BRYAN P. RASMUSSEN, PH.D., P.E.

Dept. of Mechanical Engineering
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College Station, TX 77843-3123
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E-mail: **brasmussen@tamu.edu**

EDUCATION

PH.D. MECHANICAL ENGINEERING, *University of Illinois at Urbana-Champaign*   DEC. 2005

M.S. MECHANICAL ENGINEERING, *University of Illinois at Urbana-Champaign*   OCT. 2002

B.S. MECHANICAL ENGINEERING, *magna cum laude, Utah State University*   MAY 2000

CURRENT POSITION

ASSOCIATE DEPARTMENT HEAD FOR GRADUATE PROGRAMS   JUNE 2020 – MAY 2022
Dept. of Mechanical Engineering, Texas A&M University

PROFESSOR   SEPT. 2018 – PRESENT
Leland T. Jordan Professor   *Sept. 2021 – present*
Dept. of Mechanical Engineering, Texas A&M University

DIRECTOR, INDUSTRIAL ASSESSMENT CENTER   AUG. 2011 – PRESENT
Texas A&M University

ASSOCIATE DIRECTOR, ENERGY SYSTEMS LABORATORY   SEPT. 2012 – PRESENT
Texas A&M University

EXPERIENCE

ASSOCIATE PROFESSOR   SEPT. 2012 – AUG. 2018
Leland T. Jordan Career Development Professor   *April 2016 – March 2019*
Dept. of Mechanical Engineering, Texas A&M University

VISITING PROFESSOR   AUG. 2013 – DEC. 2013
Dept. of Mechanical Engineering, Brigham Young University

ASSISTANT PROFESSOR   JAN. 2006 – AUG. 2012
Dept. of Mechanical Engineering, Texas A&M University

ASSISTANT DIRECTOR, INDUSTRIAL ASSESSMENT CENTER   JAN. 2011 – AUG. 2011
Texas A&M University

ASSISTANT DIRECTOR, ENERGY SYSTEMS LABORATORY   AUG. 2011 – AUG. 2012
Texas A&M University

ASME GRADUATE TEACHING FELLOW   2004 – 2005
Dept. of Mechanical and Industrial Engineering, University of Illinois at Urbana-Champaign

GRADUATE RESEARCHER   2000 – 2005
Air-Conditioning and Refrigeration Center (ACRC), University of Illinois at Urbana-Champaign

MECHANICAL ENGINEER   1999 – 2000
Casper's Ice Cream Inc., Richmond, Utah

AWARDS AND DISTINCTIONS

- Excellence in Applied Energy Engineering Research, US Department of Energy, 2012, 2014, 2020
- Engineering Genesis Grant Award, Texas A&M Engineering Experiment Station, 2017, 2020
- Fellow, American Society of Mechanical Engineers (ASME), 2019
- Charles Crawford Distinguished Teaching Award, College of Engineering, Texas A&M University, 2019
- ASHRAE Technical Paper Award, 2018
- Charles Crawford Distinguished Contributions Award, College of Engineering, Texas A&M University, 2018
- Center of Excellence Award, US Department of Energy, 2017
- James J. Cain Graduate Teaching Award, Mechanical Engineering Dept., Texas A&M University, 2016
- Holder, Leland T. Jordan Career Development Professorship, 2016-2019
- Inaugural Best Paper Award, HVAC&R Research Journal, ASHRAE, 2013
- Charles L. and Peggy L. Brittan Undergraduate Teaching Award, Mechanical Engineering Dept., Texas A&M University, 2010
- National Teaching Award - "Distinguished New Faculty" sponsored by the International Academy for the Scholarship of Learning Technology, 2009
- SLATE Teaching Award, Texas A&M University System, Spring 2009
- John Weese Teaching Excellence Award, selected by students, awarded by Pi Tau Sigma, 2008
- NSF CAREER Award recipient, 2007
- ASHRAE Young Investigator, 2007
- Teachers Ranked as Excellent by Their Students, UIUC, 2004, 2005
- Voluntary ecclesiastical service in Brazil (1996-1998); Fluency in Portuguese
- Eagle Scout (Boy Scouts of America)

SCHOLARSHIPS AND FELLOWSHIPS

- ASME Graduate Teaching Fellowship, 2004, 2005
- Pre-Doctoral Research Fellow, UIUC, 2000-2002
- ASHRAE Scholarship, 2000
- USU Superior Student Scholarship, 1995-2000
- Robert C. Byrd Scholarship, 1995, 1998-2000
- Engineering Honors at Entrance Scholarship, 1995
- Frederick P. Champ (Boy Scouts of America) Scholarship, 1995

PROFESSIONAL REGISTRATION

Registered Professional Engineer, State of Texas, License #110459   *16 DEC. 2011* – PRESENT

PROFESSIONAL SOCIETIES AND SERVICE

- Tau Beta Pi, 1999
- American Society of Mechanical Engineers, 2003
    - Fellow, 2019
    - Chair, Energy Systems Technical Committee, 2014-2016
    - Member, Dynamics Systems and Controls Division
    - Member, Modeling, Identification and Intelligent Control Technical Committee
- Institute of Electrical and Electronics Engineers, 2003
    - Member, Control Systems Society
- American Society of Heating, Refrigeration, and Air Conditioning Engineers, 2006
    - Member, ASHRAE
    - Corresponding Member, TC 1.4 Control Theory and Application
    - Corresponding Member, TC 8.8 Refrigerant System Controls and Accessories
- American Society for Engineering Education, 2007

COMMUNITY SERVICE

- President, Ballet Brazos (503c non-profit organization), 2013-present.
- Director of Development, Brazos Valley Performing Arts (non-profit organization), 2012-2013.
- Scoutmaster Troop 919 & 967, Sam Houston Area Council, 2006-2012.

EDUCATIONAL ACTIVITIES

Courses Taught (64 courses, 3800+ students)

(13)	MEEN 260: Mechanical Measurements	TAMU
(7)	MEEN 364: Dynamic Systems and Control	TAMU
(1)	MEEN 401: Introduction to Engineering Design: Studio	TAMU
(2)	MEEN 402: Intermediate Design: Studio	TAMU
(1)	MEEN 404: Engineering Laboratory	TAMU
(4)	MEEN 406: Energy Management in Industry	TAMU
(1)	MEEN 431: Advanced Dynamics and Controls	TAMU
(10)	ENGR 489/491: Special Topics: Aggi-E Challenge	TAMU
(5)	MEEN 651: Control System Design	TAMU
(1)	MEEN 652: Multivariable Control System Design	TAMU
(5)	MEEN 662: Energy Management in Industry	TAMU
(4)	MEEN 681: Graduate Seminar	TAMU
(6)	MEEN 684: Professional Internship	TAMU
(2)	ME 360: Signal Processing, Instrumentation, and Control	UIUC
(1)	ME 363: Elementary Instrumentation	BYU

Distance Learning Courses Taught (12 courses, 98 students)

(4)	MEEN 406: Energy Management in Industry	TAMU
(1)	MEEN 651: Control System Design	TAMU
(7)	MEEN 662: Energy Management in Industry	TAMU

Course Development – MEEN 260 "Introduction to Engineering Experimentation"
- Coordinator to revise MEEN 260 from 2 to 3 credit hours, TAMU, Spring/Summer 2007
- Revision of Course Lecture Notes – Summer 2007
- Addition of two new laboratory experiments – Summer 2007
- Addition of online adaptable quizzes for learning assessment – Spring 2008
- Addition of course project for custom experimentation – Spring 2008
- Addition of active learning activities for "flipped classroom" learning – Fall 2013
- Addition of online lectures – Spring 2018

Distance Learning Course Development
- MEEN 651 "Control System Design" developed online notes, lectures, and learning modules, Dec. 2014
- MEEN 662 "Energy Management in Industry" developed online course materials, Dec. 2016

Undergraduate Design Projects (22 teams, 140 students, $219,625)

STUDENT RESEARCH ADVISING

Ph.D. Graduate Students (16)

Young Joon Chang	(2009)	Trevor Terrill	(2018)
Matthew Elliott	(2013)	Christopher Price	(2018)
Shuangshuang Liang	(2014)	Kaimi Gao	(2019)
Chao Wang	(2016)	Austin Rogers	(2019)
Rawand Jalal	(2016)	Fangzhou Guo	(2021)
Christopher Bay	(2017)	Taeksoo Kim	(2022)
Rohit Chintala	(2017)	Hussein Sharadga	(2022)
Jorge Mijares	(2017)	Deokgeun Park	(2023)

M.S. Graduate Students (20)

Abhishek Gupta	(2007)	Edwin Youmsi Pete	(2015)
Matthew Elliott	(2008)	Kaimi Gao	(2015)
Natarajkumar Hariharan	(2010)	Trevor Terrill	(2015)
Swarooph Seshadri	(2011)	Marcus Thackeray	(2020)
Balakrishna Ayyagari	(2011)	Deokgeun Park	(2020)
Alex Janecke	(2011)	Alex Whittier	(2021)
Avinash Rani	(2012)	Saurabh Shekhadar	(2021)
Ankush Gupta	(2012)	Rafael Dugarte Zerpa	(2022)
Priyam Parikh	(2014)	Phani Arvind Vadali	(2022)
Franco Morelli	(2014)	Shambhavi Singh	(2023)

M.E. Graduate Students (3)

| Aarti Ramani | (2007) | Asha Shibu | (2017) |
| Loan de Deus Vieira Cardoso | (2016) | | |

Post-Doctoral Researchers (1)

| Seyed Mostafa Ghoreyshi | (2018) |

Undergraduate Student Researchers (36)

Clair Atzert	(2004)	Carlos De la Guardia	(2011)
Lee Fok	(2004)	Alan Mohn	(2011)
Tom Yeung	(2004)	Joseph Iannacci	(2011)
Melonee Wise	(2004)	Irina Popova	(2011)
Alex Bleakie	(2006)	Alan Mohn	(2012)
Juan Munoz	(2006)	Mattias Zerza	(2015)
Zachary Walton	(2007-2008)	Fernando Zucolotto	(2015)
Shana Van Fleet	(2007)	Victor da Cunha	(2015)
Byron Bolding	(2007-2009)	Marcus Omori	(2015)
Sean Elliston	(2007-2008)	Jiayao (Amy) Li	(2015-2016)
Kristine Test	(2008)	Crystal Torres	(2016)
Craig Warren	(2008)	Michael Alvarez	(2016)
Martin Jasper	(2009)	Ramon Anaya	(2020)
Matthew Sanders	(2009)	Jackson Jarman	(2020)
Elyse Jones	(2009-2010)	Davis Karwoski	(2020)
Ross Hayes	(2010-2011)	Kira Lee	(2020)
Carolyn Estrada	(2010-2011)	Kirk Hambleton	(2020)
Ryan Wood	(2011)	Samantha Mersman	(2020)

M.S. Thesis Committees (38)

Craig Odom (2006), Jae-Won Choi (2006), Bharat Narasimhan (2007), Sandipan Mitra (2007), Dongwon Lim (2008), Ashivni Shekhawat (2008), Vijesh Reddy (2008), Varun Gandhi (2008), Seungho Lee (2009), Paul Oberlin (2009), Naveen Kumar Bibinagar (2010), Navid Mohsenizadeh (2010), Chien-Fan Chen (2010), Jianxi Fu (2010), Vishal Wadhvani (2011), Rohit Chintala (2011), Vahideh Kamranzadeh (2011), Sean Elliston (2011), Claire Mero (2012), Charles Kaneb (2013), JP Hidore (2013), Wenlong Ma (2014), Ruikang Zhu (2014), Yupeng Zhang (2014), Jonathan Horn (2015), Corey Brown (2015), Victor Paredes (2016), Samuel Fordjour (2016), Mitchell Allain (2017), Colton Barnes (2017), Andrew Nelson (2017), Cesar Pelli (2018), Sulaiman Alsaleem, Saadat Khan, Navaneeth Kuncham, Aditya Chuttar, Julia MacDougall, Kushan Abeyawardhane

Ph.D. Thesis Committees (31)

Vipin Tyagi (2007), Michael Browne (2009), Brandon Gegg (2009), Ho Yu (2009), Sai Krishna Yadlapalli (2010), Michael Davis (2010), Jiawei Dong (2012), Yi-Chu Chang (2013), Loveleena Bansal (2013), Navid Mohsenizadeh (2013), Yong Li (2011), Wan Zhong (2015), Peng Yin (2015), Young Shin-Kwon (2016), Sukjoon Oh (2017), Mitch Paulus (2017), Xiaojun Li (2018), Jianxi Fu (2018), Jennifer Anderson Rich, Clinton Davis (2019), Joseph Samy Riad (2020), Paul Nagy (2020), Hongxiang Fu (2021), Dongzuo Tian (2021), Hala Sameh Nemer, Luke Madden, Alex Nelson, Ahmed Morsy, Zhangjie Chen, Martin Ssembatya, Amin Isazadeh, Xing Lu, Muhammad Emad-ud-din, Zhihong Pang, Ryan Losch

International Ph.D. Thesis Committees (2)

Kasper Vinther (2014 – Aalborg University, Denmark), Ehsan Shafiei (2015 – Aalborg University, Denmark)

SERVICE

Departmental Service

(14 years)	MEEN 260 Course Coordinator	Feb. 2007 – Feb. 2021
(10 years)	Educational Development Committee	Aug. 2011 – Aug. 2020
(11 years)	Laboratory Committee	Feb. 2007 – Aug. 2016, Aug. 2018 – Aug. 2019
(1.5 years)	Laboratory Committee - Chair	Feb. 2014 – Aug. 2015
(8 years)	Graduate Program Qualifier Committee	2006-2008, 2010-2013, 2015, 2017-2019
(2 years)	Graduate Program Qualifier Committee – Chair	June 2020 – May 2022
(2 years)	Graduate Studies Committee – Chair	June 2020 – May 2022
(2 years)	Graduate Seminar Committee – Chair	June 2020 – May 2022
(2 years)	Mechanical Engineering Graduate Student Organization (MEGSO), Faculty Adviser	June 2020 – May 2022
(5 years)	Tenure and Promotion Committee	Jan. 2016 – Dec. 2018, Jan. 2020 – Dec. 2022
(5 years)	Faculty Mentoring Committee	Jan. 2014 – Aug. 2018
(4 years)	Distance Learning Committee – Chair	Aug. 2016 – Aug. 2020
(1 year)	Strategic Planning Committee	May 2018 – Aug. 2019
(2 year)	Faculty Advisory Committee	Sept. 2018 – Aug. 2019, Aug. 2020 – Aug. 2021
(2 years)	Scholarship Committee	Aug. 2011 – Aug. 2013
(2 years)	Undergraduate Awards Selection Committee	May 2008, May 2010
(1.5 years)	Senior Design Committee	Mar. 2013 – Aug. 2014
(1 year)	Faculty Industry Liaison Committee	Aug. 2014 – Aug. 2015
(2 years)	Faculty Search Committee	Sept. 2008 – May 2009, Sept. 2019 – Aug. 2020
(1 year)	ABET/Assessment Committee	Mar. 2007 – Jan. 2008

College Service

(2 years)	Graduate Instruction Committee	June 2020 – May 2022
(2.5 years)	Engineering Faculty Advisory Committee (EFAC), Member	Jan. 2018 – May 2020
(1 year)	College of Engineering Honors Committee, Member,	July 2013 – Aug. 2014

University Service
Learning Management System Selection Sub-Committee, IT Governance Program Sept. 2018 – May 2019
Latter-Day Saint Student Association, Faculty Adviser,   Aug 2014 – Dec. 2017

Faculty Mentor
Faculty Mentor – Pilwon Hur, MEEN   June 2017 – Dec. 2020
Faculty Mentor – Xingyong Song, ETID   Sept. 2016 – present
Faculty Mentor – ChaBum Lee, MEEN   Aug. 2018 – present

Associate Editor
ASME Journal of Dynamic Systems, Measurement, and Control, 2013-2016

Advisory Boards
Scientific Advisory Board Member,   National Science Foundation Engineering Research Center (NSF ERC)
                                         on Power Optimization of Electro-Thermal Systems (POETS).
                                         Jan 2019 – Aug. 2021.
Industrial Advisory Board Member,   Mechanical Engineering Department, Brigham Young University –
                                         Idaho. June 2019 – present.

Conference Activities

Conference Technical Program Chair
    Industrial Energy Technology Conference, 2014- 2015

Conference Advisory Board Member
    Industrial Energy Technology Conference, 2012-present

Conference Organizing Committee Member
    Chair of Invited and Special Sessions, IFAC Modeling, Estimation and Control Conference, 2021, Austin,
    Texas. Feb 2019 – Jan. 2022.

Conference Program Committee Member
    American Control Conference, 2012, Montreal, Ontario
    ASME Dynamic Systems and Control Conference, 2014, San Antonio, Texas

Organizer – Special and Invited Conference Sessions
    "Advanced Modeling and Control of Building Energy Systems", 2008 American Control Conference
    "Progress and Challenges in the Configuration, Control, and Battery Management of Vehicle-To-Grid (V2G)
    Integration Systems", 2009 ASME Dynamic Systems and Control Conference
    "Building Energy Systems", 2013 ASME Dynamic Systems and Control Conference
    "Successful Industrial Assessment Center Projects I", 2013 Industrial Energy Technology Conference
    "Successful Industrial Assessment Center Projects II", 2013 Industrial Energy Technology Conference
    "Building Energy Systems", 2014 ASME Dynamic Systems and Control Conference
    "Control of Smart Buildings and Microgrids", 2017 ASME Dynamic Systems Control Conference
    "Control & Energy Management of Building Systems", 2019 American Control Conference

Chair – Conference Sessions
    "Advanced Modeling and Control of Building Energy Systems", Chair, 2008 American Control Conf.
    "Dynamic Modeling for Automotive Applications", Co-chair, 2008 American Control Conf.
    "Progress and Challenges in the Configuration, Control, and Battery Management of Vehicle-To-Grid (V2G)
    Integration Systems", 2009 Dynamic Systems and Control Conference
    "Control Applications", 2009 Dynamic Systems and Control Conference
    "Heating, Ventilating, and Air Conditioning", Chair, 2010 American Control Conference
    "Successful Industrial Assessment Center Projects I", 2013 Industrial Energy Technology Conference
    "Successful Industrial Assessment Center Projects II", 2013 Industrial Energy Technology Conference
    "Building Energy Systems", 2013 ASME Dynamic Systems and Control Conference
    "Building Energy Systems", 2014 ASME Dynamic Systems and Control Conference
    "Equipment Analysis II", 2015 Industrial Energy Technology Conference
    "Building and Facility Automation", 2017 American Control Conference

"Building and Facility Automation I", 2018 American Control Conference
"Control & Energy Management of Building Systems", 2019 American Control Conference
"Equipment Energy Issues", 2019 Industrial Energy Technology Conference

Federal Grant Programs
National Science Foundation
    National Science Foundation Proposal Review Panel, Member, 6/06
    National Science Foundation Proposal Review Panel, Member, 1/11-12/10
    National Science Foundation Proposal Review Panel, Member, 1/14/10
    National Science Foundation Proposal Review Panel, Member, 6/10/10
    National Science Foundation CMMI Workshop Participant, 5/24-25/10

US Department of Energy
    Energy Efficiency and Renewable Energy Review Panel, Member, 5/17

Outreach Activities
Engineering Merit Badge, Boy Scouts of America, 20 participants, 4 two-hour sessions, Nov. 3, 6, & 10, 2010
Robotics Merit Badge, Boy Scouts of America, 15 participants, 4 two-hour sessions, Oct. 19, 26, Nov. 9, & 16, 2011
Inventing Merit Badge, Boy Scouts of America, 8 participants, 1 two-hour session, Nov. 5, 2011
Bridge Building Competition, Boy Scouts of America, 8 participants, 1 two-hour session, Jan. 9, 2013

Notable Laboratory Tours and Presentations
10/04/11   (3) T. Britton, TEES Assistant Vice Chancellor for External Affairs, D. Hurtado, TAMU Assistant Vice President for Federal Agency Advancement, J. Masser, Assistant Director TEES Strategic Research Development
11/07/11   (2) M. O'Quinn, TAMU Vice President for Government Relations
11/21/11   (17) Texas State Legislators
08/02/12   (1) Rep. John Raney
01/31/13   (8) National Security Agency Representatives (5), Diane Hurtado, Julie Masser, Kevin Gamache
11/11/14   (1) Mark Hussey, Interim President, Texas A&M University
02/02/17   (3) Faculty from Saudi Arabian Universities, (2) US Dept. of Energy

Radio and Television Interviews
05/15/2012   Public Radio, Hear the Answer, "How does a manufacturing plant make itself more efficient?"
    http://www.heartheanswer.com/index.php?action=feature&qid=1767

Reviewer

Research Proposals
National Science Foundation
US Dept. of Energy, Advanced Manufacturing Office

Journal Publications
International Journal of Refrigeration, Science and Technology for the Built Environment (previously HVAC&R research), IEEE Transactions on Control Systems Technology, Control Engineering Practice, ASME Journal of Dynamic Systems, Measurement, and Control, Applied Thermal Engineering, Nonlinear Dynamics, Journal of Process Control, Communications in Nonlinear Science and Numerical Simulation, Industrial & Engineering Chemistry Research, IEEE/ASME Journal of Mechatronics, ASHRAE Transactions, Energy and Buildings, Journal of Energy Resources Technology, IET Control Theory & Applications, International Journal of Robust and Nonlinear Control, Journal of Thermophysics and Heat Transfer, Mechatronics, Energies, Energy, Applied Energy, Buildings and Environment, Journal of Thermal Science and Engineering Applications

Conference Publications
American Control Conference, ASME International Mechanical Engineering Conference and Expo, IEEE CSS Multi-Conference on Systems and Control, IEEE Conference on Decision and Control, ASME Dynamic Systems and Control Conference, International Conference for Enhanced Building Operations, IFAC Symposium on Robust Control, ASHRAE Conference Proceedings, European Control Conference, IFAC World Congress, Conference on Control Technology and Applications

INDUSTRIAL ASSESSMENT CENTER ACTIVITIES

Leadership
Director, Aug. 2011 – present
Assistant Director, Jan. 2011 – Aug. 2011

Impact
Served over 800 industrial clients, resulting in $413 million in verified savings ($144 million since 2011).

Staff Employees
James A. Eggebrecht, P.E., 1994-present
Heather Lewis, 2020-present

Student Employees - 389
>241 Students from 1986-2010
113 Undergraduate Students and 35 Graduate Students from 2011-present (*45% underrepresented minorities)

	Undergraduate	Dates		Undergraduate	Dates
1)	Peter Chung	June 2009 – May 2011	61)	Kevin Trevino	Jan. 2017 – Dec. 2017
2)	Thomas Vest	Jan. 2010 – May 2012	62)	*Bryan Calleros	May 2017 – May 2019
3)	*Elizabeth Webre	Jan. 2010 – May 2012	63)	James Kunkel	May 2017 – Dec. 2017
4)	Chris Cassidy	Jan. 2010 – May 2011	64)	*Jennifer Abbarno	May 2017 – Dec. 2019
5)	*Emiliano Vivanco	Jan. 2010 – Dec. 2011	65)	Jeffrey Young	Aug. 2017 – May 2018
6)	Kelvin Singleton	Jan. 2010 – May 2012	66)	*Tatyana Atherley	Aug. 2017 – Dec. 2018
7)	Ben Fisher	May 2010 – May 2011	67)	*Nicole Risinger	Aug. 2017 – Dec. 2017
8)	*Amber Tucker	May 2010 – May 2012	68)	*Megan Valant	Jan. 2018 – May 2019
9)	Travis Warren	Sept. 2010 – May 2011	69)	*Guadalupe Estrada	Jan. 2018 – May 2019
10)	Jason Brelsford	May 2011 – Aug. 2011	70)	Hunter Brown	Jan. 2018 – May 2019
11)	Malcolm Stein	May 2011 – Aug. 2011	71)	Samuel Helgren	May 2018 – May 2020
12)	Neal Lynch	May 2011 – Aug. 2011	72)	Henry Campbell	May 2018 – May 2020
13)	*Gabriel Cruz	May 2011 – May 2012	73)	*Hannah Zumwalt	May 2018 – Dec. 2019
14)	*Irina Popova	May 2011 – May 2013	74)	Trey Boehm	May 2018 – Aug. 2019
15)	*Lauren Cassidy	Aug. 2011 – May 2013	75)	Matthew Stahr	May 2018 – Dec. 2019
16)	Garrett Hallmark	Aug. 2011 – May 2013	76)	Robert Coens	May 2018 – Aug. 2019
17)	Ryan Edwards	Aug. 2011 – Dec. 2013	77)	Thomas Cochran	May 2018 – Dec. 2018
18)	Cameron Ellis	Jan. 2012 – May 2013	78)	Joseph Tang	May 2018 – May 2020
19)	Michael Krutak	Jan. 2012 – Dec. 2013	79)	Austin Teague	May 2018 – May 2020
20)	*Oluwaseyi Lapite	Jan. 2012 – Dec. 2013	80)	Mazen Ali	May 2018 – Aug. 2019
21)	Ben Afflerbach	May 2012 – Dec. 2013	81)	*Laura Homiller	May 2018 – May 2020
22)	Travis Genz	May 2012 – Dec. 2013	82)	Reagan Wiggs	May 2018 – Dec. 2019
23)	Brad Vanderford	May 2012 – Dec. 2013	83)	*Christian Aycinena	Aug. 2018 – Dec. 2018
24)	Adam Groenhuyzen	May 2012 – Dec. 2015	84)	*Brianna Pratt	Aug. 2018 – Dec. 2019
25)	Matthew Hays	May 2012 – Aug. 2014	85)	Joseph Menna	May 2019 – Dec. 2020
26)	Thomas Kerr	May 2012 – Aug. 2014	86)	Songlin Xie	May 2019 – Dec. 2020
27)	*Kara Bocock	Jan. 2014 – Mar. 2014	87)	Kirk Hambleton	May 2019 – present
28)	John Houdek	May 2012 – May 2015	88)	*Kira Lee	May 2019 – July 2020
29)	Aalap Ashtamkar	Jan. 2014 – May 2015	89)	Mohammad Nemer	May 2019 – May 2020
30)	*Bibin Daniel	Jan. 2014 – May 2015	90)	Chanh Chau	May 2019 – Dec. 2020
31)	Kyle Kempf	Jan. 2014 – May 2014	91)	Joshua Abella	May 2019 – Dec. 2020
32)	*Ellen Geis	Jan. 2014 – May 2015	92)	*Vicente Sanchez	Aug. 2019 – May 2021
33)	Travis Hall	Jan. 2014 - May 2015	93)	*Alfredo Flores	Aug. 2019 – May 2021
34)	Mason Parsons	Jan. 2014 – May 2015	94)	*Erin Lipps	Apr. 2019 – May 2020
35)	*Michael Carrillo	Jan. 2014 – May 2017	95)	*Samantha Mersman	Jan. 2020 – May 2021
36)	Nathan Meredith	Jan. 2014 – May 2015	96)	Davis Karwoski	Jan. 2020 – May 2021
37)	Nick Seidemann	Jan. 2014 – Dec. 2015	97)	Jackson Jarman	Jan. 2020 – May 2021
38)	*Crystal Torres	Jan. 2014 – Aug. 2016	98)	*Madelyn MacArthur	May 2020 – May 2021
39)	*Gbotemi Balogun	Jan. 2015 – May 2015	99)	*Laura Smith	Jan. 2021 – present

40)	*Amy Shaklovitz	Jan. 2015 – May 2016	100)	*German Gonzalez	Jan. 2021 – present
41)	Austin Cantrell	Jan. 2015 – Dec. 2015	101)	*Molly Johnson	Jan. 2021 – present
42)	*Jiayao Amy Li	May 2015 – Dec. 2015	102)	Tyler Bagby	Jan. 2021 – present
43)	John Walt Prudhomme	May 2015 – May 2016	103)	*Nathaniel Smith	Jan. 2021 – present
44)	Daniel Moore	May 2015 – May 2016	104)	*Guadalupe Zuniga	Jan. 2021 – present
45)	Geoffrey Garner	May 2015 – May 2016	105)	John Hathaway	Jan. 2021 – present
46)	*Matthias Zerza	May 2015 – Aug. 2015	106)	Grant Wilson	Jan. 2021 – present
47)	*Fernando Zucolotto	May 2015 – Aug. 2015	107)	*Ramon Anaya	Jan. 2021 – present
48)	*Victor da Cunha	May 2015 – Aug. 2015	108)	*Victor Rodriguez	Jan. 2021 – present
49)	*Marcus Omori	May 2015 – Aug. 2015	109)	*Selena Manzano	Jan. 2021 – present
50)	*Salvador Vidaurre	Oct. 2015 – Dec. 2017	110)	*Esteban Lopez	Jan. 2021 – May 2021
51)	*Agustin Costabella	Jan. 2016 – May 2016	111)	*Shea Kirwin	Jan. 2021 – present
52)	Stuart Powell	Jan. 2016 – Dec. 2016	112)	Jefferson Lee	Jan. 2021 – present
53)	*Jose Bendana	May 2016 – May 2018	113)	*Paola Ontiveros	May 2021 – present
54)	*Jatziry Teran	Aug. 2016 – Dec. 2017	114)	*James Hernandez	Dec. 2021 – present
55)	Faysal Altaher	Aug. 2016 – Dec. 2016	115)	John McKelvey	Jan. 2022 – present
56)	*Rafael Dugarte	Aug. 2016 – Dec. 2018	116)	Abdulhafeez Oyetunde	Jan. 2022 – present
57)	*Sudikshya Bhandari	Aug. 2016 – May 2018	117)	Erik Oberoi	Jan. 2022 – present
58)	*Bruno Penagos	Aug. 2016 – Dec. 2018	118)	Bennett Kumbalek	Jan. 2022 – present
59)	*Nicholas Hernandez	Aug. 2016 – May 2017	119)	Brandon Sheneman	Jan. 2022 – present
60)	Michael Brasovan	Jan. 2017 – Sept. 2017	120)	*Leslie Riojas	Jan. 2022 – present
			121)	*Francisco Portillo	Jan. 2022 – present

	Graduate	Dates		Graduate	Dates
1)	William Pollard	Aug. 2011 – May 2015	21)	*Kaimi Gao	Jan. 2016 – Dec. 2018
2)	*Franco Morelli	Jan. 2012 – Nov. 2014	22)	Harsimran Singh	Jan. 2017 – May 2018
3)	Trevor Terrill	Aug. 2012 – Aug. 2017	23)	Shubham Chitkara	Jan. 2017 – May 2018
4)	*Priyam Parikh	Oct 2012 – Nov. 2014	24)	Abhishek Pal	May 2017 – Aug. 2018
5)	*Edwin Youmsi Pete	May 2013 – Dec. 2014	25)	Marcus Thackerey	Aug. 2018 – Aug. 2020
6)	Priyadarshan Zambre	Jan. 2014 – Aug. 2014	26)	*Rafael Dugarte	Jan. 2019 – present
7)	Christopher Price	Jan. 2015 – Jan. 2018	27)	Kunal Kanoi	May 2019 – Aug. 2020
8)	Rohit Chintala	Jan. 2015 – Dec. 2016	28)	Saurabh Shekhadar	Aug. 2019 – present
9)	Dushyant Chaudhari	May 2015 – Dec. 2016	29)	Adithya Athreya	Aug. 2019 – Dec. 2019
10)	Austin Rogers	Aug. 2015 – Jan. 2018	30)	Taeksoo Kim	Aug. 2019 – present
11)	*Ananya Ravi	Jan. 2016 – May 2016	31)	Deokgeun Park	Aug. 2019 – present
12)	*Panchami Menon	Jan. 2016 – Jan. 2017	32)	Navaneeth Kuncham	Jan. 2020 – Dec. 2021
13)	Darpan Chorghe	Jan. 2016 – May 2016	33)	Kushan Abeyawardhane	Jan. 2020 – Dec. 2021
14)	Vinayak Nair	Jan. 2016 – May 2016	34)	Ja Eun Koo	Jan. 2021 – present
15)	*Tejaswi Petluri	Jan. 2016 – May. 2016	35)	*Shambhavi Singh	Jan. 2022 – present
16)	*Iyabo Lawal	May 2016 – Aug. 2016	36)	Jeet Khanpara	Jan. 2022 – present
17)	*Jorge Mijares	Aug. 2016 – Dec. 2017	37)	Shejin Symon	Jan. 2022 – present
18)	*Asha Shibu	Aug. 2016 – Aug. 2017	38)	Will Schneider	Jan. 2022 – present
19)	*Sharon Maria	Aug. 2016 – May 2018	39)	Brian Jahn	Jan. 2022 – present
20)	*Keeley Coburn	Aug. 2016 – May 2017	40)	Jay Rohit Verlekar	Jan. 2022 – present

Industrial Assessments

Faculty lead on 76 industrial assessments with student teams.

International assessments: Bonlac Brisas del Golf, Panamá City, Panamá
    Industria Panameña de Cilindros, Chilibre, Panamá

Short Courses and Training for International Partners

"Modern Industrial Assessments", Aug. 10-14, 2015. For faculty of Qassim University, Saudia Arabia.

"Industrial Energy Assessments", Oct. 5-11, 2019. For students and staff of Universidad Tecnológica de Panamá.

Outreach Activities

Energy Engineering Experience (E3) for High School Teachers – March 21-23, 2012.

Training for IAC Students

Incomplete list of External Training Partners:

AmerESCO	PACE Texas
CLEAResult	Rapid Power Management
Dallas Wastewater	Samsung
Energy by 5	Siemens
Energy and Resource Solutions	South Central Partnership for Energy Efficiency as a Resource
Energy Systems Laboratory (TAMU)	Spriax-Sarco
Entergy	Texas Industries of the Future
Houston Advanced Research Center	Texas Manufacturing Assistance Center (TMAC)
ICF	Texas State Energy Conservation Office (SECO)
Ingersoll-Rand	Utilities and Energy Management (TAMU)
McKinstry Consulting	

RESEARCH

External Research Grants and Gifts - Funded ($13,352,160 Total, $7,228,357 PI: Rasmussen)

G1) Rasmussen, B., Eggebrecht, J., Lewis, H., "Texas A&M University Industrial Assessment Center (Topic 1)," Dept. of Energy, Advanced Manufacturing Office, $1,750,000, 1 Sept. 2021 – 30 Aug. 2026. ($1,750,000 Rasmussen)

G2) Rasmussen, B., Claridge, D., Baltazar, J-C, Yagua, C., "Texas A&M University Building Performance Assessment Center (Topic 2)," Dept. of Energy, Advanced Manufacturing Office, $500,000, 1 Sept. 2021 – 30 Aug. 2016. ($50,000 Rasmussen)

G3) Rasmussen, B., "Large Scale Data Analytics for Air Conditioning Systems: Phase 2," Trane, $147,825 ($147,825 Rasmussen), 1 Jan. 2020 – 31 June 2021.

G4) Toliyat, H., Gardner, M., Antao, D., Enjeti, P., Felts, J., Grunlan, J., Moble, B., Rasmussen, B., Shamberger, P., "Multi-Physical Co-Design of Next Generation Axial Motors for Aerospace Applications," US Dept. of Energy, ASCEND, $4,805,752 ($419,885 Rasmussen), 1 Jan. 2021 – 30 June 2024.

G5) Hajimirza, S., Rasmussen, B., "Steady-state Thermal Modeling and Value Analysis of Commercial Chiller System with Oil-free VS Centrifugal Compressor," Emerson Climate Technologies, $87,012, (B. Rasmussen $43,506), 1 July 2018 – 1 Feb. 2020.

G6) Rasmussen, B., Hu, X., "Large Scale Data Analytics for Air Conditioning Systems," Trane, $541,104 ($352,561 Rasmussen), 1 Sept. 2017 – 31 June 2020.

G7) Rasmussen, B., Claridge, D., Eggebrecht, J. "Texas A&M University Industrial Assessment Center," U.S. Dept. of Energy – Golden Field Office, $1,575,000, 1 Oct. 2016 – 30 Sept. 2021.

G8) Rasmussen, B., "Distributed Model Predictive Control for Building Energy Systems," National Science Foundation – Civil and Mechanical Systems – Sensors, Dynamics, and Control Program, $325,000, 1 Sept. 2016 – 31 Aug. 2020.

G9) Rasmussen, B., "Study to Quantify the Potential for Emissions Reductions due to Common Energy Efficiency Projects Implemented by Industrial Manufacturers – Phase 2," South Central Partnership for Energy Efficiency as a Resource, $36,787, 1 April 2016 – 31 Dec. 2016

G10) Rasmussen, B., "SBIR: Software Toolkit for Dynamic Control of Active Thermal Management Systems – Phase I," SBIR – Office of Naval Research, N00014-16-P-2005, $24,000, 1 Nov. 2015 – 15 May 2016.

G11) Rasmussen, B., "Study to Quantify the Potential for Emissions Reductions due to Common Energy Efficiency Projects Implemented by Industrial Manufacturers," South Central Partnership for Energy Efficiency as a Resource, $34,850, 16 July 2015 – 31 Mar. 2016 ($29,725 Rasmussen).

G12) Rasmussen, B., "Modern Industrial Energy Assessments Training," Qassim University, $22,000, 1 May 2015 – 1 Mar. 2017.

G13) Rasmussen, B., "Heat Pump Dynamic Simulation Model: Phase 2: Transient Thermal Model Development with Experimental Validation," Emerson, $86,202, 16 Oct. 2014 – 31 Jan. 2016.

G14) Rasmussen, B., "Industrial Assessment Center Research Grant," Dept. of Energy, Advanced Manufacturing Office, $25,000, 1 Sept. 2014 – 30 Aug. 2015.

G15) Rasmussen, B., "Experimental Evaluation of Silicon Expansion Valve Technology," DunAn Microstaq, $149,351, 15 July 2013 – 15 Nov. 2015.

G16) Rasmussen, B., "Senior Design Project: Net-Zero Energy Homes," Altumaxis, $3,000, 1 Sept. 2012 – 31 Aug. 2013.

G17) Rasmussen, B., "Transient Simulation Models of OPS and VCS," Marvin Land Systems, $63,342, 1 Sept. 2012 – 28 Feb. 2013.

G18) Rasmussen, B., "Distributed Model Predictive Control for Building Energy Systems," National Institute of Standards and Technology, $229,224, 1 Sept. 2012 – 31 Aug. 2015.

G19) Rasmussen, B., "Industrial Assessment Center Research Grant," Dept. of Energy, Advanced Manufacturing Office, $25,000, 1 Sept. 2012 – 30 Aug. 2013.

G20) Rasmussen, B., "Heat Pump Dynamic Simulation Model: Phase 1: Transient Thermal Model Development with Experimental Validation," Emerson, $144,813, 1 Sept. 2012 – 31 Aug. 2014.

G21) Rasmussen, B., Eggebrecht, J. "Texas A&M University Industrial Assessment Center," U.S. Dept. of Energy – Golden Field Office, $1,217,098, 1 Oct. 2011 – 30 Sept. 2016.

G22) Rasmussen, B., "Advanced Controls for Ultra-Efficient Supermarket Refrigeration Systems," Lawrence-Livermore National Laboratory, $20,000, 1 Sept. 2011 – 30 Aug. 2012.

G23) Heffington, W., Eggebrecht, J., and Rasmussen, B., "TAMU Industrial Assessment Center," 1 Oct. 2006 – 20 Sept. 2011 $672,454 ($32,000 Rasmussen), 1 Sept. 2006 – 31 Aug. 2012.

G24) Rasmussen, B., "REU Supplemental Research Grant: CAREER: Model-Based Control and Diagnostics for Transcritical CO_2 Vapor Compression Cycle Systems," National Science Foundation – Civil and Mechanical Systems – Control Systems Program, $6,000, 1 Mar. 2011 – 29 Feb. 2012.

G25) Garrett, M., and Rasmussen, B., "SBIR: Development of a Variable-Fidelity Toolset for Dynamic Thermal Modeling of Aircraft Thermal Management Systems – Phase I," SBIR – Air Force, AF103-208, $100,000 ($30,000 Rasmussen), 1 Mar. 2011 – 31 Dec. 2011.

G26) Rasmussen, B., "Precision Air Pressure Regulated Pulse Dampened Fluid Flow in Sperm Sorting Flow Cytometer," Sexing Technologies, Inc., $24,625, 1 Sept. 2010 – 30 Aug. 2011.

G27) Schwartz, C. and Rasmussen, B., "Investigation of Display and Deployment Technologies for Humanitarian Information Dissemination," Sandia National Laboratories, $74,996 ($14,688 Rasmussen), 1 Sept. 2010 – 30 Aug. 2011.

G28) Rasmussen, B., "Transient Performance Improvements of Silicon Expansion Valves: Modeling and Analysis," Microstaq, Inc., $46,730, 1 Aug. 2010 – 30 Sept. 2011.

G29) Rasmussen, B., "Dynamic Modeling and Control of a Multi-Evaporator Vapor Compression System," Air Force Research Laboratory, $27,200, 31 Mar. 2010 – 1 Apr. 2011.

G30) Rasmussen, B., "Dynamics and Control of SEV Controlled Vapor Compression Systems," MicroStaq, $6,000, 5 Jan. 2010.

G31) Rasmussen, B., "ASHRAE Grant-in-Aid: Student – Matthew Elliott," ASHRAE, $10,000, 3 Feb. 2009.

G32) Rasmussen, B., "Dynamic Modeling of Vapor Compression Cycles for Aerospace Vehicles," Honeywell, Inc., Toronto, $105,797, 1 Dec. 2008 – 30 Nov. 2010.

G33) Rasmussen, B., "Reduced Order Dynamic Models of Vapor Compression Systems," American Society of Heating, Refrigeration, and Air Conditioning Engineers – Young Investigator Program, $30,000, 1 Dec. 2006, renewed $15,000, 19 May 2008. ($45,000 total).

G34) Rasmussen, B., "Reduced Order Dynamic Models of Vapor Compression Systems," matching funds for ASHRAE Young Investigator award, Honeywell, Torrance, $15,000, Mar. 2007.

G35) Rasmussen, B., "CAREER: Model-Based Control and Diagnostics for Transcritical CO_2 Vapor Compression Cycle Systems," National Science Foundation – Civil and Mechanical Systems – Control Systems Program, $400,000, 1 Mar. 2007 – 29 Feb. 2012.

G36) Rasmussen, B., "Dynamic Model Development of a Vapor Compression System Unit and Air Handling Unit for the Future Combat Systems Program," Marvin Land Systems, Inc., $16,928, 16 Oct. 2006. Extension, $29,732, 17 Apr. 2007. Extension, $29,328, 21 Sept. 2007. ($75,998 total), 1 Nov. 2006 – 31 Dec. 2007.

Internal Research Grants and Gifts - Funded ($499,607 Total, $484,607 PI: Rasmussen)

IG1) Rasmussen, B., Eggebrecht, J., Lewis, H., "Texas A&M University Industrial Assessment Center – Cost Sharing Grant," College of Engineering, Texas A&M University, $100,000, 1 Oct. 2021 – 30 Sept. 2026.

IG2) Antao, D., Rasmussen, B., "Enhancing Convective Boiling of Dielectric Fluids in Microchannels via Simultaneous use of Microscale Surface Engineering and Active Flow Control," Mechanical Engineering Department, Texas A&M University, $30,000, 26 Aug. 2019.

IG3) Rasmussen, B., Claridge, D., Eggebrecht, J. "Texas A&M University Industrial Assessment Center – Cost Sharing Grant," College of Engineering, Texas A&M University, $100,000, 1 Oct. 2016 – 30 Sept. 2021.

IG4) Rasmussen, B., "Aggi-E Challenge Program," Texas A&M University, $22,500, 22 April 2016.

IG5) Rasmussen, B., "Aggi-E Challenge Program," Texas A&M University, $22,642, 22 April 2015.

IG6) Rasmussen, B., "Aggi-E Challenge Program," Texas A&M University, $22,500, 22 April 2014.

IG7) Rasmussen, B., "Aggi-E Challenge Program," Texas A&M University, $22,500, 18 July 2013.

IG8) Rasmussen, B., "Aggi-E Challenge Program," Texas A&M University, $22,465, 18 July 2012.

IG9) Rasmussen, B., Eggebrecht, J. "Texas A&M University Industrial Assessment Center – Cost Sharing Grant," Dept. of Mechanical Engineering, Texas A&M University, $25,000, 2 Aug. 2011.

IG10) Rasmussen, B., Eggebrecht, J. "Texas A&M University Industrial Assessment Center – Cost Sharing Grant," Energy Systems Laboratory, Texas A&M University, $1,000, 2 Aug. 2011.

IG11) Rasmussen, B., "Supplemental Research Grant", Department of Mechanical Engineering, Texas A&M University, $30,000, 1 Jun. 2011.

IG12) Rasmussen, B., "Faculty Research Initiation Grant", Texas Engineering Experiment Station and Department of Mechanical Engineering, Texas A&M University, $101,000, 1 Jan. 2006.

Equipment Donations – ($38,417 estimated)

INVITED PRESENTATIONS

Invited Presentations - Notable

P1)   US Congress, House of Representatives, Manufacturing Caucus, "The impact of the Industrial Assessment Center program in increasing the energy efficiency and competitiveness of US Manufacturing", Rasmussen, B., 25 January 2017.

P2)   Overview of US Dept. of Energy Programs, webinar organized by Representative Filemon Vela, "Overview of Texas Industrial Assessment Centers", Rasmussen, B., 9 Dec. 2020.

Invited Presentations – Academic (External)

P3)   Congreso Internacional de Ingeniería Mecánica, "Industrial Internet of Things (IIOT): Transforming Information into Energy Savings", Universidad Tecnológica de Panamá, 11 Oct. 2019.

P4)   Congreso Internacional de Ingeniería Mecánica, "Opportunities for Improving Energy Efficiency in Industrial and Commercial Facilities", Universidad Tecnológica de Panamá, 8 Oct. 2018.

P5)   American Control Conference, "Thermal and HVAC Control Systems: Challenges and Opportunities," Alleyne, A., Hencey, B., Wen, J., Rasmussen, B., Seattle, WA, 24 May 2017.

P6)   Rice University, Mechanical Engineering Department, "Advanced Coordinated Controls for Building HVAC Networks," Houston, TX, 5 Apr. 2017.

P7)   University of Utah, Chemical Engineering Department, "Advanced Coordinated Controls for Building Energy Networks," Salt Lake City, UT, 17 Feb. 2017.

P8)   Texas A&M University - Qatar, "Distributed Model Predictive Control of Building Energy Systems," Doha, Qatar, 16 Feb. 2015.

P9)   Texas Systems and Controls Day, "Distributed Model Predictive Control of Building Energy Systems," College Station, Texas, 27-28 Mar. 2014.

P10)   Aalborg University, "Distributed Model Predictive Control of Building Energy Systems," Aalborg, Denmark, 10 Mar. 2014.

P11)   Intelligent Building Operations Workshop, "Distributed Model Predictive Control of Building Energy Systems", Boulder, Colorado, 21 June 2013.

P12)   Smart Grid Workshop, "Research in Smart Grid Education," Chanan Singh, Jorge Alvorado, Ana Goulart, Bryan Rasmussen, Wei Zhan, College Station, Texas, 17 Apr. 2013.

P13)   Brigham Young University, Department of Mechanical Engineering, "Control of Building HVAC Systems: Challenges and Opportunities," Provo, Utah, 16 Mar. 2011.

P14)   Colorado School of Mines, Department of Engineering, "Control of Building HVAC Systems: Challenges and Opportunities," Golden, Colorado, 26 Feb. 2010.

P15)   International Conference on College Teaching and Learning, "Learning from Failure: Motivating Students beyond Course Minimums," Jacksonville, Florida, April 15, 2009.

Invited Presentations – Academic (Texas A&M University)

P16)   Dept. of Mechanical Engineering, Texas A&M University, Graduate Student Seminar, "Cloud-based Fault Detection: Leveraging Big Data to Reduce HVAC Energy Usage," College Station, Texas, 19 Aug. 2020.

P17)   American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), TAMU Chapter, "Advanced Coordinated Controls for Building HVAC Networks," College Station, TX, 18 Oct. 2016.

P18)   American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), TAMU chapter, "Beyond Steady State: Dynamics and Control of HVAC Systems," College Station, TX, 29 Nov. 2007

P19)   Dept. of Mechanical Engineering, Texas A&M University, Graduate Student Seminar, "Divide and Conquer: An Introduction to Gain Scheduling Control Methodologies," College Station, Texas, 20 Sept. 2006.

P20)   Dept. of Mechanical Engineering, Texas A&M University, "Dynamic Modeling and Advanced Control of Vapor Compression Systems," College Station, Texas, 9 Mar. 2005.

Invited Presentations – Industry

P21)   National Renewable Energy Laboratory, "Distributed Model Predictive Control for Improving Operation of Commercial Building HVAC Systems", Golden, CO, 6 Nov. 2018.

P22)   Oak Ridge National Laboratory, Building Equipment Research Group, "Intelligent Building Energy Management", Oak Ridge, TN, 20 Sept. 2018.

P23)   American Institute of Chemical Engineers (AIChE), "The US Dept. of Energy Industrial Assessment Center Program: Best Practices from the Past 40 Years", Webinar, 1 Feb. 2017. Online Link

P24)   SPEER Summit, "Opportunities for Reducing Emissions through Industrial Energy Efficiency", Austin, TX, 8 Feb. 2017.

P25)   American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) 2017 Winter Conference, "Leveraging Control Systems for Energy Savings in Industrial Facilities," Las Vegas, NV, 31 Jan. 2017.

P26)   Clean Air Through Energy Efficiency (CATEE) Conference, "Tracking the Multiple Benefits of Industrial Energy Efficiency," San Antonio, TX, 21 Dec. 2016.

P27)   Clean Air Through Energy Efficiency (CATEE) Conference, "Pilot Study Quantifying Potential Emissions Reductions for Common Industrial Energy Efficiency Projects," Galveston, TX, 2 Dec. 2015.

P28)   Industrial Assessment Center Director's Meeting, "Novel Method for Non-Intrusive Measurement of Compressed Air Leakage Flow Rates", Washington DC, 16 Oct. 2015.

P29)   American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) 2013 Annual Conference, "Dynamic Modeling for Vapor Compression Systems: Literature Review and Simulation Tutorial," D-DE13Sem18, 25 June

2013.

P30) Industrial Assessment Center Director's Meeting, "Controls for HVAC Systems: Challenges and Opportunities", San Diego, CA, 10 July 2012.

Invited Presentations – Research Sponsors

P31) (4) Trane, "Large Scale Data Analytics for Air Conditioning Systems," Tyler, TX, 27 Apr. 2018, May 10, 2019; College Station, TX, 11 Nov. 2017, 18 Sept. 2018, 10 May 2019, 11 May 2020.

P32) (1) Emerson Climate Technologies, "Heat Pump Dynamic Simulation Model Development and Multivariable Control Design," Sidney, OH, 13 Sept. 2018.

P33) (4) Active Cooling Technologies, and Office of Naval Research, "Dynamic Simulation Toolbox for HVAC&R Systems," College Station, TX, 18 June 2015, 10 Sept. 2015, 9 Nov. 2015, 10 May 2016.

P34) (6) Dunan MicroStaq, Inc., "Development of Silicon Expansion Valve Technology for HVAC&R Systems," 5 Nov. 2012, 25 Mar. 2013, 17 Aug. 2013, 14 Nov. 2014, Austin, TX; 10 Jan. 2014, 28 July 2014, 25 Aug. 2015, College Station, TX.

P35) (6) Emerson Climate Technologies, "Steady-state Thermal Modeling and Value Analysis of Commercial Chiller System With Oil-free VS Centrifugal Compressor," Sidney, OH, 8 July 2013, College Station, TX, 27-28 Mar. 2014, College Station, TX, 25-26 Mar. 2015, College Station, TX, 13-14 Jan. 2016.

P36) Air Force Research Laboratory, "Dynamic Simulation Toolbox for HVAC&R Systems," Dayton, OH, 25 Aug. 2011.

P37) Oak Ridge National Laboratory, "Dynamic Modeling and Control of Building Energy Systems," College Station, TX, 22 Nov. 2010.

P38) Honeywell, Inc., "Dynamic Modeling of Vapor Compression Systems," Torrence, CA, 16 Dec. 2008.

P39) MicroStaq, Inc., "Evaluation of Silicon Expansion Valve Technology for HVAC&R Systems," Austin, TX, 21 Nov. 2008.

P40) Marvin Land Systems, Inc., "Dynamic Modeling of VCSU, AHU, and OPS systems," Los Angeles, CA, 22 May 2008.

P41) Honeywell, Inc., "Dynamic Modeling of Vapor Compression Systems," Toronto, Canada, 14-15 June 2007.

P42) Marvin Land Systems, Inc., "Dynamic Modeling of VCSU and AHU for Future Combat Systems Program," Los Angeles, CA, 5 Oct. 2006.

P43) Trane, "Dynamic Modeling and Control of Air Conditioning Systems," Tyler, TX, 6 Apr. 2006.

P44) Industrial Advisory Board – Dept. of Mechanical Engineering, Texas A&M University, "Dynamic Modeling and Control of Thermo-Fluid Energy Systems," College Station, TX, 24 Mar. 2006.

P45) General Dynamics Land Systems, "Dynamic Modeling, Simulation, and Control of Vapor Compression Systems," Urbana, Illinois, 20 Oct. 2004.

P46) United Technologies Research Center, "Thermosys Library for Simulation of Air-Conditioning Systems in MATLAB/Simulink," East Hartford, Connecticut, 19 Mar. 2002.

P47) Visteon Corporation, Climate Control Advanced Technology, "Thermosys Library for MATLAB/Simulink," Detroit, Michigan, 5 Mar. 2002.

P48) (5) Industrial Advisory Board - Air Conditioning and Refrigeration Center, "Dynamic Modeling and Control of Vapor Compression Systems," Urbana, Illinois, 7 Nov. 2001, 6 Nov. 2002, 5 Nov. 2003, 3 Nov. 2004, 19 Oct. 2005.

Invited Presentations – Panel Discussions

P49) TEES Strategic Research Development, Texas A&M University, Panelist, "NSF CAREER Proposal," College Station, Texas, 19 Nov. 2008.

P50) Graduate Teaching Academy, Texas A&M University, Distinguished Panelist, "Pathway to the Professorate: What to Expect When You Say Yes," College Station, Texas, 17 Nov. 2008.

Poster Presentations

PP1) [1]Shekhadar, S., Rasmussen, B.P., "Energy Analysis and Feasibility Study of Occupancy Controlled Lighting in Library Stacks," *Texas Energy Summit*, (virtual), Nov. 10-11, 2021. Recipient of 2nd place Malcolm Verdict Memorial Poster Competition.

PP2) [1]Guo, F., and Rasmussen, B.P., "Statistics-based Fault Detection and Diagnosis for Residential HVAC Systems Using Cloud-based Thermostat Data," *ASME International Mechanical Engineering Congress*, Salt Lake City, UT, Nov. 11-14, 2019.

PP3) [1]Park, D., [1]Price, C., and Rasmussen, B.P., "Cascaded Control for Building HVAC Systems in Practice," *ASME International Mechanical Engineering Congress*, Salt Lake City, UT, Nov. 11-14, 2019.

PP4) Price, C., and Rasmussen, B.P., "Tracking the Impacts of Industrial Efficiency," Texas A&M Conference on Energy, College Station, TX, 26 Sept. 2017.

PP5) Rogers, A., and Rasmussen, B.P., "Potential for Peak Demand Reduction in Commercial and Industrial Buildings," Texas A&M Conference on Energy, College Station, TX, 26 Sept. 2017.

PP6) Price, C., and Rasmussen, B.P., "Energy and Emissions Savings from Industrial Efficiency Projects," Texas A&M Conference on Energy, College Station, TX, 28 Sept. 2016.

PP7) Terrill, T., and Rasmussen, B.P., "Non-intrusive Gas Flow Measurement Using Temperature Signatures," Texas A&M Conference on Energy, College Station, TX, 28 Sept. 2016.

PP8) Chintala, R., and Rasmussen, B.P., "Model Predictive Control of Building HVAC Systems Using Black-Box Modeling," Texas A&M Conference on Energy, College Station, TX, 28 Sept. 2016.

PP9) Bay, C.J. and Rasmussen, B.P., "Autonomous Energy Audits in Buildings – A Lighting Assessment Package," Texas A&M Conference on Energy, College Station, TX, 28 Sept. 2016.

PP10) Terrill, T., and Rasmussen, B.P., "Non-intrusive Gas Flow Measurement Using Temperature Signatures," Texas A&M Mechanical Engineering Kickoff Event, College Station, TX, 2 Sept. 2016.

PP11) Bay, C.J., Terrill, T.J, and Rasmussen, B.P., "Autonomous UAVs for Conducting Building Energy Audits," Mechanical Engineering Leadership Council Poster Competition, College Station, TX, 4 Sept. 2015. *1st Place.*

PP12) Bay, C.J., Chintala, R.H., Jalal, R.E., Price, C.R., and Rasmussen, B.P., "Distributed Model Predictive Control for Building Energy Systems," Texas A&M University Smart Grid Workshop, College Station, TX, 8 Apr. 2014.

PP13) Bay, C.J., Terrill, T.J, and Rasmussen, B.P., "Autonomous UAVs for Conducting Building Energy Audits," Texas A&M University Smart Grid Workshop, College Station, TX, 8 Apr. 2014.

PP14) Bay, C.J., Terrill, T.J, and Rasmussen, B.P., "Autonomous UAVs for Conducting Building Energy Audits," Texas A&M Mechanical Engineering Day, College Station, TX, 5 Apr. 2014. *3rd Place.*

PP15) Bay, C.J., Terrill, T.J, and Rasmussen, B.P., "Autonomous UAVs for Conducting Building Energy Audits," Texas Systems Day, College Station, TX, 28 Mar. 2014.

PP16) Bay, C.J., Chintala, R.H., Jalal, R.E., Price, C.R., and Rasmussen, B.P., "Distributed Model Predictive Control for Building Energy Systems," Mechanical Engineering Day, Texas A&M University, College Station, TX, 26 Apr. 2013.

PP17) Terrill, T., Morelli, F., and Rasmussen, B.P., "Autonomous Energy Auditors for Energy Efficient Retrofits and Retro-commissioning in Commercial and Industrial Buildings," Texas A&M University Smart Grid Workshop, College Station, TX, 17 Apr. 2013.

PP18) Bay, C.J., Chintala, R.H., Jalal, R.E., Price, C.R., and Rasmussen, B.P., "Distributed Model Predictive Control for Building Energy Systems," Texas A&M University Smart Grid Workshop, College Station, TX, 17 Apr. 2013.

PATENTS AND INNOVATIONS

Software
Bryan Rasmussen, "HVAC&R Dynamics: A Simulation Toolbox for MATLAB."

Bryan Rasmussen and Andrew Alleyne, "Thermosys Toolbox for MATLAB."

Invention Disclosures
Bryan Rasmussen, "Electronic pressure regulating expansion valve for semi-active refrigerant flow control," May 2007.

Bryan Rasmussen, "Software for Real-Time Dynamic Simulation of Vapor Compression Systems," Feb. 2011

CONSULTING

Marvin Land Systems, Inc., Los Angeles, CA. 4-5 Oct. 2006. Regarding dynamic modeling of climate control system for Future Combat Systems Program.

Honeywell, Inc., Mississauga, ON, Canada. 14-15 June 2007. Regarding dynamic modeling of vapor compression systems using Thermosys Toolbox for Matlab.

Booz, Allen, Hamilton, McLean, VA. 1-7 May 2018. Regarding dynamic modeling of vapor compression systems using Matlab.

PUBLICATIONS

Annotations:
[1] Graduate Student – Texas A&M University
[2] Undergraduate Student – Texas A&M University
[3] Graduate Student – University of Illinois at Urbana-Champaign

Abbreviations
ASME: American Society of Mechanical Engineers
IEEE: Institute of Electrical and Electronics Engineers
ASHRAE: American Society of Heating, Refrigeration, and Air Conditioning Engineers
HVAC&R: Heating, Ventilation, Air Conditioning, and Refrigeration
SPEER: South-Central Partnership for Energy Efficiency as a Resource
SAE: Society of Automotive Engineers
ACEEE: American Council for an Energy-Efficient Economy

Theses – as Primary Author

T1) [3]Rasmussen, B.P., "Control-Oriented Modeling of Transcritical Vapor Compression Systems," M.S. Thesis, Dept. of Mechanical and Industrial Engineering, University of Illinois, Urbana, IL, Oct. 2002.

T2) [3]Rasmussen, B.P., "Dynamic Modeling and Advanced Control of Air Conditioning and Refrigeration Systems," Ph.D. Thesis, Dept. of Mechanical and Industrial Engineering, University of Illinois, Urbana, IL, Dec. 2005.

Theses – as Graduate Research Advisor and Thesis Committee Chair

T3) [1]Elliott, M., "Decentralized Model Predictive Control of a Multiple Evaporator HVAC System," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2008.

T4) [1]Chang, Y.J., "Gain Scheduled Control using the Dual Youla Parameterization," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2009.

T5) [1]Hariharan, N., "Parameter Estimation of Dynamic Air-Conditioning Component Models Using Limited Sensor Data," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, March 2010.

T6) [1]Seshadri, S., "Optimizing Air-Conditioning System Cycling," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, April 2011.

T7) [1]Ayyagari, B., "Simulation and Validation of Vapor Compression System Faults and Startup/Shutdown Transients," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, April 2011.

T8) [1]Janecke, A., "A Comparison of Fault Detection Methods for a Transcritical Refrigeration System," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, April 2011.

T9) [1]Rani, A., "Control and Optimization of Vapor Compression Cycles using Least Squares Estimation," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2012.

T10) [1]Gupta, A., "Dynamic Modeling and Cascaded Control for a Multi-Evaporator Supermarket Refrigeration Systems," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2012.

T11) [1]Elliott, M., "Distributed Control of HVAC&R Networks," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2013.

T12) [1]Liang, S., "Dynamic Modeling and Wavelet-based Multi-Parametric Tuning and Validation for HVAC Systems," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2014.

T13) [1]Parikh, P., "Decentralized Model Predictive Control of a Multiple Evaporator HVAC System," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Sept. 2014.

T14) [1]Morelli, F., "Electrical Demand and Analysis Software Tool Suite and Automatic Report Generation for Energy Audits," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2014.

T15) [1]Youmsi, E., "Development and Testing of a Prototype Pilot Expansion Valve for Vapor Compression Systems," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Jan. 2015.

T16) [1]Gao, K., "Experimental Evaluation of Silicon Expansion Valve Technology," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2015.

T17) [1]Terrill, T., "Analysis of a Long-Term Building Energy Study to Evaluate Energy Usage and Thermal Comfort in Religious Facilities," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, May 2015.
  Recipient of the Distinguished Graduate Student Award for Excellence in Research-Master's Thesis, presented by the Texas A&M University Association of Former Students

T18) [1]Wang, C., "Dynamic Simulation and Control Design Tools for Heat Pump Systems," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, August 2016.

T19) [1]Jalal, R., "Limited Communication Distributed Model Predictive Control for HVAC Systems," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, October 2016.

T20) [1]Bay, C., "Advancing Embedded and Extrinsic Solutions for Optimal Control and Efficiency of Energy Systems in Buildings," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Aug. 2017.

T21) [1]Chintala, R., "A Methodology for Automating the Implementation of Advanced Control Algorithms such as MPC on Large Scale Building HVAC Systems," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2017.

T22) [1]Mijares Tobias, J., "Detecting of Lubrication Starvation in Ball Bearings by Means of Lateral and Torsional Vibrations," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2017.

T23) [1]Terrill, T., "Advancements in the Industrial Internet of Things for Energy Efficiency," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, August 2018.

T24) [1]Price, C., "Cascaded Control for Improved Building HVAC Performance," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2018.

T25) [1]Gao, K., "Modeling and Control Architecture Design of Multi-evaporator Pumped Two-phase System," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Aug. 2019.

T26) [1]Rogers, A., "Fault Detection and Diagnosis Methods for Residential Air Conditioning Systems Using Cloud-based Data," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Aug. 2019.

T27) [1]Park, D., "Performance Mapping and Life-Cycle Cost Modeling for Heat Exchanger Geometry Optimization in Vapor Compression Chillers," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Mar. 2021.

T28) [1]Guo, F., "Large Scale Data Analytics for Fault Detection and Diagnosis of Residential HVAC Systems," Ph.D. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, June 2021.

T29) [1]Whittier, A., "A Model-Based Systems Engineering Approach to Product Value Optimization among Disparate Criteria," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, June 2021.

T30) Vadali, P.A., "Impact Metrics for Residential HVAC Systems using Cloud-Based Smart Thermostat Data," M.S. Thesis, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, March 2022.

Non-Theses Project Reports – as Graduate Research Advisor

NT1) [1]Gupta, A., "Reduced Order Modeling of Heat Exchangers Using High Order Finite Control Volume Models," M.S. Non-Thesis Project Report, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Nov. 2007.

NT2) [1]Ramani, A., "Dynamic Modeling of VCSU and AHU for Future Combat System Vehicles," M.E. Non-Thesis Project Report, Dept. of Mechanical Engineering, Texas A&M University, College Station, TX, Dec. 2007.

Book Chapters

B1) Rasmussen, B.P., [1]Price, C., [3]Koeln, J., [3]Keating, B., and Alleyne, A., "Chapter 4: HVAC System Modeling and Control: Vapor Compression System Modeling and Control," *Intelligent Building Control Systems*, Springer-Verlag, 2018. ISBN 978-3-319-68461-1. DOI: 10.1007/978-3-319-68462-8

B2) [3]Koeln, J., [3]Keating, B., and Alleyne, A., [1]Price, C., Rasmussen, B.P., "Chapter 6: Multi-zone Temperature Modeling and Control," *Intelligent Building Control Systems*, Springer-Verlag, 2018. ISBN 978-3-319-68461-1. DOI: 10.1007/978-3-319-68462-8

B3) Rasmussen, B.P., Kreider, J.F., Claridge, D.E., and Culp, C.H., "Heating Ventilating, and Air Conditioning Control Systems," *CRC Energy Efficiency and Renewable Energy Handbook*, 2nd edition, September 2015. ISBN 9781466585089

This chapter also appears in:

Rasmussen, B.P., Kreider, J.F., Claridge, D.E., and Culp, C.H., "Heating Ventilating, and Air Conditioning Control Systems," *CRC Energy Management and Conservation Handbook*, 2nd edition, September 2016. ISBN 9781466585164

Refereed Journal Publications

In Preparation

*J1) [1]Rogers, A., and Rasmussen, B.P., "Consumer Driven Shaving of Grid Demand using a Strategically Limited Incentive," *Journal TBD*, drafted 2018.

*J2) [1]Chintala, R., and Rasmussen, B.P., "Automated Model Identification of Multi-zone buildings for MPC," *Energies*, drafted 2015.

*J3) [1]Shekjadar, S., and Rasmussen, B.P., "Energy Assessment of Occupancy and Lighting Sensors in Library Building," *Energy and Buildings*, drafted 2015.

*J4) [1]Park, D., and Rasmussen, B.P., "Simultaneous System Level Optimization of Heat Exchangers in Vapor Compression Systems", *Science and Technology for the Built Environment*, to be submitted Mar. 2021.

*J5) [1]Guo, F., and Rasmussen, B.P., "Pseudo Steady-State Behavior Analysis of Residential HVAC Systems Using Smart Thermostat Data", *ASHRAE Transactions*, to be submitted Feb. 2021.

Under Revision After Review

*J6) [1]Mijares, J., and Rasmussen, B.P., "Interference Effects on the Vibration Signature of Ball Bearings due to Lubrication Starvation Conditions and Indicators for Detection and Diagnosis," *Mechanical Systems and Signal Processing*, submitted 29 Aug. 2019.

*J7) [1]Price, C., [1]Park, D., and Rasmussen, B.P., "Cascaded Control for Building HVAC Systems in Practice," *Science and Technology for the Built Environment*, submitted 24 Aug. 2020.

*J8) [1]Rogers, A., and Rasmussen, B.P., "The Impact of Key Load Shifting Parameters on Peak Demand Reduction Strategies", *IEEE Transactions on Smart Grid*, submitted 18 Dec. 2017.

In Print

J1)   [1]Guo, F., [1]Rogers, A., and Rasmussen, B.P., "Multivariate Fault Detection for Residential HVAC Systems using Cloud-Based Thermostat Data, Part I: Methodology", *Science and Technology for the Built Environment*, published online Dec. 2021. DOI: 10.1080/23744731.2021.2005375

J2)   [1]Guo, F., [1]Rogers, A., and Rasmussen, B.P., "Multivariate Fault Detection for Residential HVAC Systems using Cloud-Based Thermostat Data, Part II: Case Studies", *Science and Technology for the Built Environment*, published online Dec. 2021. DOI: 10.1080/23744731.2021.1987141

J3)   [1]Rogers, A. [1]Guo, F., and Rasmussen, B.P., "An Equilibrium Prediction Method for Control and Fault Detection of Energy Systems", *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B*, vol. 7, no. 3, 031001. DOI: 10.1115/1.4050039

J4)   [1]Terrill, T., [1]Kim, T., and Rasmussen, B.P., "Feasibility of Nonintrusive Measurement of Compressed Air Flow with Thermal Responses," *Flow Measurement and Instrumentation*, (published online Dec. 2020) vol. 77, Mar. 2021. DOI: 10.1016/j.flowmeasint.2020.101869

J5)   [1]Bay, C., [1]Chintala, R., and Rasmussen, B.P., "Steady-State Predictive Optimal Control of Building Energy Systems Using a Mixed Economic and Occupant Comfort Focused Objective Function," *Energies*, vol. 13, no. 11 (26 pages), June 2020. DOI: 10.3390/en13112922

J6)   [1]Rogers, A., [1]Guo, F., and Rasmussen, B.P., "A Change Point Detection Algorithm with Application to Smart Thermostat Data," *ASHRAE Transactions*, OR-20-001, vol.126, pt. 1, pp. #-# (13 pages), Jan. 2020.

J7)   [1]Rogers, A., [1]Guo, F., and Rasmussen, B.P., "Uncertainty Analysis and Field Implementation of a Fault Detection Method for Residential HVAC Systems", *Science and Technology for the Built Environment*, (published online Oct. 2019), vol. 26, no. 3, pp. 320-333, 2020. DOI: 10.1080/23744731.2019.1676093
   Featured in ASHRAE Journal Newsletter, vol. 4, no. 10, 26 May 2020.

J8)   [1]Rogers, A., [1]Guo, F., and Rasmussen, B.P., "A Review of Fault Detection and Diagnosis Methods for Residential Air Conditioning Systems", *Building and Environment*, vol. 161, 106236, Aug. 2019. DOI: 10.1016/j.buildenv.2019.106236

J9)   [1]Rogers, A., and Rasmussen, B.P., "Opportunities for Consumer-Driven Load Shifting in Commercial and Industrial Buildings", *Sustainable Energy, Grids, and Networks*, vol. 16, pp. 243-258, Dec. 2018. DOI: 10.1016/j.segan.2018.08.004

J10) [1]Rogers, A., and Rasmussen, B.P., "Optimization of the Cool-Down Process for a System of Sintering Furnaces", *ASTM Smart and Sustainable Manufacturing*, vol. 2, no. 1, pp. 64-86, July 2018. DOI: 10.1520/SSMS20170015

J11) [1]Bay, C., [1]Terrill, T., and Rasmussen, B.P., "Autonomous Robotic Building Energy Audits: Demonstrated Technology and Open Challenges," *ASHRAE Transactions*, LB-17-001, vol. 123, pt. 3, pp. 3-20 (18 pages), 2017.

J12) [1]Price, C., and Rasmussen, B.P., "Optimal Tuning of Cascaded Control Architectures for Nonlinear HVAC Systems," *Science and Technology for the Built Environment*, vol. 23, no. 8, pp. 1190-1202, Oct. 2017. DOI: 10.1080/23744731.2016.1262663

J13) [1]Bay, C., [1]Terrill, T., and Rasmussen, B.P., "Autonomous Lighting Assessments in Buildings: Part 1 - Robotic Navigation and Mapping," *Advances in Building Energy Research*, vol. 11, no. 2, pp. 260-281, Oct. 2017. DOI: 10.1080/17512549.2016.1237377

J14) [1]Terrill, T., [1]Bay, C., and Rasmussen, B.P., "Autonomous Lighting Assessments in Buildings: Part 2 - Light Identification and Energy Analysis," *Advances in Building Energy Research*, vol. 11, no. 2, pp. 227-244, Oct. 2017. DOI: 10.1080/17512549.2016.1236747

J15) [1]Jalal, R.E., and Rasmussen, B.P., "Limited-Communication Distributed Model Predictive Control for Coupled and Constrained Linear Systems," *IEEE Transactions Control Systems Technology*, vol. 25, no. 5, pp. 1807-1815, Sept. 2017. DOI: 10.1109/TCST.2016.2615088

J16) [1]Janecke, A., [1]Terrill T., and Rasmussen, B.P., "A Comparison of Static and Dynamic Fault Detection Techniques for Transcritical Refrigeration," *International Journal of Refrigeration*, vol. 80, pp. 212-224, Aug. 2017. DOI: 10.1016/j.ijrefrig.2017.04.020

J17) [1]Rodriguez, E., and Rasmussen, B.P., "A Comparison of Modeling Paradigms for Dynamic Evaporator Simulations with Variable Fluid Phases," *Applied Thermal Engineering*, vol. 112, pp. 1326-1342, Feb. 2017. DOI: 10.1016/j.applthermaleng.2016.10.131

J18) [1]Wang, C., Rasmussen, B.P., and Wynn, K. "Experimental Comparison of Energy Optimal Coordinated Control Strategies for Heat Pump Systems", *ASHRAE Transactions*, LV-17-015, vol. 123, pt. 1, pp. 162-173 (12 pages), 2017.
   Recipient of the 2018 ASHRAE Technical Paper Award

J19) [1]Terrill, T., and Rasmussen, B.P., "An Evaluation of HVAC Energy Usage and Occupant Comfort in Religious Facilities," *Energy and Buildings*, vol. 128, pp. 224-235, Sept. 2016. DOI: 10.1016/j.enbuild.2016.06.078

J20) [1]Gao, K., and Rasmussen, B.P., "Quantifying Efficiency Gains of Refrigeration Systems Using Advanced Expansion Valve Technology," *ASHRAE Transactions*, ST-16-009, vol. 122, pt. 2, (13 pages) 2016.

J21) [1]Bay, C. [1]Rani, A., and Rasmussen, B.P., "Control and Optimization of Vapor Compression Systems Using Recursive Estimation," *ASHRAE Transactions*, ST-16-010, vol. 122, pt. 2, (13 pages) 2016.

J22) [1]Terrill, T., [1]Morelli, F., and Rasmussen, B.P., "Long-Term Experimental Analysis of Occupancy and Lighting in Religious Facilities," *Building and Environment*, vol. 98, pp. 1-10, Mar. 2016. DOI: 10.1016/j.buildenv.2015.12.007

J23) [1]Rodriguez, E., and Rasmussen, B.P., "A Nonlinear Reduced Order Modeling Method for Dynamic Two-Phase Flow Heat Exchanger Simulations," *Science and Technology for the Built Environment*, vol. 22, no. 2, 2016. DOI: 10.1080/23744731.2015.1085280

J24) [1]Terrill, T., [1]Morelli, F., and Rasmussen, B.P., "Energy Analysis of Religious Facilities in Different Climates through a Long-Term Energy Study," *Energy and Buildings*, vol. 108, pp. 72-81, 1 Dec. 2015. DOI: 10.1016/j.enbuild.2015.08.049

J25) [1]Elliott, M.S., and Rasmussen, B.P., "Emulation of Semi-Active Flow Control for Evaporator Superheat Regulation," *Applied Thermal Engineering*, vol. 89, pp. 51-61, Oct. 2015. DOI: 10.1016/j.applthermaleng.2015.05.066

J26) [1]Chintala, R., [1]Price, C., [1]Liang, S., and Rasmussen, B.P., "Identification and Elimination of Hunting Behavior in HVAC Systems," *ASHRAE Transactions*, AT-15-024, vol. 121, pt. 2, (12 pages) 2015.

J27) [1]Parikh, P., and Rasmussen, B.P., "Development of a Fault Detection and Diagnostic Tool for Use in Walk-Through Energy Audits," *ASHRAE Transactions*, AT-15-023, vol. 121, pt. 2, pp. 281-293, 2015.

J28) [1]Price, C., [1]Liang, S., and Rasmussen, B.P., "HVAC Nonlinearity Compensation using Cascaded Control Architectures," *ASHRAE Transactions*, AT-15-017, vol. 121, pt. 2, (15 pages) 2015.

J29) [1]Elliott, M.S., and Rasmussen, B.P., "Distributed Predictive Optimization of a Building HVAC System," *ASHRAE Transactions*, AT-15-015, vol. 121, pt. 2, (13 pages) 2015.

J30) [1]Elliott, M.S., and Rasmussen, B.P., "Optimal Setpoints for HVAC Systems via Iterative Cooperative Neighbor Communication," *ASME Journal of Dynamic Systems, Measurement, and Control*, vol 137, no. 1, paper 011006 (15 pages), Jan. 2015. DOI: 10.1115/1.4027887.

J31) [1]Elliott, M.S., and Rasmussen, B.P., "Decentralized Model Predictive Control of a Multi-Evaporator Air Conditioning System," *Control Engineering Practice*, vol. 21, no.12, pp. 1665–1677, Dec. 2013. DOI: 10.1016/j.conengprac.2013.08.010

J32) Rasmussen, B.P., "Review Article: Dynamic Modeling of Vapor Compression Systems – Part I: Literature Review," *HVAC&R Research*, vol. 18, no. 5, pp. 934-955, Oct. 2012. DOI: 10.1080/10789669.2011.582916

Recipient of the Inaugural Best Paper Award, HVAC&R Research Journal, ASHRAE, 2013

J33) Rasmussen, B.P., and [1]Shenoy, B., "Review Article: Dynamic Modeling of Vapor Compression Systems – Part II: Simulation Tutorial," *HVAC&R Research*, vol. 18, no. 5, pp. 956-973, Oct. 2012. DOI: 10.1080/10789669.2011.582917

J34) [1]Sheshadri, S., and Rasmussen, B.P., "Secondary Control Strategies for Cycling of Air Conditioning and Refrigeration Systems," *ASHRAE Transactions*, SA-12-016, vol. 118, no. 2, (15 pages) July 2012.

J35) [1]Hariharan, N., and Rasmussen, B.P., "Parameter Estimation of Vapor Compression Cycle Models Using Limited Sensor Information," *ASHRAE Transactions*, ML-11-026, vol. 117, no. 2, pp.746-758, 2011.

J36) Rasmussen, B.P. and Alleyne, A., "Gain Scheduled Control of an Air Conditioning System Using the Youla Parameterization," *IEEE Transactions on Control Systems Technology,* vol. 18, no. 5, pp. 1216-1225, Sept. 2010. DOI: 10.1109/TCST.2009.2035104

J37) [1]Elliott, M.S., and Rasmussen, B.P., "On Reducing Evaporator Superheat Nonlinearity with Control Architecture," *International Journal of Refrigeration*, vol. 33, no. 3, pp. 607-614, May 2010. DOI: 10.1016/j.ijrefrig.2009.12.013

J38) Rasmussen, B.P., and [1]Chang, Y.J., "Stable Controller Interpolation/Controller Switching for LPV Systems," *ASME Journal of Dynamic Systems, Measurement, and Control*, vol. 132, no. 1, pp. 1-12, paper 011007 (12 pages), Jan. 2010. DOI: 10.1115/1.4000075

J39) [1]Lim, DW, Rasmussen, B.P., and Swaroop, D., "Selecting PID Control Gains for Nonlinear HVAC Systems," *HVAC&R Research*, vol. 15, no. 6, pp. 991-1020, Nov. 2009. DOI: 10.1080/10789669.2009.10390876

J40) [1]Elliott, M.S., [2]Walton, Z., [2]Bolding, B., and Rasmussen, B.P., "Superheat Control: A Hybrid Approach," *HVAC&R Research*, vol. 15, no. 6, pp. 1021-1044, Nov. 2009. DOI: 10.1080/10789669.2009.10390877

J41) [3]Eldredge, B.D., Rasmussen, B.P., and Alleyne, A., "Moving-Boundary Heat Exchanger Models with Variable Outlet Phase," *ASME Journal of Dynamic Systems, automatic, and Control*, vol. 130, no. 6, Nov. 2008. DOI: 10.1115/1.2977466

J42) [3]Eldredge, B., Rasmussen, B., and Alleyne, A. "Automotive Vapor Compression Cycles: Validation of Control-Oriented Models," *SAE 2006 Transactions, Journal of Engines*, 2006-01-1452, 2007. DOI: 10.4271/2006-01-1452

J43) [3]Rasmussen, B.P., Alleyne, A., and [3]Musser, A., "Model-Driven System Identification of Transcritical Vapor Compression Systems," *IEEE Transactions on Control Systems Technology*, vol. 13, no. 3, pp. 444-451, May 2005. DOI: 10.1109/TCST.2004.839572

J44) [3]Rasmussen, B.P. and Alleyne, A., "Control-Oriented Modeling of Transcritical Vapor Compression Systems," *ASME Journal of Dynamic Systems, Measurement, and Control*, vol. 126, no. 1, pp. 54-64, Mar. 2004. DOI: 10.1115/1.1648312

J45) [3]Shah, R., [3]Rasmussen, B.P., and Alleyne, A., "Application of a Multivariable Adaptive Control Strategy to Automotive Air Conditioning Systems," *International Journal of Adaptive Control and Signal Processing*, vol. 18, no. 2, pp. 199-221, Mar. 2004. DOI: 10.1002/acs.787

J46) [3]Rasmussen, B.P., [3]Musser, A., Alleyne, A., Bullard, C., Hrnjak, P., and Miller, N., "A Control-Oriented Model of Transcritical Air-Conditioning System Dynamics," *2002 SAE Transactions Journal of Passenger Cars: Mechanical Systems*, pp. 374-381, Sept. 2003. DOI: 10.4271/2002-01-0227

J47) Alleyne, A., [3]Brennan, S., [3]Rasmussen, B.P., [3]Zhang, R., and [3]Zhang, Y., "Controls and Experiments: Lessons Learned," *IEEE Control Systems Magazine*, vol. 23, no. 5, pp. 20-34, Oct. 2003. DOI: 10.1109/MCS.2003.1234648

Refereed Conference Publications

In Print

C1) [1]Guo, F., and Rasmussen, B.P., "Fault Detection and Diagnosis for Residential HVAC Systems Using Transient Cloud-based Thermostat Data," *Proceedings of the 2021 High Performance Buildings Conference*, Paper 378, West Lafayette, IN, 2021. Available at: https://docs.lib.purdue.edu/ihpbc/378

C2) [1]Park, D., and Rasmussen, B.P., "A Method of Mapping Heat Exchanger as Simple Polynomials," *Proceedings of the 2021 High Performance Buildings Conference*, Paper 2235, West Lafayette, IN, 2021. Available at: https://docs.lib.purdue.edu/iracc/2235

C3) [1]Rogers, A., [1]Martinez, J., [1]Guo, F., and Rasmussen, B.P., "Labeling Modes of Operation and Extracting Features for Fault Detection with Cloud-Based Thermostat Data," *ASHRAE Transactions*, VC-20-C006, vol. 126, pt. 2, pp. 71-79, July 2020.

C4) [1]Rogers, A., and Rasmussen, B.P., "Applying Static Fault Detection and Diagnosis Methods to Transient Air Conditioning Data Using an Equilibrium Prediction," *Proceedings of the 2019 ASME International Mechanical Engineering Congress*, Salt Lake City, UT, Nov. 11-14, 2019. DOI: 10.1115/IMECE2019-11579

C5) [1]Price, C., and Rasmussen, B.P., "Soft Implementation of Cascaded Control Architectures Using the Youla Parameterization," *Proceedings of the 2018 American Control Conference*, Milwaukee, WI, June 27-29, 2018. DOI: 10.23919/ACC.2017.7963392

C6) [1]Rogers, A., and Rasmussen, B.P., "A Generalized Approach for Commercial and Industrial Load Shifting Control," *Proceedings of the 2017 Dynamic Systems and Control Conference*, Tysons Corner, VA, Oct. 11-13, 2017. DOI: 10.1115/DSCC2017-5191

C7) Velson, N., Truong, W., Rokkam, S., and Rasmussen, B.P., "Model-based Dynamic Control of Active Thermal Management System," *Proceedings of the 2017 ASME International Mechanical Engineering Congress and Exposition*, Tampa, FL, Nov. 3-9, 2017. DOI: 10.1115/IMECE2017-71918

C8) [1]Rogers, A., and Rasmussen, B.P., "Determining the Optimal Cool-Down for an Industrial Sintering Process," *Proceedings of the 2017 American Control Conference*, Seattle, WA, May 24-26, 2017, *accepted 21 Jan. 2017*. DOI: 10.23919/ACC.2017.7963392

C9) [1]Terrill, T., and Rasmussen, B.P., "Non-intrusive Gas Flow Measurement Using Thermal Signatures with Online Dynamic Parameter Estimation," *Proceedings of the 2017 American Control Conference*, Seattle, WA, May 24-26, 2017. DOI: 10.23919/ACC.2017.7963013

C10) [1]Price, C., and Rasmussen, B.P., "Decoupling of MIMO Systems Using Cascaded Control Architectures with Application for HVAC Systems," *Proceedings of the 2017 American Control Conference*, Seattle, WA, May 24-26, 2017. DOI: 10.23919/ACC.2017.7963392

C11) [1]Mijares, J., B. Rasmussen, A. Parlos, "Detection of lubrication starvation in ball bearings and preload effects," *Proceedings of The Society of Machinery and Failure Prevention Technology, MFPT*, Virginia Beach, VA, 16-18 May 2017, pp. 1–10. Available at: https://mfpt.org/wp-content/uploads/2019/10/Paper-_-Mijares.pdf
Recipient of the Hegner Best Student Paper Award

C12) [1]Terrill, T., and Rasmussen, B.P., "A Case Study on How Energy Use and Efficiency in Religious Facilities Compares to Other Types of Commercial Buildings," *Proceedings of the 2017 ASHRAE Winter Conference*, Las Vegas, NV, Jan. 28-Feb. 1, 2017. Also listed as *ASHRAE Transactions*, LV-17-C020, vol. 123, pt. 1, (8 pages), 2017.

C13) [1]Terrill, T., and Rasmussen, B.P., "Intelligent Compressor Control for Reduced Energy Usage," *Proceedings of the 2016 ACEEE Intelligent Efficiency Conference*, Austin, TX, Dec. 4-6, 2016.

C14) [1]Jalal, R., and Rasmussen, B.P., "Limited-Communication Distributed Model Predictive Control for Output Feedback Coupled Subsystems," *Proceedings of the 2016 American Control Conference*, Boston, MA, July 6-8, 2016. DOI: 10.1109/ACC.2016.7525469

C15) [1]Bay, C., and Rasmussen, B.P., "Exploring Controls Education: A Re-configurable Controls Education Kit," *Proceedings of the 2016 American Control Conference*, Boston, MA, July 6-8, 2016. DOI: 10.1109/ACC.2016.7526718

C16) [1]Price, C., and Rasmussen, B.P., "Effective Tuning of Cascaded Control Loops for Nonlinear HVAC Systems," *Proceedings of the 2015 Dynamic Systems and Control Conference*, Columbus, OH, Oct. 28-30, 2015. DOI: 10.1115/DSCC2015-9806

C17) [1]Chintala, R., [1]Bay, C., [1]Jalal, R., and Rasmussen, B.P., "Automated Multi-Zone Linear Parametric Black Box Modeling Approach for Building HVAC Systems," *Proceedings of the 2015 Dynamic Systems and Control Conference*, Columbus, OH, Oct. 28-30, 2015. DOI: 10.1115/DSCC2015-9933

C18) [1]Terrill, T., and Rasmussen, B.P., "Enhanced Opportunities for Energy Savings in Industrial Facilities through Long-term Monitoring," *Proceedings of the 2015 ACEEE Summer Study on Energy Efficiency in Industry*, Buffalo, NY, Aug. 4-6, 2015. Available at: http://aceee.org/files/proceedings/2015/data/papers/4-120.pdf

C19) [1]Bay, C., and Rasmussen, B.P., "Simulation and Validation of Interior and Exterior Navigational Strategies for Autonomous Robotic Assessments of Energy," *Proceedings of the 2015 American Control Conference*, Chicago, IL, July 1-3, 2015. DOI: 10.1109/ACC.2015.7170747

C20) [1]Jalal, R., and Rasmussen, B.P., "Neighbor-Communication Distributed Model Predictive Control for Coupled and Constrained Subsystems in Networks," *Proceedings of the 2015 American Control Conference*, Chicago, IL, July 1-3, 2015. DOI: 10.1109/ACC.2015.7170823

C21) [1]Bay, C., [1]Terrill, T., and Rasmussen, B.P., "Autonomous Lighting Audits: Part 1 - Building Navigation and Mapping," *Proceedings of the 2014 Dynamic Systems and Control Conference*, San Antonio, TX, Oct. 22-24, 2014. DOI: 10.1115/DSCC2014-6125

C22) [1]Terrill, T., [1]Bay, C., and Rasmussen, B.P., "Autonomous Lighting Audits: Part 2 - Light Identification and Analysis," *Proceedings of the 2014 Dynamic Systems and Control Conference*, San Antonio, TX, Oct. 22-24, 2014. DOI: 10.1115/DSCC2014-6126

C23) [1]Price, C., and Rasmussen, B.P., "Compensation of HVAC System Nonlinearities Using Cascaded Control Architecture," *Proceedings of the 2014 Dynamic Systems and Control Conference*, San Antonio, TX, Oct. 22-24, 2014. DOI: 10.1115/DSCC2014-6127

C24) [1]Chintala, R., [1]Bay, C., and Rasmussen, B.P., "Automated Modeling of Building HVAC Systems for MPC," *Proceedings of the 2014 Dynamic Systems and Control Conference*, San Antonio, TX, Oct. 22-24, 2014. DOI: 10.1115/DSCC2014-6224

C25) [1]Jalal, R., and Rasmussen, B.P., "Distributed Model Predictive Control for Networks with Limited Control Communication," *Proceedings of the 2014 American Control Conference*, Portland, OR, June 4-6, 2014. DOI: 10.1109/ACC.2014.6859045

C26) [1]Elliott, M.S., [1]Bay, C., and Rasmussen, B.P., "Pareto Optimal Setpoints for HVAC Networks via Iterative Nearest Neighbor Communication," *Proceedings of the 2013 ASME Dynamic Systems and Control Conference*, Palo Alto, CA, Oct. 21-23, 2013. DOI: 10.1115/DSCC2013-3899

C27) [1]Liang, S., Rasmussen, B.P., and Kaplan, M., "Multi-Parametric Tuning of Dynamic Air Conditioning Models Using Experimental Data," *Proceedings of the 2012 Dynamic Systems and Control Conference*, Ft. Lauderdale, FL, Oct. 17-19, 2012. DOI: 10.1115/DSCC2012-MOVIC2012-8755

C28) Kaplan, M., Garrett, M., Rasmussen, B.P., "A Wavelet Decomposition Method for Tuning Thermal Models to Aperiodic Transient Test Data" *Proceedings of the 42nd International Conference on Environmental Systems*, San Diego, CA, July 15-

19, 2012. DOI: 10.2514/6.2012-3640

C29) [1]Elliott, M.S., and Rasmussen, B.P., "Neighbor-Communication Model Predictive Control and HVAC Systems," *Proceedings of the 2012 American Control Conference*, Montreal, Canada, June 27-29, 2012. DOI: 10.1109/ACC.2012.6315308

C30) [1]Elliott, M.S., [2]Estrada, C., and Rasmussen, B.P., "Cascaded Superheat Control with a Multiple Evaporator Refrigeration System," *Proceedings of the 2011 American Control Conference*, San Francisco, CA, June 29-July 1, 2011. DOI: 10.1109/ACC.2011.5990949

C31) [1]Elliott, M.S., [1]Shenoy, B., and Rasmussen, B.P., "A Control Architecture Solution to Superheat Nonlinearity," *Proceedings of the 2010 American Control Conference*, Baltimore, MD, June 30-July 2, 2010. DOI: 10.1109/ACC.2010.5531221

C32) [1]Hariharan, N., and Rasmussen, B.P., "Parameter Estimation of HVAC Model with Limited Sensors," *Proceedings of the 2010 American Control Conference*, Baltimore, MD, June 30-July 2, 2010. DOI: 10.1109/ACC.2010.5531211

C33) [1]Elliott, M.S., and Rasmussen, B.P., "Evaporator Superheat Regulation via Emulation of Semi-Active Flow Control," *Proceedings of the 2009 Dynamic Systems and Control Conference*, Hollywood, CA, Oct. 12-14, 2009. DOI: 10.1115/DSCC2009-2520

C34) [1]Elliott, M.S., and Rasmussen, B.P., "A Model-Based Predictive Supervisory Controller for Multi-Evaporator HVAC Systems," *Proceedings of the 2009 American Control Conference*, St. Louis, MO, June 10-12, 2009. DOI: 10.1109/ACC.2009.5160498

C35) [1]Chang, Y.J., and Rasmussen, B.P., "Stable Controller Interpolation for LPV Systems," *Proceedings of the 2008 American Control Conference*, Seattle, WA, June 11-13, 2008. DOI: 10.1109/ACC.2008.4586966

C36) [1]Elliott, M.S., and Rasmussen, B.P., "Model-Based Predictive Control of a Multi-Evaporator Vapor Compression Cooling Cycle," *Proceedings of the 2008 American Control Conference*, Seattle, WA, June 11-13, 2008. DOI: 10.1109/ACC.2008.4586698

C37) [1]Gupta, A., and Rasmussen, B.P., "Parameter Tuning of Reduced Order Evaporator Models via Numerical Model Reduction," *Proceedings of the 2008 American Control Conference*, Seattle, WA, June 11-13, 2008. DOI: 10.1109/ACC.2008.4586696

C38) Alleyne, A., Rasmussen, B.P., [3]Keir, M., and [3]Eldredge, B.E., "Advances in Energy Systems Modeling and Control," *Proceedings of the 2007 American Control Conference*, New York, NY, July 11-13, 2007. DOI: 10.1109/ACC.2007.4282747

C39) Rasmussen, B.P. and Alleyne, A., "Gain Scheduled Control of an Air Conditioning System Using the Youla Parameterization," *Proceedings of the 2006 American Control Conference*, Minneapolis, MN, June 14-16, 2006. DOI: 10.1109/ACC.2006.1657571

C40) [3]Eldredge, B.D., Rasmussen, B.P., and Alleyne, A., "Automotive Vapor Compression Cycles: Validation of Control-Oriented Models," in *Proceedings of the 2006 Society of Automotive Engineers World Congress*, Detroit, MI, Apr. 3-6, 2006. DOI: 10.4271/2006-01-1452. Also in *SAE 2006 Transactions, Journal of Engines*, 2007.

C41) [3]Keir, M.C., Rasmussen, B.P., and Alleyne, A., "Improving Energy Efficiency in Automotive Vapor Compression Cycles through Advanced Control Design," in *Proceedings of the 2006 Society of Automotive Engineers World Congress*, Detroit, MI, Apr. 3-6, 2006. DOI: 10.4271/2006-01-0267

C42) [3]Eldredge, B.D., [3]Rasmussen, B.P., and Alleyne, A., "Vapor Compression Cycles: Control-Oriented Modeling and Validation," *Proceedings of the 2005 ASME International Mechanical Engineering Congress*, Orlando, FL, Nov. 5-11, 2005. DOI: 10.1115/IMECE2005-81649

C43) [3]Keir, M.C., [3]Rasmussen, B.P., and Alleyne, A., "Parametric Sensitivity Analysis and Model Tuning Applied to Vapor Compression Systems," *Proceedings of the 2005 ASME International Mechanical Engineering Congress*, Orlando, FL, Nov. 5-11, 2005. DOI: 10.1115/IMECE2005-81645

C44) [3]Rasmussen, B.P. and Alleyne, A., "Stable gain-scheduling on endogenous signals," *Proceedings of the 2005 American Control Conference,* June 8-10, 2005. DOI: 10.1109/ACC.2005.1470245

C45) [3]Rasmussen, B.P., Alleyne, A., and [3]Musser, A., "Iterative Modeling and Identification of a CO2 Air Conditioning System," *Proceedings of the 2004 ASME International Mechanical Engineering Congress*, Nov. 13-19, 2004. DOI: 10.1115/IMECE2004-59591

C46) [3]Rasmussen, B.P., [3]Uribe, T., Alleyne, A., and Bullard, C., "Evaluation of Control Strategies for Compressor Rapid Cycling," *Proceedings of the 2004 Society of Automotive Engineers World Congress*, Detroit, MI, Mar. 8-11, 2004. DOI: 10.4271/2004-01-0913

C47) [3]Shah, R., Alleyne, A.G., and [3]Rasmussen, B.P., "Application of Multivariable Adaptive Control to Automotive Air Conditioning Systems," *Proceedings of the 2003 ASME International Mechanical Engineering Congress*, Washington DC, Nov. 15-21, 2003. DOI: 10.1115/IMECE2003-41460

C48) [3]Rasmussen, B.P., Alleyne, A., and [3]Shah, R., "Reduced Order Modeling of Transcritical AC System Dynamics Using Singular Perturbation," *Proceedings of the 2003 American Control Conference*, Denver, CO, June 4-6, 2003. DOI: 10.1109/ACC.2003.1243411

C49) [3]Rasmussen, B., Alleyne, A., Bullard, C., Hrnjak, P., and Miller, N., "Control-Oriented Modeling and Analysis of Automotive Transcritical AC System Dynamics," *Proceedings of the 2002 American Control Conference*, Anchorage, AK, May 8-10, 2002. DOI: 10.1109/ACC.2002.1025267

C50) [3]Rasmussen, B.P., [3]Musser, A., Alleyne, A., Bullard, C., Hrnjak, P., and Miller, N., "A Control-Oriented Model of Transcritical Air-Conditioning System Dynamics," *Proceedings of the 2002 Society of Automotive Engineers World Congress*, Detroit, MI, Mar. 4-7, 2002. DOI: 10.4271/2002-01-0227. Also published in *2002 SAE Transactions Journal of Passenger Cars: Mechanical System.*

Non-Reviewed Conference Publications

Accepted

C51) [1]Rogers, A., and Rasmussen, B.P., "Consumer-Driven Shaving of Grid Demand using a Strategically Limited Incentive," *Proceedings of the 2019 Industrial Energy Technology Conference*, New Orleans, LA, June 18-20, 2019.
C52) [1]Price, C., and Rasmussen, B.P., "Impact of Common Energy Efficiency Projects on Industrial Emissions Output," *Proceedings of the 2016 Industrial Energy Technology Conference*, New Orleans, LA, May 24-26, 2016.
C53) [1]Terrill, T., and Rasmussen, B.P., "Quantification of Compressed Air Leakage by Thermal Response," *Proceedings of the 2016 Industrial Energy Technology Conference*, New Orleans, LA, May 24-26, 2016.

In Print

C54) [1]Parikh, P., and Rasmussen, B.P., "Development of an Automated Fault Detection Tool for Unitary Air Conditioners at Industrial Energy Audits," *Proceedings of the 2015 Industrial Energy Technology Conference*, New Orleans, LA, June 2-5, 2015. Available at: http://hdl.handle.net/1969.1/154638
C55) [1]Parikh, P., and Rasmussen, B.P., "Impact of Controls-Energy Saving Strategies in Industries," *Proceedings of the 2014 Industrial Energy Technology Conference*, New Orleans, LA, May 20-23, 2014. Available at: http://hdl.handle.net/1969.1/152196
C56) [1]Terrill, T., [1]Bay, C., and Rasmussen, B.P., "Integration of Sensors with Embedded Data Acquisition for Automation of Lighting Analysis," *Proceedings of the 2014 Industrial Energy Technology Conference*, New Orleans, LA, May 20-23, 2014. Available at: http://hdl.handle.net/1969.1/152197
C57) [1]Morelli, F., and Rasmussen, B.P., "Electrical Analysis Tool Suite for Industrial Energy Audits," *Proceedings of the 2014 Industrial Energy Technology Conference,* New Orleans, LA, May 20-23, 2014. Available at: http://hdl.handle.net/1969.1/152195
C58) [2]Venable, K., [2]Bhatia, D., [2]Coverick, R., [2]Gutierrez, C., [2]Knight, J., [2]McGarry, D., [2]McGee, K., [2]Pate, H., [2]Smith, Z., [1]Terrill, T.J., [2]Vanderford, B., [2]Weiser, R., [2]Wightman, K., Rasmussen, B.P., "Image Recognition System for Automated Lighting Retrofit Assessment," *Proceedings of the 2013 Industrial Energy Technology Conference*, New Orleans, LA, May 21-24, 2013. Available at: http://hdl.handle.net/1969.1/149181
C59) [1]Morelli, F., [2]Bretschneider, R., [2]Dauzat, J., [2]Guymon, M., [2]Studebaker, J., Rasmussen, B.P., "Optimized Design of a Furnace Cooling System," *Proceedings of the 2013 Industrial Energy Technology Conference*, New Orleans, LA, May 21-24, 2013. Available at: http://hdl.handle.net/1969.1/149182
C60) [1]Terrill, T.J., [2]Brown, M.L., [2]Cheyne Jr., R.W., [2]Cousins, A.J., [2]Daniels, B.P., [2]Erb, K.L., [2]Garcia, P.A., [2]Leutermann, M.J., [2]Nel, A.J., [2]Robert, C.L., [2]Widger, S.B., [2]Williams A.G., Rasmussen, B.P., "Identifying Efficiency Degrading Faults in Split Air Conditioning Systems," *Proceedings of the 2013 Industrial Energy Technology Conference*, New Orleans, LA, May 21-24, 2013. Available at: http://hdl.handle.net/1969.1/149178
C61) [1]Morelli, F., [2]Abbarno, N., [2]Bullock, J., [2]Boese, E., [2]Carter, B., [2]Edwards, R., [2]Mulvihill, C., [2]Lapite, O., [2]Mann, D., [2]Purcell, E., and [2]Stein IV, M., Rasmussen, B.P., "Design and Predictive Control of a Net Zero Energy Home," *Proceedings of the 2013 Industrial Energy Technology Conference*, New Orleans, LA, May 21-24, 2013. Available at: http://hdl.handle.net/1969.1/149183
C62) [1]Morelli, F., [2]Halbert, T., [2]Hignight, M., [2]Kell, Z., [2]Lacy, J., Rasmussen, B.P., "Automated Part Tracking and Metrology Applied to a Manufacturing Process," *Proceedings of the 2013 Industrial Energy Technology Conference*, New Orleans, LA, May 21-24, 2013. Available at: http://hdl.handle.net/1969.1/149179