



# The National Center for Supply Chain Automation

**ANNUAL SYMPOSIUM**

March 9-11, 2020

Atlanta Regional Commission

229 PEACHTREE ST. NE, STE 100

**ATLANTA**

2020



**National Center for Supply Chain Automation**  
RESOURCES FOR EDUCATION & INDUSTRY









## TABLE OF CONTENTS

<b>Welcome:</b> .....	<b>4</b>
Colleen Molko, Principal Investigator The National Center for Supply Chain Automation (NCSCA)	
<b>NCSCA National Visiting Committee</b> .....	<b>6</b>
<b>NCSCA Project Leadership Team</b> .....	<b>8</b>
<b>The 2020 Annual Symposium: Activities &amp; Sessions</b>	
<b>Monday, March 9</b> .....	<b>12</b>
<b>Tuesday, March 10</b> .....	<b>16</b>
<b>Wednesday, March 11</b> .....	<b>20</b>
<b>Presenter Biographies</b> .....	<b>23</b>



# WELCOME

The National Center for Supply Chain Automation  
Annual Symposium 2020

**Welcome to the third annual National Symposium for Supply Chain Automation! The Symposium focuses on our collective mission to increase the number of highly skilled supply chain technicians to meet the growing national demand. Our leadership team is excited to bring you a program that is filled with an array of activities, speakers, and interactive sessions that build capacity and further your work as a supply chain automation educator and industry professional:**

#### **Network with Peers**

An important part of professional growth is building a community that helps facilitate your success and support you on your continuous learning journey. The symposium gives you the opportunity to meet and connect with others in the supply chain automation space to exchange knowledge and ideas. Find out what's working for others and the lessons learned to help guide decisions related to your certificate programs, technical degree programs, and continuing education training. Be sure to attend the networking reception the afternoon of Monday, March 9, at White Oak Kitchen & Cocktails, sponsored by the Manufacturing Skill Standards Council. It's the perfect opportunity to connect with your peers!

#### **Collaborate with Industry**

Strong industry involvement plays an essential role in the success of a supply chain automation program. To be able to offer the latest in knowledge and trends to your students, you must stay on top of emerging industry technologies, processes and standards. This year's event includes a tour of the UPS SMART Hub, a highly automated facility that processes 100,000 parcels per hour. You will also have the opportunity to tour MODEX, where 950 exhibits showcase leading automation innovations and technologies. There will also be an on-going live demo of Amatrol's Skill Boss-Logistics at MHEDA Booth #8466. This is the unit that will be used to certify individuals for the new Certified Technician-Supply Chain Automation Certification. Offering the national symposium concurrently with MODEX is a strategy that brings automation educators together with representatives from leading companies in the materials handling industry to offer the largest exhibit of its kind in North and South America.

#### **Elevate Your Programs**

By keeping up with the latest technologies in supply chain automation, you are gaining the knowledge you need to elevate your SCA programs. You will take with you leading-edge augmented reality and virtual reality tools and techniques; the latest on the industry-validated MSSC Certified Technician-Supply Chain Automation (CT-SCA) program; insights into how sensors, data analytics & AI are driving the predictive maintenance movement; information about trends that are impacting SCA and the workforce of the future and so much more.

Our National Visiting Committee and Project Leadership Team are excited you have joined us for this valuable, collaborative networking opportunity with your peers in the SCA community. NCSCA is sponsored by the National Science Foundation's Advanced Technological Education Program. I hope you'll take advantage of all that is offered and share your thoughts and feedback with our team. Again, welcome! We look forward to our time together at the national symposium.

Sincerely,



**Colleen Molko**

Dean of Grants Development and Administration  
and Principal Investigator for NCSCA



# **NATIONAL VISITING COMMITTEE**

The National Center for Supply Chain Automation  
Annual Symposium 2020



**Phil Jones**

Industry Leadership Team Co-Chair,  
NCSCA  
Director, Supply Chain Engineering  
Target Corporation

Phil Jones is the Director of Supply Chain Engineering at Target Corporation. His team plans control systems and software for major automation projects in all of Target's 40 various types of distribution centers (DC). They also manage support engineering for the DC network, providing incident management when key systems fail. Jones is focused on recruiting engineering talent and developing engineering career paths all the way from college internships to senior management. He serves on Target's Technical and Engineering Coalition working group and as co-chair of the Industry Leadership Team for the National Center for Supply Chain Automation, focusing on industry support of a National Science Foundation grant to increase the number of qualified supply chain technicians. Jones has 15 years of experience with Facilities/Maintenance & Engineering Management. He also was an artillery officer in the U.S. Army for 10 years. Phil is married with one daughter and enjoys traveling, landscaping and home projects, and supporting his daughter's competitive swimming events.

**Nick Little**

Asst. Director, Executive Development  
Eli Broad College of Business  
Michigan State University

Nick Little is Assistant Director of Executive Development Programs at the Eli Broad College of Business at Michigan State University (MSU). He has over 25 years of industry and international experience in Supply Chain Management. He introduced the first computerized order entry and replenishment system on British Railways and led feasibility studies for several UK Post Office supply chain systems. In 1995, Nick joined Michigan State University to work on a research project in procurement as part of the integrated supply chain and helped write several reports.

In 2001, Nick joined Executive Development Programs at MSU, where his passion for people development was aligned with industrial experience to help design, develop and deliver educational programs, often customized, for global corporate clients in many industry verticals. Nick is currently chair of the Supply-Chain Council's North America Leadership Team, was elected to the APICS Educational & Research Foundation Board, with his current role as Corporate Secretary and Treasurer. A founding member of the global Supply Chain Talent Academic Initiative, he is working globally with industry, academia and professional bodies to close the quantity and quality gaps in supply chain talent.

**Thomas O'Brien, Ph.D.**

Chair, NCSCA  
Executive Director  
Center for International Trade and  
Transportation  
California State University, Long Beach

Dr. Thomas O'Brien is the Executive Director of the Center for International Trade and Transportation (CITT) at California State University, Long Beach (CSULB) and the Associate Director of Long Beach Programs for the METRANS Transportation Center, a partnership between CSULB and the University of Southern California. He also serves as director of the FHWA Southwest Transportation Workforce Center. His teaching and research focus on logistics, supply chain management, and goods movement policy. Dr. O'Brien has a master's degree in Urban Planning and Development and a Ph.D. in Policy, Planning, and Development from the University of Southern California. He is both an Eno and Eisenhower Transportation Fellow and a member of the Transportation Research Board's Intermodal Freight Transport Committee.

**Larry Warford, Ph.D.**

Senior Consultant for Workforce  
Development  
The League for Innovation in the  
Community College

Dr. Laurence J. Warford currently serves as the Senior Workforce Consultant to The League for Innovation in the Community College and is the President of his consulting company, Warford and Associates.

His work with the League includes leadership of several projects relating to workforce education. Most recently he was the Principal Investigator for a two-year MetLife-funded research project awarded to the League, Significant Discussions, that focused on improving student transition and success through improved communications leading to better curriculum alignment across education systems and employers.

Out of this research, he and his partner, Marsha VanNahmen, co-authored the book Significant Discussions: A Guide for Secondary and Postsecondary Curriculum Alignment. The need for this research was a finding of the College and Career Transitions Initiative (CCTI), a five-year U.S. Department of Education-funded project Warford directed for the League from 2003-2009. Prior to his work with the League, Warford was a community college administrator and teacher for over 40 years in Iowa and Oregon and worked briefly as a community college liaison for the U.S. Department of Labor.



# PROJECT LEADERSHIP TEAM

The National Center for Supply Chain Automation  
Annual Symposium 2020



**Terryll Bailey, External Evaluator**

Terryll Bailey is the Founder and President of The Allison Group, an accomplished consulting firm in Seattle, Washington, focused on external evaluation, systems thinking and skill standards research in

emerging technologies. Over the last 30 years, the firm has designed and produced workforce development research and evaluation projects for mid-sized and large organizations across the U.S. Bailey has worked with numerous organizations to manage performance and change and to provide formative and summative evaluation of grant-funded projects. She has been involved with the National Science Foundation Advanced Technological Education Program for 15 years as a consultant and external evaluator and has served on the Advisory Board for the Manufacturing Technology Advisory Group since its inception in 1996. Bailey currently serves on the Workforce Development Advisory Board for North Seattle Community College. Bailey has attained certification in systems thinking and collaborative conflict resolution and her clients include Fortune 100 corporations, federal, state and local government agencies, foundations, public schools, colleges and universities.

**Imelda Cossette, Senior Personnel**

Mel Cossette is the Executive Director & Principal Investigator for the National Science Foundation ATE-funded National Resource Center for Materials Technology Education (MatEdU) housed at Edmonds Community College in Lynnwood, WA.

She is also Senior Personnel for The National Center for Supply Chain Automation. Cossette has more than 20 years of experience in manufacturing education and has developed technician training programs for industry and educational institutions. She serves on numerous committees and national boards and has worked in various industries prior to holding administrative positions in the community and technical college system. Her recent research focuses on identifying successful practices in the recruitment of women to STEM fields.

**Jami Dale, Senior Personnel**

Jami Dale has been an instructor at CPCC since late 2011 and assumed the role of Program Chair in 2014. Prior to joining CPCC, Jami worked as a Design and Development Engineer with

Ultrablend (Charlotte, NC), a colorant dispenser and paint mixing equipment manufacturer. He also worked as an Automation engineer and later as Molding/Metrology engineer with Corning Cable System (Hickory, NC), in the Optical Assembly facility. He received SMSCP levels 1, 2 & 3 instructor certification, all at Siemens Technical Academy in Berlin, Germany. Additionally, he is an MSSC CPT & Green certified instructor. He participated in certification test development for PMMI and AMT. Recent efforts involve integrating Festo Educational Training systems acquired over the last several years into curriculum and CCE courses. In addition, Jami served as a subject matter expert and guiding the reform of the College's Mechatronics Engineering Technology curriculum, an effort funded by a \$2.4 million U.S. Department of Labor Round 4 TAACCCT

grant. He currently serves as Senior Personnel in the Project Leadership Team for the NSF ATE funded National Center for Supply Chain Automation and on the advisory board of Central Virginia Community Colleges NSF ATE Project grant to develop a Mechatronics program and train instructors. Jami received his BSME and MSME from the University of North Carolina-Charlotte.

**Steve Harrington, Industry Liaison**

Steve Harrington is currently the Industry Liaison for The National Center for Supply Chain Automation. In this role, he is responsible for the development and oversight of a National Industry

Leadership Team consisting of Supply Chain industry leaders and various other industry stakeholders. He has 27 years of experience in warehouse operations, most recently as the West Coast Logistics Manager for the Perrigo Co., a Fortune 500 over-the-counter generic drug manufacturer. Steve is Chairman and past President of the Distribution Management Association of Southern California (DMA), a 250-member logistics industry association he organized and developed. He is a two-time "Spirit of the Entrepreneur" award winner for his volunteer work with DMA and for his work in the field of economic development during his prior tenure with the Inland Empire Economic Partnership. He is a graduate from Cal State University Fullerton with a degree in Business.

**Beverly Hilderbrand, Education Liaison**

Beverly Hilderbrand has 24 years of experience in community college education and industry partnerships. She holds a master's degree in Public Administration and a B.S. degree in

Business Management from Jacksonville State University. She recently joined The National Center for Supply Chain Automation in the role of Education Liaison. She previously worked with the National Science Foundation as Director of the Consortium for Alabama Regional ATE Center for Automotive Manufacturing (CARCAM), a Regional Center of Excellence. She networks with other select Advanced Technological Education (ATE) grants with synonymous focus. Beverly has experience working with educators at all levels with vital industry partners to recruit students into technical career pathways, produce standardized curriculum, and provide educators with shared resources, best practice information, and professional development opportunities.





**Colleen Molko, Dean of Grants Development and Administration and Principal Investigator for NCSCA**

Colleen Molko's professional background includes 24 years of managerial experience in both state government and the community college system. She has worked extensively in the areas of academic affairs, resource development, and grant management. In addition to her role as Principal Investigator for the National Center for Supply Chain Automation, Ms. Molko is the Dean of Grants Development and Administration for Norco College (Southern California). Molko earned her B.S. degree in Business and Management at the University of Redlands and her M.A. degree in Rehabilitation Counseling from California State University, San Bernardino. A lifelong learner, she has earned certificates in Management Development, Facilitative Leadership, Curriculum Development and Leadership. She is passionate about the power of education to change lives.



**Valorie Piper, Executive Director**

Valorie Piper is Executive Director for the National Center for Supply Chain Automation. Valorie has served in a number of important roles in higher education over the past six years and prior to that worked 17 years in the mortgage/finance industry and three years in information technology. Her higher education career started in 2014 at the Bioengineering Department at the University of California Riverside. She served as Executive Administrative Assistant to 12 faculty Principal Investigators, who managed over \$70 million in NSF, HSI and NIH grant funding. Her academic credentials include a master's degree in business administration and a bachelor's degree in business administration, with minors in accounting and finance. She possesses vast experience in the areas of project, budget and grant management, and is well-equipped to provide leadership to the ongoing work of the center.



**Bob Sompolski, Ph.D. Co-Principal Investigator**

Dr. Bob Sompolski is the Dean of STEM and Health Careers at Oakton Community College in Des Plaines, IL and a Co-Principal Investigator for The National Center for Supply Chain Automation. As Dean, Dr. Sompolski provides academic leadership to programs that address transfer curricula (natural and computer science, engineering and mathematics), remedial curricula (developmental mathematics) and career curricula (health careers, computer networking, electronics and manufacturing/CAD). Throughout the development of Supply Chain technologies at the college, he has proposed

curricular representation of courses featuring logistics, radio frequency identification and block chain supporting software. He has been teaching on the collegiate level in Mathematics and Computer Science since 1982, was awarded a B.A. in Mathematics from the Illinois Institute of Technology and received M.S. and Ph.D. degrees in Mathematics from the University of Illinois at Chicago. His professional interests include computational mathematics and parallel/distributed computing. His personal interests include music and cooking.



**Desiree Wagner, Grants Specialist**

Desiree Wagner is the Grants Administrative Specialist for The National Center for Supply Chain Automation. Wagner is a proud graduate of Norco College, having earned her associate degree in Social and Behavioral Studies and Certificate in Culinary Arts. Her pristine administrative skills and amiable demeanor, coupled with her expertise in planning, optimization, execution of grant expenditures and events, make her a valuable asset to the Center.



**Ned Young, Ph.D. Co-Principal Investigator**

Dr. Ned Young is a Professor of Management and MIS at Sinclair Community College in Dayton, Ohio and Co-Principal Investigator for The National Center for Supply Chain Automation. Dr. Young has been teaching at Sinclair since 1994, having spent eight of those years in a department chair role where he managed the creation of Sinclair's Supply Chain Management program. He holds a B.S. in Computer Science, an M.B.A. in Management and a Ph.D. in Educational Leadership, where his dissertation work concentrated on the Malcolm Baldrige National Quality. Before moving to the educational sector, Dr. Young worked for 15 years in the industrial sector, primarily concentrating on software systems development, maintenance and management.





# THANK YOU PARTNERS

The National Center for Supply Chain Automation extends its sincere thanks to the following individuals and organizations, whose commitments of time, resources and talents continue to make lasting impacts on supply chain technician education and the development of the future workforce in our industry.

**Sharon Alexander,**  
Engineering Manager, UPS

**Neil Reddy,** President,  
Manufacturing Skill Standards Council (MSSC)

**Helen Slaven,**  
Atlanta CareerRise, United Way of  
Atlanta, WorkSource Atlanta

**Jacqueline Joyce,**  
Atlanta CareerRise, United Way of  
Atlanta, WorkSource Atlanta

**Atlanta Regional Commission (ARC)**  
John Hammond, Director,  
Center for Community Services

**THANK YOU FOR YOUR PARTNERSHIP**





# **MONDAY MARCH 9TH**

The National Center for Supply Chain Automation  
Annual Symposium 2020



## NCSCA WELCOME LUNCHEON (229 Peachtree St NE, Suite 100)

11:30 AM-12:30 PM

### Opening Remarks

National Center for Supply Chain Automation (NCSCA) Partner Recognition, NCSCA and symposium overview Atlanta Regional Commission, Atlanta Career Rise & WorkSource Atlanta

### SESSION 1

#### The Supply Chain of the Future and Its Impact on Tomorrow's Technical Workforce

12:30-1:30 PM

The world is changing quickly, and the supply chain is on the front line of that change. This unique position means the supply chain must simultaneously adapt to digital transformation initiatives and shifts in consumer behavior and demographics.

### Takeaways

- Learn more about the major societal and technological trends driving change.
- Explore the strategies and technologies enabling the move to a smarter, faster and more agile supply chain.
- Learn how these new technologies are impacting the technical workforce needed to support them.

### Presenters

**Michael Felbinger**, Vice President of Customer Service, Swisslog Logistics Automation

**Royden Edwards**, Director of Customer Support Services, Swisslog Logistics Automation

### SESSION 2

#### National Science Foundation Funding Insights

1:30-2:00 PM

An informative presentation about the National Science Foundation's Advanced Technological Education (ATE) program and tips on how to enter the prestigious ATE community.

### Takeaways

- Learn about different NSF ATE grant funding opportunities.
- Understand the National Science Foundation's perspective in relation to funding projects.
- Discover the Mentor-Connect Program.

### Presenter

**Colleen Molko**, Dean of Grants Development and Administration and Principal Investigator for NCSCA

### BREAK

2:00-2:15 PM

### SESSION 3

#### How Sensors, Data Analytics & AI Are Enabling Predictive Maintenance Practices and What This Means to Educators

2:15-3:30 PM

In today's always-on supply chain with efficiency and short lead times a mandate, Facilities and Engineering leaders are more challenged than ever to keep the automated equipment and systems they manage operational. System downtime is not an option. Yet the time window to operate, maintain, repair, support and upgrade these systems is growing shorter and shorter. Many firms are now working around the clock as well as adding shifts on Saturdays and Sundays when repair and preventive maintenance for these automated systems has typically been done. These leaders are now turning to Predictive Maintenance techniques which lean on new and evolving industry 4.0 technologies as tools to help address this issue.

### Takeaways

- Daily real-world challenges faced in meeting customer demands.
- Types of technologies now deployed in operations.
- What this means to the current workforce and insights about the skills technicians will require in the 21st-century automated supply chain.

### Moderator

**Bob Trebilcock**, Executive Editor, Modern Materials Handling Magazine and Editorial Director, Peerless Media

### Panel participants

**John Blasdel**, Sr. Director of Operations, JLL (Amazon Account)

**Phil Gilkes**, Regional Maintenance Manager, Eastern U.S., Dollar Tree

**James Jones**, Director of Operations, Maintenance and Engineering, ES3 (C&S Family of Companies)

**Phil Jones**, Director, Supply Chain Engineering, Target

### SESSION 4

#### Briefing: Amatrol Skill Boss-Logistics Training and Certification Device for MSSC Certified Technician-Supply Chain Automation (CT-SCA)

3:30-4:15 PM

In summer 2020, the industry-led, non-profit Manufacturing Skill Standards Council plans to launch nationwide a Certified Technician in Supply Chain Automation (CT-SCA) training and certification system. This system introduces a highly innovative, hands-on training and assessment device, developed by Amatrol, called "Skill Boss-Logistics" (SBL). SBL is a bench-top size automated package sortation system that is designed to provide hands-on training to prepare individuals to become maintenance technicians in supply chain automation. The device provides a hands-on learning experience to help individuals learn and become certified on 100 skills across three CT-SCA certifications.

As defined by the National Science Foundation-supported National Center for Supply Chain Automation (NCSCA), this technician installs, operates, supports, upgrades or maintains the automated material handling equipment

and systems which support the supply chain. In developing and introducing this system, the MSSC collaborated with NCSCA, the Material Handling Industry (MHI), the Material Handling Equipment Distributors Association (MHEDA), Amatrol and NOCTI Business Solutions.

#### Takeaways

- Context and an update on the progress of the planned rollout of CT-SCA.
- Highlight the educational features of the 100 skills SBL teaches and assesses.
- Information on how the partners worked to develop the program and how industry experts see this certification system as a tool for incumbent worker upskilling.

#### Presenters

**Paul Perkins**, President, Amatrol

**Neil Reddy**, President, Manufacturing Skill Standards Council (MSSC)

#### NCSCA MEETING LOGISTICS

4:15-4:30 PM

#### RECEPTION HOSTED BY THE MANUFACTURING SKILL STANDARDS COUNCIL

5:00-7:00 PM

White Oak Kitchen & Cocktails

270 Peachtree Street NW (Corner of Peachtree and Baker streets)









# **TUESDAY MARCH 10TH**

The National Center for Supply Chain Automation  
Annual Symposium 2020



## CONTINENTAL BREAKFAST

8:00-8:30 AM

### SESSION 5

#### Emerging Career Pathways: Multi-Track Experiential Curricula for Robotics Utilizing Virtual Reality

8:30-9:30 AM

The kinds of skills needed in the labor market are more diverse and changing more rapidly than ever before. Technology is more integrated, connected, and automated, requiring the workforce to be nimble. To maximize their opportunities in a time of pervasive technological change, employees must engage in lifelong learning. Recognizing these changes, CUCWD and its partners are developing four-track online curricula pathways from high school to master's degree levels with concentrations in robotics for advanced manufacturing applications. The courses will align with industry demand and incorporate experiential labs and virtual and physical work and learn experiences that extend from apprenticeships to capstone projects.

#### Takeaways

- Robotics Career Pathways developed by CUCWD and its partners.
- VR as a tool for student education and engagement.
- Resources for academic component.

#### Presenter

**Dr. Rebecca Hartley**, Director of Operations, Clemson University Center for Workforce Development & Co-PI, CA2VES

### SESSION 6

#### Success of Autonomous Mobile Robots in the Supply Chain Depends on Workforce Inclusion

9:30-10:15 AM

Historically, robots have been difficult to work with, require major disruptions to workflow, or outside experts to get the robot working in the first place; and workers naturally resist these disruptions. They also reject big changes that don't include them. This session will chart the evolution of mobile robots within supply chain operations (manufacturing, warehouses, distribution centers), present the current state of the art, and discuss technological and workforce challenges that have prevented widespread deployment, especially among smaller companies.

We will instruct on how to include workers early in automation efforts to promote pride of ownership and mastery of the technology to unleash their creativity. We'll provide guidance on how to choose equipment that is intuitive to set up and simple to operate. Easy-to-use robots wielded by enthusiastic employees will dramatically speed up deployment, expand adoption, and increase productivity. Additionally, we'll help discern between the myth and reality of robotics features and functions to manage expectations among students, co-workers, and management.

#### Takeaways

- Information on the emergence and future use of AMRs in the supply chain related to logistical needs of manufacturers, warehouses, and distribution centers.

- Features and functions to look for when procuring robots that ensure fast deployment and ease of use.
- Training methodology that promotes pride of ownership and mastery of automation technology and benefits gained by workers empowered with robotic tools made for them.

#### Presenter

**Jason Walker**, CEO and Co-founder, Waypoint Robotics

### BREAK

10:15-10:30 AM

### SESSION 7

#### The Weakest Link in Cybersecurity: Breaking Down the Dangers of Social Engineering

10:30-11:30 AM

This is a short, funny yet serious non-techie presentation chock-full of informative videos and stories about what is commonly known as social engineering – the art of manipulating and hacking people so they give up confidential information. Not only are social engineering attacks becoming more common against small- and medium-sized businesses, they're also becoming more sophisticated. So, in order to stay a few steps ahead of cybercriminals, this session will share what you should know about social engineering attacks and how you can help prevent you, your family, and your clients from falling victim to them. It will cover cyber predators (social engineering), phishing, blackmail and falling for scams.

#### Takeaways

- Review basic cybersecurity terms and current problems facing manufacturers.
- Top 5 small manufacturer cybersecurity issues.
- Password protection – proper framework and policy – why is it important?
- Social engineering – phishing, SMSishing, vishing – number one issue right now for small manufacturers.
- Wi-Fi security – if you have this, are you protected – do you know what precautions to use?
- Response and Incident Plan – do you have incident plans in place? What about a breach plan? Social media theft?
- Don't delay – tips on getting this done.

#### Presenter

**John Romero**, Assistant Director for the Texas A&M Cybersecurity Center (TAMC2) and Program Director for the Texas A&M Engineering Extension Service (TEEX) Cyber Readiness Center (CRC)

### SESSION 8

#### Preparing Technicians for the Future of Work

11:30 AM-12:15 PM

The Future of Work is ushering in rapid changes that will continuously directly affect the technician workforce, posing both challenges and opportunities for community college technical programs. America's technicians will need to navigate and troubleshoot processes involving artificial intelligence, the Internet-of-things, cybersecurity procedures, advanced robotics, digital design and prototyping, and the way in which these and other advanced technologies interact within

horizontally and vertically integrated systems. The skilled technical workforce sits at the center of this accelerating disruption. This presentation will share the strategies being undertaken and the early findings of this NSF ATE cross-disciplinary project that is exploring the Future of Work at the Human Technology Interface.

#### Takeaways

- New technologies that will soon be impacting technician workplaces.
- What industry is still looking for in new technician hires.
- First findings about knowledge and skills that technicians will need in the near future.

#### Presenter

**Dr. Marilyn Barger**, Special Advisor to the project and Director of the Florida Advanced Technological Education (FLATE) Center of Excellence

#### NCSA MEETING LOGISTICS

12:15-12:30 PM

#### LUNCH

12:30-1:00 PM

#### TRANSITION TO MODEX

1:15 PM

#### MODEX SHOW TOUR: SHOW FLOOR EDUCATIONAL SESSIONS AND INDUSTRY CONNECTIONS

1:30-4:00 PM

#### Georgia World Congress Center

285 Andrew Young International Blvd. NW  
Atlanta, GA 30313  
[www.modexshow.com](http://www.modexshow.com)

MODEX has over 950 exhibits of next-generation technology and equipment in action. This lets you see what's coming – and take advantage of it to power your supply chain for years to come. MODEX 2020 will allow you to make new contacts, discover cutting-edge solutions, and learn the latest trends that are sure to give you a leg up on the competition. Here, you'll encounter the best our industry has to offer – all under one roof.

**This is a self-guided tour.** SCA recommends MHEDA Booth #8466: Amatrol Skill Boss-Logistics live demo (related to CT-SCA certification).

Amatrol's Skill Boss Manufacturing (95-MSB1/95-MSB2AB) offers organizations performance-based assessment for evaluating the skill levels and competencies of future machine operators. This system fits onto a standard tabletop and features an electric motor, variable frequency drive, human-machine interface, pneumatic pick-and-place module, and much more! When set up, this system will quality test and sort blocks made from plastic and metal. Skill Boss Manufacturing was designed to assess the hands-on skills needed by today's modern manufacturing production areas, including assembly & machine operation. No other system boasts this many technologies in a portable platform.









# **WEDNESDAY MARCH 11TH**

The National Center for Supply Chain Automation  
Annual Symposium 2020



## **NCSCA HOSTED TRANSPORTATION – MEET BUS IN FRONT OF MARRIOTT MARQUIS HOTEL**

8:15 AM

**265 Peachtree Center Ave. NE – in front of main lobby**

## **UPS SMART HUB TOUR**

9:00 AM-12:00 PM

3689 Sandy Creek Road

Atlanta, GA 30331

Get an up-close look of the second-largest ground package processing facility in the U.S. – the Southeast Metropolitan Automated Routing Terminal (SMART). This highly automated 1.2 million square foot regional sortation and distribution center processes about 100,000 parcels per hour using a highly orchestrated series of conveyors, chutes, belts and ramps.

## **(OPTIONAL) MODEX KEYNOTE: A CONVERSATION WITH PEYTON AND ARCHIE MANNING**

1:00 PM

**Georgia World Congress Center**

MODEX is all about bringing supply chain professionals together to share stories, learn from each other, and come away ready to take on new challenges. And who better to help do that than Peyton Manning, two-time Super Bowl champion and five-time NFL MVP, and his father Archie Manning, also a former NFL quarterback and patriarch of the famous Manning family. During this keynote, they will share their stories about the power of teamwork, collaboration, preparation, and giving back both on the field and in business. Don't miss this inspirational and dynamic discussion about football and what it can teach you about life.

## **Speakers**

**Peyton Manning**, two-time Super Bowl champion and five-time NFL MVP, and his father, **Archie Manning**, a former NFL quarterback





## DON'T MISS THE LIVE DEMO! AMATROL SKILL BOSS-LOGISTICS

Day 2 of the symposium will feature a **live demonstration** of the equipment that plays a major role in the MSSC Certified Technician-Supply Chain Automation certification (CT-SCA): Amatrol's Skill Boss Manufacturing system. The system offers organizations performance-based assessment for evaluating the skill levels and competencies of future machine operators.

The demonstration is part of the MODEX conference, and transportation will be provided from the NCSCA symposium to MODEX for this event, at the Georgia World Congress Center.

**March 10, 2020**  
**1:30-4:00 PM**  
 MODEX  
 MHEDA Booth #8466

## EDUCATOR RESOURCES AND SUPPORT

The National Center for Supply Chain Automation provides resources educators need to incorporate new programs or improve existing programs.



» **Model Program:** Examine a model program of study designed to deliver the skill sets supply chain technicians need to successfully enter the field. Developed by NCSCA in collaboration with its Industry Leadership Team.

» **Course Outlines:** Explore the coursework required for specialization in a variety of different fields associated with a career in supply chain automation.

» **e-Textbook:** Introduction to the Automated Warehouse is a foundational text for the 21st-century supply chain technician. Interactive and engaging content acquaints the reader with skill sets they need to succeed in an automated warehouse or distribution center.

» **MSSC Certification:** This is a higher-skilled, higher-wage technician who installs, operates and maintains the automated material handling equipment and systems in the nation's e-commerce distribution and fulfillment centers.

» **Download now:**  
[supplychainautomation.com/resources](http://supplychainautomation.com/resources)



# **PRESENTER BIOGRAPHIES**

The National Center for Supply Chain Automation  
Annual Symposium 2020



**Marilyn Barger, Ph.D., Principal Investigator and Executive Director of the Florida Advanced Technological Education (FLATE) Center of Excellence**

Dr. Marilyn Barger is the Principal Investigator and Executive Director of FLATE, the Florida Advanced Technological Education Center of Excellence, funded by the National

Science Foundation located in Tampa, Florida. FLATE serves manufacturing education in Florida is involved in student recruitment for technical career pathways; has produced award-winning curriculum and secondary and post-secondary reform initiatives for Career Education programs; and offers professional development for STEM and CTE educators in advanced technologies. She has a special interest in recruiting girls into STEM careers. Dr. Barger has a Ph.D. in Civil/Environmental Engineering from the University of South Florida, where she focused on membrane separation systems designs for water purification. She is a charter member of the National Academy of Inventors, holds a licensed patent for a membrane design and is a registered professional engineer in Florida. Dr. Barger has over 20 years' experience in developing and delivering K20 engineering and technical curriculum.



**John Blasdel, Sr. Director of Operations, JLL (Amazon account)**

John Blasdel is a Sr. Director of Operations at commercial real estate firm JLL,

responsible for overseeing reliability, maintenance, and engineering at more than 140 facilities within Amazon's distribution network. Based in Orlando, FL, John joined JLL in 2015 and since then has held multiple leadership roles where he was focused on driving operational excellence. Prior to joining JLL, he was a Maintenance & Production Supervisor for FCA, and a Sr. Project Manager and Operations Director for Mad Dash Field Services. John is a Sr. Chief Petty Officer in the Navy Reserves and serves as the Senior Enlisted Advisor over two assault craft detachments in Tampa, FL and Great Lakes, IL, leading 120 sailors. In his role with Assault Craft Unit One, he supports pacific fleet operations on the west coast in Coronado, CA. He is married with two daughters.



**Royden Edwards, Director of Customer Support Services, Swisslog Logistics Automation**

As Director of Customer Support Services for Swisslog Americas, Roy Edwards is responsible for the field service, system

operations, total care and training teams. The skilled electro-mechanical resources under his direction provide commissioning support, training, preventative maintenance, operations support and other customer-focused deliverables. Prior to joining Swisslog, Roy spent nine years in distribution and operations management roles for Schreiber Foods, Inc. He earned his Bachelor of Arts in Economics from University of Evansville in Indiana.



**Michael Felbinger, Vice President of Customer Service, Swisslog Logistics Automation**

Michael Felbinger leads Swisslog America's Customer Service business unit located in Newport News, VA. The group provides

24/7 helpdesk support to Swisslog customers around the globe. Other services include preventative maintenance, system operation, optimization, training, spare parts, as well as expansion and modernization of automated material handling solutions. He has previously served in a number of management positions at Swisslog, including VP Project Implementation and VP Americas Technology Center. Michael earned his Dipl.-Ing. in Mechanical Engineering from Technische Universität Darmstadt, Germany



**Phil Gilkes, Regional Maintenance Manager, Eastern U.S., Dollar Tree**

Phil Gilkes has been in the Material Handling Industry for over 25 years in various roles relating to equipment installation, Commissioning and Maintenance. He currently works for Dollar Tree Stores as

Regional Maintenance Manager for the Eastern Region overseeing Facility Maintenance at 12 Distribution Centers. Phil has previously held Senior Management roles with Siemens Logistics, Intelligrated Systems and FKI Logistex managing their Field Service networks and Resident Engineering Programs. With a background in Electrical Engineering and Marine Engineering Phil has used his experience to put in place development programs within those organizations to strive toward a World-Class Maintenance culture within his teams. CMMS Implementation, Technician Evaluation Program Development and Maintenance Process and Control are key areas of Phil's focus. He holds a bachelor's degree in Electrical Engineering from DeMontfort University in Leicester, UK and a master's degree with Distinction in Business Administration from Keller Graduate School of Management. Phil is an active partner of the National Center for Supply Chain Automation and has contributed to the development of the Supply Chain Automation Technician Certification program developed by the NCSA.



**Rebecca Hartley, Ph.D., Director of Operations, Clemson University Center for Workforce Development & Co-PI, CA2VES**

Rebecca Hartley is the Director of Operations at the Clemson University Center for Workforce Development (CUCWD) and the former Chief Workforce Officer for

the Advanced Robotics in Manufacturing (ARM) Institute. She has spent over 20 years working in higher education administration in the areas of undergraduate admissions, graduate admissions, academic records, student affairs and workforce development. She holds a Ph.D. in Public Administration and Public Policy from Auburn University. Her research interest focuses on public opinion as it relates to federal and state public policy, and how outside political interests affect policy agendas and policy implementation.



**James Jones, Director of Operations, Maintenance and Engineering, ES3 (C&S Family of Companies)**

James Jones is currently the Director of Operations, Maintenance, and Engineering for one of the largest grocery distribution facilities on the East Coast. In his current

role, James is directly responsible for maintaining a high level of reliability and operational efficiency in ES3's Automated Warehouse through the application of continuous improvement tools, data analytics, and technical training. In James' early career, he was responsible for various implementations of highly integrated supply chain automation for Target Corporation. James has a passion for teaching others how to successfully lead teams at the intersection of maintenance, engineering, and reliability. His undergraduate education focused on physics (superconducting materials research) and mathematics, and he has master's degree in Manufacturing Management from Pennsylvania State University.



**Phil Jones, Director, Supply Chain Engineering, Target, Industry Leadership Team Co-Chair**

Find complete bio on page 7.





**Colleen Molko, Dean of Grants Development and Administration and Principal Investigator for NCSA.**

Find complete bio on page 10.



**Paul Perkins, President, Amatrol**

Paul is president and co-founder of Amatrol, Inc., a Jeffersonville, Indiana-based manufacturer of technical learning systems and online interactive multimedia software for colleges, industry and high schools. Amatrol has won many awards,

including being named outstanding Company of the Year for the State of Indiana by the Indiana State Chamber of Commerce and the prestigious E-Award from the U.S. Department of Commerce for outstanding success in International commerce. Personal accomplishments include B.S. Degree in Mechanical Engineering Summa Cum Laude from Georgia Institute of Technology, author of over 20 books on industrial controls and automation, design of numerous training systems for teaching engineering and technical skills, and consulting on training program development for many Fortune 500 organizations and various foreign governments. Community service activities include serving as Chair of the Indiana State Workforce Innovation Council, past Chair of the National Governors Association State Workforce Board Chairs Association and board member of many other national, state and local organizations.



**Neil Reddy, President, Manufacturing Skill Standards Council (MSSC)**

Neil Reddy is the co-founder of the Manufacturing Skill Standards Council (MSSC), an industry-led, non-profit training, assessment and certification organization focused on the core technical competencies

needed by the nation's front-line production and material handling workers. Internally, Mr. Reddy oversees all departments from operations to marketing. MSSC has more than 1,600 Authorized Assessment & Training Centers in 50 states and has issued more than 147,000 credentials. Mr. Reddy's passion lies in helping people get work, but also to help them build and develop career pathways. Mr. Reddy has held this position since 2006. Prior to joining MSSC, Mr. Reddy worked at the National Council for Advanced Manufacturing (NACFAM). There he worked with the Department of Defense and NIST on national programs dedicated toward the advancement and development of next-gen manufacturing.



**John Romero, Assistant Director for the Texas A&M Cybersecurity Center (TAMC2) and Program Director for the Texas A&M Engineering Extension Service (TEEX) Cyber Readiness Center (CRC)**

An Air Force veteran, Assistant Director for the Texas A&M Cybersecurity Center

(TAMC2), and Program Director for the Texas A&M Engineering Extension Service (TEEX) Cyber Readiness Center (CRC), John performs outreach in order to help the community with cybersecurity planning, training, assessments, and exercises. He's happy to teach for both Texas A&M Engineering Cybersecurity centers and enjoys presenting on cybersecurity subjects. John has over 30 years of software development experience with a Bachelor of Science degree from Texas A&M University and is in a Cybersecurity master's degree program at Georgia Tech.



**Bob Trebilcock, Executive Editor, Modern Materials Handling Magazine and Editorial Director, Peerless Media**

Bob Trebilcock is the executive editor of Modern Materials Handling and the editorial director of Supply Chain Management Review. He has been writing about issues related to materials handling and the supply chain since 1984. He can be reached at [btrebilcock@peerlessmedia.com](mailto:btrebilcock@peerlessmedia.com).



**Jason Walker, CEO and Co-founder, Waypoint Robotics, Inc.**

Jason Walker is the CEO and Co-founder of Waypoint Robotics. Waypoint develops and manufactures fully autonomous mobile robots that are easy to use,

industrial strength, and designed to be set up and used by the workforce that is on the job today. Prior to founding Waypoint, Mr. Walker was the Co-founder and Director of Operations at CyPhy Works. Mr. Walker also served as Lead Robotist and Principal Investigator for CyPhy Works' contracts with agencies such as DARPA, NIST, and the National Science Foundation. Mr. Walker has 18+ years of experience in product and business development, including B2B, consumer, and government markets. Prior to co-founding CyPhy Works he was the quality, reliability, and testing manager for the Roomba vacuuming robot at iRobot. Walker received a BSEE with a concentration in Robotics and Control Systems from Kansas State University and is a lifelong entrepreneur.



# EDUCATOR PROFESSIONAL DEVELOPMENT

Keeping up with the latest technologies in supply chain automation (SCA) is a critical part of your role as an educator of the next generation of the supply chain workforce. In addition to the annual national symposium, here's how we help you do that:



» **MentorConnect** – Provides leadership development and outreach through mentoring and knowledge transfer.

» **Industry-Recognized Certifications** – Developed in partnership with industry-leading organizations, with input from educational institutions to define relevant automation skills.

» **National Center for Supply Chain Automation Symposium** - Convening Supply Chain Automation stakeholders to facilitate, collaborate and deliver professional development.

---

**See us in person at the  
High Impact Technology  
Exchange Conference.**

## HIGH IMPACT TECHNOLOGY EXCHANGE CONFERENCE

**JULY 27-30, 2020**  
**DOUBLETREE BY HILTON**  
**PORTLAND, OREGON**



Supported by the National Science Foundation's Advanced Technological Education (NSF ATE) program, HI-TEC is a national conference on advanced technological education where secondary and postsecondary educators, counselors, industry professionals, trade organizations, and technicians can update their knowledge and skills. Charged with preparing America's skilled technical workforce, the event focuses on the preparation needed by the existing and future workforce for companies in the high-tech sectors that drive our nation's economy.

Register online: [www.HighImpact-Tec.org](http://www.HighImpact-Tec.org)







**National Center for Supply Chain Automation**  
RESOURCES FOR EDUCATION & INDUSTRY



### **Get In Touch**

Norco College  
2001 Third St.  
Norco, CA 92860, USA  
Phone: (951) 739-7811  
[info@supplychainautomation.com](mailto:info@supplychainautomation.com)

**[SupplyChainAutomation.com](http://SupplyChainAutomation.com)**

This Center is sponsored by the National Science Foundation ATE program under award #1601452.