



# Indo-Canadian Virtual Workshop on

Advanced Engineering Measures for Controlling  
Airborne Disease Transmission in the  
Built Environment

## Date

15 March 2022 to  
17 March 2022

## Time

6:30 PM to 8:30 PM IST  
7:00 AM to 9:00 AM CST

## Free Registration

Last date  
14 March 2022

**Registration Link** (Meeting link will be shared only with registered candidates)

[https://forms.office.com/Pages/ResponsePage.aspx?id=4jyW1JSvIkGVqWROiWFiTQZYcWZMz\\_9MrdZwJsCgJoJUMTY5TEUzV05aOEJBTvpJNDU3WTVNTE40MC4u](https://forms.office.com/Pages/ResponsePage.aspx?id=4jyW1JSvIkGVqWROiWFiTQZYcWZMz_9MrdZwJsCgJoJUMTY5TEUzV05aOEJBTvpJNDU3WTVNTE40MC4u)

## Abstract

As variants of SARS-CoV-2 continues to evolve, primary health control measures including mass vaccination and prophylaxis are yet to be uniformly available and accepted globally. Effective engineering measures for controlling airborne transmission have been at high priority since the pandemics' outbreak. People interactions are increasingly spending more than 90% of their time indoors. It is therefore essential to develop strategies to control infectious airborne transmission indoors and to provide adequately ventilated and clean air to the occupants. Research on the engineering control measures for clean air is proliferating worldwide after the covid pandemic. This workshop aims to cover a promising engineering control measures including ventilation, ozone control and filters among others in the built environment. The seminar series includes a panel discussion with experts, providing a platform to have shared experiences and to suggest futuristic solutions to contain airborne disease transmission following with guidelines from policymakers.

## Organizers



**VIT**

Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

School of Mechanical Engineering,  
Vellore Institute of Technology,  
Vellore, TN 632 014 India



**UNIVERSITY OF  
SASKATCHEWAN**

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**Vellore Institute of Technology (VIT)** was founded in 1984 as Vellore Engineering College by Honourable Chancellor Dr. G. Viswanathan. VIT attracts students from all the states and union territories of India with more than 55 countries due to its academic excellence. The curriculum enables students to think innovatively through applied learning practices. Innovations like Fully Flexible Credit System [FFCS], Project-based Learning [PBL], entirely digitized academic portals, and Hackathons assist students in equipping themselves for job skills and kindle their interest and curiosity, thereby moulding them to be better problem solvers. VIT has strong tie-ups with Industries as well as to universities of national and international repute. These Memoranda of Understandings provide students with more significant opportunities to pursue higher education in their fields of interest. VIT also encourages new ideas, patents, and continuously supports entrepreneurial activities. VITAA [VIT Alumni Association] has more than 85,000 alumni across the globe in all industries and strives as a backbone supporting teaching-learning, collaborative research, and placements. The national and international clubs, chapters at VIT provide arenas to the students to think out of the box and excel in co-curricular and extra-curricular activities. VIT has been recognized as the "Institution of Eminence" by the Govt. of India and accoladed with A++ Grade by NAAC, MHRD, Govt. of India.

The school of Mechanical Engineering is one of the oldest and the most prestigious schools of VIT. This school started functioning right from 1984, the year in which our institution began. The school of Mechanical Engineering offers 3 undergraduate and 6 post-graduate programs. The school has got a team of highly qualified faculty members, many holding PhDs from the elite institutes across the globe, to teach and train the best minds of this country. The pride of the school lies in the significant research funding received from several National and International agencies such as DST, DRDO, MNRE, CSIT, CVRDE, CPDO, IE, AR&DB, BRNS, ISRO, UGC, NRB, Royal Academy of Engineering etc. The department of Science and Technology, Govt of India has recognized the school for its research activities and supported it in 2003 and 2010 under the FIST scheme. The school has modern facilities, enabling cutting-edge research in a wide spectrum of niche technological areas. The school is ranked within 501-600 in the World as per THE World University Subject Ranking in 2021. Mechanical and Manufacturing Engineering is ranked within the top 11 in India and top 351-400 in the world as per QS World University Rankings by Subject 2021.

**The University of Saskatchewan (USask)** is a Canadian public research university, founded on March 19, 1907, and located on the east side of the South Saskatchewan River in Saskatoon, Saskatchewan, Canada. It was established to provide facilities for higher education in all its branches and enable all persons without regard to race, creed, or religion to take the fullest advantage USask is the largest education institution in the Canadian province of Saskatchewan and is one of Canada's top research universities (based on the number of Canada Research Chairs) and is a member of the U15 Group (the 15 most research-intensive universities) of Canadian Research Universities. USask has 13 colleges on a 1,000 ha campus, 1400 faculty, around 26000 students, and offers over 300 graduate and undergraduate programs. The signature research areas are Agriculture, Energy & Mineral Resources, Indigenous Peoples, Synchrotron Sciences, One Health and Water Security, Communities and Sustainability, Health and Wellness, and Quantum Innovation.

The College of Engineering at the University of Saskatchewan was founded in 1912 when the current administration decided to gather closely related courses under one title. It is located on Treaty 6 territory and the homeland of the Métis seeks to provide meaningful access to engineering for Indigenous peoples while maintaining respectful relationships with Indigenous communities. The College of Engineering offers 8 undergraduate and 7 graduate programs. The Department of Mechanical Engineering is also connected to interdisciplinary programs on campus, including the Divisions of Biomedical Engineering and Environmental Engineering. The Canadian Engineering Accreditation Board has fully accredited the undergraduate program since the beginning of the accreditation program in 1965. The department offers graduate programs at the M.Eng., M.Sc., and Ph.D. levels.

## University of Saskatchewan

## USask

## SICI

Funded by

The Shastri Indo-Canadian Institute (SICI) is a unique bi-national organization, mandated by governments of India and Canada to promote, facilitate, and nurture academic linkages, collaborations & exchanges, research partnerships, and networks on bi-national corridors. With its physical presence in New Delhi, India and Calgary, Canada, and a strong base of 131 Indian and 37 Canadian member institutions, for past 53 years, SICI is the only organization in the Canada-India higher education corridor that is instrumental in building and strengthening intellectual and cultural relationship through research and dialogue. Funded by the Ministry of Education, Government of India, it supports diverse disciplines including Social Sciences, Humanities, Science & Technology, Biotechnology, Agriculture, Arts, Literature, Culture, Law, Business, Economic Reform, etc. and covers all levels of higher education from undergraduate to postdoc and from faculty to collaborative research.

### 15 March 2022

6:30 pm to 6:35 pm  
6:35 pm to 6:40 pm  
6:40 pm to 7:15 pm  
7:15 pm to 7:45 pm

Welcome address

Workshop Introduction

Inaugural Address

**Keynote Address - 1**

Prof. Rajiv Karthik

Department of Infectious Diseases,  
Christian Medical College, Vellore, Tamil Nadu, India

7: 45 pm to 8:15 pm

**Keynote Address - 2**

Prof. Carey Simonson

Associate Dean Graduate Studies and Strategic Projects,  
University of Saskatchewan, Saskatoon, Canada.

8:15 pm to 8:45 pm

**Keynote Address - 3**

Prof. Jafar Soltan

College of Engineering, University of Saskatchewan,  
Saskatoon, Canada.

### 16 March 2022

6:30 pm to 7:10 pm

**Keynote Address - 4**

Mr. Deekshith Vara Prasad

Founder & CEO, AirOK Technologies Pvt Ltd., Delhi, India

7: 10 pm to 7:50 pm

**Keynote Address - 5**

Mr. Gautham Baliga

Director, OPAL HVAC ENGINEERS Pvt Ltd  
Mumbai, India

7:50 pm to 8:30 pm

**Keynote Address - 6**

Prof. M. P. Maiya

Department of Mechanical Engineering, IIT Madras, Tamil Nadu, India.

Mr. Shankar R

Director – Engineering, IMPEC FILTERS Private Limited.

### 17 March 2022

6:30 pm to 7:10 pm

**Keynote Address - 7**

Dr. Gurubalan Annadurai, Postdoctoral Research Fellow,  
College of Engineering, University of Saskatchewan,  
Saskatoon, Canada.

7: 10 pm to 7:50 pm

**Keynote Address - 8**

Dr.-Ing. Jyotirmay Mathur

Professor, Mechanical Engineering Department,  
Centre for Energy and Environment, and  
Head, MNIT Innovation and Incubation Centre

7:50 pm to 8:30 pm

**Keynote Address - 9**

Dr. Yashkumar Shukla

Executive Director, Centre for Advanced Research in Building Science and  
Energy (CARBSE), CEPT University, Gujarat, India

8:30 pm

Vote of Thanks