

SEKHAR, SITARAMAN CHANDRA (Dr)

PhD Adelaide. BE (Mech) (Hons) Rajasthan, Fellow ASHRAE, Fellow ISIAQ, MIEAust., CPeng



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[FULL CURRICULUM VITAE](#)
[HOMEPAGE](#)

ACADEMIC/PROFESSIONAL QUALIFICATIONS:

- B.E. Honours (1984) [Mechanical Engineering] - University of Rajasthan, India
- PhD (1990) - University of Adelaide, Australia
- Chartered Professional Engineer, The Institution of Engineers, Australia
- Fellow, American Society of Heating, Refrigerating & Air-conditioning Engineers (ASHRAE)
- Fellow, International Society of Indoor Air Quality and Climate

AWARDS/HONOURS:

- ASHRAE Environmental Health Award, 2014
- ASHRAE Distinguished Lecturer (2006 - To date)
- ASHRAE Exceptional Service Award, 2013
- SPRING Singapore Merit Award, 2012
- ASEAN Energy Award 2011 (Team Award)
- ASHRAE Distinguished Service Award, 2010
- The Enterprise Challenge (TEC) Award, Prime Minister's Office, Singapore, 2004, Field trial of a newly developed and patented air-conditioning system. (Team Award)

EMPLOYMENT RECORDS:

- Professor (2013 - To date); Associate Professor (2002 - 2012); Assistant Professor (1999 - 2001); Senior Lecturer (1997 - 1999); Lecturer (1992 - 1997) - National University of Singapore
- Post-Doctoral Fellow (Jan 1990 - April 1991) - University of Adelaide, Australia
- Senior Engineer (1984 - 1986) - Eicher Goodearth Limited, New Delhi, India

ADMINISTRATIVE LEADERSHIP:

- Co-Director, Centre for Total Building Performance: 2013 - To date
- Program Director MSc (Building Performance and Sustainability) (2010 - To date)
- Co-Program Director MSc (Integrated Sustainable Design) (2010 - 2013)
- Director of External Relations : 2004 -2007

- Program Director, MSc (Building Science) : 1999 - 2004 : 2007 - 2010
- Deputy Course Leader, MSc (Building Science) : 1996 - 1999, Department of Building
- Deputy Director, Centre for Building Performance and Construction : 1998 - 2000

TEACHING AREAS :

- Green Building Integration and Evaluation
- Thermal Comfort, Ventilation and Indoor Air Quality
- Building Energy Analysis & Management
- Air-Conditioning and Mechanical Ventilation
- Building Science

RESEARCH AREAS :

- Ventilation
- Thermal Comfort & Indoor Air Quality
- Green Building Technologies
- Building Energy Analysis and Management – Energy Simulation, Measurement & Verification, Energy Audit
- Total Building Performance and Sustainability
- Heat and Mass Transfer Analysis in Cooling and Dehumidifying Coils
- Energy Efficient Air-conditioning and Air Distribution Systems for Enhanced IAQ
- Computational Fluid Dynamics Application in Buildings

PROFESSIONAL/CONSULTING ACTIVITIES:

- Director-at-Large (DAL), ASHRAE Board of Directors (July 2018 – June 2021)
- Member, Position Document on Resiliency in Built Environment (2017 – To date)
- ASHRAE Environmental Health Committee Chair (2012 - 2013)
- ASHRAE Environmental Health Committee Member (2006 – 2012; 2016-2018)
- ASHRAE Indoor Environmental Quality – Global Alliance Ad Hoc Committee Member (2013-2017)
- ASHRAE Std 62.1 Member; TC Mbr, ASHRAE, USA (TC2.1 - Physiology & Human Env; TC4.3 Ventilation req & infiltration)
- President, ASHRAE Singapore Chapter & Member, Board of Governors (2010-11)
- Invited as an assessor by the Australian Research Council (ARC) to review a proposal titled “Improving thermal conditions in housing to support ageing in place”. (May 2016)
- Invited Reviewer for the progress report of the project titled “Ceiling – Mounted Personalized Ventilators Effectiveness in Reducing the Spread of Particles in Office Spaces”. Invited to review the progress report by Kuwait Foundation for the Advancement of Sciences –Research Directorate, April 2016.
- Elected Member – Board of Singapore Green Building Council (SGBC) (March 2013 – To date)
- Invited Expert Member of the IEQ Consortium, National Environment Agency, Singapore (Jan 2016 – Dec 2017)
- Co-convener of the Working Group for the revision of Singapore Standard SS 554 : Code of Practice for Indoor Air Quality for air-conditioned buildings, SPRING Singapore (Oct 2013 – 2016)
- Invited expert member to review 3 White paper proposals under the LAND AND LIVEABILITY NATIONAL INNOVATION CHALLENGE for NRF, Singapore. (Sept 2015)
- Nominated Chairman of the BCA Specialist Diploma in Facility and Energy Management Board of Examiners (BOE) (1 Dec 2012 – 30 Nov 2016)
- Invited Reviewer - White Paper from NRF Competitive Research Programme (CRP) 11th Call-for-Proposals (April 2013)
- SPRING Singapore - TC Mbr, Building Maintenance Mgt (2007 – 2014)
- Singapore Certified Energy Manager Curriculum and Examination (SCEM C&E) Board (2009-To Date). Chairman, SCEM C&E Board (2009-2014)

- Technical Assessor for IAQ Assessment (SINGLAS) - SPRING Singapore (1997 - Present)
- Tech Co-Chair, HB2003 Healthy Buildings International Conference
- Indoor Air Quality & Building Performance Consultant - SIA Prop, JTC, NLB, Pidemco Land, SCDF, URA

KEYNOTE INVITATIONS:

- ICACMS-2017, Chennai, Sept 2017
- 6th International Conference on Energy Research and Development (ICERD), Kuwait, March 2016
- Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate, Hong Kong, July 2014

SELECTED PUBLICATIONS:

- Sekhar, S. C., Anand, P., Schiavon, S., Tham, K. W., Cheong, D. and Saber, E. M. (2018). *Energy and Buildings*. Vol 159, 148-163
- Sekhar, C., & Zheng, L. (2018). *Building Simulation*, 11(4), 787-801
- Wang, Y., Sekhar, C., Bahnfleth, W. P., Cheong, K. W., & Firrantello, J. (2016). *Energy and Buildings*. 130, 321-329
- S.C.Sekhar, (2016). *Indoor Air*, 26: 138–152
- LICINA, D, Arsen Melikov, S C Sekhar and K W Tham, (2015). *Building and Environment*. 92, 39-47
- YANG J., S .C. Sekhar, K.W. Cheong and Benny Raphael, (2014). *Building and Environment*, 78, 103-110
- Li, R., Sekhar, S. C., & Melikov, A. K. (2010). *BUILDING AND ENVIRONMENT*, 45(9), 1906-1913
- S.C. Sekhar et al (2005) HVAC&R Research, ASHRAE Vol 11, No 4,603-620
- S.C.Sekhar, K.W.Tham & David Cheong, (2003), *Indoor Air*, **13**, 315-331