Dear SEEM Family,

It is my pleasure to greet you all on behalf of the Systems Engineering and Engineering Management Department in this inaugural issue of the SEEM Newsletter. It has been over one year since I have started as the interim chair of the SEEM Program. One of my objectives was to build a SEEM Family which consists of a strong team of faculty, students, alumni and an advisory board. The saying “work hard, play hard” has been my motto to move this group forward as a family and to have fun at the same time.

What have we accomplished so far as a family?
- Partnered with our students to design and improve our SEEM website as well as the student advising process.
- Our department advisory board has been very resourceful giving us valuable feedback on our SEEM growth strategy.
- Our faculty worked hard not only teaching but improving the BSSE and MSEM curricula.
- Continued to keep SEEM programs ABET and SACS compliant
- Introduced new concentrations on
  - Energy Systems under the BSSE program
  - Energy Systems, Lean Six Sigma and Logistics and Supply Chain concentrations under MSEM
- Total enrollment has increased from 119 in Fall of 2012 to 145 students in Fall of 2013
  - MSEM enrollment has increased from 34 to 49 and BSSE enrollment from 85 to 96
- Hired two new faculty: Dr. Ogle and Dr. Hong, who bring exceptional academic and industry expertise in the areas of material handling and energy industries, respectively.
- Conducted several SEEM Picnics at the Reedy Creek Park which have been great success

This past year has been an important milestone for our program for various reasons such as:
- Recognition of SEEM as one of the five departments of the College of Engineering at UNC Charlotte
  - This recognition will help us receive increased university support, while helping to draw talented faculty and high quality students.
- Built new labs and experiential learning space and remodeled some existing ones
  - Enables a better learning and teaching experience for all
- Our students established the Society of Systems Engineers (SSE)
  - Providing more opportunities for our students to network, plan a better transition to the industry, help us improve SEEM, conduct various social/professional activities, and recruit high quality new students
- Center for Lean Logistics and Engineered Systems (CLLES) which is led by our own faculty
  - Working on a unique lean six sigma project in the area of Business Law.
  - CLLES will continue growing and help us establish a better bridge with the industry.

I would like to also recognize our extended family here at UNCC:
- Dean’s Office providing us with support and resources
- Freshman Advising for helping our students transition into COE and BSSE
- Extended Programs for helping us manage our online MSEM program
- Mosaic, Classroom Support and PCS teams providing exceptional services
- Facilities Management for helping us build a better working and learning environment
- EPIC for providing us resources to build our energy systems programs

While I believe we still have a long way to go, with your encouragement, support and from the ever growing excitement in SEEM, it is evident that we are heading down the right track. Feel free to share your thoughts and aspirations about SEEM. Stake your claim to help us build the future! Go SEEM!

Best Wishes,
Ertunga C. Ozelkan, Interim Chair, SEEM Department
What is a Systems Engineer?

Systems Engineers can:

Systems Engineers utilize technical (such as optimization, statistics, decision/risk analysis, simulation, and programming techniques) and managerial/leadership skills to deliver bottom-line improvements.

Welcome New Faculty

Dr. Mike Ogle
Assistant Professor, Systems Engineering and Engineering Management
Ph.D. in Industrial Engineering, Arizona State University, 1994
Dr. Ogle comes to UNC Charlotte after 15 years with the MHI trade association (a material handling, logistics, and supply chain focused association). As the MHI vice president of Educational and Technical Services, he managed the College Industry Council on Material Handling Education, the Order Fulfillment Solutions Council, and the Conveyor and Sortation Systems Group. He also managed all of MHI’s ANSI accredited national and international standards activities, including those focused on pallets, freight containers and packaging.

Dr. Tao Hong
Assistant Professor, Systems Engineering and Engineering Management
Associate of the Energy Production and Infrastructure Center (EPIC)
Ph.D. in Electrical Engineering and Operations Research, North Carolina State University, 2010
Before coming to UNC Charlotte, Dr. Hong was the head of energy forecasting at SAS, where he led research, development, sales, marketing, consulting and education activities involving the company’s Energy Forecasting solution offerings. He is the founding chair of IEEE's Working Group on Energy Forecasting and the general chair of the Global Energy Forecasting Competition. He has provided consulting and education services to more than 100 organizations across all sectors of the utility industry. The long-term spatial load forecasting methodology implemented in his master’s thesis and the short-term forecasting methodology proposed in his Ph.D. dissertation have been commercialized and deployed to many utilities worldwide.

Meet Dr. Tao Hong, Assistant Professor tao.hong@uncc.edu
Meet Dr. Mike Ogle, Assistant Professor mogle1@uncc.edu
Center for Lean Logistics and Engineered Systems Partners with Local Law Firm for Lean Six Sigma Training

Incorporating Lean Six Sigma management methodology is relatively unknown in the legal world, but technology driven hunoval Law Firm in Charlotte is raising the bar. Partnering with the University of North Carolina at Charlotte Center for Lean Logistics and Engineered Systems, Hunoval Law is offering Lean Six Sigma training to its employees and has already incorporated its strategy into key business processes.

Lean Six Sigma partnership between Hunoval Law Firm and UNC Charlotte are, from the left, UNC Charlotte Instructor Dr. Jonathan Mayhorn, Director of the UNC Charlotte Center for Lean Logistics Dr. Gary Teng, Hunoval Law Firm Founder Matt Hunoval, Hunoval Director of Six Sigma Kevin Divine, UNC Charlotte Engineering Dean Dr. Bob Johnson, and UNC Charlotte Director of Systems Engineering and Engineering Management Dr. Ertunga Ozelkan.

SEEM 2013 Award Winners

*Outstanding Student Leadership Award*
Matthew Elliot

*Benjamin O Hood Service Award*
Brett Thompson

*Anna M. Johnson Hats OFF! Academic Achievement Award*
Kyristyna Savioe

*Outstanding Graduate Research / Teaching Assistant Award*
Edil Demirel

*Outstanding Graduate Teaching Assistant Award*
Reshma Reddy

*Outstanding Senior Award*
Monica Brohm

*Outstanding Graduate Student Award*
Seth Withers

Fall 12/Spring 13 Picnics

We started an SEEM picnic tradition in Fall 2012 at the Reedy Creek Park. Had a great turnout. The second picnic in Spring 2013 was even better. Thanks to all who showed support and our volunteer crew, we had a great time. Shelter, food and beverage provided by the SEEM department. Special thanks to Dean Johnson for showing support.

Thank you Doreen Smith for the coordination

The wonderful cook!
Steven Hansen, Volunteer
Senior Design

"Interdisciplinary solutions to complex engineering and management problems."

The Maclean Power Systems Sr. Design Team mentored by Dr. Gary Teng won the 3rd place in the Sr. Design Competition on May 2, 2013. Systems engineering student Mohamed Alshahi was the team’s project lead. The team designed an Automated Filament Winder to save time and resources for Maclean Power Systems.

The SEEM GE Lean Challenge team mentored by Mr. Franklin Merrell (Adjunct Professor of SEEM) finished 2nd in a national competition for implementing lean manufacturing initiatives at a GE plant. The UNCC team partnered with GE-Salisbury and spent nine weeks studying, analyzing, designing and implementing changes to the process at the plant. In the final analysis, the team reduced the required assembly time from 45 minutes to 13.5 minutes for a 70% reduction in cycle time. The SEEM Lean Team was composed of Trey Davis, PE; Beth Ann Carver, Randy Joseph, Shamita Houpe, and Steve Park.

The two CGI (Charlotte Green Initiative) Sr. Design teams mentored by Dr. Ertunga Ozelkan have been the finalists in the Sr. Design Project Competition.

Final Design by CGI_BOT1 Team. Team members were Spencer Davis (Systems Engineering), Nicasio Arzu, Carlos Coronado, and Hassan Ashmawi.

Final Design by CGI_BOT2 Team. Team members were Brian Skerry (Systems Engineering), Christopher Parry, Keith Hunter, and Joshua Johnson.
SEEM Advisory Board and Faculty reviewing program status and discussing SEEM strategic plans on November 30, 2012.

SEEM faculty, staff and families enjoying a holiday gathering.

Dr. Teng receives a certificate of appreciation on September 23, 2012 for his leadership and services for SEEM over the past 12 years.
CONGRATULATIONS TO ALL BSSE GRADUATES!

2013
Mohammed Ahmed Al Munif
Monica Brohm
Christine Campbell
Elizabeth Ann Kessel Carver
Sarah Deese
Matthew Elliott
John Carlo Honeycutt
William Stephen Lawson
Charles Ledford
Nathan Muller
Steve Park
Sagar Patel
Krystyna Savieo
Joshua Smith
Dev Vashi

2012
Fahad Mohammed Balobaid
Kathryn Barlowe
Maria Cannizzo
Irving Coronado
Harold Davis
Spencer Davis
Brandon Ervin
Alexander Hudnell
Jake Hyler
Patrick McIntyre
Urbain Nounagnon
LeeAnn Pickles
Jonathan Dunlap
Brian Skerry

2011 -1st BSSE Graduates
Abdulmohsen Alsara
Scott Dauss
Lina Garcia
Torrence Gibson
Justin Gregory Marsh
Jose Paniagua
Andrew Cox

CONGRATULATIONS TO ALL MSEM GRADUATES!

2013
Michael Beroth
Sarah Diehl
Michael R. Swain
Jack Vilakorn Thammavongs
Seth Edsel Withers

2012
Aung Thiha Tun
Elizabeth Willis
Michael Bruton
Larry Turner

2011
Paola De Los Santos
Vyahriti Joshi
Richard Justin Martin
Brandon Scott Hyde
Ankur Agrawal
James Daniel Blackburn
Micah Colen Isenhour
Jeffrey Lee Jones
Mani Memari
Richard Viglione
Roshni Dorothy Williams

2010
Ameya Brid
Shaun Neil Davis
Sonali P. Gorantyal
Badri Iyengar
Christopher Bullington
Brian Couture
Timothy J. Shelton
Michael Silvestri

2009
Carla G. Cardenas
Monica Kashyap
Kasper D Nielsen
Swetha Padmini Sripada
Michael Edward Barth
Brandon Charles Aycock
Asisam Farheen
Scott Timothy Keziah
Divya Onsteddu

2008
Samuel Thad Hylton
Kevin John Pohlman
Christopher Regan Sweet
Paolo Xavier Zambrano
Alok Arun Joshi
Jason Michael Grai
Tapan Dhanesh Parekh
Sonia S. Thakare
David J. Watson

2007
Mark S. Cecil
Anthony D. Ciresi
Wesley Daniel Clark
Nadine Elbadramany
Tiffany M. Morris
Carl Arthur Whitesel
John Nicholas Felix
Nasakala Blaise Mwanda

2006
Husniyah B. Abdus-Salaam
Alfred W. D’Ambrosio
Charia Q. Dillard-Thompson

2005
Douglas Wayne Armstrong
Julie Christine Howell
Ethan H. King
Thanh Minh Le
Juan Pablo Niebles
James S. Potter
Terri McManus Reid
Tiffani Annette Teachey
Frank R. Samartino
Shyn Thomas
Alejandro Del Solar Pancorvo
Kimika R. Edwards
Rushabh Ulhas Kothari
Shilpa Elizabeth Mathew
Davin Christopher Morrison
Kelly Buddin Mottier
Jack Byron Whitley

2004
David M. Cady
Michael F. Foess
Hector Jaramillo
Rafael Jose Osuna Simones
Suraj Mathew
Anya Venita Canty
Franklin Ellis Merrell

2003
Thomas J. Demick
Gary Wayne Frame
Jennifer Price Riggs
Paul Samuel Weeks
Robert Perkins Wadsworth
Russell James Busick
Jonathan Philip Mayhorn
Charles David Simon

2002
Matthew Winston Anderson
Ronald Glenn Brown
Stacey Almond Coffey
Latisha D. Leach
Brian Keith North
Joseph Michael Woody

2001 -1st MSEM Graduates
Andrew Preston Gibbon
Lance Michael King
Jeffery Lane Hooks
Our vision is to be one of the leading systems engineering and engineering management programs in North Carolina and in the U.S. by providing high quality education to our students and accomplishing research that conveys regional, national and global interest.

Feel free to contact us for any questions about the SEEM Department and its programs.

Thank you Shamita Houpe for your help editing this inaugural issue of the SEEM Newsletter!