



**CANCOM 2024**  
DRIVING THE FUTURE OF COMPOSITES



# CANCOM 2024

**13th Canadian-International Conference on Composites**

**Waterloo, Ontario  
August 6-9<sup>th</sup>, 2024**

**“Driving the Future of Composites”**

**<https://cancom2024.ca/>**

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# Welcome

We are honoured to welcome you to the 13th Canadian-International Conference on Composites (CANCOM 2024), taking place in Waterloo, Ontario from August 6<sup>th</sup> to 9<sup>th</sup>, 2024.

CANCOM 2024 is a premier gathering of professionals, researchers, and experts in composite materials in Canada. This event serves as a platform for sharing knowledge, fostering collaborations, and advancing our understanding of key issues in the field. The main theme for CANCOM 2024 is “Driving the future of composites” in the automotive and aerospace sectors, two prominent manufacturing segments in Southwestern Ontario. We aimed to increase industry involvement with this conference and have invited guests from both the automotive and aerospace composites industries in North America. This conference is supported by the Canadian Association for Composite Materials and Structures (CAC SMA).

We have planned a dynamic and engaging program which includes an offsite Industry Day Workshop on Aug 6, followed by three days of technical sessions from Aug 7-9 at the University of Waterloo campus. A day dedicated to the industry will be hosted by the Fraunhofer Innovation Platform for Composites Research at Western University on August 6, 2024. It will feature presentations from local and national speakers from leading technological sectors, a panel discussion on the future of composites, as well as tours and workshops. We have three keynote presentations from prominent members of our community, many exciting technical presentations, and a session on Equity, Diversity, and Inclusivity as part of the main conference. Your contributions will play a vital role in shaping the discussions and outcomes of CANCOM 2024.

We look forward to a great event and welcome you all again to CANCOM 2024!

Dr. John Montesano (University of Waterloo)

Peter Richter (SAMPE Canada)

Dr. Garrett Melenka (York University)

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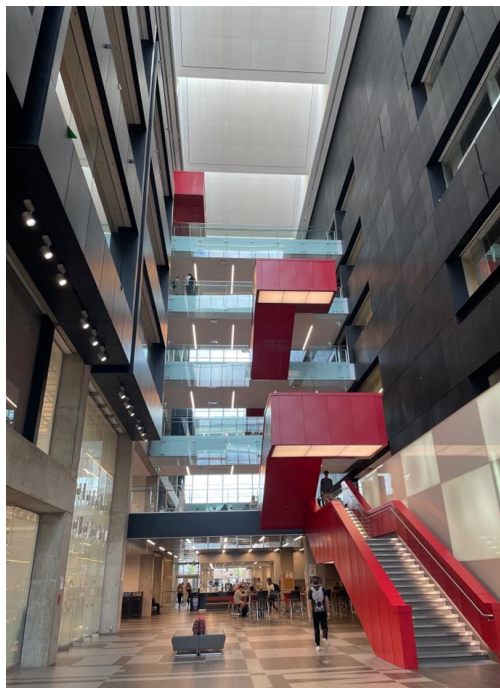
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ENGINEERING



## Venue Overview (Engineering 7)

This year, CANCOM 2024 is being held at the University of Waterloo Campus in the Engineering 7 (E7) building. E7 at the University of Waterloo was designed and built with a clear purpose in mind: to revolutionize how engineers are educated. Featuring a cutting-edge “RoboHub” for testing autonomous and robotic vehicles, an experiential learning Engineering Ideas Clinic™, a 3D printing laboratory, lecture halls, and an engineering outreach space for youth, E7 is a building intended to transform education and research in Canada and around the world.

The CANCOM Organizing Committee acknowledges the incredible support from the University of Waterloo Faculty of Engineering, which includes the use of the event space in the atrium and the lecture halls in building E7.





## General Information

Please find below information to aid in your conference experience!

### Registration and Information

Registration for the conference will be held in the Main Hall on the second floor of Building E7, beginning at 8:00 AM on August 7 and continuing throughout the week. We encourage all attendees to arrive early to complete their registration and receive their conference materials. Our friendly volunteers will be available to assist you and ensure a smooth and efficient registration process.

For attendees participating in Industry Day on August 6, registration will be held at the bus pick-up location at building E7 prior to bus departure. Alternatively, for those driving to Industry Day, registration will be on-site at the Fraunhofer Innovation Platform for Composites Research (2520 Advanced Ave, London, ON N6M 0E1) beginning at 8:15 AM. All participants, accompanying persons and exhibitors must wear name badges to access the conference. Everyone would be given a name badge when registering at the registration desk. If you need corrections on your badge, please visit the registration desk for a replacement.

### Conference papers

The program book contains only the titles of each paper. Full papers are included in the proceeding USB.

### Lunches and Coffee Breaks

We are pleased to host you for lunches, as well as coffee, tea, water, and light refreshments during the morning and afternoon breaks, in the main hall of the conference.

### Welcome Reception

The welcome reception will be held in the Sedra Student Design Centre on the first floor of Engineering 5 (E5) from 5: 00 PM. to 6:30 PM on August 7th, 2024. Hors d'oeuvres, canapes, and drink tickets will be provided.

## Internet Access

Two wireless connections are available on the UW Campus: *eduroam* and *UniversityOfWaterloo*. *Eduroam* is available for users at participating institutions (i.e. researchers, instructors, students, and staff). For other guests, one can register for guest access with the *UniversityofWaterloo* network. Enter your first name, last name and email address into each respective field and then click "Register." A confirmation code will be sent via email, and this should be entered into the pop-up window within 10 minutes to connect to the Wi-Fi.

## Slack Access

To facilitate communication for attendees during the conference, we have set up Slack for real-time notifications. Please sign up using the link below to stay updated:

- <https://slack.com> (If you do not have an account, create one with your email).
- Join the CANCOM 2024 Slack workspace for real-time updates using the link ([https://join.slack.com/t/cancom2024/shared\\_invite/zt-2kw7zob0j-sNG15Uvr85v9LEpJdOf0Kw](https://join.slack.com/t/cancom2024/shared_invite/zt-2kw7zob0j-sNG15Uvr85v9LEpJdOf0Kw)) or **QR code below**:



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## Banquet

The conference banquet will be held at [Tapestry Hall](#) on Thursday, August 8<sup>th</sup>, which is located in the historic [Gaslight District](#) of Cambridge.

Attendees can conveniently sign up for transportation time slots for the banquet dinner while on-site during the conference. Registration for the time slots, shown below, will be available at the conference venue, ensuring everyone has a scheduled ride to the event. Please visit the registration area to reserve your preferred time slot and ensure a smooth and enjoyable evening.

**Address:** [74 Grand Ave S, Cambridge, ON N1S 2L9.](#)

Bus Options	Option 1	Option 2	Option 3	Option 4
Departure from <b>E7</b>	4:15 PM	4:30 PM	5:15 PM	5:30 PM
Return from <b>Tapestry Hall</b> (Cambridge)	09:00 PM	9:15 PM	10:00 PM	10:15 PM





## Equity, Diversity, and Inclusion (EDI) Workshop

Equity, Diversity, and Inclusion (EDI) Workshop will be held on August 8<sup>th</sup> from 2:20 PM to 4:00 PM at the main conference hall. The goal of this workshop is to share perspectives from panelists and the audience on various topics related to Diversity, Equity, and Inclusion (DEI). Topics include work-life balance, flexible work environments, barriers, working with a disability, etc. This workshop has three objectives:

- Foster learning and understanding among attendees.
- Encourage open discussions and sharing of personal experiences.
- Identify potential action items that we can take together as a community.

During the workshop, initially, each panelist will briefly introduce themselves and explain the workshop detail. Then moderator will ask questions to the panelists on topics include work-life balance, flexible work environments, barriers, working with disability, etc. These question and answer can also be happened by the audience. Finally, at the end of the event, the key features of the workshop will be summarized and closing remarks will be provided.

### Moderator

#### Name

Julieta Barroeta Robles

#### Affiliation

NRC

### Panelists

#### Name

Anoush Poursartip

Fréderrick Gosselin

Duncan Cree

#### Affiliation

UBC

Polytechnique Montréal  
University

McMaster University

#### Name

Habiba Bougherara

Ayatullah Elsayed

Atefeh Nabavi

#### Affiliation

TMU

York University

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# Industry Day Workshop:

## Fraunhofer Innovation Platform for Composites

### Research at Western University

The industry day will be hosted by the FIPC at Western University on August 6, 2024. Bus transportation is provided between the University of Waterloo and the Fraunhofer Innovation Platform.



<b>Pick-up Location:</b> In front of the E7 Building (See the campus map).	<b>Breakfast:</b> Provided at the FIPC.
<b>Departure Time:</b> 7:00 AM (Arrive 10 minutes earlier).	<b>Estimated Return:</b> 5:15 PM to the University of Waterloo

### Overview

After the quick continental breakfast, the Industry Day program will commence at 9:00 AM, with an orientation and welcome session conducted by Peter Richter and Dr. Andy Hrymak. The first section will feature a keynote presentation from Dr. Frank Henning on, **“The Present State of the Art in Composites Manufacturing.”** This will be followed by a presentation from **Dr. Jeff VanHeumen** on **“The Productivity Gap in Composites”**, and **Dr. Casey Keulen** discussing **“The Composites Knowledge Network.”**

The second segment of Industry Day is dedicated to two parallel streams of presentations focused on low and high-volume manufacturing. The titles of each presentation are detailed in Table 1. Attendees are invited to select sessions according to their interests and preferences.

Table 1. List of presentations on industrial day

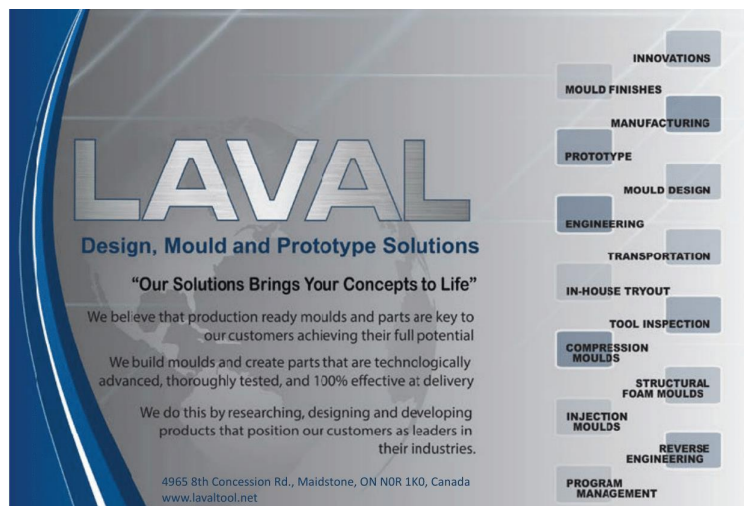
LOWER-VOLUME HAND PROCESSES	HIGHER VOLUME AUTOMATION
Digital steps in the composites shop by Peter Richter	High Volume Composite Technologies by Louis Kaptur
Advanced Forming Technology by Meysam Rahmat	World's Fastest Tape Laying System for Composite Components by Peter McCormack
Stronger, Lighter, More Sustainable Parts by - Jordan Kalman	Comp. Based on Additive Manufacturing (CBAM) by Jeff Degrange
Next Generation AFP by John Russell	Integrating Electro-Thermal Deicing and Structural Opt. with TFP Technology by Dr. Atefeh Nabavani
TBC	Implementation of fast-cure thermoset prepreg materials on flying platforms by Kevin Dupuis

Following the lunch and networking break, a panel discussion on “**Composite Automation: Barriers, Hurdles, and Opportunities**” will be moderated by **Barry Barnett**. The fourth part of Industry Day will include FIP tours, workshops, and case studies. Participants can select specific streams based on their interests, as detailed in Table 2.

Table 2. Workshop Sessions

Stream 1	Stream 2	Stream 3
FIPC Tour I	Stronger lightweight parts by Jordan Kalman	First Steps in Automation by Peter Richter
Buying an AFP by John Russell	FIPC Tour II	Canadian Funding by Jeff VanHeumen
Press selection by Peter McCormack	KPC by Casey Keulen	FIPC Tour III

The final keynote will focus on the future of composites and will be presented by **Dr. Anoush Poursartip**. After closing remarks, attendees will be returned to Waterloo University by bus.



## Main Conference Keynote Speakers

Dr. Larry Ilcewicz is the US Federal Aviation Administration (FAA) Chief Scientist and Technical Advisor for Composite Materials. He started FAA work in 1998 with many certification activities for transport aircraft, small airplanes, and rotorcraft. He also has experiences in accident investigations and service problems involving composites. These experiences helped Larry develop and execute an international plan for composite safety and certification initiatives, which involved work with industry, academia, and other government groups to establish regulatory guidance, training, and standardization. Such efforts continue to form a basis for FAA and industry aviation safety composite priorities for the future.

Larry came to the FAA from Boeing, where he worked 17 years on various programs in the commercial transport aircraft division, including support to 737, 757, 767 and 777 aircraft in various stages of development, production, and service. Larry was also principal investigator for NASA-funded research to develop composite design and manufacturing concepts for a wide-body transport fuselage in the 1990s. Boeing helped sponsor his PhD in Mechanical Engineering at Oregon State University. Larry has authored/co-authored more than 90 technical publications, including several FAA policy and guidance documents. He was co-chairman for Composite Materials Handbook 17, CMH-17, for more than 25 years. In 2013, he received the Presidential Rank Award and, in 2018, he received the American Institute of Aeronautics and Astronautics Crichlow Trust Prize.



**Larry Ilcewicz**

**Keynote Speech:**  
***Certifying Innovative  
Composite  
Applications***





## Silvestre Pinho

**Keynote Speech:**  
***Numerical  
 simulation of very  
 large composite  
 structures***

Silvestre Taveira Pinho is Deputy Head of the Department of Aeronautics, Airbus Chair in Composites, Professor in Mechanics of Composites and EPSRC Research fellow at Imperial College London. His group has developed various analytical and numerical models for failure of composites, some of which currently ship natively in both Abaqus and LS-Dyna. His group has also developed bio-inspired microstructures for composites which lead to an over fivefold increase in energy dissipation during failure. Silvestre was awarded in 2010 by the European Society for Composite Materials (ESCM) the prize for best young researcher in Composites active in Europe. Silvestre is a member of the Executive Council and Head of the Information Committee of the International Community for Composite Materials, and a member of the Royal Aeronautical Society Structures & Materials Specialist Committee. He also served as a member of the Council and of the Executive Committee of the European Society for Composite Materials from 2012 to 2022. Silvestre was awarded two distinct fellowships from the UK's Engineering and Physical Sciences Research Council (2014 and 2022). Earlier this year, Silvestre authored the chapter on aviation of the UK's NetZero All-Party Parliamentary Group Myth-busting report on NetZero.

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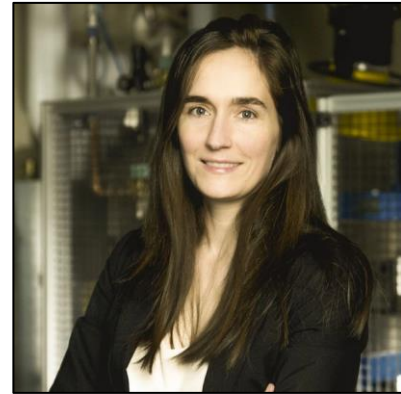


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Martine Dubé is professor in the Department of Mechanical Engineering at École de technologie supérieure in Montréal, Canada and co-director of the Research Center for High Performance Polymer and Composite Systems (CREPEC), a strategic cluster comprising 80 researchers from the polymer and composite fields in the province of Québec. She leads a research group focussed on the development of manufacturing and joining processes for thermoplastic composites for applications in the space, aerospace and other industries. In 2021, she became the chairholder of the Marcelle Gauvreau Research Chair on Sustainable Composite Materials. The research chair activities include the development of recycling routes for thermoplastic composites production wastes. Before her appointment as a professor in 2011, she worked at Bombardier Aerospace where she contributed to the development of repair methods for composite structures. Professor Dubé holds a Bachelor's and a Master's degree from Polytechnique Montréal and a PhD from McGill University. She worked as a CNRS post-doctoral research fellow for two years at École Polytechnique in France.



## Martine Dubé

### Keynote Speech:

***Recycling routes for thermoplastic composites pre-impregnated wastes***



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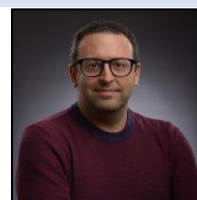
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## Committees

### Organizing Committee

**John Montesano** University of Waterloo



**Peter Richter** SAMPE Canada



**Garrett Melenka** York University



### Student Organizing Committee

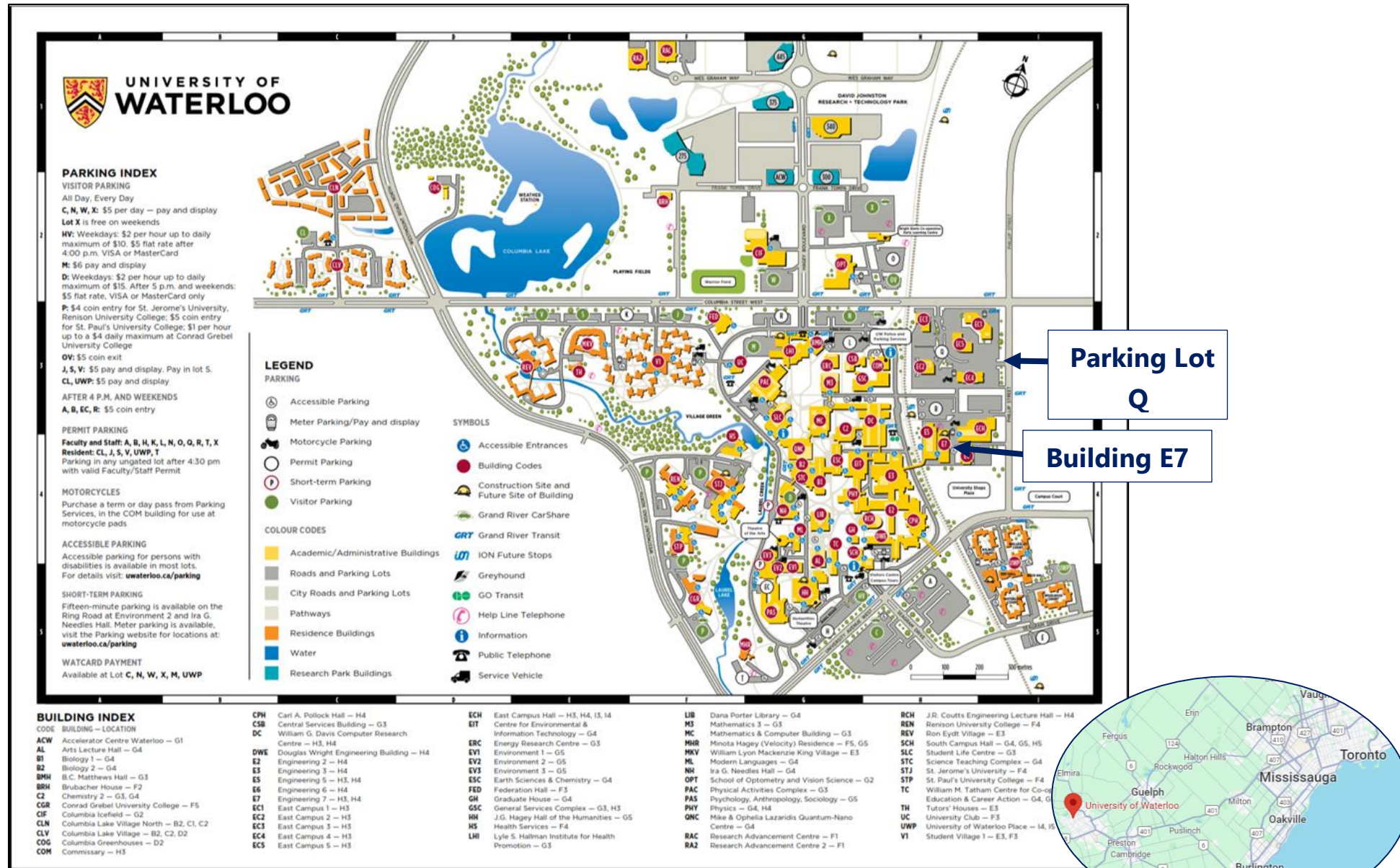
Name	Affiliation	Name	Affiliation
Victor Erli Shi	University of Waterloo	Ayatullah Elsayed	York University
Khizar Rouf	University of Waterloo	Ayshan Soltansaleki	York University
Yu Zeng	University of Waterloo	Thomas Barbuio	York University
Valerie Ajayi	University of Waterloo	Shauvik Pahari	York University
Zohreh Mohammadi	University of Waterloo	Ningwei Huang	University of Waterloo
Renan Portela	University of Waterloo		

### Scientific Committee

Name	Affiliation	Name	Affiliation
Kazem Fayazbakhsh	TMU	Andrew Johnston	NRC
Irina Garces	Carleton University	Tizazu Mekonnen	University of Waterloo
Jeremey Laliberte	Carleton University	Leonardo Simon	University of Waterloo
Francois Robitaille	University of Ottawa	Cagri Ayranci	University of Alberta
George Zhu	York University	Joanna Wong	University of Calgary
Reza Rizvi	York University	Jamie Hogan	University of Alberta
Siu-Ning (Sunny) Leung	York University	Yasmine Abdin	UBC
Aleksander Czekanski	York University	Sardar Malek	University of Victoria
Andrew Hrymak	Western University	Duncan Cree	U of Saskatchewan
Frank Henning	Western University	Sam Nakla	Memorial University
Lucy Li	NRC	Ahmed Elruby	Memorial University



# University of Waterloo Campus Map





# University of Waterloo E7 Floorplan, 1<sup>st</sup> and 2<sup>nd</sup> Floorss



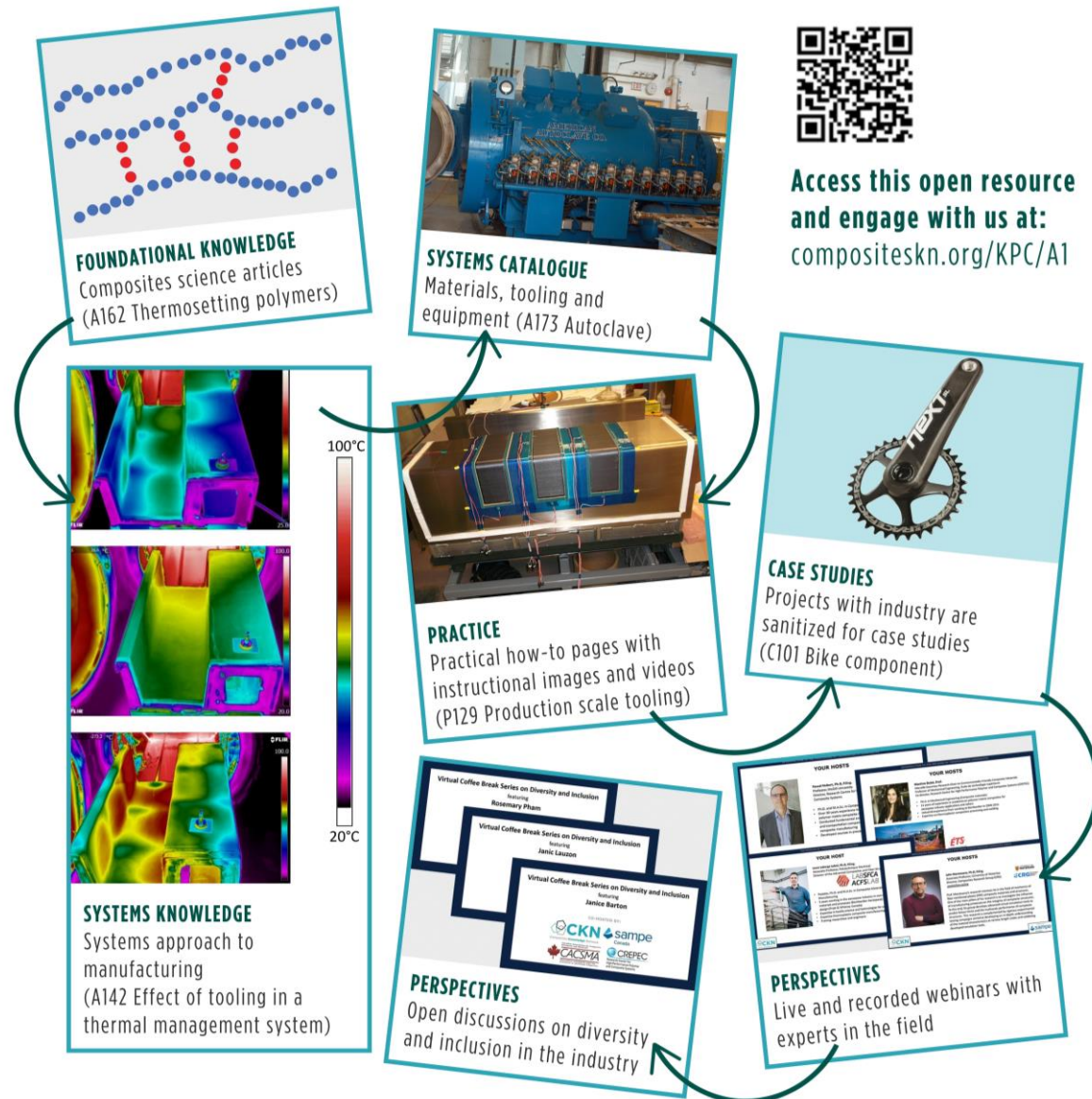
## Engineering 5 Building Entrance





## Knowledge in Practice Centre

A resource for learning and applying scientific knowledge to the practice of composites manufacturing.







## Programme Overview

Wednesday August 7th					Thursday August 8th					Friday August 9th			
Time	Room #2409	Room #2317	Room #2004	Room #2324	Time	Room #2409	Room #2317	Room #2004	Room #2324	Time	Room #2409	Room #2317	Room #2324
8:00 AM	Continental Breakfast and Registration at Main Hall				8:00 AM	Continental Breakfast and Registration at Main Hall				8:00 AM	Continental Breakfast and Registration at Main Hall		
9:00 AM	Keynote by Larry Ilcewicz at Main Hall				9:00 AM	Keynote by Silvestre Taveira Pinho at Main Hall				9:00 AM	Keynote by Martine Dube at Main Hall		
10:00 AM	Break				10:00 AM	Break				10:00 AM	Break		
10:20 AM	Behaviour/ Performance	Materials and Structures	Modeling	Industry	10:20 AM	Materials and Structures	Characterization	Behaviour/ Performance	Manufacturing	10:20 AM	Characterization	Modeling	Manufacturing
12:00 AM	Lunch at Main Hall				12:00 AM	Lunch at Main Hall				12:00 AM	Lunch at Main Hall		
1:00 PM	Materials and Structures	Modeling	Manufacturing	Industry	1:00 PM	Application & Industry	Sustainability	Characterization	Behaviour/ Performance	1:00 PM	Modeling	Manufacturing	Materials and Structures
					2:00 PM	Coffee at Main Hall							
2:40 PM	Coffee at Main Hall				2:20 PM	EDI Session at Main Hall				2:40 PM	Coffee at Main Hall		
3:00 PM	Room #2409 Student Paper Competition 1-5		Room #2324 Student Paper Competition 6-10							3:00 PM	Coffee break and closing remarks		
5:00 PM	Welcome Reception at Main Hall				4:00 PM	Transportation to Banquet							
					5:30 PM	Banquet- Tapestry Hall							

## Technical Program- Industry Day (Tuesday August 6<sup>th</sup>)

TUESDAY, 6 AUG 2024			
Time			
6:55 AM	Transportation To FIP		
8:15 AM	Arrival and Breakfast at the Fraunhofer Project Centre		
9:00 AM	Welcome & Orientation Peter Richter and Dr. Andy Hrymak		
9:30 AM	Keynote. The Present State of the Art in Composites Manufacturing by Dr. Frank Henning		
10:00 AM	Talk No 1. The Productivity Gap in Composites by Dr. Jeff VanHeumen		
10:20 AM	Talk No 2. The Composites Knowledge Network by Dr. Casey Keulen		
10:40 AM	Coffee Break		
	STREAM 1 – Lower volume hand processes	STREAM II – Higher volume automation	
10:50 AM	#1 – Digital steps in the composites shop Peter Richter	#1 – High Volume Composite Technologies Louis Kaptur	
11:10 AM	#2 – Advanced Forming Technology – Meysam Rahmat	#2 – World's Fastest Tape Laying System for Composite Components – Peter McCormack	
11:30 AM	#3 – Stronger, Lighter, More Sustainable Parts- Jordan Kalman	#3- Comp. Based Additive Manufacturing (CBAM) – Jeff Degrange	
11:50 AM	#4 – Next Generation AFP – John Russell	#4 –Integrating Electro-Thermal Deicing and Structural Opt. with TFP Technology Dr. Atefeh Nabavani	
12:10 AM	5 TBC	#5 Implementation of fast cure thermoset prepreg materials on flying platforms – Kevin Dupuis	
12:30 PM	Lunch		
1:15 PM	Panel Discussion: Composite Automation: Barriers, hurdles and opportunities, what does the coming wave have to offer? Barry Barnett		
2:15 PM	Coffee		
	Stream I	Stream II	Stream III
2:30 PM	FIPC Tour I	Stronger lightweight parts	First steps in Automation
3:00 PM	Buying an AFP	FIPC Tour 2	Canadian Funding
3:30 PM	Press selection	KPC	FIPC Tour 3
4:00 PM	Future composite Dr. Anoush Poursartip		
4:30 PM	Closing remarks		
4:35 PM	Back to Waterloo		

# Technical Program (Wednesday August 7<sup>th</sup>)

	Wednesday, August 7th			
Time	Room #2409	Room #2317	Room #2004	Room #2324
8:00am	Continental Breakfast and Registration at Main Hall			
9:00am	Keynote #1 Presented by Larry Ilcewicz at Main Hall			
10:00am	Coffee Break			
10:20am	Behaviour/ Performance #1 Paper ID 103 By Emad Pourahmadi	Materials and Structures #6 Paper ID 13 By Ayshan Soltansaleki	Modeling #11 Paper ID 89 By Peyman Shabani	Industry #1 Paper ID 12 By Richard P Matthews
10:40am	Behaviour/ Performance #2 Paper ID 90 By Lucy Li	Materials and Structures#7 Paper ID 33 By Sampada Bodkhe	Modeling #12 Paper ID 114 By Anthony Gudisey	Industry #2 Paper ID 133 By Weiping Liu
11:00am	Behaviour/ Performance #3 Paper ID 95 By Abdelrahman Elsafty	Materials and Structures #8 Paper ID 38 By Bingjie Niu	Modeling #13 Paper ID 15 By Milad Kazemian	Industry #3 Paper ID 147 By Jeff DeGrange
11:20am	Behaviour/ Performance #4 Paper ID 62 By Shauvik Pahari	Materials and Structures #9 Paper ID 52 By Amirhossein Darbandi	Modeling #14 Paper ID 84 By Evans J Frandsen	Industry #4 Paper ID 5 By Qinghua SONG
11:40am	Behaviour/ Performance #5 Paper ID 112 By Eric Lepp	Materials and Structures #10 Paper ID 76 By Joshua T. H. Bertram	Modeling #15 Paper ID 105 By Olivia M Chamberland	Industry #5 Paper ID 88 By Casey Keulen
12:00pm	Lunch at Main Hall			
1:00pm	Materials and Structures #16 Paper ID 10 By Jiawei Chen	Modeling #21 Paper ID 24 By Fernanda Blanc Soto	Manufacturing #26 Paper ID 9 By Bjoern Beck	Industry #6 Paper ID 132 By Geoffrey E Clarkson
1:20pm	Materials and Structures #17 Paper ID 58 By Raphael Blier	Modeling #22 Paper ID 64 By Muhammad Waqas Ashra	Manufacturing #27 Paper ID17 By Thomas J Barbuio	Industry #7 Paper ID 137 By Jun Liu
1:40pm	Materials and Structures #18 Paper ID 59 By Iyimide O Shola-Shittu	Modeling #23 Paper ID 87 By Jennifer L Sears	Manufacturing #28 Paper ID 47 By Teck Ry Looi	Industry #8 Paper ID 61 By Yi Geng
2:00pm	Materials and Structures #19 Paper ID 102 By Abdelhadi Hadj-Djilani	Modeling #24 Paper ID 109 By Yu Zeng	Manufacturing #29 Paper ID 67 By Pooyan Nayyeri	Industry #9 Paper ID 86 By Francois Robitaille
2:20pm	Materials and Structures #20 Paper ID 118 By Asif Mohammed	Modeling #25 Paper ID 141 By Austin D Bedrosian	Manufacturing #30 Paper ID 78 By Klaas Peters	
2:40pm	Coffee at Main Hall			
	Room #2409		Room #2324	
3:00pm	Student Paper Competition #1		Student Paper Competition #6	
3:20pm	Student Paper Competition #2		Student Paper Competition #7	
3:40pm	Student Paper Competition #3		Student Paper Competition #8	
4:00pm	Student Paper Competition #4		Student Paper Competition #9	
4:20pm	Student Paper Competition #5		Student Paper Competition #10	
5:00pm	Welcome Reception at Main Hall			

## Technical Program (Thursday August 8th)

Thursday, August 8th				
Time	Room #2409	Room #2317	Room #2004	Room #2324
8:00am	Continental Breakfast and Registration at Main Hall			
9:00am	Keynote #2 Presented by Silvestre Taveira Pinho at Main Hall			
10:00am	Break			
10:20am	Materials and Structures #1 Paper ID 119 By Ryan J Solmon	Characterization #6 Paper ID 75 By Maria Anna A Polak	Behaviour/ Performance #11 Paper ID 94 By Abdelrahman Elsafty	Manufacturing #16 Paper ID 20 By Sepanta Mandegarian
10:40am	Materials and Structures #2 Paper ID 63 By Mehrnoosh Kazeruni	Characterization #7 Paper ID 25 By Tarun Khapra	Behaviour/ Performance #12 Paper ID 99 By Sara Neyestani	Manufacturing #17 Paper ID 68 By Olivier Duchesne
11:00am	Materials and Structures #3 Paper ID 65 By Naiheng Song	Characterization #8 Paper ID 77 By Ahmed Samir Ead	Behaviour/ Performance #13 Paper ID 107 By Kate Bennett	Manufacturing #18 Paper ID 80 By Romain G Martin
11:20am	Materials and Structures #4 Paper ID 79 By Amir Nourbakhsh Habibabadi	Characterization #9 Paper ID 108 By Valerie Ajayi	Behaviour/ Performance #14 Paper ID 111 By Mahima Dua	Manufacturing #19 Paper ID 122 By Samuel Osorio Marino
11:40am	Materials and Structures #5 Paper ID 57 By Anahita Homavand	Characterization #10 Paper ID 139 By Mohammad Amin Amindehghan	Behaviour/ Performance #15 Paper ID 136 By Erli Shi	Manufacturing #20 Paper ID 123 By Sara da Costa Pessoa
12:00pm	Lunch at Main Hall			
1:00pm	Application and Industry #21 Paper ID 8 By Dogan Arslan	Sustainability #24 Paper ID 134 By Maryam Sodagar	Characterization #27 Paper ID 16 By Pascal Hubert	Behaviour/ Performance #30 Paper ID 82 By Marco Alfano
1:20pm	Application and Industry #22 Paper ID 98 By Saeed Habibpour	Sustainability #25 Paper ID 135 By Ihsan Basaran	Characterization #28 Paper ID 6 By Pouria Tavakkoli Avval	Behaviour/ Performance #31 Paper ID 113 By Sherry Kiafar
1:40pm	Application and Industry #23 Paper ID 120 By Julieta Barroeta Robles	Sustainability #26 Paper ID 93 By Ahmad F Alzaid	Characterization #29 Paper ID 106 By Renan Miranda Portela	Behaviour/ Performance #32 Paper ID 34 By Jialin Zhang
2:00pm	Coffee at Main Hall			
2:20pm	EDI Session at Main Hall			
4:00pm	Transportation to Banquet			
5:30pm	Banquet at Tapestry Hall (Doors at Tapestry Hall will open at 5:30 PM)			



## Technical Program (Friday August 9th)

	Friday, August 9th		
Time	Room #2409	Room #2317	Room #2324
8:00am	Continental Breakfast and Registration at Main Hall		
9:00am	Keynote #3 Presented by Martine Dube at Main Hall		
10:00am	Break		
10:20am	Characterization #1 Paper ID 19 By Pierre Mertiny	Modeling #6 Paper ID 55 By Mahmoud Fereidouni	Manufacturing #11 Paper ID 26 By Trung V Nguyen
10:40am	Characterization #2 Paper ID 74 By Palacios Moreno	Modeling #7 Paper ID 73 By Maggie Chong	Manufacturing #12 Paper ID 81 By Soroush Azhdari
11:00am	Characterization #3 Paper ID 45 By El Mehdi E El Mekhchi	Modeling #8 Paper ID 115 By Khizar Rouf	Manufacturing #13 Paper ID 92 By Daniel Therriault
11:20am	Characterization #4 Paper ID 130 By Zijian Wang	Modeling #9 Paper ID 128 By Sanaz SS Saadatmand Hashemi	Manufacturing #14 Paper ID 127 By Dora Strelkova
11:40am	Characterization #5 Paper ID 126 By Zohreh Mohammadi	Modeling #10 Paper ID 117 By Samuel Hénault	Manufacturing #15 Paper ID 46 By Feiyun Zhang
12:00pm	Lunch at Main Hall		
1:00pm	Modeling #16 Paper ID 85 By Tiantian Ke	Manufacturing #21 Paper ID 21 By Piyush Lashkari	Materials and Structures #26 Paper ID 14 By Hamidreza Yazdani Sarvestani
1:20pm	Modeling #17 Paper ID 91 By Shahil Hamid	Manufacturing #22 Paper ID 49 By Abdelhadi Blal	Materials and Structures #27 Paper ID 37 By Zeshi Li
1:40pm	Modeling #18 Paper ID 97 By Anthony P. R. Sherratt	Manufacturing #23 Paper ID 110 By Nima Bakhshi	Materials and Structures #28 Paper ID 54 By Guowei Chen
2:00pm	Modeling #19 Paper ID 104 By Arghyanil Bhattacharjee	Manufacturing #24 Paper ID 18 By Haresh Patil	Materials and Structures #29 Paper ID 56 By Alexandra Laxson
2:20pm	Modeling #20 Paper ID 43 By Willi Zschiebsch	Manufacturing #25 Paper ID 7 By Julieta Barroeta Robles	Materials and Structures #30 Paper ID 69 By Nichole Cheung
2:40pm	Coffee at Main Hall		
3:00pm	Coffee break and closing remarks		

## Presentations on Wednesday 7<sup>th</sup> August-Morning session

Wednesday, August 7th				
Time	Room #2409	Room #2317	Room #2004	Room #2324
	<b>Behaviour/ Performance I- Session Chair Thomas Barbuio</b>	<b>Materials and Structures I- Session Chair Anoush Poursartip</b>	<b>Modelling I- Session Chair Mehrnoosh Kazeruni</b>	<b>Industry I-Session Chair Pascal Hubert</b>
10:20 AM	INTERLAMINAR SHEAR STRENGTH OF CARBON/PEEK THERMOPLASTIC COMPOSITE LAMINATE IN-SITU CONSOLIDATED BY AUTOMATED FIBER PLACEMENT Paper ID <b>103</b> By <b>Emad Pourahmadi</b>	Enhancing Material Modeling in Additive Manufacturing: Studying a Void Analysis in 3D-Printed Coupon Test Samples by Using Micro-Computed Tomography ( $\mu$ CT) Paper ID <b>13</b> By <b>Ayshan Soltansaleki</b>	LOW-VELOCITY IMPACT (LVI) AND COMPRESSION AFTER IMPACT(CAI) OF DOUBLE-DOUBLE COMPOSITE LAMINATES Paper ID <b>89</b> By <b>Peyman Shabani</b>	THE CURRENT STATE OF COMPOSITE MATERIALS IN THE BICYCLE INDUSTRY Paper ID <b>12</b> By <b>Richard P Matthews</b>
10:40 AM	UNDERSTANDING THE EFFECT OF GLOBAL BUCKLING ON COMPOSITES DAMAGE TOLERANCE Paper ID <b>90</b> By <b>Lucy Li</b>	DIRECTIONALLY SENSITIVE 3D PRINTED PIEZOELECTRIC SENSORS FOR STRUCTURAL HEALTH MONITORING Paper ID <b>33</b> By <b>Sampada Bodkhe</b>	MODELING HYPERVELOCITY IMPACTS ON CFRP COMPOSITES USING AN ADAPTIVE FEM-SPH METHOD Paper ID <b>114</b> By <b>Anthony Gudisey</b>	EFFECTS OF PROCESSING PARAMETERS ON THE PROPERTIES OF CF/PPS LAMINATES MANUFACTURED BY LASER-ASSISTED IN-SITU CONSOLIDATION Paper ID <b>133</b> By <b>Weiping Liu</b>
11:00 AM	DIGITAL IMAGE CORRELATION OF E-GLASS/BECK GP 189 RESIN SOLUTION Paper ID <b>95</b> By <b>Abdelrahman Elsafty</b>	OPTIMIZATION OF FIBRE ORIENTATION WITH A CONTOUR-BASED FIBRE MAPPING METHOD Paper ID <b>38</b> By <b>Bingjie Niu</b>	PREDICTIVE MODELING FOR DAMAGE AND RESIDUAL LOAD-BEARING CAPACITY OF NON-CRIMP FABRIC COMPOSITES Paper ID <b>15</b> By <b>Milad Kazemian</b>	High-Temperature Polymer Composite Additive Manufacturing for Electronic Tooling Paper ID <b>147</b> By <b>Jeff DeGrange</b>
11:20 AM	ANALYSIS OF THE INTERFACE PROPERTIES OF MULTI-MATERIAL FFF PRINTED STRUCTURES Paper ID <b>62</b> By <b>Shauvik Pahari</b>	EFFECT OF HEAT TREATMENT ON POROSITY IN ASPHALTENE-DERIVED CARBON FIBERS Paper ID <b>52</b> By <b>Amirhossein Darbandi</b>	FAILURE MODE PREDICTION OF 2D TUBULAR BRAIDED COMPOSITES WITH TWISTED FIBERS AND GRAPHENE-INFUSED EPOXI Paper ID <b>84</b> By <b>Evans J Frandsen</b>	THE EFFECT OF AUTOCLAVE PROCESSING ON THE PERFORMANCE OF CF/PPS COMPOSITE LAMINATES Paper ID <b>5</b> By <b>Qinghua SONG</b>
11:40 AM	PRELIMINARY ANALYSIS OF DYNAMIC FREQUENCY & ARCHITECTURE ON THE FATIGUE LIFE OF TUBULAR BRAIDED COMPOSITES Paper ID <b>112</b> By <b>Eric Lepp</b>	VOXEL-BASED MULTI-MATERIAL 3D PRINTING USING FUSED DEPOSITION MODELING Paper ID <b>76</b> By <b>Joshua T. H. Bertram</b>	THE USE OF NEURAL NETWORKS FOR PIEZOELECTRIC DAMAGE SENSING IN COMPOSITE AEROSPACE STRUCTURES Paper ID <b>105</b> By <b>Olivia M Chamberland</b>	COMPOSITES EDUCATION IN CANADA: A SURVEY OF COMPOSITE MATERIALS COURSE OFFERINGS AT CEAB ACCREDITED INSTITUTES Paper ID <b>88</b> By <b>Casey Keulen</b>

## Presentations on Wednesday 7<sup>th</sup> August-Afternoon session

Wednesday, August 7th				
Time	Room #2409	Room #2317	Room #2004	Room #2324
	<b>Materials and Structures II- Session Chair Ayatullah Elsayed</b>	<b>Modelling II- Session Chair Khizar Rouf</b>	<b>Manufacturing I- Session Chair Shauvik Pahari</b>	<b>Industry II-Session Chair Marc Palardy- Sim</b>
1:00pm	FROM CNC-REINFORCED PVDF-HFP YARN TOWARDS PRESSURE SENSING TEXTILES Paper ID <b>10</b> By <b>Jiawei Chen</b>	NEURAL NETWORK KINETICS MODELLING OF CARBONFIBRE SHEET MOULDING COMPOUND Paper ID <b>24</b> By <b>Fernanda Blanc Soto</b>	Transferring the 3D Skeleton Winding process to industrial, automotive applications: advancements and implementation strategies Paper ID <b>9</b> By <b>Bjoern Beck</b>	DAMAGE DEVELOPMENT AND DETECTION IN POLYMERIC COMPOSITES Paper ID <b>132</b> By <b>Geoffrey E Clarkson</b>
1:20pm	STRENGTH ANALYSIS OF HYBRID BOLTED/BONDED COMPOSITE JOINTS BASED ON FINITE ELEMENT METHOD Paper ID <b>58</b> By <b>Raphael Blier</b>	EMPIRICAL AND BOOSTING MACHINE LEARNING-BASED PREDICTION MODELS FOR THE STRENGTH OF RICE HUSK ASH- CONCRETE Paper ID <b>64</b> By <b>Muhammad Waqas Ashra</b>	THERMAL CONSOLIDATION EFFECTS ON FLEXURAL PROPERTIES OF CONTINUOUS REINFORCED 3D-PRINTED COMPOSITES Paper ID <b>17</b> By <b>Thomas J Barbuio</b>	DESCRIBING THE STRESS RELAXATION BEHAVIOR OF PREPREGUSING A FRACTIONAL-ORDER VISCOELASTIC MODEL Paper ID <b>137</b> By <b>Jun Liu</b>
1:40pm	FATIGUE LIFE PREDICTION OF FLAX-EPOXY COMPOSITE USING MACHINE LEARNING TECHNIQUES Paper ID <b>59</b> By <b>Iyimide O Shola-Shittu</b>	A MACHINE LEARNING APPROACH TO PREDICT PROPERTIES OF CFRPS USING WCM PROCESSING PARAMETERS Paper ID <b>87</b> By <b>Jennifer L Sears</b>	THERMOMECHANICAL MODELING AND ANALYSIS OF A REDESIGNED PULTRUSION CAVITY DIE USING EXPERIMENTAL AND FINITE ELEMENT METHODS Paper ID <b>47</b> By <b>Teck Ry Looi</b>	PROCESSING OPTIMIZATION FOR AUTOMATED DRY FIBER PLACEMENT AND MECHANICAL PROPERTIES OF DRY FIBER REINFORCED COMPOSITES Paper ID <b>61</b> By <b>Yi Geng</b>
2:00pm	ASSESSING THE IMPACT OF ARTIFICIAL UV AGING ON THE MECHANICAL PERFORMANCE OF EPOXY COMPOSITES REINFORCED WITH FLAX: EXPLORING TENSILE STRENGTH PROPERTIES Paper ID <b>102</b> By <b>Abdelhadi Hadj-Djilani</b>	MULTISCALE FE MODELLING AND NEURAL NETWORK TO PREDICT THE RATE- DEPENDENT INELASTIC DEFORMATION RESPONSE OF NON-CRIMP FABRIC COMPOSITES WITH MANUFACTURING DEFECTS Paper ID <b>109</b> By <b>Yu Zeng</b>	MECHANICAL CHARACTERIZATION OF 3D PRINTED UV-CURABLE RESIN REINFORCED WITH CONTINUOUS FIBERS Paper ID <b>67</b> By <b>Pooyan Nayyeri</b>	CONTINUOUS FIBRE COMPOSITES OF DIFFERENT SUSTAINABILITY LEVELS Paper ID <b>86</b> By <b>Francois Robitaille</b>
2:20pm	DEVELOPMENT OF FINITE ELEMENT MODEL OF A PENTA MODE STRUCTURE FOR PREDICTING THE COMPRESSIVE MECHANICAL BEHAVIOUR INCORPORATING MACHINE LEARNING AND POROUS PLASTICITY MODELS Paper ID <b>118</b> By <b>Asif Mohammed</b>	DEVELOPING A MACHINE LEARNING MODEL FOR DISTINGUISHING FIBER ORIENTATION USING ACTIVE ULTRASONICS Paper ID <b>141</b> By <b>Austin D Bedrosian</b>	MORPHOLOGICAL EVOLUTION OF CONTINUOUS FIBER NETWORKS DURING ADDITIVE MANUFACTURING Paper ID <b>78</b> By <b>Klaas Peters</b>	

## Presentations on Thursday 8<sup>th</sup> August-Morning session

Thursday, August 8th				
Time	Room #2409	Room #2317	Room #2004	Room #2324
	<b>Materials and Structures III- Session Chair Garrett Melenka</b>	<b>Characterization I- Session Chair Joanna Wong</b>	<b>Behaviour/ Performance II- Session Chair Gobinda Saha</b>	<b>Manufacturing II- Session Chair Marc Palardy-Sim</b>
10:20 AM	The Integration of 3D Printed Conductive Composite Materials in Textile-Based Wearable Technology Paper ID <b>119</b> By <b>Ryan J Solmon</b>	APPLICATION OF FLEXURE TESTING FOR DETERMINATION OF TENSILE STRENGTH OF GFRP BARS Paper ID <b>75</b> By <b>Maria Anna A Polak</b>	CHARACTERIZATION OF 3D-PRINTED BAMBU PAHT-CF COMPOSITE Paper ID <b>94</b> By <b>Abdelrahman Elsafty</b>	FABRICATION OF THERMOPLASTIC COMPOSITE SANDWICH PANELS WITH RECYCLED PET FOAM CORE USING HOT PRESS Paper ID <b>20</b> By <b>Sepanta Mandegarian</b>
10:40 AM	DEVELOPMENT OF AN ENVIRONMENTALLY FRIENDLY THERMOPLASTIC COMPOSITE MATERIAL FROM BIO-SOURCED POLYMER AND RECYCLED WASTE TIRES Paper ID <b>63</b> By <b>Mehrnoosh Kazeruni</b>	EXPERIMENTAL INVESTIGATIONS ON THE INFLUENCE OF STRAIN RATE ON MECHANICAL PROPERTIES OF DIRECT COMPOUNDED COMPRESSION MOULDED LONG FIBRE THERMOPLASTICS Paper ID <b>25</b> By <b>Tarun Khapra</b>	EVALUATION OF SHEAR TUFT RESPONSE CHARACTERISATION METHODS Paper ID <b>99</b> By <b>Sara Neyestani</b>	NON-PLANAR LARGE-AREA EXTRUSION-BASED ADDITIVE MANUFACTURING OF COMPONENTS OF A LUNAR ROVER USING HIGH-TEMPERATURE THERMOPLASTIC COMPOSITES Paper ID <b>68</b> By <b>Olivier Duchesne</b>
11:00 AM	POLYMER RIBLET SURFACE COATINGS FOR GREEN AVIATION Paper ID <b>65</b> By <b>Naiheng Song</b>	INFLUENCE OF DISPLACEMENT RATE ON MODULUS AND STRENGTH OF 2D KEVLAR® TUBULAR BRAIDED COMPOSITES Paper ID <b>77</b> By <b>Ahmed Samir Ead</b>	INFLUENCE OF YARN TWIST ON THE ABRASION RESISTANCE OF TWARON® 2D BRAIDED COMPOSITES Paper ID <b>107</b> By <b>Kate Bennett</b>	VACUUM-ASSISTED INDUCTION WELDING FOR ALL-THERMOPLASTIC SANDWICH PANELS ASSEMBLY Paper ID <b>80</b> By <b>Romain G Martin</b>
11:20 AM	PROPERTIES OF WOOD PLASTICS NANO-COMPOSITES MADE OF AGRICULTURAL RESIDUES AND URBAN RECYCLED POLYMER MATERIAL Paper ID <b>79</b> By <b>Amir Nourbakhsh Habibabadi</b>	DYNAMIC AXIAL CRUSHING OF UD-NCF COMPOSITE CLOSED CHANNELS FOR CRASHWORTHINESS APPLICATIONS Paper ID <b>108</b> By <b>Valerie Ajayi</b>	COMPARISON OF PEEL STRENGTH OF MULTILAYER POLYMER-BASED PIPE IN AXIAL AND CIRCUMFERENTIAL DIRECTION Paper ID <b>111</b> By <b>Mahima Dua</b>	CO-CONSOLIDATION ROBOTIC 3D PRINTING: A NOVEL APPROACH FOR MANUFACTURING THERMOPLASTIC SANDWICH PANELS Paper ID <b>122</b> By <b>Samuel Osorio Marino</b>
11:40 AM	THE EFFECT OF EGGSHELL MEMBRANE REMOVAL ON THE POLYLACTIC ACID/EGGSHELL COMPOSITE CHARACTERISTICS Paper ID <b>57</b> By <b>Anahita Homavand</b>	MORPHOLOGICALLY-ENGINEERED LASER-INDUCED GRAPHENE/PDMS STRETCHABLE SENSORS FOR LARGE DEFORMATION MEASUREMENT IN FABRIC REINFORCEMENTS Paper ID <b>139</b> By <b>Mohammad Amin Amindehghan</b>	INTEGRATION OF INFRARED THERMOGRAPHY AND DIC FOR DAMAGE CHARACTERIZATION IN NON-CRIMP FABRIC REINFORCED POLYMER MATRIX COMPOSITES Paper ID <b>136</b> By <b>Erti Shi</b>	VACUUM-ASSISTED MULTI-DIE PULTRUSION OF GLASS/POLYAMIDE 6 AND GLASS/POLYPROPYLENE Paper ID <b>123</b> By <b>Sara da Costa Pessoa</b>



## Presentations on Thursday 8<sup>th</sup> August-Afternoon session

Thursday, August 8th				
Time	Room #2409	Room #2317	Room #2004	Room #2324
	<b>Application and Industry I- Session Chair</b> <b>Ayshan Soltansaleki</b>	<b>Sustainability I- Session Chair Pascal</b> <b>Hubert</b>	<b>Characterization II- Session Chair Sam</b> <b>Nakhla</b>	<b>Behaviour/ Performance III- Session Chair</b> <b>Marco Alfano</b>
1:00 PM	DEVELOPMENT OF HIGH-TEMPERATURE THERMOPLASTIC COMPOSITES REINFORCED WITH RECYCLED CARBON FIBERS AND THERMAL BLACK PARTICLES FOR FUSED FILAMENT FABRICATION Paper ID <b>8</b> By <b>Dogan Arslan</b>	Exploring the effect of wood ash treatment on the mechanical performance of BF for composite application Paper ID <b>134</b> By <b>Maryam Sodagar</b>	INVESTIGATING THE VITRIMERIZATION OF A COMMERCIAL THERMOSET RESIN SYSTEM Paper ID <b>16</b> By <b>Pascal Hubert</b>	EFFECT OF SURFACE TREATMENT AND ADHERENT MICROSTRUCTURE ON THE FRACTURE TOUGHNESS OF ADHESIVE BONDED NCF COMPOSITES Paper ID <b>82</b> By <b>Marco Alfano</b>
1:20 PM	ABSORPTION DOMINANT EMI SHIELDING PERFORMANCE BY LAYERED NANOCOMPOSITE/FILM STRUCTURE Paper ID <b>98</b> By <b>Saeed Habibpour</b>	RECYCLING AND REUSE OF PULTRUDED POLYMER GLASS-FIBER COMPOSITES AND RESIN WASTE Paper ID <b>135</b> By <b>Ihsan Basaran</b>	EFFECTS OF CHITIN NANOWHISKERS ON THE THERMAL AND MECHANICAL PROPERTIES OF THERMOSET EPOXY NANOCOMPOSITES Paper ID <b>6</b> By <b>Pouria Tavakkoli Avval</b>	PHYSICAL AGING DURING CURE OF THERMOSET RESIN Paper ID <b>113</b> By <b>Sherry Kiafar</b>
1:40 PM	DEMONSTRATION OF MODEL-BASED CONTROL OF THERMOPLASTIC CONTINUOUS RESISTANCE WELDING Paper ID <b>120</b> By <b>Julieta Barroeta Robles</b>	NATURAL FIBER COMPOSITE FOR UAV: MATERIAL CHARACTERIZATION Paper ID <b>93</b> By <b>Ahmad F Alzaid</b>	INFLUENCE OF THE STABILIZING BINDER ON VOID CONTENT IN THICK WCM NON-CRIMP FABRIC COMPOSITE PARTS Paper ID <b>106</b> By <b>Renan Miranda Portela</b>	EFFECTS OF SILANE-FUNCTIONALIZED GRAPHENE OXIDE SURFACE TREATMENT ON THE MECHANICAL AND INTERFACIAL BEHAVIOR OF FLAX-EPOXY COMPOSITES Paper ID <b>34</b> By <b>Jialin Zhang</b>

## Presentations on Friday 9<sup>th</sup> August-Morning session

	Friday, August 9th		
Time	Room #2409	Room #2317	Room #2324
	<b>Characterization III- Session Chair Bill Altenhof</b>	<b>Modelling III- Session Chair Jiawei (Laura) Chen</b>	<b>Manufacturing III- Session Chair Garrett Melenka</b>
10:20am	DEVELOPMENT AND CHARACTERIZATION OF THE THERMAL EXPANSION OF FIELD STRUCTURED MAGNETIC COMPOSITES Paper ID <b>19</b> By <b>Pierre Mertiny</b>	TRANSIENT TRANSVERSE DEFORMATION OF THERMOPLASTIC COMPOSITE TAPE IN AUTOMATED FIBER PLACEMENT Paper ID <b>55</b> By <b>Mahmoud Fereidouni</b>	DEVELOPMENT OF INDENTATION FIXTURE FOR PRESTRESSED COMPOSITE Paper ID <b>26</b> By <b>Trung V Nguyen</b>
10:40am	DAMAGE MECHANISM IDENTIFICATION OF GLASS FIBER-REINFORCED POLYMER COMPOSITES BASED ON ACOUSTIC EMISSION AND UNSUPERVISED LEARNING ALGORITHMS Paper ID <b>74</b> By <b>Palacios Moreno</b>	EXPLORING TENSILE STRENGTH UNCERTAINTY IN DISCONTINUOUS PREPREG PLATELET MOLDED COMPOSITES CONSIDERING PLATELET SHAPE AND SIZE STATISTICAL DISTRIBUTIONS Paper ID <b>73</b> By <b>Maggie Chong</b>	UNCERTAINTY IN THERMAL BEHAVIOR ANALYSIS OF POLYMER-MELT EXTRUSION ADDITIVE MANUFACTURING Paper ID <b>81</b> By <b>Soroush Azhdari</b>
11:00am	CHARACTERIZING THE PLY PROPERTIES OF A UNIDIRECTIONAL FLAX-EPOXY COMPOSITE MADE OF A UD-MAT REINFORCEMENT Paper ID <b>45</b> By <b>El Mehdi E El Mekhchi</b>	DEVELOPMENT AND IMPLEMENTATION OF A STRAIN RATE-DEPENDENT ELASTO-PLASTIC FAILURE MODEL FOR COMPOSITE MATERIALS Paper ID <b>115</b> By <b>Khizar Rouf</b>	ADDITIVE MANUFACTURING AND MECHANICAL BEHAVIOR PREDICTION OF MULTIFUNCTIONAL AEROSPACE COMPOSITES Paper ID <b>92</b> By <b>Daniel Therriault</b>
11:20am	PROPOSED SIEVING PARAMETERS FOR MECHANICALLY RECYCLED GLASS FIBER COMPOSITES Paper ID <b>130</b> By <b>Zijian Wang</b>	MICROMECHANICAL ELASTOPLASTIC MODELING AND CHARACTERIZATION OF 3D PRINTABLE BIOPOLYMER NANOCOMPOSITES Paper ID <b>128</b> By <b>Sanaz SS Saadatmand Hashemi</b>	RECONFIGURABLE GRIPPER DESIGN: AN ORIGAMI SOLUTION FOR THE PICK AND PLACE OF COMPOSITE TEXTILES Paper ID <b>127</b> By <b>Dora Strelkova</b>
11:40am	PLY-TOOL AND PLY-PLY FRICTION CHARACTERIZATION OF A BINDER STABILIZED UNIDIRECTIONAL NON-CRIMP FABRIC Paper ID <b>126</b> By <b>Zohreh Mohammadi</b>	EXPERIMENTAL, ANALYTICAL AND NUMERICAL STUDY OF BUCKLING OF CARDBOARD ANGLE Paper ID <b>117</b> By <b>Samuel Hénault</b>	EVALUATING CLOSED RESIN-INJECTION-&-IMPREGNATION CHAMBERS FOR PULTRUSION PROCESSING OF AROMATIC PU-SYSTEMS AND METHYLMETHACRYLATE RESIN SYSTEMS (ELIUM®) Paper ID <b>46</b> By <b>Feiyun Zhang</b>

## Presentations on Friday 9<sup>th</sup> August-Afternoon session

	Friday, August 9th		
Time	Room #2409	Room #2317	Room #2324
	<b>Modelling IV- Session Chair Saeed Habibpour</b>	<b>Manufacturing IV- Session Chair Sam Nakhla</b>	<b>Materials and Structures IV- Session Chair Marco Alfano</b>
1:00pm	INVESTIGATION OF ANISOTROPIC THERMAL CONDUCTIVITY OF 3D-PRINTED CARBON FIBER REINFORCED POLYETHERIMIDE Paper ID <b>85</b> By <b>Tiantian Ke</b>	ELECTRICAL PROPERTIES OF GRAPHENE/VINYL ESTER COMPOSITES Paper ID <b>21</b> By <b>Piyush Lashkari</b>	BIOINSPIRED CERAMICS: HARNESSING NATURE'S STRATEGIES FOR IMPROVING INTERFACIAL STRENGTH AND ENERGY ABSORPTION Paper ID <b>14</b> By <b>Hamidreza Yazdani Sarvestani</b>
1:20pm	MODELING PEEK CRYSTALLIZATION PROCESS UNDER A 3DPRINTING THERMAL PROFILE WITH FAST SCANNING CALORIMETRY Paper ID <b>91</b> By <b>Shahil Hamid</b>	EFFECT OF CLICK CHEMISTRY MODIFICATIONS AND NANOCELLULOSE INCORPORATION ON THE PERMEABILITY OF MAT AND UNIDIRECTIONAL-MAT FLAX REINFORCEMENTS Paper ID <b>49</b> By <b>Abdelhadi Blal</b>	EFFECTS OF ALKALI AND GRAPHENE OXIDE TREATMENT ON MECHANICAL PERFORMANCE OF FLAX-EPOXY COMPOSITES Paper ID <b>37</b> By <b>Zeshi Li</b>
1:40pm	ENERGY MODELLING APPROACHES FOR RESIN TRANSFER MOLDING SIMULATIONS Paper ID <b>97</b> By <b>Anthony P. R. Sherratt</b>	AN INVESTIGATION INTO SCIENCE-BASED AUTOMATION IN COMPOSITES MANUFACTURING Paper ID <b>110</b> By <b>Nima Bakhshi</b>	SUSTAINABLE RUBBER BIO-COMPOSITE FOAMS WITH SILANE MODIFIED WOOD FIBER FOR ENHANCED THERMAL AND MECHANICAL PROPERTIES Paper ID <b>54</b> By <b>Guowei Chen</b>
2:00pm	EXPERIMENTAL DETERMINATION OF COMPLEX HEAT TRANSFER COEFFICIENT PATTERNS USING STATISTICAL INFERENCE Paper ID <b>104</b> By <b>Arghyanil Bhattacharjee</b>	BIOINSPIRED MANDREL-BED 3D PRINTING ENHANCES DAMAGE TOLERANCE OF NANOCOMPOSITE Paper ID <b>18</b> By <b>Haresh Patil</b>	COMPOSITE SANDWICH STRUCTURES WITH BI-STABLE MECHANICAL METAMATERIAL CORE Paper ID <b>56</b> By <b>Alexandra Laxson</b>
2:20pm	EVALUATION OF MULTIFUNCTIONAL PERFORMANCE IN STRUCTURAL ENERGY STORAGE COMPOSITES USING MULTIPHYSICS MODELING Paper ID <b>43</b> By <b>Willi Zschiebsch</b>	MECHANICAL EVALUATION OF APC-2 POLY ETHER ETHERKETONE ADHERENDS JOINED USING POLY (ETHER IMIDE) FOR REPAIR Paper ID <b>7</b> By <b>Julieta Barroeta Robles</b>	HYBRID COMPOSITES WITH A HIERARCHICAL STRUCTURE FOR HIGH-PERFORMANCE STRUCTURAL APPLICATIONS Paper ID <b>69</b> By <b>Nichole Cheung</b>

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# **CANCOM 2024**

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