

JISSE-18 Program

JISSE-18 Conference : TFT Building (Room 9-A)
 JISSE-18 Exhibition : TFT Building (Room 904)
 SAMPE Japan Exhibition 2023 : Tokyo Big Site, West Exhibition Hall

Nov. 29, 2023			
Venue	TFT Building		Tokyo Big Site
Room	Conference Room (9-A)	JISSE-18 Exhibition Room (904)	West Exhibition Hall
9:00 -	Registration		
9:25 - 9:30	Opening address Tsuyoshi Ozaki (SAMPE Global)		
	Plenary Lecture (PL01) @Conference Room Chair: Yuichiro Aoki		10:00 - 17:00 SAMPE Japan Exhibition 2023
9:30 - 10:20	(PL01) Next generation of Composites at Airbus: key enablers for Sustainable Aviation Sylvain Cerdan (Airbus)		
10:20 - 10:40	Coffee Break @ JISSE-18 Exhibition Room		
	Plenary Lecture (PL02) @Conference Room Chair: Shinsaku Hisada		
10:40 - 11:30	(PL02) Development of CFRP for a low-carbon society, circularity and beyond Jun Takahashi (The University of Tokyo)		
11:30 - 12:20	Lunch		
	Polymer Matrix Composites 1 Chair: Masahito Ueda	Student Session 1	
12:20 - 12:40	(1A01) PHYSICAL PROPERTIES OF PALM OIL-MODIFIED CELLULOSE-FILLED POLYPROPYLENE Feng Tang, Dae Su Kim	12:00-13:00 Student Presentation (S01-S12)	
12:40 - 13:00	(2A06) HIGH-CYCLE LOW-PRESSURE RTM WITH PREFORMABLE THERMOPLASTIC TOW PREPREG Hirofumi Nishida, Kiyoshi Uzawa	13:00-13:10 Company Introduction 1 13:10-13:20 Company Introduction 2	
13:00 - 13:20	(1A03) PHYSICS GUIDED TRANSFER LEARNING FOR PROPERTY PREDICTION IN COMPOSITE ADDITIVE MANUFACTURING Akshay J Thomas, Mateusz Jaszczuk, Eduardo Barocio, Ilias Bilonis, R. Byron Pipes	13:20-13:50 Student Poster session (S01-S12)	
13:20 - 13:50	Coffee Break @ JISSE-18 Exhibition Room		
	Plenary Lecture (PL03) @Conference Room Chair: Akinori Yoshimura		
13:50 - 14:40	(PL03) Carbon fiber reinforced plastics for a sustainable society Akihiko Kitano (Toray Industries, Inc.)		
14:40 - 14:50	Coffee Break @ JISSE-18 Exhibition Room		
	Polymer Matrix Composites 2 Chair: Sho Miyashita	Student Session 2	
14:50 - 15:10	(1A04) IMPACT RESISTANCE OF CFRP PLATE WITH ELASTOMER FOR LOW-VELOCITY IMPACT Kohei Yoshida, Kazuhiro Miura, Masato Yamashita, Daishi Sumi	14:50-15:55 Student Presentation (S13-S25) 15:55-16:05 Company Introduction 3 16:05-16:15 Company Introduction 4 16:15-16:25 Company Introduction 5 16:25-17:00 Student Poster Session (S13-S25)	
15:10 - 15:30	(1A05) TRIGGER MECHANISM OF AXIAL COMPRESSIVE FAILURE OF A UNIDIRECTIONAL CARBON FIBER REINFORCED PLASTIC Masahito Ueda, Yuki Suzuki		
15:30 - 15:50	(1A06) INVESTIGATING APPLICATIONS OF TRANSPARENT COMPOSITES THAT BALANCE OPTICAL AND MECHANICAL PROPERTIES Tianlei Zhou, Ayumi Takaoka, Kotaki Masaya		
15:50 - 16:10	(1A07) EVALUATION OF ELASTO-VISCOPLASTIC PROPERTIES OF UNIDIRECTIONAL CFRP CONSIDERING STRESS TRIAXIALITY Takemaro Iguchi, Keita Goto, Masahiro Arai, Akinori Yoshimura		
16:10 - 16:30	(1A08) DAMAGE BEHAVIOR OF TOUGHENED CFRP SUBJECTED TO LOW VELOCITY IMPACT Daiki Suzuki, Keita Goto, Masahiro Arai, Akinori Yoshimura		
16:30 - 17:00	Coffee Break @ JISSE-18 Exhibition Room		
	Plenary Lecture (PL04) @Conference Room Chair: Shu Minakuchi		
17:00 - 17:50	(PL04) Catalyzing change through collaboration: SAMPE's role in forging sustainable composites Sarah Cox (SAMPE North America)		
18:30 - 20:30	Welcome reception at "Grand Blanc" Washington Hotel Tokyo Bay Ariake		

Nov. 30, 2023

Venue	TFT Building		Tokyo Big Site
Room	Conference Room (9-A)	JISSE-18 Exhibition Room (904)	West Exhibition Hall
9:00 -	Registration		
	Plenary Lecture (PL05) @Conference Room Chair: Tomohiro Yokozeki		
9:30 - 10:20	(PL05) Aerospace Composites – The Future of Flight Michael Anderson (Boeing)		
10:20 - 10:40	Coffee Break @ JISSE-18 Exhibition Room		
	Plenary Lecture (PL06) @Conference Room Chair: Sota Oshima		
10:40 - 11:30	(PL06) Potential of composites to innovate civil aero engines and related structures Takaomi Inada (IHI Corporation)		
11:30 - 12:20	Lunch		
	Numerical Modeling and Structural Design Chair: Takao Okada		
12:20 - 12:40	(2A01) OPTIMIZATION DESIGN OF LAMINATED SHELL STRUCTURES FOR BUCKLING STRENGTH BY EVOLUTIONARY ALGORITHM Masato Somemiya, Norio Hirayama		
12:40 - 13:00	(2A02) NUMERICAL ANALYSIS OF FATIGUE ACCUMULATION IN COMPOSITE LAMINATES USING A CZM-BASED EXTENDED FINITE ELEMENT METHOD Rong-Can Hong, Ryo Higuchi, Tomohiro Yokozeki		
13:00 - 13:20	(2A03) NUMERICAL SIMULATION ON MATRIX CRACKING BEHAVIORS IN COMPOSITE LAINATES FOR CRYOGENIC TANKS Ryoma Aoki, Ryo Higuchi, Tomohiro Yokozeki, Hisashi Kumazawa, Hiroaki Amakawa, Kosuke Kawakami, Mitsuo Matsunaga, Toshiya Saito, Toru Kamita		
	Plenary Lecture (PL07) @Conference Room Chair: Mio Sato		
13:20 - 14:10	(PL07) Strength design and damage mechanics of CFRP in automotive structures Yuta Urushiyama (Honda R&D Co., Ltd.)		
14:10 - 14:20	Coffee Break @ JISSE-18 Exhibition Room		
	Composite Manufacturing Chair: Keisuke Iizuka		
14:20 - 14:40	(2A04) RESIN FLOW SIMULATION CONSIDERING RACE TRACKING IN RESIN TRANSFER MOLDING Takeshi Fujita, Kosuke Ikeda		
14:40 - 15:00	(2A05) RESEARCH ON 3D MODEL COMPLETION BY GENERATIVE AI Makoto Inomoto, Yusuke Shiba		
15:00 - 15:20	(1A02) DEVELOPMENT OF THERMOPLASTIC COMPOSITES BY WET COMPRESSION MOLDING PROCESS WITH IN-SITU POLYMERIZABLE ACRYLIC RESIN AND RECYCLED CARBON FIBER MATS Katsuhiko Nunotani, Fumi Ariura, Kiyoshi Uzawa		
15:20 - 15:30	Coffee Break @ JISSE-18 Exhibition Room		
	Aerospace Applications Chair: Ryoma Aoki		
15:30 - 15:50	(2A07) ENHANCED REPLICATION TECHNIQUE FOR FABRICATING ULTRA-LIGHT CFRP MIRRORS FOR SPACE TELESCOPES Shin Utsunomiya, Tsuyoshi Ozaki, Masakatsu Ide, Yutaka Yamagata, Hiroshi Saito, Kazuro Kageyama		
15:50 - 16:10	(2A08) INFLUENCE OF PREPREG GAP/OVERLAP ON THE MECHANICAL PROPERTIES OF THIN-PLY CFRP Sho Miyashita, Yuichiro Aoki, Sunao Sugimoto, Toshiya Nakamura		
16:10 - 16:30	(2A09) NUMERICAL AND EXPERIMENTAL EVALUATION OF MECHANICAL BEHAVIOR OF HYBRID JOINT UNDER THERMAL AND EXTERNAL LOADS H. Kumazawa, T. Okada, T. Takeda, S. Miyashita, T. Toyosawa, T. Kasahara, K. Yamada, K. Nagao, Y. Aoki, H. Shoji		
16:30 - 16:40	Coffee Break @ JISSE-18 Exhibition Room		
	Plenary Lecture (PL08) @Conference Room Chair: Ryo Higuchi		
16:40 - 17:30	(PL08) Advanced composites technologies for mass production of next GEN mobilities Ichiro Kitano (TEIJIN LIMITED.)		
18:30 - 20:30	Banquet at "Iris" Washington Hotel Tokyo Bay Ariake		

10:00 - 17:00
SAMPE Japan Exhibition 2023

Dec. 1, 2023

Venue		TFT Building		Tokyo Big Site
Room	Conference Room (9-A)	JISSE-18 Exhibition Room (904)	West Exhibition Hall	
9:00 -	Registration			<p>10:00 - 17:00 SAMPE Japan Exhibition 2023</p>
	Experimental Characterization Chair: Yi Wan			
9:30 - 9:50	(3A01) RESEARCH ON WEGHT REDUCTION OF FISHING ROD Katsuhiko Oikawa			
9:50 - 10:10	(3A02) ESTIMATION OF FIBER ORIENTATION DISTRIBUTION IN CARBON FIBER REINFORCED POLYAMIDE 6 BY X-RAY DIFFRACTON IMAGES Atsuhiko Yamanaka, Mariko Terada, Ryota Yamabe, Makoto Ichiki			
10:10 - 10:30	(3A03) MICROSCOPIC DAMAGE PROGRESSION AND GAS LEAKAGE BEHAVIOR OF THIN-PLY CFRP LAMINATES UNDER BIAXIAL TENSILE LOADING Daigo Sato, Kazuyoshi Fujishiro, Hisashi Kumazawa, Hitoshi Hamori, Toshio Ogasawara			
10:30 - 10:50	Coffee Break @ JISSE-18 Exhibition Room			
	Mechanics and Processing of Discontinuous Fiber Composites Chair: Noriyasu Yamada			
10:50 - 11:10	(3A04) EFFECT OF TAPE SHAPE ON MECHANICAL PROPERTY STOCHASTICITY OF CFRTP-SMC Yi Wan, Xiaodong Xu, Jun Takahashi			
11:10 - 11:30	(3A05) MATERIAL FLOW AND FIBER STRUCTURE EVALUATION OF CTT RIBBED PRESS MOLDINGS WITH DIFFERENT FIBER ORIENTATIONS Takehiro Shirai, Shinya Hayashi, Kiyoshi Uzawa			
11:30 - 11:50	(3A06) SIMULATION OF MATERIAL FLOW AND FIBER STRUCTURE WITHIN CTT RIBBED PRESS MOLDINGS WITH DIFFERENT FIBER ORIENTATIONS Shinya Hayashi, Takehiro Shirai, Kiyoshi Uzawa			
			12:40-16:45 IHI/SAMPE Japan Student Bridge Contest @ SAMPE Japan special stage (West hall 2)	

Student Session	
Students have 5min presentations in the JISSE-18 Exhibition Room (904) on November 29. The student poster session will also be held in the same room on the same day.	
Student session 1	
12:00 - 13:00	S01 MONITORING HYDROTHERMAL AGING OF CFRTP BY NON-DESTRUCTIVE VIBRATIONAL METHOD Weizhao Huang, Yi Wan, Jun Takahashi
	S02 BLADE AND STRUCTURE DESIGN OPTIMIZATION OF VERTICAL AXIS WIND TURBINE USING SURROGATE MODEL COMBINED WITH GA APPROACH Peng Xue, Yi Wan, Takumi Morishima, Hiromichi Akimoto, Jun Takahashi
	S03 THE FATIGUE BEHAVIOR OF BOLTED CARBON FIBER REINFORCED THERMOPLASTIC SHEET MOLDING COMPOUNDS WITH DIFFERENT TAPE GEOMETRIES X. Tong, Y. Wan, J. Takahashi
	S04 INFLUENCE OF TAPE SHAPE ON THE INTERNAL GEOMETRY OF CFRTP-SMC R. XU, Y. Wan, J. Takahashi
	S05 STUDY ON STRUCTURE STABILITY OF CFRTP UNDER AXIAL COMPRESSION Q. Wang, Y. Wan, J. Takahashi
	S06 MANUFACTURING AND TENSILE MODULUS CHARACTERIZATION OF NONWOVEN CARBON FIBER REINFORCED THERMOPLASTICS CONSIDERING STOCHASTIC MICROSTRUCTURES Qian Gao, Yi Wan, Haruna Maruko, Jun Takahashi
	S07 CYCLIC HYDROTHERMAL AGING TEST OF CFRTP UNDER SEVERE MARINE ENVIRONMENT Fan Zhang, H. Wei, Y. Wan, J. Takahashi
	S08 EXPERIMENTAL INVESTIGATION OF MECHANICAL PROPERTIES AND INTERNAL STRUCTURE OF CFRTP-SMC: INFLUENCE OF TAPE LENGTH AND THICKNESS IN FLOW COMPRESSION MOLDING Zihao Zhao, Yi Wan, Jun Takahashi
	S09 SEGMENTATION OF CFRTP CARBON FIBERS IN 3D CT IMAGES USING NNU-NET Cheng Jin, Yi Wan, Jun Takahashi
	S10 EXPERIMENTAL VALIDATION OF TENSILE PROPERTIES OF CFRTP-SMC WITH PARALLELOGRAM TAPES P. Lu, R. Xu, Y. Wan, J. Takahashi
	S11 DUAL-SCALE MODEL FOR STIFFNESS AND STRENGTH PREDICTION OF CFRTP-SMC BASED ON PERIDYNAMIC THEORY Zhiyu Wang, Yi Wan, Jun Takahashi
	S12 CROSS-SECTIONAL STRUCTURE OPTIMIZATION OF FLOATING AXIS WIND TURBINE BLADES BY CFRP Tomotaka Suzuki, Peng Xue, Hiromichi Akimoto, Yi Wan, Jun Takahashi
13:00 - 13:10	Company Introduction 1 Teijin limited (in Japanese)
13:10 - 13:20	Company Introduction 2 Forward Engineering Japan Co., Ltd. (in Japanese)
13:20 - 13:50	Student Poster Session (S01-S12)
Student session 2	
14:50 - 15:55	S13 MONTE CARLO SIMULATION STUDY ON THE EFFECT OF MIXING TAPES WITH DIFFERENT SHAPES ON THE STRENGTH OF CFRTP-SMC Shingo Miyamoto, Rouchen Xu, Yi Wan, Jun Takahashi
	S14 PREDICTION OF EFFECTS OF FIBER LENGTH AND FIBER DIAMETER DISPERSION ON THE STRENGTH AND MODULUS OF CARBON FIBER PAPER REINFORCED THERMOPLASTICS Ayumu Uno, Qian Gao, Yi Wan, Jun Takahashi
	S15 MOLDING AND MECHANICAL PROPERTIES OF CFRTP PIPE WITH NANO DISPERSED CNT/CF FIBER Riki Oishi, Nakai Asami, Maki Onizuka, Takuzi Komukai
	S16 IMPACT OF FOLDABLE JOINT STRUCTURES ON THE WEIGHT OF FLOATING AXIS WIND TURBINES Kota Yokomizo, Peng Xue, Yi Wan, Jun Takahashi
	S17 DYNAMIC LOAD IDENTIFICATION OF AL-ALLOY AND CFRP PANELS SUBJECTED TO SIMULATED LIGHTNING STRIKE Kazuki Tsuchida, Kenji Asakawa, Yoshiyasu Hirano, Toshio Ogasawara
	S18 WATER ABSORPTION PROPERTIES OF S-CF/PA6 LAMINATES FORMED BY FDM-TYPE 3D PRINTER Kosuke Hida, Kaichi Ohshiro, Ruu Nukamoto, Kohji Suzuki
	S19 FRACTURE BEHAVIOR OF CFRP LAMINATES ON FHC Yutaro Watanabe, Kentaro Sakai, Yutaka Iwahori, Eiichi Hara, Hisaya Katoh, Atsushi Kondo
	S20 RELATIONSHIP BETWEEN JOINT SHAPE AND BOND STRENGTH OF CFRP LAMINATES Monami Shiba, Yutaka Iwahori
	S21 RESIDUAL COMPRESSION STRENGTH OF CFRP LAMINATES AFTER EDGE IMPACT CAUSED BY VARIOUS ENERGIES Yusuke Joko, Yutaka Iwahori
	S22 RELATIONSHIP BETWEEN COOLING RATE IN THERMOPLASTIC CFRP MOLDING AND 90-DEGREE TENSILE STRENGTH AND STUDY OF TEST METHODS Yuto Ishizuka, Yutaka Iwahori
	S23 EFFECTS OF SURFACE CONDITION ON TENSILE BOND STRENGTH Kenta Yamagishi, Yutaka Iwahori
	S24 TIME-DEPENDENT WARP OF CFRP ASYMMERIC LAMINATES WITH POLYPROPYLENE AS MATRIX N. Matsushita, M. Nakada, Y. Miyano, T. Isaki, K. Uzawa
	S25 THE APPLICATION OF RECYCLING CFRP SANDWICH TO THE BLADE OF A VERTICAL FLOATING OFFSHORE WIND POWER GENERATION Takumi Morishima, Yi Wan, Peng Xue, Jun Takahashi, Hiromichi Akimoto
15:55 - 16:05	Company Introduction 3 SHIKIBO LTD. (in Japanese)
16:05 - 16:15	Company Introduction 4 Techlab Co.,Ltd. (in Japanese)
16:15 - 16:25	Company Introduction 5 IHI Corporation (in Japanese)
16:25 - 17:00	Student Poster Session (S13-S25)