

## **SFU Press Releases Collection**

These archival copies have been generated from web press releases maintained and originally written by SFU Communications and Marketing. Where possible, an effort has been made to preserve the public comments left on the website as well as any included photos or other images. All textual content should be faithful to the original press releases; contact numbers have been removed but they have not otherwise been altered in any way. However, this collection of documents spans multiple generations of web authoring software and not all formatting will be exact.

SFU Mechatronics Systems Engineering professor Faranak Farzan is the inaugural chair in Technology Innovations for Youth Addiction Recovery and Mental Health.

**MEDIA RELEASE**

## Chair-holder eyes technology solutions for youth with mental health, addiction issues

April 19, 2017

[Tweet](#) [Facebook](#) [Pinterest](#) [Email](#) [Print](#)

**Contact:**

Suraaj Aulakh, Faculty of Applied Sciences, 778.782.7029; [fascomms@sfu.ca](mailto:fascomms@sfu.ca)

Marianne Meadahl, University Communications, 778.782.9017; [Marianne\\_Meadahl@sfu.ca](mailto:Marianne_Meadahl@sfu.ca)

Photos: <http://at.sfu.ca/Zlfnpb>

Simon Fraser University, the John Volken Academy, the City of Surrey and the Surrey Fire Fighters' Charitable Society have named professor Faranak Farzan as the inaugural Chair in Technology Innovations for Youth Addiction Recovery and Mental Health.

Prof. Farzan is from the University of Toronto and joins SFU's School of Mechatronic Systems Engineering as its second female professor.

A neuro-engineer who combines engineering and psychiatry to address mental health, she will lead research in non-invasive technologies to diagnose and develop recovery-focused treatments for youth struggling with addiction and mental health issues.

"I am excited by the opportunity to bring my research to SFU, which is known for being entrepreneurial, and to work with the John Volken Academy, with its focus on connecting important community-based research with the university," says Farzan.

Farzan earned a bachelor's degree in electrical and biomedical engineering at McMaster University, and a PhD at the University of Toronto in a collaborative program of medical science and biomedical engineering. She completed her post-doctoral training in cognitive neurology at Boston's Harvard Medical School.

Farzan will also have a role with the City of Surrey's Youth Mental Health initiative. She will work with stakeholders from universities, government, health authorities, civil services, and social service agencies to create a Youth Mental Health strategy, focusing on substance use and addiction recovery. She will also help to bridge the initiative with Surrey's Innovation Boulevard.

**Research goals**

Farzan uses multiple non-invasive technologies, such as transcranial magnetic stimulation and neuroimaging, to target and assess the health of specific brain circuitries, and to understand differences in the brains of those suffering from conditions such as depression or addiction.

"Our goal is to develop innovative technologies to identify early changes in brain processes which, if left untreated, lead to addiction, depression and suicide attempt. Such solutions should become available for monitoring brain health in the

general population in schools and at family clinics.”

It’s a complex process that also means working to advance science across several disciplines. “Technology to treat the brain is one thing, but we also need to continue studying the complexities of how the brain works. We know of the brain’s plasticity and that it can be changed. But we still have a way to go to investigate how to modify the brain effectively, and with what tools.”

Her recent research identifying an electrical ‘marker’ in the brain that can be used to create new antidepressant treatments was published in the March 2017 edition of the journal *Brain*.

### **Meeting the need**

Surrey is strategically positioned to develop new solutions, Farzan notes. “We are bringing psychiatrists, entrepreneurs, computer and data scientists and the community together to create novel and tailored treatment solutions for youth who suffer from mental health and addiction.

“We are also desperately in need of effective treatments for this population. Current solutions are not tailored for maximum efficacy for youth brains and as such, do not work in a large portion of those affected.”

Farzan will work with SFU’s nanotechnology and big data researchers to create invisible and easily accessible solutions to reduce stigmatization and fear of coming forward to seek help.

“This can be game-changing particularly for youth, at the cusp of starting their futures. It can change the trajectory of their lives. And when you can change the life of a youth, you change so many years ahead for that individual. This will have a significant impact on the healthcare cost.”

Farzan will also teach biomedical engineering and health technologies and train recovery-focused experts and innovators to address these large social issues.

The John Volken Academy and the City of Surrey have provided \$500,000 each towards the chair while the Surrey Fire Fighters’ Charitable Society has contributed \$250,000. SFU is providing funding for additional support related to the position.

### **WHY IT MATTERS:**

- According to the [Canadian Mental Health Association](#) (CMHA), 20 per cent of Canadians will personally experience mental illness in their lifetime.
- Approximately eight per cent of adults will experience major depression at some time in their lives.
- Canada’s [Centre for Addiction and Mental Health](#) (CAMH) reports that 70 per cent of mental health problems have their onset during childhood or adolescence. Young people aged 15 to 24 are more likely to experience mental illness and/or substance use disorders than any other age group.
- May 1-7 is the CMHA’s Mental Health Week.

### **QUOTES:**

#### **SFU President Andrew Petter:**

“As Canada’s ‘engaged university,’ SFU is proud to be a leader in the development of technology based healthcare solutions. Dr. Farzan’s research strengths and community collaborations will lead to healthcare innovations that will improve the quality of life for young people and others who struggle with mental health and addiction issues.”

#### **John Volken, Founder, John Volken Academy:**

“When we were approached about a possible partnership in developing technology that will aid in the addiction recovery process, we were excited. We warmly welcome Dr. Faranak Farzan and her associates to our team in helping us change lives and helping Surrey become a hub in the addiction recovery field.”

#### **City of Surrey Mayor Linda Hepner:**

“Youth suffering with addiction and mental health challenges need and deserve help. That’s why I am pleased that Dr. Farzan has chosen to apply her globally-recognized expertise right here in Surrey. I look forward to seeing the results as she applies her unique approach to this highly complex issue. As a long-time supporter of the John Volken Academy, I cannot think of a better pairing or a more important focus.”

**Mike McNamara, President, Surrey Fire Fighters Association:**

"We, at the Surrey Fire Fighters' Charitable Society, are excited to partner with SFU, the John Volken Academy and the City of Surrey to create solutions and resources for youth struggling with addiction and mental health. The increasing severity of this issue has become even more apparent to us, as first responders, through our response to emergency calls. This initiative draws attention to the need for solutions for a healthier community for our youth."

**ABOUT JOHN VOLKEN ACADEMY:**

The John Volken Academy is an internationally-recognized residential addiction treatment centre for those between 19 and 34. With three world-class treatment centers, including one in Surrey B.C., the academy offers highly-successful, comprehensive treatment for addiction recovery, including extensive focus on personal development and vocational training.

**ABOUT SIMON FRASER UNIVERSITY:**

As Canada's engaged university, SFU is defined by its dynamic integration of innovative education, cutting-edge research and far-reaching community engagement. SFU was founded 50 years ago with a mission to be a different kind of university—to bring an interdisciplinary approach to learning, embrace bold initiatives, and engage with communities near and far. Today, SFU is Canada's leading comprehensive research university and is ranked one of the top universities in the world. With campuses in British Columbia's three largest cities – Vancouver, Burnaby and Surrey – SFU has eight faculties, delivers almost 150 programs to over 35,000 students, and boasts more than 145,000 alumni in 130 countries around the world.

*Simon Fraser University: Engaging Students. Engaging Research. Engaging Communities.*

- [For the Media](#)
- [For Faculty and Staff](#)
- [About SFU](#)
- [SFU News](#)

[Admission](#)

[Programs](#)

[Learning](#)

[Research](#)

[Community](#)

[About](#)

[Maps + directions](#)

[Library](#)

[Academic Calendar](#)

[Road Report](#)

[Give to SFU](#)

[Emergency Information](#)

#### CONNECT WITH US

[Facebook](#)

[Instagram](#)

[Twitter](#)

[YouTube](#)

#### CONTACT US

Simon Fraser University

8888 University Drive

Burnaby, B.C.

Canada V5A 1S6

[Terms and conditions](#)

© Simon Fraser University