG Jetty Design in Various Ice-Structure Interactive Conditions, Arctic Technology Conference 2014, OTC 24626.
2013	Fisheries in Nigeria, Report to the Ministry of Agriculture, Nigeria Government.
2013	Ship-based CO <sub>2</sub> Injection into Subseabed Geological Formation, GHGT11, ELSEVIER.
2012	Numerical Prediction of Spilled Oil Behavior under Sea Ice Conditions, OTC 23801.
2011	Experimental Studies on Rare Metal Collection from Seawater, ISOPE2011.

## ● Projects

Year	Projects	Clients
2022	Ship-based LCO <sub>2</sub> and CGH Transportation Systems	The University of Tokyo
	Marine Personnel Transfer for Safety Performance	The University of Tokyo
	Offshore Wind Energy Education Program	Engineering Advancement Association of Japan (ENAA)
2021	Evaluation of Transport of Natural Gas as Frozen Hydrate	The University of Tokyo
2020	Standardization of Procurement Specifications of Oil	Engineering Advancement Association of Japan (ENAA)
	The second solar power plant in Tochigi Japan	Own business
2019	Consulting for NTT on offshore wind power investment	NTT Facilities Engineering
	The first solar power plant in Tochigi Japan	Own business
	Studies on ISO19906 and permafrost engineering	Hokkaido University
2018	Feasibility studies on small hydroelectric generation	NTT GP-ECO
	Image recognition technology for ship operation	The Japan Workvessel Association
	Sea ice effects on offshore wind power facilities	Pacific Consultants Co., Ltd.
2017	Offshore wind power noise data processing and analyses	Kanso Co., Ltd.
	Research on deep sea mining and minerals	Research Institute for Ocean Economics
	Solar power facility design and project managing	Solar power producer
	Oil Spill Response Technology in Cold Water Conditions	Hokkaido University
2016	Study on the methodology of the hydrographic impact assessment of Offshore wind power.	Kanso Co., Ltd.
	Technology survey on sea-floor hydrothermal deposit	Research Institute for Ocean Economics
	Technology survey on offshore oil and gas development	Research Institute for Ocean Economics
	Feasibility studies on small hydroelectric generation	NTT GP-ECO
2015	Ship-based CO <sub>2</sub> Injection into Subseabed Geological Formations using a Flexible Riser Pipe Pickup System	Chiyoda Corporation
	Feasibility studies on small hydroelectric generation	NTT GP-ECO
	Research on ocean development educational program	Engineering Advancement Association of Japan (ENAA)
2014	Design of a small hydropower generation facilities	Yamaguchi, Okayama Prefectural Government
	Consultation for the conservation of melting frozen soil in the methane hydrate field in Canadian arctic	Japan Oil, Gas and Metals National Corporation (JOGMEC)
	Study on the offshore CO <sub>2</sub> enhanced oil recovery	The University of Tokyo
	Research on the ocean industry development strategy	Engineering Advancement Association of Japan (ENAA)
2013	Feasibility study on a small hydropower generation	NTT GP-ECO
	Design of a small hydropower generation facilities	Okayama Prefectural Government
	Communication buoy design for offshore monitoring	Chiyoda Corporation
2012	Ship-based CO <sub>2</sub> Injection into Subseabed Geological Formations using a Flexible Riser Pipe Pickup System	Global Carbon Capture and Storage Institute The University of Tokyo
	Studies on the oil spill incident in Gulf of Mexico	Petroleum Association of Japan
	Study on the Sustainable Fisheries Management and International Trade in Southeast Asia and Pacific Region	National Graduate Institute for Policy Studies
	Feasibility studies on the electric power productivities by ocean energy.	Engineering Advancement Association of Japan (ENAA)
2011	Numerical Prediction of Spilled Oil Behavior under Sea Ice Conditions: the 2012 Model	Petroleum Association of Japan Engineering Advancement Association of Japan (ENAA)
	Studies on workvessel utilization in nearshore waters	The Japan Workvessel Association
	Research studies on gas pipelines mechanical properties in Russian permafrost environment.	Hokkaido University Japan Oil, Gas and Metals National Corporation
2010	Experimental studies for the applicability of new materials to offshore structures in tropical offshore.	Engineering Advancement Association of Japan (ENAA) Ministry of Economy, Trade and Industry
	Feasibility studies on the small-scale hydroelectric generation in the City of Miyoshi.	Fukken Co., Ltd. The City of Miyoshi
2009	Consultation for the conservation of melting frozen soil in the methane hydrate field in Canadian arctic	Japan Oil, Gas and Metals National Corporation (JOGMEC)
	Feasibility studies on captures CO <sub>2</sub> for ship-based transport and ship mooring offshore structures.	The University of Tokyo Central Research Institute of Electric Power Industry
	Studies on ore refining system for sea-floor hydrothermal deposit.	Japan Oil, Gas and Metals National Corporation (JOGMEC)
	Experimental studies on mechanical characteristics of ice adfreeze bonding to gas pipeline surface in cold atmospheric conditions.	Hokkaido University Japan Oil, Gas and Metals National Corporation (JOGMEC)
2008	Feasibility studies on the development of sea-floor hydrothermal deposit.	Japan Oil, Gas and Metals National Corporation (JOGMEC)
	Numerical prediction of spilled oil behavior in the Sea of Okhotsk under sea ice conditions.	Engineering Advancement Association of Japan (ENAA) Ministry of Economy, Trade and Industry
2007 and before	Offshore research and engineering service to the Engineering Advancement Association of Japan (ENAA) - Experimental studies on rare metal collection from seawater. - Research on offshore structures for oil and gas operations in deep sea. - Research on prediction methods of spilled oil behavior under sea ice condition.	
	Consultation services on sea ice forces on Aniva Bay LNG jetty design.	Chiyotec Limited Sakhalin Energy