

**Michele Yatchmeneff, PhD (Unangaŋ)**

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**Areas of Teaching and Research Interest**

- Teaching: Fundamentals of introduction to engineering, engineering identity, physical and chemical treatment processes of water and wastewater, fluid mechanics, and engineering economics
- Research: Alaska Native belonging, precollege preparation, motivation, retention, undergraduate success, graduate success, and career success

**Academic Experience**

<u>Institution</u>	<u>Position</u>	<u>Date</u>	
		<u>Start</u>	<u>End</u>
University of Alaska Anchorage (UAA)	○ Associate Professor of Engineering	July 2021	Current
	○ Alaska Native Science & Engineering Program (ANSEP) Assistant Director	August 2015	Current
	○ Assistant Professor of Civil Engineering	August 2015	June 2021
Purdue University & UAA ANSEP	○ Engineering Education Researcher	August 2012	August 2015
UAA ANSEP	○ Deputy Director	March 2007	August 2012
	○ Adjunct Professor		

**Educational Experience**

<u>Institution</u>	<u>Program</u>	<u>Degree</u>	<u>Awarded</u>
Purdue University	Engineering Education	PhD	Dec. 2015
Dissertation Title: A qualitative study of motivation in Alaska Native Science & Engineering Program (ANSEP) precollege students			
Committee Members: Alice Pawley, Monica Cardella, Allison Godwin, Linda Lazzell			
University of Alaska Anchorage	Engineering Management	MS	May 2009
Project Title: Maturity analysis of Alaska Native Science & Engineering Program (ANSEP) University Retention component			
University of Alaska Anchorage	Civil Engineering	BS	May 2005
Emphasis: Environmental Engineering			

**Honors and Awards**

- University of Alaska Anchorage (UAA) College of Engineering (COEngr) Alumni Hall of Fame Inductee May 2019
- UAA Volleyball Faculty Appreciation Award from COEngr student Chrisalyn Johnson November 1, 2018

- American Society for Engineering Education (ASEE) 20 high achieving researchers and educators under 40 and young pacesetters Summer 2018
- Alaska Native Science & Engineering Program (ANSEP) was one of seven finalists for the Harvard University, John F. Kennedy School of Government, Ash Center for Democratic Governance and Innovation, Innovations in American Government Award 2018
- Purdue University Doctoral Graduate Fellow 2012-2015
- UAA ANSEP “Grow Our Own PhD” Fellow 2012-2015
- Alfred P. Sloan Indigenous Graduate Partnerships (SIGP) Fellow 2009 and 2012-2015
- The Aleut Foundation Scholarship Recipient 1998-2009 and 2012-2015
- ANSEP was one of 25 finalists for the Harvard University, John F. Kennedy School of Government, Ash Center for Democratic Governance and Innovation, Innovations in American Government Award 2013
- Aleutian Pribilof Island Community Development Association (APICDA) Scholarship Recipient 1998-2009 and 2012-2013
- American Indian Science & Engineering Society (AISES) Scholarship Recipient 1998-2005
- Alaska Native Medical Center (ANMC) Auxiliary Scholarship Recipient 1998-2005
- Agdaagux Tribe of King Cove and Isanotski Tribe of False Pass Scholarship Recipient 1998-2005
- Catching the Dream (Native American Scholarship Fund) Scholarship Recipient 1998-2005
- ANSEP Scholarship Recipient 2003-2005

## **Courses Taught**

### Instructor

- CE 201 Introduction to Civil Engineering - Fall 2020
- CE 341 Fundamentals of Environmental Engineering - Fall 2020
- CE 442 Environmental Systems Design - Spring semesters 2018-2021
- ENGR 151 Introduction to Engineering - Fall & Spring Semesters 2019-2021  
- Every semester Fall 2015-  
Spring 2019 including Summers  
- Every summer between 2009-2012
- ES 341 Fluid Mechanics - Fall 2017 and Fall 2018
- ESM 450 Economic Analysis & Operations - Fall & Spring Semesters 2015-2017
- ES 111 Introduction to Engineering - Spring 2008

### Instructor of Record/Managed TA

- Fluid Mechanics Laboratory (ES 341L) - Fall 2017 and Fall 2018

## **Invited Lectures/Seminars/Presentations**

- UAA New Faculty Orientation: “Diversity, Inclusivity, & Student Success” Presenter. August 9, 2021.
- Institute of Transportation Engineers (ITE) Virtual Conference Panelist via Zoom on “Diversity & Inclusion: Professional Chapters.” I represented the American Indian Science &

Engineering Society (AISES) and the Alaska Native Science & Engineering Program (ANSEP). March 31, 2021.

- University of California at Berkeley Virtual Environmental Engineering Graduate Seminar via Zoom on “Alaska Native Belonging.” September 25, 2020.
- University of Alaska Anchorage, Alaska Native Perspectives guest lecture on Unangax/Aleut traditions and Russian influence. Anchorage, Alaska. March 19, 2019.
- Purdue University, Strategies to attract and support underrepresented minority (URM) graduate student workshop: The URM Graduate Student Experience at Purdue University: An alumni panel. West Lafayette, Indiana. April 19, 2018.
- Purdue University, Engineering Education Research Seminar. West Lafayette, Indiana. April 19, 2018.
- ANSEP Presentation for the U.S. Secretary of Education Betsy DeVos. Washington, DC. June 27, 2017.
- Louis Stokes Alliances for Minorities Participation Research Symposium, A Game Changer, 25 years: Opening Speaker. February 22-24, 2016.
- Louis Stokes Midwest Center of Excellence (LSMCE) Conference, Accelerating Diverse Talent Along the STEM Pipeline: Panelist: Voices of Success. Indianapolis, Indiana. October 23-25, 2015.

## **Mentoring**

### UAA MS Graduate Student Committee Member

- John Street, MS in Civil Engineering, Spring 2020
  - Project Title: Kasaan Outfall Improvements Project
- Kevin Ulrich, MS in Arctic Engineering, Fall 2019
  - Project Title: Changing the Energy Landscape in Rural Alaska: Overcoming Physical and Cultural Barriers to Develop a Sustainable Energy Future
- Amy Blakemore, MS in Civil Engineering, Spring 2019
  - Project Title: Estimation of ground thermal diffusivity at Pram Point (Ross Island, Antarctic)
- Stefanie Armstrong, MS in Engineering Management, Fall 2018
  - Project Title: Analysis of multi-use drown capabilities in Alaska
- Michael Ulroan, MS in Engineering Management, Fall 2018
  - Project Title: Refining college readiness: Acceleration model

### Alfred P. Sloan Foundation, Sloan Indigenous Graduate Partnerships (SIGP) Project Director for University of Alaska

Individually advise each student, manage \$33,000 fellowship/student, meet with students weekly, procure research supplies, and coordinate national conference attendance

#### *Graduates*

- Stefanie Armstrong, UAA, MS in Engineering Management, Graduated Fall 2018
- Issac Bailey, UAF, MS in Biochemistry/Molecular Biology, Graduated Fall 2017
- Raymond Brooks, UAF, MS in Geological Engineering, Graduated Spring 2017
- Tashina Duttle, UAA, MS in Project Management, Graduated Fall 2016

- Stan Edwin, UAF, MS in Atmospheric Sciences, Graduated Summer 2016
- Kelvin Goode, UAA, MS in Project Management, Graduated Fall 2015
- James Hart, UAA, MS in Civil Engineering, Graduated Fall 2015
- Jessica Jacobsen, UAA, MS in Project Management, Graduated Fall 2019
- Colton Jessup, UAA, MS in Project Management, Graduated Spring 2021
- Patrick Jace Lovell, UAA, MS in Project Management, Graduated Spring 2018
- Allyson Olds, UAF, MS in Fisheries, Graduated Summer 2016
- Jason Slats, UAF, MS in Mechanical Engineering, Graduated Spring 2020
- John Street, UAA, MS in Civil Engineering, Graduated Spring 2020
- James Temte, UAA, MS in Applied Environmental Sciences & Technology, Graduated Fall 2015
- Angela Totemoff, UAA, MS. in Project Management, Graduated Fall 2015
- Michael Ulroan, UAA, MS in Engineering Management, Fall 2018
- Forest Rose Walker, UAA, MS in Engineering Management, Fall 2018
- Andrew White, UAA, MS in Civil Engineering, Graduated Fall 2017

#### *Current Students*

- Joyell Acuna, UAA, MS in Mechanical Engineering, Fall 2021 Projected Graduation
- Thomas Bart Adams, UAA, MS in Project Management, Fall 2021 Projected Graduation
- Galen Baumgartner, UAA, MS in Mechanical Engineering, Fall 2021 Projected Graduation
- Corissa Berntsen, UAA, MS in Project Management, Fall 2021 Projected Graduation
- Ramy Brooks, UAF, MS in Geological Engineering, Spring 2022 Projected Graduation
- Eva Burk, UAF, MS in Natural Resource Management, Spring 2022 Projected Graduation
- Karen Carlson, UAA, MS in Biological Sciences, Fall 2021 Projected Graduation
- Randall Friendly, UAF, MS in Wildlife Biology, Summer 22 Projected Graduation
- Jordan Jenckes, UAA, PhD in Geosciences, Spring 2023 Projected Graduation
- Cody Kapotak, UAA, MS in Project Management, Fall 2021 Projected Graduation
- Brandon Kowalski, UAF, MS in Biological Sciences, Summer 2021 Projected Graduation
- Bernard Laughlin, UAF, PhD in Biochemistry and Neuroscience, Summer 2021 Projected Graduation
- Elizabeth Lindsey, UAF, MS in Fisheries, Spring 2023 Projected Graduation
- Shannon Medlock, UAA, MS in Biological Sciences, Fall 2021 Projected Graduation
- Zena Roberts, UAF, MS Geology & Geophysics, Summer 2021 Projected Graduation
- Janelle Sharp, UAF, MS in Geoscience, Summer 2021 Projected Graduation
- Levi Wagner, UAA, MS in Biological Sciences, Fall 2021 Projected Graduation
- Mackenzie Young, UAF, MS in Geosciences, Spring 2022 Projected Graduation

#### **Funded Research**

*Total funding: \$5,194,054*

- July 1, 2020, Co-Principal Investigator (Co-PI), Alfred P. Sloan Foundation: "Sloan Indigenous Graduate Partnerships (SIGP)". \$4,501,743 total of which \$351,424 comes to UAA and UAF and \$528,000 is given to 16 students in fellowships over 4 years. Collaborators: Purdue

University: Kevin Gibson (PI), Ken Ridgeway (Co-PI); University of Alaska Anchorage (UAA): Matt Calhoun (Co-PI); University of Alaska Fairbanks (UAF): Brian Rasley (Co-PI); University of Arizona: Ronald Trosper (Co-PI), Frans Tax (Co-PI); State University of New York, College of Environmental Science & Forestry (SUNY ESF): Robin Kimmerer (Co-PI); University of Montana/Montana State University/Montana Tech: Aaron Thomas (Co-PI), Sweeny Windchief (Co-PI), Craig Ogilvie (Co-PI), Beverly Hartline (Co-PI); University of North Carolina Asheville: Trey Adcock (Co-PI).

- February 1, 2018, Principal Investigator (PI), National Science Foundation (NSF) Faculty Early Career Development Program (CAREER): “Alaska Native Belonging in High School Math and Science Classrooms.” \$500,000 over 5 years.
- December 20, 2017, Co-PI, Educational Credit Management Corporation (ECMC) Foundation: “Support of ANSEP.” \$600,000. Over 2 years. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).
- September 15, 2017, Co-PI, NSF Broadening Participation (BP): “ANSEP Dissemination Conference.” \$200,000 over 1 year. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).
- July 1, 2017, Co-PI, Alfred P. Sloan Foundation: “Sloan Indigenous Graduate Partnerships (SIGP)”. \$2,533,092 total of which \$342,630 came to UAA and UAF over 3 years. Collaborators: Purdue University: Kevin Gibson (PI), Ken Ridgeway (Co-PI); University of Alaska Anchorage (UAA): Matt Calhoun (Co-PI); University of Arizona: Ronald Trosper (Co-PI); University of Montana/Montana State University/Montana Tech: Aaron Thomas (Co-PI), Karlene Hoo (Co-PI), Sweeny Windchief (Co-PI), Beverly Hartline (Co-PI).
- June 6, 2017, Co-PI, National Action Council for Minorities in Engineering, Inc. (NACME): “Support of ANSEP”. \$200,000 over 3 years. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).
- May 1, 2017, Co-PI, NSF Louis Stokes Alliances for Minority Participation (LSAMP): “Alaska Alliance.” \$3,000,000 over 5 years. Collaborators: Sam Gingrich (UAA, PI), Herb Schroeder (UAA, Co-PI), Matt Calhoun (UAA, Co-PI), Cheryl Wilga (UAA, Co-PI), Brian Rasley (UAF, Co-PI).

### **Pending Research Proposals**

- Advisory Board Member and Cultural Expert for NSF Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES) Alliance grant at Central New Mexico Community College under PI Phil Lister. Proposal title: “Pathways to STEM Transfer, Degrees, and Careers—Advancing Opportunities for Native American, Veteran, and Hispanic Students.” Submitted January 26, 2021.
- Advisory Board Member and Cultural Expert for NSF Navigating the New Arctic (NNA) grant at University of Texas at Austin under PI Kasey Faust. Current proposal title: “Indigenous Knowledge and Water Infrastructure Operations and Maintenance in Rural Communities.” Submitted March 2021.
- Principal Investigator (PI) on National Science Foundation (NSF) Organizational Change for Gender Equity in STEM Academic Professions (ADVANCE). Current proposal title: “Belonging

and Persistence of Women of Color STEM Faculty at University of Alaska.” Planned submittal is October 2021.

### **Unfunded Research Proposals**

- February 2021, Co-PI on NSF Engineering Research Center for Arctic Resilience through Collaborative Technical Innovation for Communities (ERC-ARCTIC) grant team at Dartmouth College under PI Mary Albert. Current proposal title: “Alaska Native Communities in Climate Change Crisis.”
- December 2019, Co-Principal Investigator (co-PI), National Science Foundation (NSF) Improving Undergraduate STEM Education (IUSE): “ANSEP STEM BS Degrees in Six Years”. \$3,000,000. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).
- July 2018, Co-PI, Department of Energy (DOE) Partnership. Visited Washington, DC to meet with DOE program directors on 7/18/18. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).
- February 2018, Co-PI, NSF S-STEM: “Developing STEM Identity for Graduates.” \$1,000,000. Collaborators: Matt Calhoun (UAA, PI), Herb Schroeder (UAA, Co-PI).
- September 2017, Co-PI, Repsol: “Nuiqsut, Alaska Air Quality Empower.” \$702,974. Collaborator: Aaron Dotson (UAA, PI).
- March 2017, Co-PI, NSF Scholarships in STEM (S-STEM): “Developing STEM Identity for Graduate Scientists and Engineers.” Collaborators: Matt Calhoun (UAA, PI), Herb Schroeder (UAA, Co-PI).
- February 2017, Co-PI, NSF INCLUDES: “ANSEP university-led acceleration high school for engineering and computer science.” \$300,000. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI), Cheryl Wilga (UAA, Co-PI), Kat Milligan-Myhre (UAA, Co-PI).
- October 2016, Co-PI, ConocoPhillips Arctic Science and Engineering Endowment Award: “Native perspectives for arctic engineers.” Collaborators: Hannele Zubeck (UAA, PI), Matt Calhoun (UAA, Co-PI).
- April 2016, Co-PI, NSF INCLUDES: “ANSEP scale up for systemic reform.” Met with NSF INCLUDES program directors September 13 & 14, 2016. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI), Cheryl Wilga (UAA, Co-PI), Kat Milligan-Myhre (UAA, Co-PI).
- October 2015, Co-PI, Repsol: “Air Quality Empowerment in Nuiqsut, Alaska.” Collaborator: Aaron Dotson (UAA, PI).
- October 2014, Co-PI, NSF STEM TeAm-Based Learning Experience (STABLE): “Increasing Academic Achievement and Professional Preparation of First-Year Undergraduate Students at an Open-access Institution.” \$250,000. Traveled to Washington, DC in September 2014 to speak to program directors. Collaborators: Matt Cullin (UAA, PI), Aaron Dotson (UAA, Co-PI), Todd Petersen (UAA, Co-PI).
- January 2014, Co-PI, United States Department of Education: “ANSEP Bethel Project.” \$699,990. Collaborators: Herb Schroeder (UAA, PI), Matt Calhoun (UAA, Co-PI).

## **Service Activities**

### Civil Engineering

- Accreditation Board for Engineering and Technology (ABET) Assessment Committee  
Fall 2018-Current
- Civil Engineering Cornerstone Sequence Committee  
Fall 2020
- Civil Engineering Faculty Position Hiring Committee  
Fall 2017-Spring 2018
- Civil Engineering Term Faculty Position Hiring Committee  
Spring 2016-Summer 2016

### College of Engineering

- College of Engineering Alumni Chapter Member  
Fall 2020-Present
- Associate Dean of Academics Position Hiring Committee  
Spring 2020
- Electrical Engineering Faculty Position Hiring Committee  
Spring 2016

### Alaska Native Science & Engineering Program (ANSEP)

- Advocacy, Grants, & Finance Leadership Team  
Fall 2015-Present
- Student Component Advisor  
Fall 2015-Present
- Faculty Mentor & Advisor  
Fall 2015-Present
- Graduate Fellowships Advisor  
Fall 2015-Present
- STEM Recruitment and Hands-on Activities Coordinator  
Fall 2015-Present
- Alumni Association Advisor  
Fall 2015-Present
- Dr. Herbert P. Schroeder Endowed Chair Committee Chair  
Summer 2020-Present

### Alaska Native Studies Council

- Alaska Native Studies Council  
Fall 2015-Present
- Alaska Native General Education Requirement (GER) Advocate  
Spring 2016-Spring 2018
- UAA Associate Vice Chancellor for Alaska Natives and Diversity Position Description Committee  
Summer 2015-Fall 2015

### Chancellor's Office

- UA Alaska Native Success Initiative (ANSI) Co-Chair for UAA  
Spring 2021-Present
- UAA Diversity Action Council  
Fall 2020-Present
- UAA Faculty Senate Diversity Committee  
Fall 2020-Present
- UAA Representative on Consortium of Alaska Native Higher Education (CANHE)  
Summer 2021-Present
- UAA Chief Diversity Officer Hiring Committee  
Spring 2020
- UAA Native Student Services Director Hiring Committee  
Fall 2019
- UAA Alaska Native Student Success Task Force  
Spring 2019
- UAA Chief Diversity Officer Hiring Committee  
Spring 2019
- UAA Multi-Cultural Post-Doctoral Committee  
Fall 2018
- UAA Chief Diversity Officer Position Description  
Summer 2018

Sloan Indigenous Graduate Partnership (SIGP) Faculty Advisor Spring 2015-Present

- Attend monthly meetings with Faculty Advisors from University of Alaska Fairbanks, University of Arizona, University of Montana, Montana State University, Montana Tech, Purdue University, State University of New York's College of Environmental Science & Forestry, and University of North Carolina Asheville
- Attend yearly meetings at AISES National Conferences at various national locations
- Attend yearly meetings at the Alfred P. Sloan Foundation offices in New York

American Indian Science & Engineering Society (AISES) Faculty Advisor Fall 2015-Present

- Attend bi-monthly student meeting and help find STEM and/or Indigenous professionals to speak at their meetings
- Bring students to attend the annual AISES Nation Conference activities at various national locations
- Coach undergraduate and graduate students with their research presentations and poster sessions
- Help students with AISES scholarships applications, resumes, training opportunities, and job interviews

NSF Navigating the New Arctic "Unangam Ulla" with Aleutian Pribilof Island Association (APIA)

Spring 2020-Present

- Attend quarterly meetings with the PIs and many collaborators
- Assist with any educational materials that will be developed to teach Unanga children about Unangam Ulla or Unanga traditional homes and how to build modernized homes
- Assist with any modernized construction design plans of traditional Unanga homes

Journal Peer Reviewer

- Journal of Professional Issues in Engineering Education and Practice 2019-2020

Grant Proposal Reviewer

- NSF Innovative Technology Experiences for Students and Teachers (ITEST) Grant Proposal October 2020
- NSF Innovative Technology Experiences for Students and Teachers (ITEST) Grant Proposal October 2019

Fellowship Reviewer

- MIT Solve Indigenous Communities Fellowship Reviewer 2021
- MIT Solve Indigenous Communities Fellowship Reviewer (<https://solve.mit.edu/challenges/2020-indigenous-communities-fellowship>) 2020

Requested Service

- NSF Advancing Informal STEM Learning (AISL) Panelist February 2021



## Associations and Societies

- Alaska Native Science & Engineering Program (ANSEP) Alumni Association
  - President 2008-2010 2005-Current
- American Indian Science & Engineering Program (AISES) 1998-Current
  - UAA Student Club President 2004
  - National Conference attendee 2004-2020
- American Society for Engineering Education (ASEE) 2012-Current
  - National Conference attendee 2013-2021
- Society for Advancing Chicanos/Hispanics & Native Americans in Science (SACNAS)
  - National Conference attendee 2019-2020 2019-Current
- Women in Engineering Program (WIEP) 2000-2005; 2012-2015
- American Society of Civil Engineers (ASCE) 2000-2005

## Publications

- Denick, D., Dringenberg, E., Fayyaz, F., Nelson, L., Pitterson, N., Tolbert, D., **Yatchmeneff, M.**, Cardella, M. (2013). STEM thinking in informal environments: Integration and recommendations for formal settings. In *2013 ASEE IL-IN Section Conference* (pp. 1-17). Angola, Indiana: American Society for Engineering Education. Retrieved from [http://ilin.asee.org/2013/index\\_files/denick.pdf](http://ilin.asee.org/2013/index_files/denick.pdf)
- **Yatchmeneff, M.** (2015). A qualitative study of motivation in Alaska Native Science & Engineering Program (ANSEP) precollege students. In *122<sup>nd</sup> ASEE Annual Conference & Exposition*. Seattle, WA: American Society for Engineering Education. Retrieved from <http://peer.asee.org/a-qualitaitve-study-of-motivation-in-alaska-native-science-engineering-program-ansep-pre0college-students>
- **Yatchmeneff, M.**, & Calhoun, M. (2017). Exploring engineering identity in a common introduction to engineering course to improve retention. In *2017 ASEE Annual Conference & Exposition*. Columbus, Ohio: American Society for Engineering Education.
- **Yatchmeneff, M.**, & Calhoun, M. (2019). Revisiting engineering identity in a common introduction to engineering course to improve retention. In *126<sup>th</sup> American Society for Engineering Education Annual Conference & Exposition*. Tampa, Florida: American Society for Engineering Education. <http://doi.org/10.18260/1-2--28327>
- **Yatchmeneff, M.**, & Schroeder, H. P., & Calhoun, M. E. (2016). How to Develop Alaska Native STEM Students in Middle School and High School. In *123<sup>rd</sup> ASEE Annual Conference & Exposition*. New Orleans, LA: American Society for Engineering Education. Retrieved from <https://www.asee.org/public/conferences/64/papers/15288/view>

## Pending Publications

- **Yatchmeneff, M.** & Calhoun, M. (2021). Alaska Native high school students are motivated by belonging rather than autonomy and competence to excel in mathematics and science courses. *Journal of Women and Minorities in Science and Engineering*.

### Conference Presentations

- Yatchmeneff, M. (2017). Exploring engineering identity in a common introduction to engineering course to improve retention. In *124<sup>th</sup> ASEE Annual Conference & Exposition*. Columbus, Ohio: American Society for Engineering Education. Retrieved from <https://www.asee.org/public/conferences/78/papers/19038/view>
- Yatchmeneff, M. (2016). How to Develop Alaska Native STEM Students in Middle School and High School. In *123<sup>rd</sup> ASEE Annual Conference & Exposition*. New Orleans, LA: American Society for Engineering Education. Retrieved from <https://www.asee.org/public/conferences/64/papers/15288/view>
- Yatchmeneff, M. (2015). A qualitative study of motivation in Alaska Native Science & Engineering Program (ANSEP) precollege students. In *122<sup>nd</sup> ASEE Annual Conference & Exposition*. Seattle, WA: American Society for Engineering Education. Retrieved from <http://peer.asee.org/a-qualitative-study-of-motivation-in-alaska-native-science-engineering-program-ansep-precollege-students>
- Yatchmeneff, M. (2014). Alaska Native Science & Engineering Program (ANSEP) Longitudinal (Middle School - PhD) Model. In *American Indian Science and Engineering Society (AISES) National Conference*. Orlando, Florida.

### Poster Presentations

- Yatchmeneff, M. (2014). A qualitative study of motivation in Alaska Native Science & Engineering Program (ANSEP) precollege students. In *American Indian Science and Engineering Society (AISES) National Conference*. Orlando, Florida.
- Yatchmeneff, M. (2009). Maturity Analysis of the Alaska Native Science & Engineering Program – University Retention Component. In *Society for the Advancement of Chicanos/Hispanic and Native Americans in Science (SACNAS) National Conference*. Dallas, Texas.

### Relevant Training

- National Center for Professional & Research Ethics (NCPRE) Academic Leadership in Challenging Times (ALCT): Alaska on September 30, October 1, October 22, November 12, December 3, 2020, January 21, 2021, February 18, 2021, March 18, 2021, April 15, 2021, May 13, 2021, and June 3, 2021
- UAA Center for Advancing Faculty Excellence (CAFÉ) Teaching Academy on January 7 & 8, 2021
- UAA Structural Racism and Anti-Racism Leadership Confirmation on September 24, 2020
- UAA CAFÉ Teaching Academy on August 17 & 18, 2020
- UAA Safe Zone Ally Training on June 17, 2020
- UAA CAFÉ Writing Your Research Paper Group held Spring 2019
- AISES Assist Engineering Faculty Career Training held in Cherokee, NC on March 14, 2019
- UAA CAFÉ Teaching Academy on January 10 & 11, 2019
- National Science Foundation (NSF) STEM Education Proposal Development Workshop held at UAA on May 17, 2018
- UAA CAFÉ Great Ideas For Teaching Students (GIFTS) Session on October 23, 2018

- NSF Grants Workshop held at UAA on April 8, 2016
- NSF Broadening Participation (BP) Grant Workshop held in Washington, DC on February 25 & 26, 2016
- UAA CAFÉ New Faculty Working Group held Fall 2015

### Media Spotlights

- Alaska Native Science & Engineering Program (ANSEP) National Science Foundation (NSF) Belonging Video – Submitted for NSF Video competition:  
<https://www.facebook.com/ANSEP/posts/2993698170752362> June 30, 2020
- Social media “Indigenous Pass the Brush Challenge” (1:46-1:56):  
<https://www.facebook.com/ANSEP/posts/2807941629328018> April 19, 2020
- Purdue University – Native American Educational and Cultural Center (NAECC) Facebook feature:  
[https://www.facebook.com/permalink.php?story\\_fbid=10157335029699039&id=130971699038](https://www.facebook.com/permalink.php?story_fbid=10157335029699039&id=130971699038) March 9, 2020
- Diverse Education article “Sloan Indigenous Graduate Partnership (SIGP) Supports Native Students in STEM”: <https://diverseeducation.com/article/161687/> December 8, 2019
- Adafruit blog “Native American Heritage Month”: <https://blog.adafruit.com/2019/11/17/dr-michele-yatchmeneff-nativeamericanheritagemonth/> November 2019
- ANSEP Twitter “Professor spotlight”:  
[https://twitter.com/ANSEP\\_AK/status/1182684803491155969](https://twitter.com/ANSEP_AK/status/1182684803491155969) October 11, 2019
- Aleutian Pribilof Island Association (APIA) Newsletter: [https://www.apiai.org/wp-content/uploads/2019/09/2019\\_Summer.pdf](https://www.apiai.org/wp-content/uploads/2019/09/2019_Summer.pdf) Summer/Fall 2019
- ANSEP “Introduce a girl to engineering” video:  
<https://www.facebook.com/ANSEP/posts/2682620425193473> February 20, 2019
- Super Cool Scientists #2 coloring book featured scientist: <https://supercoolscientists.com/> and <https://www.facebook.com/ANSEP/posts/1883513191770871> September 2018
- Sloan Indigenous Graduate Partnership (SIGP) videos “Meet a Sloan Scholar: Michele Yatchmeneff”:  
<https://www.youtube.com/watch?v=N08PmqeNN0M&list=PLVrv1vgCwEkmKG1Lkf9U9W19iyqqGQjvf&index=7&t=0s> and “Advice for American Indian and Alaska Native Graduate Students”:  
<https://www.youtube.com/watch?v=dD6NW5mKieU&list=PLVrv1vgCwEkmKG1Lkf9U9W19iyqqGQjvf&index=13&t=0s> and “Challenges for American Indian and Alaska Native Students in Graduate School”:  
<https://www.youtube.com/watch?v=dQCTo3vJUz8&list=PLVrv1vgCwEkmKG1Lkf9U9W19iyqqGQjvf&index=15&t=0s> August 2018
- American Society for Engineering Education (ASEE) Prism Magazine featured as 20 high achieving researchers and educators under 40 and young pacesetters: <http://www.asee-prism.org/young-pacesetters/> Summer 2018
- Rasmuson Foundation “Report to Alaska: ANSEP”:  
<https://www.youtube.com/watch?v=fjOVA3-WyhU> Summer 2018

- Harvard University, John F. Kennedy School of Government, Ash Center for Democratic Governance and Innovation: Names Alaska Native Science & Engineering Program as one of seven finalists for Innovations in American Government Award:  
<https://ash.harvard.edu/news/ash-center-announces-finalists-innovations-american-government-award> July 23, 2018
- American Indian Science & Engineering Society (AISES) Facebook feature:  
<https://www.facebook.com/aises.org/posts/dr-michele-yatchmeneff-defied-those-who-told-her-she-wouldnt-succeed-in-math-and/10156225986617350/> April 10, 2018
- U.S. News & World Report “Native Alaskans in STEM Program Work to Make Lives Better”:  
<https://www.usnews.com/news/best-states/articles/2018-03-29/native-alaskans-in-stem-program-work-to-make-lives-better> March 29, 2018
- The 74 article “From a Rural Village to the University of Alaska: How the First Female Native Engineering Professor Stresses Value of ‘Belonging’ for Young STEM Enthusiasts”:  
<https://www.the74million.org/from-a-rural-village-to-the-university-of-alaska-how-the-first-female-native-engineering-professor-stresses-value-of-belonging-for-young-stem-enthusiasts/> March 27, 2018
- ABC Alaska News, news feature February 28, 2018.
- Alaska Business Magazine, Education on “National Science Foundation Awards \$500,000 Research Grant to Michele Yatchmeneff, ANSEP Alumnus and University of Alaska Engineering Faculty”:  
<http://www.akbizmag.com/Education/National-Science-Foundation-Awards-500000-Research-Grant-to-Michele-Yatchmeneff-ANSEP-Alumnus-and-University-of-Alaska-Engineering-Professor/> February 20, 2018
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### **Environmental Engineering Project Experience**

- Chuathbaluk, Alaska Water and Sewer Project:
  - Developed water and wastewater system conceptual design including vertical and horizontal control survey of existing and future water and sewer system.
  - Obtained permits including Alaska Department of Environmental Conservation (ADEC) water treatment plant well water, Environmental Protection Agency (EPA) wastewater discharge, ADEC approval to construct, and ADEC waivers.
  - Assisted with developing community manuals including homeowner’s operations and maintenance, standby generator operations and maintenance, and water treatment plant operations and maintenance.
  - Assisted with other reports and documents: design analysis report, sanitation master plan update, sanitation utility business plan, and sewage sludge disposal feasibility study.
- Kongiganak, Alaska Water and Sewer Project:
  - Developed Water and wastewater system conceptual design for water source improvements and vacuum sewer system.
  - Performed house assessment of about 120 homes and businesses onsite.
  - Obtained permits including ADEC water storage tank approval to construct and lagoon discharge.
  - Assisted with manuals including lagoon operations and maintenance and water treatment plant operations and maintenance.
  - Assisted with other reports and documents: design analysis report and house assessment.
- Marshall, Alaska Water and Sewer Project:
  - Assisted with the procurement of water and sewer improvement components.
  - Assisted with the procurement of the Bureau of Indian Affairs (BIA) easements and securing permits.
  - Assisted with water treatment plant operations and maintenance manual.
  - Assisted with the stormwater pollution prevention plan.
- Pilot Station, Alaska Water and Sewer Project
  - Wrote construction standards for water and sewer service lines.
  - Obtained ADEC lagoon discharge permits.
  - Assisted with wastewater treatment lagoon operations and maintenance manual.
- Tatitlek, Alaska Water Project:
  - Performed a horizontal and vertical control survey of future water and sewer system.

- Assisted in installing water and sewer mains, butt-fused and pressure tested water mains, installed several water and sewer service connections, and installed a fire hydrant.
- Helped build the water treatment plant including wall and roof construction.
- Developed Environmental Management System (EMS) manual for Veco Alaska Inc.'s North Slope Operations.