

The background is a vibrant, abstract composition of organic, rounded shapes in shades of purple, teal, yellow, and green. These shapes are scattered across a light lavender background, with several bright, white, starburst-like light rays emanating from the center, creating a sense of energy and innovation.

ENGINEERING COUNCIL OF BIRMINGHAM, INC.

proudly presents

**63<sup>rd</sup> ANNUAL ENGINEERING AWARDS**

**REIMAGINING**  
**the POSSIBLE**

# Purpose of ECOB

## 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 Banquet



<b>1929</b>	<b>Engineers Club</b>
<b>1931</b>	<b>Engineering Council of Birmingham and Jefferson County</b>
<b>1950's</b>	<b>Engineering Council of Birmingham Incorporated.</b>
<b>1966</b>	<b>First Engineer of the Year was awarded.</b>
<b>1998</b>	<b>ECOB Foundation, Inc. was established.</b>
<b>1970</b>	<b>First Young Engineer of the Year awarded.</b>
<b>1994</b>	<b>First Distinguished Service Award given.</b>
<b>2001</b>	<b>First Leadership Award given.</b>
<b>2004</b>	<b>First Educator of the Year awarded.</b>

# Our Sponsors

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

Gold



Silver



Education  
Partners





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# 2021 – 2022 Leadership

ECOB, Inc.		
CHRIS SMITHERMAN, P.E. Past & Acting President Southern Company (ASME)	BRANDY MCKINNEY Treasurer Girls, Inc. (NSBE)	TINA SHEIKHZEINODDIN Secretary Hazen and Sawyer (SWE)
ECOB Scholarship Foundation		
REGGIE MURCHISON President Retired from Alabama Power (NSBE)	MICHELLE BALLEW Treasurer Christy/Cobb, Inc. (SWE)	



# Awards Presentation Order

2022

Scholarship Awards

University of Alabama at Birmingham  
Engineering Student Awards

University of Alabama College of Engineering  
Student Awards

Engineering Council of Birmingham Awards

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# ECOB Foundation Scholarship Winners

**Amari  
Springer**

\$1500

Auburn University  
Civil Engineering

**Alexandria  
Erickson**

\$1500

University of  
Alabama in  
Huntsville  
Aerospace  
Engineering

**Dylan  
Cothron**

\$1500

University of  
Alabama at  
Birmingham  
Biomedical  
Engineering

2022



**UAB** THE UNIVERSITY OF  
ALABAMA AT BIRMINGHAM.  
SCHOOL OF ENGINEERING

# Engineering Undergraduate Students of the Year



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## Raheema Al Karim Demani

### Biomedical Engineering

4.0 GPA

President's List

Tau Beta Pi, Phi Kappa Phi, BMES

BME Honors, National Society for Leadership & Success

Intern, Sorace Multimodality Cancer Imaging Lab, Tearney Lab at Wellman Center, Rehemtulla Lab (Michigan), and Functional Genomics Lab (UAB)



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## Ashton Moore

**Civil, Construction, & Environmental Engineering**

3.96 GPA

President's List, Chi Epsilon, Tau Beta Pi

Engineering Excellence Scholarship, ALSITE  
Charles E.

Alexander Memorial Scholarship

Intern, Sain Associates, ALDOT



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## Kaylee Dill

### Electrical & Computer Engineering

3.91 GPA

President's List, Dean's List, Tau Beta Pi

National Merit Scholar, Tanik Endowed  
Scholarship

Intern, Southern Company Services, Southern  
Nuclear

Director, UAB Science Olympiad



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## Hannah Blansett

### Materials Science & Engineering

3.9 GPA

Ernest Knapp Memorial Scholarship

Foundry Education Foundation

First Prize, Time Capsule Design at American  
Foundry Society SE Regional Conference

Intern, Honda Manufacturing of Alabama

Co-Op, Southern Research



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## Benjamin Cockrell

### Mechanical Engineering

3.78 GPA

UAB Presidential Award – National Merit Finalist

BE&K Scholarship

President's List, Dean's List

ME Honors Program, Pi Tau Sigma, ASME,  
Engineering Ambassador

Will begin medical school in Fall '22



# UAB

## Undergraduate

## Student of the Year

**Raheema Al Karim Demani**

**Biomedical Engineering**

**UAB** THE UNIVERSITY OF  
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SCHOOL OF ENGINEERING

# Engineering Graduate Students of the Year



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## Khanh Tu Nguyen

### Biomedical Engineering

4.0 GPA

UAB Blazer Fellowship

UAB Graduate Student Government Travel Grant

President, UAB Biomedical Engineering Graduate Society (BMEGS)

Researcher, UAB Tissue and Organ Chip Bioengineering Laboratory



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## Samain Sabrin

### Civil, Construction, and Environmental Engineering

4.0 GPA

Institute of Transportation Engineers (ITE)

Women in STEM (UAB)

Society of Women Engineers (SWE)

Lab Instructor, Multiple Courses

Graduate Research Assistant Fellowship



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## Reepa Saha

### Computer Engineering

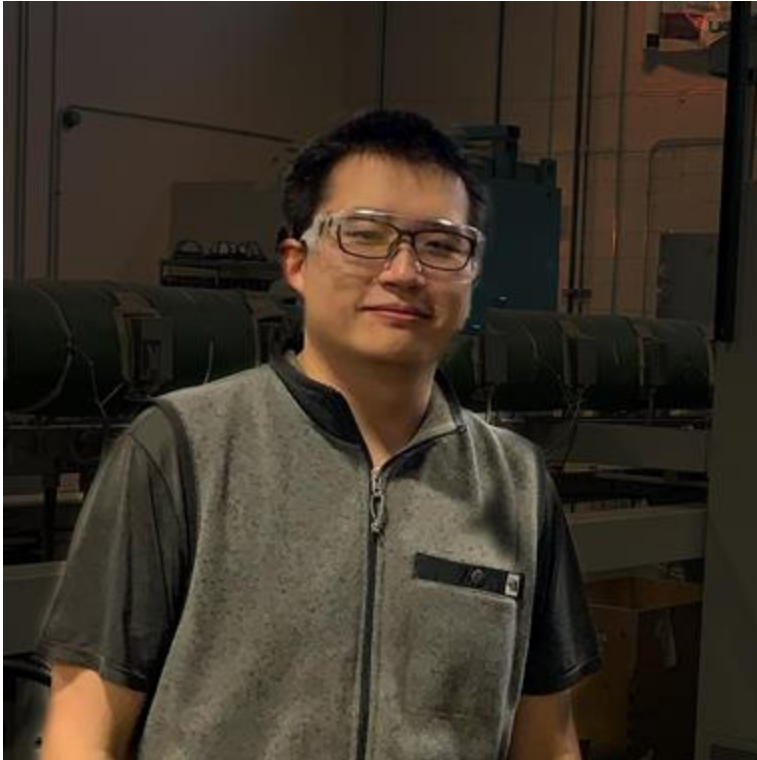
4.0 GPA

Blazer Fellowship

USA Travel Grant (Bangladesh-Sweden Trust Fund)

UAB Graduate Dean's Scholarship

Coordination Engineer, Rahimafrooz Energy Services



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## Yongzhe Yan

### Materials Science & Engineering

3.56 GPA

Graduate Research Assistant

Manager, Composites Lab at UAB Materials  
Processing and Applications Development  
(MPAD) Research Facility



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## Austin Stump

### Mechanical Engineering

3.87 GPA

Department of Defense Science, Mathematics, and  
Research for

Transformation (SMART) Scholarship

Intern, Detroit Arsenal Prototype Integration Facility

Member, Student Athlete Advisory Committee (SAAC)



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## **Adeel Ali Memon, M.D.**

### **Neuroengineering**

NIH/NINDS R-25 Trainee Award

Alpha Omega Alpha Medical Honor Society

Phi Kappa Phi, Tau Beta Pi

Chair, Consortium of Neurology Residents & Fellows  
at American Academy of Neurology

Intern, AI NeroCare Academy

Section Editor, Movement Disorders in Living  
Pocketbook of Neurology



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## Samantha Rizzuto

### Engineering Management

4.0 GPA

Recipient, Miss Alabama and Miss Alabama Volunteer Organizations Scholarships

Engineering Representative, Plant Farley Innovation Council

Member, North American Young Generation in Nuclear, American Society of Mechanical Engineers, National Energy Institute



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## Jessica DeVille

### Sustainable Smart Cities

4.0 GPA

Transportation Safety Engineer, Louisiana  
Department  
of Transportation and Development

Chair, Multiple Project Research Committees for  
Louisiana Transportation Research Center

Member, Keep Louisiana Beautiful Advisory Board



**UAB**

**Graduate**

**Student of the Year**

**Samain Sabrin**

**Civil, Construction,  
& Environmental Engineering**

**UAB** THE UNIVERSITY OF  
ALABAMA AT BIRMINGHAM.

**Thank you!**

2021-2022  
Undergraduate Student of the Year  
Graduate Student of the Year



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# Aerospace Engineering

## Chet Wiltshire



- Harvest, Alabama
- Vertical Flight Society Scholarship
- Interested in UAVs and Vertical Flight
- Interned at Prevailance Aerospace in Chesapeake, Virginia
- Presentation at AIAA Region II Conference
- Design Team for BAMA-1 CubeSat
- Presentations for Tuscaloosa Magnet School on Space



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# Architectural Engineering

## Landon Britton



- Hazel Green, Alabama
- Presidential Scholar
- Interned at Jordan and Skala Engineers
- Member of the Million Dollar Band
- Worked on the Grounds Crew of Colonial Golf Course



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# Chemical and Biological Engineering

## Tori Hargis

- Stafford, Virginia
- Presidential Scholar
- Currently a Teaching Assistant for Polymers
- Co-oped with SABIC in the Brine Plant
- HAZWOPER and Confined Space Certified
- Residential Advisor
- Qualified for Federation of USA Powerlifting Collegiate Nationals



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# Civil Engineering

## Halee Hudson



- Northport, Alabama
- Crimson Scholar
- Grader for Introduction to Civil Engineering
- Accelerated Masters Program and the STEM Path to the MBA
- Research on Infrastructure Policy
- Interned with Doster Construction
- Ambassador for the College of Engineering
- Crimsonette



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# Computer Engineering

## Ethan Brooks



- Denham Springs, Louisiana
- National Merit Scholar
- Randall Research Scholar
- Research in Solar Cells and Robotic Simulation
- Interned at National Aerospace Solutions
- Mentor for the Honors Living Learning Community



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# Construction Engineering

## Grace Heglas



- Hoover
- Presidential Scholar
- Ambassador for the College of Engineering
- Research on integrating Building Information Modeling (BIM) into the construction industry
- Interned at America's Home Place
- Member of SWE and ASCE
- Alpha Chi Omega, Vice President of Intellectual Development



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# Environmental Engineering

## Tejas Dinesh



- Maineville, Ohio
- Presidential Scholar
- Algernon Sydney Sullivan Award for Service to Humanity
- Research on factors affecting resilience of environmental migrants
- Presented at the 75<sup>th</sup> Annual Conference of the South Eastern Division of the American Association of Geographers
- Interned with NIST
- Member of the Blackburn Institute



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# Mechanical Engineering

## Sean Sawaya



- Madison, Mississippi
- National Merit Scholar
- Randall Research Scholar
- Research on fluid flow caused by combustion detonation
- Rainbow Schlieren Tomography presented at Undergraduate Research and Creative Activity Conference
- Space and Propulsion Systems Co-op at Southern Research Institute
- Treasurer for Club Triathlon Team



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# Student of the Year



Tejas Dinesh



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# Aerospace Engineering

## Ari Rubinsztein



- Doctoral Candidate
- Bronx, New York
- NASA Fellow
- GTA for Flight Dynamics & Control
- First author on 3 journal articles and made 9 conference presentations
- Research is on Low thrust electric propulsion for deep space missions
- Interned at NASA's Jet Propulsion Laboratory
- Member of the American Astronautical Society



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# Chemical Engineering

## Shuai Qian



- Doctoral Candidate
- Wuhan, China
- Graduate Council Fellow
- GTA for Process Dynamics & Control
- Co-author on 7 journal articles and made 3 conference presentations
- Research on Creation of new materials derived from glycerol for carbon capture
- President of the UA Badminton Club



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# Civil Engineering

## Ifeanyi Okpala



- Doctoral Candidate from Nigeria
- Graduate Council Fellow
- Instructor for Safety Engineering
- Research on improving construction workers' safety, health, and productivity
- Five published articles and eight conference presentations
- Member of American Society of Safety Professionals
- President of the UA African Students Association



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## Electrical Engineering

### Christopher New



- Doctoral Candidate from Hockessin, Delaware
- Graduate Research Assistant in Medium-Voltage Wide Bandgap Power Electronics
- EIT in Alabama
- Co-author on five journal articles and 6 conference papers
- Reviewer for IEEE Energy Conversion Congress & Exposition
- Most Valuable Formula SAE Team Member, 2015



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# Mechanical Engineering

## Caitlin Freeman



- Doctoral Candidate from Memphis
- Has a patent for Spherically Reconfigurable Modular Soft Robotics
- Research in Shape Memory Alloy actuated robotics
- STEM Outreach Robotics Instructor for the Tuscaloosa Magnet Schools
- Volunteered at a family resource center in the Alabama Black Belt
- Volunteer tutor for community schools



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# Graduate Student of the Year



Ifeanyi Okpala



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# ECOB Awards

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



2022

# Patrick Vincent Joseph

- **Nominated for the Distinguished Service Award by ISA - Birmingham Section**
- **Education**
  - BSEE - 1986- University of Alabama at Birmingham
- **Licensure**
  - EIT, Alabama, 1986
- **Engineering Experience & Achievements**
  - Engineering manager for local manufacturing facilities and foundries
  - Experienced Project manager leading various multimillion - dollar projects
  - Industrial Automation Specialist
  - IT Manager
  - Six Sigma Director
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - ISA – Birmingham Section President
  - Community Service coordinator- Home repairs and cleanup
  - Mentor- STEM and Robotics Teams
  - BSA -Former Scoutmaster
  - APSO- Alabama Power Service Organization



# Richard Allen Nail, II (Rick)

- **Nominated for the Distinguished Service Award by University of Alabama College of Engineering**
- **Education**
  - Bachelor of Science in Civil Engineering, 1994 from the University of Alabama
- **Licensure**
  - Professional Engineer in 8 states: Alabama, Colorado, Mississippi, Nevada, Tennessee, North Carolina, Virginia & Washington
  - LEED AP, BD+C accredited professional
- **Engineering Experience & Achievements**
  - 27.5 years civil consulting design engineering and project management experience in all aspects of site civil design.
  - UA Civil, Construction & Environmental Engineering Distinguished Departmental Fellow – 2009
  - UA Civil, Construction & Environmental Engineering Keith Woodman Award- 2013
  - UA College of Engineering Outstanding Alumni Volunteer Award – 2014
  - UA College of Engineering Distinguished Engineering Fellow – 2019
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - M. ASCE; ACEC; LEED; UA Capstone Engineering Society Chair 2021 – 2023, member since 2011; UA Environmental Institute Off -Campus Affiliate; UA Civil, Construction & Environmental Engineering Dept. Advisory Board Past Chair 2016 – 2021, member since 2006; UA College of Engineering Leadership Board Chair 2021 – 2023, member since 2015
  - Jefferson County Schools Education Foundation Board – 2013 to 2020 (President from Fall 2013 to Fall 2020)
  - Trussville City Schools Foundation Board – 2009 to 2012 (Vice-President from 2011 to 2012)
  - Hewitt-Trussville High School Engineering Academy Advisory Board – 2009 to 2013 (Chair 2009 to 2012). Assisted with founding advisory board and inducting industry partners.
  - City of Trussville Industrial Development Board – 2011 to 2012





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# Distinguished Service Award

## Rick Nail

Nominated by  
University of Alabama College of  
Engineering

# Dr. Kenneth G. Ricks

**Nominated for the Educator of the Year Award by University of Alabama College of Engineering, Capstone Engineering Society**

## **Education**

- The University of Alabama, B.S. in Electrical Engineering
- The University of Alabama in Huntsville, M.S. in Computer Engineering
- The University of Alabama in Huntsville, Ph.D. in Computer Engineering

## **Engineering Experience & Achievements**

- NASA Marshall Space Flight Center, 1985 – 2002
- University of Alabama, 2002 – present; Associate Professor and Associate Dept. Head of the ECE Dept.
- Faculty Advisor for Alabama Astrobotics, led team to 7 NASA robotics national championships
- Winner of the 2017 Outstanding Commitment to Teaching Award (sponsored by UA Alumni Assoc.)
- ETA Kappa Nu Outstanding ECE Instructor Award, 2016-2017, 2019-2020

## **Professional/Technical Society & Civic/Humanitarian Activities**

- IEEE Senior Member; Member of IEEE Computer Society and IEEE Robotics and Automation Society
- Performs STEM outreach to K-12 students in Tuscaloosa and throughout West Alabama





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# Educator of the Year

Dr. Kenneth G. Ricks

Capstone

# Stefanie Funk

- **Nominated for the Young Engineer of the Year Award by International Society of Automation (ISA)**
- **Education**
  - University of Alabama – BS Chemical Engineering, 2014
  - University of Alabama – BS Mathematics, 2014
  - UAB – MBA, 2019
- **Licensure**
  - FE, Chemical – Alabama (14-775-98)
- **Engineering Experience & Achievements**
  - Director of Automation at BBP, leading the DCS, PLC, IIOT, and Custom Solutions Groups
  - Increased total sales for the Process Automation department at BBP 170% from 2018 to 2021
  - Project Manger for a \$2.2 million PLC to DCS conversion project
  - Helped spearhead BBP's IIOT initiatives which include our own cloud system and LoRaWAN
  - Designed a predictive maintenance valve monitoring system that BBP offers as a solution
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - Secretary of ISA
  - Member of the University of Alabama Chemical Engineering Department Advisory Board
  - Member of the Jefferson State Community College Advisory Board
  - Member of the Board of Directors for She Is More Than
  - Started the mentoring program and leadership book club at BBP



# Taylor Schoel

- **Nominated for the Young Engineer of the Year Award by University of Alabama Engineering Department**
- **Education**
  - Bachelor of Science in Civil Engineering, UA, 2010
  - Master of Science in Civil Engineering, UA, 2012
  - MBA, UA, 2012
- **Licensure**
  - Professional Engineer, Alabama, License Number 36002
- **Engineering Experience & Achievements**
  - Project Manager for the site clearing and utility relocation design on Protective Life Stadium
  - Project Manager for the civil engineering site design for the Legacy Arena Renovation project
  - Project Manager for the site design of several downtown Birmingham multifamily projects
  - Project Manager for the civil engineering of the new Amazon Last Mile Facility in Birmingham
  - Project Manager of the TopGolf in Birmingham and the TopGolf in Huntsville
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - Past President of the Southern Environmental Center Junior Board
  - Member of the Executive Committee of The Bell Center's Junior Board





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# Young Engineer of the Year

## Stefanie Funk

Nominated by International Society of  
Automation (ISA)

# Joseph Hampton

- Nominated for the Engineer of the Year Award by University of AL College of Engineering
- **Education**
  - University of AL – Bachelors in Electrical Engineering
  - Stillman College – Bachelors in Physics
  - Troy University - MBA
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - INROADS Leadership Development Organization
  - United Way of Alabama Board
  - Birmingham Business Alliance
  - Leadership Alabama
  - Economic Development Partnership of Alabama



# Margaret O. Moore

- **Nominated for the Engineer of the Year Award by International Society of Automation (ISA)**
- **Education**
  - The University of Alabama – Tuscaloosa, BS Mechanical Engineering 1981
- **Licensure**
  - PE: Alabama, 19360
  - PE: Georgia, PE042597
- **Engineering Experience & Achievements**
  - Yates Engineers – I&C Engineer IV – 2019 - Present
  - Kellogg, Brown & Root – Principal Technical Professional – 2014-2029
  - Suburban Irrigation, Inc. – President, Treasurer, Secretary – 1997-2013
  - Rust International – Control Systems Design Engineer - 1988-1991
  - Georgia Power Co. – Associate Start-Up Engineer, Piping Engineer – 1981-1982
- **Professional/Technical Society & Civic/Humanitarian Activities**
  - ISA – Birmingham – Board Member, President, Treasurer, Secretary – 2016-Present
  - ASME – Member – 1989-Present
  - USGBC – LEED Green Associate – 2013-Present





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# Engineer of the Year

Meg Moore

Nominated by International Society of  
Automation (ISA)



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# Leadership Award

Greg Canfield

Secretary of the Alabama Department of  
Commerce



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# Keynote Speaker

## Jeff Holmes

Dean of Engineering  
University of Alabama at Birmingham (UAB)



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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 donations and in-kind services.