Conference Logistics

Conference Venue
Columbia Metropolitan Convention Center (CMCC)
1101 Lincoln St, Columbia, SC 29201

Parking Information:
Parking spaces are located at and around the CMCC:
- 300 car capacity parking lot adjacent to the Convention Center. Parking in this lot is complimentary and subject to availability. 800 car parking garage located across from the facility on Lincoln and Pendleton Streets. 50 of these spaces may be available for attendees, subject to availability. The garage is managed by the City of Columbia and charges hourly rates for parking.

Rates are as follows:
- $1.00 - First half-hour
- $1.00 - Second half-hour
- $1.00 - Each additional hour
- Maximum - $10.00 per day.

Free Internet Access
To access the free Internet:
1. Choose the wireless SSID CMCC_Hotspot network on your computer or device to connect.
2. Open your Internet browser. A log-in screen will automatically appear. If you are not automatically redirected, visit bluscket. colombiacvb.com/login.pl to log in.
3. In the left-hand column of the log-in page (in the yellow guest space), enter your email address and check the “I accept the terms of service” box below.
4. Click Log In.
5. You will be automatically directed to columbiaconventioncenter.com

August 23rd
2PM  B2B Event*
12PM - 6PM  Exhibitor Move In
4PM - 6PM  Open House USC’s McNAIR Center**

August 24th
8:30AM  Registration Open
9AM - 3PM  Expo Hall Open
10AM - 2PM  Conference Sessions
3:30PM - 5:30PM  Wine Reception
6:30PM - 8PM  Dinner

August 25th
4:30AM  Registration Open
5AM - 1PM  Expo Hall Open
8AM - 12:30PM*  Conference Sessions

* ADCP Technical Workshop will run until 5PM

Route to and from The McNAIR Center

WEDNESDAY AUGUST 24
Ballroom

MC of the day: Ann Marie Stieritz, President & CEO, South Carolina Council on Competitiveness

Opening Remarks
Zafer Gurdal, Director of USC’s McNAIR Center for Aerospace Innovation & Research
Joan Gabel, Executive Vice President for Academic Affairs and Provost for the University of South Carolina
Bobby Hitl, Secretary of Commerce, South Carolina Department of Commerce
James Stephens, Executive Director, SC Aeronautics Commission
Don Purcell, President, SC Aviation Association

Welcome Address
Mayor Stephen K. Benjamin, City of Columbia

Headline Speaker
Joan Robinson-Berry, Vice President and General Manager, Boeing South Carolina, Boeing Commercial Airplanes

Keynote Speaker
William Garvey, Editor-in-Chief of Business & Commercial Aviation, Aviation Week Network
### General Session - Ballroom -

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 11:15am - 12:15pm | **Panel Session: Higher Education**  
Moderator: **Anita Zucker**, CEO & Chairperson, The InterTech Group  
**Anand Gramopadhye**, Professor & Dean, College of Engineering, Computing and Applied Sciences, Clemson University  
**Hossein Haj-Hariri**, Dean, College of Engineering and Computing, The University of South Carolina  
**Dan Mooney**, V.P. South Carolina Engineering Design Center, The Boeing Company  
**Susan Pretulak**, Vice President for Economic Development, SC Technical College System  
**Mary Thornley**, President, Trident Technical College |

### Technical Symposium - Ace'16 Session I - Carolina Room -

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:15am - 12:20pm</td>
<td><strong>Opening</strong> by <strong>Ramy Harik</strong>, Assistant Professor, University of South Carolina, USA</td>
</tr>
</tbody>
</table>
| 11:20am - 11:55am | **Keynote: Novel Thermoplastic Structures for Aerospace**  
**Andries Buitenhuis**, Chief Engineer, Fokker Aerostructures BV, The Netherlands |
| 11:55am - 12:20pm | **Developments on Thermoplastic induction Welding**  
**Jeroen de Vries**, Commercial Manager, KVE Composites Group, The Netherlands |

### Technical Symposium - Ace'16 Session II - Carolina Room -

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 1:20pm - 1:55pm | **Keynote: Efficient Manufacturing through Process Simulation in the NASA Advanced Composites Project**  
**Brian Grimsley**, NASA Langley Research Center, USA |
| 1:55pm - 2:20pm | **Cost Reducing Processes & Materials in Aerospace Sandwich Structures**  
**Amy Boyd**, Aerospace Business Development Manager – Americas, DIAB, USA |
| 2:20pm - 2:45pm | **TX1100 Dry Tape for Resin Infusion: A Novel Product for Automation and Integration**  
**Alejandro Rodriguez**, Application Engineer, Cytec, USA |

### Technical Symposium - Ace'16 Session III - Carolina Room -

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 3:50pm - 4:25pm | **Keynote: Unmanned Aviation: Past, Present and Future**  
**Paul Morgan**, Executive Vice President for Unmanned Aircraft Systems, VX Aerospace, USA |
| 4:25pm - 4:50pm | **Unmanned Aerial Vehicle Related Activities at NC State University**  
**Larry Silverberg**, Professor, NC State University, USA |
| 4:50pm - 5:15pm | **Increasing the Industrial Adoption of Additive Manufacturing**  
**Rani Richardson**, Composites and Additive Manufacturing Industry Consultant, Dassault Systèmes |

### Technical Symposium - ACE’16 – Session II - Carolina Room -

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
</table>
| 5:30 - 8:30 | **Wine Reception and SC Annual Dinner**  
**Winston Scott**, Former NASA Astronaut |

### Technical Symposium - ACE’16 – Session III - Carolina Room -

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| 5:30 - 8:30 | **Wine Reception and SC Annual Dinner**  
**Winston Scott**, Former NASA Astronaut |
### Industry & Business Development Sessions

**Bio**

**MC of the Day** James Stephens, Executive Director, South Carolina Aeronautics Commission

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:15am</td>
<td>Welcome and Kick Off</td>
<td>Steve Townes, CEO Ranger Aerospace (and) Chairman, SC Aerospace</td>
</tr>
<tr>
<td>9:15 – 10:00am</td>
<td>Keynote Speaker</td>
<td>Patricia Watts, FAA COE National Program Director, FAA Air Transportation Centers of Excellence</td>
</tr>
<tr>
<td>10:00 – 10:30am</td>
<td>New USC/IBM Analytics center</td>
<td>David Reese, World Wide Sales Executive - Software Group Aerospace &amp; Defense, IBM</td>
</tr>
<tr>
<td>10:30 – 11:00am</td>
<td>Refreshment Break in Exhibit Hall</td>
<td></td>
</tr>
<tr>
<td>11:00 – 11:30am</td>
<td>Factory of the Future</td>
<td>Jeffrey Estes, Director, Okuma America Corporation</td>
</tr>
<tr>
<td>11:30 – 12:00pm</td>
<td>Update McNAIR Center</td>
<td>Zafer Gürdal, Director of McNAIR Center for Aerospace Innovation &amp; Research</td>
</tr>
<tr>
<td>12:00 – 12:30pm</td>
<td>Panel Discussion: Defense Diversification Success Stories and Strategies</td>
<td>Fred Gassaway, Defense Diversification Manager, South Carolina Department of Commerce</td>
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<td></td>
<td></td>
<td>Chuck Spangler, CEO/President, South Carolina Manufacturers Extension Program (SCMEP)</td>
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<td></td>
<td></td>
<td>Drew Weston, Director of Sales and Marketing, CodeLynx</td>
</tr>
<tr>
<td>12:30pm</td>
<td>Wrap-up &amp; Closing by James Stephens</td>
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</tr>
</tbody>
</table>

**End of Program**

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### ACE’16 – ADCP 2016 Workshop

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Bio</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 – 9:10am</td>
<td>Opening by Chair</td>
<td>Michel van Tooren, Professor, University of South Carolina, USA</td>
</tr>
<tr>
<td>9:10 – 9:55am</td>
<td>Keynote Automation in the Aerospace Industry</td>
<td>Don Farr, Technical Fellow, BR&amp;T – Boeing Research &amp; Technology, USA</td>
</tr>
<tr>
<td>9:55 – 10:30am</td>
<td>Pyndl, a bridge between Python and the Gendl KBE System</td>
<td>Dave Cooper, Founder and Head of Product Development, Genworks, USA</td>
</tr>
<tr>
<td>10:30 – 11:00am</td>
<td>Refreshment Break in Exhibit Hall</td>
<td></td>
</tr>
<tr>
<td>11:00 – 11:30am</td>
<td>Factory of the Future - Ballroom</td>
<td>Jeffrey Estes, Director, Okuma America Corporation</td>
</tr>
<tr>
<td>11:35 – 12:20pm</td>
<td>Keynote Aircraft Wing Design via Numerical Optimization: Are we there yet?</td>
<td>Joaquim Martins, Professor, University of Michigan, USA</td>
</tr>
<tr>
<td>12:20 – 12:55pm</td>
<td>ParaPy: the user-friendly Knowledge Based Engineering platform to automate virtual design processes</td>
<td>Reinier van Dijk, CEO ParaPy B.V., The Netherlands</td>
</tr>
<tr>
<td>12:55pm – 1:30pm</td>
<td>Lunch Break - Lexington Room -</td>
<td></td>
</tr>
<tr>
<td>1:30pm – 2:15pm</td>
<td>Keynote A NASA Langley Perspective on Space Technology - Driving Success Through Collaboration</td>
<td>David Dress, Associate Director for Space Technology and Advanced Development Programs, Langley Lead for Advanced Manufacturing Space Technology and Exploration Directorate, NASA Langley Research Center</td>
</tr>
<tr>
<td>2:15pm – 2:50pm</td>
<td>Towards Improvement of Epoxy-Thermoplastic Joints</td>
<td>Igor Luzinov, Professor, Clemson University, USA</td>
</tr>
<tr>
<td>2:50pm – 3:25pm</td>
<td>Health Monitoring and Smart Predictive System Throughout Products Life Cycle</td>
<td>Abdel-Moez E. Bayoumi, Professor of Mechanical Engineering and Biomedical Engineering, and Director of the USC Center for Predictive Maintenance, University of South Carolina, USA</td>
</tr>
<tr>
<td>3:25pm – 3:40pm</td>
<td>Refreshment Break</td>
<td></td>
</tr>
<tr>
<td>3:40pm – 4:15pm</td>
<td>Automatic Product Configuration in SME’s: Data, Knowledge and IT Organization</td>
<td>Giorgio Colombo, Professor, Politecnico di Milano, Italy</td>
</tr>
<tr>
<td>4:15pm – 4:50pm</td>
<td>Overview of RF Antennas in Composite Materials and Structures</td>
<td>Mohammed Ali, Professor, University of South Carolina, USA</td>
</tr>
<tr>
<td>4:50pm – 5:25pm</td>
<td>Machine Work Space Planning in Additive Manufacturing for Single-part-layer Case</td>
<td>Yicha Zhang, Research Associate, IRCCyN, Ecole Centrale de Nantes, France</td>
</tr>
<tr>
<td>5:25pm</td>
<td>Closing by Chair</td>
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</tbody>
</table>

**End of Program**
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Updated Expo Map can be seen in the Exhibit Hall throughout the conference.
Elevating the Visionaries.

Partnering with thinkers, explorers, and dreamers.

Five decades of extrusion experience has made us a leader in aerospace. However, our true strength lies in fostering long-lasting partnerships - taking challenging ideas and bringing them to life.

Visit zeusaerospace.com to learn more.

2016 Annual Aerospace Dinner

Don’t miss the chance to see former astronaut Winston Scott speak at the SC Aerospace Dinner!

Wednesday August 24
6:30pm
- Ballroom -

The benefits of going into space far exceed the risks. I believe it is important that humans continue to reach, and to grow. It is only through exploration and growth in knowledge that we are able to provide a better life for everyone.”

—Winston Scott

Thank you to our table sponsors

Winston Scott
Former NASA astronaut
01
KEYNOTE SPEAKERS

14  Winston Scott, former NASA astronaut
15  Joan Robinson-Berry, Boeing SC
16  William Garvey, Aviation Week
17  Andries Buitenhuis, Fokker Aerostructures
18  Brian Grimsley, NASA Langley Research Center
19  Paul Morgan, VX Aerospace
20  Patricia Watts, FAA
21  Don Farr, Boeing Research & Technology
22  David Dress, NASA Langley Research
23  Joaquim Martins, University of Michigan
24  Steve Townes, Ranger Aerospace
Continuing to excite readers, Scott’s audacious case study in leadership and expert work in space is now regarded as a testament of his teachers’ dedication to setting him on the path to access to resources, but his own segregated education provided little vision. Raised in Miami, Scott’s largely isolated youth was a product of the power of perseverance and the power of dreams. As a NASA astronaut, Scott’s journey to the stars is a book about life as told through the lens of a real-life astronaut. Winston Scott’s journey to the stars as a NASA astronaut is a testament to the power of perseverance and vision. Raised in Miami, Scott’s largely segregated education provided little access to resources, but his own determination combined with the dedication of his teachers set him on an inspiring path of achievement. Since retiring from NASA Scott has remained an active pilot and his work in space is now regarded as a case study in leadership and expert communication, qualities most clearly exhibited in the much-publicized manual capture of the Spartan satellite in the 1997 Columbia mission. Continuing to excite readers, Scott’s book, Reflections From Earth Orbit, is not your typical ‘how do you go to the bathroom in space’ book. Rather, it is a book about life as told through the reflections of Scott, prompted by events that occurred during his two space missions as a NASA astronaut aboard the space shuttles Endeavor and Columbia. Reflections is Scott’s way of sharing some of the experiences that drove him to overcome his life’s obstacles and become one of the select few who journeyed into outer space.

In 1992, Winston Scott began an accomplished career as an astronaut with the National Aeronautics and Space Administration. He served as a mission specialist on the STS-72 Endeavour mission in 1996 and the STS-87 Columbia mission in 1997. The Endeavour flight was a nine-day groundbreaking excursion in which the crew retrieved the Space Flyer Unit satellite, deployed and retrieved the OAST-Flyer satellite, and conducted two spacewalks to demonstrate and evaluate techniques to be used in the assembly of the International Space Station. During this breakthrough mission, Scott logged more than 214 hours in space. In 1997, he followed up with the STS-87 Columbia flight, which featured the difficult manual capture of a Spartan satellite, in addition to the testing of tools and procedures for future space station assembly. Before joining NASA, Scott earned a distinguished record of service as a Captain in the United States Navy. Throughout his career as a Naval Aviator, Scott accumulated more than 5,000 hours of flight time in over twenty different military and civilian aircraft, and more than 200 shipboard landings.

The former Executive Director of the Florida Space Authority, Scott has also served as Vice President and deputy general manager of the NASA engineering and science contract for the space shuttle, International Space Station and project Constellation. For the past four years he has served as Dean of the College of Aeronautics at the Florida Institute of Technology and was recently promoted to Senior Vice President for External Relations and Economic Development. In addition to his administrative duties, Scott teaches and performs with the Florida Tech Jazz Syndicate and leads the ‘Winston Scott Cosmic Jazz Quintet’. Scott graduated from Coral Gables High School and received a B.A. in music from Florida State University. He went on to earn an M.S. in aeronautical engineering from the U.S. Naval Postgraduate School. He resides in Florida with his wife Marilyn.

Joan Robinson-Berry began service as vice president and general manager of Boeing South Carolina in June 2016. In this position, she has overall leadership responsibility for Boeing’s South Carolina facilities in North Charleston, and reports to Ray Conner, president and chief executive officer of Boeing Commercial Airplanes. Boeing South Carolina’s (BSC) airport campus is home to 787 Aftbody and Midbody Operations, 787 Final Assembly and Delivery operations, as well as an Engineering Design Center and IT Centers. BSC’s north campus includes the Interior’s Responsibility Center South Carolina, Propulsion South Carolina, and a Boeing Research & Technology Center.

Previously, Robinson-Berry served as director of the Shared Services Group (SSG) Supplier Management organization where she led the strategy, contracting, daily management and development of the supply chain providing more than $8 billion of non-production goods and services for The Boeing Company. Earlier in her career, she was director of Phantom Works Supplier Management for the Boeing Defense, Space & Security (BDS) division and had responsibility for implementing supplier management strategy and execution in support of the development of advanced concepts and technologies. Before that, Robinson-Berry was director of Small/Diverse Business & Strategic Alliances for BDS and its Aeronautics and Space Division (BDS) division and had responsibility for integrating more than five billion dollars in goods and services purchased annually from small and diverse suppliers. In this role she helped establish the local supplier network for BSC.

Robinson-Berry has also served as Director of Technical Workforce Excellence, overseeing Technical Affiliations, Fellowship Programs and University Technical Relationships and as director of Engineering Processes, Tools and Skillsets for the Space and Communications business. Prior to that position, she served as Program Manager of the MD-80/90 Twinjet Programs for Boeing Commercial Airplanes. Earlier in her career, she was director of Strategic Sourcing for Boeing and also served as Vice President and General Manager of the BDS Technical Workforce Excellence, overseeing Technical Affiliations, Fellowship Programs and University Technical Relationships and as director of Engineering Processes, Tools and Skillsets for the Space and Communications business. Prior to that position, she served as Program Manager of the MD-80/90 Twinjet Programs for Boeing Commercial Airplanes.

Robinson-Berry has received extensive recognition for her work in science, technology, engineering and mathematics from global organizations, including the National Society of Black Engineers and various members of Congress.

In 2016, Robinson-Berry was recognized as one of the non-production goods and services for The Boeing Company. Earlier in her career, she was director of Phantom Works Supplier Management for the Boeing Defense, Space & Security (BDS) division and had responsibility for implementing supplier management strategy and execution in support of the development of advanced concepts and technologies. Before that, Robinson-Berry was director of Small/Diverse Business & Strategic Alliances for BDS and its Aeronautics and Space Division (BDS) division and had responsibility for integrating more than five billion dollars in goods and services purchased annually from small and diverse suppliers. In this role she helped establish the local supplier network for BSC.

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Andries Buitenhuis (Amsterdam, The Netherlands, 1968) started working in aerospace in 1989 on a bush airplane called ‘Angel’ in IA, USA. After his MSc. thesis and graduation from the Delft University of Technology, Department of Aerospace Engineering in 1992 specializing in the field of computational mechanics (buckling and postbuckling of composite structures) he joined Fokker Aircraft. After a first few years on the Fokker jetline program in the wing and tail structures group he transitioned to ‘other programs’ at Fokker, supporting the design and build of major structural components for other OEM’s as a lead stress engineer. This included the composite elevators and rudder of the Gulfstream V.

In 1998 he was appointed Chief Engineer for the Airbus A340 / A380 ‘J-Nose’ wing fixed leading edge projects at Fokker. The 500kg structure on the A380 presented a weight reduction of more than 150kg relative to competing designs.

In 2007 he was appointed Chief Engineer for the Gulfstream programs at Fokker, including the development of the G650 fuselage and empennage with a carbon/epoxy horizontal stabilizer and carbon/PPS thermoplastic elevators and rudder. From 2009 onwards he is responsible for the wing and tail structures group at Fokker, including helicopter applications.

Immediately prior to his appointment as Editor-in-Chief of Business & Commercial Aviation in 2000, Bill served as Managing Editor of Aviation Week Television where he wrote and appeared in more than 100 videos. Before that he was the top editor for both Flying and Professional Pilot magazines, as well as a member of the senior editorial/StaffReader’s Digest. He also managed communications for FlightSafety International. He began his career as a newspaper reporter on Long Island in 1968 and joined the Associated Press as writer/editor in its Miami bureau in 1970.

Bill has authored or co-authored three aviation books, was an essayist for National Public Radio, wrote aviation documentaries for The Discovery Channel, and has written for numerous publications including The New York Times, Smithsonian Air & Space, Popular Mechanics and The Associated Press, among others. During his stewardship at Business & Commercial Aviation, the monthly magazine has received dozens of awards for editorial excellence.

He is the recipient of the Lifetime Achievement in Journalism Award from the National Business Aviation Association; the Aviation Journalism Award from the National Air Transportation Association; and an Aerospace Journalist of the Year Award for Business Aviation.

An active aviator, he holds a Commercial Pilot license, along with multiengine, instrument, seaplane and glider ratings.

Andries Buitenhuis
Chief Engineer, Fokker Aerostructures BV
The Netherlands.
Paul is the co-owner of VX Aerospace in Morganton, North Carolina. VX Aerospace specializes in design and manufacture of composite materials for aerospace applications as well as other commercial and Department of Defense markets.

Paul had 26 years of professional experience with government and industry at key leadership and management positions during his career as a U.S. Naval officer and naval aviator, culminating in the attainment of the rank of Captain. With broad, hands-on experience in all facets of naval operations and program management, he has had extensive leadership experience in the U.S. Navy, including Program Manager, Chief Engineer, Operational Flight Test, Commanding Officer, and Personnel Manager.

Paul’s final tour in the Navy was as the Program Manager of the Navy’s Unmanned Aviation organization, PMA-263, leading and overseeing multiple Unmanned System efforts for all U.S. Navy and Marine Corps unmanned aviation vehicles and systems across all Classes of UAS.

Paul is also an expert at commercial uses of Unmanned Systems and commercially operates UAS throughout the United States.

Paul holds a BS in Economics and a BA in International Studies from the University of South Carolina as well as an MS in Systems Engineering from The Johns Hopkins University.

Brian Grimsley is a composites processing research engineer in the Advanced Materials and Processing Branch at NASA Langley Research Center in Hampton, VA. He received his Masters of Science in Materials Science and Engineering from Virginia Polytechnic Institute and State University under the mentorship of Professor Al Loos. His career includes over twenty years of materials and processing development at Intel Corporation, NAVSEA, and NASA.

He has published over fifty conference and journal articles ranging in subject matter from the development of carbon nanotube polymer matrix composites to the development of out-of-autoclave composite processes for fabrication of full-scale space flight vehicles.

He is currently the sub-project manager for technical challenge 3 (TC3) of NASA’s Advanced Composites Project in the Advanced Aeronautics Vehicle Program. The overarching goal in ACP-TC3 is to develop physics-based predictive tools to reduce manufacturing/processing defects and thereby decrease the timeline for development and certification of composite structure in future aeronautical vehicles.

Brian Grimsley
NASA Langley Research Center, USA
Don Farr is a Technical Fellow for Boeing Research and Technology Support and Analytics Integrated Technology Team in Huntsville, Alabama. He is working on advanced technology in Model Based System Engineering applied to the digital thread throughout the life cycle of platform development, shifting the emphasis in design to account for the manufacture and assembly of the products.

Don has over 25 years with The Boeing Company working on various programs and projects. He started his career on the Comanche program in Philadelphia with avionics and embedded sensors in the composite structures. After 10 years on the Comanche program, leading many development and integration efforts (including first flight), Don began work on the newly defined Network Centric Operations Thrust in St. Louis Missouri. He spent the next 5 years developing and integrating System-of-System technologies that enabled the integration of dozens of platforms (F-15, A/F-18, Apache, Tanker, and the like).

Don’s first assignment in Huntsville was developing and integrating an advanced discrimination technology into the Missile Defense architecture. This technology spurred significant changes to the radar, Command and Control, and Ground-Based Mid-course Defense fire control systems, including the interceptors.

Don earned his Bachelor of Science in Electrical Engineering at Lamar University in Beaumont, Texas. He went on to complete an advanced degree in Electrical Engineering at the University of Delaware in Newark.

Dr. Watts serves as the National Program Director and Grants Officer for the FAA Air Transportation Centers of Excellence (COE) Program. FAA COEs are multi-year, public/private partnerships established to conduct mission-critical research while training a pool of professionals to serve the aviation community of the future. COEs maximize federal resources through matching contributions provided by 100+ academic institutions, state and local governments, and industry.

FAA sponsors have funded more than 500 research projects while supporting more than 1,000 students under the guidance of senior faculty. COE faculty and students focus on long-term aviation related research topics that currently reflect a $600 million level of effort, funded through federal grants, contracts, and matching contributions. Important COE research outcomes have been documented in more than 2,000 publications, reports and master and doctoral level theses.

Dr. Watts has been appointed to various federal, state and local advisory boards and has been honored with various FAA awards and other important distinctions. These include the FAA Administrator’s Award for her COE outreach efforts and the White House Hammer Award for streamlining government. Dr. Watts was recently recognized by the National Council of University Administrators with the 2016 Joseph F. Carrabino Award for distinguished public service and extraordinary contributions to government – university relationships.
Joaquim R. R. A. Martins is a Professor at the University of Michigan, where he heads the Multidisciplinary Design Optimization Laboratory (MDO Lab) in the Department of Aerospace Engineering. His research involves the development and application of MDO methodologies to the design of aircraft configurations, with a focus on high-fidelity simulations that take advantage of high-performance parallel computing. Before joining the University of Michigan faculty in September 2009, he was an Associate Professor at the University of Toronto Institute for Aerospace Studies, where from 2002 he held a Tier II Canada Research Chair in Multidisciplinary Optimization. Prof. Martins received his undergraduate degree in Aeronautical Engineering from Imperial College, London, with a British Aerospace Award. He obtained both his M.Sc. and Ph.D. degrees from Stanford University, where he was awarded the Ballhaus prize for best thesis in the Department of Aeronautics and Astronautics. He was a keynote speaker at the International Forum on Aeroelasticity and Structural Dynamics in 2007 and the Aircraft Structural Design Conference in 2010. He has received the Best Paper Award in the AIAA Multidisciplinary Analysis and Optimization Conference four times (2002, 2006, 2012, and 2014). He is a member of the AIAA MDO Technical Committee and was the technical co-chair for the 2008 AIAA Multidisciplinary Analysis and Optimization Conference.

He has served as Associate Editor for the AIAA Journal, and is currently an Associate Editor for the Journal of Aircraft, Optimization and Engineering, and Structural and Multidisciplinary Optimization.

Thursday August 25
130pm - 215pm
- Carolina Room -

David Dress is the Associate Director for Space Technology and Advanced Development Programs in the Space Technology and Exploration Directorate at NASA Langley. David leads the advocacy, customer interface, integration, formulation, and implementation of NASA Langley’s broad portfolio of projects supporting the NASA Space Technology Mission Directorate. In addition, David is the Center Programmatic Lead for Advanced Manufacturing.

Previously, David was the Center Focal for Level II Constellation Program activities and the Lead for the Mission and Technical Integration Group (Johnson Space Center) in Systems Engineering and Integration for the Constellation Program where he served as the SE&I Mission Lead for the Ares I-X Test Flight. Previous jobs from 2003 to 2007 included Deputy Director for Experimental Research Services and Head of the Research Facilities Branch.

From 1994 to 2003, David served as Facility Manager of the Unitary Plan Wind Tunnel and the 14- by 22-Foot Subsonic Tunnel. From 1981 until 1994, David was a researcher with expertise in advanced experimental techniques. This included cryogenic testing, magnetic suspension and balance systems, adaptive wall technologies, and high speed dynamic stability testing.

David received his B.S. degree in Aerospace and Ocean Engineering from Virginia Tech and a Master’s degree in Fluid Mechanics and Thermal Sciences from George Washington University. David has published over 40 papers and is an Associate Fellow in the AIAA.

Thursday August 25
1135am - 1220pm
- Carolina Room -

Joaquim Martins
Professor
University of Michigan, USA

Thursday August 25
1135am - 1220pm
- Carolina Room -

Keynote Speakers
Steve Townes is the founder and CEO of Ranger Aerospace in Greenville. Townes is an engineering graduate of West Point, where he won the Eisenhower Award upon graduation in 1975. He served in the 1st Ranger Battalion as a young officer. He has 36 years’ experience in the aerospace, aviation, and defense industry segments.

He came to South Carolina in 1990 as the Exec VP/COO of Stevens Aviation, helping to lead it through a successful turnaround and resurgent growth. Townes founded Ranger Aerospace in 1997, and since that time, his company has employed thousands of people in a successful series of Private Equity consolidation platforms. Since inception, Ranger has transacted over $490 Million in various buying-and-selling successes as the management stewards of several large-scale enterprises such as “ASIG,” Keystone Helicopter, and Ranger International.

Ranger’s latest acquisition commenced in 2016 and is one of its largest, ACL Airshop, a global air cargo products and services company with headquarters in South Carolina and operations at 32 of the world’s Top Fifty air cargo hub airports.

Townes is also the inaugural chairman for SC Aerospace – a statewide public/private partnership that unites and advances the aerospace growth interests of industry, academia, and government.
02
GENERAL SESSION
SPEAKERS

Stephen Benjamin, Mayor of Columbia
Robert Hitt, SC Department of Commerce
Joan Gabel, University of South Carolina
Zafer Gurdal, USC MCNAIR Center
Don Purcell, SC Aviation Association
Ann Marie Stieritz, SC Council on Competitiveness
James Stephens, SC Aeronautics Commission
Donald Erickson, Lockheed Martin
Anita Zucker, The InterTech Group, Inc.
Hossein Haj-Hariri, University of South Carolina
Mary Thornley, Trident Technical College
Anand Gramopadhye, Clemson University
Daniel Moody, Boeing
Susan Pretulak, SC Technical College System
Since being elected mayor in a record turnout election in April 2010, Mayor Stephen K. Benjamin has continued his mission to create in Columbia the most talented, educated and entrepreneurial city in the Southeast.

His service in Columbia started back in 1992 when he served as student body president at the University of South Carolina, later becoming the Student Bar Association President at the USC School of Law.

At 29 years old in 1999, Benjamin was appointed to Governor Jim Hodges’ cabinet as director of the state’s second largest law enforcement agency, the Department of Probation, Parole and Pardon Services.

Mayor Benjamin has continued his service to the community in serving on numerous boards for nonprofit organizations such as the Columbia Urban League, Benedict College, the Greater Columbia Chamber of Commerce and as a founding board member of the Eau Claire Promise Zone. He also served as a founding member of Choose Children First and chief legal counsel for Midlands Crimestoppers.

In 2009, Benjamin drew national attention by representing prominent radio host Tom Joyner and securing a pardon for Joyner’s great uncles wrongfully convicted in the death of a 73-year-old Confederate veteran and executed in 1913. In a landmark decision, the South Carolina Board of Paroles and Pardons voted unanimously to grant the posthumous pardon, the first for South Carolina in a capital case.

Reelected by a 30 percent margin in November 2013, Mayor Benjamin’s administration has been characterized by his firm belief in Columbia’s potential and intense focus on job creation. In his first term alone, his leadership helped cut unemployment in the metro by roughly half and secured billions of dollars in new regional capital investment in the midst of a national recession.

Combined with the rebirth of Main Street, these accomplishments have drawn national attention and accolades including his being awarded an Aspen Rodel Fellowship and receiving an Honorary Doctor of Humanities from Francis Marion University. He has twice been named to The Washington Post’s “The Root 100 List” (2011 and 2013) as well as the 2014 GRIO 100 and was honored to receive a 2014 Triumph Award from the National Action Network as their 2014 Public Servant of the Year.

As part of his commitment to fostering a world class police department in the City, Mayor Benjamin introduced the “Justice for All” initiative in 2014, which implements training, competitive pay, diverse representation and community engagement to strengthen the foundation of trust and accountability that exists between our communities and law enforcement agencies.

President Obama’s administration has also commended Mayor Benjamin on his work on behalf of My Brother’s Keeper (MBK) efforts in the nation. The city’s MBK efforts, in addition to Mayor Benjamin’s leadership, have led to Columbia being seen as a nationwide leader in implementing and upholding the missions of the program.

The Mayor was asked to speak at the 2016 Democratic National Convention, where he talked about the importance of instilling in his daughters they can do anything they set their minds to, even becoming President of the United States.

In addition to serving as Mayor of Columbia, Mayor Benjamin also serves as Second Vice President of the U.S. Conference of Mayors and as Chairman for Municipal Bonds for America. He currently teaches a class at the University of South Carolina Honors College titled “Columbia, South Carolina: Building a Great City” and is a member of Kappa Alpha Psi and Sigma Pi Phi fraternities.

Mayor Benjamin is married to the Honorable DeAndrea Gist Benjamin, Chief Administrative Judge (General Sessions) for South Carolina’s Fifth Judicial Circuit. The two are the proud parents of daughters Bethany (11) and Jordan Grace (9).

Robert “Bobby” M. Hitt III was appointed by Governor Nikki Haley to serve as Secretary of Commerce in January 2011. Hitt, the previous manager of corporate affairs at the BMW Manufacturing Company in Spartanburg, brings a wealth of economic development experience to the Department of Commerce and has personally worked with the previous five commerce secretaries.

Under his leadership as Secretary of Commerce, South Carolina has become a leader in economic development recruiting more than $23 billion in capital investments and 86,000 new jobs to the state. Throughout Hitt’s tenure, South Carolina has consistently ranked number one in the export of both completed passenger motor vehicles and tires. In three of the last four years, the state has also led the nation in jobs created from foreign direct investment, per capita.

Before his time at Commerce and BMW, Hitt served as the director of planning and development for the Nelson Mullins Riley & Scarborough law firm and worked for 17 years at The State and The Columbia Record newspapers, serving as managing editor of both publications.

Hitt is a native of Charleston and is a graduate of the University of South Carolina. He and his wife Gwen have two sons, Lucas, and Robert Paul and one grandson, Ben.
General Session Speakers

Joan T.A. Gabel is the Executive Vice President for Academic Affairs and Provost for the University of South Carolina. Joining the university in August of 2015, Provost Gabel oversees sixteen schools and colleges. She is also responsible for the university’s graduate and undergraduate academic programs, curriculum development, program assessment, university accreditation, systemwide academic affairs policies, faculty development, and the stewardship of resources in support of the above.

Prior to joining the University of South Carolina, Gabel served as the Dean of the Robert J. Trulaske, Sr. College of Business at the University of Missouri. Under her leadership, the college rebranded under the award-winning “We’ll Show You” campaign and then marked its Centennial Celebration with a year of reflection, celebration, and a look into the future. She improved inclusion among diverse populations through key hires and strategic programming. Gabel worked collaboratively to secure a private/public partnership that generated $20 million which helped in establishing the groundbreaking Applied Learning Center, a home for high-touch, experiential learning methods. She also served as a board member for the Association to Advance Collegiate Schools of Business (AACSB).

Named a “shining star” by The Wall Street Journal, she is the recipient of numerous awards, including the Charles M. Hewitt Teaching Award, the Kay Duffy Service Award and the Bunche, Kemper and Holmes-Cardozo Awards for Excellence in Research. Her work has been placed on the National Law Journal’s “Worth Reading” list and she served as editor-in-chief of the American Business Law Journal and the Journal of Legal Studies in Business. She earned her bachelor’s degree from Haverford College and her juris doctor from the University of Georgia.

Prof. Gürdal is the inaugural holder of the Ronald E. McNair Endowed Chair at University of South Carolina. Prior to joining the University of South Carolina, he held the Chair of Aerospace Structures and Computational Mechanics at TU Delft, The Netherlands. He also holds Professor Emeritus appointment at Virginia Tech, where he was a Professor jointly appointed between the Aerospace and Ocean Engineering, and Engineering Science and Mechanics Departments.

Prof. Gürdal graduated from Middle East Technical University of Turkey with a Bachelor of Science degree in Mechanical Engineering, from Illinois Institute of Technology with a Master of Science degree in Mechanical and Aerospace Engineering, and was awarded a Ph.D. in Aerospace and Ocean Engineering from Virginia Polytechnic Institute and State University.

Prof. Gürdal’s research interests are in structural and multidisciplinary design and optimization, design and optimization of composite materials and structures, and computational methods for design with manufacturing emphasis. His research has largely been funded by NASA Langley Research Center and Air Force Office of Scientific Research in the US, and EU Research Frame work programs in Europe, as well as major Aerospace OEM in the US and in Europe. He was the principal investigator and co-investigator of more than 60 research grants, majority of which on methodologies for composite laminate design and novel structural configurations, as well as experimental verification of composites structures research.

Prof. Gürdal’s research contributions resulted more than 300 publications, nearly half are refereed journal publications. He is a co-author of 4 books. He has delivered keynote speeches and plenary addresses at 14 internationally recognized conferences.

Prof. Gürdal served as the graduate thesis advisor for more than 65 masters and 34 doctoral students. He is a Lifetime member and Associate Fellow of the AIAA, and member of the International Society for Structural and Multidisciplinary Optimization.

Don Purcell is the President of Spring Valley Auto Group. He is a Commercial Instrument pilot and a past chairman of Richland County Airport Commission. Currently he serves as President of SCAA. Purcell is interested in the continued development of aviation in South Carolina and in working with others in the aviation community to increase its awareness and value to the public.

Other volunteer leadership positions include past chairman and board member Greater Columbia Chamber of Commerce, past chairman and current board member North East Area Council of the Columbia Chamber, past board member and Executive Committee member of the Richland-Lexington Cultural Council.

Joan Gabel
Executive Vice President for Academic Affairs and Provost of the University of South Carolina

Wednesday August 24
10:00am Opening and Welcome Session
- Ballroom -

Zafer Gürdal
Director McNAIR Center for Aerospace Innovation & Research

Wednesday August 24
10:00am Opening and Welcome Session
- Ballroom -
**Don Erickson**

**Executive Director**

**South Carolina Aeronautics Commission**

Don Erickson is the Site Director at Lockheed Martin Aeronautics Greenville where he is responsible for all activities associated with aircraft modification, maintenance, repair, overhaul (MMRO) and final assembly services, and company management system (CMS) compliance. The Greenville site provides complex aircraft modifications, maintenance, mission system and technical upgrades. The facility comprises 276 acres with 16 hangars, support shops and warehouse space. The customer base includes the U.S. Navy, U.S. Air Force, U.S. Coast Guard, Homeland Security and multiple International operators.

Prior to his appointment as Site Director in February 2012, Mr. Erickson was the Site Integrator, responsible for overseeing all aspects of Quality and Mission Success, Supply Chain Management, Process and Technical Integrity, Facilities, and Environmental, Safety and Health (ESH) functional organizations at the Greenville site.

Mr. Erickson joined Lockheed Martin in 1991 after 12 years supporting MMRO activities with a commercial airline. During the past 22 years, he has held a variety of technical and leadership positions supporting system integration and the sustainment of a broad range of commercial and military aircraft. In 1998, he served as the Project Manager for the Greenville SARP/ERP implementation successfully executing three separate releases as part of the company’s Y2K transition. In 2008, he accepted a rotational corporate assignment as the Ethics Officer for Sustainment Services supporting operations at Greenville, Kelly Aviation Center in San Antonio and multiple Field Team Sites throughout the world.

Mr. Erickson holds a Bachelor of Industrial Engineering degree from the Georgia Institute of Technology. He is married to Sue Erickson and has a daughter and son.

**General Session Speakers**

**Ann Marie Stieritz**

President & CEO  
South Carolina Council on Competitiveness

Ann Marie Stieritz serves as the President & CEO of the South Carolina Council on Competitiveness. She accepted this position in July 2014 and brings over 18 years in economic and workforce development to her work.

Immediately prior to accepting the role as President & CEO of the Council, she served as the Deputy Executive Director of the University of South Carolina’s Office of Economic Engagement, fostering economic growth across the state of South Carolina by connecting new and existing businesses with university resources. Ann Marie previously served as the Vice President for Economic and Workforce Competitiveness for the South Carolina Technical College System, overseeing the System’s nationally recognized economic and workforce development programs—readySC™ and Apprenticeship Carolina™—as well as other statewide initiatives aimed at increasing the state’s competitiveness through education and training. She was the technical college system’s first Associate Vice President for Strategic Priorities and Planning and the Founding Director of Apprenticeship Carolina™ which has been recognized as a national model. She also led the establishment of South Carolina’s 12 Regional Education Centers created under the SC Education and Economic Development Act (the EDEA) that are now part of the SC Department of Commerce.

Outside of South Carolina, Ann Marie’s experience encompasses an international focus. She has worked in the Federated States of Micronesia as well as in the Islamic Republic of Mauritania; promoted international trade opportunities for the State of New Jersey; and served as a Political Analyst for the Consulate General of New York, advising Japanese government officials concerning U.S. political developments.

Ann Marie earned a B.A. Summa Cum Laude from Xavier University and a Diplôme d’études from the Université de Paris, la Sorbonne as well as an M.A. and an M. Phil. in political science from New York University.

Ann Marie is committed to community service and has served in leadership roles and on numerous boards, including the United Way of the Midlands, the American Red Cross-Central SC Chapter, the Columbia Rotary Club, and the American Heart Association’s “Go Red for Women” campaign. She was recognized by the Girl Scouts of South Carolina as a “Woman of Distinction,” as a Guatemala Literacy Fellow Rotary International, and is a recipient of the United Way of the Midlands’ Alyce Kemp DeWitt award—that organization’s most prestigious volunteer award for long-term service to the agency and the community. She is a graduate of the S.C. Technical College system’s Leadership Academy and the Diversity Leadership Institute of Furman University. Ann Marie is a fellow in the 11th class of the Liberty Fellowship and a member of the Aspen Global Leadership Network.

Ann Marie Stieritz

President & CEO  
South Carolina Council on Competitiveness

**James Stephens**

Executive Director  
South Carolina Aeronautics Commission

James Stephens began his aviation career with Rhino Aviation in Greenville, SC as an aircraft mechanic, and in 2003, James was referred for an airport manager’s position in McMinnville, Tennessee.

Upon arriving in TN, he was given the opportunity to manage all of the daily operational responsibilities of the airport as well as the FBO services, the tenant agreements, and all budgetary components of the airport.

From TN, he was recruited back to Greenville, SC to open a sales department for the Special Services Corporation whose offerings include aircraft management, maintenance and charter, and aircraft sales.

After being away from the airport side of the industry for six years, James returned to airports by accepting a position as Airport Development Program Manager for the SC Aeronautics Commission, and in 2014, James was appointed by Governor Nikki Haley to Executive Director of the Commission.

James holds a BS in Aviation Management and an Associate’s degree in Aircraft Maintenance from Bob Jones University. He also is a licensed Airframe &Powerplant mechanic and Private Pilot.

**Donald Erickson**

Site Director  
Lockheed Martin Greenville Operations

Wednesday August 24

3:15pm Lockheed Martin - Lexington -
Anita Zucker currently serves as the Chair and Chief Executive Officer of South Carolina based global conglomerate, The InterTech Group, Inc. (TIG). As one of the largest private companies in the United States, TIG and its affiliates operate in a diverse group of industries ranging from aerospace and specialty chemicals to real estate and entertainment. In addition to its wholly-owned entities, TIG and its affiliates are substantial investors in a large number of public companies. TIG and its affiliates hold substantial investments in a diverse portfolio of equity, debt and real estate holdings.

In 2008, Zucker became the first female Governor (Chair) of The Hudson’s Bay Company (HBC) in HBC’s 338 year history. The $6 Billion HBC had been acquired by TIG in a public-to-private transaction in 2006.

Zucker has served as president of the Charleston Metro Chamber of Commerce and the Education Foundation. She is a former member and past chairperson of the Trident Technical College Foundation Board and Executive Board and serves on the Trident Technical College Governing Board. Zucker is currently a Trustee at the University of Florida.

Zucker has been a leader in the Charleston area and South Carolina for numerous organizations. She served as chairperson of the Board of Governors of the School of Business at the College of Charleston; she also served on the Advisory Boards of the School of Humanities and Social Sciences and Jewish Studies Program and she served on the board of the Addelstone Hebrew Academy (past board chair), Porter Gaud and Ashley Hall Schools. Zucker is past chair of the Medical University of South Carolina Foundation Board. Zucker currently serves on the President’s Initiatives Committee of the University of South Carolina.

Zucker is the recipient of numerous awards including the “Order of the Palmetto” presented by South Carolina Governor David Beasley for her dedication to education, the Distinguished Alumnus Award from the University of South Carolina; and is also a USC Educational Foundation Board chair), Porter Gaud and Ashley Hall Schools. Zucker currently serves on the President’s Initiatives Committee of the University of South Carolina.

Zucker has many practical applications of the challenges of the future. Zucker has served as president of the Charleston Metro Chamber of Commerce and the Education Foundation. She is a former member and past chairperson of the Trident Technical College Foundation Board and Executive Board and serves on the Trident Technical College Governing Board. Zucker is currently a Trustee at the University of Florida.

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Zucker is the recipient of numerous awards including the “Order of the Palmetto” presented by South Carolina Governor David Beasley for her dedication to education, the Distinguished Alumnus Award from the University of South Carolina; a master of arts in teaching English from the University of North Carolina at Chapel Hill; and a bachelor of arts in English and French from Mars Hill College, North Carolina.

She has received numerous awards and recognitions including the Joseph P. Riley Jr. Leadership Award from the Charleston Metro Chamber of Commerce, the Shirley B. Gordon Award of Distinction from Phi Theta Kappa, the Southeast Region Chief Executive Officer Award from the Association of Community College Trustees, Trident United Way Women’s Leadership Award, The Free Enterprise Foundation Ethics and Civics Responsibility Award, ThinkTEC Outstanding Leadership in Advancing the Knowledge Based Industry in the Region Award, Special Award Recognizing 10 years of Economic Development Leadership from the Charleston Regional Development Alliance, the Service and Leadership Award for Promoting Access and Equity in Higher Education from the South Carolina Commission on Higher Education, the Citadel’s School of Business Leadership of Principal Award, the Charleston Regional Business Journal’s Influential Women in Business Award, The Citadel School of Business Leader of Principal Award and Hall of Fame Induction, the Joseph P. Riley Jr. Vision Award and the Septima P. Clark Charleston Branch NAACP Education Award.
Anand Gramopadhye assumed the position of Dean of the College of Engineering and Science on July 1, 2013. He now oversees 15 academic departments, including engineering and other academic institutions and centers to address STEM – science, technology, engineering and math – issues to meet the needs of South Carolina’s 21st century knowledge economy. The CUCWD is home to the National Science Foundation Advanced Technical Education Center for Automotive and Aviation Education.

Gramopadhye’s research focuses on solving human-machine system design problems and modeling human performance in technologically complex systems, such as health care, aviation and manufacturing. He has been principal investigator for more than 75 research grants and awards, generating more than $45 million in funding. Research partners include the National Institutes of Health (NIH), National Science Foundation (NSF), Federal Aviation Administration (FAA), the U. S. Departments of Energy (DOE) and Labor (DOL), the National Aeronautics and Space Administration (NASA), and numerous corporate partners.

Gramopadhye has more than 300 publications and is a Fellow of the Institute of Industrial Engineers. He was recognized twice by the National Academy of Engineering through the Frontiers in Engineering Program as one of the Top 60 engineers in the country, and is editor-in-chief of the International Journal of Industrial Ergonomics. He earned a bachelor’s degree in production engineering in 1987 from the University of Bombay, India, and a master of science in 1989 and a Ph.D. in 1992, both in industrial engineering, from the State University of New York, Buffalo.

Prior to coming to South Carolina, Mooney served as the vice president of Aviation Safety and Engineering, where he was responsible for engineering functional organizations and design centers, product safety activities for all commercial airplanes, as well as the continuous improvement and utilization of the technical workforce and for supply chain management for technical services.

Prior to this position, he was vice president of 787-8 Development, where he led the technical team developing the first member of the all-new 787 Dreamliner family. Previously, Mooney served as vice president of Regulatory Affairs for Commercial Airplanes, with responsibility for key activities associated with government oversight and regulation of Boeing airplanes.

Mooney has served in several positions throughout his career at Boeing, including vice president of the 747/747-8 program, vice president of product development and chief project engineer for the 777 and 757-300 programs. He also served as the Commercial Aircrafts technical representative in Washington D.C. As the director of aviation affairs, he was the technical liaison to U.S. government agencies such as NASA and the Federal Aviation Administration as well as to aviation trade associations and professional societies.

Before that, Mooney was involved with the design and analysis of advanced composite structures. He worked on a number of advanced composite development projects, including the 777 empennage and the V-22 tiltrotor aircraft wing.

Mooney joined Boeing in 1980 as a stress analyst and spent his first year with the company at the Boeing Helicopters division in Philadelphia.

Mooney has a Bachelor of Science degree in civil engineering from Pennsylvania State University. He is a Fellow of the Royal Aeronautical Society and an Associate Fellow of the AIAA.

Susan Pretulak is the Vice President of Economic Development and Workforce Competitiveness for the SC Technical College System. She is responsible for the oversight of both nationally recognized programs – readySC™ and the Apprenticeship Carolina™. readySC™ is the System’s flagship training and recruiting program helping thousands of South Carolinians each year find new and better jobs. The program’s customized services are an attractive incentive to businesses interested in relocating to or expanding in the state. readySC™ consistently earns South Carolina a top-five national ranking of states with the best workforce training programs.

Launched in 2007, Apprenticeship Carolina™ makes certain all employers in South Carolina have access to the information and technical assistance they need to create demand-driven registered apprenticeship programs. Since its launch, the number of registered apprenticeship programs in the state has more than tripled as have the total number of active apprentices. Prior to this role, Susan served as Senior Director for readySC™ overseeing day-to-day operational and tactical aspects of all readySC™ projects in the Upstate. Susan holds a B.A. from Gettysburg College. She is also a graduate of the University of South Carolina’s Leadership in Community College Higher Education certificate program as well as the South Carolina Economic Developers School.
03

INDUSTRY & BUSINESS DEVELOPMENT

BREAKOUT SESSIONS
Carole Rickard Hedden
Executive Editorial Director
Aviation Week Executive Intelligence

Carole Rickard Hedden joined the Aviation Week team in 1996 to provide financial and business analysis and has held a variety of roles over the past two decades. In September 2013 she stood up Aviation Week’s new business unit, Aviation Week Executive Intelligence, to deliver custom news coverage and analysis for industry executives. She also leads Aviation Week’s annual Workforce Study, the Program Excellence initiative, and Executive Roundtables.

The Program Excellence initiative seeks to identify lessons learned and best practices in the art of program leadership, while also providing a process for developing future program executives. Program Excellence is a collaboration of industry program executives, as well as representatives of the Defense Acquisition University, NASA and academia. As of 2015, Program Excellence has evaluated more than 330 system and sub-system level programs and established a professional community of more than 1,200 program managers across the commercial, defense and space sectors.

Aviation Week’s Workforce Study, launched in 1997, serves as the industry’s single source for data about the aerospace and defense workforce and its employers to include demographics, age distribution, hiring plans, professional development and compensation. AIA is Aviation Week’s partner in this study. In 2013, Aviation Week added to this effort our Twenty20s program that identifies top engineering students on the basis of their academic acumen and research, but also their commitment to the community beyond the classroom. AIAA is Aviation Week’s partner in the Twenty20s/Future Leaders program.

Prior to joining Aviation Week, Hedden worked for 20 years in the news media as a corporate communications leader for Austin Peay State University, Honeywell Defense Avionics, and Corning Incorporated. Hedden is the founder of East Mountain High School, a charter high school ranked number one in New Mexico for its students’ academic achievements.

Dr. Joseph C. Von Nessen is a Research Economist in the Division of Research at the Darla Moore School of Business where he specializes in regional economics, regional economic forecasting, and housing economics. He regularly conducts a wide variety of economic impact analyses, feasibility studies, and independent market research projects for clients in both the private and public sector. In addition, he is responsible for the preparation and presentation of the University of South Carolina’s annual statewide economic forecast, serves on the advisory committee for the South Carolina Board of Economic Advisors, and is a frequent speaker for business and government leaders throughout the Southeast - providing information and consultation about business, markets, and local economies. He makes frequent media appearances to discuss various local economic topics of interest. Dr. Von Nessen earned his B.A. at Furman University and his Ph.D. in economics at the University of South Carolina.

Dr. Rebecca A. Ufkes is the President of UEC Electronics, LLC, a subsidiary of the Arotech Corporation. UEC is an ISO 9001 and AS9100 registered engineering, design, prototyping, and manufacturing provider located in Charleston, South Carolina. UEC, founded in 1995, provides product development and comprehensive manufacturing services to aerospace, defense, medical, and industrial markets. Rebecca was selected as the 2010 SBA South Carolina Small Business Person of the Year and was subsequently honored as a National Award Winner at the 2010 SBA National Small Business Week Conference in Washington, DC. Early 2012, Rebecca was recognized as a “Champion of Change” at the White House for Innovation and Manufacturing in the hybrid and renewable energy market. UEC was also awarded the distinguished Nunn-Perry Award for their accomplishments in the DoD Mentor Protégé program with Raytheon.

Rebecca serves on the South Carolina Aerospace Advisory Board, the Board of Directors of the Charleston Metro Chamber of Commerce, as well as The Citadel’s School of Engineering and Michigan Technological University Presidential Council of Alumnae Boards.

Rebecca holds a Masters in Business Administration from The Citadel and a Bachelors of Science in Mechanical Engineering from Michigan Technological University. Prior to founding UEC Electronics, Rebecca was employed by Kaman Aerospace and Sikorsky Aircraft, respectively.

Wednesday August 24, 1:00pm-2:30pm Manufacturing Workforce Study & Economic Impact of Aerospace in SC - Ballroom -

Lindsay holds a bachelor’s degree in History from Wofford College, and a Master of Public Administration from the University of South Carolina. He is also a graduate of the Economic Development Institute at the University of Oklahoma. He is married with three children.
Industry & Business Development

A resident of Columbia, SC, Clark has served as vice president of a $1-billion division of AT&T which he converted from a money-losing division into the most profitable division in AT&T’s computer business. Clark also worked with Gould Incorporated, General Electric, Gillette, and Exxon International. To these positions, Clark brought a wealth of expertise as a successful relationship builder, mentor, and team motivator who is highly respected for his ability to develop consensus among diverse functional groups.

Clark served on the Benedict College Board of Trustees for 18 years, and he has been Chair of the University of South Carolina Research Foundation for three terms. He has also served as an SC State Board member during the past year where he chaired the Finance and Management committee. He also served as an Executive Director of the prestigious Bell Lab, the most respected research institution in the world at the time.

Along with his passion for education, Clark has a passion for building and flying aircraft. He is an active member of the Experimental Aircraft Association (EAA) Board of Directors, and has performed as an Air Show Performer. As an engineer and a pilot, he brings the intricacy of “attention to detail” and the critical aspect of its effect on success.

Clark holds a Master of Science Degree in Management (Marketing) from the Massachusetts Institute of Technology Sloan School of Management (M.I.T.); a Bachelor of Science Degree in Electrical Engineering and Computer Science from M.I.T.; and further studies in Global Leadership and Senior Management Development programs at the University of Michigan and Indiana University.

An accomplished visionary with a stellar career, Clark brings to the presidency a results-oriented, business approach that launches and drives positive outcomes. His proven experiences in leading Fortune 5-500 companies has prepared him to provide the leadership necessary to move SC State University forward to the next level. Clark firmly believes that solid business practices of the institution is critical to its operations, success, and brand enhancement.

South Carolina State University’s 12th President, Mr. James E. Clark is a native of Quincy, Florida. Referring to his parents as “the smartest people I know,” they instilled in him the value of a good education, hard work, and discipline. His father Edmon had a second grade education and his mother Annie, a sixth grade education, but they wanted more for Clark and his siblings. His father became his first role model as a well-respected businessman within the farming community and Clark followed in his footsteps, with expanded opportunities he could have only imagined.

Steve Prout – President, Solar Atmospheres Southeast

Steve Prout serves as President of Solar Atmospheres Southeast joined Solar Atmospheres in the Fall of 2013 to establish Solar’s newest vacuum heat treating facility in Greenville, South Carolina. This facility gained Nadcap (National Aerospace and Defense Accreditation Program) accreditation within 90 days of start-up in September, 2015 and AS9100 approval shortly thereafter. Solar specializes in vacuum heat treatments and is capable of supporting research and development activity through large scale production. Solar also operates a 24 foot long vacuum furnace in the Greenville facility, the largest vacuum furnace in the US Southeast. Steve started his career in commercial heat treating and brazing in 1996 and has held a variety of positions in the heat treating world before coming to Solar. These roles include Production Manager, Plant Manager, Business Development Manager, and General Manager for organizations such as Paulo Products Company, Bluewater Thermal Solutions and Bodycote. Steve is a member of the ASM International, the Metal Treating Institute and serves on the Business Advisory Board for his alma mater Bryan College in Dayton, TN as well as serving on the Board for Coldstream Christian Camp in Adams, TN.

Philip Morgan serves as Senior Project Manager in the Global Business Development Division of the South Carolina Department of Commerce. Since joining the Department in 2012, Morgan has been active in the recruitment of new business and expansion of existing business in the state. In his time with Commerce he has worked with companies from around the world to create jobs and invest in South Carolina, recruiting 4,000 jobs and $1.5 billion in capital investment to the Palmetto State.

Prior to his position with Commerce, Morgan served as an economic developer at the local level in Shelby County, Alabama where he accumulated four years of experience in the profession. He holds a juris doctor from The University of Alabama School of Law and received his undergraduate degree from Florida State University.

Wednesday August 24
1:00pm-2:30pm
Manufacturing Workforce Study & Economic Impact of Aerospace in SC - Ballroom -

Wednesday August 24
3:45pm-5:00pm
Doing Business in SC - Lexington Room -
Deborah Cameron
Director of Aerospace Initiatives, SC Council on Competitiveness

Deborah has led the Council’s aerospace activities since 2014. She has both a personal and professional passion for aviation and aerospace. Since joining the Council’s team, Deborah has worked to bring together the state’s aerospace companies, suppliers and support chain to continue to grow the state’s aerospace cluster.

Prior to moving to South Carolina in 2013, Deborah served as the Director of Business Development for the Colorado Office of Economic Development where she lead a team of business recruiters and guided projects through the site selection and incentive approval process.

Deborah also worked seven years with the Tennessee Valley Authority (TVA) in their economic development organization. While at TVA she served as a target market specialist where her primary responsibility was the recruitment of data centers and technology projects to the seven-state TVA region. Deborah also worked previously for the Maryland Department of Business and Economic Development, where she supervised existing business services, a staff of over 20 people, and administered state workforce development funds.

Deborah earned an MBA from Johns Hopkins University and a bachelor’s degree in political science from the University of Maryland. She is certified by the Community Development Institute. She and her husband Mark, a private pilot, live in Columbia with their two yellow labs and enjoy flying their experimental airplane around the state.

David Reese
World Wide Sales Executive - Software Group Aerospace & Defense, IBM

Mr. Reese leads IBM’s Analytics and Cognitive Solutions Unit for Aerospace & Defense. He is focused on how cognitive computing and analytics can bring business insights to challenges in Engineering Manufacturing, Supply Chain and Aftermarket operations. He has over 18 years of industry experience focusing on Analytics, Product Lifecycle Management, Integration and supply chain solutions. Prior to his current role, Mr Reese has held various technical and leadership positions at IBM. He started his career in client facing consulting roles in engineering development process optimization, configuration management, and supply Chain optimization – as an Associate Partner in IBM’s consulting group.

He was the Executive IT Architect for Boeing worldwide and was a key leader of the early partnership between IBM and Boeing. He was the creator of IBM’s Aerospace Competency Center, which was tasked with transforming IBM’s approach to the marketplace. Under his leadership this center pioneered integrating IBM’s Middleware, Collaboration and Analytics products into the Industry process.

For the last several years he has been leading the charge, aligned with ISV partners, to transform again IBM’s go to market model around Industry aligned solutions. Mr. Reese has delivered solutions to a broad range of industrial clients and has an extensive background in the development of business strategies in the aerospace industry. He has a proven track record of working to craft solutions that meet business requirements and achieve return on investment objectives. He holds a degree in Mechanical Engineering.

Jeffrey D. Estes
Director
Okuma America Corporation

Jeff has 16 years of experience with Okuma and over 35 years of manufacturing leadership and engineering experience.

He started his career after completing an Engineering Apprenticeship with a heavy equipment manufacturer. He is a Certified Industrial Engineer and holds degrees in Business and Industrial Engineering Technology, with a MBA in Operations Management and Finance.

Jeff’s has held leadership roles at fortune 100 companies, including United Technologies and Siemens, and has been Okuma’s Director of Partners in THINC since 2007. Recently, he concluded a 20 year term as an adjunct Professor at the University of North Carolina – Charlotte teaching Operations and Logistics Management.

Thursday August 25
10:00am-10:30am IBM Analytics & Cognitive Solutions - Ballroom -

Thursday August 25
11:00am-11:30am Factory of the Future - Ballroom -
Thursday August 25
12:00pm-12:30pm Defense Diversification
- Ballroom -

Drew Weston has been the Director of Sales and Marketing for CodeLynx, LLC since 2015. Prior to taking on the current role Drew served as Chief Financial Officer and Contracts Manager for CodeLynx since 2010.

In his current role Drew is working to grow the client base and commercial lines of business for CodeLynx. This includes rolling out two suites of new products and offering new lines of services to commercial customers. CodeLynx is also leveraging its expertise acquired performing work for the U.S. Department of Defense to bring change to the software and security industries in the public and commercial space.

Prior to joining CodeLynx Drew served for six years at Blackbaud, Inc. in various sales roles domestically and internationally including an expatriate assignment in Sydney, Australia. He earned a Bachelor of Science in International Business from the College of Charleston and is working towards a MBA at The Citadel.

Fred Gassaway is the Defense Industry Diversification Manager at the South Carolina Department of Commerce. In this capacity, Fred assists defense contractors that have been impacted by sequestration to secure training in order to diversify and expand their business operations into new and growing markets.

Fred has over 43 years in economic development, most recently serving as Executive Vice President for Marketing at the South Carolina Power Team with responsibilities for recruiting national and international manufacturing and distribution companies to the service area of the state’s 20 electric cooperatives and Santee Cooper.

Fred holds bachelor’s and master’s degrees from Clemson University in Agricultural Economics. He received a commission through Clemson’s ROTC program and served 28 years in the U.S. Army Reserve in various command and staff positions. He participated in Desert Storm as Chief of Operations, G-5, 18th Airborne Corps and retired as a Lieutenant Colonel.

He has served on numerous boards devoted to promoting economic development, especially in rural areas of South Carolina. He is married with one child and in 2014, was awarded the Order of the Palmetto by Gov. Nikki Haley.

Chuck Sprangler is the CEO/President of South Carolina Manufacturers Extension Program (SCMEP). Chuck has over 30 years of experience in a variety of different industries, including Milliken & Company, Michelin, Willis Hosiery, and the South Carolina Manufacturing Extension Partnership (SCMEP). He has been with SCMEP for 23 years in a variety of roles including Manufacturing Specialist, Field Manager, Chief Operating Officer, and now President.

As President, Chuck develops strategy, manages the organization’s budget, and develops new programs to promote growth. He is also responsible for cultivating a network of resources throughout South Carolina which include the SC Department of Commerce, economic developers, Chamber of Commerce, and private consultants.

In 2015, SCMEP had a statewide impact of $1.083 billion and served over 320 manufacturers in South Carolina. A champion in the development of the Competitiveness Review (CR) assessment tool, trained manufacturing and technical specialists can quickly identify the top two to three issues that have the greatest impact on a company’s competitiveness and profitability. It has helped develop holistic improvement plans for over 1,800 manufacturing clients since 1996. In recognition of these achievements, Chuck was selected Practitioner of the Year at the 2001 Modernization Forum, the annual MEP conference attended by centers across the country.

Chuck serves as a Board Member on the Advisory Committee of Workforce and Development at Clemson University as well as the Editorial Board for South Carolina Manufacturing. He holds a bachelor’s degree in Textile Management from North Carolina State University and is married with three boys.
04

ACE ‘16
TECHNICAL SYMPOSIUM
BREAKOUT SESSIONS

1. Lingyu Yu, University of South Carolina
2. Addis Kidane, University of South Carolina
3. Ramy Harik, University of South Carolina
4. Jeroen de Vries, Kve Composites Group
5. Amy Boyle, DIAB
6. Alejandro Rodriguez, Cytect
7. Rani Richardson, Dassault Systèmes
8. Michel van Tooren, University of South Carolina
9. David Cooper, Jr., Genworks International
10. Reinier van Dijk, ParaPy B.V.
11. Igor Luzinov, Clemson University
12. Abdel Bayoumi, University of South Carolina
13. Mohammad Ali, University of South Carolina
14. Giorgio Colombo, Politecnico di Milano, Italy
15. Yicha Zhang, IRCCyN, École Centrale de Nantes
Dr. Lingyu Yu's research interests include structural health monitoring (SHM) and nondestructive evaluation (NDE) using ultrasonic guided waves supported by active sensor technology, theoretical modeling, advanced signal processing and data analysis; damage diagnosis in complicated structures; scanning laser vibrometry for guided wave propagation; and mechatronics. Current research efforts include developing a multi-scale damage detection approach on composite structures, developing imaging strategies for permanently installed SHM system to perform in-situ damage detection, and exploiting advances made in other areas to introduce innovative methods into SHM/NDE.

Dr. Addis Kidane is an assistant professor of Mechanical Engineering at the University of South Carolina. His research focuses on, multifunctional materials, materials behavior at extreme conditions and Fracture and failure of materials at different length and time scale. Dr. Kidane obtained his Ph.D. from the University of Rhode Island in 2009. He spent two years (2009-2011) as a postdoctoral fellow at the California Institute of Technology. Dr. Kidane is a recipient of many wards including:

1.) The ORR award from ASM Materials Divisions, 2016
2.) The AFOSR Young Investigator Research Program (YIP) Award, in 2014.
3.) the Haythornthwaite Research Initiation Grants from ASME Applied Mechanics Division in 2013,
4.) Broadening Participation Research Initiation Grants in Engineering (BRIGE) Award, from NSF in 2013.

Dr. Harik is an Assistant Professor of Aerospace Computer-Aided Design and Manufacturing in the Department of Mechanical Engineering at the University of South Carolina (USC). He is a resident researcher at the McNAIR Center for Aerospace Innovation and Research. His education joins Mechanical Engineering (MS), Automated Manufacturing Engineering Technology (MS) and Industrial/Mechanical Engineering (PhD). His research is in the areas of Automated Fiber Placement, Shape Recognition, Automation of Process Planning and Flank Milling. Dr. Harik is published in multiple journals such as CAD (Computer Aided Design), CAD&A (Computer Aided Design and Applications), RJP (Rapid Prototyping Journal), IMR (International Journal of Production Research) and JIM (Journal of Intelligent Manufacturing). He is a member of the CAD xx (Computer Aided Design Conference and Exhibition), PLM (Product Lifecycle Management) and AIAA (American Institute of Aeronautics and Astronautics) scientific communities. He mainly teaches courses in Design and Manufacturing. He was/is the advisor of the IIE-LAU and SAMPE-USC student clubs. Dr. Harik collaborated with Dassault Aviation and Dassault Systèmes while working on his PhD which substantially increased his industrial experience: He designed a computer aided process planning software that automates subtractive manufacturing of complex Saxis structural mechanical parts.

Dr. Harik works closely with industrial partners from The Boeing Company, Dassault Systèmes, Ingersoll Machine Tools and KUKA Robotics. His passion lies in discovering next generation manufacturing solutions that integrates seamlessly within design systems and tools. Dr. Harik was the chair of multiple international conferences (CAD’10, OAR’12, ACE’15, ACE’16 and PLM’16).

He has been a program co-chair on CAD’15 and CAD’16. Dr. Harik is also the program director McNAIR Advance. The program aspires to lead workforce development in the United States. McNAIR Advance brings state of the art industrial expertise to support the rising southeast in the fields of design, robotics, structural health monitoring, composites manufacturing and testing.
Jeroen de Vries
Commercial Manager,
KVE Composites Group, The Netherlands

Jeroen de Vries, as commercial manager, is responsible for sales and marketing activities at KVE Composites where he joined in 2002. During his time at KVE Composites Jeroen was involved in many development, engineering and manufacturing projects, including the induction welding development at KVE Composites.

In this technical / business role Jeroen gained experience in the aerospace and defense markets, as well as in the medical technology. In addition, Jeroen is also responsible for contracts management and (export) compliance management.

Jeroen received his M. Sc. degree in Chemical engineering from University of Technology Delft. Before joining KVE, Jeroen worked in technical sales functions in an engineering software company in the chemical industry.

Wednesday August 24
11:55am “Developments on Thermoplastic Induction Welding”
- Carolina Room -

Amy Boyd
Aerospace Business Development Manager – Americas, DIAB

Amy is the Aerospace Business Development Manager for the leading core material manufacturer, Diab. Her experience in various departments such as Engineering, Sales and Marketing, and now Business Development, allow her to provide valuable insight to both clients and partners in the composites industry.

Amy received her B.S. in Civil Engineering from the University of Illinois at Urbana-Champaign, where she was able to cultivate her passion for solving complex problems. She was recruited by Diab to help clients design the ideal composite laminate schedule for their dynamic applications, as well as provide on-site process training. After a few years of engineering and project management, Amy felt a passion for working with diverse teams and moved into a Territory Sales role. Shortly after receiving her M.B.A. in Strategy from Southern Methodist University in Dallas, TX, she moved into her current position solely focusing on the Aerospace industry.

From her collegiate years to present, she has been active in the Society of Women Engineers (SWE) and the Society for the Advancement of Material and Process Engineering (SAMPE). In her free time, she enjoys road cycling with her husband and spending time with their Boston Terrier, Oliver, and Husky, Jaxx.

Wednesday August 24
1:55pm “Cost Reducing Processes & Materials in Aerospace Sandwich Structures”
- Carolina Room -

Alejandro Rodriguez
Applications and Research Engineer, Cytec

Alejandro Rodriguez was appointed Applications and Research Engineer in the Research and Innovation team at Cytec Solvay Composite Materials division in 2015.

Prior to this position, Dr. Rodriguez worked at Bombardier Aerospace as a Materials and Processes Engineer working on research, development, certification, design for manufacturing, and improvement of yield of primary and secondary composite structures for aircrafts since 2011. Dr. Rodriguez received his doctoral degree in mechanical engineering from Wichita State University in 2010.

His expertise is in the development of polymer composites, robust manufacturing of monolithic and sandwich composite parts for aircraft structures, modeling and simulation of polymer composite fabrication, evaluation of composite manufacturing risks, effects of defects in composite performance, and nanocomposites.

His experience also covers FAA certification methods for composite materials and adhesives and determination of A- and B-basis allowables for structural design.

Wednesday August 24
2:20pm “TX1100 Dry Tape for Resin Infusion: A Novel Product for Automation and Integration”
- Carolina Room -

Rani Richardson
Composites and Additive Manufacturing Industry Consultant
Dassault Systèmes

Rani Richardson brings technical expertise and extensive real-life mechanical engineering experience which includes composites and additive manufacturing design and manufacturing to her position as a Business Experience Consultant at Dassault Systèmes.

In this role she is responsible for leading all activities related to the CATIA brand for Composites and Additive Manufacturing in North America. Rani consults with Dassault Systèmes customers, particularly industry-leading aerospace and automotive companies, concentrating on implementation, education, demonstrations, and business development for the CATIA V5 and 3D Experience Solutions.

Prior to Dassault Systèmes, Ms. Richardson worked for nearly a decade at Magsetic Systems, a leader in nesting and laser projection solutions, where she was the Director of Operations.

Wednesday August 24
4:50pm “Increasing the Industrial Adoption of Additive Manufacturing”
- Carolina Room -
This year, the SC Aerospace Conference and Expo offers the Advanced Design Concepts and Practice (ADCP) Workshop an unique opportunity to join forces with the ACE’16 Technical Symposium, connecting both platforms to exchange knowledge and experience. The ADCP workshop will make its U.S. debut this year, having previously been held in Europe and China.

ADCP2016 offers a forum for industry and academia to discuss challenges and advancements with focus on computational design and evaluation methods and tools. The workshop used to be organized as part of a project involving an international innovation team initiated by Tsinghua University. This year, as part of the SC Aerospace Conference, ADCP focuses on challenges in Aircraft Design Automation and Space Technology. Solution strategies involving Multidisciplinary Design Optimization, Knowledge Based Engineering and automatic product configuration, metamaterials, health monitoring and smart predictive systems will be presented.

Sponsors: MOE Joint Laboratory of Innovative Design and Manufacturing of Advanced Mechanical Systems, China National Natural Science Foundation Committee of China

**Chairs:**
Professor Michel van Tooren University of South Carolina
Professor Ji Linhong, Tsinghua University
Co-Chair: Dr. Hou Yuemin, Tsinghua University

Michel van Tooren is Professor Aerospace Systems Design and Structures at the College of Engineering and Computing (CEC) of the University of South Carolina and deputy director of the Ronald E. McNair Center for Aerospace Innovation and Research. Michel has a BSc, MSc and PhD in Aerospace Engineering and joined CEC in September 2013. Before joining USC he worked for Fokker Aerostructures in the Netherlands as Manager New Concept Development. He combined this position in industry with a part-time appointment at the Faculty of Aerospace Engineering of the Delft University of Technology. Prior to that he worked ten years as professor Systems Integration Aircraft at the same university, building a group specialized in Aircraft Design, Flight Mechanics and Multi-disciplinary Design Optimization. This group became well-known for its work in MDO, Aircraft Design, KBE and Truck Aerodynamics. He combined the research activities with a position in the management team of the faculty of Aerospace Engineering as vice dean. All this followed a previous ten years of research, education and innovation in design of composite structures.

His research focus at CEC is on design and manufacture of composites structures. In addition he serves as the Program Director Aerospace Engineering Studies for CEC. As of August 16, 2015 he was appointed as SmartState endowed chair in the Center for Multifunctional Materials and Structures. He will continue his roles in the McNair Center.

Dave Cooper is the founder, CEO, and Director of Technology at Genworks International, a KBE software provider. Genworks is located in SE Michigan. The company markets and supports its KBE technology throughout the United States, Western Europe and the UK. Mr. Cooper holds 3 degrees from the University of Michigan, including a B.S and M.S. in Computer Science & Engineering.

**Thursday August 25**
9:55am "Pyndl, a bridge between Python and the Gendl KBE System" - Carolina Room -

Mr. Reinier van Dijk is co-founder and CEO of ParaPy B.V., the company that develops and sells the ParaPy software. The ParaPy language and toolkits enable engineers to rapidly build software applications that automate virtual design processes.

ParaPy B.V. has recently been admitted to YES!Delft, the number 4 tech incubator in Europe. Reinier is at the final stages of completing a PhD in aerospace engineering at Delft University of Technology. His research is focused at tools and methods that make Knowledge Based Engineering and Multidisciplinary Design Optimization more accessible to industry.

**Thursday August 25**
12:20pm "ParaPy: the user-friendly Knowledge Based Engineering platform to automate virtual design processes" - Carolina Room -
Dr. Igor Luzinov is a Professor of the Department of Materials Science and Engineering, Clemson University (South Carolina). Dr. Luzinov received a B.S./M.S. degree in Chemical Engineering and Technology in 1985 and a Ph. D. degree in Polymer Chemistry in 1990 from Lviv Polytechnic National University (Ukraine). Prior to joining the faculty of Clemson University in Fall of 2000, he served as a Senior Research Scientist at Physical Chemistry Institute (National Academy of Science of Ukraine), NATO Research Fellow at Center Education and Research on Macromolecules (University of Liege, Belgium) and Postdoctoral Research Associate at Iowa State and Western Michigan Universities. Dr. Luzinov is a specialist in polymer science and engineering with emphasis on synthesis, fabrication and characterization of thin polymer films, engineered interfaces, and multicomponent materials. Dr. Luzinov has published more than 170 referred journal articles and book chapters, 14 PhD and 5 MS students have completed their research projects under his primary supervision. In addition, more than 30+ undergraduate students have worked in his Clemson lab. During the years at Clemson he has been involved, as PI and co-PI in work on more than 45 research grants. The grants/awards represent: federal agencies such as NSF, NASA, Defense Threat Reduction Agency (DTRA), Homeland Security Advanced Research Projects Agency (HSARPA), DOE, DoD, US Army Research Office, US Air Force, and the Department of Commerce; corporate sources (Edmunds Optics, Intel Corporation, Sealed Air, BMW, Honda, Sematech, International, Biophoretics, Kimberly Clark, Pfizer, Kemet Electronics, Sage Automotive, Walmart). Dr. Bayoumi has over 35 years teaching and research experience. Currently he is Director of the USC Center for Predictive Maintenance, Associate Dean for Corporate Relations and Professor of Mechanical Engineering and Biomedical Engineering.

Before joining USC, he was Professor of Mechanical and Aerospace Engineering at North Carolina State University, a project manager at Hewlett-Packard Company, and Professor of Mechanical and Materials Engineering at Washington State University. He has been actively involved in developing strong programs in mechanical, nuclear and biomedical engineering.

Dr. Mohammad Ali received the B.Sc. degree in electrical and electronic engineering from the Bangladesh University of Engineering and Technology, Dhaka, in 1987 and the M.A.Sc. and Ph.D. degrees, both in electrical engineering, from the University of Victoria, Victoria, BC, Canada, in 1994 and 1997, respectively. From January 1998 to August 2001, he was with Ericsson Inc., Research Triangle Park, NC. Since August 2001, he has been with the Department of Electrical Engineering, University of South Carolina at Columbia where currently he is a Professor.

He held a visiting position at the University of South Carolina as a Professor and Associate Dean for Materials and Structures. Dr. Ali is the recipient of the 2003 National Science Foundation Faculty Career Award. He is also the recipient of the College of Engineering and Computing Young Investigator Award, Research Progress Award and the Samuel Litman Distinguished Professor Award from the University of South Carolina in 2006, 2009, and 2011 respectively.

Prof. Ali was the Technical program Co-Chair of the IEEE Antennas and Propagation Society’s International Symposium in Charleston, SC in 2009. He is an Associate Editor of IEEE Antennas and Wireless Propagation Letters from 2008-2013.

Dr. Ali is the author/coauthor of over 160 publications and 8 US patents. His specific research interests are in the fields of: conformal antennas; reconfigurable antennas, novel materials (structural composites, fabrics, liquid metal) and their exploitation to design antennas, DC bias networks, and power supply routes; 3D printing of metamaterials for antennas as well as radomes.

His research activities have been focused in predictive maintenance, big data analytics and predictive maintenance, mechanical behavior of materials, manufacturing, design, and health monitoring systems. He has published 3 book chapters, over 100 papers and supervised more than 15 PhD and 40 MS students.
Dr. Giorgio Colombo obtained a MSc in Mechanical Engineering from Politecnico di Milano in 1988. He began his scientific activity in 1989 at ITIA-National Research Council in Milan and then he was Assistant Professor at the University of Parma and Associated Professor at the Politecnico di Milano. Now he is Professor of "Design and Methods of Industrial Engineering" at the Department of Mechanical Engineering of Politecnico di Milano (Italy).

In his research he has addressed issues concerning parametric CAD methods, Knowledge Based Engineering, numerical simulations and optimization methods, computer graphics and virtual reality, robotics, TRIZ for systematic innovation, human body modeling. He participated to some European and Italian research projects and was the national coordinator of a project on virtual reality and haptic systems. Dr. Colombo was or is responsible of many research contracts with primary national companies, such as Pirelli Tyres, Artsana, Zoppas Industries, Epta. He is a member of editorial board of international journals on CAD and related technologies, and is author of more than one hundred and thirty scientific papers published on international and national journals, books and conference proceedings.

Yicha ZHANG is currently a research engineer in IRCCyN, Institut de Recherche en Communications et Cybernétique de Nantes which is a research unit of CNRS (French National Scientific Research Center). He got his PhD degree in 2014 from Ecole Centrale de Nantes in France with a topic on design and process planning for Additive Manufacturing. After PhD study, he joined a research team, IS3P (Systems Engineering: Products, Performance, Perceptions), in IRCCyN.

His recent research activities include PSS (Product-Service-System) design for serving two undergoing EU-funded H2020 projects in the scope of industry 4.0, design for and exploitation of Additive Manufacturing in aerospace and medical application domains, intelligent computing, data analytics/mining, decision making for complex problems from interdisciplinary design, manufacturing system and PSS development, etc.

He published many papers in peer-reviewed journals (RPJ, RCIM, IJCIM, JIMs, CIRP Journal, etc.) and conferences, e.g. CIRP series, in the manufacturing domain.
We will see you next year!

2017 DATES
AUGUST 29–31

Columbia Metropolitan Convention Center