

Webinar



# Managing COVID-19 and HVAC in Buildings for Emerging Economies

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Thursday, June 18, 2020 | 8:00-9:30 a.m. EDT

Hosted by the Government Affairs Committee and the Epidemic Task Force of ASHRAE






**WEBCAST**

## INFORMATION TO NOTE

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- The audience will be muted for the entirety of the webcast.
- To ask a question, click the icon on the right-side of your screen 
- When asking a question, please include your email and if your question is not answered, you can contact ASHRAE's Epidemic Task Force:  
[COVID-19@ashrae.org](mailto:COVID-19@ashrae.org)
- This event is being recorded. The video recording and presentation files will be made available after the event.



# OUTLINE

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- Introduction
- Fundamentals of COVID-19 Risk Management
- Commercial Building Design for COVID-19 & Beyond
- HVAC System Operation in Residential Buildings during a Pandemic
- Question and Answers

# Speakers and Moderator:



**William P. Bahnfleth, PhD, PE**  
Professor of Architectural Engineering  
The Pennsylvania State University  
(Chair of ASHRAE Epidemic Task  
Force and Former ASHRAE President)



**Luke Leung, PE, LEED® Fellow**  
Director of Sustainable Engineering  
Skidmore, Owings & Merrill LLP  
(Team Lead for Commercial/Retail on  
ASHRAE Epidemic Task Force)



**Sitaraman Chandra Sekhar, PhD**  
Co-Director, Centre for Integrated  
Building Energy and Sustainability in  
the Tropics (CiBEST)  
Professor, National University of  
Singapore  
(Team Member for Residential on  
ASHRAE Epidemic Task Force)



**Moderator:**  
**Ir Sam C. M. Hui, PhD**  
Chair of Developing Economies Ad-  
Hoc and Regional Vice Chair (Region  
XIII) of ASHRAE Government Affairs  
Committee

# ASHRAE OVERVIEW



CELEBRATING  
**125**  
YEARS

Founded in  
1894

200+  
Standards and  
Guidelines

56,000+  
Volunteer  
Members

130+ countries

7,400+  
Student Members  
10+  
Regions  
190+  
Chapters  
400+  
Student Branches



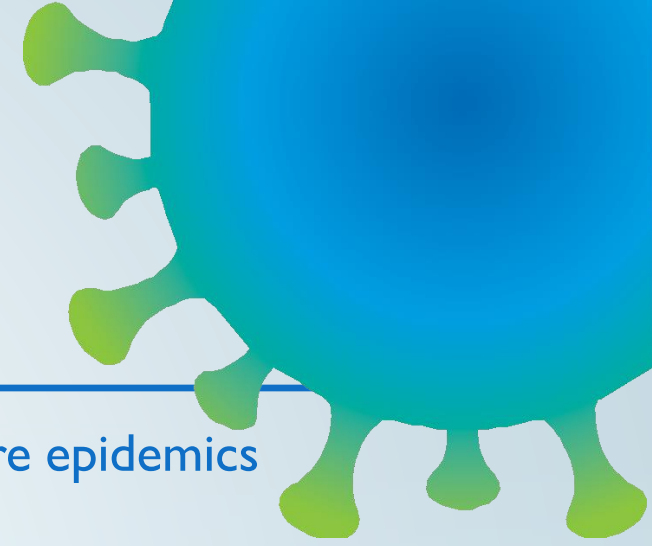
## Industry Classification

Consulting Engineers  
Contractors  
Manufacturers  
Manufacturing Representatives  
Government, Health & Education  
Design Build  
Architects

59 Active  
Research  
Projects  
Total of 907;  
\$76 million

[www.ashrae.org](http://www.ashrae.org)

# ASHRAE EPIDEMIC TASK FORCE



Formed to deploy ASHRAE's technical resources to address current pandemic and future epidemics

- HVAC System Operation During Building Shutdown
- How to Return the HVAC System to Normal Operation
- Operating of Heating/Cooling System in Home
- Riding Mass Transit and Airlines
- Upgrading Filters and Use of Air Cleaners
- Healthcare Facilities, Commercial, Residential, Schools and Universities, Residential, Transportation
- Air Conditioning and Heating
- Ventilation Systems
- Exhaust Systems
- Filtration and Disinfection
- BAS and Access Control Systems
- Elevator Control
- Water Systems

[www.ashrae.org/covid19](http://www.ashrae.org/covid19)

# ASHRAE Technical Activities



- **ASHRAE 2020 Virtual Conference: Jun 22 to Jul 2, 2020**

- <https://www.ashrae.org/conferences/ashrae-2020-virtual-conference>

- 80 on-demand sessions + 12 live sessions

- COVID-19: Opportunities for Sustainable Development (Mon, June 29, 2020, 3:10-4:20 PM)
- SARS, MERS, Ebola, COVID-19: How to Prepare for the Next Epidemic (Tue, June 30, 2020, 12:30-1:40 PM)
- Keynote: Effects of Building Ventilation on SARS-CoV-2 Transmission: A Preliminary Study (Wed, July 1, 2020, 3:10-4:20 PM)
- Impact of COVID-19 on Buildings (Thu, July 2, 2020, 3:10-4:20 PM)



2020 Virtual  
Conference ►

- **Short Course (Online): COVID-19 and Buildings: Re-Occupation after Lockdown**

**July 8, 2020 | 8:00-10:00 a.m. EDT**

- <https://www.ashrae.org/professional-development/all-instructor-led-training/online-instructor-led-training/covid-19-and-buildings-re-occupation-after-lockdown>

- The course identifies the equipment and procedures that are essential in protecting occupant health, bringing attendees up to date on the environmental conditions that are recommended to prevent the spread of the disease. The course also covers the measures that building services engineers need to take into account when buildings are reopened after a long shut down.

# The Challenges of COVID-19 for Emerging Economies

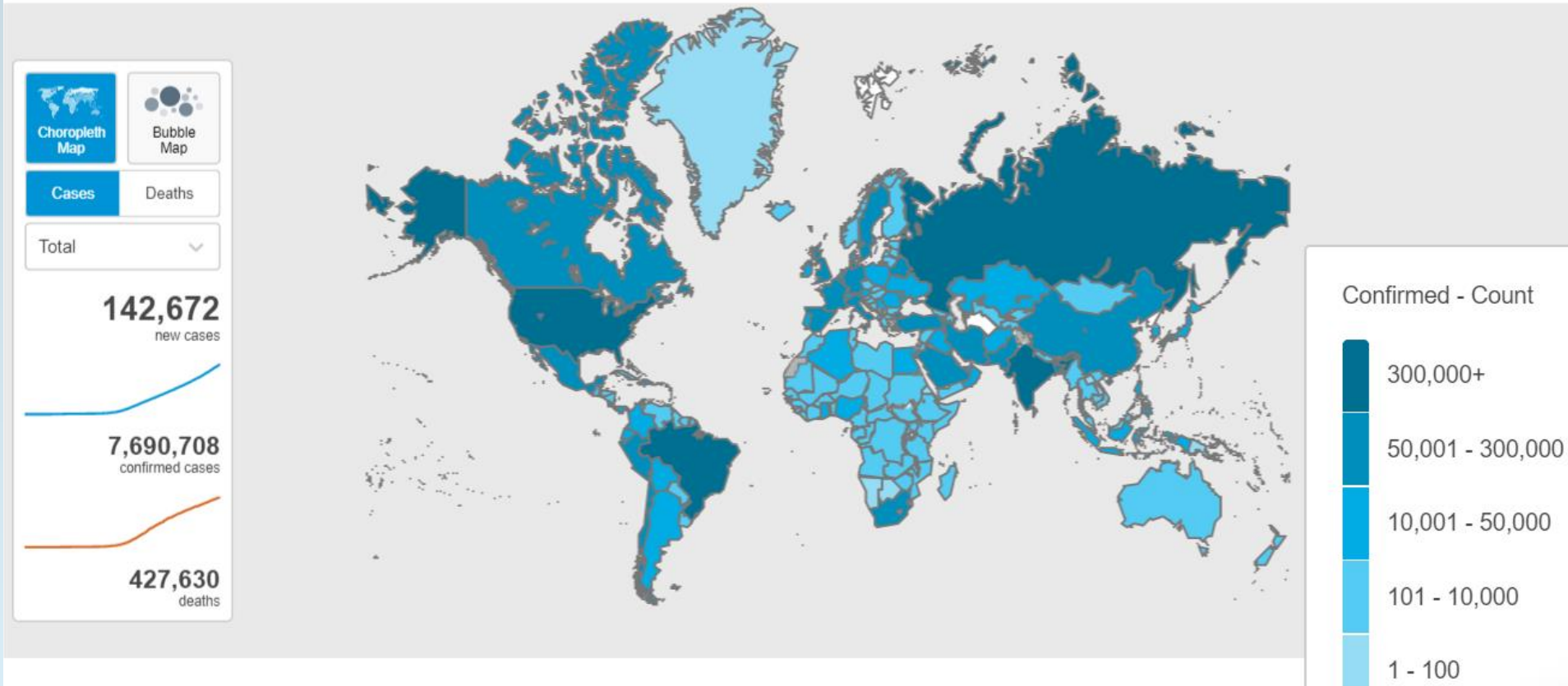


## WHO Coronavirus Disease (COVID-19) Dashboard

Data last updated: 2020/6/14, 1:57pm CEST

Overview

Explor



- The health crisis
- Strained resources
- Deficit and debt
- Food and medical supplies
- Lockdowns and economic consequences
- Reopening and safety
- Transmission risks
- Building operation and maintenance
- Healthy buildings

(Source: <https://covid19.who.int/>)



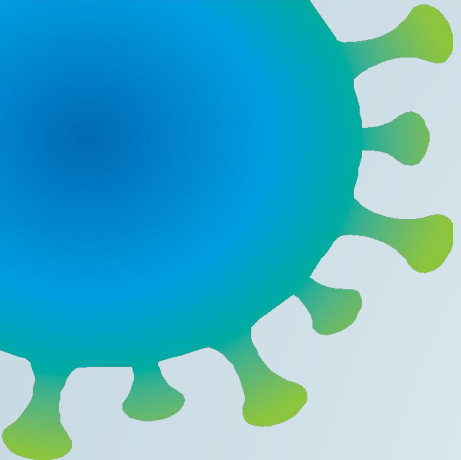
# Webinar Presentations

## Managing COVID-19 and HVAC in Buildings for Emerging Economies

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- 1. Fundamentals of COVID-19 Risk Management
  - Professor William P. Bahnfleth
- 2. Commercial Building Design for COVID-19 & Beyond
  - Mr. Luke Leung
- 3. HVAC System Operation in Residential Buildings during a Pandemic
  - Professor Sitaraman Chandra Sekhar



# Question and Answers

COVID-19@ashrae.org

**Thank You**  
for attending the webinar

