

# COMPSAC 2024: A Resounding Success

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*The Computer Society's signature annual COMPSAC conference was held in Osaka, Japan in July, 2024. After years of unpredictable international events, the 48th rendition of the conference was an outstanding success.*

After more than four years of unprecedented challenges, the IEEE Computer Society's (CS's) Computers, Software, and Applications Conference (COMPSAC) successfully held its 48th annual meeting in Osaka, Japan, from 2 to 4 July 2024. This marked a significant milestone as the first fully in-person rendition of the conference since 2019, following a period where all iterations had been either completely or predominantly virtual due to the COVID-19 pandemic.

The conference theme, "Digital Development for a Better Future," set an ambitious tone, focusing on the R&D of computing technologies destined for integration into all facets of society. The scope was impressively broad, encompassing various cutting-edge topics (see [Figure 1](#)).

Unsurprisingly, artificial intelligence emerged as a common thread, weaving through virtually all the sessions, underscoring its pervasive influence across the computing landscape.

The journey to COMPSAC 2024's success was not without its challenges. The past few years had been marked by the pandemic and various "international disruptions," leaving many staff and volunteers apprehensive about potential impacts on conference registrations. As the Standing Committee chair, I approached the planning process with a "worst-case-scenario" mindset. This cautious approach was rooted in the dual responsibility of delivering a high-quality conference and ensuring COMPSAC's financial success for the CS, a balance we've consistently achieved over the years.

Our concerns, however, proved unfounded. We were astounded by the influx of high-quality submissions, nearly 30% more than the previous year and even surpassing prepandemic rates. This surge in interest served as a testament to the resilience and continued relevance of COMPSAC in the global computing community.

## ADAPTING TO CHALLENGES

The planning process was not without its moments of panic. Before the submissions began flowing in January (see [Figure 2](#)), we adopted the previous year's three-day conference format. This structure typically included roughly eight daily parallel sessions, with some slots allocated to plenary keynote speakers and panels. However, as the submissions rolled in at an unprecedented rate, we needed to adapt quickly.

To accommodate the increased submission rate while maintaining our stringent acceptance standards (historically, under 25%), we expanded our daily schedule to include 10-plus parallel sessions. This adjustment allowed us to showcase a broader range of research without compromising on quality. Looking ahead, we've already decided that COMPSAC 2025 will expand to a four-day format, providing attendees with more opportunities to engage with the wealth of content on offer.

## VENUE AND CULTURAL EXPERIENCE

This year's conference venues were carefully selected to provide attendees with a rich cultural experience alongside the academic program. The parallel sessions were held at the Nakanoshima Center of Osaka University, while the plenary sessions took place next door, at the Osaka Nakanoshima Museum of Art. This arrangement uniquely juxtaposed Japan's educational heritage and contemporary cultural scene. Osaka University's history dates back to 1724, starkly contrasting the Osaka Nakanoshima Museum of Art, which opened its doors in 2022, with nearly 300 years separating these two institutions.

## BEHIND THE SCENES

The success of COMPSAC is largely attributable to the tireless efforts of our dedicated volunteers. As in previous years, the volume of e-mails related to conference planning was staggering: I received almost 4000 such

communications before the conference began. This correspondence started as early as May 2023, before the conclusion of the previous year’s meeting in Turin, Italy. Discussions about COMPSAC 2025 and even 2026 were underway before we arrived in Osaka, highlighting the long-term planning required for an event of this magnitude.

**COLLABORATION WITH *IT PROFESSIONAL***

COMPSAC 2024 also saw the continuation of a fruitful collaboration with *IT Professional (IT Pro)* magazine. Building on the previous year’s initiatives, which included a mini editorial board meeting at COMPSAC

2023 in Turin and a full board meeting in Washington, D.C., this year’s conference featured an enhanced partnership. Charalampos Z. Patrikakis (Babis), editor-in-chief of *IT Pro* and chair of COMPSAC’s Information Technology in Practice (ITiP) symposium worked closely with our Proceedings/Publications chair to select four ITiP-accepted papers for inclusion in upcoming issues of *IT Pro*.

This initiative is part of COMPSAC’s journal/conference and conference/journal program, dubbed “Special Opportunity for Authors.” The program, prominently featured on the conference website ([www.compsac.org](http://www.compsac.org)), allows IEEE CS editors-in-chief to select papers from COMPSAC for publication in *IT Pro*.

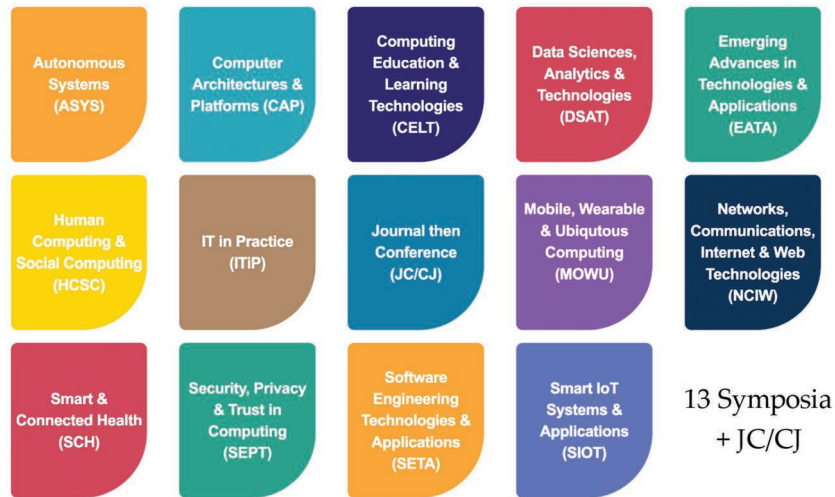


FIGURE 1. COMPSAC symposia. JC/CJ: journal/conference and conference/journal; IoT: Internet of Things.

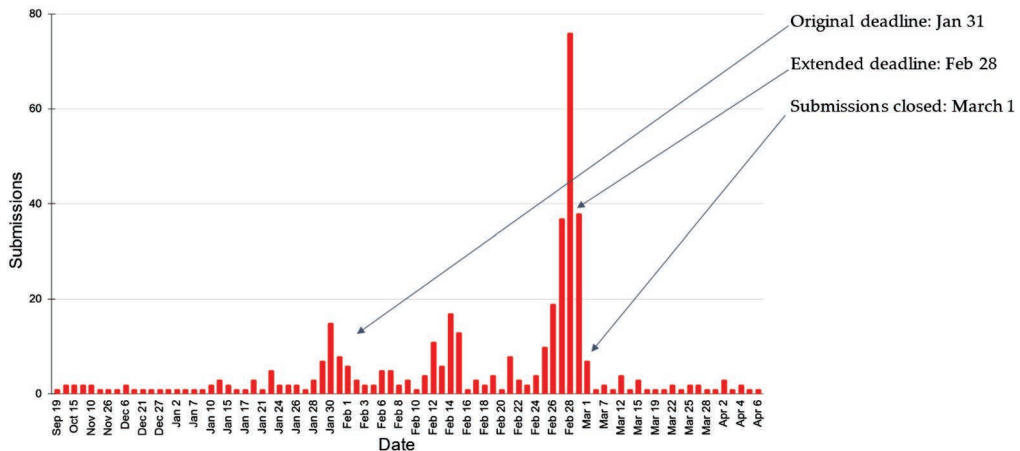


FIGURE 2. Submission flow.

In these cases, only the abstracts are included in the conference proceedings, along with a reference to their full publication in *IT Pro* within *IEEE Xplore*.

## SUBMISSION STATISTICS AND REVIEW PROCESS

COMPSAC has maintained its reputation for excellence over its nearly 50-year history, consistently achieving a submission acceptance rate below 25%. The 2024 conference was no exception, with more than 300 submitted articles, each receiving at least three reviews, a level of scrutiny that exceeds many other conferences whose proceedings are archived in *IEEE Xplore*.

This rigorous review process is orchestrated by a team of dedicated volunteers, including general, program, fast abstract, student research symposium, and conference technical chairs. Their collective effort ensures that only the highest quality research is presented at COMPSAC, maintaining the conference's standing as a premier event on the computing calendar.

## CONFERENCE STRUCTURE

As shown in [Figure 1](#), COMPSAC 2024 was organized into 13 main "symposia" or tracks, covering a broad spectrum of computing topics. In addition to these core tracks, the conference featured more than 30 specialized workshops. These workshops function as mini conferences in their own right, delving into highly

specific topics that complement the broader themes addressed in the main symposia.

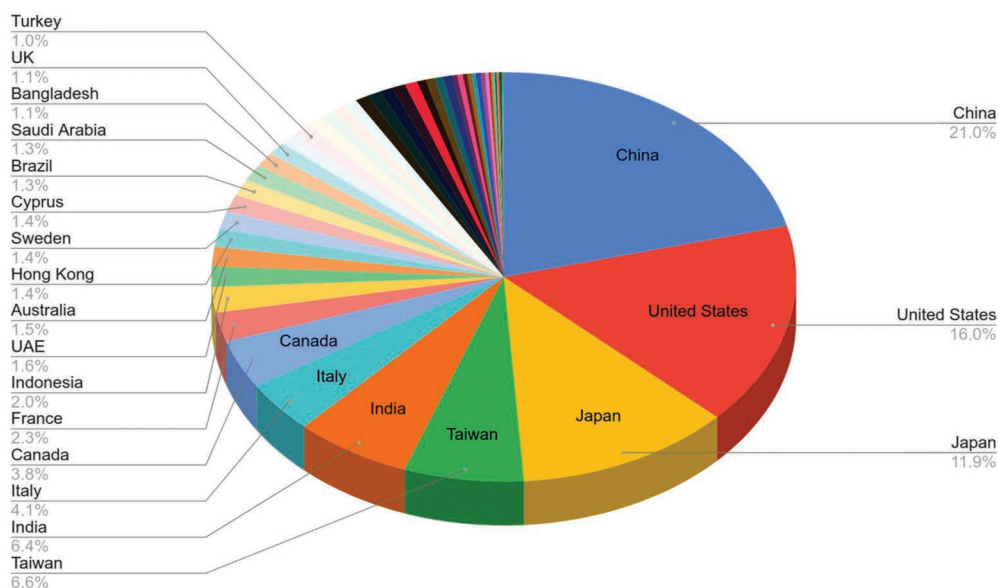
The international character of COMPSAC was evident in the diversity of submissions. Papers were received from 54 different countries, underscoring the global reach and appeal of the conference. This geographical diversity contributes significantly to the richness of the perspectives and ideas shared at COMPSAC (see [Figure 3](#)).

In terms of attendance, the conference drew nearly 500 registrants. Many of these attendees were second and third (or more) authors of presented papers, fostering a collaborative atmosphere and providing opportunities for researchers at various career stages to engage with the international computing community.

## KEYNOTE SPEAKERS AND PLENARY SESSIONS

Despite the compressed three-day format, COMPSAC 2024 maintained its tradition of featuring world-class keynote speakers. A distinguished presenter anchored each day of the conference:

- ▶ *Tom Coughlin (2024 IEEE president and CEO): "IEEE—The State of the Institute."*
- ▶ *Jean-Luc Gaudiot (2016 CS President Emeritus): "Enhancing Computer Security With Hardware-Level Malware Detection."*



**FIGURE 3.** International submissions. UAE: United Arab Emirates.

- › *Hironori Kasahara (2018 CS President Emeritus): "Green Multicore Computing."*

These keynote addresses provided valuable insights into the current state and future computing directions, as seen from the perspectives of industry leaders and academic pioneers.

A particular highlight of recent COMPSAC conferences has been the IEEE Future Directions Committee's plenary panel on contemporary tech topics. This year, Kathy Grise, IEEE senior program director and chair of the Data Sciences, Analytics, and Technologies Symposium, assembled a panel of experts, including Carolyn McGregor, Nicholas Napp, Louis Nisiotis, and May Wang. Their panel, "Highlighting Public Safety Technologies and Its Applications for a Better Future," addressed timely issues at the intersection of technology and societal well-being.

Recognizing the critical importance of diversity and inclusion in the tech sector, we made a concerted effort to include a special plenary session on this topic. Titled "Building an Inclusive Metaverse: Opportunities, Challenges, and Strategies for Diversity, Equity, and Inclusion (DEI)," this session was organized by Panel Moderator Jeewika Ranaweera and featured panelists Coughlin, Grise, Hironori Washizaki (CS president-elect), and Yoshiko Yasuda. The session was chaired by Gaudiot, ensuring a productive and insightful discussion on this crucial subject.

## SOCIAL EVENTS AND NETWORKING

Although academic content forms the core of COMPSAC, the conference also recognizes the importance of social interaction and networking. To this end, several events were organized to facilitate connections among attendees:

- › A welcome reception was held the evening before the first day of the conference at the picturesque Nakanoshima Love Central meeting/dining complex on the Nakanoshima River. This event set a convivial tone for the days to follow.
- › The conference's annual Awards Banquet occurred at the Osaka Hilton. This elegant affair provided a platform for the CS and the Information Processing Society of Japan (IPSJ) to present special awards recognizing outstanding research and volunteer services. The involvement of the IPSJ underscores the strong partnership between the two Societies, which dates back to 2012, when the IPSJ's International Symposium

on Applications and the Internet (SAINT) conference was incorporated into COMPSAC.

## THE VALUE OF IN-PERSON CONFERENCES

The successful return to an in-person format for COMPSAC 2024 reaffirmed the irreplaceable value of face-to-face academic gatherings. This sentiment is echoed in recent publications, such as Julia Cho's *New York Times* article,<sup>1</sup> which extols the virtues of conferences to escape daily routines and find new inspiration.

Similarly, Elizabeth George's piece, "10 Benefits of Attending Academic Conferences," (available at <https://researcher.life/blog/article/benefits-of-attending-academic-conferences/>) outlines numerous advantages that are difficult, if not impossible, to replicate in virtual settings. The enthusiastic participation and engagement of COMPSAC 2024 attendees suggested a widespread appreciation for these benefits, even without explicit reference to such articles.

## LOOKING AHEAD: COMPSAC 2025

Building on the success of the Osaka conference, plans are already well underway for COMPSAC 2025. The next iteration of the conference will expand to a four-day format and will be hosted by York University in Toronto. This location is significant for me, as Canada is my "home and native land," and Toronto is my hometown.

The decision to extend the conference duration to four days directly responds to the growing volume of high-quality submissions and the desire to provide attendees with more opportunities to engage with the diverse range of topics presented. This expansion will allow for a less compressed schedule, potentially enabling deeper discussions and more comprehensive coverage of emerging trends in computing.

Toronto's choice as the host city offers attendees the chance to experience a vibrant, multicultural metropolis with a thriving tech scene. York University, one of Canada's largest and most diverse academic institutions, provides an ideal backdrop for a conference dedicated to exploring the future of computing and its impact on society.

For those interested in participating in COMPSAC 2025, the conference website and call for papers are already available at <https://ieeecompsac.computer.org/2025/>. I encourage researchers, practitioners, and students in the field of computing to consider submitting their work and joining us for what promises to be

another exceptional gathering of minds in the second week of July 2025.

## CONCLUSION

COMPSAC 2024 in Osaka marked a triumphant return to form for this venerable conference series. Despite the challenges posed by recent global events, the computing community demonstrated its resilience, adaptability, and unwavering commitment to advancing the field. The surge in high-quality submissions, the diversity of topics covered, and the enthusiastic participation of attendees worldwide all point to a bright future for COMPSAC and the broader computing landscape.

As we look ahead to COMPSAC 2025 in Toronto and beyond, it's clear that the conference will continue to play a vital role in shaping the direction of computing research and practice. By providing a platform for exchanging ideas, forging collaborations, and recognizing excellence, COMPSAC remains an essential

fixture in the academic calendar for anyone invested in the future of computing.

The success of COMPSAC 2024 is a testament to the dedication of countless volunteers, the support of the CS and its partners, and the passion of the global computing community. As we build on this success, we invite you to be a part of the ongoing story of COMPSAC and to contribute to the digital development that will shape our collective future.

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COMPSAC Standing Committee Chair

## REFERENCE

1. J. Cho, "My secret to creative rejuvenation? Conferences," *New York Times*, May 2024. Accessed: Aug. 22, 2024. [Online]. Available: <https://www.nytimes.com/2024/05/21/magazine/conferences-creativity.html>

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