WNC

WATERLOO NANOTECHNOLOGY CONFERENCE

SATURDAY NOVEMBER 18, 2017

MIKE & OPHELIA LAZARIDIS
QUANTUM-NANO CENTRE

We encourage you to explore possibilities in the nanoscale.

INFORMATION PACKAGE

» Learn about the impact you can have by joining us on this journey.

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MNS

WATERLOO ENGINEERING
WATERLOO SCIENCE
NANOTECHNOLOGY ENGINEERING

WATERLOO INSTITUTE FOR nanotechnology

UNIVERSITY OF WATERLOO

*Nanotechnology: a small world with **huge** possibilities.*

On November 18, the Waterloo Nanotechnology Conference (WNC) – formerly known as the Waterloo Undergraduate Nanotechnology Conference (WUNC), will enter its third year – bringing together academia, industry, and entrepreneurs. We will discuss the past, present, and future of nanotechnology, with the goal of presenting role models and inspiration to the next wave of nanotechnology innovators.

Join us. See what students are capable of and discover how they are uniquely qualified to contribute towards the success of research, industry, policy, and more. Share your expertise and your story. By supporting us, you have a unique opportunity of showing your dedication and commitment to reassuring students of the bright future ahead of them, and the unique opportunities they have in Waterloo, in Canada, and beyond.

Join us and over 200 students to reveal and celebrate the impact of nanotechnology. Help us share the excitement and inspire everyone to play their part in advancing technology by thinking smaller. Join our vision, and invest in the next generation of innovation.

Sincerely,

Jatin Patil
Chair, WNC 2017

What is WNC?

WNC is a student-organized conference that provides an opportunity for students, employers, and entrepreneurs to learn from one another, strengthening our mutual understanding about how nanotechnology is taught and how it is used in industry, in innovative research, and how it is powering new ventures.

We will educate and inspire our participants with exciting speakers, an informative industry panel discussion, and other interactive activities.

In the past, we have attracted everyone – ranging from high-school students to seasoned senior undergraduates to graduate students – who seeks an exclusive opportunity to learn about different career paths and the opportunities and resources available to them.

The Team

WNC Student Committee

Jatin Patil, Akshayaa Govindann, Mayuran Saravanapavanantham,
Alisha Bhanji, Thomas Storwick, Tabi Salimi, Sahad Vasanji, Seneca Velling

WNC Advisory Committee

Shirley Tang, Jenn Coggan Arthur Carty, Alain Francq, Caroline Brookes

Benefits by Faculty

Engineering

Engineering students, especially Nanotechnology Engineers, gain an opportunity to learn about the nature of nanotechnology – and how it can be leveraged to design devices and systems for everyday problems. Students learn about engineering problems classically split into biological, chemical, electrical, materials, and even software engineering problems. Companies are looking for students looking for an interdisciplinary line of work that like to explore new frontiers of design, development, and implementation of novel nanotechnologies.

Science

Science students, especially Materials and Nanosciences (MNS) students, gain an opportunity to see technologies that use fundamental physical and chemical principles to drive large-scale processes and functions. Speakers at WNC explore fundamental scientific phenomena with a simultaneous focus on practical applications, making this conference an experience where students learn about career opportunities and new avenues of exploration.

Applied Health Sciences

Applied Health Sciences students have an opportunity to leverage new discoveries and work in the biomedical field including new developments in tissue engineering, biosensors, drug delivery, and medical and prosthetic materials. These topics have been widely explored through WNC's previous speakers, and will be explored further in this year's lineup. Students with an in-depth knowledge of everything from biochemistry to physiology gain an excellent opportunity to meet with researchers and professionals with a biomedical focus who are looking to develop nanotechnologies from a patient or user-experience perspective.

Environment

Nanotechnology is a new avenue of research that entails exciting possibilities in sustainable materials, and structural and energy-efficient technologies. Furthermore, nanotechnology is explored as a cause for hazardous and unknown environmental effects. These themes are explored throughout the conference and in nanotechnology development overall. Thus, WNC offers students a glimpse into the burgeoning career opportunities in nanotoxicology and large-scale integration of sustainable technologies.

Arts

Nanotechnology is a new field that is rife with possibilities that extend from biology, materials science, engineering, electronics, and more. However, advances in technology require simultaneous progress in business, marketing, and policy efforts to bring innovative technologies to market. Students will learn these strategies employed by companies currently to sell nanotechnology innovation, as well as the policies and regulations required to encourage startups and large companies to flourish. Currently, nanotechnology companies have a high demand for business, policy, design and marketing roles – which means that WNC presents a ripe opportunity for Arts students looking to join a fast-paced, continuously evolving environment.

Event Highlights

Keynote speakers

Dr. Vladimir Bulović, Associate Dean for Innovation, and Professor at MIT's School of Engineering, talks to a few of the 220 eager attendees from his keynote presentation. He highlighted and discussed the research, development, and impact of nanotechnology-enabled innovations at both MIT and in Waterloo. (WUNC 2016)

Dr. Mark MacLachlan, Professor at UBC's Department of Chemistry, discusses undergraduate research with conference delegates at the poster session. His keynote talk addressed the presence of nanotechnology in nature, and recent discoveries of harnessing it as nature has for millennia. (WUNC 2015)

Industry panel

Simon Guthrie, Lead Investigator at Christie Digital, shares some honest and relatable advice on working in teams from his experience with Christie. The industry panel is an open and friendly forum for industry representatives to discuss their experiences and give advice to students looking to enter the next stage of their careers. (WUNC 2015)

Dr. Ian Burgess, CEO of Validere Technologies, reflects upon a question posed to the panel. Discussions ranged from starting a company to life in industry. The panel addressed current concerns of entering the job market, the ups and downs of starting a company, and shared some advice for students seeking inspiration. (WUNC 2016)

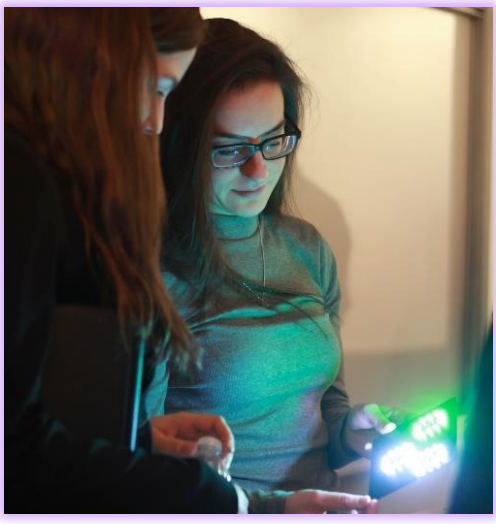
Poster / networking session

Students flock to the start-up company booths to learn more about recent advances, company culture, and job prospects. Poster sessions also include booths from student design teams and researchers at the University of Waterloo. (WUNC 2016)

Many students, including organizers and volunteers, come together to show their research from previous co-op terms at the poster session. This is a great opportunity to engage other students in an open learning environment. (WUNC 2016)

Breakout sessions

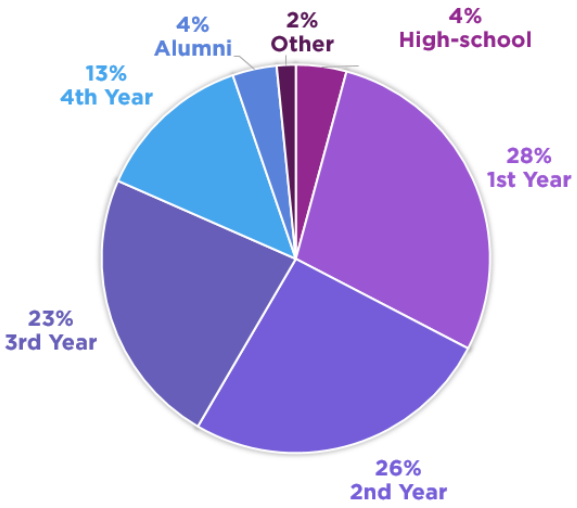
Tim Leshuk, Graduate student at the University of Waterloo and Co-founder of H2nanO, gives a brief talk on his work on water treatment systems. Breakout sessions allow attendees to glimpse new and impactful work enabled by nanotechnology. (WUNC 2015)



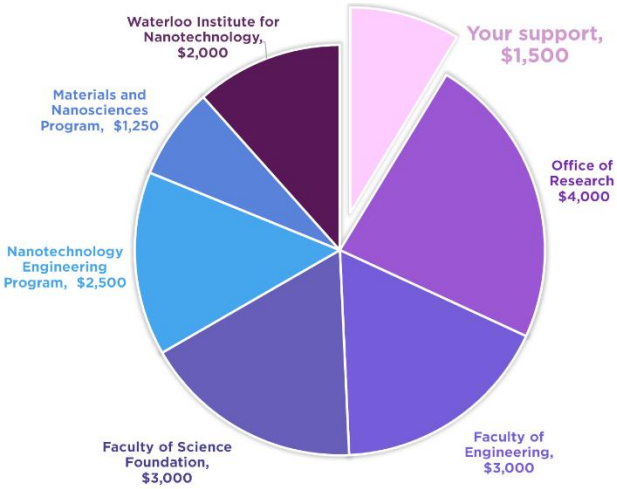
Katarina Ilic, Head of Research and Development at Voltera, shows a printed circuit board with LEDs. She talked about her transition from a nanotechnology research background to starting a company. She gave personal advice and shared the philosophy of Voltera – to show how nanotechnology can make a global impact. (WUNC 2016)

Students and Funding

Attendees by year of study



Funding sources



What students say about WNC

"I have learned so much from the conference and [it] has also fortified my passions for nanotechnology. It was a great learning experience that I was so happy to be a part of."

– Nicholas A. S., High school student

"WUNC was the highlight of my fall term last year, and I was incredibly excited by the speakers and activities… I gained so much from this event"

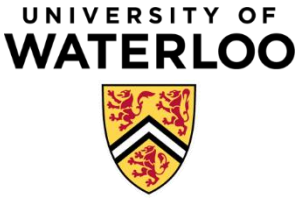
– Sinclair M., 2A Nanotechnology Engineering

"I attended the WUNC 2016 conference as my first WUNC experience and, in brief, I was amazed. What made the experience truly amazing in my eyes was the diverse perspectives from all of the guest speakers."

– Austin B., 3B Nanotechnology Engineering

Past Supporters

Academic speakers



Industry panelists

Other speakers and posters

WNC

Thank you.

We hope you were inspired by our story - and we invite you to be a part of it. Your contribution is as crucial as ever to our success. Join our quest to inspire the next generation of nanotechnology innovators.

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