

**American Institute of Mining,
Metallurgical, and Petroleum Engineers**

2021 ANNUAL REPORT



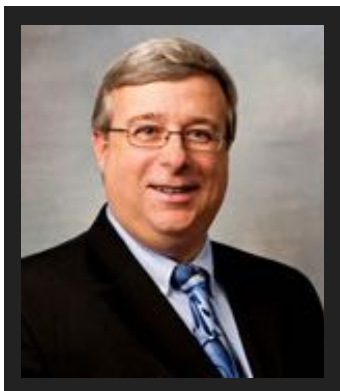
Member Societies:



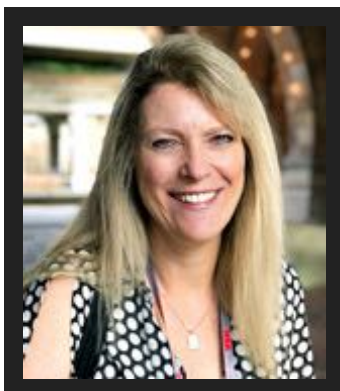
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The Year in Review



Kevin Zeik
2021 President



Michele Lawrie-Munro
Executive Director

Report of the 2021 – 2022 AIME Leadership

Mission-Driven Governance

AIME is governed by a Board including 2 Trustees from each of its 4 Member Societies and AIME's Executive Director. One is a volunteer leader serving in the presidential rotation for a four-year term; the other is the Member Society Executive Director serving continually to help provide continuity of mission-driven direction.

Most work is done by AIME's Audit, Investment, and History and Heritage Committees. We thank volunteers, including the Member Society CFOs, serving in these capacities as well as other Member Society representatives on external award committees as shown on the following page:

AIME Activities 2021-2022 FINAL

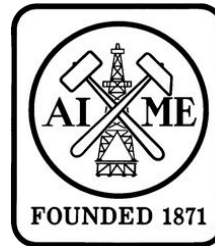
	= new appointment	= unconfirmed/opening		External Affairs		
	Audit Committee	Investment Committee	History & Heritage Committee	United Engineering Foundation	Funds Characterization Committee	Member Society Direct Sustainability Committee
Rules	MSEDs, President-Elect Designate ex-officio	President-Elect/Treasurer Chair, MS Finance Staff	Past President Chair	AIME Board direct oversight	ad hoc established 2/2/2021	ad hoc established 2/2/2021
SPE	Mark Rubin	Jennifer Miskimins (Chair); Steve Byrne	Mark Rubin	Roland Moreau (through September 2023)	Mark Rubin	Steve Byrne (Chair); Jennifer Miskimins
TMS	Jim Robinson; Liz Holm	Steve Reubi	Liz Holm	Ron Ashburn (through September 2025)	Jim Robinson	Adrianne Corolla
SME	Dave Kanagy (Chair)	Michelle Kroeger	George Luxbacher (Chair)		Dave Kanagy (Chair)	Michelle Kroeger
AIST	Ron Ashburn	Mark Didiano	Ron Ashburn		Ron Ashburn; Kevin Zeik	Mark Didiano; Kevin Zeik
AIME	Michele Lawrie-Munro	Michele Lawrie-Munro	Michele Lawrie-Munro		Michele Lawrie-Munro	Michele Lawrie-Munro
			ETHW Council	Emerging Leaders Alliance		
SPE			Glenda Smith (as able)	James Whitaker		
TMS			Lynne Robinson (as able)	Debby Hixon		
SME			Jane Olivier (as able)	Mona Vandervoort		
AIST			Chris McKelvey (as able)	Chris McKelvey, Jamie Blick		
AIME			Michele Lawrie-Munro, Chair	n/a		
			Member Society Award and Scholarship Ctes	Hoover Award		
SPE			Various	Zhenhua "Ray" Rui; Alternate: Yogashari Pradhan		
TMS			Various	Oladele A. Ogunseitan		
SME			Various	Ponisseril Somasundaran, Alternates: Tuncel Yegulalp, S.A. "Ravi" Ravishankar		
AIST			Various			
AIME						
				Noble Prize		
SPE				Peter C. Collins		
TMS						
SME						
AIST						
				Washington Award		
SPE				Tom Battle		
TMS						
SME						
AIST						
				National Inventors Hall of Fame		
SPE				Carlos Torres-Verdin, UT Austin		
TMS						
SME						
AIST						

AIME Celebrates 150 Years - Meeting the Goals of its Mission



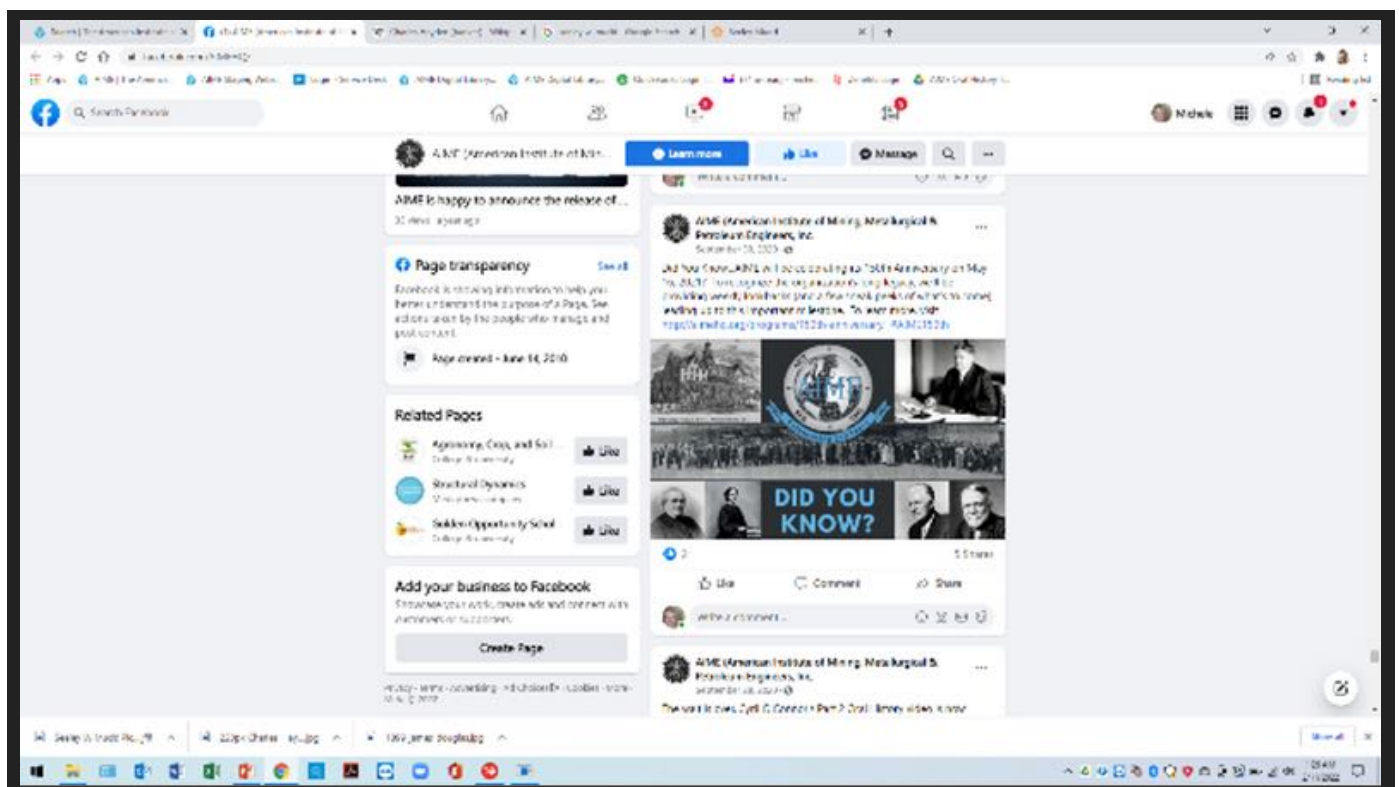
AIME's mission is to support its Member Societies by:

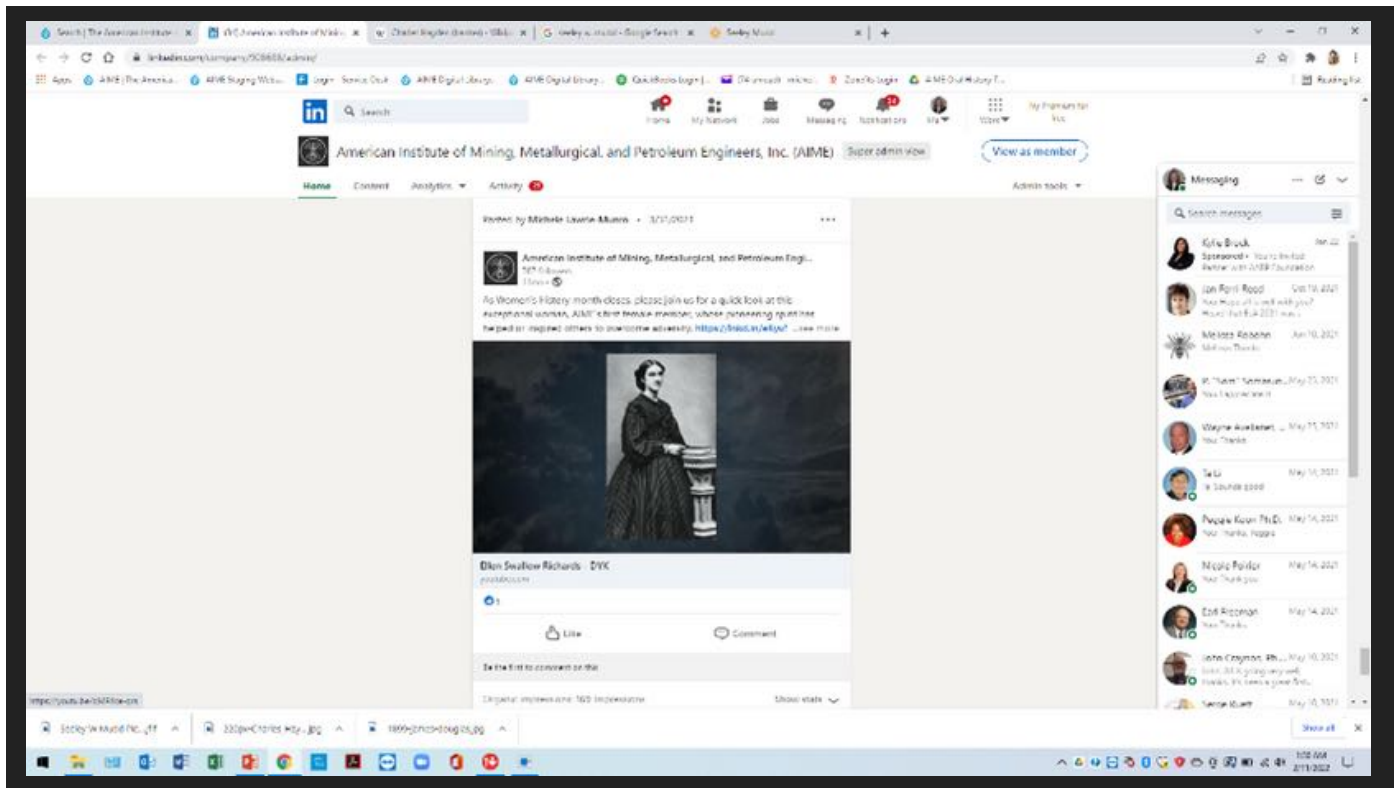
- 1) Exercising fiscal responsibility to allow fund distributions
- 2) Facilitating interaction with the relevant scientific and engineering community
- 3) Honoring the legacy and traditions of AIME



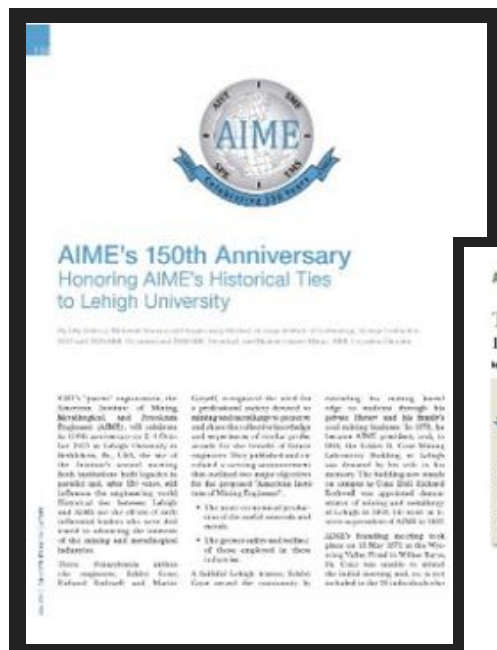
One of the ways AIME honors the history of the organizations is with milestone recognition. And, with AIME reaching its 150th anniversary in 2021, the group's efforts were largely focused in this realm. Despite the continue COVID-19 pandemic, AIME and its Member Societies celebrated this distinctive milestone in several ways.

AIME started building awareness and interest with “Did You Know...?” social media posts in October 2020. We were excited to engage AIME past and current leadership reading archival excerpts via Zoom, as well as sharing posts from members knowledgeable on the histories of the groups. Members can access AIME social media channels easily by clicking icons in the upper right of AIME's homepage, www.aimehq.org.

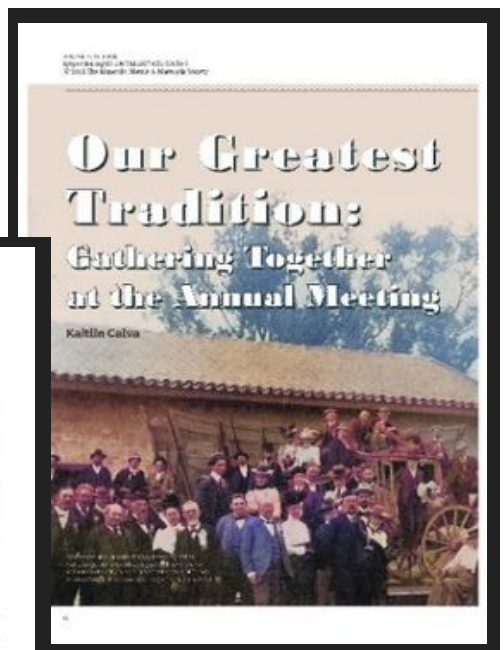
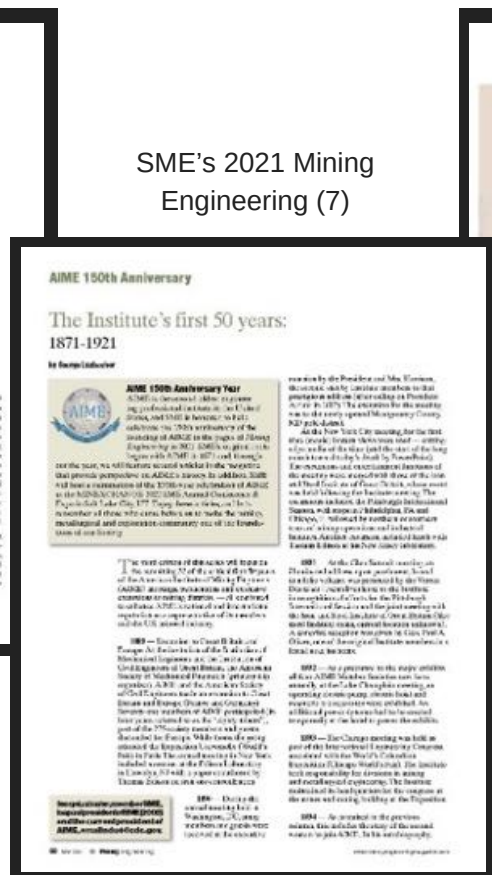




AIME and its Member Societies also published historical articles throughout 2021:



AIST's Iron & Steel Technology
May 2021 issue

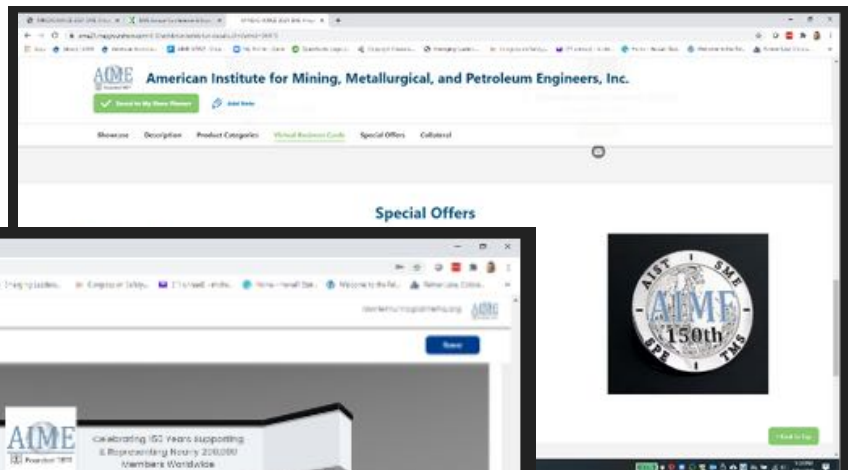


TMS' 2021 JOM (7)

AIME also gave each Member Society funding for celebrations at their individual conferences. At SPE, this supported keynote, [Daniel Yergin](#), energy author, at SPE ATCE in October 2020 (virtual due to the pandemic and moderated by AIME 2022 President, Jennifer Miskimins)...



Due to the pandemic, SME and TMS postponed their celebrations to their 2022 in-person conferences, but AIME had exhibit booths and gave away 150th pins at SME and TMS virtual conferences...





AIME provided funding for items all of the organizations could use, i.e. a [150th video](#) produced by SPE and a History Walk of 12 pop-up banners to be displayed at events (with an accompanying [souvenir booklet](#)).

Each Member Society selected 3 additional Honorary Members in 2021 (one for each 50 years of existence).

And, AIME worked with Member Society staff to redesign the Honorary Member recognition to enhance the display and streamline production and shipping.



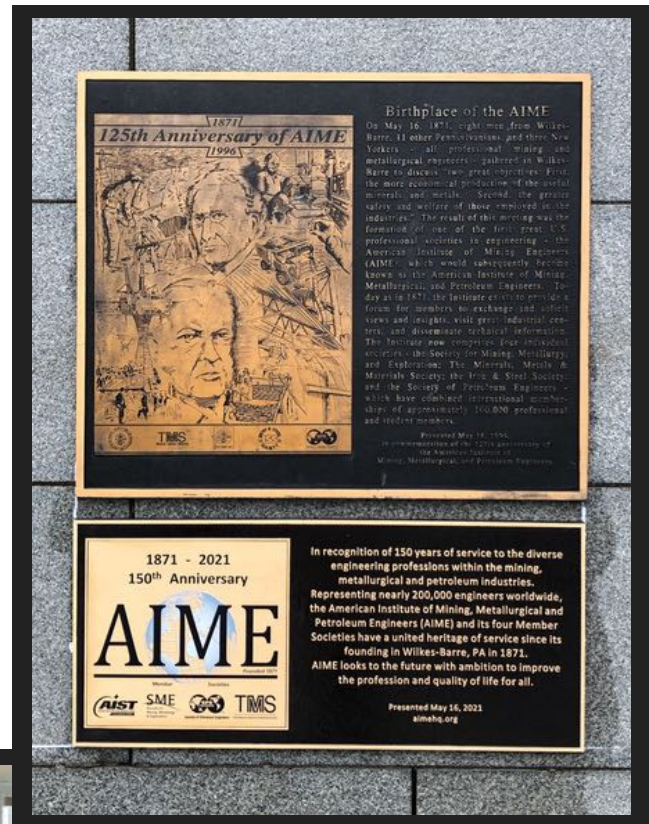
Shown are photos of the 10 foot by 30-foot display space AIST allocated for the History Walk at AISTech 2021 (called the AIME 150th Pavilion). Note that AIME's Kiosk is at one end, which played snippets of [oral history captures](#) of prominent AIST members. AIST prominently promoted the anniversary throughout the Nashville Convention Center.



anniversary, May 16, 2021 to reveal an update to the plaque installed for AIME's 125th. Local and state officials, the Luzerne County Historical Society Director, SME PA Anthracite Section, SME, and AIME leadership spoke at the gathering.

(videos are at <https://aimehq.org/what-we-do/milestone-recognition/150th-anniversary/aime-150th-update-plaque-reveal>).

AIME and Member Society leadership hosted plaque reveals in its birthplace, Wilkes-Barre, PA. A small group gathered in the town square on AIME's actual



Afterward, SME's Pennsylvania Anthracite section (which celebrated its 100th anniversary in 2016), hosted a lunch including keynote speaker, AIME 2020 President, George Luxbacher. AIME artifacts, like the first minutes book and archival proceedings were on display (this type of road show is available to the Member Societies).



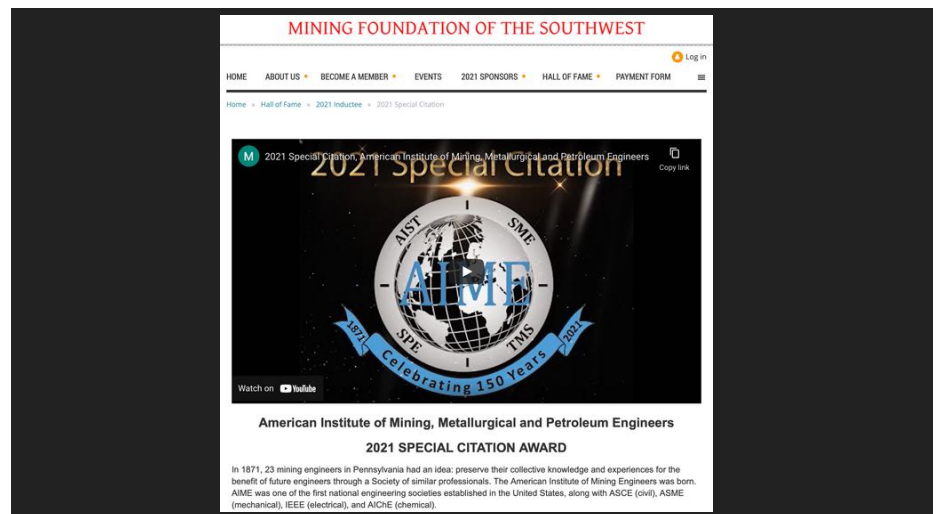
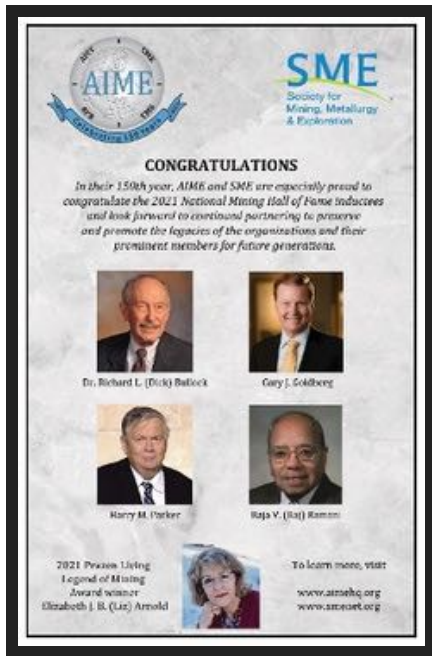


AIME hosted its annual Board meeting on October 2-4, 2021 at the site of its second meeting in August 1871, Lehigh University in Bethlehem, PA. There the group hosted a plaque reveal on campus to celebrate the historical ties between the two institutions, a gala dinner with cake and champagne toast, historical talks, and industry-related field trips. See the program, talk slides, videos, and more at <https://aimehq.org/what-we-do/milestone-recognition> (or scroll down AIME's homepage and click the Explore button under AIME 150th Anniversary).



AIME 2020 President, George Luxbacher, also attended fall 2021 events in CO and AZ where AIME's sesquicentennial was recognized

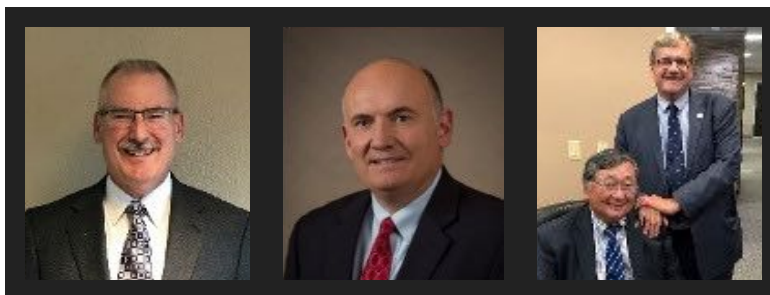
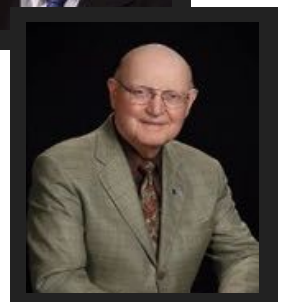
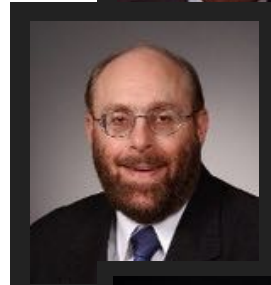
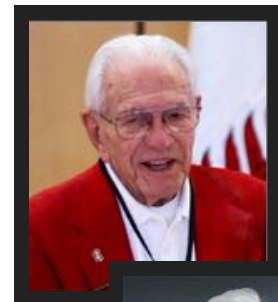
- National Mining Hall of Fame Induction October 23
- SME displayed a portion of the History Walk
- AIME contributed to a joint ad with SME in the program
- [Mining Foundation of the Southwest presented AIME with a special citation](#) December 4



And, AIME continued building its oral history library in 2021...

- With the pandemic, staff pivoted to garner 6 remote recordings
 - AIST: [George Jedenoff](#); [Alex McLean](#); [Madhu Ranade](#)
 - TMS: [Harry Bhadeshia](#); Bob Shull; Ray Decker
- And, were lucky enough to capture 4 in person
 - AIST: [Rick Bodnar](#); John Speer
 - SME: [Ta Li](#); [Doug Silver](#)

There are now 69 oral histories on AIME's website (with another 8 nearly ready for release and at least 15 new captures being done in 2022)



Foundational Role

Finally, one of AIME's most important roles has been to provide a portion of surpluses to the Member Societies.

In 2021, the AIME Board voted to distribute \$1,000,000 (\$250,000 to each of the 4 groups) to assist with impacts of the pandemic. AIME also provides income from the following endowment funds for specific purposes.

Seeley W. Mudd



James Douglas Library



Charles Hayden



A blue ink signature of Kevin Zeik.

Kevin Zeik
2021 President

A black ink signature of Michele Lawrie-Munro.

Michele Lawrie-Munro
Executive Director

President's Notes

It has truly been an honor and privilege to be part of AIME for so many years. My official role as a Trustee began on August 8, 2015, almost seven years ago, but the influence of AIME on my career began much earlier as a member and past director at AIST, formally known as ISS, back in 1992. During this period of time, we have all experienced change: in our careers, at AIME, and in the world around us. With change has come some great opportunities to improve. I am honored to have served as 2021 President of AIME to help us navigate that.

Coming from one of our most notable years, our 150th Anniversary, AIME celebrated its history and heritage in grand fashion with the Plaque Ceremony in Wilkes-Barre and the Annual Meeting in Bethlehem, Pennsylvania. At this meeting, we heard a great deal about the legacy of AIME as told through the voices of some of the past leaders in the fields of mining, metallurgy and petroleum. This served to remind all of us about AIME and its benefits to many thousands of scientists and engineers since the very beginnings of technological developments in the United States of America.

During my tenure as President of AIME, I can sum up our path in one word “optimization”. This experience was not working alone, but with the collective teamwork of all Member Societies’ Executive Directors, who are now permanent members of the AIME Board, along with each of the societies’ key members who serve in the leadership rotation on the Board and the AIME Executive Director (ED). During my first speech to the Board of Directors last fall, I coined the term “the Next 50” to indicate the challenges that lie ahead in maintaining the legacy of AIME, its fiduciary responsibilities and viability, distributing funds for the awards and recognition of the industry’s best and brightest talent, and continuing to honor the legacy and traditions of AIME.

Last year, our previous President, Mr. George Luxbacher, worked very hard to complete a mission that he had begun several years earlier, to fully investigate each and every one of our endowment funds. His goal was one of optimization and accuracy, a legal review with the goals to assure that we are properly honoring donor intent and adequately acknowledging those individuals for which the funds have been named. With that finished, it offered a springboard to look at AIME operations and future financial viability.

Over the past year, we have been working hard to examine our operating practices in support of our mission. AIME Executive Director, Michele Lawrie-Munro, has been a great ED for so many years and has worked with me to distill the functions that are most critical to maintaining the viability of AIME for the next 50 years. As we look forward to our future, we must look at the best way to not only optimize our operations to support our mission but look for the means to maintain this support and continuity into the future. We have formally begun the process to solicit interest from association management companies as a way to optimize our continued operations, while maintaining the legacy of AIME. Although not complete by the end of my tenure, I hope that the groundwork is laid to ensure that the next 50 for AIME is as prosperous as the past 150 years have been.

President's Notes

I would like to end with deep appreciation to AIST and their Board for the initial nomination to the Board of Trustees of AIME. I would also like to acknowledge the leadership of the other three societies for a warm welcome and hospitality during my tenure and visitation to their annual meetings and conferences. This has allowed me to learn so much more about the worlds of mining, petroleum, and materials, and we are all so interconnected. This, to me, is one of the strengths of AIME and being a Trustee.

A handwritten signature in blue ink, appearing to be 'R. J. 38'.

2021 AIME President

Report of the 150th Annual Meeting

On AIME's actual 150th anniversary, May 16, 2021, local representatives from SME's Pennsylvania Anthracite section hosted a small group of AIME and SME leadership and local dignitaries in AIME's birthplace, Wilkes-Barre, Pennsylvania, USA, to install a 150th-anniversary update plaque to the 125th-anniversary plaque in the town center followed by a private lunch. On October 2-4, 2021, a larger contingent of AIME leadership and representatives from across the Member Societies installed a plaque at Lehigh University in Bethlehem, PA, the site of AIME's 2nd meeting in August 1871, depicting strong ties between the two entities at the beginning of their legacies. Festivities included history talks, a gala dinner, and industry-related field trips in the local area. AIME also received a Special Citation from Mining Foundation of the Southwest for reaching this unique milestone!

Additional details on AIME's activities can be found on AIME's website, www.aimehq.org.



New AIME 2022-2023 Officers and Trustees

PRESIDENT



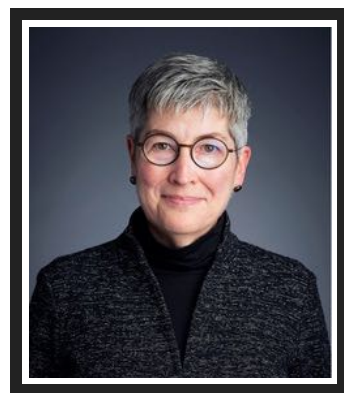
Jennifer Miskimins
(SPE - Term ends 2024)

Dr. Jennifer L. Miskimins is a Professor and the Department Head of the Petroleum Engineering Department at the Colorado School of Mines, where she holds the F.H. Mick Merelli/Cimarex Energy Distinguished Department Head Chair. Dr. Miskimins holds BS, MS, and PhD degrees in petroleum engineering and has split her career between industry and academia with appointments at the Colorado School of Mines, Marathon Oil Company and Barree & Associates. She has been with the Colorado School of Mines in various capacities since 2002. Dr. Miskimins specializes in well completions, stimulation, hydraulic fracturing, and associated production issues. She

is the founder and current Director of the Fracturing, Acidizing, Stimulation Technology (FAST) Consortium and also directs the Center for Earth Materials, Mechanics, and Characterization (CEMMC). Her research interest focus on the optimization of stimulation treatments and the importance of such on associated recovery efficiencies.

Dr. Miskimins served as the first Completions Technical Director on the SPE International Board of Directors from 2015-2018. She was an SPE Distinguished Lecturer in 2010-2011 and 2013-2014 on hydraulic fracturing in unconventional reservoirs. In 2014, she was awarded the SPE International Completions Optimization and Technology Award. Dr. Miskimins serves on a variety of conference organizing committees and as a technical editor for various journals. She was the Editor-in-Chief for the recent SPE Monograph update Hydraulic Fracturing: Fundamentals and Advancements. Dr. Miskimins is a registered Professional Engineer in the State of Colorado (License #36193).

PRESIDENT-ELECT



Elizabeth Holm
(TMS - Term ends 2025)

Elizabeth A. Holm is a Professor of Materials Science and Engineering at Carnegie Mellon University. Prior to joining CMU in 2012, she spent 20 years as a research scientist at Sandia National Laboratories. Her research areas include computational materials science at the atomic and mesoscale and AI and machine learning for materials science. Dr. Holm obtained her B.S.E in Materials Science and Engineering from the University of Michigan, S.M in Ceramics from MIT, and dual Ph.D. in Materials Science and Engineering and Scientific Computing from the University of Michigan. Dr. Holm has received several honors and awards, is a Fellow of ASM

International and the Minerals, Metals, and Materials Society (TMS), 2013 President of TMS, an organizer of numerous international conferences, and has been a member of the National Materials Advisory Board. Dr. Holm has authored or co-authored over 160 publications.

PRESIDENT-ELECT DESIGNATE



J. Steven Gardner
(SME - Term ends 2026)

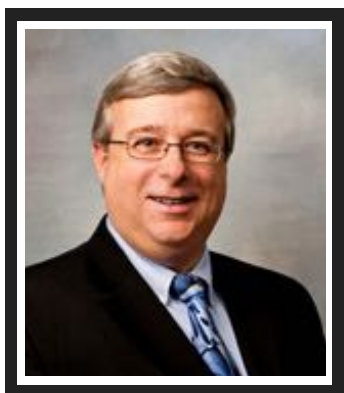
J. Steven Gardner served as President/CEO of ECSI, LLC for 36 years, a consulting practice focused on natural resources, mining, reclamation, energy, environmental, health and safety issues. In January 2019 ECSI merged with SynTerra Corp. where he now serves as VP Special Projects, Mining & Energy.

Mr. Gardner has an MS Mining Engineering, Graduate Certification in Environmental Systems and BS Agricultural Engineering from the University of Kentucky. In 2011, he was inducted into the UK Engineering Hall of Distinction. As a Professional Engineer,

he has worked on projects throughout the US and internationally. Early in his career, he served on a volunteer mine rescue team.

He was 2015 President of the Society for Mining, Metallurgy and Exploration (SME) and recognized as a Distinguished Member and Registered Member. Currently he serves as the Vice President of Finance for the SME Foundation. He has worked as an engineer, owner and manager in both mining operations and consulting. He served on the UK Mining Engineering Foundation, Kentucky Geological Survey, Biosystems & Agricultural Engineering Advisory Boards and was a member of the Kentucky Board of Licensure for Professional Engineers and Surveyors.

PAST PRESIDENT



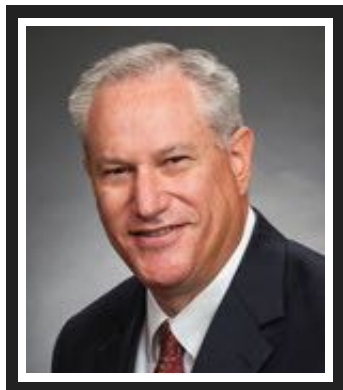
Kevin Zeik
(AIST - Term ends 2023)

Dr. Kevin L. Zeik graduated from The Pennsylvania State University with a Ph. D. in Metals Science and Engineering in 1991. His graduate work was focused on copper – niobium microcomposites for the hypersonic aerospace program, working as a Researcher at the Ames Laboratory, Iowa State University. Upon graduation, Zeik joined the United States Steel Corporation Research Center in Monroeville, PA as a Senior Research Engineer working on electron microscopy and surface sciences of steel products. In 1994, he moved into the failure analysis group as an Associate Research Consultant, and two years later, he was named Research Manager for the

failure analysis, computer modeling and welding groups. Zeik moved to the Materials Technology section in 1999, serving as Research Manager of the group until 2002, when he advanced to Technical Director. In 2004, Kevin was named Director – Process Technology Division where he oversaw efforts to improve process efficiency from mining operations through iron and steelmaking and into finishing and coating processes. He focused on the adaptation of existing processes and development of new processes to meet the demands presented by the production of new high performance steel grades. In that year, the Research and Technology was moved to its current location in Munhall, PA. In August 2008, he was advanced to his current position, General Manager – Research for United States Steel Corporation where he is now responsible for directing all research and development activities associated with flat rolled and tubular steels and steel solutions.

He has been a member of AIST and its predecessor organization, ISS, for over 20 years. He has held the positions of Chair – Mechanical Working Division of ISS, and served on the Board of Directors of AIST, including the transition team from ISS to AIST.

Non-Officer Trustees

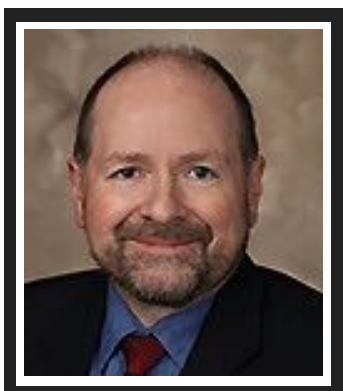


Mark Rubin
(SPE)

Mark Rubin is responsible for overall management of SPE. He works with the Board of Directors and senior staff to develop strategic and business plans and formulate the organization's goals, objectives, policies, and programs. He also organizes and directs the global staff organization, which includes offices in Dallas, Houston, Kuala Lumpur, Dubai, London, and Moscow, to ensure the accomplishment of SPE's mission.

He was appointed executive director of SPE in August 2001. Prior to this appointment, he served as upstream general manager for the American Petroleum Institute (API) in Washington, D.C. He joined API in 1988 and held a series of positions working on federal regulatory and legislative matters as well as technical standards development.

A member of SPE since 1979, Rubin held petroleum engineering positions for Unocal in Houston and east Texas from 1981 to 1987 and for Buttes Resources in Dallas 1987–88. Rubin is a member of the American Society of Association Executives and Council of Engineering and Scientific Society Executives. He has been a member of the National Petroleum Council, Interstate Oil and Gas Compact Commission, and International Association of Oil and Gas Producers. He earned a BS degree in petroleum engineering from Texas A&M University and an MBA from Southern Methodist University.



Jim Robinson
(TMS)

James J. Robinson has held a number of positions within TMS since joining the Society in 1984 as an editorial team member for JOM. Prior to becoming executive director in 2012, he held the position of deputy executive director. In that position, Robinson managed the development and execution of the Society's programs and supported the Board of Directors, the Executive Committee, and other volunteer bodies, inclusive of governance and strategic planning activities. He also supports the efforts of the TMS Foundation as an ex-officio member of the Board of Trustees. Robinson's past positions with the Society include serving as Chief

Operating Executive, Director of Knowledge Management and Communication, and Editor of JOM (TMS's membership journal). He still contributes to JOM as a monthly columnist.

Robinson is an ASAE Certified Association Executive (2009). Academically, he earned his M.A., corporate communication, from Duquesne University (Pittsburgh, Pennsylvania) and his B.A., journalism and communications, from Point Park University (Pittsburgh, Pennsylvania). His non-materials professional affiliations include ASAE, the Council of Engineering and Scientific Society Executives, and the Pittsburgh Society of Association Executives.



Dave Kanagy
(SME)

Since joining SME in 2004, Kanagy has been largely responsible for the Society's success. Focusing on growth, innovation, and opportunity, SME has become the world's largest mining-related organization. He is the recipient of two prestigious awards including the Colorado Society of Association Executives' Professional of the Year award and the Mining and Metallurgical Society of America's Gold Medal award. He has a B.S. degree in industrial education from the University of Maryland, a M.S. degree in technology education from Eastern Illinois University and is a certified association executive by the American Society of Association

Executives.



Ronald Ashburn
(AIST)

Ron is the first Executive Director of the Association for Iron & Steel Technology (AIST), having served in that capacity since the organization's founding in 2004. AIST is now the world's largest trade association within the iron and steel industry.

In his current role, Ron is responsible for oversight of business operations and strategic planning initiatives for AIST and the AIST Foundation. He formerly served as Managing Director of the Association of Iron and Steel Engineers until

its merger with the Iron & Steel Society to form AIST. Prior to AIST, Ron was employed with the German engineering firm SMS, a global builder of steel plants, where he last served as Vice President - Operations for their Steelmaking and Casting Division in North America. He held previous positions with SMS and the consolidated Mannesmann Demag including Vice President – Casting and Hot Rolling as well as Director of Technology for Steelmaking and Casting. Ron received his B.S. degree in mechanical engineering from the University of Pittsburgh, and participated in metallurgical process training at University of British Columbia and global business management training at the University of Virginia.

He is a Board member of AIST, the AIST Foundation, as well as the American Institute of Mining, Metallurgical and Petroleum Engineers (AIME) and the United Engineering Foundation (UEF).

Non-Voting Trustees



L. Michele Lawrie-Munro
Executive Director

Michele Lawrie-Munro has been the Executive Director of AIME since 2011. She was promoted from Interim ED in 2009 and Associate Executive Director before that from May 2003. Her recent experience includes leading multi-disciplinary, collaborative efforts.

In addition to the not-for-profit arena, she has used her management and marketing skills in the public and private sectors for telecommunications and professional services firms. She has been involved in research, leadership development and recognition initiatives, and been a liaison on systems requirements. She has previously volunteered in leadership positions with the Palmer Lake Historical Society, Boy Scouts of America, and the Hugh O'Brien Youth Foundation.

She received the Certified Association Executive (CAE) designation in 2014 and has a bachelor's degree from the University of Colorado, as well as extensive corporate leadership training. In her spare time she likes to motorcycle, ski, hike, bicycle, cook, and garden.

AIME Past Presidents - Active List



2021 – Kevin Zeik
2020 – George Luxbacher
2019 – Hani Henein
2018 – Roland Moreau
2017 – John G. Speer
2016 – Nikhil Trivedi
2015 – Garry Warren
2014 – Behrooz Fattahi
2013 – Dale Heinz
2012 – George W. Luxbacher
2011 – Brajendra Mishra
2009 – Ian Sadler
2008 – Michael Karmis
2007 – Dan J. Thoma
2006 – James R. Jorden
2005 – Alan W. Cramb
2004 – Robert C. Freas
2003 – Robert H. Wagoner
1999 – Paul G. Campbell, Jr.
1998 – Roy H. Koerner
1997 – Leonard G. Nelson
1995 – Frank V. Nolfi, Jr.
1983 – Edward E. Runyan

*Photo of David Thomas
1871
First President of AIME*

Recipients of Awards

Honorary Membership

Terry G. Fedor II

AIST

For his exemplary leadership within industrial operations, and for his passionate support of the integrated steel industry, including the activities of AIST, the AIST Foundation and the Institute. Fedor has been instrumental to the successful integration of the former AK Steel and former ArcelorMittal USA mills into the newly expanded Cleveland-Cliffs Inc., making it the nation's largest flat-roll steel producer, where he is also responsible for the company's latest capital investment for the direct reduction of iron. Throughout his career, Fedor has unselfishly shared his time and operational expertise with AIST and the AIST Foundation through board service, active committee participation and as AIST president in 2013–2014.

Ronald J. O'Malley

AIST

For his outstanding applied research in the production of specialty and carbon steels, O'Malley is recognized as one of the world's foremost experts in the continuous casting process, including modeling, simulation and decarbonization technologies. His work has been acknowledged by his peers through a variety of awards, including the AIST Distinguished Member and Fellow Award and the AIST/AIME Benjamin F. Fairless Award, in addition to his current tenure as AIST president. Throughout his career in industry and to his current role as professor and director of the Kent D. Peaslee Steel Manufacturing Research Center at Missouri University of Science and Technology, O'Malley has exemplified the true spirit in which the Institute was founded.

John G. Speer

AIST

For his significant academic contributions which have improved the understanding of phase transformation and have materially impacted the production processes deployed for advanced high-strength steels. From his days at the former Bethlehem Steel and its highly regarded Homer Research Laboratory to his current role as a professor and director of the Advanced Steel Processing and Products Research Center at the Colorado School of Mines, Speer has led by example with academic prowess, humility and generosity. Through his active mentoring, many students have learned the value of involvement in professional societies. An AIST Distinguished Member and Fellow, he has contributed to all levels of the Institute, for which he served as AIME president in 2017–2018.

Chenn Q. Zhou

AIST

For her innovative work in the field of advanced visualization technology, Zhou is globally recognized as an expert in computational fluid dynamic simulations and combustion. Her passion for applied digital technologies, the promotion of industry-academia collaboration, and ongoing support for workforce development have resulted in a greater understanding of the science of steel manufacturing. As a past Trustee of the AIST Foundation, and with her current role as director of the Center for Innovation through Visualization and Simulation at Purdue University Northwest, she has advocated for the Institute's professional societies as vital platforms for research and scholarship, which has helped to position AIST at the forefront of the steel industry's digital revolution.

Barbara J. Arnold

SME

For her dedication and perseverance in developing a stronger and more vibrant SME Foundation continuing through exemplary service as SME President.

Timothy D. Arnold

SME

For his demonstrated service to SME and his exceptional professional achievements in the mining industry.

J. Steven Gardner**SME**

For his outstanding professional contributions as an entrepreneur, engineer, and mining executive, as well as his steadfast leadership in SME.

Mary M. Poulton**SME**

For recognizing the critical need for additional faculty and research funding in Mining Engineering and her commitment to recruiting the next generation of mining engineers.

Mohammed Yahya Al-Qahtani**SPE**

For his distinguished career as a competent technocrat, an effective contributor to the SPE, and a visionary leader transforming one of the largest energy companies in the world to implement effective carbon management programs credited with setting new industry benchmarks in technology innovation and sustainability.

George V. Chilingar**SPE**

For 65 years of sustained and significant contributions in carbonate reservoir characterization, petroleum engineering and petroleum geology education and mentoring, dissemination of technology and technical information, and international professional service to the SPE and other petroleum related organizations.

Thomas Arthur Gouldie**SPE**

For his 40 years of distinguished services to the SPE, extensive volunteering on numerous local, regional and international committees, for and for writing the first Engineers Australia/SPE Agreement of Co-operation.

Jitendra Kikani**SPE**

For his significant contributions to advance the state of technology in reservoir simulation and engineering, the tremendous global impact he has made on the oil and gas industry, SPE, and his life-long dedication to the petroleum engineering that transcend across industry, R&D, societal, and community activities.

George J. Moridis**SPE**

For his pioneering work in numerical simulation of natural gas recovery from hydrates in geologic media, providing answers to critical and challenging problems that enable the exploitation of a new unconventional energy resources and the analysis of the environmental impact.

Robello Samuel**SPE**

For his globally recognized technical expertise contributing solutions to drilling challenges, for encouraging energy-related social engagement, knowledge transfer, sustainability awareness and raising the profile of energy industry within the community, and for consistently mentoring young professionals in the oil and gas industry.

David McDowell**TMS**

For contributions to multiscale modeling and design of structural materials, microstructure-sensitive simulation of fatigue property variability, and leadership in materials innovation.

Dan Thoma**TMS**

For sustained technical contributions, distinguished service, and continued leadership for the engineering profession in multiple efforts affiliated and associated with AIME.

AIME Presidential Citation (formerly AIME Distinguished Service Award)

Ta M. Li

SME

For his unswerving and sustained dedication to AIME in building its prosperity and in support of its Member Societies.

Rossiter W. Raymond Memorial Award

Emily J. Haas

SME

Quick fixes to improve workers' health: Results using engineering assessment technology

Charles F. Rand Memorial Gold Medal

John M. Marek

SME

For his exceptional leadership in managing a premiere consulting group which exemplifies the highest standards of integrity and service and is an outstanding example of best industry practice for the global mining community.

Khaled Al-Buraik

SPE

For his positive influence and various leadership roles at Saudi Aramco, culminating with his role as Saudi Aramco Vice President for Oil Operations administering a huge scale of operations responsible for more than 70% of Saudi Arabia's crude production, safeguarding energy supply reliability for the Kingdom, and for overseeing and increasing sustainability across the Kingdom's mega fields.

AIME Robert Earll McConnell Award

Carlos Lira-Galeana

SPE

For his significant contributions toward replenishing a natural resource base by establishing a network of laboratories in Mexico to conduct research on phase behavior projects, advanced PVT, and flow assurance to increase efficient design and optimization of oil recovery and production processes.

James Douglas Gold Medal

Maurits Van Camp

SME

For his visionary leadership and as an entrepreneur who is dedicated to developing innovative, technological solutions and promoting collaboration between industry, academia and governmental organizations.

AIME Mineral Economics Award

Keith N. Spence

SME

In recognition of his years of dedication and outstanding contributions to establishing consistent, recognized standards for mineral project valuation.

Mineral Industry Education Award

Erik C. Westman

SME/TMS

For being a pioneer and educator in developing time-lapse, three-dimensional imaging for underground rock masses.

Frank F. Aplan Award

Nikhil C. Trivedi

SME

For outstanding technical contributions to the field of mineral engineering, especially in advancing the commercialization of innovative ultra-fine particle technology in industrial mineral applications and creation of valued industrial mineral products.

Erskine Ramsay Medal

Frank Calandra Jr.

SME

For distinguished achievement in coal mining as an icon in coal mine safety, advancing ground control technology and saving countless lives.

Robert H. Richards Award

Michael J. Mankosa

SME

For outstanding contributions to applied research, engineering development and commercial deployment of advanced separation systems for the mineral processing industries.

William Lawrence Saunders Gold Medal

Ta M. Li

SME

For exceptional advocacy of the global minerals industry and for sustained leadership and dedication to SME and AIME.

Robert Peele Award

Jennica Bellanca

SME

Developing a Virtual Reality Environment for Mining Research.

Hal Williams Hardinge Award

Srinivas Veeramasoneni

SME

For outstanding and exemplary leadership toward research and innovation in the field of industrial minerals utilized in the building materials industry.

Howard N Eavenson Award

Michael Karmis

SME

For his distinguished contributions to coal mining health and safety, improving the environmental performance of the coal mining industry, and his tireless efforts in capacity building of the coal mining industry and academic leaders.

Daniel C Jackling Award

Mark Baker

SME

In recognition of his contributions to computerized dispatch-system development and automation in open pit mines resulting in major improvements in safety, productivity, and cost in the mining industry.

AIME Environmental Stewardship Distinguished Service Award

R. David Williams

SME

Dave Williams has contributed substantially to the development of Acid Rock Drainage Technical Initiative (ADTI) guidebooks on Mitigation of Metal Mining Influenced Water.

Champ Mathewson Award

TMS

Daniel M. Field

A.L. Pilchak

G.A. Sargent

David C. Van Aken

S.L. Semiatin

Dynamic Strain Aging Phenomena And Tensile Response Of Medium-Mn Trip Steel, And Early Stages Of Microstructure And Texture Evolution During Beta Annealing Of Ti-6Al-4V

Robert Lansing Hardy Award

TMS

Bryce Meredig

For pioneering work in the use of artificial intelligence to accelerate materials design and discovery.

Benjamin F. Fairless Award

Ruth Engel

AIST

For a lifetime of contributions to the steel industry; and for her tireless and enthusiastic dedication to the support of steelmakers, the Iron & Steel Society, and AIST, and to educating the next generation of refractory specialists in understanding the importance of refractories and their use.

J.E. Johnson Award

Mitren Sukhram

AIST

Hunt-Kelly Outstanding Paper (AIST) – 2020

* Partially funded by the AIME Robert W. Hunt Fund

First Place: BOF Process Optimization and Technology Improvements at Ternium Brazil

Daniel Carvalho

Herbert Castro
Leonardo Demuner

Marcos Viana

Note: The \$5,000 prize will be divided equally among the authors.

Second Place: The Next Generation of Mill Roll Inspection Systems: A Case Study of a New Inspection System

Borja Lopez

Joseph Baczynsky

Note: The \$2,500 prize will be divided equally among the authors.

Third Place: Slag Engineering for Phosphorus Removal in the EAF and Sulfur Removal in the Ladle

Sunday Abraham
Yufeng Wang
Randy Petty

Tony Franks
Tim Sprague
Gary Brown
Wesley Woods

Wesley Nicholson
Miles Haberkorn
Rick Bodnar

Note: The \$1,000 prize will be divided equally among the authors.

Anthony F. Lucas Gold Medal

Oliver C. Mullins

SPE

For leading the new Reservoir Fluid Geodynamics technical discipline in reservoir evaluation, originating a downhole fluid analysis used by all major service companies, and leading the resolution of the Yen-Mullins model of asphaltene nanostructures in crude oil, used to develop the industry's first thermodynamic equation of asphaltene gradients in reservoir crude oils.

DeGolyer Gold Medal

Jose C. S. Cunha

SPE

For his countless hours of volunteer work, professional contributions, and leadership in association with various SPE publications, workshop and conference events, including serving as the SPE Technical Director for Management and Information, chair of many SPE committees, technical editor, and Distinguished Lecturer.

Recipients of Scholarships

Henry DeWitt Smith Scholarship – 2021

SPE

Stella Eyitayo - Petroleum Engineering (PhD) - Texas Tech University

SME

Fahimeh Dehghani - University of AK-Fairbanks

Amir Eskanolou - West Virginia University

TMS

Faith Ganz - University of North Texas

Yang Shen - Northeastern University

Benjamin F. Fairless Scholarship – 2021

AIST

Nathan Roberts - Mechanical Engineering at Murray State University

John S. Marshall Memorial Scholarships – 2021

Samantha Fowkes	Satyam Kumar	Prithvi Raj
Biplab Ghosh	Pandey Praveer	Brian Welsh
	Aarya Raj Singh	

West Virginia University; IIT(ISM) Dhanbad; IIT (ISM), Dhanbad, Jharkhand; National Institute of Technology Raipur; IIT (ISM), Dhanbad, Jharkhand; IIT (ISM), Dhanbad, Jharkhand; West Virginia University

The Lewis E. and Elizabeth W. Young Undergraduate Scholarships – 2021

* Selected by SME-WAAIME Pennsylvania-West Section

West Virginia University - Mining Engineering and Civil Engineering

James Pollock

Joshua Riffle

University of Utah - Mining Engineering

Ethan Arbuckle

University of Kentucky - Mining Engineering

Dagen Rash

University of Wyoming - Petroleum Engineering

Tolulope Uwaya

University of Pittsburgh - Petroleum Engineering

Alexis Bruno

Daniel Lipinski

Dylan Smith

Luke Rattay

SME Coal & Energy Scholarships – 2021

* Funded by the AIME Howard N. Eavenson Fund

Logan Davis

Southern Illinois University

Alec Elliott

West Virginia University

Baxter Jones

Virginia Tech

Harmonie Ngamuyeka

Pennsylvania State University

Nagam Ramsai

IIT(ISM) Dhanbad

Kelley Anne Severinsen

University of Utah

AIME Honorary Members

Honorary Membership is awarded in appreciation of outstanding service to the Institute or in recognition of distinguished scientific or engineering achievement in fields embracing, broadly speaking, the activities of AIME and its Member Societies.

Active List with Year of Election

2021	Terry G. Fedor II	AIST	2018	C. Susan Howes	SPE
2021	Ronald J. O'Malley	AIST	2018	Mridul Kumar	SPE
2021	John G. Speer	AIST	2018	Stefan Z. Miska	SPE
2021	Chenn Q. Zhou	AIST	2018	Steven Hansen	AIST
2021	Barbara J. Arnold	SME	2018	Thomas J. Russo	AIST
2021	Timothy D. Arnold	SME	2018	Subhash Mahajan	TMS
2021	J. Steven Gardner	SME	2018	Tresa Pollock	TMS
2021	Mary M. Poulton	SME	2018	Drew A. Meyer	SME
2021	Mohammed Yahya Al-Qahtani	SPE	2017	Dongxiao Zhang	SPE
2021	George V. Chilingar	SPE	2017	Sidney S. Smith, Sr.	SPE
2021	Thomas Arthur Gouldie	SPE	2017	Dean S. Oliver	SPE
2021	Jitendra Kikani	SPE	2017	Alexander A. Neyin	SPE
2021	George J. Moridis	SPE	2017	Robert Gordon Moore	SPE
2021	Robello Samuel	SPE	2017	Anil Kumar	SPE
2021	David McDowell	TMS	2017	Akhil Datta-Gupta	SPE
2021	Dan Thoma	TMS	2017	William P. Breedlove	AIST
2020	Glenn Pushis	AIST	2017	Andrew S. Harshaw	AIST
2020	Jessica E. Kogel	SME	2017	Richard P. Teets Jr.	AIST
2020	Tayfun Babadagli	SPE	2017	Hugh Miller	SME
2020	A. Daniel Hill	SPE	2017	Art Schweizer	SME
2020	Ronald L. Hinn	SPE	2017	Reza Abbascian	TMS
2020	D. Nathan Meehan	SPE	2017	Rohit Trivedi	TMS
2020	Hemanta K. Sarma	SPE	2016	Daniel Moos	SPE
2020	Mukul M. Sharma	SPE	2016	Sunil Kokal	SPE
2020	Jun Yao	SPE	2016	C. Shah Kabir	SPE
2019	Wendell Carter	AIST	2016	Ali Daneshy	SPE
2019	John O. Marsden	SME	2016	James R. Arnold	SME
2019	Korukonda Linga Murty	TMS	2016	John N. Murphy	SME
2019	Maria A. Capello	SPE	2016	Siegfried Hecker	TMS
2019	Anuj Gupta	SPE	2016	Dale Heinz	AIST
2019	Franklin M. Orr, Jr.	SPE	2015	Emmanuel Garland	SPE
2019	Jeffrey B. Spath	SPE	2015	J.J. Azar	SPE
2019	Ganesh C. Thakur	SPE	2015	Syed A. Ali	SPE
2018	Christine Ehlig-Economides	SPE	2015	Hazim H. Abass	SPE
2018	Behrooz Fattahi	SPE	2015	Bernt S. Aadnoy	SPE
2018	Joyce Holtzclaw	SPE	2015	Randy Skagen	AIST

AIME Honorary Members (continued)

2015	Thaddeus Massalski	TMS	2010	Raja V. Ramani	SME
2015	William H. Wilkinson	SME	2010	Robert G.H. Lee	AIST
2015	Ta Li	SME	2009	Alan W. Cramb	AIST
2015	Thomas A. Blasingame	SPE	2009	James P. Brill	SPE
2014	Mary F. Wheeler	SPE	2009	Abbas Firoozabadi	SPE
2014	Albert C. Reynolds, Jr.	SPE	2009	Alain C. Gringartern	SPE
2014	Thomas K. Perkins	SPE	2008	Dato' Mohamad Idris Mansor	SPE
2014	S.M. Farouq Ali	SPE	2008	David K. Matlock	AIST
2014	Ali H. Dogru	SPE	2008	Gary A. Pope	SPE
2014	Adam T. Bourgoynne, Jr.	SPE	2008	Kenneth E. Arnold	SPE
2014	Roderick I. L. Guthrie	AIST	2008	Robert C. Freas	SME
2014	William P. Barker	AIST	2008	Robert H. Wagoner	TMS
2014	David Seidman	TMS	2007	David R. Keith	SPE
2013	Fred I. Stalkup	SPE	2007	Don W. Green	SPE
2013	Giovanni Paccaloni	SPE	2007	Richard J. Fruehan	AIST
2013	Medhat M. Kamal	SPE	2007	Roland N. Horne	SPE
2013	Emmanuel O. Egbogah	SPE	2007	Roy H. Koerner	SPE
2013	Kate Hadley Baker	SPE	2006	Merton C. Flemings	TMS
2013	Turgay Ertekin	SPE	2006	Larry W. Lake	SPE
2013	Ali R. Al-Jarwan	SPE	2006	Leonard G. Nelson	AIST
2013	Gerald R. Heffernan	AIST	2005	Fernando Samaniego-Verduzco	SPE
2013	Indira Samarasekera	AIST	2003	Peter D. Gaffney	SPE
2013	Bhakta B. Rath	TMS	2003	Rajagopal S. Raghavan	SPE
2013	Nikhil C. Trivedi	SME	2002	Jacques Bosio	SPE
2012	George W. Luxbacher	SME	2002	Edgar C. Capen	SPE
2012	Iraj Ershaghi	SPE	2002	John P. Hirth	TMS
2012	L. Kent Thomas	SPE	2001	W. John Lee	SPE
2012	G. Paul Willhite	SPE	2001	Sadad I. Al-Husseini	SPE
2012	Andrew A. Young	SPE	2000	Dennis E. Gregg	SPE
2012	David E. Laughlin	TMS	1998	R. Lyn Arscott	SPE
2012	Ian Sadler	AIST	1998	John K. Hammes	SME
2011	Yannis C. Yortsos	SPE	1997	Necmettin Mungan	SPE
2011	Egbert U. Imomoh	SPE	1996	Khalid Aziz	SPE
2011	William M. Cobb	SPE	1995	James R. Jorden	SPE
2011	Theodore F. Lyon	AIST	1995	Hosseini Kazemi	SPE
2011	Barbara A. Filas	SME	1993	Charles L. Bare	SPE
2010	Eve Sprunt	SPE	1992	Alexander McLean	AIST
2010	Fikri J. Kuchuk	SPE	1989	Douglas W. Fuerstenau	SME
2010	Valery I. Graifer	SPE	1988	Edward E. Runyan	SPE
2010	Cesare Colamasi	SPE	1987	Ben H. Caudle	SPE
2010	Ram G. Agarwal	SPE	1973	Harrison H. Schmitt	SME
2010	Michael Karmis	SME			

Legion of Honor - 50 Year Members

Class of 1971

AIME is proud to honor the following people whose membership in the Institute spans a fifty-year period. To all of these people, AIME owes gratitude for their loyalty and appreciation for their faith in its standards. Some have held high office in the AIME ranks and have devoted their time and talents to its continued growth and prestige. They stand to serve as outstanding inspirations for all members.

Association for Iron and Steel Technology (AIST)

Peter C. Bauerle
William R. Clark
Daniel C. Deer III

Robert J. Hennessy
Jon A. Hussey
Kenneth R. Kunz

Robert A. Nadolny
Fred A. Perrotta
Joe Rachford

Society for Mining, Metallurgy, and Exploration(SME)

Terrell I. Ackerman
Brent Anderson
James E. Askew
Paul H. Atkinson
Augusto Baertl
Craig Bartels
William P. Bartow
Jerry L. Bays
John J. Baz-Dresch
Bill Boberg
Jose Botin
Robert J. Boutin
Francois J. Breyer
Robert L. Byrd
John A. Christophersen
Sam B. Clifford
Jack D. Cline
David S. Czarnowski
John S. Dunlop
Michael F. Dunn
Thomas A. Earl
Phillip S. Fetterman
Stephen Forbes
Patrick S. Freeman
O. Jay Gatten

Enrique Gomez De La Rosa
Allen S. Gordon
Thomas A. Gray
Ronald W. Guill
LeRoy G. Hagenbuch
Stanley K. Hamilton
Cliff G. Harding
Bruce K. Hebblewhite
Charles L. Hibbitts
Robin J. Hickson
Robert B. Humphrey
David F. Joggerst
Samuel S. Johnson
William L. Josey
Walter W. Kaufman
Desmond P. Kearns
John R. Kortas
Norman A. Lamb
Alan R. Larson
R. Douglas Learmont
Christopher B. Lee
John M. Lucas
George W. Luxbacher
Graeme Major
John F. Marshall

Jefferson D. McKenzie
Larry E. McMaster
Paul E. Miller
Syver W. More
K Michael Mracek
Victor Navarro
Roland W. Nice
Wayne J. Nordstrom
Mark C. Olm
Edwin A. Pettigrew
Donald E. Raab
Arthur A. Schweizer
Dominick C. Sisti
Kenneth D. Snyder
Gregory B Sparks
Laurence G. Stevens
Daniel W. Thebeau
Steve Thomas
Raja P. Upadhyay
W C. Voss
Herbert E. Welhener
Thomas G. White
Bruce C. Wojcik
Lyall Workman
Zavis M. Zavodni

Legion of Honor - 50 Year Members (continued)

Society of Petroleum Engineers (SPE)

Richard D. Adelu
Michael D. Agostini
M.T. Aktan
Merlin F. Anderson
Ray A. Andrews
John A. Babcock
James O. Baldwin
George Birch
David F. Bishop
Alan W. Blackmon
Victor S. Blanco
Rayln J. Boudreaux
George I. Boyadjieff
Charles W. Brashares
Gary W. Brink
Michael N. Burchell
David B. Burnett
James C. Burtner III
Ryen Caenn
Alan C. Campbell
Robert A. Campbell
Thomas J. Cason
John H. Carter
Harry L. Chang
Robert W. Chase
Barry E. Chovanetz
George M. Cockerham
George E. Coley
Dave O. Cox
James C. Creel
Kenneth H. Crowther
John A. Crum
William M. Daniel
Charles W. Dein
Mark Delestadius
Eric S. Denbina
Lawrence A. Denny
Al H. Denson
John A. D'Hooge
Mark A. Doering

Kirby J. Domingue Jr.
Robert D. Duncan Jr.
Ben W. Ebenhack
Mauricio Eggenschwiler
James O. Eskew
Fred F. Farshad
Stuart L. Filler
Dennis M. Flyr
John R. Frick Jr.
Giin-Fa Fuh
James F. Gafken
Raul J. Garcia
Ali Ghalambor
Remigio Giacomel
Walter T. Golbin
Michael H. Goldthorpe
Bill D. Graham
Clyde J. Gurley
Michael D. Haas
Jacques Hagoort
Bezalel C. Haimson
Hugh B. Hales
G. Michael Harper
Dan J. Hartmann
Kes J. Heffer
Stephen E. Heitzman
Albert R. Hensley
Bob L. Herd
David B. Hinners
Thomas K. Hohn
Roger B. Hough
Egbert U. Imomoh
James W. Jenner
Dennis R. Johnson
Jeffrey A. Jones
Jerry G. Keen
Morris A. Keene
David R. Keith
John E. Killough
David B. Kilpatrick

Samuel L. Kimmel
Robert A. King
Mark A. Klins
Dennis R. Krahn
John R. Lacey
Karl R. Lang
Ronald L. Lang
John D. LaRue
Jack T. Lent Jr.
Larry E. Little
Stephen A. Lieberman
Ronald W. Lubojacky
Robert C. Lyon
Larry V. Macicek
Shastri Maharaj
John F. Martin
Robert N. Mefford
Kenneth M. Miller
John H. Moran
Perry F. Morris Jr.
Jack D. Morrow
Philip A. Moses
Mark W. Mullinix
Dennis L. Napier
Ralph L. Nelms
John J. Newman
Eyvind Normann
Pat D. O'Brien
Sal J. Pagano
Gary L. Parker
Rickey M. Pearce
Paul D. Phillips
Gary A. Pope
Randall T. Rice
Eduardo A. Proano
Thomas S. Radford
Godfrey P. Ransome
Philip J. Rickard
Jesus Rivera R.
Raymond H. Roach

Legion of Honor - 50 Year Members (continued)

Society of Petroleum Engineers (SPE) (continued)

Eric Robinson
Donald P. Roesle
Gonzalo A. Rojas
Irwin Rosenhauch
Fernando Samaniego-Verduzco
George T. Schaefer
Melvin L. Schroeder
John P. Servello
Les Skinner
O. L. Slayton Jr.
John R. Smith
Scotty A. Smith
Santiago J. Solis

Kenneth G. Soyez
David H. St. John
Tony C. Stone
Dwight Strickland
Glenn C. Strobl
Paul J. Szatkowski
Ed J. Szymczak
Harry E. Tate
Charles P. Thomas
Joseph S. Thornton
Leon G. Tullos Jr.
Robert F. Unger
Richard M. Vennett

Stanley L. Walker
James E. Ward
John A. Weisgram
Mark F. Weller
Charles B. Wiley
Peter Williams
Robert H. Williamson
Mary J. Wilson
J.K. Wittle
John H. Yonker
Wolfgang J. Zeidler
Frederick W. Ziehe

The Minerals, Metals & Materials Society (TMS)

Charles L. Bauer
Leslie J. Fekete
Paul A. Flinn
Raymond A. Fournelle
John B. Goddard
Michael F. Henry
Sung K. Kang
Joachim G. Krueger
Frank Lawson
David C. Lynch

Robert Mehrabian
Edward E. Mild
Farghalli A. Mohamed
Jerry F. Newman
William E. Pattullo
Brian Ralph
Irshad A. Rana
James W. Reeves
Lothar H. Reh
Gordon M. Reid
Jef R. Roos

Alexander Scott
Edgar A. Starke, Jr.
David T. Stevenson
Izumi Sukekawa
John L. Sundstrom
Engelbrecht Von
Tiesenhausen
Thomas J. Wardle
Michael J. Weins
Thomas E. Weyand

**AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND
PETROLEUM ENGINEERS, INC.**

Financial Statements

For the Year Ended December 31, 2021

And

Independent Auditors' Report

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.****TABLE OF CONTENTS**

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INDEPENDENT AUDITORS' REPORT

Board of Directors

American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.

Opinion

We have audited the accompanying financial statements of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. which comprise the statement of financial position as of December 31, 2021, and the related statements of activities, functional expenses and cash flows for the year then ended, and the related notes to the financial statements.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. as of December 31, 2021, and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events considered in the aggregate, that raise substantial doubt about American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

Auditors' Responsibility for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and

therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Report on Summarized Comparative Information

We have previously audited American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s 2020 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated May 14, 2021. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2020, is consistent, in all material respects, with the audited financial statements from which it has been derived.

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.**

**STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2021 (with comparative totals for 2020)**

	2021	2020
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	\$ 17,660	\$ 117,767
Inventory	7,891	8,817
Prepaid expenses and other assets	<u>33,566</u>	<u>48,120</u>
Total current assets	59,117	174,704
BENEFICIAL INTEREST IN PERPETUAL TRUST	438,668	402,647
INVESTMENTS	12,948,925	12,662,326
PROPERTY AND EQUIPMENT, NET	<u> </u>	<u>469</u>
TOTAL ASSETS	<u>\$ 13,446,710</u>	<u>\$ 13,240,146</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	<u>\$ 41,898</u>	<u>\$ 65,956</u>
NET ASSETS		
Without donor restrictions:		
Designated for medal awards	1,032,189	622,304
Designated for endowment	232,437	209,889
Designated for specific use	2,049,031	3,098,295
Undesignated	<u>4,612,848</u>	<u>4,573,306</u>
Total net assets without donor restrictions	7,926,505	8,503,794
With donor restrictions	<u>5,478,307</u>	<u>4,670,396</u>
Total net assets	<u>13,404,812</u>	<u>13,174,190</u>
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 13,446,710</u>	<u>\$ 13,240,146</u>

See notes to financial statements

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.**

STATEMENT OF ACTIVITIES

FOR THE YEAR ENDED DECEMBER 31, 2021 (with comparative totals for 2020)

	2021			2020
	Without Donor Restrictions	With Donor Restrictions	Total	Total
REVENUE				
Investment income, net	\$ 1,056,343	\$ 470,237	\$ 1,526,580	\$ 1,230,801
Offshore technology conference	143,494		143,494	
Gain from sale of oil and gas interest	134,910		134,910	504,303
Copyrights and other revenue	38,686		38,686	23,781
Change in beneficial interest in perpetual trust		36,020	36,020	29,086
Royalties	30,906		30,906	10,741
Contributions	17,107		17,107	15,788
Net assets released from restriction	121,340	(121,340)		
Transfers	(422,994)	422,994		
Total	<u>1,119,792</u>	<u>807,911</u>	<u>1,927,703</u>	<u>1,814,500</u>
EXPENSES				
Program services:				
Grants	1,135,293		1,135,293	214,622
Endowment spending	260,391		260,391	262,705
Strategic initiatives	149,800		149,800	311,584
Total program services	1,545,484	—	1,545,484	788,911
Supporting services:				
General and administrative	151,597		151,597	189,419
Total	<u>1,697,081</u>	<u>—</u>	<u>1,697,081</u>	<u>978,330</u>
CHANGE IN NET ASSETS	<u>(577,289)</u>	<u>807,911</u>	<u>230,622</u>	<u>836,170</u>
NET ASSETS, Beginning of year	<u>8,503,794</u>	<u>4,670,396</u>	<u>13,174,190</u>	<u>12,338,020</u>
NET ASSETS, End of year	<u>\$ 7,926,505</u>	<u>\$ 5,478,307</u>	<u>\$ 13,404,812</u>	<u>\$ 13,174,190</u>

See notes to financial statements

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.**

**STATEMENT OF FUNCTIONAL EXPENSES
FOR THE YEAR ENDED DECEMBER 31, 2021 (with comparative totals for 2020)**

	Program Services			Supporting Services		
	Grants	Endowment Spending	Strategic Initiatives	Total Program Services	General and Administrative	2020 Total
Member society distributions	\$ 1,121,970			\$ 1,121,970		\$ 365,000
Medals, awards and scholarships		\$ 229,782		229,782		242,835
Payroll and employee benefits	13,323	26,646	\$ 39,968	79,937	\$ 53,291	146,219
Meetings - external and other		2,666	102,089	104,755	601	84,942
Supplies, postage, repairs and maintenance			501	501	46,062	63,248
Audit, legal and professional services					38,973	45,226
AIME Board meetings and travel		1,297	7,242	8,539	8,444	11,443
Insurance					1,802	1,750
Depreciation					469	469
Promotion and advertising						16,138
Other					1,955	1,060
TOTAL	\$ 1,135,293	\$ 260,391	\$ 149,800	\$ 1,545,484	\$ 151,597	\$ 1,697,081
PERCENTAGE	66%	15%	9%	91%	9%	100%
TOTAL - 2020	\$ 214,622	\$ 262,705	\$ 311,584	\$ 788,911	\$ 189,419	\$ 978,330
PERCENTAGE - 2020	22%	27%	32%	81%	19%	100%

See notes to financial statements.

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.**

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2021 (with comparative totals for 2020)

	2021	2020
OPERATING ACTIVITIES		
Change in net assets	\$ 230,622	\$ 836,170
Adjustments to reconcile change in net assets to net cash used in operating activities:		
Depreciation	469	469
Realized and unrealized gains on investments	(1,345,129)	(1,007,182)
Gain from sale of oil and gas interest	(134,910)	(504,303)
Change in beneficial interest in perpetual trust	(36,020)	(29,086)
Changes in operating assets and liabilities:		
Inventory	926	4,782
Prepaid expenses and other current assets	14,554	11,276
Accounts payable and accrued expenses	<u>(24,058)</u>	<u>(36,148)</u>
Net cash used in operating activities	<u>(1,293,546)</u>	<u>(724,022)</u>
INVESTING ACTIVITIES		
Proceeds from sales of investments	2,022,185	1,236,437
Purchases of investments	(963,656)	(1,114,443)
Proceed from sale of oil and gas interest	<u>134,910</u>	<u>504,303</u>
Net cash provided by investing activities	<u>1,193,439</u>	<u>626,297</u>
DECREASE IN CASH AND CASH EQUIVALENTS	(100,107)	(97,725)
CASH AND CASH EQUIVALENTS, Beginning of year	<u>117,767</u>	<u>215,492</u>
CASH AND CASH EQUIVALENTS, End of year	<u>\$ 17,660</u>	<u>\$ 117,767</u>

See notes to financial statements.

**AMERICAN INSTITUTE OF MINING, METALLURGICAL,
AND PETROLEUM ENGINEERS, INC.****NOTES TO FINANCIAL STATEMENTS**

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations — Organized in 1871, the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. (AIME) is a professional not-for-profit organization exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code and is not considered a private foundation under Section 509(a)(3). AIME is a supporting organization for the member societies under Section 509(a)(2)(Type I).

AIME's mission is to support its member societies. AIME fulfills this mission by:

- Exercising fiscal responsibility
- Distributing funds
- Facilitating interaction with the relevant scientific and engineering communities
- Honoring the legacy and traditions of AIME

AIME's four member societies are the Society for Mining, Metallurgy & Exploration (SME); The Minerals, Metals & Materials Society (TMS); the Association for Iron & Steel Technology (AIST) and the Society of Petroleum Engineers (SPE). The AIME financial statements do not include the accounts of the four member societies.

The Board of Trustees is made up of an equal number of representatives from each of the member societies.

AIME's significant revenue sources include conference proceeds and investment income. AIME retains 15% of conference proceeds received, and the remaining 85% is distributed to the member societies.

Basis of Presentation — AIME is required to report information regarding its financial position and activities according to two classes of net assets: net assets without donor restrictions, which represents the expendable resources that are available for operations at management's discretion; and net assets with donor restriction, which represents resources restricted by donors as to purpose or by the passage of time and resources whose use by AIME is limited by donor-imposed stipulations that neither expire by passage of time nor can be fulfilled or otherwise removed by actions of AIME.

The accompanying financial statements include certain prior-year summarized comparative information in total. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with AIME's financial statements for the year ended December 31, 2020, from which the summarized information was derived.

Cash and Cash Equivalents — For purposes of the statement of cash flows, AIME considers all highly liquid investments with original maturities of three months or less to be cash equivalents.

Accounts and Grants Receivable — Accounts and grants receivable are stated at the invoice amount. Management provides for probable uncollectible amounts through a provision for bad debts and an adjustment to a valuation allowance based on its assessment of the current status of individual accounts. As of December 31, 2021 and 2020, there were no accounts and grants receivable recorded.

Inventory — Inventory is valued at cost and consists of minor medals and award items, marketing materials, and office supplies.

Investments — Investments in equity securities having a readily determinable fair value and all debt securities and alternative investments are carried at fair value. Investment return includes dividend, interest and other investment income; realized and unrealized gains and losses on investments carried at fair value; and realized gains and losses on other investments.

Property and Equipment — Acquisitions of property and equipment of \$1,000 or more are capitalized. Donated equipment is recorded at fair market value at the date of the donation. Purchased equipment is recorded at cost. AIME has property and equipment at a cost of \$5,033 with a net book value of \$0 and \$469 as of December 31, 2021 and 2020, respectively. Depreciation of furniture and equipment is being provided for by the straight-line method over the estimated useful lives of three to seven years.

Member Society Grants — As of December 7, 2018, the AIME Board of Directors voted to eliminate future allocations to Common Interest Grants. As of December 6, 2019, the AIME Board of Directors voted to distribute member society grants of \$200,000 per year for the upcoming five years beginning in 2020. Grants are subject to member societies submitting proposals and approval by the AIME Board of Directors. This requirement was waived for 2021 and 2020 to support the operations of the member societies, which were impacted by the coronavirus pandemic. Additionally, AIME's Board of Directors approved distributions totaling \$1,000,000 to member organizations in 2021 to further assist in offsetting financial strains caused by the coronavirus pandemic. Any other distributions to the member societies, such as distributions made in 2020 for the 150th Anniversary celebration, are discretionary and are subject to approval by the AIME Board of Directors.

Revenue Recognition — Contributions received are recorded as net assets without donor restrictions or net assets with donor restrictions depending on the existence or nature of any donor restrictions. When a donor restriction is met, net assets with donor restrictions are reclassified to net assets without donor restrictions and reported in the statement of activities as net assets released from restrictions. Conference fees are recognized as revenue once related services are performed or events are held. Grant revenue is recognized when the grant requirements or terms have been fulfilled. Other revenues are recognized when earned.

Income Taxes — AIME is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code. AIME believes that it does not have any uncertain tax positions that are material to the financial statements.

Use of Estimates — The preparation of financial statements, in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date

of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications — Certain prior year balances and amounts have been reclassified to conform with current year presentation.

Subsequent Events — AIME has evaluated subsequent events for recognition or disclosure through the date of the Independent Auditors' Report, which is the date the financial statements were available for issuance.

2. LIQUIDITY AND AVAILABILITY

The following table reflects AIME's financial assets as of December 31, 2021 and 2020, reduced by amounts that are not available to meet general expenditures within one year of the statement of financial position date because of contractual restrictions or internal board designations. Amounts not available to meet general expenditures within one year include net assets with donor restrictions and board designated funds that are intended to fund special board initiatives not considered in the annual operating budget. In the event the need arises to utilize the board-designated funds for liquidity purposes, the reserves could be drawn upon through board resolution. Amounts not available to meet general expenditures within one year also include net assets with donor restrictions.

	2021	2020
Cash and cash equivalents	\$ 17,660	\$ 117,767
Investments	<u>12,948,925</u>	<u>12,662,326</u>
Total financial assets	<u>12,966,585</u>	<u>12,780,093</u>
Less amounts unavailable for general expenditures within one year, due to:		
Restricted by donors with purpose restrictions	4,356,833	3,834,247
Restricted by donors in perpetuity	<u>1,121,474</u>	<u>836,149</u>
Total amounts unavailable for general expenditures within one year	<u>5,478,307</u>	<u>4,670,396</u>
Less amounts unavailable to management without Board's approval:		
Board designated for specific use	2,049,031	3,098,295
Board designated for medal awards	1,032,189	622,304
Board designated for endowment	<u>232,437</u>	<u>209,889</u>
Total amounts unavailable to management without Board's approval	<u>3,313,657</u>	<u>3,930,488</u>
Total financial assets available to management to meet cash needs for general expenditures within one year	<u>\$ 4,174,621</u>	<u>\$ 4,179,209</u>

As part of AIME's liquidity management, it has a policy to structure its financial assets to be available as its general expenditures, liabilities, and other obligations come due. AIME's policy to manage an emergency cash flow need is to evaluate actual monthly expenditures and compare with amounts forecasted to determine if the liquidation of investments, release of unrestricted endowments, or other measure should be taken. Per AIME bylaws, each AIME member society is also responsible for its share of the expenses to support AIME's programs. AIME manages its cash flow for a one-year cycle from the balance sheet date.

3. FUNCTIONAL EXPENSES ALLOCATION METHODS

The financial statements report certain categories of expenses that are attributable to one or more program or supporting services of AIME. Therefore, expenses require allocation on a reasonable basis that is consistently applied. The expenses that are allocated include staff time allocated as 60% program services and 40% general and administrative. Other expense are allocated based on estimates of time and effort required.

4. CONCENTRATIONS OF RISK

AIME maintains its cash and cash equivalents in bank deposit accounts which, at times, exceed federally insured limits. AIME has not experienced any losses in such accounts.

AIME has investments in exchange traded funds, common stocks, mutual funds, fixed income securities and private equity limited partnerships which it has placed with an investment management company. AIME invests in investment securities which are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the recorded amount of investments in AIME's financial statements. AIME's private equity limited partnership investments are recorded at their net asset value as determined by the funds (see Note 6). Actual fair value of the investments upon liquidation could vary significantly from the current estimated fair value.

5. BENEFICIAL INTEREST IN PERPETUAL TRUST

AIME is the sole beneficiary of the Howard N. Eavenson Trust (the Trust), a trust whose principal is to be held in perpetuity. Assets of the Trust are invested and administered by a trustee and distributions are made to AIME. Assets of the Trust consist of cash and cash equivalents and mutual funds. AIME records its interest in the Trust at the fair value of the assets held by the Trust. Fair value of the underlying assets is determined using quoted market prices and pricing services. As of December 31, 2021 and 2020, the beneficial interest in the Trust was \$438,668 and \$402,647, respectively. AIME received \$17,107 and \$15,788 in distributions from the Trust during the years ended December 31, 2021 and 2020, respectively.

6. INVESTMENTS AND FAIR VALUE MEASUREMENTS

AIME is required to use a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The three levels of the fair value hierarchy are described below:

Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities that AIME has the ability to access.

Level 2: Prices determined using significant other observable inputs. Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Prices determined using significant unobservable inputs.

The investment's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. The classifications (Level 1, 2 and 3) are intended to reflect the observability of inputs used in the valuation of investments and are not necessarily an indication of risk or liquidity.

Following is a description of the valuation methodologies used for instruments measured at fair value on a recurring basis and recognized in the accompanying statements of financial position, as well as the general classification of such instruments pursuant to the valuation hierarchy.

Common Stocks, Mutual Funds, and Exchange Traded Funds — Fair value is determined principally through quoted market prices in active markets.

Corporate Bonds — Price is determined by the asset custodian based on quoted prices for identical or similar assets in active markets.

Private Equity Limited Partnerships — Valued at net asset value of the respective investments as a practical expedient to estimate fair value. This practical expedient would not be used if it is determined to be probable that the investment will be sold for an amount different from the reported net asset value. See below for further information on these investments measured using the net asset value practical expedient.

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although AIME believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, AIME's assets measured on a recurring basis stated at fair value as of December 31:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
2021:				
Common stocks	\$ 6,509,202			\$ 6,509,202
Corporate bonds		\$ 2,888,671		2,888,671
Exchange traded funds	2,196,079			2,196,079
Cash and cash equivalents	821,325			821,325
Mutual funds	<u>57,105</u>			<u>57,105</u>
Total	9,583,711	2,888,671	\$ —	12,472,382
Beneficial interest in trust		<u>438,668</u>		<u>438,668</u>
Total in fair value hierarchy	<u>\$ 9,583,711</u>	<u>\$ 3,327,339</u>	<u>\$ —</u>	<u>12,911,050</u>
Investments measured at net asset value				<u>476,543</u>
Total				<u>\$ 13,387,593</u>
2020:				
Common stocks	\$ 5,618,818			\$ 5,618,818
Corporate bonds		\$ 3,945,022		3,945,022
Exchange traded funds	1,774,114			1,774,114
Cash and cash equivalents	863,835			863,835
Mutual funds	<u>13,190</u>			<u>13,190</u>
Total	8,269,957	3,945,022	\$ —	12,214,979
Beneficial interest in trust		<u>402,647</u>		<u>402,647</u>
Total in fair value hierarchy	<u>\$ 8,269,957</u>	<u>\$ 4,347,669</u>	<u>\$ —</u>	12,617,626
Investments measured at net asset value				<u>447,347</u>
Total				<u>\$ 13,064,973</u>

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or valuation techniques may require the transfer of financial instruments from one fair value level to another.

Investments Measured at Net Asset Value — The following summarizes liquidity considerations for investments measured at fair value that calculate net asset value per share as a practical expedient at December 31, 2021:

Investments	Fair Value	Unfunded Commitments	Redemption Frequency	Redemption Period	Term
Private Equity Offshore Fund VI Limited	\$ 123,014	\$ 38,029	*	N/A	15 years with three 1-year options beginning in 2007
Private Equity Offshore Fund VII Limited	111,593	73,708	*	N/A	15 years with three 1-year options beginning in 2008
Private Equity Offshore Fund VIII Limited	84,212	15,168	*	N/A	15 years with three 1-year options beginning in 2011
Private Equity Offshore Fund IX Limited	<u>157,724</u>	20,123	*	N/A	15 years with three 1-year options beginning in 2012
Total	<u>\$ 476,543</u>				

* Shareholders do not have the right to redeem any shares without the consent of the fund manager.

Hirtle Callaghan Private Equity Offshore Fund V, VI, VII, and VIII Limited (the Funds): The Funds are exempt companies established under the laws of the Cayman Islands. The objective of the Funds is to realize long-term total returns by investing in a diversified group of pooled investment vehicles, which will, in turn, invest in different private equity-related disciplines, that include, but are not limited to, venture capital, growth capital, buyouts, debt, real estate, mining, energy and infrastructure. In 2020, the Private Equity Offshore Fund V Limited was fully liquidated and AIME received a final distribution of their proportionate share of the Fund.

Hirtle Callaghan Private Equity Offshore Fund IX Limited (the Fund): The Fund is an exempt company established under the laws of the Cayman Islands. The objective of the Fund is to realize long-term total returns by investing in a broad range of private equity funds, which will, in turn, invest in different private equity-related disciplines, that include, but are not limited to, venture capital, growth capital, buyouts, debt, real estate, power, energy and infrastructure.

Investment income consists of the following for the years ended December 31:

	2021	2020
Net realized and unrealized gains	\$ 1,345,129	\$ 1,007,182
Dividends and interest	<u>253,335</u>	<u>282,420</u>
Total	1,598,464	1,289,602
Investment advisory fees	<u>(71,884)</u>	<u>(58,801)</u>
Total investment income, net	<u>\$ 1,526,580</u>	<u>\$ 1,230,801</u>

7. TRANSACTIONS WITH AFFILIATES

During the year ended December 31, 2021, AIME remitted \$382,864 to the member societies. Of this amount, \$121,970 were funds received from the Offshore Technology Conference and passed on to the member societies, \$75,720 were reimbursements to SME for payroll and employee benefits expenses, and the remaining \$185,174 was for awards and scholarships. ~~AIME~~

During the year ended December 31, 2020, AIME remitted \$404,863 to the member societies. Of this amount, \$54,863 were funds received from the Offshore Technology Conference and passed on to the member societies, \$82,337 were reimbursements to SME for payroll and employee benefits expenses, \$60,101 were expenses paid for strategic initiatives, and the remaining \$202,839 was for awards and scholarships.

AIME owed member societies \$17,274 and \$48,982 as of December 31, 2021 and 2020, respectively.

8. BOARD DESIGNATED NET ASSETS

The Board of Directors has designated net assets for the following purposes at December 31:

	2021	2020
Specific use	\$ 2,049,031	\$ 3,098,295
Medal awards	1,032,189	622,304
Endowment	<u>232,437</u>	<u>209,889</u>
Total	<u>\$ 3,313,657</u>	<u>\$ 3,930,488</u>

9. NET ASSETS WITH DONOR RESTRICTIONS

Net assets with donor restrictions have been restricted by donors for special projects to be spent as follows at December 31:

	2021	2020
Restricted as to purpose:		
Medals and awards	\$ 1,325,766	\$ 1,617,157
Specific use	1,889,430	1,165,362
Scholarships	<u>1,141,637</u>	<u>1,051,728</u>
Total	<u>4,356,833</u>	<u>3,834,247</u>
Perpetual endowments subject to AIME's spending policy and appropriation	682,806	433,502
Beneficial interest in irrevocable trusts not subject to AIME's spending policy and appropriation	<u>438,668</u>	<u>402,647</u>
Total	<u>1,121,474</u>	<u>836,149</u>
Total net assets with donor restrictions	<u>\$ 5,478,307</u>	<u>\$ 4,670,396</u>

10. ENDOWMENT

AIME's endowment consists of 21 separate funds with donor-restrictions where only the income may be spent for the charitable purposes stipulated in the related trust documents. As required by accounting principles generally accepted in the United States of America (GAAP), net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

The State of New York and the State of Colorado have adopted the *Uniform Prudent Management of Institutional Funds Act* (UPMIFA or the Act). The Act provides statutory guidance for management, investment and expenditures of endowment funds held by not-for-profit organizations. AIME has interpreted UPMIFA as requiring the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, AIME classifies as net assets with donor restrictions (a) the original value of gifts donated to the permanent endowment, and (b) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. In accordance with UPMIFA, AIME considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

1. The duration and preservation of the endowment fund
2. The purposes of the institution and the endowment fund
3. General economic conditions
4. The possible effect of inflation and deflation
5. The expected total return from investment income and appreciation or depreciation of investments
6. Other resources of AIME; and
7. The investment policies of AIME

Changes in endowment net assets for the year ended December 31, 2021 are as follows:

	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, January 1, 2021	\$ 209,889	\$ 3,750,415	\$ 3,960,304
Investment return, net	24,977	325,471	350,448
Appropriations for expenditures	(2,429)	(19,881)	(22,310)
Transfers in	<u> </u>	<u>889,829</u>	<u>889,829</u>
Endowments net assets, December 31, 2021	<u>\$ 232,437</u>	<u>\$ 4,945,834</u>	<u>\$ 5,178,271</u>

Changes in endowment net assets for the year ended December 31, 2020 are as follows:

	Without Donor Restrictions	With Donor Restrictions	Total
Endowment net assets, January 1, 2020	\$ 191,493	\$ 3,518,358	\$ 3,709,851
Investment return, net	19,315	247,636	266,951
Appropriations for expenditures	<u>(919)</u>	<u>(15,579)</u>	<u>(16,498)</u>
Endowments net assets, December 31, 2020	<u>\$ 209,889</u>	<u>\$ 3,750,415</u>	<u>\$ 3,960,304</u>

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level AIME is required to retain as a fund of perpetual duration pursuant to donor stipulation or UPMIFA. In accordance with GAAP, deficiencies of this nature are reported in net assets without donor restrictions. There were no such deficiencies as of December 31, 2021 and 2020.

Endowment funds are managed by an investment firm according to the Trustees' investment policy, which calls for maximum total return with acceptable risk. The Trustees' spending policy for endowment funds is incorporated in its operating budget policy.

To satisfy its long-term rate of return objectives, AIME relies on a total return strategy in which investment returns are achieved through both current yield (investment income such as dividends and interest) and capital appreciation or depreciation (both realized and unrealized). AIME targets a diversified asset allocation that places a greater emphasis on equity-based investments to achieve its long-term return objectives within prudent risk constraints. Equity-based investments include large-cap, small-cap and international equities. AIME also uses fixed income securities and alternative investments to achieve its objectives.



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