



海のフロンティアを拓く  
岡村健二賞

Kenji Okamura Memorial Award  
for Pioneering the Ocean Frontier

2021

## 「海のフロンティアを拓く岡村健二賞」創設趣意

テクノオーシャン・ネットワーク(TON)では、岡村健二氏のご遺志を継ぐ事業の一つとして、ご遺族のご芳志をいただき、同氏が所属されていた三菱重工業株式会社のご厚意のもと、2010年に「海のフロンティアを拓く岡村健二賞」を創設いたしました。

故岡村健二氏は、日本の海洋開発について、先行的・共通的技術開発の必要性、重要性を強調され、海洋科学技術センター(現JAMSTEC)の設立および初代理事の一人として機器開発や深海研究の実施に積極的に取り組まれました。これは国家プロジェクトである有人潜水艇「しんかい2000」や「しんかい6500」の実現につながりました。また、海洋技術の先進国である米国を目標にわが国の海洋工学の向上に腐心され、わが国の海洋関係者に米国の技術レベルとわが国のそれとをしっかりと認識することの重要性を常に考えられ、米国で毎年開催される海洋国際コンベンションであるOCEANSやROV International(現Underwater Intervention)等を日本に誘致することを考えておられました。その夢は、岡村氏が物故された後、ようやく2004年にNOAA長官を基調講演に招いたTechno-Ocean / OCEANS 2004として実現したわけです。また、同氏は、技術者として世界トップクラスの高速ディーゼル機関を開発、完成させたディーゼル機関の国際的権威者でもあります。

このように、技術者として常に新しい技術への挑戦を続け、国際的視野に立ち、先見の明をもたれた岡村健二氏は、海洋立国日本の発展のためにご活躍され、多大なるご貢献をされました。

そこで、TONでは、2010年のTechno-Ocean開催を機に、岡村健二氏の社会的功労を偲び、学術的功績を讃え、「海のフロンティアを拓く岡村健二賞」を創設し、同氏の遺志を継ぐわが国の若い研究者・技術者に対して、これを贈呈することといたしました。

### 岡村健二氏 プロフィール

大正元年12月8日長岡市にて出生。昭和9年東京帝国大学工学部卒業後、同年三菱航空(株)入社。昭和39年社名改称により三菱重工業(株)転籍。本社技術本部技術管理部長、同社技術本部長代理等の要職を経た後、昭和62年1月まで同社技術本部顧問。昭和39年5月より菱日エンジニアリング(株)取締役、三菱開発(株)常務取締役、菱和海洋開発(株)取締役社長を歴任。昭和46年海洋科学技術センター理事、昭和61年同顧問。昭和50年国際海洋資源工学委員会(ECOR)会長。昭和26年米国Naval Academyから「船用高性能ディーゼル機関の開発」でPhDを授与。昭和30年紫綬褒章、昭和55年第一回MTS国際賞、昭和58年勲三等瑞宝章、昭和62年国際燃焼機関会議ゴールドメダルなどを受賞。平成元年1月15日逝去。

## “Kenji Okamura Memorial Award for Pioneering the Ocean Frontier” Founding Statement

The Techno-Ocean Network (TON) established the Kenji Okamura Memorial Award for Pioneering the Ocean Frontier in 2010. This award is one of a number of projects conducted in accordance with the wishes of the late Dr. Kenji Okamura with the kind consent of his bereaved family and through the courtesy of Mitsubishi Heavy Industries Ltd., the company for which he worked for many years.

With respect to Japanese marine development, the Dr. Okamura laid a strong emphasis on the necessity and importance of pursuing advanced and unified technological development. Dr. Okamura was actively involved in developing equipment and conducting deep-sea research as one of the founding directors of the Japan Marine Science and Technology Center (the forerunner organization of the present Japan Agency for Marine-Earth Science and Technology (JAMSTEC)). His work was closely linked with the achievement of the national projects to develop the manned deep-sea submergence research vehicles “SHINKAI 2000” and “SHINKAI 6500”. Dr. Okamura also made every effort to raise Japan’s ocean engineering to a level matching that of the United States, which possessed the world’s most advanced ocean technology. He always considered it extremely important that those working in ocean-related fields in Japan had a clear grasp of the technological levels in both the US and in Japan, and to this end he paid consideration to attracting international marine conventions to Japan such as OCEANS and ROV International (the present Underwater Intervention), which are held annually in the US. This dream was finally realized in 2004, after his death, with the holding of Techno-Ocean/OCEANS 2004, to which the President of the NOAA was invited as a keynote speaker. Furthermore, Dr. Okamura was an acknowledged international expert on diesel engines who developed and perfected one of the world’s top-class high-speed diesel engines.

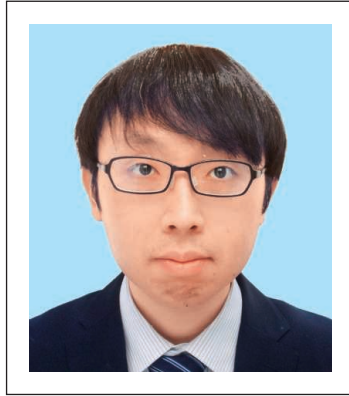
In ways such as these, Dr. Okamura continually rose to the challenge of developing new technology. He possessed a foresight that rested on a global viewpoint, played an active role in developing Japan as an ocean state, and made numerous contributions to the advance of technical knowledge.

Taking advantage of the opportunity presented by the holding of Techno-Ocean 2010, TON established the Kenji Okamura Memorial Award for Pioneering the Ocean Frontier in commemoration of Dr. Okamura’s services to society and in celebration of his academic achievements. This award is presented to young Japanese researchers and engineers who are judged to be working innovatively in the ocean field in accordance with his wishes.

### Kenji Okamura — Profile

Dr. Kenji Okamura was born in Nagaoka City on December 8, 1912. He graduated from the Engineering Department of Tokyo Teikoku University (the present Tokyo University) in 1934 and joined Mitsubishi Aircraft Company in the same year. In 1964, in line with a change of company name, he was transferred to Mitsubishi Heavy Industries, Ltd. After holding important posts such as Technology Management Manager and later Acting Manager at the Head Office Technology & Innovation Headquarters, he served as an advisor to the Technology & Innovation Headquarters until January 1987. From May 1964 he also held several other prominent positions such as Director of Ryonichi Engineering Co., Ltd., Executive Managing Director of Mitsubishi Kaihatsu Kabushiki Kaisha, and President and Director of Ryowa Kaiyo Kaihatsu Kabushiki Kaisha. In 1971, he became the Director of the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and subsequently served as an advisor to that organization from 1986. In 1975, he became Chairman of the Engineering Committee on Oceanic Resources (ECOR). In 1951, he was awarded a PhD by the Naval Academy for “the development of a marine high-performance diesel engine.” During his long career, he was also honored with a slew of awards including the Medal with Purple Ribbon in 1955, the First MTS International Award in 1980, the Order of the Sacred Treasure in 1983, and the International Council on Combustion Engines (CIMAC) Gold Medal in 1985. Dr. Okamura died on January 15, 1989.

## 2021年「海のフロンティアを拓く岡村健二賞」受賞者



明治大学理工学部情報科学科  
専任講師 松田 匠未

松田匠未博士は、複数のAUVが交代で海底に着底して測位基準点となる相互ランドマーク航法を開発し、海中において長期間にわたり安定した高精度位置決めを可能とする手法を開発した。高精度位置決めが長期間維持出来ることが可能となることで、観測精度が向上されるだけでなく、AUVが自動でドッキングをすることによりエネルギー補給を行うことも可能となり、AUVの可能性を格段に拡げる研究成果である。同博士は、重力測定装置を搭載したAUVを海底に着底させて、海底下の埋没鉱物資源を探索する方法も開発した。研究成果は、定評のある査読付国際ジャーナル論文13編(筆頭著者10編)、査読付国際学会論文27編(筆頭著者15編)にまとめ、海底重力測定装置について企業と共同で特許を取得している。

テクノオーシャン・ネットワークは、AUVの可能性を拡げる上で顕著な研究成果を挙げた松田匠未博士が、今後さらなる飛躍的な成果を挙げ、我が国の海洋調査観測技術・海洋工学の学術研究を担う人材になりうると判断し、この分野の将来を切り開く若手研究者への賞である「海のフロンティアを拓く岡村健二賞」を贈り、これまでの顕著な業績を讃える。

**“Kenji Okamura Memorial Award for Pioneering the Ocean Frontier”  
2021 Award Winner**

**Takumi MATSUDA**

Department of Computer Science, School of Science and Technology,  
Meiji University Senior Assistant Professor

Dr. Takumi Matsuda has developed an alternating landmark navigation system in which multiple AUVs, deployed alternately on the seafloor, provide positioning reference points to each other. By the method efficient and high-accuracy ocean-positioning for long-term observation was made possible. Beyond the survey accuracy improvements, he has also made it possible to recharge the AUV's batteries by automatic docking to a seafloor station. This innovation greatly increases AUV capabilities and has many other potential applications. Dr. Matsuda has also developed a method for exploring mineral resource deposits below the seafloor, achieved by landing AUVs equipped with gravity-measuring devices. His research results have been summarized in 13 peer-reviewed papers for international journals (10 first authors) and 27 peer-reviewed papers presented at international conferences (15 first authors). Furthermore, he has been granted a joint-patent, together with a commercial business, for a submarine gravity measuring device.

Techno-Ocean Network believes Dr. Matsuda to lead many future breakthroughs beyond his remarkable research which has already expanded the use of AUVs. He will doubtless become a leading figure within academic research on oceanographic survey and observations technologies and ocean engineering in Japan. For these reasons, and to honour his achievements so far, Dr. Matsuda is awarded with the 'Kenji Okamura Memorial Award for Pioneering the Ocean Frontier', an award created to recognize promising young researchers expected to develop the field in the future.



歴代受賞者  
AWARD WINNERS

2010	福場 辰洋	Tatsuhiko FUKUBA
2012	巻 俊宏	Toshihiro MAKI
2012	亀山 宗彦	Sohiko KAMEYAMA
2014	Blair THORNTON	
2016	高橋 勇樹	Yuki TAKAHASHI
2016	水野 勝紀	Katsunori MIZUNO
2018	高橋 朋子	Tomoko TAKAHASHI
2021	松田 匠未	Takumi MATSUDA

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