

DISCOVER
ENGINEERS WEEK
FEBRUARY 16-22, 2020

PIONEERS OF PROGRESS



61st ANNUAL ENGINEERING AWARDS BANQUET

ENGINEERING COUNCIL OF BIRMINGHAM, INC.

ECOB

Engineering Council of Birmingham, Inc.

History

1929 Engineers Club

1931 Engineering Council of Birmingham and Jefferson County

1950's Engineering Council of Birmingham incorporated

1998 ECOB Scholarship, Inc. was established

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Engineering Council of Birmingham, Inc.

Purpose

- Inspire High School and College students to pursue an engineering education,
- Encourage engineering graduates to consider employment in the Birmingham area,
- Coordinate and promote activities of the member Societies,
- Represent the engineering profession and be a resource to:
 - Citizens Supervisory Commission,
 - Personnel Board of Jefferson County,
 - Birmingham Chamber of Commerce,
 - Technical Societies, Civic Organizations and Local Government.
- Sponsor and promote Engineer's Week during February of each year,
- Host annual ECOB Awards Banquet,

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Our Silver Sponsors

Big thanks for your support, it means everything to us.



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Engineers, LLC



The University
of Alabama
Capstone
Engineering
Society



Hargrove
Engineers +
Constructors



Spire (Alagasco)



Southern
Company's
Technical &
Project
Solutions

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Scholarship Winners

Audrey Nabors, \$1500

Audrey is a graduate from Homewood High School in Homewood, AL, where she had an overall GPA of 4.34. There she was a member the Math Team, the School Ambassador Vice President, Treasurer and member of the Spanish club, a member of the Varsity Cross Country, Track, and Soccer Teams, and a member of the National Honor Society, a member of the Marching Band, and many other Honor Societies. Audrey is currently enrolled at the Auburn University and majoring in Biosystems Engineering.

Congratulations, Audrey!

Albert Moore V, \$1500

Albert is a graduate from Shades Valley High School in Birmingham, AL, where he had a 3.9 GPA. There he was a member of the Marching, Jazz, Symphonic, and Concert Band, 1st Chair Saxophonist Concert Band, in the Pre-Engineering Academy, a member of the Mu Alfa Theta Honor Society, a Library Aid, received the Outstanding Engineer Award, Presidential Award, UAB and UA Honor Band, and many more awards and honors. Albert attends the University of Alabama, Huntsville and is majoring in Electrical Engineering.

Congratulations, Albert!

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2019 – 2020 ECOB Officers

President

Sidney H. May, P.E.,
EASi (ASCE)

Vice President & Secretary

Shunna Cannon, P.E.,
Alabama Power Company (ASPE)

Treasurer

Chris Smitherman, P.E.,
Southern Company (ASME)

Past President

Michelle Ballew,
Christy/Cobb, Inc. (SWE)

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2019 - 2020 Engineering Awards

The University of Alabama at Birmingham Engineering Student Awards

The University of Alabama College of Engineering Student Awards

Engineering Council of Birmingham Awards

UAB THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM.

SCHOOL OF ENGINEERING

Engineering Undergraduate Students of the Year



Pratheek Bobba

Biomedical Engineering

4.0 GPA

Science & Technology Honors Program

1st Place Engineering Category, UAB Fall Expo

Vice President, UAB Ambassadors



Mariam O. Massoud

Civil, Construction,
& Environmental
Engineering

4.0 GPA

Secretary, Society of Women Engineers

Engineering Ambassador

President, Ember (Ultimate Frisbee Team)



Thomas Connor Chandler

Electrical & Computer Engineering

3.51 GPA

Co-op, Southern Nuclear

Intern, Hyde Engineering

Teaching Assistant, Electrical Networks



Micah Armstrong

Materials Science & Engineering

3.65 GPA

Science & Technology Honors Program

Materials Science & Engineering Honors Program

Peer Mentoring Chair, UAB Ambassadors



Austin Stump

Mechanical Engineering

3.98 GPA

Student Researcher in UAB Vehicle & Robotics Engineering Laboratory (VREL)

Pitcher, UAB Baseball

Conference USA Commissioner's Academic Medal

UAB Undergraduate Engineering Student of the Year



Micah Armstrong
Materials Science & Engineering

UAB THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM.

SCHOOL OF ENGINEERING

Engineering Graduate Students of the Year



Molly Buckley

Biomedical Engineering

3.83 GPA

Vice President, Biomedical Engineering
Graduate Student (BMEGS) organization

Intern, Discovery BioMed

2019 Partnership Research Summer Training
Program (PRSTP) Scholar



Sahila Sarjana

Civil, Construction, & Environmental Engineering

4.0 GPA

1st Place STRIDE Poster, TRB Annual Meeting

1st Place Outstanding Student Paper,
Southern
District ITE

1st Place Robi Canvas Envoy Design, Robi-
BUET
Career Carnival



David Odaibo

Electrical & Computer Engineering

3.75 GPA

Top 50 Data Scientist

Co-Founder, CTO Analytical AI

Senior System Analyst, UAB



Bernabe Samuel Tucker

Materials Science & Engineering

3.75 GPA

Graduate Research Assistant

President, UAB Chapter of Society for Plastics
Engineers

Veteran, U.S. Air Force



Siyuan "Hunter" Zhang

Mechanical Engineering

4.0 GPA

Best Paper Award, ASME International Design
Engineering Technical Conference

2nd Place, 2019 Science and Technology Open
House

Researcher, UAB Vehicle & Robotics Engineering
Laboratory (VREL)

UAB Graduate Engineering Student of the Year



Siyuan "Hunter" Zhang
Mechanical Engineering

2019-2020

**Undergraduate Student of the Year
Graduate Student of the Year**

Aerospace Engineering and Mechanics

Jane Gillette



- St. Louis, Missouri
- Presidential Scholar
- Brooke Owens Fellow
- Project Manager, Alabama Rocketry Association
- Interned with United Launch Alliance
- Ambassador for the College of Engineering



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Architectural Engineering

Karen Crews



- Dripping Springs, Texas
- Accelerated Masters Program
- SEC Academic Honor Roll, Volleyball Team
- Treasurer, ASCE
- Compaction research funded by South Carolina DOT
- Coaches local club volleyball team



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Chemical and Biological Engineering

Jake Colburn



- Northport
- Presidential Scholar
- Materials research and two papers on Inconel 718 and 625 alloys
- AIChE
- Process Engineer, Cherokee National Chemical
- Youth and Children's Ministries leader at Christ Harbor United Methodist Church



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Civil Engineering

Zachary Maher



- Waxhaw, North Carolina
- Presidential Scholar
- Semi-finalist for Holle Award for Excellence in Public Speaking
- Involved with NASA Technology Transfer University
- Intern with LandDesign
- Director of Liturgical Ministry, BAMA Catholic



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Construction Engineering

Laine Meisler



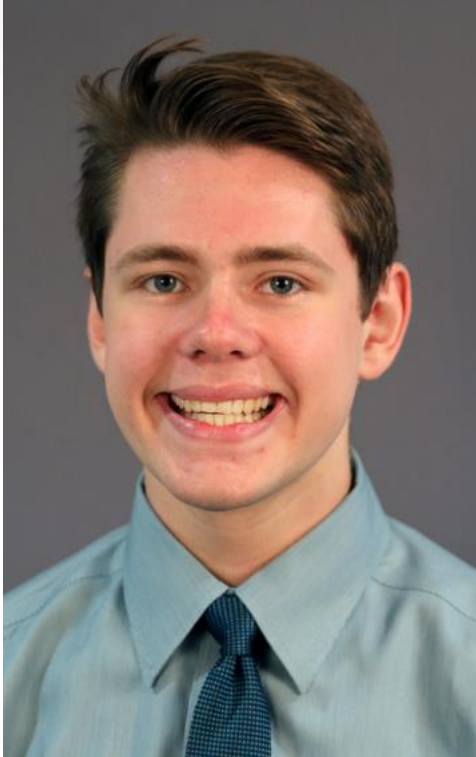
- Birmingham
- Dean's List
- Project Management Intern, Brasfield and Gorrie
- Project Management Intern, Lehrer Cumming
- Volunteers with Children's Hospital and with Habitat for Humanity



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Daniel Williams



- Huntsville
- Presidential Scholar
- Minors in Chinese and Mathematics
- Research in Underwater Acoustics
- Research trainee at Dynetics
- Chinese Culture Club



Katharine Conaway



- Tuscaloosa
- Presidential Scholar
- Minors in French and Mathematics
- Research in Water Drinking Lab
- Preparing a journal article on road salt alternatives
- President, Chi Epsilon



Mechanical Engineering

Kyle Jordan

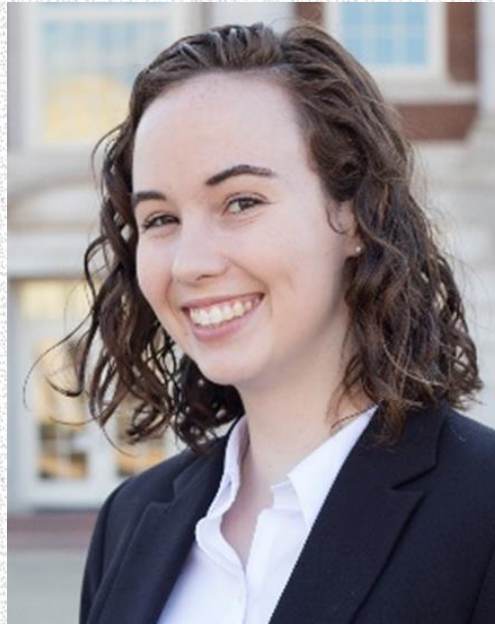


- Saint Johns, Florida
- Minor in Aerospace Engineering
- Treasurer, Pi Tau Sigma
- Astrodynamics and Space Research Lab, modeling the Circular Restricted Three-Body problem
- Supplier Quality Engineer intern, G&W Electric
- USSF/AHSAA Soccer Referee



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Jane Gillette

Aerospace Engineering and Mechanics

Yanxin Huang



- Doctoral Candidate
- Nanjing, China
- NASA Aeronautics Research Mission Directorate
- Multi-fidelity Aeroelastic Modeling of Flexible Aircraft Wings
- Four conference papers

Chemical Engineering

Yang Hu



- Doctoral Candidate
- Wuhu, Anhui, China
- Graduate Council Fellowship
- Cobalt electrodeposition for advanced interconnect applications in semiconductor devices
- Seven published articles
- Department delegate to Graduate Student Association

Civil Engineering

Peyman Abbaszadeh



- Doctoral Candidate
- Graduate Council Fellowship
- Hydrologic Modeling, Ensemble Data Assimilation, and Remote Sensing
- Five published articles and a book chapter
- 1st place for 2019 Student Poster Competition at the Alabama Water Resources Conference

Mechanical Engineering

Christopher 'Taber' Wanstall



- Tuscaloosa
- Alabama License Tag Graduate Fellowship
- Supercritical Mixing Effects of High Pressure, High Temperature Fuel Injection, Dept of Energy
- Eight published articles
- UA Track and Field Team

Graduate Student of the Year



Yang Hu

ECOB AWARDS

Distinguished Service Award

Educator of the Year

Young Engineer of the Year

Engineer of the Year

Leadership Award

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Distinguished Service Award Nominees

Jimmy Wayne Key – ISA

Brandy McKinney - NSBE

Jeanne Otts - SWE

Jimmy Wayne Key – ISA



- B.S. Engineering - University of Alabama at Birmingham, Birmingham, AL
- M.S. Control System Engineering – Oklahoma State University, Stillwater, OK
- ISA Certified Automation Professional
- Qualified Nuclear Digital Engineer (2013)
- Current Professional Control System Engineer in AL, TX, IA, MN, and NV
- Work and research experience in numerous fields, such as Automotive, Pulp & Paper, Plastic and Power
- Research: I&C for Gasification plant and carbon capture research equipment integration
- Owner/programmer/engineer at Process2control a developer of Real-time Artificial Intelligence Model Servers, Neural Network training software, and author of “Neural Networks in Process Control”, Control Engineering March/May 2016.
- Past President, VP, Birmingham Section ISA
- Engineer of the Year, 2014
- ISA Birmingham initiative for creation of UAB ISA student chapter.
- Participant for Baton Rouge flood housing reclamation and Church of the Highland serve day
- Adopt-a-mile (Bailey Road, Leeds) bi-monthly cleanup
- Doctors-without-Boards and Jimmie Hale mission donor and past Greystone Elementary chaperone

Brandy McKinney - NSBE



- B.S. in Industrial and Systems Engineering from Auburn University
- M.B.A. from Alabama A&M University
- Currently working on a Ph.D. in Interdisciplinary Engineering at UAB
- Previous: Industrial Engineer (United Parcel Service)
- NSBE-BHM Volunteering Committee Chair and Future Engineers of America advisor;
- UAB Society for Design and Process Science President
- Awards: Keep Birmingham Beautiful Commission Volunteer of the Year, AmeriCorps Member of the Year

Jeanne Otts - SWE



- BA Psychology - University of South Alabama,
- BS Electrical Engineering - University of Alabama at Birmingham,
- Thirty years engineering experience at Alabama Power Company and Southern Company Services in Distribution and Transmission Operations,
- UAB - School of Engineering - 45 Engineers Making a Difference Award,
- Active member of SWE and IEEE,
- Actively involved with UAB Electrical & Computer Engineering
- Founding member of UAB - School of Engineering - Imogene Baswell Society,
- Part of group who develop and maintain websites for ECOB and SWE Birmingham,
- Actively involved in outreach activities such as Introduce a Girl to Engineering, Engineering Showcase, Museum Day - Women Making History at McWane, and others,
- Worked on SWE Birmingham initiative to create an annual scholarship for collegiate SWE members studying engineering at an ABET accredited engineering school in AL,
- Presently serving second term as SWE Birmingham President.

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**Brandy McKinney - NSBE
Distinguished Service Award Winner**

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Educator of the Year

Alexander Hainen - UA Capstone Engineering
Society

Alexander Hainen - Capstone



- Michigan Technical University, BSCE 2009
- Purdue University, MSCE 2011
- Purdue University, PhD 2014
- Civil Engineering Assistant Professor of the Year Award
- Donald H. McLean Civil Engineering Professor of the year (three years in a row)
- Faculty Excellence in Research & Innovation Emerging Scholar Award
- Served as Gulf Region ITS Education Chair and Treasurer
- TRB Standing Committee on Utilities AFB70 Secretary
- UA Parking & Traffic Committee Member & Chair
- 15+ papers published in the past 5 years
- received over \$13 mil in support for UA projects.
- Involved in wheelchair ramp outreach and renovation projects at The Church of the Highlands,
- Participated in Nicaragua Resource Network

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**Dr. Alexander Hainen - Capstone
Educator of the Year Award Winner**

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Young Engineer of the Year Award Nominees

Elizabeth Clarkin - ISA

Laura Beth Yates - Capstone

Matthew Uelmen - ASCE

Tina Sheikheinoddin - SWE

Vonzell Williams - NSBE

Elizabeth Clarkin - ISA



- Illinois State University Bachelor of Physics 2015
- Illinois State University Bachelor of English 2015
- Iowa State University Bachelor of Electrical Engineering 2015
- Created graphics for remote monitoring of controls network
- Department design lead on hydrogen purge automation project
- Department design lead on a feed water heater replacement project
- Planned cabling for the distributed control system on a combined cycle generating unit expansion
- Department design lead on two ash pond closures
- ISA Power Industry division Newsletter editor
- ISA Birmingham Section Webmaster
- ISA Birmingham Scholarship Chair
- Ready 2 Succeed Mentor
- iCan Volunteer

Tina Sheikheinoddin - SWE



- The University of Alabama
- Engineer in Training Licensure
- Selected to present at the AL/MS Joint Annual AWWA/AWEA Conference
- Worked on the Jefferson County Asset Management Program at Hazen and Sawyer
- SWE Girl Day Planning Committee for Introduce a Girl to Engineering Day
- Committee to hold an Ethics Seminar with SWE and ASPE
- Selected to present at the AL/MS Joint Annual AWWA/AWEA conference
- Volunteered at Lake Tuscaloosa Clean Up Day

Matthew Uelmen - ASCE



- Bachelors of Science in Environmental Engineering with Math and History Minors from the University of Central Florida,
- EIT in Florida,
- Passed Civil PE Exam in October 2019,
- Current President of the Birmingham Branch of the American Society of Civil Engineers.

Vonzell Williams- NSBE

- B.S. in Electrical Engineering from Louisiana State University,
- Current Employer: Alabama Power as Substation Field Engineer,
- Previous: Edison Engineer Development Program (GE Power), Electrical Engineer Intern (GE Oil & Gas), Process Engineering Coop (GE Oil & Gas), Electrical Controls Intern (GE Oil & Gas), Electrical Maintenance Engineer Intern (The Dow Chemical Company), Electrical Production Engineer Intern (The Dow Chemical Company),
- NSBE-BHM board member (Secretary), Communications Chair, and Pre-College Initiatives Chair; Alabama Power United Way Department Chair; United States Army (Iraqi War Veteran).



Young Engineer of the Year

Laura Beth Yates - Capstone



- The University of Alabama, BS in Civil Engineering, 2011,
- The University of Alabama, MS in Civil Engineering, 2012,
- PE (Civil/Transportation) for AL, FL, GA, MS, LA, TX ,
- Professional Traffic Operations Engineer,
- Developed innovative solutions to improve safety and efficiency in transportation across the Southeast,
- Experience includes transportation safety analysis, traffic signal and ITS design, signal system timings and operations, and bicycle and pedestrian planning,
- 2018 - awarded the Outstanding Young Member Award by the Alabama Section of ITE,
- Currently serves as Vice President of the Alabama Section ITE and is chair of the Service Projects Committee,
- Initiated a high school outreach program and has coordinated service project involvement within the section,
- Planning to implement a project that targets distracted driving this year, and
- Serves on the Leadership Development Committee of Southern District ITE.

Young Engineer of the Year

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**Vonzell Williams- NSBE
Young Engineer of the Year Award Winner**

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Engineer of the Year Award Nominees

John Cover - ISA

Sidney May - Capstone

John Cover - ISA



- CASE, BSME, 1997,
- University of Alabama Birmingham, MSEE, 2012,
- Alabama, PE, 35587-E; Louisiana, PE, 42056,
- Senior Research Engineer at Cast Metal Composites, for TACOM,
- Southern Research Institute Operational Manager for Acid Gas Combustion Testing,
- Designed SCR test facility for NOx control and Ammonia Tuning with EPRI,
- Managed DOE Clean-Coal Oxy-Combustion and Carbon Capture Projects,
- Senior Controls Engineer supporting energy efficiency and optimization projects,
- Member of ISA – active as Secretary, President Elect, supports programs and membership,
- Member ASME, and
- Tutor and mentor at Cleveland city schools,
- Habitat for Humanity.

Sidney May - Capstone



- BS Civil Engineering – The University of Alabama, Tuscaloosa,
- Licensed Civil Engineer in Alabama, Mississippi, and Georgia,
- ASCE Birmingham Branch Past President,
- ECOB President,
- Alabama STEM Education Volunteer & Mentor,
- UA Civil Engineering Senior Design Review Panel/Judge,
- Math Tutor and Volunteer,
- Lead Civil Engineer,
- PDH Course Writer and Instructor,
- PE Review Course Writer and Instructor, and
- Co-author of PE Depth Manual.

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The 2020 Engineer of the Year Award goes to...

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**John Cover - ISA
Engineer of the Year Award Winner**

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Leadership Award

Leadership Award 2019



Debra Nelson
President
Elevate Communications, LLC

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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.

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