



JISSE-19

19th **J**apan **I**nternational **S**AMPE **S**ymposium & **E**xhibition



December 2–4, 2025

Ariake Central Tower Hall & Conference, Tokyo, Japan

WELCOME JISSE-19

We are delighted to be organizing JISSE-19 and believe that you will have an outstanding experience at the symposium and during your stay in Tokyo.

JISSE-19 continues the 36 years history of the Japan International SAMPE Symposium & Exhibition, which began in 1989. JISSE-19 will attract the leading researchers and practitioners, to exchange and share ideas on the latest developments and advancement in a wide range of advanced materials and structures.

The theme of JISSE-19 is "New trends of advanced materials in industry and academia related to leading edge application" with the overall objective of exploring the latest research on composites and their future applications in the aerospace, automotive, pressure vessel, construction, and other industries, as well as the recycling of composite materials.

Four "Plenary" and eight "Keynote" lectures from the leaders in a variety field of composites R&D, and Fourteen "Technical seminar (in Japanese)" are set, along with oral presentations with the authors coming from all corners of the world.

Once again, we are pleased to welcome you to Tokyo and JISSE-19.
Let's enjoy!

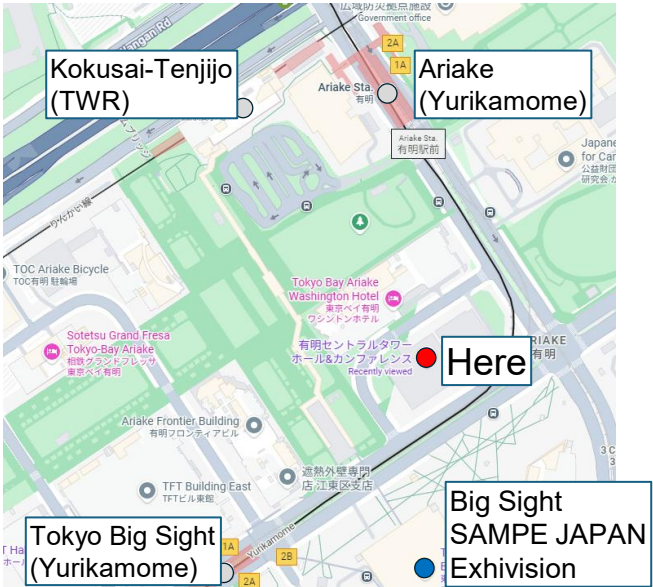
Symposium Chairs of JISSE-19
Kimiyoishi Naito (The National Institute for Material Science)
Koji Yamaguchi (Toray Industries Inc.)

Committee member

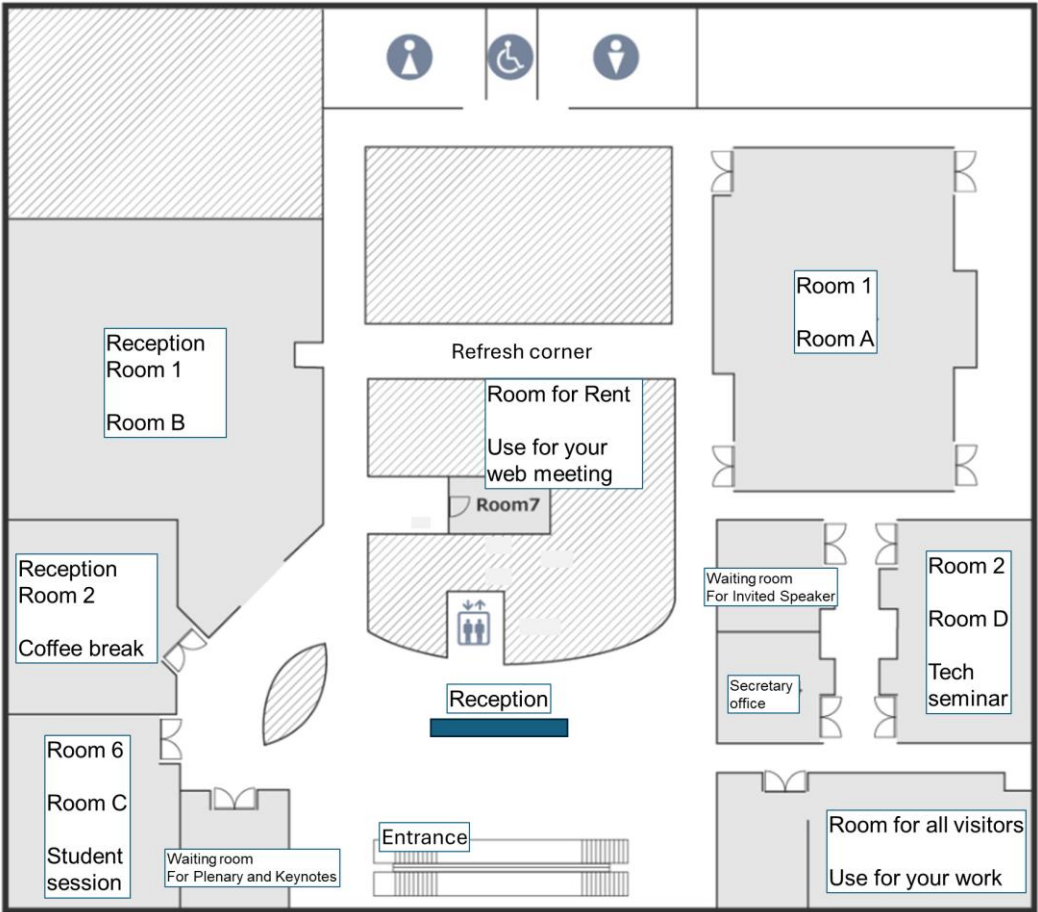
Dr. Kiyoshi Uzawa, Inovative Composite Center, KIT.
Dr. Tomohiro Yokozeki, The University of Tokyo
Dr. Ryo Higuchi, The University of Tokyo
Dr. Jun Takahashi, The University of Tokyo
Dr. Asami Nakai, Gifu University
Dr. Shigeki Yashiro, Kyushu University
Dr. Sota Oshima, Tokyo University of Agriculture and Technology
Dr. Masato Ueda, Nihon University
Dr. Yoshiki Sugimoto, The National Institute of Advanced Industrial Science and Technology
Dr. Tetsuya Morimoto, Japan Aerospace Exploration Agency
Dr. Eichi Hara, Japan Aerospace Exploration Agency
Mr. Shunichi Baba, Sanwa Trading
Mr. Tetsuyuki Kyono, KCO
Mr. Yoshiaki Someya, SAMPE Japan

Map of Area

【Train access map】



Conference room



Plenary Lectures (Room 1)



Ole THOMSEN

Bristol Composites Institute,
University of Bristol

Dec.2 (Tue) 17-18

**Certification by
Analysis of Large
Composite Structures –
Vision or Delusion?**



Ignaas VERPOEST

Composite Materials Group,
KU Leuven

Dec.3 (Wed) 13-14

**The History of
Composites: eight
breakthrough
innovations**



Sylvain CERDAN

Airbus

Dec.3 (Wed) 14-15

**Composites in aircrafts,
an asset of the
decarbonization of
aviation**



Michael ANDERSON

Boeing
Research & Technology

Dec.4 (Thu) 13-14

**Recent Advances in
Composites
Manufacturing at
Boeing**

Keynote Lectures

Dec.2 (Tue)

➤ (1A-01) (Room 1)

INNOVATION & MARKET TRENDS
REVIEW

Eric PIERREJEAN (President, JEC)

➤ (1A-12) (Room 1)

HISTORICAL AND RECENT RESEARCH
TRENDS OF INTERFACIAL EVALUATION OF
CARBON BASED NANO AND MICRO-
COMPOSITES USING ELECTRO-
MICROMECHANICAL TECHNIQUES AND
THEIR PRACTICAL APPLICATIONS

Joung-Man Park (President, SAMPE Korea)

➤ (1A-02) (Reception 1)

ECO-DESIGN OF THERMOPLASTIC
COMPOSITE MATERIALS

Fumi Ariura (Arkema)

➤ (1B-01) (Reception 1)

RECYCLED CARBON FIBERS AND THEIR
POSSIBLE APPLICATIONS BY REINFORCING
PA66/6I IN COMBINATION WITH A FLAME
RETARDANT ADDITIVE

Bernhard Leitner*, (Fraunhofer IGCv)

Dec.3 (Wed)

➤ (2A-08) (Room 1)

RESEARCH AND DEVELOPMENT AT ATLA

Kazuhiro Horie

**(Vice-Commissioner & Chief Technology Officer,
Acquisition, Technology and Logistics Agency,
ATLA)**

➤ (1A-07) (Room 1)

DAMAGE-TOLERANT DESIGN AND ACOUSTIC
EMISSION MONITORING OF HIGH-PRESSURE
HYDROGEN COMPOSITE VESSELS FOR FUEL
CELL VEHICLES

Yoshihiro Mizutani, (Institute of Science Tokyo)

Dec.4 (Thu)

➤ (3A-08) (Room 1)

ADVANCING FRONTIERS: CARBON FIBER
COMPOSITES FROM HISTORY TO INNOVATION

Fumihiko Tanaka (Toray)

➤ (3B-04) (Reception 1)

AN OVERVIEW OF THE TAILORABLE UNIVERSAL
FEEDSTOCK FOR FORMING (TUFF) PROCESS

Dirk Heider

**(University of Delaware -Center for Composite
Materials)**

JISSE-19 Program (2nd Dec)

Room		A (Room1)		B (Reception 1)		C (Room 6)		D (Room 2)	
9:40	- 10:00	Opening address							
		Market Chair: Koji Yamaguchi (Toray)		Recycle of Composite and Circular Application Chair: Yoshiki Sugimoto (AIST)		Student Session Chair: Testuya Morimoto (JAXA)		Technical Seminar	
10:00	- 10:40			(1B-01) Keynote RECYCLED CARBON FIBERS AND THEIR POSSIBLE APPLICATIONS BY REINFORCING PA66/6I IN COMBINATION WITH A FLAME RETARDANT ADDITIVE Bernhard Leitner*, Frank Manis*, Petra Amann*, Klaus Drechsler*, Shunta Kimura**, Yuta Sasaki**, Yuki Mori** (*Fraunhofer IGCV, **Asahi Kasei Corporation)					
10:40	- 11:00	(1A-12) Keynote HISTORICAL AND RECENT RESEARCH TRENDS OF INTERFACIAL EVALUATION OF CARBON BASED NANO AND MICRO-COMPOSITES USING ELECTRO-MICROMECHANICAL		(1B-04) MULTIPLE MECHANICAL RECYCLING FOR LARGE FORMAT ADDITIVE MANUFACTURING Bernhard Bauer (Technical University of Munich (TUM))		Student Session (1)		技術セミナー1 強化繊維 内藤 公喜 (NIMS)	
11:00	- 11:20	TECHNIQUES AND THEIR PRACTICAL APPLICATIONS Joung-Man Park (President, SAMPE Korea)		(1B-03) INTERNATIONAL COLLABORATION BETWEEN FRAUNHOFER AND JAPAN “FIP-MIRAI@ICC” Frank Manis (Fraunhofer IGCV)		10:40-10:55 S02 10:55-11:10 S07 11:10-11:25 S08			
		(1A-01) Keynote				11:25-11:40 S09			
11:20	- 12:00	INNOVATION & MARKET TRENDS REVIEW Eric PIERREJEAN (President, JEC)							
12:00	- 13:00	Lunch							
		Matrix Resin Chair: Hirofumi Nishida (Innovative Composite Center)		Recycle of Composite and Circular Application Chair: Yoshiki Sugimoto (AIST)		Student Session		Technical Seminar	
		(1A-02) Keynote							
13:00	- 13:40	ECO-DESIGN OF THERMOPLASTIC COMPOSITE MATERIALS Fumi Ariura, Tong Huang, Guillaume Crassous (Arkema K.K.)							
13:40	- 14:00	(1A-03) SYNTHESIS OF METHACRYLIC RESIN WITH GLYCOL LIGNIN AS THE MAIN BACK BONE Atsuhiko Yamanaka, Hirofumi Nishida (Innovative Composite Center)		(1B-05) APPROACH TO REDUCING IN-MOLD PRESSURE IN WET COMPRESSION MOLDING WITH RECYCLED CARBON FIBER MATS Katsuhiko NUNOTANI*, Fumi ARIURA**, Kiyoshi UZAWA* (*Innovative Composite Center, **Arkema k. k.)				技術セミナー2 複合材料設計の基礎 木本 幸胤 (名古屋大学) 司会：山口 晃司 (東レ)	
14:00	- 14:20	(1A-04) RESIN AND PREPREG PROPERTIES OF A LOW TEMPERATURE DEMOLDABLE BISMALEIMIDE TOOLING PREPREG FOR HIGH-RATE TOOLS Brandon Gregoire*, Leonid Vorobyev*, Ken Wong*, Ayumi Takaoka** (*Kaneka Aerospace LLC, **Kaneka Corporation)		(1B-06) A METHOD FOR VERIFYING THE RELIABILITY OF FIBER LENGTH DISTRIBUTION IN DISCONTINUOUS FIBER-REINFORCED COMPOSITES Guillaume Crassous*, Mariko Terada**, Atsuhiko Yamanaka**, Fumi Ariura* (*Arkema K.K., **Innovative Composite Center)		Student Session (2) 13:40-13:55 S11 13:55-14:10 S12			
14:20	- 14:40	(1A-05) INTERNAL PRESSURE MOLDING OF CARBON FIBERREINFORCED THERMOPLASTIC EPOXY PIPES Hirofumi Nishida*, Takeshi Saito**, Takafumi Seki***, Miki Nakaya*** (* Innovative Composite Center, **Mizuno Technics Corp., *** SUNCORONA ODA Co. Ltd.)		(1B-07) NUMERICAL SIMULATION OF FATIGUE BEHAVIOR IN THREE-DIMENSIONAL WOVEN CFRP USING RECYCLED CARBON FIBER SPUN YARN Masaya Ebina*, Tasuku Ito*, Kiyoshi Uzawa**, Ousuke Ishida**, Nobuaki Inui** (*Toyota Industries Corporation, ** Innovative Composite Center)		14:10-14:25 S18 14:25-14:40 S20 14:40-14:55 S26			
14:40	- 15:00	(1A-12) ARKEMA'S HIGH PERFORMANCE POLYMER MATERIALS FOR HIGH AND LOW TEMPERATURE ENVIRONMENTS Yoshiyuki Shimonishi, Shintaro Ogata, Romain David (Arkema K.K.)		(1B-02) The future of carbon fiber recycling: integration with conventional fiber technology Shinichi Tatsuta (TATSUTA SPINNING CO.,LTD.)				技術セミナー3 航空機産業に参入するための基礎知識と留意点 吉田 裕一 (AZAPA/TJAD (元 三菱重工/三菱航空機)) 司会：山口 晃司 (東レ)	
15:00	- 15:20	Coffee Break							
		Pressure Vessel Chair: Hiroyuki OGUMA (NIMS)		Recycle of Composite and Circular Application Chair: Yoshiki Sugimoto (AIST)		Student Session			
15:20	- 15:40	(1A-08) DEVELOPMENT ACTIVITY OF LIQUEFIED HYDROGEN COMPOSITE STORAGE TANK FOR AIRCRAFT Noriyoshi Hirano, Kenshiro Okumura, Hiroyuki Tanaka, Takaya Hamamoto, Koshiro Maki, Taichi Ogawa, Akio Kawamata, Kosaku Takahashi, Koji Asai, Satoru Nakagawa, Chikara Ishikawa (Kawasaki Heavy Industries, Ltd)		(1B-08) PROCESSING AND MECHANICAL PERFORMANCE OF RECYCLED CARBON FIBER/PP TAPES PRODUCED FROM CARDED SLIVERS Asami Nakai (Gifu University)					
15:40	- 16:00	(1A-11) PROTOTYPE VALIDATION OF ULTRA-HIGH-RATE TANK MANUFACTURING VIA REDOX-CURED RTM WITH NON-FW PREFORMS Kiyoshi Uzawa*, Hirofumi Nishida*, Katsuhiko Nunotani*, Osuke Ishida*, Hiroshi Yamashita*, Toshio Ogasawara**, Norio Hirayama***, Kazuhiro Sakata*** (* Innovative Composite Center, **Tokyo University of Agriculture and Technology, ***Nihon University)		(1B-09) THE EFFECT OF CARBON NANOFIBERS ON ELECTRICAL AND THERMAL CONDUCTIVITY OF PANI/RECYCLED CARBON FABRIC NANOCOMPOSITE SYSTEMS Merve Ş. Akbulut1*, Özgür Demircan2** (*Department of Nanoscience and Nanotechnology, Ondokuz Mayıs University, **Department of Metallurgical and Materials Engineering, Ondokuz Mayıs University)		Student Session (3) 15:20-15:35 S31 15:35-15:50 S36 15:50-16:05 S37			
16:00	- 16:20	(1A-10) DEVELOPMENT OF RESINS FOR CFRTP VIA ELECTRON BEAM IRRADIATION Hiroshi Yamashita*, Hirofumi Nishida*, Kosuke Kawakami**, Toshiya Saito**, Masahito Washiya**, Kiyoshi Uzawa* (*Innovative Composite Center, **Japan Aerospace Exploration Agency)		(1B-10) ISSUES REQUIRED AT EACH STEP OF THE VALUE CHAIN FOR PROVIDING RCF FOR END-USE Nobuyuki Odagiri*, Yoshihiro Saitou*, Frank Manis**, Kiyoshi Uzawa* (*Innovative Composite Center, **Fraunhofer Institute for Casting, Composite and Processing Technology IGCV)		16:05-16:20 S38 16:20-16:35 S42		技術セミナー4 FRP成形技術 鶴澤 潔 (金沢工大ICC)	
16:20	- 16:40	(1A-09) FATIGUE STRENGTH EVALUATION OF ORTHOGONALLY ORIENTED FRP LAMINATES UNDER LIQUID NITROGEN CONDITIONS Hiroyuki OGUMA*, Kimiyoshi NAITO*,** and Masatoshi MIDORIKAWA* (*National Institute for Materials Science, **Tohoku University)							
16:40	- 17:00	Coffee Break							
		Plenary Lecture							
17:00	- 18:00	(PL-01) Plenary CERTIFICATION BY ANALYSIS OF LARGE COMPOSITE STRUCTURES – VISION OR DELUSION? Ole Thomsen (Bristol Composites Institute, University of Bristol) Chair: Jun Takahashi (The Univ. of Tokyo)							
18:00	- 19:30	Banquet							

JISSE-19 Program (3rd Dec)

		A (Room1)		B (Reception 1)		C (Room 6)		D (I	
		Defense Related and Dual Use Chair: Tetsuya MORIMOTO (JAXA)		Civil and Building Engineering Chair: Koji Yamaguchi (Toray)		Student Session (4) Chair: Yoshiki Sugimoto (AIST)		Techn	
		(2A-08) Keynote RESEARCH AND DEVELOPMENT AT ATLA Kazuhiro Horie (Vice-Commissioner & Chief Technology Officer, Acquisition, Technology and Logistics Agency, ATLA)							
9:00	9:40								
9:40	10:00	(2A-01) APPLICATION OF THE FREEZE-DRY METHOD TO WATER-SENSITIVE EPOXY ADHESIVES FOR RELIABLE BONDING JOINTS Tetsuya MORIMOTO*, Hisaya KATOH,* Eiichi HARA,* and Yuichi ISHIDA* (*Japan Aerospace Exploration Agency (JAXA))		(2B-01) Viscoelastic-Plastic Assessment of Bolt Preload Relaxation and Its Influence on the Failure Strength of CFRP Laminates Kota TANIYAMA (Kanazawa Inst. Tech)		Student Session (4) 9:40-9:55 S01 9:55-10:10 S03 10:10-10:25 S05 10:25-10:40 S06 10:40-10:55 S13 10:55-11:10 S17 11:10-11:25 S21 11:25-11:40 S27 11:40-11:55 S29		技術セミナー5 Education and Knowledge Frameworks in CFRP and Composite Engineering: A Global Perspective (CFRP および複合材料工学における教育と知識フレームワークーグローバルな視点から) 万 熾 (東京大学)	
10:00	10:20	(2A-02) SURFACE ACTIVATION, AGING CONTROL, AND ADHESIVE BONDING STRENGTH IN HEAT TREATED TI-6AL-4V Yila Gao, Shuqi GUO, Masahiro KUSANO, Kimiyoshi NAITO, Makoto WATANABE (National Institute for Materials Science)		(2B-02) DEVELOPMENT OF SUSTAINABLE RECYCLED HDPE COMPOSITES FOR ARTIFICIAL ROOFS WITH IMPROVED UV AND FIRE RESISTANCE Ali Fazli (CTT Group)					
10:20	10:40	(2A-03) NOVEL NDT METHOD FOR WEAK BOND DETECTION USING CHANGE IN CAPACITANCE OF ADHESIVE LAYER Nobuyuki KAMIHARA*, Mikio MURAOKA** Kiyoka TAKAGI*and Daiki MATSUYAMA* (* Mitsubishi Heavy Industries, Ltd., ** Akita University *)		(2B-03)Influence of Adhesive Viscoelasticity on Tensile Creep Behavior of at CFRP Strand End Joints Yuuki HORI (Kanazawa Inst. Tech)					
10:40	11:00								
11:00	11:20								
		Pressure vessel Chair: Tomohiro Yokozeki (The Univ. of Tokyo)						技術セミナー6 3D TIMONにおける射出・プレス成形シミュレーション方法と適用事例 坂場克哉 (東レエンジニアリング Dソリューションズ (株))	
11:20	11:40	(1A-07) Keynote DAMAGE-TOLERANT DESIGN AND ACOUSTIC EMISSION MONITORING OF HIGH-PRESSURE HYDROGEN COMPOSITE VESSELS FOR FUEL CELL VEHICLES Yoshihiro Mizutani, Masaaki Samejima, Takanori Sugiyama (Institute of Science Tokyo)		Student Lunch Session					
11:40	12:00								
12:00	13:00	Lunch							
Plenary Lecture									
13:00	14:00	(PL-02) Plenary THE HISTORY OF COMPOSITES: EIGHT BREAKTHROUGH INNOVATIONS Ignaas Verpoest (Emeritus Professor, KU Leuven) Chair: Koji Yamaguchi (TORAY)							
14:00	15:00	(PL-03) Plenary COMPOSITES IN AIRCRFTS, AN ASSET OF THE DECARBONIZATION OF AVIATION, CHALLENGES & PERSPECTIVES Sylvain CERDAN (Airbus) Chair: Testuya Morimoto (JAXA)							
15:00	15:20	Coffee Break							
		Robot Manufacturing (AM and FW) Chair: Tomohiro Yokozeki (The Univ. of Tokyo)		Airplane and Air Mobility Chair: Yi WAN (The University of Tokyo)		Student Session (5) Chair: Yoshiki Sugimoto (AIST)		Technical Seminar	
15:20	15:40	(3A-04) EXPERIMENTAL STUDY ON ISOTROPIC FIBER ORIENTATION AND PLANAR COMPRESSIBLE FLOW CHARACTERISTICS OF CHOPPED TAPE (CTT) CFRP Takehiro Shirai, Kiyoshi Uzawa (Innovative Composite Center)		(2B-04) IN-SITU DEFORMATION MEASUREMENT OF STAMP FORMED THERMOPLASTIC COMPOSITES DEPENDING ON FORMING CONDITIONS USING EMBEDDED SHAPE SENSORS Kiichi CHIKAMORI and ShuMINAKUCHI (The University of Tokyo)		Student Session (5) 15:20-15:35 S14 15:35-15:50 S16 15:50-16:05 S19 16:05-16:20 S22 16:20-16:35 S23 16:35-16:50 S25 16:50-17:05 S34		技術セミナー7 複合材料試験法 原 栄一 (JAXA) 司会：森本 哲也 (JAXA)	
15:40	16:00	(3A-05) INTERLAMINAR FRACTURE TOUGHNESS OF ADDITIVELY MANUFACTURED CONTINUOUS CARBON FIBER REINFORCED THRMOPLASTICS: A COMPARATIVE STUDY Kohji Suzuki*, Shun Wakahara** (*Chiba Institute of Technology, **Astemo, Ltd.)		(2B-05) DEVELOPMENT AND CHARACTERIZATION OF MODIFIED CARBON/PHENOLIC COMPOSITES WITH IMPROVED INTERLAMINAR PROPERTIES Luigi Torre (University of Perugia)					
16:00	16:20	(3A-06) SUBSCALE PROTOTYPING OF CRYOGENIC TANK PARTS FABRICATED BY AUTOMATED FIBER PLACEMENT OF CFRTPS Ryosuke Hashizume*, Hiroaki Tanaka*, Takeshi Moriguchi*, Tomohiro Mizuno*, Hiromichi Akiyama*, Toshiyuki Takayanagi*, Yasushi Shojima*, Toshiya Saito**, Kosuke Kawakami**, Michiaki Matsumoto**, Masahito Washiya** (*Mitsubishi Heavy Industries, Ltd. **Japan Aerospace Exploration Agency)		(2B-06) PLY CURVING TERMINATION FOR ENHANCING COMPRESSIVE STRENGTH OF COMPOSITE PLY DROP-OFFS Kyoka Kanda and Shu Minakuchi (The University of Tokyo)					
16:20	16:40								
16:40	17:00								
		技術セミナー8 欧米のコンポジット開発と生産について (欧米のCFRPのその後) 外山 寿 (Cannon S.p.A.) 司会：仲井 朝美							

JISSE-19 Program (4th Dec)

Room		A (Room1)		B (Reception 1)		C (Room 6)		D (Room 2)	
				Technical Seminar					
9:00	10:00	技術セミナー9 有限要素法（FEM）による CFRP積層板の損傷進展シミュレーション 長嶋 利夫（上智大学） 司会：大島 草太(東京農工大学)		技術セミナー10 熱可塑CFRPの設計と性能 石川 健（三菱ケミカル） 司会：鶴澤 潔(金沢工大ICC)				技術セミナー11 接着 内藤 公喜（NIMS）	
		Carbon Fiber Chair: Toshihira Irisawa (Gifu University) Fumihiko Tanaka (Toray)		Interface and Adhesion Chair: Kimiyoshi NAITO (National Institute for Materials Science)		Student Session (6) Chair: Yoshiki Sugimoto (AIST)		Technical Seminar	
10:00	10:20	(3A-01) SHEAR PROPERTY EVALUATION OF CARBON FIBER REINFORCED PLASTICS Pui San Khoo*, S. N. Nurul Nasuha*, JunYu Yan*, M. J. Mohammad Fikry*, Shinji Ogiwara* (*Tokyo University of Science)		(3B-01) THE EFFECT OF CURING CONDITIONS ON THE ADHESIVE STRENGTH OF SANDWICH PANELS Chihiro Mitani, Kazunori Takagaki, Masahiro Miyashita, Ichiya Takahashi (Mitsubishi Electric Corporation)		Student Session (6) 10:00-10:15 S10 10:15-10:30 S24 10:30-10:45 S28 10:45-11:00 S30 11:00-11:15 S33 11:15-11:30 S35 11:30-11:45 S39 11:45-12:00 S40		技術セミナー12 FRP破壊メカニズム 大島 草太 （東京農工大学） 司会：原 栄一（JAXA）	
10:20	10:40	(3A-02) EVALUATION OF THE COMPRESSIVE STRENGTH OF CARBON FIBER BUNDLES USING THE CRUCIFORM TEST METHOD WITH PA6 AND T700 CARBON FIBERS Kosuke TANAKA*, Hiroshi SAITO** (* Graduate Student of Kanazawa Inst. Tech, ** Dept. Mech. Eng., Kanazawa Inst. Tech)		(3B-02) JOINT STATE AND JOINT STRENGTH IN INJECTIONMOLDED METAL-POLYMER DIRECT JOINING Hiroaki Tanaka*, Tohru Suzuki*, Masahiro Seto*, Kiyoshi Uzawa*, Masashi Yamabe* (*Kanazawa Institute of Technology)					
10:40	11:00	(3A-03) EFFECT OF SPECIMEN DIMENSIONS AND SPECIMEN QUANTITY ON CFRTP-SMC TENSILE PROPERTIES USING MONTE-CARLO MODELING Mingqing Yuan**, Yi Wan*, Jun Takahashi* (*The University of Tokyo, **Shanghai Jiao Tong University)		(3B-03) PU-PMMA COPOLYMER ENHANCED WITH RECYCLED CARBON FIBER POWDER FOR ADHESIVE APPLICATIONS IN COMPOSITES Shang-Nan Tsai, Hsiang-Chun Yang (National Sun Yat-sen University)					
11:00	11:20	(3A-07) DEVELOPMENT OF LOW-COST CARBON FIBER IN JAPAN Toshihira Irisawa (Gifu University)						技術セミナー13 FRP成形における金型設計 宅石 敦（保田鉄工所） 司会：山口 晃司（東レ）	
11:20	12:00	(3A-08) Keynote ADVANCING FRONTIERS: CARBON FIBER COMPOSITES FROM HISTORY TO INNOVATION Fumihiko Tanaka (Toray)							
12:00	13:00	Lunch							
		Plenary Lecture							
13:00	14:00	(PL-04) Plenary RECENT ADVANCES IN COMPOSITES MANUFACTURING AT BOEING Michael Anderson (Technology Strategist, Global Technology, Boeing Research & Technology) Chair : Andrew Koyanagi (Boeing)							
		Processing Chair: Koji Yamaguchi (Toray)		Materials Chair: Shigeki Yashiro (Kyushu Univ.)		Student Session (7) Chair: Yoshiki Sugimoto (AIST)		Technical Seminar	
14:00	14:40			(3B-04) Keynote AN OVERVIEW OF THE TAILORABLE UNIVERSAL FEEDSTOCK FOR FORMING (TUFF) PROCESS Dirk Heider (University of Delaware -Center for Composite Materials)					
14:40	15:00	(2A-04) COMPRESSION MOLDING STUDY OF RANDOMLY ORIENTED CHOPPED SHEET USING CF/PPA TAPE Osuke Ishida*, Takehiro Shirai*, Kiyoshi Uzawa*, Fumi Ariura** (*Innovative Composite Center, **Arkema K.K.)		(3B-06) REPEATABLE INTERLAMINAR SELF-HEALING FOR FRP CONTAINING MICROCAPSULES WITH STRESS-ACTIVATED CHANNELS Mototsugu Tanaka*, Hajime Yuminamochi*, Kai Yokoi* (*Kanazawa Institute of Technology)				技術セミナー14 マトリックス樹脂 西田 裕文 （金沢工業大学） 司会：内藤 公喜（NIMS）	
15:40	16:00	(2A-05) A NEW FUSION CORE MOLDING TECHNOLOGY FOR 3D HOLLOW COMPOSITE PRODUCTS Satoshi Kaji*, Tsuneo Takano*, Yoshihide Kakimoto*, Atsushi Nohara* (*Mitsubishi Chemical Corporation)		(3B-07) EVALUATION OF INTERNAL TRANSVERSE CRACK INITIATION AND PROPAGATION IN CROSS-PLY COMPOSITE LAMINATES Sota Oshima*, Satoshi Kobayashi** (*Tokyo University of Agriculture and Technology, **Tokyo Metropolitan University)		Student Session (7) 14:40-14:55 S32 14:55-15:10 S41 15:10-15:25 S43 15:25-15:40 S44			
16:00	16:20	(2A-06) ROLE OF PERMEABILITY OF CARBON-CARBON COMPOSITES TO IMPROVE ITS DENSIFICATION PROCESS T. Lavaggi, J. W. Gillespie Jr., S. G. Advani (University of Delaware)		(3B-08) QUANTITATIVE EVALUATION OF FIBER ORIENTATION IN SMC COMPONENTS USING PROCESS SIMULATION AND X-RAY INTERFEROMETRY Yasutaka Shinoura*, Yukiko Matsuyama*, Yoshihide Kakimoto*, Takeshi Ishikawa* (*Mitsubishi Chemical Corporation)					
16:20	16:40	(2A-07) DEVELOPMENT OF RESIN IMPREGNATION SIMULATION FOR PREDICTING MICROSCOPIC DEFECTS BASED ON QUANTIFICATION OF FABRIC PORE DISTRIBUTION Shunsuke SAKAI*, Hiroshi SAITO ** (*Graduate Student of Kanazawa Inst. Tech, **Dept. Mech. Eng., Kanazawa Inst. Tech)		(3B-05) FLOW DEFORMATION BEHAVIOR OF SOLID WOODS IMPREGNATED WITH POLYMERS Tsunehisa MIKI**, Yutaka YOSHIFUJI*, Masako SEKI**, Mitsuru ABE**, Tatsuki KUREI**, Hiroaki HORIYAMA**, Hirofumi NISHIDA*, Kiyoshi UZAWA* (*Innovative Composite Center, **National Institute of Advanced Industrial Science and Technology (AIST))					
16:40	-	Closing							

Student sessions (2nd Dec)

Dec. 2, 2025		
Student session 1 (Room 6)		
10:40 - 10:55	S02	INTRALAMINAR CRACK PROPAGATION PHENOMENON IN NOTCHED UNIDIRECTIONAL CFRP FOR FRACTURE TOUGHNESS EVALUATION Keisuke Amagase (Kyushu University)
10:55 - 11:10	S07	Effect of In-Mold Flow and Tape Length on Void Characteristics in CFRTP-SMC GUO Zirui (The University of Tokyo)
11:10 - 11:25	S08	Mechanical Properties and Damage Behavior of Glass Cloth Laminates Fabricated with Bio-Derived Furan Resin Yurika HIYOSHI (Tokyo University of Science)
11:25 - 11:40	S09	INVESTIGATION OF MOLDING CONDITIONS FOR CHOPPED CARBON FIBER TAPE REINFORCED THERMOPLASTICS USING IMPREGNATED TAPE WITH RECYCLED CARBON FIBER SLIVER Mizuki Ikeda (Gifu University)
Student session 2 (Room 6)		
13:40 - 13:55	S11	XCT-Visibel Marker Tapes for Tape-Level Flow Tracing in CFRTP-SMCs Cheng JIN (The University of Tokyo)
13:55 - 14:10	S12	DEFECTS IN CONTINUOUS CARBON REINFORCED PLASTIC DUE TO CURVILINEAR 3D PRINTING Ryotaro Kawasaki (Nihon University)
14:10 - 14:25	S18	Impact performance of discontinuous CFRTP systems and strategy for cascade recycling Sang Won Lim (The University of Tokyo)
14:25 - 14:40	S20	Estimation of Damage Behavior and Effects of Changes in Laminate Number in Filled-hole Compression of CFRP Laminates Wataru Mikami (Meiji University)
14:40 - 14:55	S26	Influence of Stacking Sequence and Metal Types on Damage Characteristics of Thin-Ply FML Toki Nishiyama (Kyoto University)
Student session 3 (Room 6)		
15:20 - 15:35	S31	PREDICTING FATIGUE FAILURE FOR UNIDIRECTIONAL CFRP USING SFF MODEL WITH ENTROPY DAMAGE CRITERION Takumi Sekino (Tokyo University of Science)
15:35 - 15:50	S36	Evaluation of out-of-plane fiber orientation in CFRP using X-ray Talbot-Lau Interferometer Yutaro Sumiya (Nagoya University)
15:50 - 16:05	S37	Carbon Fiber and Matrix Resin Mechanical Properties Controlling Statistical Tensile Fatigue Life of Unidirectional CFRP Yuto Takeuchi (Kanazawa Institute of Technology)
16:05 - 16:20	S38	Influence of Needle Punching on the Internal Structure of NW-CFRTP via X-ray Computed Tomography Ziyao TANG (The University of Tokyo)
16:20 - 16:35	S42	A TRIAL-AND-ERROR BASED RESEARCH OF CFRTP-SMC HAT-SECTION BEAMS WITH JOINTS YE Kaiwei (The University of Tokyo)

Selected presentations in the student sessions will be awarded as "Student Presentation Award".

Please indicate in the submission page that the presentation is an application for the student session, when applicants are willing to have presentations in the student sessions. In the student sessions, 10 min. presentation (and 5 min. QA) is required.

Owing to the large number of submissions to the Student Session of JISSE-19, a first review of the extended abstracts was conducted. The following fifteen submissions were selected for final review of their presentations on December 2:

S02, S07, S08, S09

S11, S12, S18, S20, S26

S31, S36, S37, S38, S42

Student sessions (3rd and 4th Dec)

Dec. 3, 2025		
Student session 4 (Room 6)		
9:40 - 9:55	S01	Numerical Simulation of Fatigue Damage in CFRP Cross-Ply Laminates Accounting for Frequency Dependence and Internal Heat Generation Ryuki Akimoto (Tokyo University of Science)
9:55 - 10:10	S03	Factor Estimation of Free Edge Damage of CFRP Bistable Boom During Stowage and Deployment Process Kosuke Aoyagi (Meiji University)
10:10 - 10:25	S05	NUMERICAL MODELLING OF DISCONTINUOUS FIBER-REINFORCED COMPOSITES Charles Castle (The University of Tokyo)
10:25 - 10:40	S06	Effect of Anisotropic Ration of Nonwoven CFRTP core on Flexural and Failure Behaviour of Aandwich Structure Linghan Fang (The University of Tokyo)
10:40 - 10:55	S13	POST-MACHINING DAMAGE CHARACTERIZATION OF LONG FIBER NON-WOVEN REINFORCED COMPOSITES Shunta Kijima (Tokyo University of Science)
10:55 - 11:10	S17	LIFE CYCLE COST EVALUATION AND MATERIAL APPLICABILITY STUDY FOR FLOATING VERTICAL AXIS WIND TURBINES Jiaxin Li (The University of Tokyo)
11:10 - 11:25	S21	Prediction method for fiber orientation and curvature on recycled CFRP using machine learning Ryo Minegishi (Hosei University)
11:25 - 11:40	S27	THE EFFECT OF PROCESSING CONDITIONS ON SURFACE DEFECT OCCURRENCE IN PULTRUDED CFRTP PIPES Riki Oishi (Gifu University)
11:40 - 11:55	S29	Structural modelling and tensile behavior prediction of recycled composties based on mechanically shredded compostie scraps. Park Hojeong (Ulsan National Institute of Sceince and Technology)
Student session 5 (Room 6)		
15:20 - 15:35	S14	STUDY ON IMPROVING ADHESION IN OVERMOLDING PROCESS VIA INJECTION-COMPRESSION MOLDING Donguk Kim (Ulsan National Institute of Science and Technology)
15:35 - 15:50	S16	Influence of Matrix Type and Processing Route on Sliver-Based Recycled Carbon Fiber Composites LEE Jia Mei (The University of Tokyo)
15:50 - 16:05	S19	TAPE CUT ANGLE EFFECTS ON TENSILE PROPERTIES VARIATION OF CFRTP-SMC VALUATED BY MONTE CARLO SIMULATION AND EXPERIMENT VALIDATION Peng Lu (The University of Tokyo)
16:05 - 16:20	S22	A STUDY ON STRUCTUAL MATERIAL SELECTION IN DIVERSE WIND TURBINE SYSTEMS: A LIFE CYCLE CO ₂ AND LIGHTWEIGHTING PERSPECTIVE Takumi Morishima (The University of Tokyo)
16:20 - 16:35	S23	Mechanical Properties of CNF-Added Woven CFRP Laminates Kyota Murai (Tokyo University of Science)
16:35 - 16:50	S25	TOPOLOGY-CONSTRAINED U-NET FOR DELAMINATION MAPPING IN BALLISTIC-DAMAGED GFRP Akira Nakagawa (The University of Tokyo)
16:50 - 17:05	S34	Numerical Simulation of Thermal Cycle Fatigue in CFRPs Cross-ply Laminates Based on Entropy Damage Criterion Takumu Sugiyama (Tokyo University of Science)
Dec. 4, 2025		
Student session 6 (Room 6)		
10:00 - 10:15	S10	Degradation Characteristics of a 3D Printed PEEK resin by Short Wavelength Ultraviolet Lights Irradiations Rina Ishibashi (Nihon University)
10:15 - 10:30	S24	Powder Impregnation Behavior of CFRTP Semipreg Sheets in Various Thermoforming Processes Seiran Murata (Kindai University)
10:30 - 10:45	S28	THERMAL HISTORY AND CRYSTALLINE STATE ANALYSIS OF CFRTP DURING AFP LAMINATION PROCESS Yuga Ono (Meiji University)
10:45 - 11:00	S30	WIND-INDUCED EXTERNAL LOAD AND STRUCTURAL RESPONSE OF CFRP-BASED VAWT BLADES Ruan Chenlong (The University of Tokyo)
11:00 - 11:15	S33	CHARACTERIZATION OF CFRTP-SMC SURFACE MORPHOLOGY USING PRE-TRAINED DEEP LEARNING FEATURES Chikato Shoji (The University of Tokyo)
11:15 - 11:30	S35	Observation and evaluation of voids inside CFRTP in molds using X-ray CT Reo Sugiyama (Matsuzaki Lab., Tokyo University of Science)
11:30 - 11:45	S39	LONG-TERM HYDROTHERMAL AGING EFFECTS ON MECHANICAL AND INTERFACIAL PROPERTIES OF RECYCLED CARBON FIBERS Qiuqun WANG (The University of Tokyo)
11:45 - 12:00	S40	MESOSCALE NUMERICAL MODELING AND TENSILE MECHANICAL PROPERTY PREDICTION OF SHEET MOLDING COMPOUNDS WANG ZHIYU (The University of Tokyo)
Student session 7 (Room 6)		
14:40 - 14:55	S32	The study on calculation method of fracture toughness values assuming large deformation of beams in DCB tests Shirai Kota (Tokyo University of Science)
14:55 - 15:10	S41	FABRICATION AND STRUCTURAL PERFORMANCE COMPARISON OF RECYCLED NON-WOVEN CARBON FIBER BEAMS XU DUOTAO (The University of Tokyo)
15:10 - 15:25	S43	Evaluation of the Effect of Machining Damage on the Strength of CFRP Open-Hole Compression Test Specimens Takamatsu Yoshinaga (Meiji University)
15:25 - 15:40	S44	INTERFACIAL BONDING ANALYSIS OF CFRTP SANDWICH STRUCTURES WITH RECYCLED CARBON FIBER ZHANG FAN (The University of Tokyo)

JISSE-19 技術セミナー(日本語)

番号	セミナー	講師名 (所属)	プログラム
1	強化繊維	内藤 公喜 (NIMS)	12/2 Room2 10:40-12:00
2	複合材料設計の基礎	木本 幸胤 (名古屋大学)	12/2 Room2 13:40-14:40
3	航空機業界に参入するための基礎 知識と留意点	吉田 裕一 (元 三菱重工業/ 三菱航空機)	12/2 Room2 14:40-15:40
4	FRP成形技術	鵜澤 潔 (金沢工業大学/ICC)	12/2 Room2 16:00-16:40
5	CFRPおよび複合材料工学における 教育と知識フレームワーク ー グローバルな視点から	万 熠 (東京大学)	12/3 Room2 9:40-10:40
6	3D TIMONにおける射出・プレス成 形シミュレーション方法と適用事例	坂場 克哉 (東レエンジニアリング D ソリューションズ(株))	12/3 Room2 10:40-11:40
7	複合材料試験法	原 栄一 (JAXA)	12/3 Room2 15:20-16:20
8	欧米のコンポジット開発と生産につ いて (欧米のCFRPのその後)	外山 寿 (Cannon S.p.A.)	12/3 Room2 16:20-17:00
9	有限要素法(FEM)によるCFRP積層 板の損傷進展シミュレーション	長嶋 利夫 (上智大学)	12/4 Room1 9:00-10:00
10	熱可塑CFRPの設計と性能	石川 健 (三菱ケミカル)	12/4 Reception1 9:00-10:00
11	接着	内藤 公喜 (NIMS)	12/4 Room2 9:00-10:00
12	FRP破壊メカニズム	大島 草太 (東京農工大学)	12/4 Room2 10:00-11:00
13	FRP成形における金型設計	宅石 敦 (保田鉄工所)	12/4 Room2 11:00-12:00
14	マトリックス樹脂	西田 裕文 (金沢工業大学)	12/4 Room2 14:20-16:20

