Message from the Dean

To the Fall 2013 University of New Mexico School of Engineering Graduates

I am delighted and honored to welcome you to the University of New Mexico School of Engineering Convocation. Today we celebrate the impressive accomplishments of our graduating students and acknowledge your dedication, commitment, and perseverance. It is a memorable day in your lives and a special day for those who helped you get ready for this graduation—family, friends, teachers, classmates, colleagues, coworkers, counselors, advisors, and more.

Your academic successes are likely to carry over into professional, personal, and social achievements. We are excited about watching your careers flourish and hope that you will always be part of our academic family.

As you graduate from our School of Engineering, remember that you are part of a distinguished tradition that started with the founding of the School in 1906 and will be continued by your own work across our beautiful state and across the world.

Our School and its graduates represent a powerful engine of economic and social development. You had the opportunity to witness first hand the creation of new ideas and technologies and to learn from leaders in the field of science and engineering. It is now your turn to creatively apply the knowledge and experience you gained during your studies for the good of society at large.

Graduates, we welcome you to the distinguished company of the School of Engineering alumni and wish you every success in your new endeavors.

Gruia-Catalin Roman
Dean, UNM School of Engineering

Guidelines for Graduates and Guests

COOPERATION REQUESTED
Family members and guests are encouraged to take photos of the ceremony and the graduates. While taking photos, please be courteous and respectful of the students leaving the stage. The audience may not enter the stage area at any time during the program.

COMMENCEMENT PHOTOGRAPHER
GradImages will take candid photographs of all graduates at their special moment of recognition. Graduates will receive a free proof of this photo via email and regular mail within 5 to 7 days following the ceremony. You may place orders or obtain answers to questions at the GradImages website for graduate photos, www.gradimages.com or by calling 1.800.261.2576

DIPLOMAS
The Records and Registration Office will mail diplomas (unless the student has specified that it be held for pick-up) after grades have been received and recorded, which is usually in mid-February for Fall graduates. Diploma-related questions should be directed to UNM Records and Registration at 505-277-6310 or by email to degrees@unm.edu.
The laws of New Mexico provide for a Board of Regents which is responsible for the governance of the University of New Mexico. The Board's power to govern the University includes fiduciary responsibility for the assets and programs of the University, establishment of goals and policies to guide the University, and oversight of the functioning of the University.

The Board is comprised of seven members who are appointed by the Governor of New Mexico, with the consent of the Senate, for staggered terms of six years except for the student regent, who is appointed for a two-year term. The Governor and the Secretary of Education are designated as ex-officio, non-voting members.

THE REGENTS
Jack L. Fortner, President
James H. Koch, Vice President
Lieutenant General Bradley C. Hosmer, USAF (Ret.), Secretary-Treasurer
J. E. “Gene” Gallegos
Conrad D. James
Suzanne Quillen
Heidi N. Overton, Student Regent

<table>
<thead>
<tr>
<th>Board of Regents</th>
<th>Table of Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board of Regents</td>
<td>Board of Regents</td>
</tr>
<tr>
<td>Convocation Program</td>
<td>Platform Party</td>
</tr>
<tr>
<td>Platform Party</td>
<td>Keynote Speaker</td>
</tr>
<tr>
<td>Keynote Speaker</td>
<td>Student Speakers</td>
</tr>
<tr>
<td>Student Speakers</td>
<td>George E. Breece Award</td>
</tr>
<tr>
<td>George E. Breece Award</td>
<td>Convocation Traditions</td>
</tr>
<tr>
<td>Convocation Traditions</td>
<td>School of Engineering History</td>
</tr>
<tr>
<td>School of Engineering History</td>
<td>Degrees Awarded</td>
</tr>
<tr>
<td>Degrees Awarded</td>
<td>Computer Science</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Electrical &amp; Computer Engineering</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
<td>Mechanical Engineering</td>
</tr>
<tr>
<td>Mechanical Engineering</td>
<td>Chemical &amp; Nuclear Engineering</td>
</tr>
<tr>
<td>Chemical &amp; Nuclear Engineering</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>Interdisciplinary Programs</td>
</tr>
<tr>
<td>Interdisciplinary Programs</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>Nanoscience and Microsystems</td>
</tr>
<tr>
<td>Nanoscience and Microsystems</td>
<td>Optical Science and Engineering</td>
</tr>
<tr>
<td>Optical Science and Engineering</td>
<td>Message from the Alumni Association</td>
</tr>
</tbody>
</table>

Front cover: Dean of Graduate Studies Julie Coonrod with Civil Engineering graduate Emile Kareem Saint-Lot.
Convocation Program

PROCessional

Faculty Marshal
George Luger, Professor Emeritus, Computer Science

Banner Carrier
Ashley Taylor, Department of Computer Science

Processional Music
“Pomp and Circumstance March Number 1,” Composed by Sir Edward Elgar
“Procession of the Nobles,” Composed by Nicolai Rimsky-Korsakov
Performed by The New Mexico Brass Quintet

Master of Ceremonies
Charles B. Fleddermann, Associate Dean for Academic Affairs

Greetings
Catalin Roman, Dean, School of Engineering

Keynote Speaker
Stuart Rose, Ph.D., Founder, The BioScience Center

Student Speakers
Aliaksei Kuliashevich, B.S., Computer Science, ’13
Jillian E. Erickson, M.S., Electrical Engineering, ’13

Presentation of Breece Award
Presenter: Charles B. Fleddermann, Associate Dean for Academic Affairs
Awardee: Axel Haaker, B.S., Mechanical Engineering, ’13

Presentation of Degree Candidates
Charles B. Fleddermann, Associate Dean for Academic Affairs

Recessional
Platform Party

DISTINGUISHED GUESTS
Chaouki T. Abdallah, Provost and Executive Vice President for Academic Affairs
Julie E. Allred Coonrod, Dean, Office of Graduate Studies

SCHOOL OF ENGINEERING ADMINISTRATION
Gruia-Catalin Roman, Dean, School of Engineering
Charles B. Fleddermann, Associate Dean for Academic Affairs
Christopher D. Hall, Chair, Department of Mechanical Engineering
Michalis Faloutsos, Chair, Department of Computer Science
Jane Lehr, Chair, Department of Electrical and Computer Engineering
John Stormont, Chair, Department of Civil Engineering
Timothy L. Ward, Chair, Department of Chemical and Nuclear Engineering

FACULTY MARSHAL
George Luger, Professor Emeritus, Computer Science

KEYNOTE SPEAKER
Stuart Rose, Ph.D., Founder, The BioScience Center

STUDENT SPEAKERS
Aliaksei Kuliashevich, B.S., Computer Science, ’13
Jillian E. Erickson, M.S., Electrical Engineering, ’13
Keynote Speaker

Stuart Rose, Ph.D.
B.A., ’64, Chemistry, University of Cincinnati
Ph.D., ’69, Chemistry, Wayne State University

Dr. Rose has over 40 years of experience in the pharmaceutical industry and has lived and worked outside the mainland U.S. (from Puerto Rico to Russia). He is in Albuquerque as a result of founding what is now known as Oso Biopharmaceuticals Manufacturing in 2008. After his departure from OsoBio in 2012, he founded The BioScience Center, an incubator/accelerator focused on nurturing bioscience and life-science start-ups.

Dr. Rose has held executive positions with Penick Corporation (President/CEO), ICN — now Valeant Pharmaceuticals (Vice President of Worldwide Manufacturing and VP/GM of ICN Europe), and Par Pharmaceuticals (Senior VP). He spent the majority of his early career with American Cyanamid’s pharmaceutical arm, Lederle Laboratories, where he rose to Vice President of Worldwide Manufacturing and Logistics.

Active in the start-up community and an evangelist for entrepreneurship, Dr. Rose is also a Director of Agilvax, a start-up entity with a novel platform for the development of vaccines; a Director of Oligocide, a start-up developing antimicrobial chemical compounds that attract and then kill bacteria, viruses, and some fungi; and an investor/advisor in a number of other biotechnology start-ups.

A key player in the Innovate ABQ initiative, Dr. Rose is among a number of people in Albuquerque looking to create opportunities in our community to live, work, play, and excel at business.
Student Speakers

Aliaksei Kuliashevich

B.S., Computer Science, ’13

Originally from Belarus, a part of the former Soviet Union, Alexey has also lived in Warsaw, Poland. Fascinated by computers from the age of 15, he first discovered a passion for programming while attending a computer school in Warsaw as he prepared to enter the university. At Warsaw University, he studied physics for a year before moving to Brooklyn, New York. When his mom married a man from Albuquerque, Alexey moved with his family. Initially hating the hot weather and spicy food, he grew to love and appreciate the desert southwest. After working at “a few boring jobs,” he discovered that “a man can only be happy when he does what he is passionate about.” So at the age of 23, he enrolled at the University of New Mexico to study computer science. Going to school full time while working full time has kept him busy, but Alexey still finds opportunities for camping, fishing, and snowboarding. Already earning hours for an M.S. in computer science, Alexey is currently the sole developer of a Colorado-based crowdfunding company.

Jillian Elaine Erickson

M.S., Electrical Engineering, ’13

As an undergraduate at UNM, Jillian earned a B.S. in Applied Mathematics, with a minor in Music. She then took some time off from school and worked as a paralegal in Seattle. Back in Albuquerque, she decided to pursue a Master’s degree and chose electrical engineering because of her love for math. For Jillian, math is like a puzzle waiting to be solved. She says that she “feels a sense of accomplishment after solving a math problem.” Finding a creative application for math through electrical engineering has been rewarding for Jillian. During the summer of 2012, she interned at Ball Aerospace where she worked with MATLAB, designing an algorithm to predict nighttime electron density profiles in the ionosphere. Jillian has also pursued research in renewable energy technology. For her thesis, she designed an antenna with a circuit for turning radio frequency waves into direct current power. After graduation, Jillian will continue working part-time for a financial company while looking for a job in electrical engineering. In her free time, Jillian enjoys yoga and singing.
George E. Breece Award

The George E. Breece Award was established in 1921 to honor the UNM School of Engineering senior with the highest grade point average from each graduating class. The recipients of this award consistently have grade point averages higher than 4.0, reflecting a majority of A+ grades throughout their undergraduate courses.

Axel William Haaker
B.S., Mechanical Engineering & Applied Math, ’13

Axel has lived in Albuquerque all of his life. Choosing UNM for its convenience, he began his studies in physics but switched majors after hearing friends talk about their classes in mechanical engineering. Axel discovered that he enjoys engineering, but he also really likes studying math. It is no surprise that one of his favorite classes was a computational mechanics class for which he got to do some programming. After graduation, Axel will begin work on a graduate degree in mechanical engineering at UNM. He also plans to pursue a graduate certificate in computational science and engineering. Especially interested in fluid mechanics and thermodynamics, Axel hopes to find research assistant opportunities within those fields as he works on his graduate degree. When not concentrating on homework, Axel enjoys road cycling, hiking in the Sandia Mountains, and photography. When he has time, he hikes the La Luz Trail, taking his camera along.
Convocation Traditions

Throughout their long and proud history, universities have retained and cherished strong ties to their ceremonial roots. When English universities were taking form in the twelfth and thirteenth centuries, scholars were also clerics. They adopted robes similar to those of their monastic orders. Caps were a necessity in the drafty buildings and copes, or capes with hoods attached, were needed for warmth.

School of Engineering Convocation

The School of Engineering Convocation pays tribute to the history and traditions of graduations throughout the ages. The bachelor’s gown is red, has long sleeves, and is worn closed. The master’s and doctor’s gowns are black. The cap, originally round, is now a square mortarboard and is the same for all degrees. Caps are traditionally black with a long tassel fastened to the mid-point. The tassel is worn on the right side until the degree has been conferred; it is then worn on the left. The hood indicates the type of degree and the official color or colors of the university conferring the degree. For example, the color orange represents engineering, and that color is used on the velvet binding or edging of the hood. The official University of New Mexico colors are cherry and silver, so the hood is lined with silver gray with a chevron of cherry red.

The Convocation begins and ends with a colorful academic procession, led by a staff member carrying a banner in front of the School of Engineering degree candidates. The faculty marshal is usually selected from School of Engineering emeritus faculty, an honorary title for retired full-time faculty. The faculty marshal carries a mace or ceremonial staff and leads the platform party, composed of School of Engineering academic leadership, UNM regents and dignitaries, and convocation speakers.

The mace traces its origins to a medieval weapon and was later carried before kings and high church officials as a ceremonial emblem of authority. The School of Engineering mace was designed by Dean Emeritus Joseph L. Cecchi and constructed in 2003 by engineering staff member Penn Davis. The mace handle is connected to a machined aluminum cube with wood panels inscribed with the University Seal and “The School of Engineering 1906,” the year the School was founded. The mace is crowned by a wooden sphere.
Engineering instruction at the University of New Mexico has a rich tradition, beginning in 1906, with four-year programs in Civil, Electrical, Mechanical, and Mining Engineering. The first Bachelor of Science degree was awarded in June 1912. By 1916, enrollment was at 37 with two or three graduates each year. In 1947, the Department of Chemical Engineering was established, and in 1972 it expanded to the Department of Chemical and Nuclear Engineering. Computer Science courses were initially offered in the Mathematics Department and in 1976, the Computer Science Department was established. With the addition of Computer Engineering to the Department of Electrical Engineering in 1979, the present-day complement of academic departments was in place.

This fall, the UNM School of Engineering enrolled over 1200 students in nine undergraduate degree programs and over 700 students in more than a dozen graduate degree programs. These degrees are offered through the School's five academic departments and, increasingly, through interdisciplinary and interdepartmental programs. Research is integrated into each degree program in an environment that fosters teamwork, cultural and intellectual diversity, a strong sense of public responsibility, and lifelong learning. An exceptionally active research faculty work in critical and cutting-edge areas, collaborating within UNM and with other universities, the national laboratories, and industry to develop innovative solutions for societal challenges.
Degrees Awarded

Order of Presentation

Department of Computer Science
Department of Electrical and Computer Engineering
Department of Mechanical Engineering
Department of Chemical and Nuclear Engineering
Department of Civil Engineering
    Biomedical Engineering
    Nanoscience and Microsystems
    Optical Science and Engineering

Graduate Student Recognition

“Graduating with Distinction” recognizes the exceptional performance of students who graduate with a Master's or Doctor of Philosophy degree. The status is determined at the time of the final examination through agreement of the examining committee members, with final approval given by the department chair.
Computer Science

Bachelor of Science in Computer Science
Justin N. Hertel  Seth D. Richey  Margaret L. Teisher
Aliaksei Kuliashevich  Alexandre A. Rogozine
Todd G. Noel  Theodore S. Schnepper

Master of Science in Computer Science
Faiza Ayoub  Jason Loyd  Chrys M. Watson-Ross
Andrei Buium  Oscar H. Mondragon Martinez  Kevin Michael Williamson
Zhenjie Chen  Cianan A. Sims  Yiming Yang
Matthew Dosanjh  Parvathi Somasundaravelayudham  Abhishek Reddy Yeruva
Wuzhenni Hu  Srinivasa R. Somepalli  Vineeth Reddy Yeruva
Feng Hu  George W. Stelle  Qian Yu
Dewan M. Ibtesham  Lidong Wang  Xu Zhang

Doctor of Philosophy in Computer Science
Chayan Chakrabarti  Oleg Semenov†  Xiaoran Yan
Benjamin M. Gordon*†  Piyou Song  Yaojia Zhu

*Summer 2013 Graduates  †Graduating with Distinction
Electrical and Computer Engineering

Bachelor of Science in Computer Engineering

Corey Evan Berigan  Kurt Edward Hollowell  Esteban Cruz Martinez
Sarah Mariza Gonzalez  Zachary D. Kaberlein  Bhim Prasad Subedi

Bachelor of Science in Electrical Engineering

Matthew Kelley Erdman  Gary Joseph Saavedra  Marques Lorenz Yazzie
Aaron Matthew Griego  Christopher L. Stelmar  Amanda Renee Zuverink
Carlos Ibalio Monzon  Nishchay H. Sule
Stuart Kerry Patterson  Scott Carey Wilson

Master of Science in Computer Engineering

Michael Douglas Basile*  Yuebing Jiang  Carlos Ramon Montoya
Cherish Anne Franco  Alma Linan Rodriguez  Caleb Dean Morse

Master of Science in Electrical Engineering

Maialen Ciaurriz Velasco  Swathi C. Jagannath  Robert Wayne Sanchez
Jillian Elaine Erickson  Joshua A. Kotobi  Lakshmi Sai Siddhartha Vadrevu
Shara Lin Guzzetta  Janet H. Nguyen  Jonathan Michael West
Tasha Marie Hammond  Christopher Michael Romero  Jeffrey Carson Wigdahl

Doctor of Philosophy in Engineering

Computer Engineering  Electrical Engineering

James Charles Aarestad*  Jiayu Chen†  Jesse Keith Mee*†
Eduardo Jose Castro Witting  Jing Ju  Maya Narayanan Kutty*
  Yang Li†  Nathan Jack Withers

*Summer 2013 Graduates  †Graduating with Distinction
Mechanical Engineering

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Anthony Thomas Chavez, IV  Axel William Haaker  Kevin Joseph Smaka
Kevin M. Esfahani  Robert E. Malakhov  Jason Noel Tillotson
Jacob C. Fackelman  Jonathan Michael Moran  James L. Vaughan
Michaela Grace Farr  Andrew Bryan Porteous  Dustin William Wakley
Stefan Michael Francis Ford  David Bryan Reza
Jeffrey Robert Gordon  Jacob Jesse Serna

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

Lucas Esquibel Chavez  Wesley J. Greenwood  Jacob D. Ortiz
Matthew D. Crawford  Kyle Blake Hammond

DOCTOR OF PHILOSOPHY IN ENGINEERING

Amir F. Ali†  Arash Kheyrraddini Mousavi

*Summer 2013 Graduates  †Graduating with Distinction
**Chemical and Nuclear Engineering**

**BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING**

Marissa R. Anderson  
Sergio Omar Garcia  
Mayat C. Smolnik  
Katharine E. Epler  
Kushal Karki

**BACHELOR OF SCIENCE IN NUCLEAR ENGINEERING**

Emilie K. Fenske  
Caitlin H. O’Grady*

**MASTER OF SCIENCE IN CHEMICAL ENGINEERING**

Kylen Shanel Johns  
Sadia Afrin Kabir  
Swetha Sammeta

**MASTER OF SCIENCE IN NUCLEAR ENGINEERING**

Natalie Louise Adolphi  
Jacob Aaron Kidder  
Erin Ivey Vaughan

**DOCTOR OF PHILOSOPHY IN ENGINEERING**

*Chemical Engineering*  
Pearlson Prashanth Austin  
Suthanthiraraj†  
In-Hwan Yang*

*Nuclear Engineering*  
Tai The Pham  
William Tsubasa Taitano

*Summer 2013 Graduates  
†Graduating with Distinction
Civil Engineering

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

Jay Alan Ashbacher  Melissa M. Mills  Shannon M. Turpin
Amanda J. Herrera  Bradley Benjamin Ramos
Alexander Scott Kochersperger  Matthew H. Satches

**BACHELOR OF SCIENCE IN CONSTRUCTION ENGINEERING**

Luke Aron Harwood  Jason Michael Maestas  Daniel M. Ruiz

**BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT**

Michael B. Howell  Wesley A. Martinez  Timothy D. Sanchez
Ezequiel Mares  Jan Nakotte
Christian G. Martinez  Antonio T. Sanchez

**MASTER OF SCIENCE IN CIVIL ENGINEERING**

Mohiuddin Ahmad†  Kacey N. Cubine  Md Tahmidur Rahman†
Sanjida Ahsan  Sherif M. Daghash†  Emile Kareem Saint-Lot
Douglas C. Austin  Gnana Prakash Guntuku
Ghazanfar Barlas  Adrienne Alexa Martinez

**MASTER OF CONSTRUCTION MANAGEMENT**

Brandice M. Ortega

**MASTER OF ENGINEERING**

Brandon Jay Herrera

**DOCTOR OF PHILOSOPHY IN ENGINEERING**

Mohammad I. Hossain†

*Summer 2013 Graduates  †Graduating with Distinction
INTERDISCIPLINARY PROGRAMS

Biomedical Engineering

MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING
Gloria Louise Statom

DOCTOR OF PHILOSOPHY IN BIOMEDICAL ENGINEERING
Kirsten Nicole Cicotte†

Nanoscience and Microsystems

MASTER OF SCIENCE IN NANOSCIENCE AND MICROSYSTEMS
Nalin I. Andersen  Emmalee M. Jones*
Cameron M. Harrison*  Mario S. Rojas Carbonell*

DOCTOR OF PHILOSOPHY IN NANOSCIENCE AND MICROSYSTEMS
Brittany A. Branch†  Stephen A. Myers*  Josephine J. Sheng*
Patricia S. Langan  John B. Plumley  Jingshu Zhu

Optical Science and Engineering

MASTER OF SCIENCE IN OPTICAL SCIENCE AND ENGINEERING
Yang Deng  David A. Murrell*
Changyi Li  Xuerong Zhang

DOCTOR OF PHILOSOPHY IN OPTICAL SCIENCE AND ENGINEERING
Xuan Luo  Ravi Raghunathan*  Huiwen Xu†
Alexander Neumann  Pranav Rathi*

*Summer 2013 Graduates  †Graduating with Distinction
Message to Graduates

FROM THE UNM ALUMNI ASSOCIATION
Congratulations, Graduates! Now that you have graduated, you are automatically a member of the UNM Alumni Association. There are no dues. Visit www.unmalumni.com for information about the Young Alumni Chapter and valuable services for alumni as well as news, events, networking, links to online communities, and more.
Message from the Dean

To the Fall 2013 University of New Mexico School of Engineering Graduates

I am delighted and honored to welcome you to the University of New Mexico School of Engineering Convocation. Today we celebrate the impressive accomplishments of our graduating students and acknowledge your dedication, commitment, and perseverance. It is a memorable day in your lives and a special day for those who helped you get ready for this graduation—family, friends, teachers, classmates, colleagues, coworkers, counselors, advisors, and more.

Your academic successes are likely to carry over into professional, personal, and social achievements. We are excited about watching your careers flourish and hope that you will always be part of our academic family.

As you graduate from our School of Engineering, remember that you are part of a distinguished tradition that started with the founding of the School in 1906 and will be continued by your own work across our beautiful state and across the world.

Our School and its graduates represent a powerful engine of economic and social development. You had the opportunity to witness first hand the creation of new ideas and technologies and to learn from leaders in the field of science and engineering. It is now your turn to creatively apply the knowledge and experience you gained during your studies for the good of society at large.

Graduates, we welcome you to the distinguished company of the School of Engineering alumni and wish you every success in your new endeavors.

Gruia-Catalin Roman
Dean, UNM School of Engineering

Guidelines for Graduates and Guests

Cooperation Requested
Family members and guests are encouraged to take photos of the ceremony and the graduates. While taking photos, please be courteous and respectful of the students leaving the stage. The audience may not enter the stage area at any time during the program.

Commencement Photographer
GradImages will take candid photographs of all graduates at their special moment of recognition. Graduates will receive a free proof of this photo via email and regular mail within 5 to 7 days following the ceremony. You may place orders or obtain answers to questions at the GradImages website for graduate photos, www.gradimages.com or by calling 1.800.261.2576

Diplomas
The Records and Registration Office will mail diplomas (unless the student has specified that it be held for pick-up) after grades have been received and recorded, which is usually in mid-February for Fall graduates. Diploma-related questions should be directed to UNM Records and Registration at 505-277-6310 or by email to degrees@unm.edu.