ASME ICE DIVISION NEWS

JANUARY 2023

ASME
SETTING THE STANDARD

INTERNAL COMBUSTION ENGINE DIVISION

IN THIS ISSUE

The American Society of Mechanical Engineers®
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Message from the Chair

Sibendu Som

It is an honor and pleasure for me to be serving as the chair for this incredible Internal Combustion Engine (ICE) Division. As we stand on the shoulders of giants, we celebrated 100 years for the division in 2021 with our fall conference in October 2022. Many of you may have attended the conference, and Dr. Kelly Senecal will be providing a synopsis of the event later in this newsletter. For our division, the conference is our marquee offering. Given the climate around engines, we are extremely proud to be the premier engine conference. In fact, we have renamed our conference "ICE Forward", to be in step with the changing times.

After two years of virtual events, ICE Forward was once again in person and was a great success. We have pivoted our division and conference to focus more on low-carbon, no-carbon fuels and heavy-duty sectors, and hence continue to attract academia, industry, and national labs. We promote an environment in which participants can discuss and exchange information related to the science and engineering of internal combustion engines and net-zero carbon fuels. The executive committee of the division remains committed to increasing diversity of gender, race, and thoughts within the division leadership and associates. Our division and conference provides a forum for experts from industry, academia, and governmental agencies from all over the world to share the latest developments. We envision that in order to achieve the decarbonization goals set forward by different nations, we would accelerate the pace of innovation and promote international conferences, moving forward, in Europe and Asia.

I am excited to report that our division and associates list continues to grow, despite the noise around us about combustion engines. We are also excited to bring back our newsletters after several years. We wish to publish two per year, one each in winter and summer. Our sincere gratitude to Chris Stoos and Charles Finney for leading this effort, and many other colleagues for contributing and volunteering.

We have reorganized our tracks to focus more on medium-duty and heavy-duty large-bore engines. Moving forward, we are excited to welcome the Cross-Cut Lean Exhaust Emission Reduction Simulations (CLEERS) community into the conference, with a dedicated track on emission and after-treatment systems. As a division we have several other exciting projects in 2023, such as the webinar series.

We have reinvigorated the division-level awards with a new award called "Engine Impact" award to honor ICE-related research and development that has been put into practice towards a commercial product developed by industry. This award is specifically created to recognize researchers in industry who have made tremendous contributions to the ICE community. Since industry researchers may not be able to publish their work, this award is designed to acknowledge their achievements. The Meritorious Service Award honors loyal service, guidance, leadership and worthy contributions to the progress of the ICE Division. The recipient must be member of the Internal Combustion Engine Division, maintain good attendance, and exhibit guidance and leadership in Division activities. Recipients of these awards and many other awards will be organized later in the newsletter.

Internal combustion engines and net-zero carbon fuels will continue to shape our future, not only for transportation, but also for stationary power generation sector. Improved efficiency, cleaner fuels, hybridization, smart controls, advanced designs, heat management, and advanced aftertreatment technologies are all areas of significant research for on-road and off-road engines, and our division will continue to provide a platform to showcase such research. I urge all of you to continue to participate in our division activities and invite you to volunteer your time, as your schedule permits. I am very grateful for having had the opportunity to serve on the Executive Committee of the ICE Division for the past several years. It has been a wonderful learning experience and a lot of fun too!

ICE Forward Newsletter

January 2023

ICEF 2023

The only technical conference focused exclusively on internal combustion engines.

SUBMIT ABSTRACT BY JANUARY 30, 2023

October 8 – 11, 2023
Pittsburgh, Pennsylvania USA

OPEN ACCESS OPPORTUNITY FOR AUTHORS!

https://event.asme.org/ICEF

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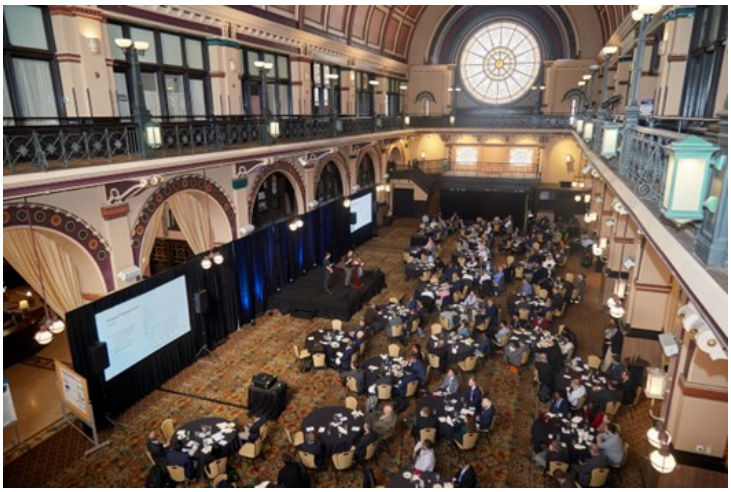
ICE Forward 2022 a Huge Success in Indianapolis

Kelly Senecal

From October 16–19, 2022, more than 220 internal combustion engine (ICE) researchers gathered in Indianapolis, Indiana for the ASME ICE Forward (ICEF) Conference. The 2022 conference marked several milestones. After two years of virtual conferences (due to the pandemic), it was the first in-person ICEF event since 2019. Second, it was the celebration of the 100th year anniversary of the ASME ICE Division (ICED). Our anniversary was officially in 2021 but we chose to wait to celebrate until we could be together in person. Finally, we introduced new branding for the conference with this event. ICEF, which previously stood for the Internal Combustion Engine Fall Technical Conference, now stands for the ICE Forward Conference. This name change, and associated imagery and color palette, preserves the "ICEF" acronym (which is important for paper indexing) while modernizing the look and feel of the event. The ICED Executive Committee believe this rebranding is important as we look toward our future—a future that no doubt includes a massive shift to low-carbon and carbon-free technologies. The internal combustion engine has a firm place in this future. Improved efficiency, cleaner fuels, hybridization, and advanced aftertreatment technologies are all areas of significant research for on- and off-road engines alike. It's up to us, the IC engine community, to take these innovations and keep our industry relevant and moving forward—ICE forward. This refresh set the stage for the 2022 conference.



Crowne Plaza Indianapolis Downtown Union Station's Grand Hall

We chose to hold the conference in Indianapolis due to its rich history in engines and also because of its proximity to our host company, Cummins Inc. The Crowne Plaza Indianapolis Downtown Union Station Hotel, originally the first "Union Station" built in the United States, served as our venue. Quite appropriate to celebrate our 100th anniversary in a venue as historically relevant to transportation as the Crowne Plaza in Indy. The Grand Hall, where all of the main, unopposed sessions were held, features Romanesque Revival-style architecture, two 20 foot diameter wheel windows, and a 60 foot barrel ceiling. Truly a stunning location for ICE Forward 2022.

Cummins Engine Display in the Grand Ballroom

And to add to the ambiance, there was no shortage of engines at ICE Forward 2022. Our host company, Cummins Inc., graciously provided four display engines for the event: an X15 Performance Series, an L9 Performance Series, a QSF2.8, and a B6.7. In addition to the Cummins display, ICE Forward had a number of

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exhibitions showing off the latest technology from our Sponsors and Exhibitors.

The four-day event began on the evening of Sunday, October 16th with a technical poster session, chaired by Professor Kalyan Srinivasan. Various posters from university and national laboratory research groups were on display during the welcome reception, allowing for a relaxed atmosphere for the audience to mingle with presenters and engage in fruitful discussion and exchange of ideas.

Professor Greg Shaver, Purdue

The day started on Monday, October 17 with opening words from Tom Costabile, ASME CEO, Sibendu Som, ICE Division Chair, and Kelly Senecal, ICE Forward 2022 Conference Chair. The opening comments were followed by the first keynote of the event. Professor Greg Shaver from Purdue University presented "Educating the next generation of engineers to help bring the ICE Forward". Professor Shaver's inspiring talk described how universities are preparing young researchers to enter the workforce and provide solutions to our future engineering challenges.

We next jumped into the technical paper sessions. Presentations were divided into seven technical tracks with multiple concurrent sessions, spread over two days. Newly updated tracks covered a wider range of topics than previous conferences. The 2022 tracks were 1. Off-Road Systems, 2. Fuels and Carbon Management, 3. Advanced Combustion, 4. Powertrain, Electrification, and Emissions Systems, 5. Fuel Injection and Sprays, 6. Modeling and Simulation, and 7. Design, Lubrication, and Thermal Management. We are quite fortunate at ICE Forward to feature such high quality papers and presentations, which is a testament to the excellent work carried out by our authors and their organizations.

Undergrad competition winners: Amanda Weaver (left) presenting for Lily Parker. Antonio Scalzi and Steven DeCoste (right).

Monday's lunch was sponsored by Caterpillar. During lunch we heard presentations from our undergraduate competition winners. The ASME ICED undergraduate research competition is an annual event inviting undergraduate researchers that have studied in the field of internal combustion engines, emissions systems, fuels and sprays, or carbon management. Each year, up to two winning submissions are selected. The two winning students receive free conference registration for ICE Forward along with paid travel and lodging expenses for the conference. This year's winners were Lily Parker from Georgia Southern University and Antonio Scalzi and Steven DeCoste from Oakland University. Lily was not able to attend the

Continued on next page...

ASME Executive Director and CEO Tom Costabile (left), ICE Division Chair Sibendu Som (center), and Conference Chair Kelly Senecal (right)

conference and so her presentation was given by fellow Georgia Southern student Amanda Weaver. Dr. Scott Curran from Oak Ridge National Laboratory (ORNL) chaired the competition.

Monday afternoon featured a panel session titled "Moving forward with the internal combustion engine". The session, organized by Dr. Ron Grover from General Motors, included distinguished ASME ICE Award winners from industry, academia, and national labs. Dr. Robert Wagner from ORNL, Dr. Terry Alger from Southwest Research Institute (SwRI), Dr. Paul Miles from Sandia National Laboratories (SNL), Dr. Kelly Senecal from Convergent Science, and Professor André Boehman from the University of Michigan made up the panel. Dr. Grover did an excellent job moderating the session as he asked the panelists to reflect, refocus, and reimagine the impact of ICEs from both a personal and societal level. The session began with each panelist showing in only one slide how they were first introduced to engines, setting the stage for a fun and engaging event.

ICE Award Winner Panel Discussion, moderated by Ron Grover.

On Monday evening we gathered for our Awards Dinner, sponsored by Aramco Americas. Every year, ICEF hosts this dinner, where we recognize some truly remarkable individuals. The dinner also featured a centennial history presentation from Dr. Charles Finney of ORNL. This year's awards are highlighted in a separate section and thus will not be repeated here. Congratulations to all of the winners!

Tuesday morning began with our Early Career Networking Breakfast. Students, postdocs, and early career engineers within the first 2–3 years of professional work were invited to participate in our 3rd Annual Early Career Networking Event. This event gave early career engineers the opportunity to eat breakfast and engage in discussions with key leaders from academia, industry, and national labs. We were fortunate to have the following leaders participate: Prof. Will Northrop (Minnesota), Prof. Ben Lawler (Clemson), Dr. Andrea Strzelec (Wisconsin), Dustin Osborne (SwRI), Dr. Yuanjiang Pei (Aramco), Dr. Emily Bierman (John Deere), Dr. Paul Miles (SNL), Dr. Scott Curran (ORNL), and Dr. Bifen Wu (Argonne).

Dr. Tim Frazier, Cummins

Breakfast was followed by our second keynote of the event from Dr. Tim Frazier, Vice President of Research and Technology, Cummins Inc. Tim's talk, "A critical and credible pathway to zero emissions," described Cummins' decarbonization plan, Destination Zero, for achieving zero emissions by 2050.

Our final keynote was presented during Tuesday's lunch. Dr. Julie Blumreiter, Chief Technology Officer and Co-Founder of ClearFlame Engine Technologies, spoke on "The diesel engine without the diesel fuel: driving rapid decarbonization in heavy duty applications". Julie described how diesel engines can be fueled by renewable fuels such as ethanol, making engines part of the decarbonization solution.

Dr. Julie Blumreiter, ClearFlame Engine Technologies

The final session on Tuesday was our distinguished invited lecture from none other than John Heywood, Emeritus Professor from MIT. Among many other accomplishments, Professor Heywood is known far and wide as the author of Internal Combustion Engine Fundamentals, the premier textbook for all things ICE. John's talk, "The ever-evolving ICE," walked us through just how far we've come and what the future may hold for this amazing technology.

Tuesday's Crowne Plaza activities concluded with the annual ICED Associates Meeting. This meeting, open to all, gave attendees the opportunity to learn more about the ASME and the ICE division organiza-

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tional structures, as well as volunteer and other opportunities.

Professor John Heywood giving his "The Ever-Evolving ICE" lecture.

On Tuesday evening, conference attendees were taken to the ICE Division 100th anniversary celebration offsite at the Indianapolis Motor Speedway Museum. The celebration featured a night of dinner, drinks, cars, and networking. Attendees enjoyed a self-guided tour of the museum with exclusive access to the collection of race cars and memorabilia featuring IndyCar, NASCAR, Formula 1, sprint and midgets, motorcycle, and drag racing. On Wednesday morning, attendees had their choice between two offsite technical tours from Cummins. The first option, the Columbus Midrange Engine Plant (CME) tour, covered every aspect of the engine manufacturing process for the 6.7L ISB inline-six Diesel, from block machining through final assembly.

The second option was the Cummins Technical Center (CTC) tour. CTC is home to research and development conducted on diesel and alternative fuel engines, components subsystems, and other advanced power systems to meet future emissions and energy efficiency demands. Attendees were shown test cells, the advanced chemical systems and integration labs, the experimental mechanics lab, advanced manufacturing, displays of Cummins' new fuel agnostic platforms, and a historical display of Cummins engines from 1919 to present time.

The conference concluded on Wednesday afternoon with a four hour symposium and reception hosted by Aramco Americas called the "Low climate impact propulsion technologies symposium". The symposium featured expert views on future sustainable transport technologies. Symposium keynotes were given by Wole Akinyemi, Executive Director, Cummins Inc. and Michael Cleveland, Director of Advanced Energy, Progress Rail. Closing remarks were provided by David Clearly, Aramco Americas. Panelists from Stellantis, Cummins, SwRI, Progress Rail, John Deere, Wabtec, and FPT Industrial North America discussed the many challenges and opportunities to develop low climate impact propulsion technologies. The panel discussions were moderated by Yu Zhang of Aramco Americas and Doug Longman of Argonne. The symposium was organized by Yuanjiang Pei and Yu Zhang (Aramco), Sibendu Som and Doug Longman (Argonne), and Kelly Senecal (Convergent Science).

ICE Division 100th anniversary celebration at the Indianapolis Motor Speedway Museum.

ICE Forward 2022 was a huge success due to the many volunteers who ensured the conference's high technical standards and engaging program. This event was made possible by the contributions of the ICED executive committee, track chairs, session organizers, technical paper reviewers, paper authors, speakers, sponsors, and exhibitors. Let's do it again next year at ICE Forward 2023!

Thank you to our ICE Forward 2022 Sponsors that helped make our 100th Anniversary Celebration such a great event!

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2022 Honors and Awards

The Internal Combustion Engine Division recognizes the outstanding achievements in the internal combustion engine field through its honors and awards program. Every year, ICEF hosts the Awards Dinner, this year sponsored by Aramco Americas, where these remarkable individuals were recognized. Recipients were presented with awards plaques by Dr. Sibendu Som, Division Chair, and Dr. Kelly Senecal, ICE Forward Conference Chair.

Click here for more information on the ICE awards or to complete a nomination packet. Special thanks to the numerous volunteers that serve on ICE's award committees. Without their expertise, time, and dedication, this would not be possible.

2022 ASME INTERNAL COMBUSTION ENGINE AWARD

The Internal Combustion Engine Award recognizes eminent achievement or distinguished contribution over a substantial period of time, which may result from research, innovation, or education in advancing the art of engineering in the field of internal combustion engines; or in directing the efforts and accomplishments of those engaged in engineering practice in the design, development, application, and operation of internal combustion engines. In 1966, by bequest, the Diesel and Gas Engine Power Division established this award.

Citation: "For advancing the state-of-the-art of internal combustion engines for over 40 years through tremendous contributions in engine development, industry-leading analysis techniques, and educating and mentoring engineers."

Roy J. Primus
Retired Senior Principal Engineer at GE Global Research

ASME SOICHIRO HONDA MEDAL

The Soichiro Honda Medal recognizes an individual for an outstanding achievement or a series of significant engineering contributions in developing improvements in the field of personal transportation. With special attention concentrated on the brilliance of the achievement or on the overall effect of a series of contributions.

As a result of a generous unrestricted donation to ASME by Honda Motor Company, Ltd., in 1980, the Society established the Soichiro Honda Medal in recognition of Mr. Honda's exemplary achievements in the field of personal transportation in 1983.

Citation: "For outstanding contributions to the improvement of processes and product quality in the automotive industry through pioneering works on quality engineering, which has helped to save OEMs and suppliers around the world billions of dollars."

Subir Chowdhury
Chairman and CEO, ASI Consulting Group, LLC

2022 Honors and Awards

2022 ASME DEDICATED SERVICE AWARD

The ASME Dedicated Service Award honors unusual dedicated voluntary service to the Society marked by outstanding performance, demonstrated effective leadership, prolonged and committed service, devotion, enthusiasm and faithfulness.

Timothy Jacobs
Professor and Department Head, Department of Multidisciplinary Engineering, Texas A&M University

2022 MERITORIOUS SERVICE AWARD

The Meritorious Service Award honors loyal service, guidance, leadership, and worthy contributions to the progress of the Division.

Cosmin Dumitrescu
Associate Professor, West Virginia University

Doug Longman
Manager, Engine Research, Argonne National Laboratory

2022 ENGINE IMPACT AWARD

This Division award honors internal combustion engine related research and development that has been put into practice towards a commercial product developed by industry. This award is specifically created to recognize researchers in industry who have made tremendous contributions to the ICE community.

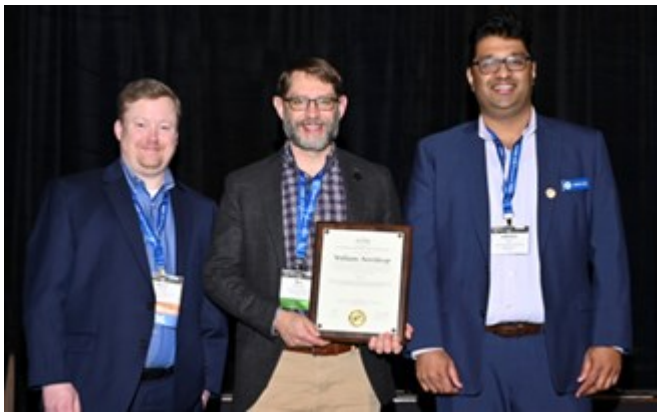
Eric Dillen
Senior Engineering Manager, Advanced Engine Technologies
Wabtec Corporation

John Deur
Director, Combustion Research
Cummins, Inc.

2022 Honors and Awards

PAST CHAIR APPRECIATION

Citation: "In testimony of the high regard of your associates and the deep appreciation of the Society for your valued services in advancing the engineering profession as the Chair of the ASME Internal Combustion Engine Division 2021–2022."



William Northrop
Professor of Mechanical Engineering, University of Minnesota

INVITED LECTURE APPRECIATION

Each year we invite a distinguished member of the ICE community to provide an invited lecture at the ICE Forward Conference.

Title: "The Ever-Evolving Internal Combustion Engine"

John Heywood
Sun Jae Professor, *Emeritus,* MIT

BEST PAPER AWARD — 2021 ICEF

Sudeepta Mondal—Argonne National Laboratory
Gina M. Magnotti—Argonne National Laboratory
Bethany Lusch—Argonne National Laboratory
Romit Maulik—Argonne National Laboratory
Roberto Torelli—Argonne National Laboratory

"Machine Learning–Enabled Prediction of Transient Injection Map in Automotive Injectors with Uncertainty Quantification"

2021 ASME ICE Fall Technical Virtual Conference


ASME
THE INTERNAL COMBUSTION ENGINE DIVISION
Presents This Award
To
Sudeepta Mondal, Gina M. Magnotti, Bethany Lusch, Romit Maulik & Roberto Torelli
For the Most Valuable Technical Paper Contribution Entitled:
"Machine Learning-Enabled Prediction of Transient Injection Map in Automotive Injectors with Uncertainty Quantification"
at the 2021 ASME ICE Fall Technical Virtual Conference
Presented at the
2022 ICE Forward Technical Conference
October 16-19, 2022
Indianapolis, IN

UNDERGRADUATE COMPETITION WINNERS

Citation: "In testimony of the high regard and the deep appreciation of the Society for your valued services in advancing the engineering profession as an Undergraduate Student Competition winner at the 2022 ASME ICE Forward Conference October 16–19, 2022."

Lily Parker
Georgia Southern University

Antonio Scalzi
Oakland University

Steven DeCoste
Oakland University

From the Archives - *Charles Finney*

Preface

Common to many organizations—both professional and volunteer—is lack of a strong institutional memory, particularly with maintaining archival materials. The Division has very little in archival materials, so my first task in compiling the centennial history was to assemble a collection. This quest has meant many hours in obscure corners of the Internet or in libraries.

In our periodic newsletters, I intend to relay segments of research. A good number of sources are digitized and available on the Web, but a few are in hard-to-find physical volumes. Below is a transcription of a brief history from 1951, published in the proceedings of the 23rd Oil and Gas Power Division Conference. It's interesting as it provides the perspective of some of the original members of the Division.

As an appeal, we're always looking for materials from the Division's history. If you have something that you think may be of interest—from banquet programs to pins or medallions to award certificates to photographs—you are encouraged to contact me at FINNEYC@ORNL.GOV so that we can discuss. Adding to the record by sharing copies is greatly appreciated!

The History of The Oil and Gas Power Division

J. Calvin Brown, President of the ASME

Banquet address at the 1951 OGPD Conference

[Personal remarks omitted.]

I am particularly proud to be here because the Oil and Gas Power Division constitutes the first of The American Society of Mechanical Engineers' Professional Divisions. This Division was founded in 1908, 43 years ago. It has played a major part in building the wisdom of the basic program for fostering specialized technical interests of mechanical engineers. The Society was founded in 1880, and the profession of Mechanical Engineering has expanded, with a definite trend toward specialization in the various departments of Mechanical Engineering. In 1903, a young man, Dr. Charles Edward Lucke, joined the staff of the Mechanical Engineering Department of Columbia University. Professor Frederick R. Hutton was then Secretary of ASME and head of the Mechanical Engineering Department of Columbia. It was recognized that ideas should be exchanged and development of prime movers in all their forms furthered. Dr. Lucke solicited the help of Henry L. Doherty. Together they were able to secure the attention of the officials of ASME and their permission to bring together a group of engineers interested in Gas Power.

In 1907, at an Annual Meeting of ASME, a meeting devoted to Gas Power was featured. Four papers were presented — a program which attracted so much interest as to almost eclipse the remainder of the regular Annual Meeting. After this annual meeting, the group got together and petitioned the Society for permission under the Constitution to form a Professional Section devoted to Gas Power. Council received the petition and immediately appointed a committee of affiliated societies to suggest rules for governing such professional sections and to arrange for the formation of this first group of the kind. The rules drawn up by this committee were approved by Council at its meeting of January 14, 1908.

The Gas Power Section, as it was first called, was formally organized and held its first regular meeting in February of 1908. The policy stated in these rules have guided the Society's technical activities since that time. They set forth the intent of the Society to give opportunity to many of its members to specialize without being obliged to form a new body and provided that persons not members of ASME might enroll as affiliates of a Professional Section.

During the next few years, the membership of the Gas and [sic] Power Section increased rapidly, until in 1916, it had reached almost 400.Today it has 3,300 members. In 1920, the present name, "Professional Division" was adopted, and from this time dates the organization's technical activities.

By the time of the Annual Meeting in 1920, eleven Professional Divisions had been organized. In 1924, recognizing the importance of the Oil Engine, the then-dominant Gas Power division was re-activated under the leadership of L[acey] H[arvey] Morrison and E[dgar] J[esse] Kates, our assistant treasurer, and its name was changed to Oil and Gas Power Division. In 1925 to 1930, the increasingly active Oil and Gas Power Division initiated many features that now mark its program to foster the technical interests of the internal combustion field. The first National Oil and Gas Power Conference was held at the Pennsylvania State College in June 1928. Billed as the first National Meeting of the Oil and Gas Power Division and the Second Annual Oil Power Conference in 1928, the meeting at Penn State was marked by five technical sessions and an exhibition of engines and accessories, the first of its kind ever held in this country. One of the outstanding activities of the Oil and Gas Power Division has been authoritative and unbiased information on costs of oil-engine power, and since 1929, a subcommittee has published annually a report entitled Oil Engine Power Costs, which has achieved world-wide acceptance as a source of data on the performance of oil engines in actual service.

In 1944, at Tulsa, the Oil and Gas Power Division at the National Oil and Gas Power Conference, formed a subcommittee to coordinate and disseminate technical information on gas turbines, and in 1947 sessions of the newly formed Gas Turbine Power Division were held at the Annual Meeting of the ASME. The Oil and Gas Power Division has formulated an up-to-date Power Test Code for Internal-Combustion Engines and has sponsored research projects, one on the influence of engine performance of operating variables, such as atmospheric temperature, pressure and humidity and another on the influence of hydrogen sulfide on the ignition characteristics of gas fuels.

The Oil and Gas Power Division inaugurated at its 1947 Conference in Cleveland, a new departure in ASME Technical programs, known as the Lecture Series. Thus, after 43 years since its founding, the Oil and Gas Power Division is a leader in the Society's technical life, justifying the vision of the engineers who founded it.

Upcoming ASME Events

Joint Rail Conference
April 11 – 13
Baltimore, MD USA

Waste Information Exchange
April 11 – 12
Arlington, VA USA

Offshore Technology Conference
May 1 – 4
Houston, TX USA

The 30th International Conference on Nuclear Engineering
May 21 – 26
Kyoto, Japan

42nd International Conference on Ocean, Offshore & Arctic Engineering
June 11 – 16
Melbourne, Australia

1st Annual Aerospace Structures, Structural Dynamics, and Materials Conference
June 19 – 21
San Diego, CA USA

Turbo Expo 2023
June 26 – 30
Boston, MA USA

Fluids Engineering Division Summer Meeting
July 9 – 13
Osaka, Japan

Summer Heat Transfer Conference
July 10 – 12
Washington, DC USA

Power Applied R&D 2023
August 6 – 9
Long Beach, CA USA

International Design Engineering Technical Conferences & Computers and Information in Engineering Conference
August 20 – 23
Boston, MA USA

Smart Materials Adaptive Structures and Intelligent Systems
September 11 – 13
Austin, TX USA

International Conference on Environmental Remediation and Radioactive Waste Management
October 3 – 6
Stuttgart, Germany

Internal Combustion Engine Forward Conference
October 8 – 11
Pittsburgh, PA USA

Offshore Technology Conference
October 24 – 26
Rio de Janeiro, Brazil

TEC Sector News and Updates

The ASME Technical and Engineering Communities (TEC) sector is comprised of a diverse volunteer community representing technologies and ideas through technology groups, technical divisions, and research committees. TEC engages the extraordinary talents of its members to deliver content through existing and new conferences and events, as well as provide resources and subject matter expertise to create new opportunities, for the spread of engineering knowledge. Through these efforts, members grow and develop personally and professionally.

ASME TECWEEK Concept

The go to place for engineers to shape the future!

- "All in One" Platform to contribute and learn from experts.
- Controversial, "New Horizon" leading-edge, multi-track topics.
- Harmonize industry, government, academia, and students.
- Quick & nimble deliver – technology Groups & division contributions
- Streamline revenue share, volunteer resources & member recognitions
- Existing conferences continue to stand alone or bolt-on.

Future TECWEEK Themes

- Energy
- Digital
- Manufacturing
- Transportation & Exploration
- Robotics
- Bioengineering
- Pressure Technologies

Next Steps

Energy **TECWEEK** Planning
January 6, 2023
Business plan: champions, scope, content, tracking

TECWEEK Development Meeting

February 3 – 5, 2023 in New Orleans or virtual
Innovation & Strategy Future Trends Report
TECWEEK Foundations – Basis to replicate model
Pilot Energy **TECWEEK** – peer review
TEC Council & Technology Groups strategic planning meetings

ENERGY TECWEEK Summit

March 2023
Bringing together volunteers and experts
Launch planning committee
Target 3Q23 Event!

A video presentation for published papers is no longer required. See the complete list of ASME presentation requirements.

ASME 2023 – 2024 Scholarships

Now accepting Applications!
Visit https://www.asme.org/asme-programs/students-and-faculty/scholarships to learn more!

See the 2022 – 2023 list of awardees.
See the 2021 – 2022 list of awardees.

Industry Engagement Task Force

The ASME Industry Engagement Task Force was recently formed to help the Technical & Engineering Communities (TEC) Sector gain insight into what industry is looking for in conferences. The task force created a survey, which should take approximately 5 minutes to complete, so that we may learn more about you and your interests in mechanical engineering conferences. Please take a few moments to complete the survey by following the following link:

https://forms.office.com/r/bA9eVUjbVt

Member Recognition Committee

We are looking for volunteers looking to make an impact within the TEC community by instilling a positive culture and inclusive environment. We welcome all perspectives, backgrounds, and experience levels. If this sounds like you or someone you know, please submit the form below/share. For more information, please contact columbia.mishra@utexas.edu or hernandezk@asme.org.

Share your interest by filling out the following form: https://airtable.com/shraq6JamdbDDERum

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The TEC Sector Operating Guide was approved December, 2022.

Join the ICE Division's LinkedIn page to stay abreast of division activities!

https://www.linkedin.com/groups/12154802/

TEC Sector Award Nominations

Award Name	Nomination Deadline	Link
Richard J. Goldstein Energy Lecture Award	February 1, 2023	https://www.asme.org/about-asme/honors-awards/achievement-awards/richard-j-goldstein-lecture-award
James Harry Potter Gold Medal	February 1, 2023	https://www.asme.org/about-asme/honors-awards/achievement-awards/james-harry-potter-gold-medal
Calvin W. Rice Lecture Award	February 1, 2023	https://www.asme.org/about-asme/honors-awards/unit-awards/calvin-w-rice-lecture-award
Robert Henry Thurston Lecture Award	February 15, 2023	https://www.asme.org/about-asme/honors-awards/achievement-awards/robert-henry-thurston-lecture-award

2021 & 2022 ASME ICE Division Fellows

The ASME Committee of Past Presidents confers the Fellow grade of membership on worthy candidates to recognize their outstanding engineering achievements. The following Fellows were recognized at the 2022 awards dinner in Indianapolis on October 17.

Kalyan Srinivasan (2021)
Professor
University of Alabama

Kelly Senecal (2021)
Owner & Vice President
Convergent Science, Inc.

Thomas Lavertu (2021)
Senior Engineer
Advanced Engine Technologies
Wabtec

Bradley Zigler (2022)
Senior Director
44 Energy Technologies

2022–2023 Executive Committee

Chair

Dr. **Sibendu Som**
Argonne National Laboratory
ssom@anl.gov

Conference Co-Chair

Dustin Osborne
Southwest Research Institute
dustin.osborne@swri.org

Treasurer

Dr. **Kalyan Srinivasan**
University of Alabama
ksrinivasan@eng.ua.edu

Vice-Chair

Dr. **Kelly Senecal**
Convergent Science, Inc.
senecal@convergecfd.com

New Incoming Member

Dr. **Scott Curran**
Oak Ridge National Laboratory
curransj@ornl.gov

Past Chair

Dr. **William Northrop**
University of Minnesota
wnorthro@umn.edu

Conference Chair

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