The Celebration Continues!

Fall Events:

Rutherford Aris Seminar Series on the topic of Aesthetics
Amundson Hall, Room B75
Sept. 12  Elaine Auyoungh, Dept. of English, University of Minnesota
Sept. 19  Felice Frankel, Dept. of Chemical Engineering, MIT
Oct.  1   Edwin Chan, EC3
Oct.  8   Barry Lam, Dept. of Philosophy, Vassar College
Oct. 15  Sabine Hossenfelder, Dept. of Physics, Frankfurt Institute for Advanced Studies
Oct. 29  Rudresh K. Mahanthappa, Dept. of Music, Princeton University
Nov.  5  Kathryn Pearson, Dept. of Political Science, University of Minnesota
Nov. 19  Melissa Moreton, Hill Museum & Manuscript Library

Sept. 28  CEMS Day of Service: Community Tree Planting in Champlin, MN
FREE, Registration Required: z.umn.edu/cecsservice

Oct.  5   CEMS Homecoming: Minnesota vs. Illinois
Register by Sept. 19: z.umn.edu/cecmshomecoming19

Nov.  5   CEMS Connects Alumni at Ecolab
FREE, Registration Required: z.umn.edu/ecolab19

Nov. 21  CSE Curiosity Drives Progress Lecture Series, Dr. Lynn Orr
FREE, Registration Required: cse.umn.edu/publiclecture
MESSAGE FROM THE HEAD

The celebration continues!

Join us for CEMS Centennial & Jubilee events throughout AY 2019-2020 and be counted among our steadfast supporters for the Next 100!

Happy Birthday, CEMS! This special issue of the newsletter commemorates the department’s Centennial and Jubilee Celebration earlier this summer and announces a full year of programming during academic year 2019-2020. Hundreds of CEMS alumni from 23 states and four foreign countries traveled to campus for our kick-off celebration and alumni reunion in June. It was a very successful weekend, with hundreds of alumni, friends, faculty, staff, corporate partners, administrators and their families participating, providing many opportunities to reconnect with each other and form new bonds. If you have not already done so, I encourage you to view videos and photographs from the weekend: z.umn.edu/next100.

In particular, you may like to see our featured speakers who participated in the alumni symposium and spoke about a broad spectrum of emerging trends in chemical and materials engineering.

During the Celebration Dinner on June 22, I announced a $30 million Centennial Fundraising Campaign, a monumental undertaking to secure our position and international reputation for excellence. Thanks to generous investments from alumni and friends like you, in the last five years we have already raised $20 million to provide scholarships to undergraduates, fellowships to graduate students, and professorships and chairs to faculty who are committed to our core principles of excellence in teaching, research, and innovation. Together, we strengthen CEMS as an institution, and together, we will ensure that the past century of ambition and quality is the template for success and leadership of the 21st century. I hope that you will consider joining us in our campaign and help us reach our goal by 2021.

For the remainder of our celebratory 2019-2020 year, please continue to engage with us whenever, and wherever, you are able to do so. As befits a year marking both the 100th (for chemical engineering) and 50th (for materials science) anniversaries, we have an exciting slate of events planned.

Visit https://next100.cems.umn.edu/ for more information on these upcoming events in fall semester:

- CEMS Day of Service – September 28
- CEMS Homecoming – October 5
- CEMS Connects Alumni gathering at Ecolab – November 5
- Transforming Energy Systems to Solve Climate Challenges – CSE Public Lecture by Dr. Lynn Orr (PhD ChE ’76) – November 21
Additionally, I encourage you to watch for the official CEMS history, due out by the end of 2019, which is being written by our very own Professor and President Emeritus Ken Keller.

I look forward to seeing you during this historic year. Thank you once again for your support.

Sincerely,

C. Daniel Frisbie
Head, Department of Chemical Engineering and Materials Science
Thank you for celebrating 100 years of chemical engineering and 50 years of materials science!

Thank you for making the CEMS Centennial & Jubilee Celebration and Alumni Reunion a tremendous success! We are truly grateful for your participation, whether you traveled near or far, to celebrate these department milestones. Thank you for making June 21 and 22 a very memorable occasion in CEMS history! Please enjoy this brief glimpse into the Centennial & Jubilee weekend festivities. Additional photos and videos are available on this website:

z.umn.edu/next100

CEMS Alumni Symposium

CEMS Celebration at Surly Brewing Co.
Amundson Hall Breakfast & Tours

Alumni Social Events

Centennial & Jubilee Celebration Dinner
CEMS legacy, excellence inspires recent alumnus

Micah Howard (MSE ’19) anticipates a bright future ahead, made possible through a strong CEMS foundation.

When I chose to attend the University of Minnesota as a soon-to-be high school graduate in small-town South Dakota, the academic strength of the Department of Chemical Engineering and Materials Science was a significant factor in my decision. It was only through my experiences as a materials science undergraduate, however, that I began to understand not only the extent of the department’s legacy of excellence, but also, perhaps more importantly, the principles that have formed and upheld this great strength for more than a full century to-date.

As was relayed to me multiple times by Regents Professor Frank Bates, both a lecturer and a mentor to me, the responsibility of a professor is to produce both new knowledge and new scientists, with the latter role taking no less precedence than the former. I believe this attitude of responsibility towards education, displayed consistently from all faculty across my CEMS curriculum, was instrumental in the success of my undergraduate education at the University of Minnesota. A constant willingness from professors to answer questions, coupled with the thorough dissection of lecture materials from a modern, practical perspective, enabled me to graduate this past spring with a confident and excited outlook for my future in science and engineering.

About five weeks after my graduation, I had the additional privilege of taking part in the department’s centennial and jubilee anniversary celebration. On top of being a great time, the events of the celebratory weekend provided me with incredibly tangible examples of how CEMS alumni are changing the world today, and how the efforts of the department’s leaders, from its outset leading up to the present day, have enabled these continuous advances. Alongside the presentation of enterprising advances in materials, energy, and healthcare, the CEMS alumni symposium gave me a chance to better understand the department’s roots - its respect for tradition but ambitious view for the future; its competitiveness backed in congeniality; and above all else, its amazing alumni who have dedicated their time to the department as faculty and as students.

As I look forward to beginning at UC Santa Barbara’s graduate program in Materials this fall, I could not be prouder of the department from which I have graduated, and I feel incredibly grateful for and humbled by the alumni scholarship support that has helped make the pursuit of my academic goals possible. I want to offer
a special thank-you to Dr. and Mrs. Chen, who supported my junior year of study under the Tu and Pi-Fang Chen Scholarship. This gift was a weight off my shoulders when I learned of it in Spring 2017, and it planted a seed that grew to my decision to pursue a graduate education. The incredible generosity displayed to me through CEMS scholarships is not something I will forget, and as the milestone of undergraduate graduation grew close this spring, and the exceptional opportunities my CEMS education has provided me grew more and more evident, I was inspired to contribute a small portion of the funds I had been given back to the department, and to encourage my classmates to participate as well. To be supported and believed in by such a class of scholars and innovators as are CEMS alumni has been a great blessing, and now finally, as a Class of 2019 CEMS alumnus, I am excited to move forward into these footsteps, hoping to leverage the education I have received towards new knowledge and new innovation.

CEMS GIVE TO THE NEXT DAY

Tuesday, October 1

Double the impact of your gift by taking part in CEMS Give to the Next Day! Join us as we aim to raise $5,000 in a dedicated one-day giving challenge to support the next generation of chemical engineers and materials scientists. On October 1, all gifts up to $5,000 will be matched 1:1. If successful, ten new undergraduate scholarships will be awarded. Help us meet the ever-growing need for student support!

z.umn.edu/givetothenext
Across the U.S. and around the world, the chief product of CEMS, its people, carry out the department's mission and legacy. Now, in its historic Centennial and Jubilee year, CEMS is proud to announce the Campaign for the Next 100, a transformational fundraising effort to ensure the continued strength of the department’s reputation and prominent position as a leader in chemical engineering and materials science.

As we look to the next century of imagination and innovation, CEMS invites its alumni, friends, and industrial supporters to join us on our most ambitious fundraising effort to date – the CEMS Next 100 Campaign, aiming to raise $30 million by June 30, 2021.

Thanks to the broad participation of CEMS supporters at all levels of generosity, since July 1, 2014 we have already secured $20 million in support of scholarships, fellowships, and faculty professorships and chairs. Thanks to your continued partnership, we will be successful in reaching the $30 million goal. With two years left in this historic effort, now is the time for all CEMS alumni to stand up and be counted as part of the Next 100.

Every gift, of every amount, in support of any purpose, will count toward the success of our campaign. Today, we invite you to contribute to our shared vision of a world made better by science and engineering. Through your support, you will ensure that students of today and tomorrow will be able to lead, innovate, and create as you and those who came before you did.

Want to leave your mark on the CEMS Next 100? Visit z.umn.edu/cemsgift to learn more and make your gift.

NEXT 100 CAMPAIGN PROGRESS
Since July 1, 2014, CEMS has secured $20,028,829 in philanthropic support from more than 4,000 gifts from alumni, friends, and corporate sponsors.
Double your gift with employer matching

Dramatically increase the impact your gift makes for CEMS with the corporate match program.

CEMS alumni who work at one of the 1,000-plus U.S. companies that have matching-gift programs can amplify their support of students and faculty. These companies recognize the importance of private support for higher education, and will match their employees’ gifts, often 1:1 and sometimes more. The entire gift - your contribution and your employer’s match - is credited to you and counts toward the CEMS Next 100 Campaign.

Companies including 3M, Boston Scientific, Cargill, Ecolab, ExxonMobil, Medtronic, Seagate, and hundreds of other organizations will double or even triple the original donation amount. Certain employers will also match gifts from retirees, spouses, and partners. Gifts of any amount, further magnified by your employer’s match, will make a meaningful investment in the future of CEMS, now and for the Next 100!

To learn how you can play a part in ensuring the next century of excellence in CEMS, please contact Courtney Billing, Director of CEMS External Relations, at cbilling@umn.edu or 612.626.9501.

To see if your gift is eligible for an employer match, please visit: https://give.umn.edu/waystogive/matching-gifts

Support CEMS through a donor-advised fund

Giving to CEMS from your donor-advised fund is simple. A donor-advised fund is an account owned and administered by a public charity (called “the sponsoring organization”) to which a donor makes charitable contributions. The donor or designated representatives can then recommend grants from the fund to other public charities. You can recommend a grant from your fund to the University of Minnesota Foundation (UMF) by providing the following information to the sponsoring organization:

- Legal name: University of Minnesota Foundation
- UMF federal tax ID: 41-6042488
- Mailing address: 200 Oak Street SE, Suite 500, Minneapolis, MN 55455
- Name of the CEMS fund where the grant should be directed (e.g., CEMS Fund for Excellence)

Each sponsoring donor-advised fund organization will have the appropriate forms to recommend these grants, which you can find online or by contacting the organization directly. Your sponsoring organization will distribute the grant directly to CEMS.

If you have questions about how to support CEMS using your donor-advised fund, please email cbilling@umn.edu.
Spanning generations

CEMS alumni share memories and establish new connections after returning to campus.

Three Generation Tour

After attending the CEMS Celebration Dinner on June 22 as part of Andersen Corporation’s “Gold” Centennial Partner table, Kris (Gordon) Klotzbach (ChE ’91) was eager to return to campus with her father, Stanley Gordon (ChE ’61), and daughter, Emma, who is considering following in her family’s footsteps to pursue a chemical engineering degree at the University of Minnesota. The three generations toured the department with Dan Frisbie, CEMS Department Head, which hopefully swayed Emma’s decision to continue the family tradition!

Centennial & Jubilee attendees share memories

What is the most valuable lesson you learned while in CEMS?

Jim Garmaker (ChE ’73)
“I learned the importance of persistence as the classes were difficult and demanding, much like some of the engineering projects I have completed in my career.”

Gary Hauck (ChE ’65)
“To have confidence in my ability to bring disparate pieces of knowledge together to solve difficult, unique problems.”

Kevin James (ChE ’94, MBA ’02)
“Hard work, perseverance, and diligence always pays off.”

Ameara Mansour (Ph.D. ChE ’94)
“Trust your instincts. Anytime I didn’t do what my instincts were telling me, I would get frustrated when it wouldn’t turn out. When I followed my instincts, I learned a lot even when I wasn’t correct.”

Raj Melkote (Ph.D. ChE ’90)
“To not be intimidated when faced with ambiguity or a challenging situation.”

Joe Sullivan (Ph.D. ChE ’66)
“Keep moving ahead, even when you don’t know exactly where it will lead.”

Irene Tsang (ChE ’76, MBA ’90)
“Excellent education and the interactions with professors.”

More alumni memories will be shared in the Winter 2019 newsletter. Share your memories with us! Send an email to cemsalum@umn.edu
In Memoriam

Professor Emeritus Jack Sivertsen and Arvind Varma (Ph.D. ChE ’72) passed away recently.

John “Jack” Sivertsen

Professor Emeritus John “Jack” Sivertsen, age 94 of Champaign, Illinois, passed away on July 31, 2019. He received his BS in physics from Northwestern University in 1950, followed by a MS in physics in 1952 and Ph.D. in metallurgy in 1957, both from the University of Illinois. He served on the CEMS faculty for 41 years (1957-1998).

His research focused on the relationship between the structure (or microstructure) and the various physical and mechanical properties of magnetic and insulating thin film solids, especially materials for high-density, mass-memory information storage in computers. He published more than 124 professional publications.

He also established the Marvin S. and Norma V. Sivertsen Fellowship in CEMS in honor of his parents. In lieu of flowers, please direct memorial gifts to the Sivertsen Fellowship. Please consider making a gift in Jack Sivertsen’s honor: z.umn.edu/sivertsen or contact Courtney Billing (612.626.9501 or cbilling@umn.edu).

Arvind Varma

Arvind Varma, the R. Games Slayter Distinguished Professor of Chemical Engineering at Purdue University and 10th Head of the School, passed away on July 14, 2019. Dr. Varma will be remembered as a ground-breaking chemical engineering researcher who had significant impacts in the areas of hydrogen and other energy sources, chemical and catalytic reaction engineering, and in the synthesis of advanced materials. He will also be fondly remembered as an innovative leader in the field of chemical engineering.

Born in India, Dr. Varma earned his BS from Panjab University in 1966, his MS in 1968 from the University of New Brunswick, and his Ph.D. from the University of Minnesota in 1972. He began his faculty career as an assistant professor at Minnesota for one year, before joining the faculty at Notre Dame in 1975. He progressed to full professor in 1980, and served as Chair of the Department of Chemical Engineering at Notre Dame for seven years.

In January 2004, Dr. Varma joined Purdue as Head and R. Games Slayter Distinguished Professor of Chemical Engineering. During his tenure as Head until July 2016, Dr. Varma led the School in a period of significant growth in key areas and reached significant milestones.

He authored over 300 research publications, three books, and edited two books. He was the founding Series Editor of the Cambridge Series in Chemical Engineering.

Dr. Varma is survived by his wife, Karen, and daughters, Anita and Sophia.

Share your remembrances of Jack Sivertsen and Arvind Varma for inclusion in the Winter 2019 newsletter by emailing: cemsalum@umn.edu
JOIN US!

HOMECOMING

MINNESOTA vs. ILLINOIS
Saturday, October 5, 2019

Join us for CEMS Homecoming & take the “Next 100” Challenge, a series of eight, fun, interactive activities to commemorate the CEMS Centennial & Jubilee!

COST:
• $55

INCLUDES:
• Chairback Game Ticket in CEMS Section
• CEMS Homecoming T-Shirt
• Lunch at Amundson Hall

* If you already have tickets to the game, you may register for the CEMS lunch, which includes a CEMS Homecoming t-shirt ($25 per person)

z.umn.edu/cemshomecoming19
612.624.0836 cemsdept@umn.edu