

CAMPUS REPORT

DATE: August 20, 2019

TO: Board of Regents

FROM: Les P. Cook, Chancellor, Montana Technological University



RE: Campus Report for the September, 2019 Board of Regents Meeting

STUDENT ACHIEVEMENT

- Phil Holdsworth, an MS Student in Metallurgical & Mineral Processing Engineering, will author a poster entitled “Analyzing the Effect of Different Frothers on Gas Dispersion in a Cavitation Sparger using Electrical Resistance Tomography.” It will be co-authored by his advisors, Dr. Courtney Young and Dr. Rick LaDouceur, who were invited to present at Flotation 2019 scheduled in Cape Town, S. Africa, November 11-14.
- Former MT Tech student Nick Mowrer (Metallurgy) competed in the 2019 Pan Am Games held in Lima Peru. Mowrer won silver medals in individual Men's air pistol, and silver in the mixed air pistol event, competing with teammate Miglena Todorova.
- Prakash Gautam, MS student in Dr. Lucon's research group, was awarded the 2019 National Science Foundation Student Grant to attend POWDERMET2019 & AMPM2019 that was held on June 23-26 in Phoenix, AZ. Mr. Gautam presented a paper and poster on the research group's investigation in additive manufacturing processing parameters of metal powders using Selective Laser Melting (SLM). This research is being published in the proceedings of the POWDERMET2019 conference.
- Seven Montana Tech students completing an online Abnormal Psychology course, PSYX 240, published their research about the stigmas of mental health in the *Journal of Community College Research and Practice*. The students conducted the IRB approved research as a part of their course, and then they had the option to pursue publishing. Students were earning various levels of degrees from one semester Behavioral Health Certificates to Bachelors of Science degrees. Celeste Corder, Anna Rainville, Mcken-Z Ramus, Zachary Hart, Cherish McElroy, Hayli Robinson and Amanda Robinson are pursuing various careers: Physician, Behavioral Health Caregivers (2), Speech Pathologist, Surgical Tech, and Counselors (2). Dr. Elyse D'nn Lovell, Interdisciplinary Arts and Sciences / Highlands College Instructor, found that her student-authors, “described connectedness and enthusiasm while conducting their research and deeper learning was suggested with the research project.”

FACULTY EFFORTS

- Dr. Courtney Young, Dr. Avimanyu Das, and Dr. Rick LaDouceur of Metallurgical & Materials Engineering were invited to give a presentation at Flotation 2019 scheduled in Cape Town, S. Africa, November 11-14. The paper is entitled “*Orfom® D8 Depression of Chalcopyrite During Trial Runs of Cu-Mo Bulk Concentrates*” and will be co-authored by former MUS MatSci PhD student, Dr. Simon Timbillah. It will also be co-authored by Ms. Debbie Laney (Class of 1982) who works for Chevron-Phillips Chemical Company, the sponsor of the research.
- Dr. Robert Pal, Associate Professor, Biological Science published a peer-reviewed paper in ECOLOGICAL MONOGRAPHS a prestigious journal in ecology in the frame of an international collaboration (authors: Rosche, C., I. Hensen, A. Schaar, U. Zehra, M. Jasieniuk, R. M. Callaway, D. P. Khasa, M. M. Al-Gharaibeh, Y. Lekberg, D. U. Nagy, **R. W. Pal**, M. Okada, K. Schrieber, K.G.Turner, S.Lachmuth, A.Erst, T.Tsunoda, M.Sheng, R.Schmidt, Y.Peng, W.Luo, Y. Jäschke, Z. A. Reshi, and M. A. Shah.), entitled: *Climate outweighs native vs. nonnative range-effects for genetics and common garden performance of a cosmopolitan weed.*
- Dr. Robert Pal, Associate Professor, Biological Science delivered an oral presentation (Can Traditional Reclamation lead to Successful Restoration in Butte, Montana?) at the Mine Design, Operations & Closure Conference at Fairmont Hot Springs, May 5-9, 2019.
- Dawn Atkinson and Stacey Corbitt, full-time instructors in the Writing Program, have been awarded a TRAILS Open Educational Resources Grant to compose an open textbook for a co-requisite pairing of developmental writing and introduction to technical writing, a niche pedagogical focus within the corpus of open and co-requisite textbooks currently available. They aim to post their product to the Open Textbook Library. Their project will also gather empirical data to explore what principles and processes are followed during textbook development; this data may offer implications for the practice of textbook writing to supplement existing literature on textbook development.
- Matt Egloff, PE, participated the cut score meeting for the Fundamentals of Engineering (FE) Examination at NCEES in Clemson, SC August 4-7. The FE is the first of two examinations taken by prospective engineering students in order to become licensed engineers. The FE examination is taken while still attending engineering school or shortly thereafter. This meeting is part of the process for developing the examinations and setting the passing score.
- Dr. Robert Pal, Associate Professor, Biological Science received a small grant from The Farmers Education and Coop Union. The funds are for testing the competitive ability of hemp on weeds and native plants and its potential role in phytoremediation. The project receives an award of US\$ 10,000.
- Dr. Peter Lucon, Assistant Professor in Mechanical Engineering, was awarded his 8th U.S. Patent (5th while employed at Montana Technological University). The patent applies to the application in the technical field of coating, drying, and mixing particles. The present application is directed towards systems for adding components to materials being fluidized in a vibratory mixer by use of atomizers or sprayers.
- Celebrating 50 years of leadership and service to the protection of workers as a safety, health and ergonomics professional. Dr. Roger Jensen began his career in the US Public Health Service as a Commissioned Officer assigned to the then new National Institute for Occupational Safety

and Health in 1969. He joined Montana Tech in 1999 and is a full professor teaching courses, mentoring students and conducting research in ergonomics and safety. Thank you Dr. Jensen!

MONTANA BUREAU OF MINES AND GEOLOGY ACTIVITY

MBMG conference presentations and attendance:

- Hydrogeologist J. Crowley conducted a 2-day workshop, "Federal Aviation Authority (FAA) Part 107 Unmanned Aerial Systems (UAS) Remote Pilot License Preparation and Hands-on Flight Operations," June 12-13, Butte, MT. http://www.mbmg.mtech.edu/drone/drone_workshop.asp
- MBMG Geologists K. Scarberry, C. Elliott, and P. Yakovlev co-organized the 2019 Tobacco Root Geological Society (TRGS) summer field conference in Deer Lodge, MT, July 26-29. Geologists K. Scarberry and C. Elliott presented talks and led field trips. Geologists P. Yakovlev, J. Mosolf, J. Lonn, S. Korzeb, and A. English also led or co-led field trips.
- MBMG Geologists P. Hargrave, J. Gunderson, D. Berg, S. Vuke, M. Stickney, and K. McDonald attended the TRGS meeting. Susan Vuke was awarded the TRGS Hammer Award in recognition of her enduring contributions to Montana geology. Mike Stickney was awarded an honorary membership in recognition of his many years of service to the organization.
- Hydrogeologist A. Bobst presented "Monitoring and Modeling Hydrologic Effects of Beaver Mimicry Restoration on Long Creek" at the Montana Nature Conservancy Hydrologic Resilience Field Tour, Mt. Haggin, southwest Montana, July 24.
- Hydrogeologist J. Crowley attended the ESRI User Conference and ESRI GIS Science Symposium, July 8-12, 2019, San Diego, CA.

MBMG educational outreach efforts:

- Geologist C. Elliott provided a geologic guide for a Montana Wilderness Association hike to Mount Powell, Montana, July 6.
- Geologist P. Yakovlev presented "Geology of the Moon" at the Clark Chateau - Moon Landing Anniversary Exhibit, July 20, in Butte, MT.
- Geologists K. Scarberry and A. English led two geologic field trips elementary school kids at the Montana Learning Center, July 16 and July 30, Canyon Ferry, MT.
- Lab Manager J. Timmer and Chemist A. Huft provided tours of MBMG laboratory facilities for Tech's Hydrogeology Field Camp class (August 12) and the Engineering Research Group (August 14), at the Tech Campus.

MBMG committee and public meeting participation:

- Hydrogeologist J. Reiten discussed the West Crane Aquifer at a meeting of the Richland County Conservation District Board of Supervisors, August 8.
- Hydrogeologists C. Carstarphen and J. LaFave presented "Lincoln-Sanders Groundwater Assessment" to the Sanders County Commissioners, Thompson Falls, MT, July 25.
- Hydrogeologist A. Bobst presented "Update on the Virginia City Groundwater Investigation" at the Virginia City Town Council Meeting, August 1.

CAMPUS HAPPENINGS

- Trisha Southergill, MPA, CRA, Grant Support Manager – Research Office, has been elected to the chair-elect position of the National Council of Research Administrators (NCURA) Region VII. The region covers Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming. NCURA is an international professional organization with over 7,000 members that advances the profession of research administration through education and professional development programs, the sharing of knowledge, and fostering a respected community.
- On July 2, 2019 Upward Bound celebrated its 25th Anniversary at Montana Tech. Current students had a banquet featuring an alumni panel followed by a reception for former students, staff, and stakeholders at the Copper King Convention Center
- Montana Tech hosted the 73rd annual Montana East-West Shrine Game on July 20, 2019. 18 athletes came to Tech to play on Bob Green Field for a second consecutive East win.
- The Montana Bureau of Mines and Geology celebrates 100 years of service.
- The University of Kashmir and Montana Technological University entered into an agreement to encourage academic and educational cooperation in fields of mutual interest on July 16, 2019.