

General Faculty Meeting Minutes

May 3, 2022

125 Butler-Carlton Hall and Zoom, 4:00 p.m.

I. Call-to-Order

Chancellor Mohammad Dehghani called the meeting of the General Faculty to order at 4:02 p.m.

II. Memorial Resolutions

Chancellor Dehghani recognized Professor Ashok Midha to present a memorial resolution in honor of Don Cronin. It was moved and approved that the memorial resolution be incorporated in the minutes of the faculty meeting with copies sent to family members. (See Attachment A).

Chancellor Dehghani recognized Professor Ashok Midha for the presentation of a memorial resolution in honor of Bruce Selberg. It was moved and approved that the memorial resolution be incorporated in the minutes of the faculty meeting with copies sent to family members. (See Attachment B).

III. Approval of Minutes

Chancellor Dehghani called for approval of the minutes of the December 7, 2021, meeting. The minutes were approved as circulated.

IV. Unfinished Business – None

V. Reports of Standing and Special Committees

a. Elections for Public Occasions Committee were voted and approved.

- Steven Corns
- Xiaoming He
- Douglas Ludlow
- Sahra Sedigh Sarvestani
- Jeffrey Thomas

Election for Student Awards and Financial Aid Committee were voted and approved.

- Niranjana Krishnan
- Kathleen Sheppard

b. Proposed Bylaw Changes red-line versions were distributed to faculty on Tuesday, April 26. The current bylaws require a vote by paper ballot. That ballot will be mailed to all T/TT/NTT faculty this week with a return requested by Friday, May 20, 2022. These bylaw changes do not include the authority and responsibility of the Graduate Council but do have language to re-introduce the Deans and Colleges.

VI. New Business

A. Approval of Candidates for Degrees

Motion was made that the names on the previously circulated list of candidates for degrees on May 7/13/14, 2022, commencements be approved, subject to successful completion of any remaining degree requirements. Graduate Faculty also approved the addition of a late MBA candidate. The motion was approved.

B. Kamal Khayat recognized the Faculty Patent Awards winners.

Mahmound Almasri
Edward Kinzel (No longer with S&T)
Rui Bo
Jie Huang
Jingyang Pu

Baojun Bai
Thomas Schuman
Ali A. Rownaghi
Xin Li
Fateme Rezaei
Yifu Long
Zhe Sun

Kamal Khayat recognized the Foreign Patent winners

Ronald O'Malley
Simon Lekakh
Von Richards
Cheol Woon Kim (Mo-Sci)
Richard Brow

C. Colin Potts recognized the Faculty Awards winners.

Receiving the Achievement Award

Ryan Hutcheson, Mechanical and Aerospace Engineering
Jossalyn Larson, English and Technical Communications
Christi Luks, Doshi Department of Chemical and Biochemical Engineering
Eric Showalter, Civil, Architectural and Environmental Engineering
Agnes Vojta, Physics
Kyle Wernke, Arts, Languages and Philosophy

Receiving the Research Award

Islam El-Adaway, Civil, Architectural and Environmental Engineering
Chulsoon Hwang, Electrical and Computer Engineering
Catherine Johnson, Mining and Explosives Engineering
Aditya Kumar, Materials Science and Engineering
Xinhua Liang, Doshi Department of Chemical and Biochemical Engineering
Julia Medvedeva, Physics
Fateme Razaee, Doshi Department of Chemical and Biochemical Engineering
Chenglin Wu, Civil, Architectural and Environmental Engineering

Receiving the Service Award

Akim Adekpedjou, Mathematics and Statistics
Petra DeWitt, History and Political Science
Kyle Perry, Mining and Explosives Engineering
Kathleen Sheppard, History and Political Science

Receiving the Teaching Award

Katherine Grote, Geosciences, Geological and Petroleum Engineering
Irina Ivliyeva, Russian
Michelle Schwartze, Teacher Education and Certification
David Westenberg, Biological Sciences

Receiving the Excellence Award

Baojun Bai, Geosciences, Geological and Petroleum Engineering
Daryl Beetner, Electrical and Computer Engineering
Eric Bryan, English and Technical Communication
Steven Corns, Engineering Management and Systems Engineering
Grace Yan, Civil, Architectural and Environmental Engineering

D. Chancellor's Report

Chancellor began his report congratulating all the faculty award winners and thank you for all you do for Missouri S&T and our students.

Commencement will be held May 7, May 13, and May 14. We are finally returning to normal, pre-covid ceremony with no restrictions of masks, or guest limits. Dr. Casey Burton will be the commencement speaker for Saturday, May 7 at our PhD ceremony. U.S. Senator Roy Blunt will speak at both the Friday May 13 and Saturday

morning May 14 commencements and finally Ellis Short will give the commencement speech for Saturday afternoon May 14 ceremony.

April was a busy month as we hosted meetings with the Board of Trustees, Miner Alumni Association Board, S&T Academies and the Board of Curators where we also broke ground for the new Innovation Lab building. This week we will host the Kummer Institute Foundation Board.

Chancellor Dehghani discussed the construction timeline for all the many projects happening on or around campus. These included:

- March 2022: Tim Bradley Way Construction begins
- May 2022: Innovation Lab construction begins
- June 2022: Campus Support Facility demolition
- July 2022: Power Plant and Substation demolition
- July 2022: Garage construction begins
- September 2022: Well field construction and geothermal utility connection
- October 2022: Construction begins on Grand Stair for garage
- March 2023: Work begins on Arrival Court area
- April 2023: Phase 2 of well fields work begins
- May 2023: Welcome Center construction begins
- July 2024: Landscaping for Welcome Center begins, Phase 3 of well fields work begins

Several slides were included to have a visual of the changes that will happen to campus with the various construction projects. See Attachment C.

At this time Chancellor Dehghani mentioned that the campaign has not started for the Welcome Center but will be working on that soon.

Missouri S&T has partnered with the City of Rolla and submitted a significant proposal for a promenade that will span from the green pedestrian bridge all the way to Pine Street then through to Shuman Lake. The current university drive will become a pedestrian walkway linking campus to the new innovation and manufacturing area by the fraternity drive. This east-west promenade will have a wide tunnel under 63 highway and then the walkway will continue past the library, past Butler Carlton and across Pine Street. The parking lot F north entry area will become pedestrian, and the lot will be closed to through traffic.

Next there will be a north-south promenade that will extend from Bertelsmeyer past welcome center and to Engineering Management. The Grand Stairs leading up from the parking garage will lead you to the green area by the Welcome Center but facing the Engineering Management building.

Chancellor Dehghani concluded his report by answering a few questions from attendees.

Q. What advice would you give to a future Chancellor about the number of credit hours required for a degree? Trends are pointing in a reduction of credit hours.
- A. Advice is don't let it happen. Evidently the Math department was requested to reduce their credit hours for a bachelor's degree. We must have a business case for the number of credit hours for a degree. ABET requirements can be satisfied in three years so there isn't a need to continue to add more and more credit hours where our students become professional students taking six plus years to graduate. We need to find our optimized solution for the number of credit hours. My advice would be to find that optimized solution. The tools of learning are much different than in 1890 when the credit hour for degree was higher.

Q. Graduate Faculty has asked that the Chancellors memo about research be reworded to be more explicit about off-campus research.

-A. This deals with the residency requirements for doctoral students. Chancellor will look at the policy and get with the deans and Provost and will report back. We want to make sure that the unintended consequences are considered.

Q. When announcements from administration are made about classes or the closing of campus, to please let faculty know prior to notification of students. This would allow faculty to prepare before being contacted by students.

-A. Chancellor Dehghani has asked Andy Careaga to look into this further to see what can be done to accommodate this request. If you have examples to please send them to Andy so, he can review.

Q. Question was raised to ask that the IR director be timelier with responses.

-A. Chancellor Dehghani had nothing but praise for Wayne Jones and the work he is doing especially being short staffed. An attendee also gave praise for Wayne Jones and his work. Chancellor hates to monetize things but we need more staff, more data analysts, more enrollment management, more advisors. We know we need more staff but there is only so much money to go around. That Wayne is doing great things in his office.

Q. Final Exam and edicts about the amount of time for final exams.

-A. Chancellor deferred to the provost. The provost is not aware of any edicts about exams. That they are recommendations.

Q. Why do we feel that Senator Blunt is a good speaker choice for a STEM school considering his beliefs being anti science?

-A. Chancellor is not aware of Senator Blunts anti scientific views. He has spoken highly about science in speeches and has always spoken highly of our institution.

Q, What is good about our future? How do all the changes on campus translate to the vision of the university?

-A. Recruitment, retention, research expansion, centers of excellence with center directors, achieving higher levels of research which gets us closer to our R1 destination.

E. Faculty Senate President's Report

Revised Student Evaluation of Teaching (SET) to now be administered by CET committee chaired by Devin Burns. Allows for faculty calibration, new questions based on objective aspects.

Policy for Evaluation of Teaching (Student, Instructor and Peer-Based Evaluations). The key concerns were the over-use of results such as the SET results. This new policy will show three categories of evaluation instruments for specific tasks. These include Awards, Annual reviews, Promotion and Tenure and Post-tenure reviews.

Administrative Reviews are completed, and results will be summarized at the next faculty senate meeting in June. Reviews were conducted on Provost, CIO and CAFÉ Director.

The faculty-staff climate survey closed on April 30 and analysis is currently underway. Public presentation of summary results will be presented at the June faculty Senate and Staff Council meetings. Personnel committee to administer annually in order to capture trends.

Graduate, Distance and Continuing Education Committee is being formed as a faculty senate special committee to serve in liaison role between the faculty senate and the graduate council. Tasked with faculty interface to Vice Provost for Graduate Studies and Vice Provost for Corporate and Professional Education. Nominations are currently being sought and if interested please contact Kelly Homan.

One faculty senate meeting left this year. Everyone is invited to attend. There will be a special topic about the Chancellors perspective on the path to R1 Status. The special reports from the administrative review committee and the climate survey results.

We are pleased to announce the officers for the Academic year 22-23. Kate Sheppard-President, KC Dolan-President Elect, Dave Westenberg-Secretary and Michael Gosnell-parliamentarian. The parliamentarian position is now a three-year

position not moving into the officer rotation. The idea is to provide a stability and expertise in terms of the processes and parliamentary procedures of the Senate.

VII. Announcements – Attended wanted to thank Chancellor Dehghani for some great things such as the childcare center and the much-needed parking garage.

VIII. Adjournment – The meeting was adjourned at 5:22 p.m.

Memorial Resolution

Donald L. Cronin

Professor Emeritus of Mechanical Engineering

Donald L. Cronin died on March 1, 2022, at the age of 86. He was born on August 18, 1935, in Mineola, New York to Jeremiah G. and Lois E. Cronin, née Parsons. He received a Bachelor of Science degree in Mechanical Engineering from Rutgers University in 1957, a Master of Science degree, and a PhD from the California Institute of Technology in 1961 and 1966, respectively.

Professor Cronin's academic experience began with an evening lectureship at the University of Southern California in 1969. He joined the University of Missouri at Rolla (UMR), now Missouri S&T, as an Associate Professor in 1970. He was tenured in 1974 and promoted to Professor of Mechanical and Aerospace Engineering (MAE) in 1977. He retired from UMR in 2000.

Dr. Cronin served in the US Army for two years between 1958 and 1960. He arrived at UMR with impressive professional experiences to his credit. He served as a Development Engineer at the Linde Company, a division of Union Carbide (1957-1958); a Research Engineer at Barden Bearing Company (1960); a Senior Research Associate at the Jet Propulsion Lab (1961); a Member of the Professional Staff at TRW Systems Group (1965-1970); and a NASA-ASEE Fellow at NASA Goddard Space Flight Center (1975 & 1976). He had significant associations with Ford Motor Company, as a Resident Fellow (1973), and a Research Specialist in Structural Dynamics (1977, 1978 & 1996). He was on sabbatical leave at Ford for the year 1987-1988.

Professor Cronin was active in professional consulting with major companies including Carrier Corporation, Dayco, Easi Engineering, Ford Motor Company, General Motors Corporation, and Ingersoll-Rand Corporation. His research interests lay in the areas of structural dynamics; vibrations analysis and testing; nonlinear, hybrid and coupled systems; and mechanical design and numerical methods. His PhD work in response to excitation of linear, damped systems having time-varying frequencies was ahead of its time.

A member of the American Society of Mechanical Engineers (ASME), Dr. Cronin was a recipient of several honors: 1993 Jefferson Smurfit Fellow, 1972 Ralph R. Teetor Award, for Outstanding Young Educators, from the Society of Automotive Engineers (SAE), two NASA Technical Brief Awards for innovations developed while working under NASA Contracts, UMR Faculty Advisor of the Year (1974-75), noted for his development of student leadership qualities, high standards of

professionalism and his organizational abilities. He was a member of Pi Tau Sigma, Tau Beta Pi, and Sigma Xi, and served as a Faculty Advisor to the UMR Solar Car Team through the 1990s. Dr. Cronin and his wife Sigrid served as parade marshals for the 2014 St. Pat's Parade; Dr. Cronin was named an Honorary Knight in 1993, and Sigrid in 2004.

Dr. Cronin had close relations with his graduate students. He and Sigrid would often host them for dinners or picnics. As one grateful graduate student recalled, "he had a way of making difficult engineering concepts seem simple, explaining them in a way that we were able to learn and understand the material. He helped me develop research and problem-solving skills that I later used in my own career."

Dr. Cronin, and other retirees, volunteered to participate in the "Habitat for Humanity" program, to build houses for deserving needy families. He was an avid reader of newspapers and books about history and politics. He loved vintage cars and traveled internationally to car shows and automobile museums. He and Sigrid traveled frequently to visit her family in Germany. They spent the last few years of his retirement in Newberg, OR.

Dr. Donald Cronin was a kind, thoughtful and compassionate mentor, and scholar. He and Sigrid were married for 55 years. He will be greatly missed by all who knew, admired, and loved him. He is survived by his wife Sigrid, and their two sons, Andrew, and Thomas.

We request that this Memorial Resolution be incorporated into the official minutes of the Missouri S&T General Faculty Meeting of May 3, 2022, and a copy be presented to his wife Sigrid, and their sons, Andrew, and Thomas.

Respectfully submitted,

Dave Bayless, Clark Barker, Terry Lehnhoff, and Ashok Midha

Memorial Resolution

Bruce Paul Selberg

Professor Emeritus of Aerospace Engineering

Professor emeritus of Aerospace Engineering Bruce Paul Selberg was born in Detroit, Michigan on November 1, 1938. He received a Bachelor of Science in Engineering from the University of Michigan in 1960, a Master of Science in Aeronautics and Astronautics from the University of Michigan in 1962, and an Aerospace Engineering Degree from the University of Michigan in 1965.

Prior to joining the faculty at the University of Missouri at Rolla (UMR, now Missouri S&T), Professor Selberg worked as a member of the Technical Staff for the Aerospace Corporation, San Bernardino Operations, from 1965 to 1968. Professor Selberg joined UMR in 1968 as an Assistant Professor of Aerospace Engineering and was promoted to Associate Professor in 1970. He became Professor of Aerospace Engineering, and a member of the Graduate Faculty, in 1980. During his career, he also served as a consultant for the Army Aviation Systems Command, Emerson Electric, and Missouri Enterprise. He retired from the University in 2000 and has since lived in Maryville, Tennessee.

Professor Selberg's research and interests were in the areas of aerodynamics, fluid mechanics, high temperature gas dynamics, aerospace propulsion, and energy efficient transportation systems. He published several journal papers and articles with his graduate students on conventional and unconventional wing aerodynamics and was a strong proponent of joined-wing aerodynamic configurations for aircraft. In 1983, he became an Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA), the professional society for Aerospace Engineering. He was also very active in the Society of Automotive Engineers (SAE), where he served on several committees and in leadership positions focusing largely on aerospace applications. He was the recipient of a United States patent and received recognition from the University of Missouri for his contributions to scholarship within his field.

Professor Selberg was an outstanding educator, and a pioneer in advancing aerospace engineering education at both the undergraduate and graduate level. He was one of the first of two faculty members with aerospace degrees on campus and was instrumental in the subsequent establishment and maturation of the Aerospace Engineering degree program at the University of Missouri-Rolla. Specifically, as a junior faculty member, he played a key role in the original committee that formulated and established the required curriculum for the Aerospace Engineering degree program. He then served as the Professor-in-Charge of the program from 1972 to 1975, and subsequently became the Associate Chair of Aerospace Engineering in the Mechanical and Aerospace Engineering (MAE) Department from 1975 until his retirement in 2000. Under his administration and direction, and due in large part to his tireless efforts on behalf of the program, the Aerospace program grew rapidly, achieving a national reputation for excellence. Numerous faculty hires were made in Aerospace Engineering and significant numbers of students were enrolled and awarded degrees. He was identified as a key founder of the program at Missouri S&T as referenced in *Aerospace Engineering Education During the First Century of Flight* (AIAA).

Although Professor Selberg performed many invaluable services to the program, the Department, the Missouri S&T campus, and the University of Missouri system throughout his academic career, of particular note were his early and highly successful efforts to obtain funding and support for Aerospace laboratories, personnel, and facilities. This critical infrastructure ensured the success of the nascent program during its formative early years. He was instrumental in the acquisition of the supersonic wind tunnel facility and the development of the flight simulator; these significantly enhanced the program, both in terms of the undergraduate education and graduate research. Furthermore, as Associate Chair of Aerospace Engineering during the 1980's, and consistent with his championing of the Aerospace program and its faculty and students, he was responsible for seeking and securing a very large grant from the McDonnell Douglas Foundation. This grant was targeted to building and expanding the Aerospace program on campus and provided the critical resources that enabled the program and associated Mechanical Engineering activities to thrive for many years in terms of providing quality education and training to engineering students in the Aerospace field.

Professor Selberg became the Director of the state-wide NASA Missouri Space Grant Consortium in the mid 1990's, proactively leading a consortium of highly regarded academic institutions from across the state of Missouri until his retirement in 2000. As Director of the Consortium, he was responsible for obtaining and the management of millions of dollars in federal funds across the state for student fellowships and support (both for undergraduate and graduate research), for K-12 educational and outreach activities, and for faculty development in aerospace and aerospace-related disciplines.

In addition to Professor Selberg's administrative and organizational roles in setting up and guiding the Aerospace Engineering program from the late 1960's to 2000, Professor Selberg was an exemplary mentor to his own students, and generally to students within the program and the MAE Department as a whole. He advised a significant number of graduate students, including 15 MS students and a PhD student who went on to become a faculty member in aerospace engineering at a peer institution. Professor Selberg also served as faculty advisor to several student design groups that received national awards and was always very active in giving opportunities and direction to undergraduate students for research projects. Throughout the years of his service, he earned a number of department, campus, and professional society awards for outstanding student advising and service to students. He also mentored numerous junior faculty members in the Aerospace Engineering program throughout the years, providing encouragement and support.

Professor Selberg was particularly active in service to the department, the school of engineering, the campus, and the university system. He was a highly engaged and proactive member of many important faculty governance committees, including the Budgetary Affairs and the Building and Facilities Committees. He served as President of the Faculty Senate and as Parliamentarian for Academic Council and for the General Faculty and was a continuous member of the System Intra-Faculty Council from 1996 until his retirement in 2000. Significantly, he is owed a great debt of gratitude by all long-term employees of the University of Missouri system, faculty as well as staff, due to his long-term work as a highly engaged member of the Retirement and Faculty and Staff Benefits Committee. In this role, he was tenacious in securing and defending adequate compensation and benefit packages and plans for employees of the university.

Bruce Selberg enjoyed golf and was known as an avid rock collector. He particularly enjoyed spending time in both Michigan, where he owned property adjacent to Lake

Superior, and on his farm in Lake Spring (near Rolla) before retiring to Tennessee. Prior to his retirement, he stayed very active and was a regular at the UMR swimming pool for many years.

Bruce Selberg was Professor Emeritus of Aerospace Engineering at the time of his passing in December 2021. He is survived by his wife, Barbara Richardson Selberg; son, Scott; daughter, Kimberly; and son, Stuart.

In summary, the University of Missouri owes a great deal to Professor Selberg. Throughout many years of unflagging service, and as a result of many hard-fought battles, he made numerous and vital contributions to the Aerospace Engineering program, to students, to his fellow faculty and staff in the MAE Department and Missouri S&T, and to the university system.

It is requested that this memorial resolution be incorporated into the official minutes of the Missouri S&T General Faculty Meeting of May 3, 2022, and that copies be sent to his wife and children.

Respectfully submitted,

Dave Bayless, Kirk Christensen, Al Crosbie, Walt Eversman, and Dave Riggins

