

JOINT JAPANESE-GERMAN NEWSLETTER

VOL.003

CONNECTING THE GERMAN AND
JAPANESE COMPOSITE INDUSTRY

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Joint Japanese-German Newsletter
Connecting the Japanese and German Composite Industry

TECHNOLOGY UPDATES

100% RECYCLED CF SPUN YARN AND APPLIED PRODUCTS [JEC AWARD 2023 WINNER]



Toyota Industries Corporation, ICC's membership company, is pleased to introduce their CFRP Recycling Technology and Comprehensive CFRP Recycling System, which won the JEC Awards 2023 in the Circularity & Recycling category.

Based on their world-leading technologies in spinning and weaving machines and yarn quality inspection equipment, Toyota Industries Corporation has developed a technology to spin recycled CF into high-quality yarn, and has worked with a number of partners to build a recycling system to recover CF from CFRP products, spin it, weave it, mold it, and manufacture recycled CFRP.

The system is now in the process of demonstration for practical application among Toyota group.


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MARUHACHI HAS INVESTED IN LATEST TECHNOLOGY OF AUTOMATION THERMOPLASTIC PREPREG & LAMINATE MASS PRODUCTION SYSTEM



Maruhachi, which has been collaborates with ICC on several joint R&D projects and uses ICC as a satellite base for R&D, has recently completed the installation of an automated mass production system for thermoplastic prepreg and laminate with the latest technology at its headquarters plant.

Maruhachi, which won the JEC Innovation Awards in 2014 for its Type 4 high pressure containers, is highly skilled in the production of intermediate base materials such as UD tapes, sheets, and naar-net shape preforms, and is currently engaged in various activities to actively link up with the European market. Maruhachi is currently engaged in various activities to actively cooperate with the European market. Maruhachi's latest production system is introduced here.



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RAISED A TOTAL OF 420 MILLION YEN IN SERIES A FINANCING FROM THE DEVELOPMENT BANK OF JAPAN AND OTHERS

Albatross Technology Inc., which is developing the floating offshore wind turbine (vertical axis type) introduced in the first issue of the ICC Newsletter, has raised a total of 420 million yen in Series A financing from the Development Bank of Japan and others.

The fact that this investment has been made indicates that the target project is further along in its realization than in the past.

The company's efforts to promote offshore wind power generation in Japan, a country surrounded by the sea on all sides but with less shallow topography, are being recognized as technically and commercially promising.

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EVENT

[EXHIBITION] IPF JAPAN 2023 (CHIBA)



[EVENT REPORT](#)

[ABOUT HACM](#)

IPF Japan, an international exhibition held every three years, was held for the first time in six years (on-site) at Makuhari Messe from November 28 to December 2, 2023.

ICC was invited to participate in the "Composite Special Exhibition -FRP&CNF-", the organizer's special booth with the themes of "Sustainable Composites" and "Application of Digital Technology"

Together with Hokuriku Advanced Composites Materials Research Association (HACM) and ICC's membership companies and institutions, we introduced our latest technologies to realize sustainable society, such as utilization of materials from natural, application of digital technology to composite molding, environmentally low-impact manufacturing technologies, recycling, and the expansion of applications beyond automobile or aeronautical fields. Many visitors stopped by our booth, eagerly looking at the display panels and exhibits, asking questions, and showing great interest in the latest composite technology.

[EXHIBITION] SAMPE JAPAN ADVANCED MATERIALS TECHNOLOGY 2023 (TOKYO)

ICC also exhibited at the SAMPE Japan Advanced Materials Technology Exhibition 2023 held at Tokyo Big Sight from November 29 to December 1, together with the Hokuriku Association of Advanced Composite Materials (HACM). Composite Highway Consortium (CHC), which is operated jointly by ICC and 2 other Composites Research Centers in Japan, also set up a large CHC booth with 32 companies and organizations, and exhibited panels and product samples to introduce composite-related technologies.



[CONFERENCE] HOKURIKU COMPOSITES CONFERENCE



The 3rd Hokuriku Composites Conference was held in Hakusan, Ishikawa on December 4, 2023, for the first time in four years after the pandemic.

The conference, organized by ICC and HACM, is held once every two years to share information on global composites trends by inviting lecturers from overseas companies doing business at the cutting edge of the composites industry. It is also aiming at offering a networking opportunity not only locally or within Japan but also worldwide.

At the conference, a poster exhibition and banquet were held in addition to lectures by overseas speakers, and the event ended on a high note with approximately 110 attendees from not only ICC and HACM member companies, but also from the composites industry throughout Japan.

[FOR MORE DETAILS](#)

78TH ICC FORUM ~SPECIAL LECTURE FROM PROF.STEPHEN TSAI~



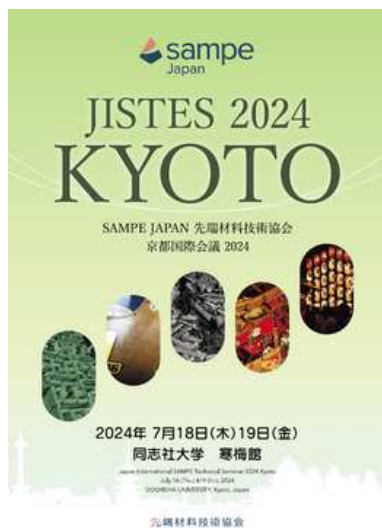
Dr. Stephen W. Tsai, Professor (Research) of Aeronautics and Astronautics, Emeritus, Stanford University and Visiting Professor of Kanazawa Institute of Technology, visited ICC on Wednesday, April 24, and gave a special lecture at the 78th ICC Forum held at ICC on the same day.

The title of his lecture at the forum was "A new laminate theory : Double-Double," which introduced an efficient laminate theory based on the combination of double bias in contrast to the conventional laminate theory based on pseudo-isotropic target lamination.

During his 90-minute lecture, he gave an impassioned talk about his research without ever sitting down. The participants listened to his lecture with great interest, and the Q&A session was very lively, making the 78th ICC Forum a very valuable and special event.



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(UPCOMING) JISTES 2024 KYOTO

JISTES 2024 KYOTO, an international conference, will be held in Kyoto on July 18 and 19, 2024.

JISTES is a biennial international conference organized by SAMPE-Japan for the purpose of international technical exchanges on composites. It is held in a single session style with keynote speeches, and many lecturers from overseas will visit Japan to give lectures. The conference also aims at networking among participants.

Focusing on manufacturing innovation in Asia, JISTES 2024 will bring you the latest frontiers and efforts on composites, including CFRP recycling, the forefront of green composites, and the application of composite materials to aircraft structures.

[PROGRAM](#)

About ICC

Innovative Composite Materials Research and Development Center (ICC) is one of Japan's largest innovation platform bases that supports research and development, education, and collaborative activities in the field of composite materials.

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