

Computers & Information in Engineering Division (CIE)

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Welcome

to the latest edition of the CIE Division Newsletter! This issue captures the highlights of an exciting year for our community, including the CIE 2025 Conference, technical committee updates, student engagement initiatives, and future plans. Our division continues to lead in advancing computational intelligence, AI/ML, and digital technologies for engineering applications.

Message from the Chair



Krishnanand Kaipa

Greetings to all members of the Computers and Information in Engineering (CIE) Division!

The CIE Conference serves as a premier venue for the international exchange of technical, scientific, and application knowledge related to the theory and practice of computing to support engineering activities. Our conference provides a forum for researchers, practitioners, educators, and students from industry, academia, and government to share their latest findings and challenges and foster a sustainable research and education community.

The past year has been remarkable for our community, highlighted by the successful CIE 2025 Conference and continued engagement through technical committees, hackathons, and student programs. Our theme for 2025, **“Empowering Mechanical Engineering with Generative Computational Intelligence,”** reflects the growing role of AI and data-driven methods in engineering design and manufacturing.

The 45th Annual CIE conference included 97 accepted papers and technical presentations submitted through various technical sessions and organized around the four Technical Committees of the CIE Division, namely: Advanced Modeling and Simulation, Computer Aided Product and Process Design, Systems Engineering and Information Knowledge Management and Virtual Environments and Systems. These papers and presentations were supported

at the conference by two exciting keynote talks and a diverse set of technical panels.

Finally, I would like to recognize that the CIE Division has long been a forum for understanding the application of emerging digital technologies that impact critical engineering issues such as representation, product design and product development. With this in mind, we are pleased to introduce new tracks in Artificial Intelligence and Machine Learning for Engineering in our upcoming 48th conference. We look forward to continuing to grow in these areas, so please keep an eye on future communications and opportunities.

Thank you to all volunteers, authors, reviewers, and ASME staff for making this possible. Let’s continue to build momentum as we look forward to IDETC/CIE 2026 in Houston, TX!

IDETC-CIE 2025

International Design Engineering
Technical Conferences & Computers
and Information in Engineering
Conference

In-Person Event

Hilton Anaheim,
Anaheim, California, USA

August 17-20, 2025

CIE 2025 Conference Report

Notes from the Past Chair



Robert E. Weindrach

Congratulations to all of the symposium organizers of the ASME CIE 2025 conference! This includes all technical leadership committees, track chairs, reviewers, catering, AV people and volunteers!

The conference in Anaheim, CA was a whopping success! This year's edition offered five technical tracks, two panels; however, unfortunately we were not able to take our successful Science Tech Buzz (STB 2024) for another spin. However, it was great to see many of our CIE community prosper, connect and interact!

Of importance is the continual growth of our CIE community and we would appreciate your support in reaching out to potential new academic members or young and upcoming engineers. Increasing community awareness and fostering equity within our community is necessary and helps us to build capacity and strengthen our objectives and goals for the future.

Special thanks to the ASME staff, Keli Bell-Cole and Barbara Zlatnik, for all their invaluable support and to Laraine "Lori" Lee for helping us in completing and getting all our publications through successfully.

This year Krishnanand Kaipa and myself have had the pleasure of serving as the Conference Chairs for the overall ASME IDETC CIE conferences. It has been an exciting and pleasurable opportunity and we hope you were all able to enjoy the fellowship of the greater DED and CIE communities during the many events that were planned.

We sincerely thank our keynote speakers Dr. Yan Fu, Senior Director of Strategy and Enterprise Analytics Ford Motor Company and Dr. Satyandra K. Gupta, Director of the Center for Advanced Manufacturing University of Southern California and Co-Founder and Chief Scientist at Gray-Matter Robotics for their insightful and engaging presentations.

As the CIE Awards Chair for 2025-2026, I would like to inform you that CIE is seeking nominations for deserving colleagues with respect to the following division-level awards:

- Young Engineer Award: to recognize a promising young investigator who is making outstanding contributions to the progress in the application of computers in engineering.
- Lifetime Achievement Award: to recognize a person who has had a significant impact on the use of computers in engineering practice and/or education.
- Leadership Award: to recognize outstanding performance in one or more areas of concern to both the computer industry and the various engineering fields.
- Excellence in Research: CIE recognizes a person for outstand-

ing research contributions in any field associated with the use of computers in engineering.

- Distinguished Service Award: to recognize a person for dedicated service in support of the CIE Division's mission.
- Best Ph.D. Thesis/Dissertation Award: to recognize promising young investigators who authored the best Ph.D. thesis of the year in CIE.

Details about these awards are available at: <https://www.asme.org/get-involved/groups-sections-and-technical-divisions/technical-divisions/technical-divisions-community-pages/computers-information-in-engineering/honors-and-awards>.

The award nominations are due a.s.a.p with a final fixed deadline on May 01, 2026.

Please do not hesitate to contact me (email: robert@rawshaping.com) if you have any questions about the nomination process.

We look forward to seeing you at yet another extraordinary IDETC CIE 2026 in Houston, TX, USA! Please join us for IDETC-CIE 2026 taking place August 23-26, 2026. Hope to see and meet you there!

Robert E. Weindrach
ASME CIE Division Chair, 2024-2025
CEO Rawshaping Technology,
Research Innovation (RST),
The Netherlands

CIE 2025 CONFERENCE OVERVIEW

The theme for this year's conference was Empowering Mechanical Engineering with Generative Computational Intelligence. This theme reflects the growing influence of artificial intelligence and computational methods in shaping the future of mechanical engineering, enabling innovative solutions and smarter design processes.

The CIE 2025 Conference was a vibrant and engaging event that showcased cutting-edge research and collaboration. The program featured 123 peer-reviewed technical papers, offering deep insights into emerging technologies and methodologies. In addition, there were 23 presentation-only talks, providing a platform for sharing innovative ideas without the constraints of formal publication. The conference also hosted over 30 graduate student posters, with 11 students receiving stipends for their outstanding contributions. These highlights underscore the conference's commitment to fostering academic excellence and supporting the next generation of engineers. Two keynote addresses set the tone for the conference.

Keynote: Leveraging Data, Analytics, and AI to Build a Better World



Dr. Yan Fu delivered an inspiring talk titled "Leveraging Data, Analytics, and AI to Build a Better World", emphasizing the transformative potential of data-driven technologies in engineering and society.

Keynote: Physical AI for Powering Smart Robotic Cells in Manufacturing Applications



Dr. Satyendra K. Gupta followed with his keynote, "Physical AI for Powering Smart Robotic Cells in Manufacturing Applications", which explored how physical AI systems can revolutionize manufacturing by enabling intelligent, adaptive robotic solutions.

The conference featured two dynamic panel discussions that encouraged dialogue on critical topics.

Panel: Women in CIE



Moderated by Dr. Christina Wang, this panel brought together distinguished faculties - Dr. Caterina Rizzi (University of Bergamo), Dr. Scarlett Miller (Penn State University), Dr. Daniela Faas (Olin College of Engineering), academia to industry transitioned leader - Dr. Uma Jayaram (Electronic Arts) and industry representative - Dr. Mareike Kritzler

(Siemens FT). The discussion focused on strategies for increasing diversity and leadership opportunities in engineering, highlighting actionable steps to create a more inclusive professional environment.

Panel: Physics-Informed Machine Learning and Physical AI for Engineering

Signature event supported by AI/ML TC attracted significant attention, and attendance was high. The TC secretary, Prof. Hyunwoong Ko, hosted the panel and invited three domain experts as the panelists, including Prof. Binil Starly from Arizona State University, Prof. Hongyi Xu from the University of Connecticut, and Prof. Yanglong Lu from Hong Kong University of Science and Technology. The conversation emphasized how combining domain knowledge with machine learning can accelerate innovation and improve reliability in complex engineering systems.

Beyond technical sessions, the conference featured memorable special events. The Awards Luncheon celebrated outstanding contributions and leadership within the CIE community, recognizing individuals who have advanced research, education, and service. Another highlight was the CIE Hackathon, a global competition that attracted 58 participants from more than 33 institutions across six countries. Teams tackled real-world engineering challenges using AI and data science, demonstrating creativity and technical expertise in a fast-paced, collaborative environment.

CIE DIVISION HONORS AND AWARDS

The CIE Division proudly recognized outstanding contributions to the community during the 2025 Awards Luncheon.

CIE Lifetime Achievement Award



Dr. Jonathan Cagan received the prestigious Lifetime Achievement Award for his significant impact on advancing the use of computational methods in engineering practice and education.

Dr. Jonathan Cagan is the David and Susan Coulter Head and George Tallman and Florence Barrett Ladd Professor of Mechanical Engineering at Carnegie Mellon University, with a courtesy appointment in the School of Design. His research integrates AI, machine learning, and optimization with cognitive science to advance engineering design automation and human-AI collaboration. He focuses on generative design, computational modeling of designer processes, and medical diagnostics, aiming to enhance innovation and decision-making in hybrid human/AI teams. Dr. Cagan co-founded the Integrated Innovation Institute and has led numerous interdisciplinary initiatives bridging engineering, design, and entrepreneurship.

Dr. Cagan earned his Ph.D. in Mechanical Engineering from the University of California, Berkeley, and both his M.S. and B.S. in Mechanical Engineering from the University of Rochester. A Fellow of ASME and AAAS, he has authored over 300 publications, several influential books on innovation, and holds multiple patents. His honors include the ASME

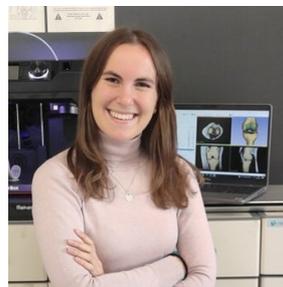
Design Theory and Methodology Award, Design Automation Award, Ruth and Joel Spira Outstanding Design Educator Award, and the 2025 ASME Lifetime Achievement Award. Beyond academia, he has consulted for Fortune 100 companies and startups, applying his research to real-world innovation challenges.

CIE Young Engineer Award



The Young Engineer Award was presented to Zhuo Yang, honoring his promising research and innovative applications in the field. Dr. Yang has pioneered novel predictive analytics method in additive and smart manufacturing, developing a supermetamodeling framework and advanced AI-driven methods for real-time monitoring, design optimization, and process control. His work, recognized internationally and applied in industry collaborations, significantly improves accuracy and efficiency in AM prediction, bridging data and knowledge to enable reliable, scalable manufacturing solutions.

CIE Best Dissertation Award



Anna Ghidotti earned the Best Dissertation Award for her exceptional doctoral work, titled "A Patient Digital Twin to Enhance Orthopedic

Care". Her dissertation research developed a modular Patient Digital Twin platform by combining AI-driven anatomical segmentation, statistical shape modeling, and biomechanical simulations, validated on orthopedic cases like ACL injuries and shoulder instability. This integrated, simulation-based approach bridges patients and digital models, enabling personalized diagnosis and treatment with potential applications across diverse medical domains.

CIE Distinguished Service Award



Robert E. Wendrich was honored with the Distinguished Service Award for his dedicated leadership and service to the division.

Special appreciation was extended to Krishnanand Kaipa and John Steuben for their invaluable contributions to the success of the conference and division activities. In addition, Technical Committee Leadership Awards were presented to James Yang, Jun Wang, Shengyen Li, Marco Rossoni, and Zhengui Sha for their exemplary efforts in advancing technical programs and community engagement.

ASME Fellows from CIE

We are delighted to announce that following members of our division have been elevated to the grade of ASME Fellows: Scarlett Miller, Peter Chung, David Pierce, Jongeun Choi, Kenneth Mark Bryden, Katherine Fu, Ping Guo, and Yaoyao Fiona Zhao for this well-deserved honor.

Best Paper Awards

CIE Best Conference Paper: Zipu Yan and Yanglong Lu for their work titled "Inverse Heat Transfer Analysis for Locating Internal Sources With Arbitrary Geometries Using Physics-Based Compressive Sensing".

AMS Best Paper: Benson Isaac and Douglas L. Allaire for their paper "Shortcutting Monte Carlo Uncertainty Propagation Plans With Matched Digital Nets".

CAPPD Best paper: Zuxin Dai and colleagues for their paper "Kinematic Analysis of Gait On Level and Sloping Ground with Uneven Surface in Transtibial Amputees with Exomodular Prostheses".

SEIKM Best Paper: Chikaha Tsuji and team received honors for the paper "Gencad-Self-Repairing: Feasibility Enhancement for 3d Cad Generation".

VARE Best Paper: Giorgio Colombo and collaborators for their paper "Comparative Analysis of real-Time and Simulated Monitoring Techniques for MIG Welding".

AI/ML Best Paper: Xingang Li and Zhenghui Sha were recognized for their innovative paper "Image2cadseq: Computer-Aided Design Sequence and Knowledge Inference From Product Images".

Student Engagement

The CIE Division continued its strong commitment to student involvement through the Graduate Student Poster Session. This year, 11 students received stipends for their exceptional

poster presentations. Their research covered a wide range of topics, including polymerization modeling, defect detection using deep learning, human-AI teaming for search and rescue operations, and leverag-

ing large language models to enhance generative design diversity. These contributions reflect the innovative spirit and future potential of our emerging scholars.

Snapshots from CIE Luncheon



ASME 2025 TECHNICAL COMMITTEE REPORTS

ADVANCED MODELING AND SIMULATION (AMS)

The AMS Track provides a platform for presenting original research in modeling, simulation, verification, artificial intelligence, and advanced digital engineering.



The AMS Technical Committee announced a new ASME JCISE Special Issue titled “Generative AI for Design, Manufacturing Processes, and Materials Systems.” The submission deadline is September 30, 2025, with initial reviews expected by November 30, 2025, and the publication scheduled for July 2026. The committee also participated in joint CIE AMS/CAPPD and AMS/SEIKM Symposiums at ASME IDETC 2025, strengthening interdisciplinary collaboration across multiple CIE tracks. In 2025, the AMS Track accepted a total of 29 papers across seven sessions. These included fifteen papers in the AMS General category, five focused on Digital Twin applications, four related to Additive Manufacturing topics, and five in Artificial Intelligence and Machine Learning for Design and Manufacturing.

AMS SYMPOSIUM TOPICS

Its symposium portfolio includes 1) AMS General, 2) Uncertainty Quantification Verification and Validation, 3) Artificial Intelligence and Machine Learning in Design and Manufacturing, 4) Additive Manufacturing, and Digital Twin applications.

2026 AMS TC LEADERSHIP

Chair: Mike Xiang, Associate Professor, Oklahoma State University (yujiang.xiang@okstate.edu); Dehao Liu, Assistant Professor, Binghamton University, (de-

haoliu@binghamton.edu)

Vice Chair: Sandippkrishnan Ravi, Research Engineer, General Electric, (sandippkrishnan.ravi@ge.com)

Secretary: Lisha White, Post-doctoral Researcher, NIST (lisha.white@nist.gov) Yanglong Lu, Assistant Professor, The Hong Kong University of Science and Technology (maeylu@ust.hk)

Member-at-large: –

Past Chair: James Yang, Professor, Texas Tech University (james.yang@ttu.edu) Ashish Chaudhari, Data Scientist, Philips Research (ashish.chaudhari@philips.com)

Computer Aided Product and Process Design (CAPPD)

In total, 26 draft papers were submitted to CAPPD and 24 were accepted, corresponding to an acceptance rate of 92.3 percent.



CAPPD SYMPOSIUM TOPICS

As part of the 2025 CIE conference, CAPPD organized seven symposia: 1) CAPPD general, 2) Human-in-the-Loop and Digital Human Modeling for Product Design and Manufacturing, 3) Product and Process Design Automation for Industry 4.0, 4) Data-Driven Product Design and Fabrication, 5) Computational Design and Planning for Extreme Manufacturing, 6) Integrating LLMs into Smart Manufacturing Systems, and 7) Inverse Design for Materials, Structures, Products, and Manufacturing Processes.

As in the past, the CAPPD technical committee continued to organize the CIE Graduate Student Poster Session. Thanks to the outstanding efforts of the CAPPD secretary, Dr. Guoxin

Fang, this year’s poster session drew 35 poster submissions from 19 different institutes in the United States, Canada, South Korea, Japan, and China. Eleven of them were selected for the CIE travel award and 23 of them were showcased at the conference.

2026 CAPPD TC LEADERSHIP

Chair: Satchit Ramnath, Clemson University (sramnat@clemson.edu)

Vice Chair: Guoxin Fang, Chinese University of Hong Kong, (guoxin-fang@mae.cuhk.edu.hk)

Secretary: Cheng Chen, University of Alabama in Huntsville, (cc1115@uah.edu)

Member-at-large: Hemanth Manjunatha, Oklahoma State University, (hemanth.manjunatha@okstate.edu)

Past Chair: Jun Wang, Santa Clara University (jwang22@scu.edu)

Systems Engineering Information and Knowledge Management (SEIKM)

The goal of the Systems Engineering, Information, and Knowledge Management (SEIKM) Technical Committee (TC) has been twofold: (i)



to serve the SEIKM community in the broader computer and information engineering field by promoting the dissemination of new knowledge and technology and (ii) to advance research related to the design, engineering, and operation of complex systems where connectivity, uncertainty, knowledge discovery, and management present unique challenges.

SEIKM SYMPOSIUM TOPICS

1) SEIKM General Session 2) Systems Engineering and Complex Systems 3) Advanced Manufacturing

and Supply Chain Systems Design and Analysis 4) Digital Twin Modeling and Analytics for Advanced Manufacturing 5) Physics-Informed Machine Learning for Advanced Design and Manufacturing 6) Artificial Intelligence and Machine Learning in Design and Manufacturing 7) Design, Simulation, and Optimization for Additive Manufacturing 8) Knowledge Capture, Reuse, and Management 9) Informatics for Design and Manufacturing

2026 SEIKM TC Leadership

Chair: Shengyen Li, NIST (shengyen.li@nist.gov)

Vice-Chair: Abheek Chatterjee, University of Maryland (achatt31@umd.edu)

Secretary: Farhad Imani, University of Connecticut (farhad.imani@uconn.edu)

Past Chair: Hyunwoong Ko, Arizona State University (hyunwoong.ko@asu.edu)

Virtual and Augmented Realty Environments (VARE)

VAR-E considers the scope of virtual environments to be broad and invite innovative and fundamental research across a wide spectrum of virtual environments. Specifically, any type of environment in the reality-virtuality spectrum is a virtual environment and any system that embodies the interplay across humans, computing devices, interaction technologies, and feedback mechanisms is a virtual system.



VARE SYMPOSIUM TOPICS

General Topics on Virtual and Augmented Reality 1) User Experience (UX) and Human-Machine Interaction 2) VARE Applications 3) VR/AR Hardware, Accessibility, and Human Factors

2026 VARE TC Leadership

Chair: Marco Rossoni, Politecnico di Milano, Italy

Vice-chair: Tsz-Ho Kwok, Concordia University, Canada

Secretary: Pietro Piazzolla, Politecnico di Milano, Italy

Member-at-Large: Wenhao Yang, Lamar University, USA

Past-chair: Yunbo “WILL” Zhang, Rochester Institute of Technology, USA

AI and ML in Engineering (AI/ML)

The mission of AI/ML TC is twofold: 1) The TC aims to foster a forum for researchers to communicate and disseminate research that has made significant methodological contributions to AI/ML for CIE. 2) The TC serves as a port to draw fresh blood and expertise in AI/ML, but outside of the traditional CIE topics, to promote knowledge integration and theory translation. The AI/ML TC made its debut at last year’s CIE conference and continued the success made from its inaugural symposia. At the 2025 CIE conference, the TC has attracted significant interest and therefore received a large number of high-quality papers and abstract submissions. In total, the TC received 23 papers, 7



presentation-only submissions, and 2 posters across 5 symposia. The acceptance rate of the paper submission is 0.87, with 10 papers recommended as “Journal quality” and 7 papers recommended as “Best Paper” candidates. The TC’s Best Paper Award was presented to the paper entitled “Image2CADSeq: Computer-Aided Design Sequence and Knowledge Inference from Product Images,” by the authors, Xingang Li and Zhenghui Sha from the University of Texas at Austin, who presented their work at CIE-30 AI/ML: AI-Driven Innovation and Discovery with Vision and Imaging.

AI/ML SYMPOSIUM TOPICS

As part of the 2025 CIE Conference, AI/ML organized 5 symposia: 1) AI/ML General Session, 2) AI/ML Data, 3) Knowledge-Informed AI and ML for Engineering, 4) AI-Driven Innovation and Discovery with Vision and Imaging, 5) Generative AI and Large Language Model (LLM) for Engineering.

2026 AI/ML TC LEADERSHIP

Past-chair: Zhengui Sha, University of Texas at Austin (zsha@austin.utexas.edu)

Chair: Ashly Joseph, Cisco Systems (ashlyelsy@gmail.com)

Vice-Chair: Hyunwoong Ko, Arizona State University (Hyunwoong.Ko@asu.edu)

Secretary: Anna Ghidotti, University of Bergamo (anna.ghidotti@unibg.it)

Member-at-Large Yinshuang Xiao, Colorado State University (yinshuang.xiao@colostate.edu)

ASME 2025 STUDENT HACKATHON

The Computer Information in Engineering (CIE) Division of the American Society of Mechanical Engineers (ASME) has a long tradition of organizing hackathon events at the annual IDETC/CIE Conferences. Building on the success of prior hackathons held from 2020 through 2024, the CIE Division continued this impactful initiative by hosting the ASME-CIE Hackathon again at the IDETC/CIE 2025 Conference. The 2025 ASME Hackathon was held in a hybrid format from August 10–17, 2025, with activities taking place virtually and on-site at the Anaheim Hilton in Anaheim, CA. The event focused on “Empowering Mechanical Engineering with Generative Computational Intelligence.” Participants competed for cash prizes and collaborated on technical challenges sponsored by NIST, Autodesk, and

nTop. The 2025 hackathon drew 58 participants representing 33+ institutions across 6+ countries, demonstrating its growing global reach and reputation for technical rigor.

Hackathon Technical Challenges

Problem 1 – NIST Challenge: Monitoring and Modeling LPBF Powder Spreading Conditions - Participants were tasked with developing machine-learning models to detect anomalies in powder spreading during Laser Powder Bed Fusion (LPBF) additive manufacturing and to generate synthetic powder-bed images. (Problem contributors: Zhuo Yang and Yan Lu from NIST).

Problem 2 – Autodesk Challenge: Design Documentation Decoded: Improving AI’s Understanding of Engineering Documents - Teams were in-

vited to create AI systems capable of outperforming current benchmarks in DesignQA, advancing the interpretation and reasoning capabilities needed for complex engineering documentation. (Problem contributors: Annie Doris from Decode Lab at MIT and Daniele Grandi from Autodesk).

Problem 3 – nTop Challenge: Accelerating Design Exploration and Optimization with Surrogate Physics Models - Participants trained surrogate design models using heat-exchanger simulation data. The goal was to enable fast, accurate inverse design that minimizes pressure drop and mass while maximizing heat-exchange surface area. (Problem contributors: Matthew Mueller and Ajay Prasad from nTop)

WINNERS

NIST Challenge

- First: Athul C. D., Purdue University
- Second: Xie Yuxuan, National University of Singapore
- Third: Bhairav Phukan, Columbia University, and Balavignesh Vemparala, Ansys

Autodesk Challenge

- First: Kiarash Naghavi Khanghah and Hoang Anh Nguyen, University of Connecticut
- Second: Nils Schäfer, Technical University Darmstadt
- Third: Randy El Haddad, McGill University

nTop Challenge

- First: Gourav Kumbhojkar and Yi-Ping Chen, Northwestern University
- Second: Christopher Wight, Santa Clara University
- Third: Nico Quirante and Jack Bajcz, Michigan State University



Poster Session and Student Awards

The ASME–CIE Graduate Research Poster Session provides an important venue for graduate students in the early stages of their research programs—master’s students or PhD students within the first two years of study—to share their ongoing work with the broader CIE research community. This session enables students to present preliminary ideas and methodologies that may not yet be ready for archival publication, while receiving valuable external feedback to strengthen their future research contributions. The following students received poster stipends for the 2025 cycle:

- Jessica Lo (Advisor: Stephen Gent): Poster-Assessment of Polymerization of Polylactic Acid-Based Biopolymers Using a Commercially-Available Multiphysics Solver
- Andres Mena (Advisor: James Yang): Poster-Development and Validation of High Biofidelic Finite Element Models of the Human Wrist
- Jingwan Qian (Advisor: Shuhao Chen): Poster-Automatic Detection of Surface Defects in Aluminum Die-Cast Gas Meter Lids Using Deep Learning Techniques
- Zuxin Dai (Advisor: Beshoy Morkos): Poster-YOLO Meets LLM: Toward Intelligent Shell Crack Detection and Control
- Kaevin (Kevin) Wang (Advisor: Jun Wang): Poster-Automatic Generation of 2D NURBS-based Geometries for Isogeometric Analysis
- Elahe Oveisii (Advisor: Hemanth Manjunatha): Poster-Human-AI Teaming in Search and Rescue: An LLM Approach
- Amogh Venkataramana Reddy (Advisor: Cameron J Turner): Poster-Real-time Pose Estimation using Photogrammetry for Continuous Calibration of a Serial Manipulator
- H M Dilshad Alan (Advisor: Anand Balu): Poster-Robust Co-Design Exploration Framework for Multi-Goal Multidisciplinary System
- Pawornwan Thongmak (Advisor: Zhenghui Sha): Poster-Multi-Dimensional Network Modeling for Complex Socio-Technical Systems
- Emily Yan (Advisor: Chung Hyun Goh): Poster-Fatigue Analysis and Validation of a Deep Learning-Enhanced Finite Element Model for Acetabular Cup Screw Fixation in Total Hip Arthroplasty
- (Bradley) Fery (Advisor: Jitesh H. Panchal): Poster-Enhancing Conceptual Design Diversity by Large Language Models Using Personas with Professional Knowledge
- Akira Ito (Advisor: Shigeki Saito): Poster-Development of Reflection Support System to Solve Design Fixation
- JunSeok Choi (Advisor: Howuk Kim): Poster-Airborne Source Quantification Using Black Box Theory
- Doyeon Kim (Advisor: Howuk Kim): Poster-Experimental and Analytical Optimization of EPB Housing for Noise Reduction



Updates from ASME Journal OF Computing and Information Science in Engineering (JCISE)



YAN WANG,
EDITOR, JCISE

OVERVIEW

The Journal of Computing and Information Science in Engineering (JCISE) publishes articles related to scientific computing methods (e.g., modeling, simulation, representation, algorithm) and computational tools (e.g., high-performance computing, virtual and augmented reality) that aim to improve engineering products and systems for their complete lifecycle (e.g., design, manufacturing, operation, maintenance, disposal, and recycling). The target audience and application areas for JCISE are mainly in mechanical and other related engineering disciplines. JCISE emphasizes new modeling and computational methodologies.

The twelve thrust areas with the responsible associate editors are given below:

Associate Editors

- Computer-Aided Design and Manufacturing
 - Jonathan Roy Corney, (University of Edinburgh, UK)
 - Kaushalkumar A. Desai, (Indian Institute of Technology Jodhpur, India)
 - Alison Olechowski, (University of Toronto, Canada)
 - Cameron J. Turner, (Clemson University, USA)
- Computational Geometry and Geometry Processing
 - Stephen Baek, (University of Virginia, USA)
 - Vinayak R. Krishnamurthy, (Texas AM University, USA)
- Cyber-Physical-Social Systems
 - Chih-Hsing Chu, (National Tsing Hua University, Taiwan)
 - Dan Li, (University of Wisconsin-Madison, USA)
 - Yan Lu, (National Institute of Standards and Technology, USA)
 - Paul Witherell, (National Institute of Standards and Technology, USA)
- Data Analytics Machine Learning
 - Linkan Bian, (Mississippi State University, USA)
 - Jianxi Luo, (City University of Hong Kong, Hong Kong)
 - Yisha Xiang, (University of Houston, USA)
 - Hui Yang, (Pennsylvania State University, USA)
 - Xiaowei Yue, (Tsinghua University, China)
- Engineering Optimization
 - Seung-Kyum Choi, (Georgia Institute of Technology, USA)
 - Amir H. Gandomi, (University of Technology Sydney, Australia)
 - Samy Missoum, (The University of Arizona, USA)
- Human-Computer Interface Human Modeling
 - Francesco Ferrise, (Politecnico di Milano, Italy)
 - Shanna Smith, (National Taiwan University, Taiwan)
- Intelligent Manufacturing
 - Gaurav Ameta, (Siemens Corporate Technology, USA)
 - Tsz-Ho Kwok, (Concordia University, Canada)
 - Yayue Pan, (University of Illinois at Chicago, USA)
 - Hongyue Sun, (University of Georgia, USA)
 - Wenmeng Tian, (Mississippi State University, USA)
- Machine Intelligence Robotics System
 - Ehsan T. Esfahani, (State University of New York at Buffalo, USA)
 - Krishnanand Kaipa, (Old Dominion University, USA)
 - Atul Thakur, (Indian Institute of Technology Patna, India)
- Modeling and Simulation Scientific Computing
 - Johann Guilleminot, Ph.D. (Duke University, USA)
 - Guang Lin, (Purdue University, USA)
 - Jian-Xun Wang, (Cornell University, USA)
- Precision Engineering Reverse Engineering
 - Jun Wang, (Nanjing University of Aeronautics and Astronautics, China)
- Sustainability Product Lifecycle Management
 - William Bernstein, (Air Force Research Laboratory, USA)
 - Yaoyao Fiona Zhao, (McGill University, Canada)
- Systems Engineering Engineering Informatics
 - Yongsheng Ma, (Southern University of Science and Technology, China)
 - Duhwan Mun, (Korea University, Korea)
 - Douglas Van Bossuyt, (Naval Postgraduate School, USA)

Journal Statistics

2025 paper submissions: 715

2024 paper publications: 98

Impact Factor: 3.3

JCISE Awards

2025 Editor's Pick

- Yaxin Cui, Zhuoxin Sun, Yinshuang Xiao, Zhenghui Sha, Johan Koskinen, Noshir Contractor, Wei Chen, "Network Analysis of Two-Stage Customer Decisions With Preference-Guided Market Segmentation," J. Comput. Inf. Sci. Eng. Jun 2025, 25(6): 061003. DOI: <https://doi.org/10.1115/1.4066420>
- Mahathir Mohammad Bappy, Durant Fullington, Linkan Bian, Wenmeng Tian, "Adaptive Thermal History De-Identification for Privacy-Preserving Data Sharing of Directed Energy Deposition Processes," J. Comput. Inf. Sci. Eng. Mar 2025, 25(3): 031006. DOI: <https://doi.org/10.1115/1.4067210>
- Hao Ji, Yan Jin, "Impact of Task Constraint on Agent Team Size of Self-Organizing Systems Measured by Effective Entropy," J. Comput. Inf. Sci. Eng. Aug 2024, 24(8): 081004. DOI: <https://doi.org/10.1115/1.4065343>
- Evangéline Capiez-Lernout, Olivier Ezvan, Christian Soize, "Updating Nonlinear Stochastic Dynamics of an Uncertain Nozzle Model Using Probabilistic Learning With Partial Observability and Incomplete Dataset," J. Comput. Inf. Sci. Eng. Jun 2024, 24(6): 061006. DOI: <https://doi.org/10.1115/1.4065312>
- Hankang Lee, Daniel Finke, Hui Yang, "Privacy-Preserving Neural Networks for Smart Manufacturing," J. Comput. Inf. Sci. Eng. Jul 2024, 24(7): 071002. DOI: <https://doi.org/10.1115/1.4063728>

2025 Reviewers of the Year

- Cheng Chen — University Alabama in Huntsville, USA
- Shuo Jiang — City University of Hong Kong, Hong Kong
- Qian Ye — XEROX Palo Alto Research Center, USA

2025 Associate Editor Excellence Award

- Gaurav Ameta — Siemens Corporate Technology, USA
- Vinayak Krishnamurthy — Texas A&M University, USA
- Y. Fiona Zhao — McGill University, Canada

Recent Special Issues

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