

THE UNIVERSITY OF NEW MEXICO SCHOOL OF ENGINEERING

# FALL CONVOCATION

Saturday, December 12, 2020

**A VIRTUAL EXPERIENCE**



# Message from the Dean

To the Fall 2020 University of New Mexico School of Engineering Graduates

Welcome to the Fall 2020 University of New Mexico School of Engineering Convocation.

I think it can safely be said that this year was not the year that we had planned for. All of us, but especially those finishing up their degrees this past calendar year, have endured unimaginable changes and challenges. We've been forced to do things differently — from attending classes or conducting research to gathering with classmates or even with family and friends. There is no doubt that the educational experience for this class has been a far different one than in years past.

But that is all the more reason to salute the Class of 2020!

As always, I am proud to lead you in celebrating the accomplishments of our graduating students, and that is especially true with the added obstacles each one of you had to endure this year. Earning an engineering or computer science degree is no small feat, and each of you did that successfully in a time that most of us are finding it challenging just to live our daily lives. That is something definitely worth celebrating!

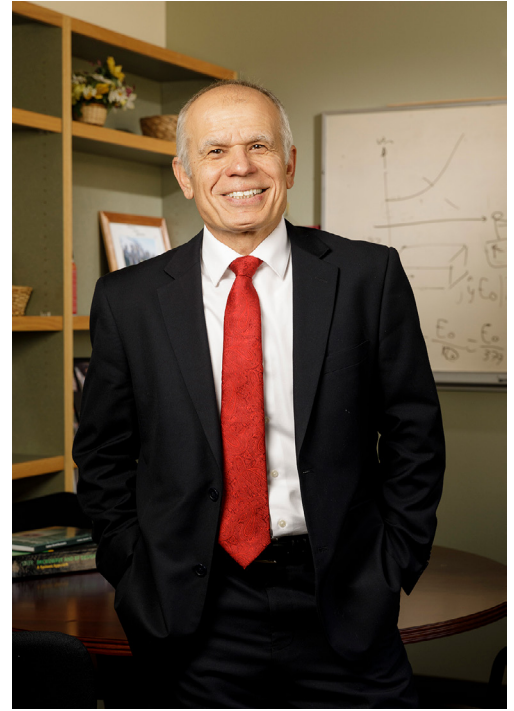
Your perseverance this year has prepared you well for a career in tackling some of our greatest global challenges. I'm proud of all of our graduating students for their hard work and dedication. In these times more than ever, we need the kind of solutions that engineers and computer scientists can offer. You truly are our greatest hope for the future!

Thank you to all of the family, friends, teachers, professors, classmates, colleagues, coworkers, and advisors who helped make this day possible. Graduates, we welcome you to the distinguished company of the School of Engineering alumni and wish you every success in your new lives.



**Christos Christodoulou**

Jim and Ellen King Dean of Engineering and Computing



# FALL CONVOCATION

UNIVERSITY OF NEW MEXICO SCHOOL OF ENGINEERING

SATURDAY, DECEMBER 12, 2020

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## BOARD OF REGENTS

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

Douglas M. Brown, President  
Kimberly Sanchez Rael, Vice President  
Sandra K. Begay, Secretary-Treasurer  
Robert M. Doughty III  
Marron Lee  
Robert L. Schwartz  
Melissa C. Henry, Student Regent

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# Convocation Program

## MASTER OF CEREMONIES

Charles B. Fleddermann, Associate Dean for Academic Affairs and Community Engagement

## KEYNOTE SPEAKER

Derek Smith, M.S., Ph.D., Computer Science

## STUDENT SPEAKERS

Kelsie Herzer, B.S., Chemical and Biological Engineering

Rodrigo Llanes, M.S., Electrical and Computer Engineering

## PRESENTATION OF DEGREE CANDIDATES

Charles B. Fleddermann, Associate Dean for Academic Affairs and Community Engagement

# School Leadership

Christos Christodoulou, Dean, School of Engineering

Edi Schamiloglu, Associate Dean for Research and Innovation

Charles B. Fleddermann, Associate Dean for Academic Affairs and Community Engagement

Abhaya Datye, Chair, Department of Chemical and Biological Engineering

Mahmoud Taha Chair, Department of Civil, Construction and Environmental Engineering

Darko Stefanovic, Chair, Department of Computer Science

Michael Devetsikiotis, Professor, Department of Electrical and Computer Engineering

Yu-Lin Shen, Chair, Department of Mechanical Engineering

Hyoung K. Lee, Chair, Department of Nuclear Engineering

# Degrees Awarded

Department of Chemical and Biological Engineering  
Department of Civil, Construction and Environmental Engineering  
Department of Computer Science  
Department of Electrical and Computer Engineering  
Department of Mechanical Engineering  
Department of Nuclear Engineering  
Biomedical Engineering  
Nanoscience and Microsystems Engineering  
Optical Science and Engineering

## STUDENT HONORS RECOGNITION

"Graduating with Distinction" (symbolized by a † by the student's name) 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.

# Keynote Speaker

## Derek Smith

M.S, Ph.D., Computer Science

U.K. native Derek Smith probably never envisioned that he would one day find a niche with computer scientists, engineers, artists and even dancers in a city surrounded by the Sandia Mountains.

Now professor of infectious disease informatics in the Department of Zoology at the University of Cambridge, he grew up not far from Liverpool, England, which is of course most famous for producing The Beatles. He earned a bachelor's degree in computer science from the University of Bradford in the U.K., then after graduation, set off for a job in the far-away place of Dallas, Texas, to take a position at Texas Instruments.



After working at Texas Instruments for a decade, he made a decision that working on circuit design was not something he wanted to continue for the rest of his career. He had been exploring other avenues, including attending a neural network conference where a UNM computer science professor Stephanie Forrest (now at Arizona State University) was in attendance. He met her, then later looked up some of her research and liked what he saw. Derek then made the life-altering decision to quit his stable job and become a grad student at UNM, working with Forrest. He would go on to earn a master's degree and Ph.D. from UNM in 1994 and 1997, respectively.

Although New Mexico was not his native area, Derek grew familiar with New Mexico while living in Dallas, often making a 12-hour drive to ski in Taos on the weekends. He didn't know much about New Mexico, except that it's "the place where the land

became beautiful."

His time at UNM was memorable, he said, because of the freedom and diversity of the department helped him learn and grow. "We were all working on unusual stuff, and our differences were appreciated and celebrated," Derek said. "I was able to bring computer science theory into immunology, basically studying how our immune memory works. It takes a broad mindset as a department to accept that kind of research."

He has made his mark in his field by studying vaccines, particularly the flu vaccine. He is director of the Center for Pathogen Evolution as well as a member of the Department of Virology at Erasmus Medical Centre in The Netherlands. He is a member of the WHO influenza vaccine strain selection committee, and is also involved in vaccine strain selection for other human and non-human pathogens for the United Nations Food and Agriculture Organization and the World Animal Health Organization.

He considers one of his most proud professional accomplishments as his groups contribution to increasing the efficacy of the flu vaccine by about 20% in this year's batch. "It is saving people's lives," he said.

He also is proud of what his students and postdocs contribute and achieve, and feels grateful to collaborate with great scientists and also be friends with them. "It's really important to me to love what I'm and doing and like the people I'm doing it with," he said.

He is the recipient of the U.S. National Institutes of Health Director's Pioneer Award and UNM's Zimmerman Award. He said that what he learned at UNM has stayed with him and is applied into his current work.

"What we do today is a direct descendent of what I worked on at UNM."

# Student Speakers

## Kelsie Herzer

B.S., Chemical and Biological Engineering

Although her father is a computer scientist at Sandia National Laboratories, Kelsie Herzer is going a different route with her interest in technical subjects: she's focusing on how to make the world a more safe and sustainable place.



The Albuquerque native has become involved in nuclear remediation as well as sustainability studies, meeting a lot of students and forming a group called the Global Development Collective. However, her interests are diverse, having also working in the lab of Matthew Lakin in computer science and conducting research on gene editing.

Her favorite memories of her time at UNM was of working in groups, both in leisure and in academics. She was a member of the National Society of Black Engineers and loves the group of students from various disciplines she met in her sustainability studies classes.

"I really relied on group work to study and formulate a lot of my ideas," she said. "I especially enjoyed the senior design projects."

Last year, one of those projects that got accepted into the prestigious National Renewable Energy Laboratory Marine Energy Competition. The UNM student group was one of only about a dozen teams around the world to get accepted and would have included \$15,000 in funding for supplies and travel to the competition to present their project on. However, due to the pandemic, the competition was canceled.

"I have a million hobbies," she said, which including roller skating, baking and gardening (she'd like to grow mushrooms).

Her advice for students is to not go it alone. "Reach out more. Ask for the numbers of classmates, ask if they want to get together to study. Develop friendships early on. I wish I would have done that earlier."

Kelsie's future plans include earning a Ph.D. (she's looking at UNM as well as some other schools) and eventually pursuing a career in academia, hopefully in her native New Mexico, with a focus on micro-remediation and sustainability.

# Rodrigo Llanes

M.S., Electrical and Computer Engineering

It was in high school at Early College Academy that Albuquerque native Rodrigo Llanes first became interested in engineering. After taking some engineering courses there, he “fell in love with robotics.”



However, that love diminished when he finally did become an engineering student at UNM (earning his bachelor’s degree in electrical and computer engineering in 2018). “In college, I hated it [robotics].”

But clearly, he still maintained a love for engineering. “I’ve always liked building stuff and using math to do cool things.” That passion for electrical engineering was fostered by Professor Jane Lehr, whom Rodrigo met early on as an undergrad. Working with her, he became interested in applied electromagnetics and eventually earning a master’s degree in the area.

Rodrigo said that although the last year of school was challenging due to the pandemic (“It was frustrating, because I was supposed to graduate in May, then it got delayed over the summer”), he has fond memories of his years at UNM, especially his time with classmates in the lab.

In his spare time, he enjoys photography and mentoring at his church.

His advice to students is to stay connected. “Even though things will be challenging, it will be worth it. Find friends to go through it with. If you isolate yourself, you’re not going to make it.”

He worked at Sandia National Laboratories since his junior year, and that experience has translated into a full-time position in RF.



# Chemical and Biological Engineering

## BACHELOR OF SCIENCE

Mutasim S. Al Rashdi\*

Anil Basnet

Dylan Z. Mitchell

Saad M. Alsaadi

Kelsie R. Herzer

Milan Rede\*

Dale Antonio

Christon J. Manuelito

Aspen K. Shafer\*

## MASTER OF SCIENCE IN ENGINEERING

Zane E Armijo\*

Jacob D. Flack

Geoffrey R. Courtin

Rebecca P. Schmitt†



Geoff Courtin (center) supervises the CBE 418 lab in fall 2020. Here, students Colman Sandler (right) and Alycia Galindo were part of the class that had the assignment to design and carry out a distillation experiment to produce hand sanitizer. At the end of the experiment, students had to submit a proposal to a philanthropic organization or foundation to request funding to support the production of hand sanitizer and produce a pitch video.

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\*Summer 2020 Graduate

†Graduating with Distinction

# Civil, Construction and Environmental Engineering

## BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Celina C. Adame	Gabrielle Lucero	Steve N. Sharifi
John Adams	McKinley C. Millsaps	Luke A. Soens
Saud A. Alajmi*	Travis J. Moe	Lynette Torrez
John P. Coose	Dante G. Padilla	Abinash Upreti
Victoria Coronado	Kevin J. Parish	Tamara L. Walker
Natalie M. Gayoso	Jenae H. Robertson	Odey H. Yousef

## BACHELOR OF SCIENCE IN CONSTRUCTION MANAGEMENT

Alexandra L. Brown	Jacob Turcotte	Bethany M. Wells
George U. Palomino	Edgar O. Vargas-Hinojos	
Josiah J. Tipton	Jared D. Vigil	

## MASTER OF ENGINEERING

Jason L. Aldaz	Charlotte W. Harrell	Joaquin A. Martinez
Adam R. Baros	Christopher L. King	Eric S. Williams

## MASTER OF SCIENCE IN CIVIL ENGINEERING

Marlon Frank Aguero Injante	Jose P. Hernandez	Aljaz Praznik*
Lauren M. Gomez	Claudia Jimenez Arellano	Eric Robbins
Risa E. Gutierrez	Aashish Sanjay Khandelwal	Cassy Scarlott-McClintock*
Tyler L. Hagengruber	Justin R. Nichols*	

## MASTER OF CONSTRUCTION MANAGEMENT

Everett Bighumb	Kristen C. James	Frank J. Tanzillo
Rajeeb Hazra*	Christopher C. Mann*	

## DOCTOR OF PHILOSOPHY IN ENGINEERING

Mohiuddin Ahmad*	Cherie L. Devore	Carmen Adela Velasco Rivera
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\*Summer 2020 Graduate

†Graduating with Distinction

# Computer Science

## BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Florentino Barrientos

Jarett C. Jones

Farhang Rouhi\*

Zakery T. Clarke

Kenneth J. Lucero

Christopher A. Salinas

Tyson G. Craner

Daniel W. Miller\*

Nathan Schaefer

Zachary L. Fleharty

Venkat K. Muthyapu

Sandesh Timilsina

Isaac D. Heflin

Alexander S. Pagan

Elijah C. Johnson

Arlin F. Pedregon Quezada

## MASTER OF SCIENCE IN COMPUTER SCIENCE

Ryan C. Adams

Shashikant S. Jagadhane\*

Hui Sun

Thomas E. Adams

Trevor La Pay\*

Vanessa Surjadidjaja

Lalita Aditya Vishnu Sai Anche\*

Ashley N. Mayle

Sharat Chandra Reddy Tangella\*

Ian A. Baldwin

Tony H. Nguyen

Sahba H. Tashakkori

Nitin Bhandari

Sairamya Madhavi Devi Praturi

William F. Vining

Dipendra Humagain

Kellin Rumsey\*

Wenjun Yang

Soheila Jafari Khouzani

Harshita Sahani

Rohit Yerramsetty\*

## DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

Diksha Gupta

William W. Schonbein



Darko Stefanovic, chair of the Department of Computer Science, stands with the inaugural Van Dyke Software scholarship recipients Preston Hamilton, Brandon Stringham and Alan Shen in March 2020.

\*Summer 2020 Graduate

†Graduating with Distinction

# Electrical and Computer Engineering

## BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Samipya Bhattarai	Charles W. Helmich	Marshall G. Hundemer
Hani Nikith Devarapalli*	Delbert Toshio Herrera	Jaesic C. Olguin
Amber E. Disher	Brandon R. Hill	Edwin Rodriguez

## BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

Fehan A. Almutairat	Jonathan Z. Daniels	Siraj H. Sagga*
Rena L. Berdine	David Kirby	Landon A. Schmucker
Judith A. Brewer	Zonglin Li*	Caleb G. Shinault
Rajani Budha	Kuo Liao	Jessica M. Smyth*
Ryan T. Colvin	Joshua A. McKenney	

## MASTER OF SCIENCE IN COMPUTER ENGINEERING

Panagiotis Anagnostopoulos	Alexis Stalin Alulema Flores	Akash A. Patel*
Adhitya B. Bhandarkar	Georgios Fragkos <sup>†</sup>	Nathan R. Patrizi <sup>†</sup>
Chaitanya Boggavarapu*	Sean S. Lebien <sup>†</sup>	Kelly J. Rael
Chongyu Chen	Naga Sai Prithvi Raj Mamidala	Alexis M. Rubin
David I. Crowley	Kashif H. Nadeem*	Yijie Yu
Ryan L. Fleming	Rachel M. Palmer	

## MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

Raul E. Gutierrez	Benjamin F. Matins	Benjamin J. Reimer**
Dingming Hu	Yuliya A. Matlashova	Daniel Ruiz Garcia
Rahul Jaiswal*	Andrew T. Miano	David E. Sanabria Diaz** <sup>†</sup>
Rodrigo E. Llanes <sup>†</sup>	Sajay K. Paruthiyil	Oscar Urias
Talal Ahmed Malik*	Troy C. Powell*	Ashley D. White*
Braulio Martinez-Hernandez	Neelofar Qasmi	

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\*Summer 2020 Graduate

<sup>†</sup>Graduating with Distinction



# Electrical and Computer Engineering

DOCTOR OF PHILOSOPHY IN ENGINEERING

## COMPUTER ENGINEERING

Gangadharan Esakki\*

Derek S. Heeger†

## ELECTRICAL ENGINEERING

Mohamed Attia Abdelrahman Aref†

Andrea C. Schmidt†

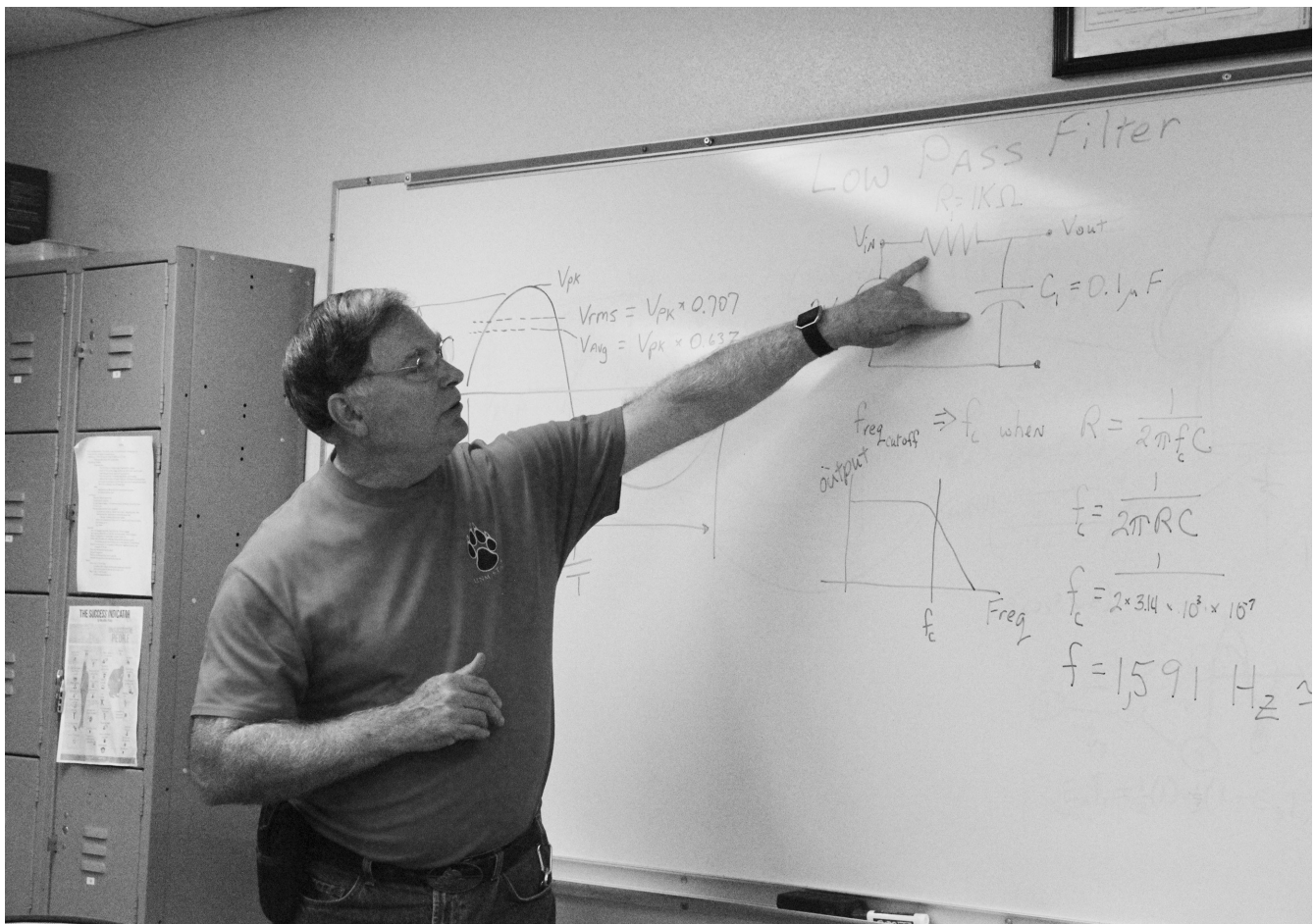
Shu Wang\*

Manish Bhattarai†

Nishay H. Sule

Eric E. Hamke

Luis A. Valbuena Reyes



David Modisette teaches students at Open House the fundamentals of electrical engineering.

\*Summer 2020 Graduate

†Graduating with Distinction

# Mechanical Engineering

## BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Abed M. Bataineh	Anish Gautam	Jens H. Pursche
Duy N. Bui	Toby A. Gomez	Jennifer Restrepo
Mateus V. Cabanlong	Joaquin R. Herrera	Daniel T. Seligman
Daniel Casas	Matthew W. Holly	William C. Stanopiewicz
Will M. Davidson	Lucais T. Martin	Bryan Steiner
Neel S. Debgupta	Savanah R. Medina	Joseph A. Tira
Ishwor Dhungana	Aaron N. Otto	Gabriel L. Trejo
Alexandra Fosness	Abhaya Paudel	Jacob M. Valdez
Karl B. Foster	Elijah J. Penny	
Orlando Andres Garayburu Caruso*	Ryan A. Pope	

## MASTER OF SCIENCE IN MECHANICAL ENGINEERING

Ryan D. Beauchemin	Chase Kayser	Timothy L. Santos
Spencer Bickett	Marshall Klee	Nathan R. Schroeder
Christopher A. Buksa*	Joshua L. Nowlin	Sonya Y. Schultz
Breanna M. Cunningham	Casey R. Ottesen*	Allie M. Snyder
Daniel Freelong	Matt N. Robinson	Erika N. Yegerlehner
Andrew J. Haug	Carter S. Sanford*	

## DOCTOR OF PHILOSOPHY IN MECHANICAL ENGINEERING

Kevin W. Irick	Anthony R. Menicucci*
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\*Summer 2020 Graduate

†Graduating with Distinction

# Nuclear Engineering

## BACHELOR OF SCIENCE IN NUCLEAR ENGINEERING

Lauren M. Crabtree\*

Flora L. Valdez-Lopez

## MASTER OF SCIENCE IN NUCLEAR ENGINEERING

James W. Evans\*

Andrew S. Hahn

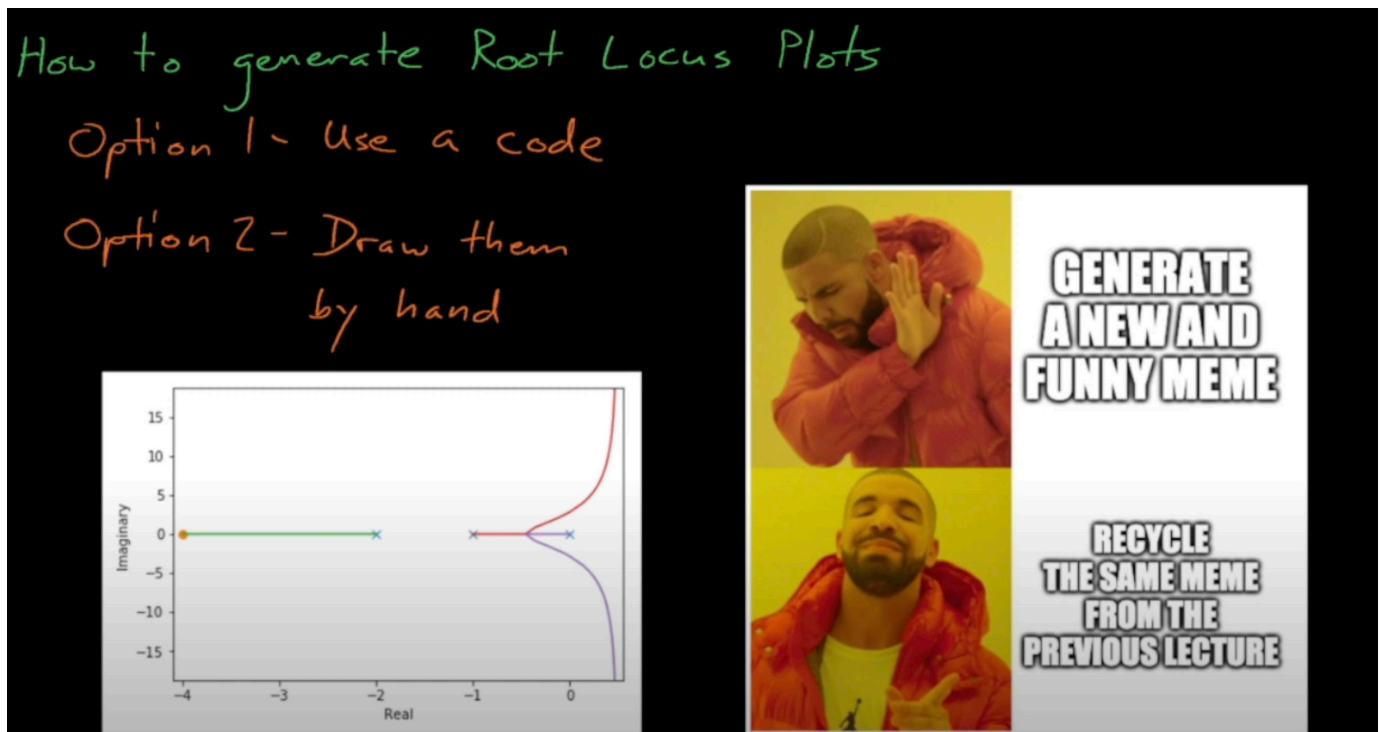
Aaron A. Overacker

Shuprio Ghosh

Joseph King

## DOCTOR OF PHILOSOPHY IN NUCLEAR ENGINEERING

Daniel T. Wakeford



The COVID-19 pandemic has forced faculty to get creative in how they present their course information virtually to students. One professor, Chris Perfetti in nuclear engineering, has made all of his NE560: Nuclear Reactor Kinetics and Dynamics lectures available to public on YouTube. To view his lectures, search for his channel, Chris Perfetti, on YouTube.

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\*Summer 2020 Graduate

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# **INTERDISCIPLINARY PROGRAMS**

## **Biomedical Engineering**

### **MASTER OF SCIENCE IN BIOMEDICAL ENGINEERING**

Leyla E. Akhadov\*

Daniella Martinez

Celine N. West

Jason T. Belvin

Dominic J. Medina\*

Qing Sun\*

Praneeth R. Gudoor\*

Irais Ortiz-Caraveo

Kara L. Komula

Christian A. Pattyn

### **DOCTOR OF PHILOSOPHY IN BIOMEDICAL ENGINEERING**

Rohan P. Choraghe

Florencia A Monge\*\*†

Carmen M. Villalobos

## **Nanoscience and Microsystems Engineering**

### **MASTER OF SCIENCE**

Ramon Asiain Martin\*

Robert E. Malakhov

Yang Yang

Fahimeh Maghsoodi\*

Neal Wostbrock

### **DOCTOR OF PHILOSOPHY**

Godwin Amo-Kwao

Lungyao Meng\*\*†

Paul J. Gieri

Andre' J. Spears

## **Optical Science and Engineering**

### **DOCTOR OF PHILOSOPHY**

Hanieh Afkhamiardakan\*

Ke Huang\*

Behshad Roshanzadeh\*

Ning Hsu

Junwei Meng\*

Esmail Mobini Souchelmaei\*\*†

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\*Summer 2020 Graduate

†Graduating with Distinction



# Thank you to our corporate partners

Here are some of the business and organizations that support the School of Engineering and our students:



Sandia National Laboratories



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# **Congratulations and Welcome!**

Congratulations, graduates! Now that you have graduated, you are automatically a member of the UNM Alumni Association. There are no dues. Visit the UNM Alumni Association website for information and a complete listing of benefits at <http://www.unmalumni.com>.

We also welcome you to the School of Engineering alumni family. The UNM School of Engineering strives to keep you connected to the School in the most convenient way possible. As you move forward, please keep us informed regarding address changes, career moves, and significant events in your life. If you are interested in collaborating on an activity to engage fellow alums, let us know. Please contact us at [engineeringalumni@unm.edu](mailto:engineeringalumni@unm.edu).



# Information for graduates



**FALL 2020**  
**CONVOCATION**  
A CELEBRATION OF YOUR ACCOMPLISHMENTS

**SATURDAY, DECEMBER 12**  
LIVESTREAMED ON FACEBOOK AND YOUTUBE

**10 a.m.**  
UNDERGRADUATE CEREMONY

**2 p.m.**  
GRADUATE CEREMONY

  **YouTube**  
**@UNMEngineering**

EVENT PROGRAM AND MORE INFORMATION  
[goto.unm.edu/fall2020convocation](https://goto.unm.edu/fall2020convocation)



**#UNMGrad**  
Keep up with  
all of UNM's  
graduation  
activities

**UNM** SCHOOL OF  
ENGINEERING

## More information online

For complete information about our 2020 Fall Convocation, please visit [goto.unm.edu/fall2020convocation](https://goto.unm.edu/fall2020convocation)

Follow us on Facebook and YouTube to view the fall 2020 undergraduate and graduate ceremonies.

## Diplomas

The Office of the University Registrar will mail diplomas (unless the student has specified that it be held for pickup) after grades have been received and recorded, which is usually in mid-February for fall graduates. Diploma-related questions should be directed to the UNM Office of the Registrar at 505-277-8900 or by email to [degrees@unm.edu](mailto:degrees@unm.edu).

