

ENGINEERS WEEK 2021

**IMAGINING  
TOMORROW**

ENGINEERING COUNCIL OF BIRMINGHAM, INC.

proudly presents

**62<sup>nd</sup> ANNUAL ENGINEERING AWARDS**

Link: <http://www.ecob.org/Engineering-Awards>

# ECOB

Engineering Council of Birmingham, Inc.

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62nd ANNUAL ENGINEERING  
AWARDS CEREMONY

Tonight!

Tuesday, February 23, 2021

7:00 PM

Join live at <https://youtu.be/NOxMwSINQeE>

This link will also take you to the recorded event after tonight

Program Book Link  
is under construction

# ECOB

Engineering Council of Birmingham, Inc.

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1929	Engineers Club
1931	Engineering Council of Birmingham and Jefferson County
1950's	Engineering Council of Birmingham incorporated
1998	ECOB Foundation, Inc. was established

# ECOB

Engineering Council of Birmingham, Inc.

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## Objectives

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Inspire	Inspire high school and college students to pursue an engineering education
Encourage	Encourage engineering graduates to consider employment in the council area
Coordinate and promote	Coordinate and promote activities of the member Societies Represent the engineering profession and be a resource to citizens
Represent	Supervisory Commission, Personnel Board of Jefferson County, Birmingham Chamber of Commerce, technical societies, civic organizations and local government
Sponsor and promote	Sponsor and promote Engineer's Week during February of each year
Host	Host annual ECOB Awards

# ECOB

Engineering Council of Birmingham, Inc.

## **CHRIS SMITHERMAN, P.E.**

President  
Southern Company (ASME)

## **BRANDY MCKINNEY**

Secretary  
UAB Graduate School(NSBE)

## **CHRIS TAYLOR**

Treasurer  
Severe Service Specialists  
(ASME)

## **SIDNEY H. MAY, P.E.**

Past President  
EASi (ASCE)

# ECOB

Engineering Council of Birmingham, Inc.

## Our 2021 Sponsors

*Big thanks for your support. It means everything to us.*



Revere Controls

Our Gold Sponsor



Yates Engineering



Alabama Society of  
Professional Engineers

Our Silver Sponsors

# ECOB

Engineering Council of Birmingham, Inc.

## 2020 - 2021 Engineering Awards



Scholarship Awards



University of Alabama College of Engineering Student Awards



University of Alabama at Birmingham Engineering Student Awards



Engineering Council of Birmingham Awards



# ECOB

Engineering Council of Birmingham, Inc.

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## ECOB Foundation Scholarships

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### Scholarship Winners



**Noah Alexander**

Noah is a graduate of Pelham High School in Pelham, AL, where he had an overall GPA of 4.03. He was a member of the Art Club, the School Ambassador, Treasurer and member of Mu Alpha

Theta, a member of the Varsity Tennis Team, and a member of the National Honor Society, and member of many other scholastic societies. Noah is currently enrolled at the University of Alabama as a Mechanical Engineering major.

Noah is the recipient of an ECOB scholarship in the amount of \$1,500. Congratulations Noah!



**Roderick Wilson**

Roderick is a graduate of Jefferson County International Baccalaureate High School in Irondale, AL, where he had an overall GPA of 3.80. He was on the Math Team and placed 1st in the Jefferson County

competition for three of his four years in high school. He was also a member of the Varsity Soccer Team, a member of the Programming/Hacking Team, Parliamentarian of the National Honor Society, and member of many other scholastic societies. Roderick attends the University of Alabama at Huntsville as a Computer Engineering major.

Roderick is the recipient of an ECOB scholarship in the amount of \$1,500. Congratulations Roderick!

# ECOB AWARDS



Distinguished Service  
Educator of the Year  
Young Engineer of the Year  
Engineer of the Year

# Elizabeth Clarkin – ISA



## Education

- Bachelor's Degree in English from Illinois State University,
- Bachelor's Degree in Physics from Illinois State University,
- Bachelor's Degree in Electrical Engineering from Iowa State University, and
- Master of Electrical and Computer Engineering at University of Alabama at Birmingham.

Current Employer: Southern Company

## Engineering Experience & Achievements

- User Interface Design,
- Instrumentation and Controls (I&C) Design Lead,
- Monitoring and Diagnostic Center I&C Representative, and
- Instrument Specification.

## Professional/Technical Society & Civic/Humanitarian Activities

- Ready to Succeed Mentor,
- International Society of Automation (ISA) Birmingham Section Webmaster,
- ISA Birmingham Section Assistant Treasurer,
- ISA Power Industry Division Newsletter Editor, and
- Coordinated the ISA presence at Introduce a Girl to Engineering Day.

Distinguished Service Nominee

# James M. Hogland, Jr.- ASHRAE



## Education

BSME University of Alabama

## Licensure

- Alabama PE,
- Texas PE,
- Virginia PE, and
- North Carolina PE.

Current Employer: Pinnacle Engineering, Inc.

## Engineering Experience & Achievements

ASHRAE Young Engineer of the Year - 2002

## Professional/Technical Society & Civic/Humanitarian Activities

- ASHRAE, and
- American Society of Plumbing Engineers.

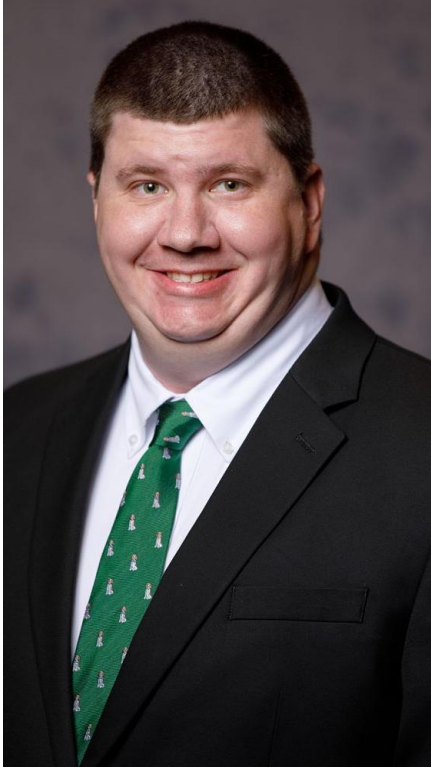
# Distinguished Service



James M. Hoagland, Jr.

ASHRAE

# Joseph P. Carpenter - ASHRAE



## Education

- The University of Alabama Ph.D. in Mechanical Engineering Dec 2018
- Mississippi State University MS in Mechanical Engineering May 2014
- Mississippi State University BS in Mechanical Engineering Dec 2012

## Licensure

EIT in Mechanical Engineering (Mississippi)

Current Employer: The University of Alabama – Tuscaloosa

## Engineering Experience & Achievements

- The University of Alabama – Instructor of Mechanical Engineering
- Alabama Industrial Assessment Center – Assistant Director
- Alabama Industrial Assessment Center – Center Lead Student
- International Building Performance Simulation Association (USA) – Scholarship

## Professional/Technical Society & Civic/Humanitarian Activities

- American Society of Heating, Ventilation, and Air Conditioning Engineers
- American Society of Mechanical Engineers
- Alabama Southern Baptist Disaster Relief

# Todd Freeborn - Capstone (UA)



## Education

University of Calgary BS, MS, PhD Electrical Engineering

## Licensure

PEng (Alberta, Canada)

## Current Employer: The University of Alabama

## Engineering Experience & Achievements

- Assistant Professor at The University of Alabama,
- Principal investigator of research focused on wearable sensors to support skeletal muscle and joint health and educational programs to engage undergraduate students in summer research experiences and increase/retain the number of undergraduates that complete their engineering degrees.
- Currently supervising 1 PhD, 2 MSc, and 5 undergraduate researchers
- Graduated 1 PhD, 2 thesis MSc, and 2 non-thesis MSc students, and
- Participation of 40 undergraduate engineering students in summer research programs.

## Professional/Technical Society & Civic/Humanitarian Activities

- Member of the Institute of Electrical and Electronics Engineers (IEEE, #80356303) and IEEE Nonlinear Circuits and Systems Technical Committee (since 2016),
- University of Alabama Women's & Men's Rugby faculty sponsor, and
- Recipient of the 2018-2019 Eta Kappa Nu Outstanding Instructor Award.

Educator of the Year Nominee

# Educator of the Year



Todd Jeffrey Freeborn

Capstone

# Justin Hill – ASHRAE



## Education

- PhD Interdisciplinary Engineering - UAB 2017
- MS Mechanical Engineering – University of Alabama (Tuscaloosa) 2011
- BS Mechanical Engineering – University of Alabama (Tuscaloosa) 2009

Licensure: Professional Engineer – Alabama, Mechanical

Current Employer - Southern Company Services

## Engineering Experience & Achievements

- Technical Project Lead for Georgia & Mississippi Smart Neighborhoods
- Utility Lead for Electric Power Research Institute’s Customer Connected Device Working Council
- Electric Power Research Institute’s Tech Transfer & Interoperability Leadership Awards
- Core team member on 8+ DOE projects using controls to integrate renewables into the grid
- Led deployment and analysis of 100+ grid-interactive water heaters across the southeast

## Professional/Technical Society & Civic/Humanitarian Activities

- Birmingham Chapter of ASHRAE – Student Activities Chair & Board of Governors
- Crohn’s & Colitis Foundation of America – Power of 2 Mentor
- University of Alabama MentorUPP – Professional Mentor
- Volunteer algebra tutor at Restoration Academy – Fairfield, AL
- Served on Diversity & Inclusion Action Team within Southern Company R&D

# Cas Holley - Capstone

## Education

- The University of Alabama, B.S. Civil Engineering 2016
- The University of Alabama, MBA, 2017

Licensure: Alabama EIT Civil Structural

Current Employer: Barnett Jones Wilson

## Engineering Experience and Achievements

- Has helped design various multi-use, retail, industrial, education, and commercial structures throughout the Southeast.
- Notable projects include various Chic-fil-a's, Athletic Department projects at The University of Alabama, and The Crescent in Tuscaloosa.
- Coordinates BIM 360 models with various Architects and has begun to take on a project management role with his firm.
- According to those in his office, he has a strong work ethic, positive attitude, and is a quick learner.

## Professional/Technical Society and Civic/Humanitarian Activities

- Professional mentor at The University of Alabama College of Engineering and serves as an adjunct professor at Shelton State Community College.
- Member of Structural Engineer's Association of Alabama, International Concrete Repair Institute, and ASCE.
- Was the recipient of the ASCE Student Leadership Award in 2017 and has worked with Habitat for Humanity as a volunteer.



Young Engineer of the Year Nominee

# Yao Wang - ISA

## Education

- ShenZhen University: Bachelor of Optical Information Science and Technology in Electrical Engineering, and
- University of Alabama in Huntsville: Master of Optical Photonic Technology in Electrical Engineering.

Current Employer: Southern Company

## Engineering Experience & Achievements

- Led many cyber security DataDiode projects at different plants,
- Lead on converting Jemstar meter readings from one system to another for 30 plus sites,
- Created a process using Excel macro to speed up and streamline the implementation,
- Led a project on transferring 10 years of historian data from one type of database to another,
- Led projects on SEL relays for data acquisition,
- Implemented operational data outage trouble shooting on a daily basis,
- Created many SQL and macros to make work more efficient for checking data, trouble shooting and health monitoring purpose, and
- Taught class on Aspen Info Plus 21 basis and configurations.

## Professional/Technical Society & Civic/Humanitarian Activities

- Volunteer at Girls Engineering,
- ISA Student Liaison, and
- Member ISA Birmingham Section Executive Leadership Board.



Young Engineer of the Year Nominee

# Young Engineer of the Year



Justin Hill

ASHRAE

# Darren Ash - ISA



## Education

Auburn University, BSME, 1990

## Licensure

Alabama, PE

Current Employer Revere Control Systems, Inc

## Engineering Experience & Achievements

- Process Engineer – Southern Tool, Inc.
- Engineering Manager Alabama Specialty Products
- Senior Controls Engineer – Vulcan Engineering
- Principal Engineer – Odesta Automation and Engineering
- VP of Level 1 Systems – Danieli Taranis
- Engineering Group Manager – Revere Control Systems, Inc.

## Professional/Technical Society & Civic/Humanitarian Activities

- Senior Member of ISA
- Member ASME

# Barbara Hattermer McCrary - ASHRAE



## Education

- University of Alabama – B.S. in Mechanical Engineering
- University of Alabama – M.S. in Mechanical Engineering

Licensure: Professional Engineer: Alabama, Georgia, Mississippi

Current Employer HHB Engineers, P.C.

## Engineering Experience & Achievements

- Fifteen years of experience in Mechanical system design for a wide range of projects including the recent \$100M renovation to Bryant Denny Stadium, other projects for University of Alabama, Auburn University, Federal buildings, historic buildings, and more.
- McCrary embraces the challenges of finding the right balance between first costs, the needs of the Owner, energy costs and efficiency, and long-term maintenance considerations in system design.

## Professional/Technical Society & Civic/Humanitarian Activities

- Published multiple articles in ASHRAE Journal and ASHRAE Transactions,
- Speaks to professional society and college groups about engineering and energy efficiency,
- Inducted a Distinguished Fellow for the Dept of Mechanical Engineering, UA, and
- Active in a local professional group for women business owners.

Engineer of the Year Nominee

# Engineer of the Year



Barbara Hattermer McCrary

ASHRAE

# ECOB

Engineering Council of Birmingham, Inc.

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## Special Thanks



THE ENGINEERING COUNCIL OF BIRMINGHAM IS ESPECIALLY GRATEFUL TO THOSE WHO SUPPORTED ECOB THIS PAST YEAR AND FOR YOUR PARTICIPATION IN HELPING TO MAKE TONIGHT'S PROGRAM A SUCCESS.



OUR SINCERE THANKS TO THE MANY ORGANIZATIONS AND INDIVIDUALS FOR THEIR IN-KIND SERVICES AND DONATIONS.

# Upcoming Events

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- |         |       |   |
|---------|-------|---|
| March 3 | 6 pm  | “How to Be an Inclusion<br>Champion” with Heather<br>Doty<br>Zoom link on ECOB site<br>calendar, <a href="http://ecob.org/">ecob.org/</a> |
| March 6 | 11 am | Future City Finals<br>Competition<br><a href="http://futurecity.org">futurecity.org</a>   |