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สัมมนาวิชาการ ครั้งที่ 1 (ASHRAE Technical Seminar # 1)

Co-organize a Technical Seminar presented by ASHRAE Distinguished Lecturer Titled: -

1. Building Commissioning in the Built Environment - Principles, Process, Procedures, and the Future
2. Testing Adjusting and Balancing (TAB) – HVAC
3. Filtering Ventilation Air for Sustainable Airflow Measurement – HVAC

Date: Friday, January 20th 2023

Time: 09:00 – 16.15

Swissotel Le Concorde Bangkok



ได้คะแนน **9 PDU** สำหรับเป็นคะแนนเพื่อ
ยื่นเลื่อนระดับใบอนุญาตวิศวกรรมควบคุม
เป็นสามัญหรือวุฒิวิศวกร

**By... ASHRAE Thailand Chapter
Air-Conditioning Engineering Association of Thailand (ACAT)
CRC2022 Co.,Ltd.**

Abstract

1. Building Commissioning in the Built Environment - Principles, Process, Procedures, and the Future

GBCI Approved | 1 CE Hour | 0920014335
AIA Approved|1LU/HSW| MONTGOMERY01

This talk is about HVAC&R commissioning basics and highlighting our ASHRAE Standard 300 series, 202,230P, Guideline 0 and 0.2, and sample commissioning project applications and photos. It teaches about what Commissioning is and what it is not. Some sample subjects can include:

- HVAC/R-General
- Smoke control and NFPA 909
- Radiant heating and cooling using DOAS
- Clean rooms; OR's; Procedure and Isolation rooms.
- Pharmaceutical Manufacturing and Production; Drug Mixing areas.
- Air tightness testing; Case study examples using Blower doors and site AHU's
- Energy Monitoring Systems; Btu and Kw
- Total Building Commissioning
- Enclosure/Envelope commissioning and associated method of testing
- Thermal/Ice Storage Chilled Water Systems
- Existing buildings in hot-humid climates

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American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.



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- Lighting controls where required by contract or code.

It explains the industry importance of commissioning and the why we use it, how it works, and speaks about its many features and benefits. It is important to note that ASHRAE Cx standards are process documents and can be adapted to be used in many other commissioning disciplines. As a current voting member of the Standard 300 group, and practicing CxA/CxP and ASHRAE Certified CPMP, it outlines better and best practices in commissioning activities, using ASHRAE commissioning related Guidelines. Each chapter of the new ASHRAE standard is explained. As the past chair, it explains the activities of the Presidential Ad Hoc Building Performance Alliance Committee on Commissioning, where we are working with all of the Industry giants (ASHRAE, ICC, USGBC, AIA, NIBS, SMACNA, AABC/ACG, NEBB, BCA, TABB, CAMEE, NEMIC, BOMA, etc.) to establish high level strategic directions for "Commissioning", and its use and proliferation throughout our Industry, in collaboration with our Industry partners.

2. Testing Adjusting and Balancing (TAB) – HVAC

GBCI Approved | 1 CE Hours | 0920020165
AIA Approved | 1 LU/HSW | Montgomery07

This talk is about TAB work and its relation to HVAC; it starts with the measurement basics and the instruments that are used in TAB work, including some of the forms used. The presentation shows the technical equations and solutions related to real problems used in the field. The fan and pump laws are presented and solved in many real-world word problems. The simple process about how TAB performs its site visits and balancing efforts are demonstrated and discussed. Both Air and Water TAB work is explained. Psychrometrics, Particulate measurements, Noise and vibration topics are also briefly discussed. TAB work uses ASHRAE standards as well as Industry procedural standards such as produced by AABC and NEBB. In general, it gives a basic overview of the TAB process for air and water systems, and how it is used to validate and confirm that the design parameters are being delivered and documented to the project.

3. Filtering Ventilation Air for Sustainable Airflow Measurement – HVAC

This talk is based on the April 2022 Journal article that examines ventilation efficiency and effectiveness in delivering proper air flows to the spaces of the building. Many contaminants, if unfiltered, are detrimental to HVAC sensors that use precise temperature, pressure or speed as the basis of their measurement. It discusses issues and resolutions that commissioning practitioners; testing, adjusting and balancing professionals; and controls contractors encounter trying to attain design required consistent and repeatable design airflow measurement and control that is required by codes, standards and the contract design documents. A case study is presented showing the before and after commissioning test results. Many ideas for correcting bad practices are included. It concludes that the design architect and engineer, TAB professional, and the commissioning professional can all work together to achieve the best outcomes.

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About Speakers :

Ross D. Montgomery

President Quality Systems and Technology, Inc.
11306 Wickersley Place Tampa,
FL 33625 United States (941) 737-1401
Region: XII



Speaker's Profile

Mr. Ross D. Montgomery is the ASHRAE past Society Vice-President, Technology Council Chairman, DRC and DAL, past RVC, and chapter/section President. He has worked in ASHRAE activities for 35+ years, and has served on over 45 committees, councils and boards for ASHRAE. He has authored several Journal articles on Building EQ (ASHRAE Building Rating program), HVAC controls, and Commissioning, and co-authored the ASHRAE book "Fundamentals of HVAC Control Systems". Professionally, he works as Owner/President of QST, Inc., in the Building Commissioning, Maintenance/Operations, and Energy Audit/Rating/Assessment business, operating a company based in Florida, but travels anywhere in the world for work.

He also works as the AABC certified balancing engineer (TBE) for Testing, Adjusting, and Balancing of HVAC&R Systems, a primary investigator that provides Energy/IAQ monitoring, testing, research, and reporting as well as providing Environmental Solutions for IAQ problems, and performs legal subject matter expert witness work. He has successfully performed many bEQ ratings.

He graduated from the University of South Florida with a BSME. He has his Professional Engineers License, state Mechanical/Electrical Contractors licenses, as well as his CxA Certifications for Commissioning with AABC/ACG, IAQ, Energy Manager (CEM), Energy Modeling and Assessor (BEMP, BEAP), High Performance Building Design (HBDP), and Green Building Engineer. He is an ASHRAE Fellow and a past recipient of the ASHRAE awards for Government Service, Presidential Certificate of Honor, Exceptional/Distinguished Service, John James International service, Lincoln Bullion membership, and an ASHRAE Technology Award.

Target Audiences

1. ASHRAE Thailand Chapter, ACAT Members
2. RHVAC Designers & Consulting Engineers and Contractors
3. University Lecturers in Dept. of Architecture & Engineering
4. End users, HVAC Facilities Engineers, Building Owners and others.



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Agendas:-

- | | |
|---------------|---|
| 09:00 - 09:15 | Registration |
| 09:15 - 09:30 | Opening Speech: President, ASHRAE THAILAND CHAPTER 2022-2023 |
| 09:30 - 10:45 | Building Commissioning in the Built Environment Session 1 |
| 10:45 - 11:00 | Coffee-Tea Break |
| 11:00 - 11:45 | Building Commissioning in the Built Environment Session 2 |
| 11:45 - 12:00 | Q & A |
| 12:00 - 13:00 | Lunch |
| 13:00 - 14:45 | Testing Adjusting and Balancing (TAB) – HVAC |
| 14:45 - 15.00 | Coffee-Tea Break |
| 15:00 - 16:00 | Filtering Ventilation Air for Sustainable Airflow Measurement – HVAC |
| 16:00 - 16:15 | Q & A |
| 16:15 - 16:30 | Closing Speech: President, Air Conditioning Engineering Association of Thailand |

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ใบสมัครสัมมนาวิชาการ ครั้งที่ 1

- เรื่อง **1. Building Commissioning in the Built Environment - Principles, Process, Procedures, and the Future**
2. Testing Adjusting and Balancing (TAB) – HVAC
3. Filtering Ventilation Air for Sustainable Airflow Measurement – HVAC

วันศุกร์ที่ 20 มกราคม พ.ศ. 2566

ณ ห้อง Boontarik ชั้น 3 โรงแรมสวิสโซเทล กรุงเทพฯ - รัชดาภิเษก



<https://forms.gle/96kDQNAhQ3SqmCqG8>

อัตราค่าลงทะเบียน

- สมาชิก ASHRAE Thailand Chapter/ACAT ราคา 2,000 บาท
 บุคคลทั่วไป ราคา 2,400 บาท

➤ หมายเหตุ

1. สมาคมแอสเฮร์ จำกัด อยู่ในข่ายที่ไม่ต้องถูกหักภาษี ณ ที่จ่าย 3 %
2. สมาคมแอสเฮร์ จำกัด เป็นองค์กรแม่ข่ายของสภาวิศวกร มีหน้าที่ในการจัดกิจกรรมการพัฒนาวิชาชีพวิศวกรรมอย่างต่อเนื่อง ให้การรับรองกิจกรรมและจำนวนหน่วยพัฒนา PDU ของกิจกรรมการพัฒนาวิชาชีพวิศวกรรมอย่างต่อเนื่อง สามารถออกใบรับรองการเข้าร่วมกิจกรรมการพัฒนาวิชาชีพวิศวกรรมอย่างต่อเนื่องได้
3. ติดต่อขอรายละเอียดได้ที่ คุณ สุรรัตน์ หรือ คุณเจฟฟารีตัน โทรศัพท์ 02-318-4119, 02-318-4123 โทรสาร 02-318-4120 หรือ www.ashraethailand.org

วิธีการชำระเงิน

- เงินสด ณ ที่ทำการสมาคมฯ
- เช็คสั่งจ่าย "สมาคมแอสเฮร์"
- โอนเงินเข้าบัญชี ธนาคารยูโอบี สาขาสี่แยกศรีวิภา บัญชี ออมทรัพย์
ชื่อบัญชี "สมาคมแอสเฮร์" เลขที่บัญชี 960-165-497-7



กรณีโอนเงินเข้าบัญชีเรียบร้อยแล้ว กรุณาแจ้ง(1) ชื่อ-นามสกุล และ (2)ข้อมูล ชื่อ ที่อยู่ในการออกใบเสร็จที่ถูกต้อง รวมทั้งส่ง(3)หลักฐานการชำระเงินมาที่

1. ไลน์กลุ่ม "ASHRAE Seminar" โดย add เข้ากลุ่ม ผ่าน line link: http://line.me/ti/g/ddKvdcQ_dy หรือ QR Code ที่แสดงไว้ข้างบน
2. ส่งเอกสารการชำระเงินพร้อมระบุรายละเอียดชื่อ-ที่อยู่ในการออกใบเสร็จที่ถูกต้อง โดยแนบใบนำฝากมา พร้อมกับใบสมัครทาง E-mail memberashrae@gmail.com

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