



COMPSAC 2023



PLENARY SESSION



SYMPOSIUM



WORKSHOP



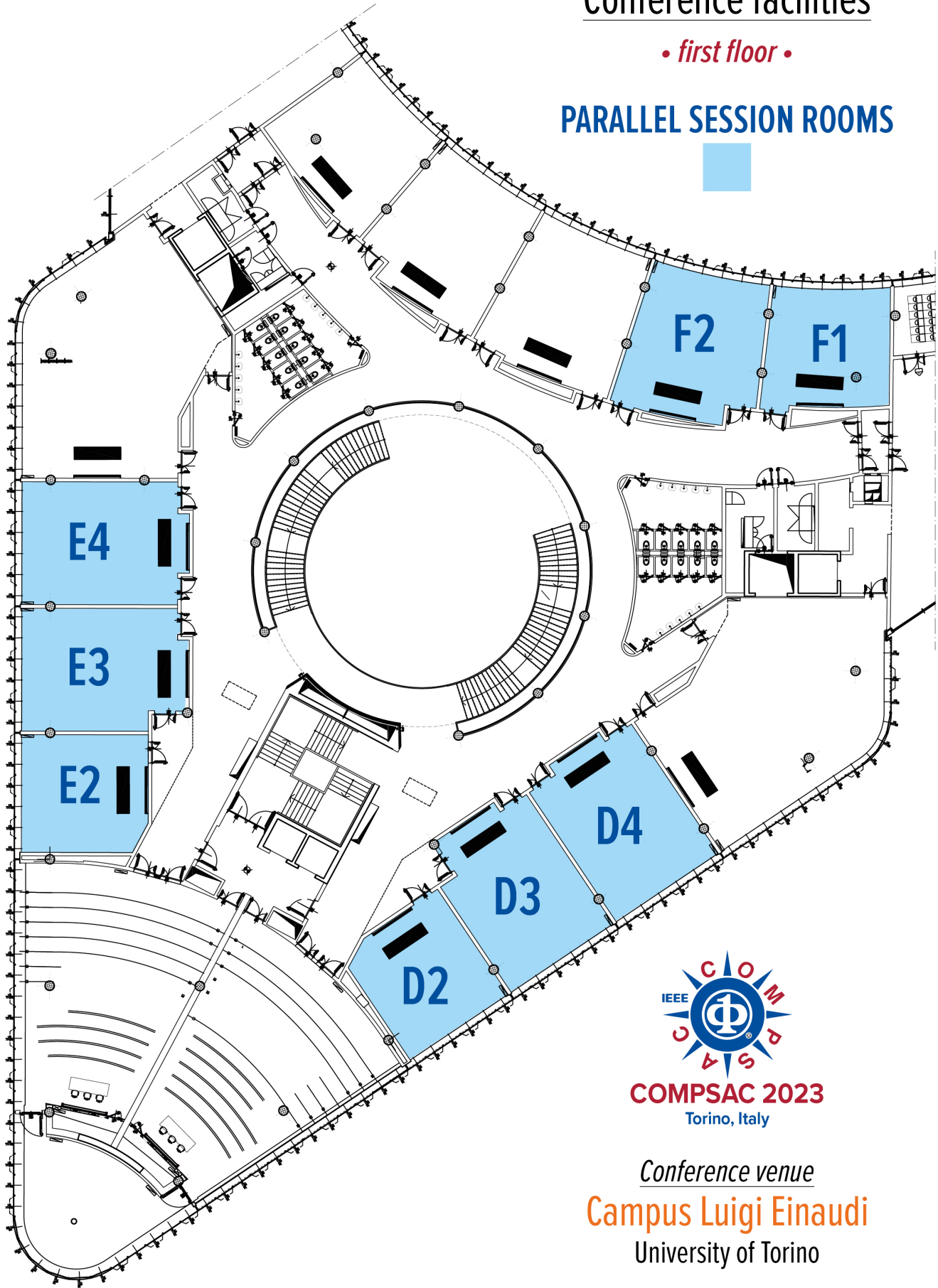
SPECIAL SESSION

Monday 6/26	COMPSAC Welcome Reception							
Tuesday 6/27	Room D2	Room D3	Room D4	Room E2	Room E3	Room E4	Room F1	Room F2
8:30 - 10:00am	ASYS1	CAP1		DSAT1	EATA1	SIOT1		
10:00 - 10:30am	Coffee Break							
10:30 - 12:00pm	Opening Remarks Keynote: Ernesto Damiani							
12:00 - 1:30pm	Lunch							
1:30 - 3:00pm	Plenary Panel: Reinforcing European Presence in the International Standardization Landscape							
3:00 - 3:30pm	Coffee Break							
3:30 - 5:00pm	DigiHealth 1	SEPT1	SETA1	DSAT2	NCIW1	SCH1	PANEL Digital Campuses	
Wednesday 6/28	Room D2	Room D3	Room D4	Room E2	Room E3	Room E4	Room F1	Room F2
8:30 - 10:00 am	SCH2	SEPT2	WIDE1	DSAT3		ASYS2	SSMLS1	QUORS1
10:00 - 10:30am	Coffee Break							
10:30 - 12:00pm	IPSJ Awards Keynote: Diana Andone							
12:00 - 1:30 pm	Lunch							
1:30 - 3:00pm	Plenary Panel: Open Science & Open Education							
3:00 - 3:30pm	Coffee Break							
3:30 - 5:00pm	QUORS2 SAPSE1	SEPT3	STA1 STPSA1	SSMLS2	SI-SSS1	DSAT4		
EVENING	COMPSAC 2023 Banquet							
Thursday 6/29	Room D2	Room D3	Room D4	Room E2	Room E3	Room E4	Room F1	Room F2
8:30 - 10:00am	NETSAP1	SESS1 SDIM1	ITIP1	MEDI COMP1	ESAS1	CELT1	ADMNET1	
10:00 - 10:30am	Coffee Break							
10:30 - 12:00pm	PCIC Report Plenary Panel: Future Directions							
12:00 - 1:30pm	Lunch							
1:30 - 3:00pm	FA1	JC1 AVKMT1	ITIP2	DBDM1 DADA1	CDS1	AIML1	ADMNET2	
3:00 - 3:30pm	Coffee Break							
3:30 - 5:00pm	FA2	AIML2	DIGI HEALTH2	DT4 META-1	CDS2 OER1	DSML1	ICT4-1	PANEL Digital Humanities

Conference facilities

• first floor •

PARALLEL SESSION ROOMS



COMPSAC 2023
Torino, Italy

Conference venue

Campus Luigi Einaudi

University of Torino

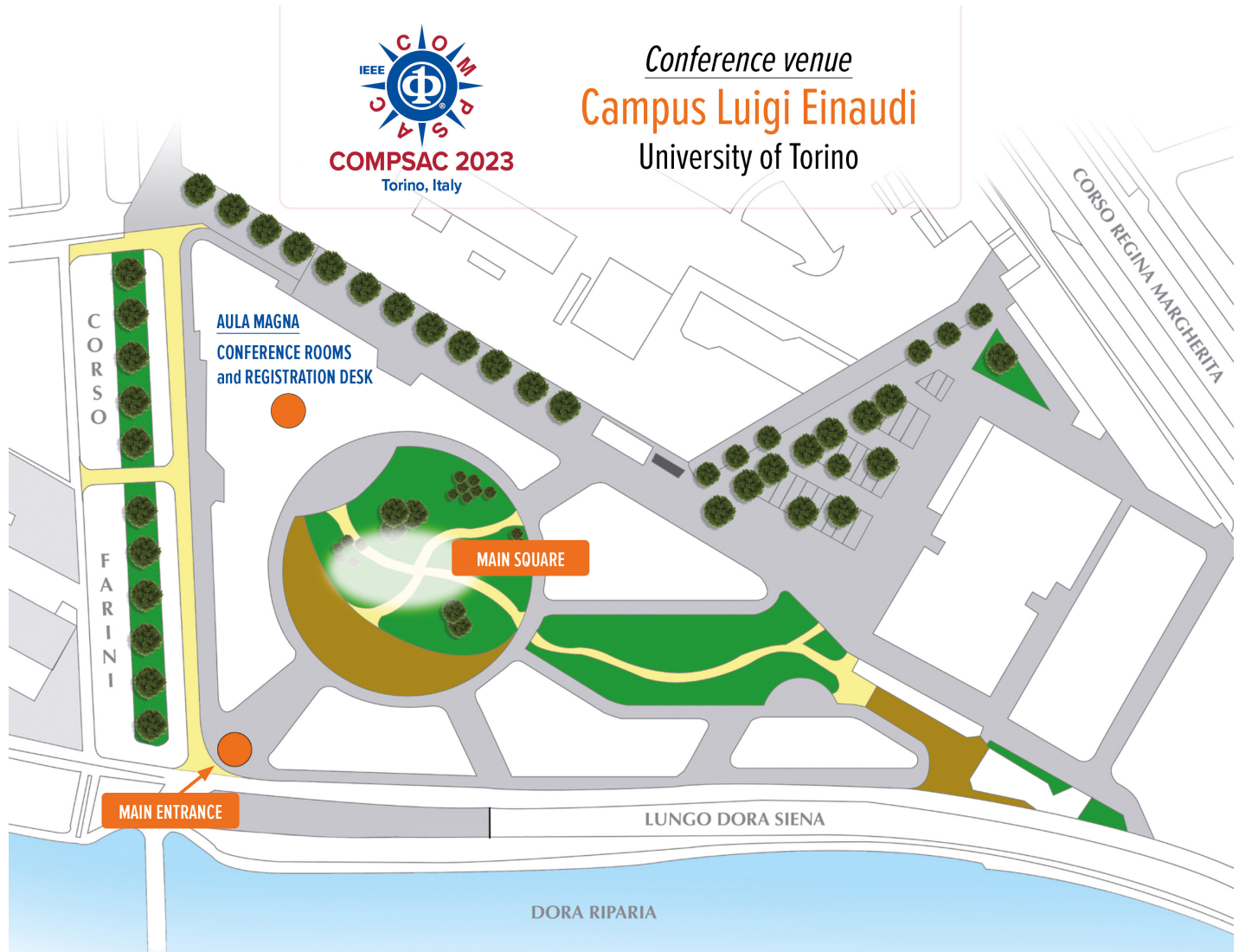
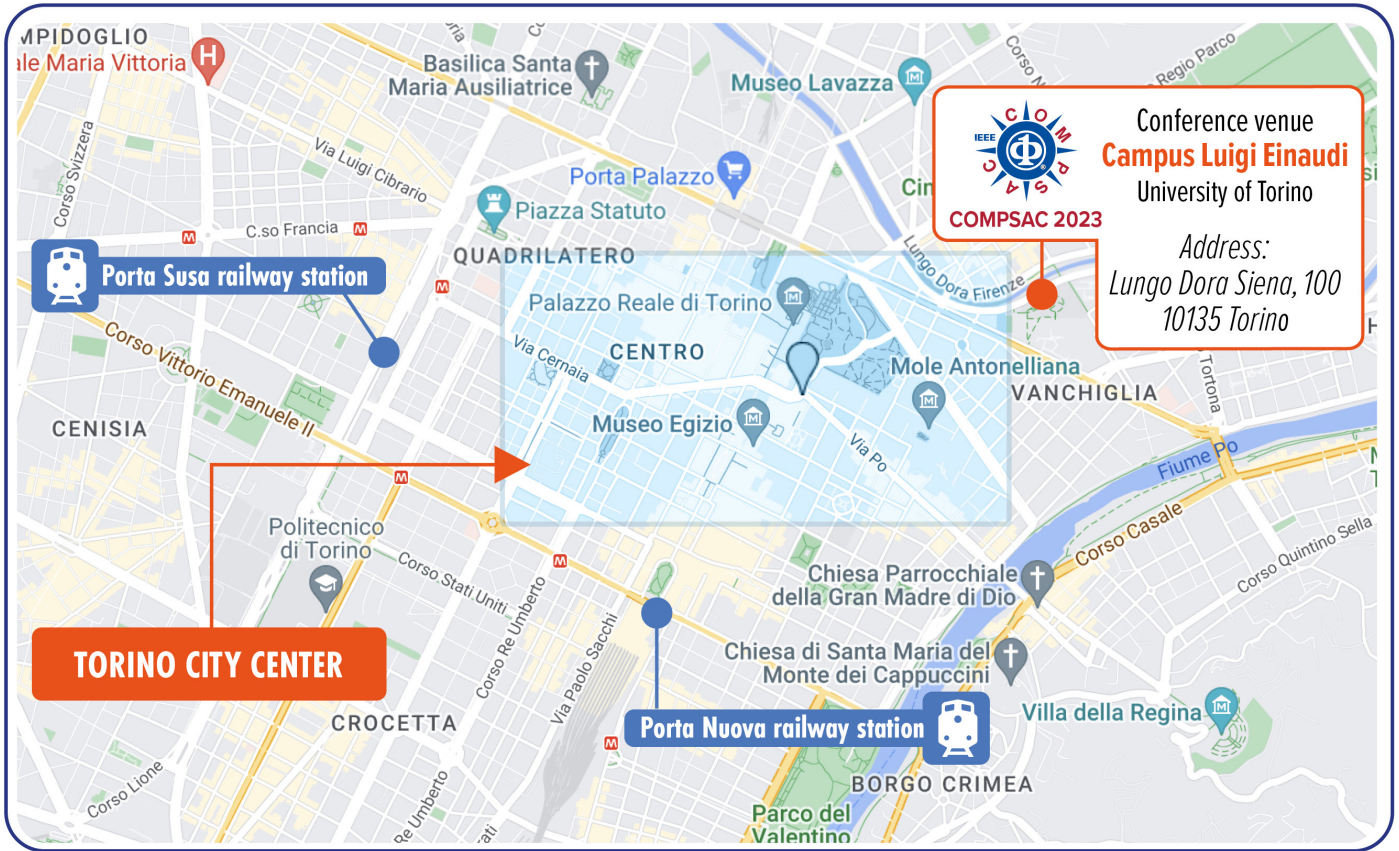
Conference facilities

• *ground floor* •



COMPSAC 2023
Torino, Italy

Conference venue
Campus Luigi Einaudi
University of Torino



Thank You COMPSAC 2023
Sponsors & Supporters!



UNIVERSITÀ
DI TORINO



Connect with our virtual
conference app!

<https://events.rdmobile.com/Events/Details/16300>

The COMPSAC 2023
conference app has
the most up to date
information on the
program, events, and
announcements!
Registered participants
have received an email
with login details.

Access to COMPSAC
2023 Proceedings

<https://conferences.computer.org/compsacpub>

username:
compsacpub23
password: conf23//

COMPSAC 2023 ORGANIZERS

Standing Committee Chair

Sorel Reisman, California State University
Fullerton, USA

Standing Committee Vice Chairs

Sheikh Iqbal Ahamed, Marquette University,
USA
Mohammad Zulkernine, Queen's University,
Canada

General Chairs

Marco Aldinucci, University of Turin, Italy
Ali Hurson, Missouri University of Science &
Technology, USA
Marina Marchisio, University of Turin, Italy
Forrest Shull, Carnegie Mellon University,
Software Engineering Institute, USA

Program Chairs in Chief

Yuuichi Teranishi, National Institute of
Information & Communications Technology,
Japan
Alfredo Cuzzocrea, University of Calabria,
Italy
Moushumi Sharmin, Western Washington
University, USA
Dave Towey, University of Nottingham
Ningbo China (UNNC), China

Workshop Program Chairs

AKM Jahangir Alam Majumder, University
of South Carolina Upstate, USA
Hiroki Kashiwazaki, Kindai University, Japan
Ji-Jiang Yang, Tsinghua University, China

COMPSAC Local Organizers

Marco Aldinucci, University of Turin, Italy
Marina Marchisio, University of Turin, Italy
Alice Barana, University of Turin, Italy
Iacopo Colonnelli, University of Turin, Italy
Cecilia Fissore, University of Turin, Italy
Francesco Floris, University of Turin, Italy
Valeria Fradiante, University of Turin, Italy
Doriana Medic, University of Turin, Italy
Fabio Roman, University of Turin, Italy
Matteo Sacchet, University of Turin, Italy

COMPSAC Special Technical Community (STC)

Coordinator

Jean-Luc Gaudiot, University of California
Irvine, USA

Fast Abstract Chairs

Michiharu Takemoto, International
Professional University of Technology in
Tokyo (IPUT), Japan
Nazmus Sakib, SUNY, Buffalo, USA

Student Research Symposium Chair

Ryohei Banno, Kogakuin University, Japan

Proceedings/Publication Chair

Hossain Shahriar, Kennesaw State
University

JC/CJ Program Chair

Atila Elçi, Hasan Kalyoncu University,
Turkey

Conference Technical Chairs

Golam Mushih Tanimul Ahsan, University of
Wisconsin at Green Bay, USA
Paramita Basak Upama, Marquette
University, USA

Social Media Chair

Tashaffi Samin Yeasar, Queen's University,
Canada

Treasurer

John Walz, IEEE Computer Society

Vice Treasurer

Simanta Mitra, Iowa State University, USA

Webmaster

Laurel Ming, Oakland University, USA

Publicity Chair

Maria Valero, Kennesaw State University

Registration Chair

Masud Rabbani, Marquette University

Message from the Standing Committee Chair



Welcome to Torino and COMPSAC 2023 – the final destination of our committees’ arduous and circuitous conference planning route. We began planning for 2023 more than two years ago, intending to hold the conference in a different European location. But for various geopolitical reasons, we were forced to seek alternative sites. Fortunately, our friends at the University of Turin, just around the corner from Politecnico de Torino, where we held COMPSAC 2017, agreed to host COMPSAC 2023. So here we are, and on their behalf and on behalf of all our incredible volunteers, welcome back to Torino, Italy. And a special thanks to U of Turin’s Professors Marina Marchisio and Marco Aldinucci, two of our General Chairs who have made this happen. This year, we originally intended the conference to be entirely in-person, but various after-effects of Covid caused us to alter COMPSAC 2023 to allow for remote registrants. While the virus will likely be with us, to one degree

or another, for the foreseeable future, we expect to be free of its diminishing effects as time passes. In 2024 we intend to return to an in-person only format, perhaps with some allowances for those unable to attend.

Whether you are in Torino in person or have chosen to take advantage of our online services, you again have access to the expertise of researchers and practitioners presenting the world’s most avante-garde advances in computing technology. In-person sessions allow attendees to interact directly with on-site authors/presenters, and all registrants can access a downloadable video presentation for every paper in the program.

Because of the hybrid nature of the conference, we have decided not to “broadcast” live sessions to remote attendees. We have learned in the last three years that selecting session times to accommodate tuned-in audiences worldwide is impractical. Instead, we will be recording all our plenary sessions and making them available for download after they are held, and as part of the IEEE Xplore archive of the conference proceedings.

COMPSAC 2023 has presented some unique challenges. Until now, we have never held a conference such as this one. But as we have learned this year, a true “hybrid” conference, with live-streaming, is equivalent to two separate conferences, giving volunteers almost twice the work as an in-person or a virtual event. As of this writing (the beginning of May), my COMPSAC 2023 inbox of nearly 2500 emails reflects the degree of communication of our volunteers with me alone. I want to highlight the efforts of some of the leaders of 2023. Once again, I can’t thank my friend and Standing Committee Chair, Sheikh Iqbal Ahamed, for being available morning, noon, and night to discuss every little worry I raise. And this year, Iqbal invited Mohammad Zulkerine (my fellow Canadian!) to assist us in the Standing Committee Co-Vice Chair role.

In a short space, it isn’t possible to thank all the volunteers who organized the conference. Special mention goes to those who oversee the review processes for the hundreds of papers we receive and the hundreds of reviewers who provide three different reviews for each paper! While it may not be evident, there is a considerable volunteer infrastructure necessary to support COMPSAC, and our thanks go to our Standing Committee and Advisory Committee members who manage the infrastructure leaders: Social Media Connections (Tashaffi Samin Yeasar); Publicity (Maria Valero); Financial Management (John Walz and our returning Simanta Mitra); the entire Torino local organizing committee; and, of course, Website Creation/Maintenance (Laurel Ming). I apologize to those I haven’t mentioned, but I invite you to visit the whole crew at <https://ieeecompsac.computer.org/2023/organizers/>.

As I mentioned above, assuming no unforeseen circumstances arise to prevent it, COMPSAC 2024 will be entirely in-person. And we are delighted to announce that the conference will be held the first week of July and hosted by Osaka University in Japan. We look forward to working with the university and the Information Processing Society of Japan (IPSJ) to bring you a great conference. In the meantime, I hope you find COMPSAC 2023 professionally and personally rewarding, whether you attend in person or access the conference’s great online resources.

Message from the Standing Committee Vice Chairs



Sheikh Iqbal Ahamed
Marquette University, USA



Mohammad Zulkernine
Queen's University, Canada

On behalf of the COMPSAC 2023 organization we would like to welcome you to the 47th Annual IEEE International Computers, Software, and Applications Conference (COMPSAC 2023), June 26-June 30, 2023. COMPSAC, the IEEE Computer Society Signature Conference on Computers, Software, and Applications, was first held in 1977 in Chicago. In the years since its founding, it has become one of the major international forums for academia, industry, and government to discuss research results, advancements and future trends in computer and software technologies and applications. The technical program includes research papers, research and industry panel discussions, fast abstracts, student research symposiums, and workshops on emerging important topics. It now alternates its meeting among sites in Asia, Europe, and North America. Over the years, its meetings have advanced the major topics in computing and software development. But, during 2020-2022, we held COMPSAC virtually due to the global COVID-19 pandemic, while in 2023 we are organizing it as an off-line hybrid with the goal of being fully in person from 2024 and on.

The theme of COMPSAC 2023 is “Resilient Computing and Computing for Resilience in a Sustainable Cyber-Physical World”. It supports research and development of general methodology for data driven intelligence, digital transformation and a consideration of emerging applications for deployment, including Smart Health devices, networked healthcare, wearable computing, internet-of-things, cyber-physical systems, smart cities, and smart planet.

COMPSAC is a premier global forum for crosscutting computing research, practice and education. In its long history with the Computer Society, COMPSAC has established a strong reputation as a meeting with high quality technical content and wide-ranging discussion of technical issues. It is also known as a well-planned, well-organized, well-attended, and well-managed event.

The COMPSAC conference program is supported by several international societies including the Information Processing Society of Japan (IPSJ), and China Computer Federation (CCF), and several special technical communities such as Big Data from the IEEE Computer Society. As a result, the conference will host 13 symposiums, 34 workshops, including a major workshop on Big Data and Artificial Intelligence, Fast Abstract, Student Research Symposium, and Student OER Contest. In addition, it will present plenary panels that will provide an international perspective on the conference theme. Finally, it will also bring together funding agencies and industry representatives from across the globe to address their vision for Intelligent Transformation of the Digital World - Challenges and Applications.

COMPSAC received outstanding support from organizing committee and program committee members. Thank you to all volunteers for their work! We look forward to have COMPSAC in person in 2024!

Message from the Program Chairs



Alfredo Cuzzocrea,
University of Calabria,
Italy

Welcome to COMPSAC 2023, the 47th IEEE Computer Society International Conference on Computers, Software & Applications. Our theme for this year is “Resilient Computing and Computing for Resilience in a Sustainable Cyber-Physical World.” During the pandemic-induced chaos of the last few years, the world has mainly managed to resist chaos and maintain a sense of order and stability. This resistance has brought a new focus and meaning to our technology research direction, i.e., resiliency, availability, and sustainability. We have learned that we must carefully prepare a variety of alternatives, keep them in operation, and continue to adapt them and us to changing circumstances. Inspired by these thoughts, this year’s COMPSAC conference aims to explore innovative research aspects of computing in a sustainable cyber-physical world.



Moushumi Sharmin,
Western Washington
University, USA

COMPSAC provides a platform for in-depth discussions on various challenges in both traditional and emerging fields. These fields include education and learning, computer architectures, software engineering, network and web technologies, human/social communications, mobile/wearable computing, the Internet of Things, cyber physical systems, security and trust, data analytics, and the smart planet. This year, we have organized a tightly integrated union of 13 symposia, each dedicated to a specific technical segment. Additionally, we will have keynote addresses, fast abstract sessions, workshops, and a student research symposium, all of which foster discourse and enhance our understanding of the challenges we face, thereby contributing to the advancement of computing systems.

We received 235 submissions this year. For the symposia, each submission underwent double-blind review by at least three members of the Technical Program Committee. Symposia Chairs then made recommendations to the entire Program Committee for which papers to be accepted as regular papers, short papers, or fast abstracts. At the Program Committee meeting in April, we accepted 62 full papers (26.4%), and 49 short papers. Of the 235 submissions to the Symposia, 59 papers that received favorable reviews but were not accepted to the main conference were referred to COMPSAC workshops. Yet another 20 papers were recommended for publication as fast abstracts or student research symposium papers.



Yuuichi Teranishi,
National Institute
of Information &
Communications
Technology, Japan

Alongside the presentations held at the physical venue in Torino, online and downloadable videos of all sessions are included in the program and allow COMPSAC registrants to engage in asynchronous, offline discussions with the authors throughout the conference week and even thereafter. This combination of session formats ensures a comprehensive and interactive conference experience for all participants.

We extend our heartfelt gratitude to the authors of each submission, to dedicated members of the Organizing Committee, and to the Program Committee Members who volunteered their time, expertise, and effort to peer-review each paper. Special thanks are due to those members who attended the virtual Program Committee meeting and participated in a lively discussion that spanned almost every time zone of the globe. We are grateful to the Workshop Chairs, AKM Jahangir Alam Majumder, Hiroki Kashiwazaki, and Ji-Jiang Yang, who have done a yeoman’s job in coordinating workshops this year, including 4 new workshops. We would also like to thank the General Chairs, Marco Aldinucci, Ali Hurson, Marina Marchisio, and Forrest Shull for their support and encouragement. Last, but not least, we are grateful for the leadership, guidance, and tireless support of our Standing Committee Chair, Sorel Reisman and our Standing Committee Vice Chairs, Sheikh Iqbal Ahamed and Mohammad Zulkernine. Decades of their effort have left an indelible imprint on COMPSAC as a conference, and on us as members of the COMPSAC community.



Dave Towey, University
of Nottingham Ningbo
China, China

Message from the Workshop Chairs

It is our great pleasure to welcome you to the workshops of the 47th IEEE International Computer Software and Application Conference (COMPSAC 2023), which is held as a hybrid conference at the University of Torino, Italy. The theme of COMPSAC 2023 is “Resilient Computing and Computing for Resilience in a Sustainable Cyber-Physical World”. The IEEE COMPSAC is well established in its 47th edition as a highly reputed conference in the field of computer software and applications.

The goal of this conference is to identify the challenging problems, and to shape future research directions through the publication of high quality, theoretical and applied research outcomes. IEEE COMPSAC 2023 highlights the advances in the frontiers and applications of wide-ranging areas such as computer software applications, wireless and sensor networks, mobile and distributed computing, embedded systems, big data analytics, and Internet of Things (IoT) security. COMPSAC is uniquely placed to deliver fresh perspectives on software applications and systems.

This year the COMPSAC conference includes 27 workshops covering different aspects of developing computer software applications. The workshops nicely complement the main conference and they together create an exciting scientific program for 3 days. According to the COMPSAC tradition, workshops are held during the first and during the last day of the conference during which researchers and practitioners will interact and address the challenges of, find potential solutions for, and share experiences with the development, release, and testing of robust software for applications and systems. It will also help to build connections among various communities.

The Lion’s Share of contribution to the workshops comes from the linkage with the main research focus of COMPSAC, especially along the software engineering and development aspect. There are four related workshops, namely, “Quality Oriented Reuse of Software (QUORS)”, “Security Aspects in Processes and Services Engineering (SAPSE)”, “Software Test Automation (STA)”, and “Security, Trust, and Privacy for Software Applications (STPSA)”. In response to the smart computing theme this year, i.e., resilient computing and computing for resilience in a sustainable cyber-physical world, there are three related workshops: “Deep Analysis of Data-Driven Applications (DADA)”, “Workshop on Medical Computing (MediComp)” and “Workshop on Digital and Public Health (DIGI-HEALTH)”. The workshops with related scope such as “Advances in AI and Machine Learning: Research & Practice (AIML)”, “Smart Computing & Applications (SCA)” also successfully contributed to the sessions in the workshops.

Emerging technologies, networking, and applications form the third pillar in COMPSAC tradition with more than half of the contributions. We are pleased to report that the workshops in the COMPSAC 2023 are well-balanced as well as highly interesting. We believe that the topics covered by the workshops are closely related to those contained in the main conference. We hope COMPSAC to be a highly stimulating event to foster interesting conference as well as useful interaction between researchers and practitioners, and to provide an excellent forum for exchanging and developing new ideas.

We express our gratitude to the authors for their submissions contributed to our workshop. Each submission was reviewed by at least two-three referees, and we also appreciate the referees for their great effort and hard work in the paper reviewing. We greatly thank all authors of submitted papers to the workshops for their support of the conference. The selection process was carefully carried out by the workshop organizers. We would like to thank the organizers of all workshops and the program committee members of workshops for their efforts and exceptional job, despite working under a very short review cycle. Also, we would like to thank all people involved in organizing the COMPSAC 2023 and standing committees for their help, to make COMPSAC 2023 a success. It was our great honor and pleasure to accept the responsibilities and challenges of Conference Workshop Chairs. We trust that you will enjoy the academic program within COMPSAC 2023 and the location!

AKM Jahangir Alam Majumder, University of South Carolina Upstate, USA
Hiroki Kashiwazaki, National Institute of Informatics (NII), Japan
Ji-Jiang Yang, Tsinghua University, China
Workshop Program Chairs of COMPSAC 2023

Keynote | Tuesday June 27 | 10:30am | Aula Magna

Intelligent Orchestrations along the Cloud Continuum: The MUSA Approach

ERNESTO DAMIANI

**Director of the Center for Cyber-Physical System at Khalifa University, Abu Dhabi
Full Professor at the Department of Computer Science, Università degli Studi di Milano
President of the National Interuniversity Consortium for Computer Science**



Abstract: In the past decade, many organizations have moved their business processes to public clouds, where scalability and cost flexibility could be achieved. Today, a new wave of Digital Transformation is changing again business process enactment in key domains like transportation, supply chain management and healthcare. Orchestrations need to provide low latency, high throughput and distributed access. Furthermore, their execution needs to take place within perimeters supporting traffic segregation, to guarantee data protection. The 5G architecture promises to fulfill these new requirements, supporting a “Cloud Continuum” that allows for deployment of micro-services on the 5G operators core networks (as a complement to classic edge-on-premises and cloud options. Based on the approach of the MUSA NRP project to delivering big data pipelines over 5G, the talk discusses the open challenges that need to be tackled to keep this promise, from the instrumentation of the 5G infrastructure to service containerization and AI-driven dynamic process orchestrations along the cloud continuum.

Ernesto Damiani is Director of the Center for Cyber-Physical System at Khalifa University, Abu Dhabi, and Full Professor at the Department of Computer Science, Università degli Studi di Milano, Italy, where he leads the SESAR research lab, and President of the National Interuniversity Consortium for Computer Science. His research interests include Artificial Intelligence, Machine Learning, Cyber-physical systems, secure service-oriented architectures, privacy-preserving big data analytics and cyber-physical systems security. Ernesto holds/has held visiting positions at a number of international institutions, including George Mason University in Virginia, US, Tokyo Denki University, Japan, LaTrobe University in Melbourne, Australia, and the Institut National des Sciences Appliquées (INSA) at Lyon, France. He is a Fellow of the Japanese Society for the Progress of Science. He has been Principal Investigator in a number of large-scale research projects funded by the European Commission, the Italian Ministry of Research and by private companies such as British Telecom, Cisco Systems, SAP, Telecom Italia, Siemens Networks (now Nokia Siemens) and many others. He serves in the editorial board of several international journals; among others, he is the EIC of the International Journal on Big Data and of the International Journal of Knowledge and Learning. He is associate editor of the IEEE Transactions on Service-oriented Computing and of the IEEE Transactions on Fuzzy Systems. He served as vice-chair of the IEEE Technical Committee on Industrial Informatics. In 2008, Ernesto was nominated ACM Distinguished Scientist and received the Chester Sall Award from the IEEE Industrial Electronics Society. Ernesto has co-authored more than 870 scientific papers and many books, including “Open Source Systems Security Certification” (Springer 2009).

Keynote | Wednesday June 28 | 10:30am | Aula Magna

Unleashing the Magic and Mayhem of Generative AI in Education

DIANA ANDONE

**Director of the eLearning Center of the Politehnica University of Timisoara, Romania
EDEN Senior Fellow, Vice-President for Communication & Communities (2018-21)
Member, IEEE Education Society Board of Governors**

Abstract: Generative AI holds immense potential and dangers to transform education, revolutionising the way we educate, learn and engage with knowledge. What skills will be expected from educators and students in the future? How can generative AI be used creatively by educators and students? The presentation will showcase real-life experiences and examples to answer these questions, taking into account the advancements in technology and the role of AI. It will also address ethics and security issues for integrating these tools into a learning environment.



Diana Andone (@diando70) is the Director of the eLearning Center of Politehnica University of Timisoara, Romania, responsible for planning and implementing digital education and associate professor in multimedia, interactive and web technologies. Since 1998, she teaches course modules in universities from UK, France, USA, Finland, Italy, Greece. She has extensive research experience with intense publication (over 17 books, 100 research papers, 11 Best paper Awards, reviewer at 6 major journals and several other publications, associate editor at IEEE Transactions on Education, co-chair IEEE ICALT iOpenLearn) and more than 30 research and educational international projects. Dr. Andone is EDEN Senior Fellow, IEEE Education Society 2021 Distinguished Chapter Leadership Award winner, EDEN Vice-President for Communication and Communities (2018-2021), and member in IEEE Education Society Board of Governors (2021-present), in IEEE Romania Section the Educational activities Chair (2019-present) and in EUA Digital Transformation Steering Committee. She also acts in the Board of Romanian NGOs (Pentru Voi Foundation), in Timisoara 2023 European Capital of Culture Task Force and in other voluntary organisations (Rotary International). She is passionate about the ubiquitous access to technologies and how they can be used to improve people's life, she actively supports the use of OERs, MOOCs and the open education principles, developing UniCampus.eu for training for digital skills, but also the local start-up movement, women in tech, and the digital culture. She initiated several projects for transforming communities, is invited as speaker at conferences and in the last 25 years involved in the digital education community movement in Romania, recently through the Together Online webinars and the digital culture and heritage with Spotlight Heritage Timișoara. <https://elearning.upt.ro/ro/diana-andone/>



Plenary Panel | Thursday June 29 | 10:30am

Future Directions Led Technologies for a Resilient Sustainable World

Description: During the pandemic-induced chaos of the last few years, the world has persevered and maintained a sense of order and stability. The world has been challenged not just with the COVID pandemic but also to natural and man-made disasters, and political instability. That is where we as technologists, engineers, and scientists are focused on leveraging technology to transform and build a more resilient and sustainable world. IEEE Future Directions serves as an incubator for new initiatives that are not just technology based but on societal, economic, and ethical aspects. Current efforts include Low Earth Orbit (LEO) Satellites & Systems, the Metaverse, Quantum technologies, Smart Lighting, Telepresence, and Wireless Power Technologies. Additional initiatives that span multiple technologies cover Sustainable Climate Change, Digital Privacy, and Public Safety. All are an example of a megatrend. Emphasis will be upon presenting practical applications and its implementations of interest to attendees. Subject matter expert speakers will comment on current and past implementations.

Format: Participate in person or via livestream the discussion with a panel of industry experts from several distinct fields who will provide their perspectives, observations, and how we can apply these technologies in real life.

moderated by Kathy Grise
Senior Program Director, IEEE Future Directions



Kathy Grise, Senior Program Director – IEEE Future Directions, supports new technology initiatives, is the IEEE staff program director for the Digital Reality Initiative, the IEEE Technology Navigator AI, Future Directions and Industry Advisory Board Committees, and manages the digital presence team for Future Directions. Previous initiatives included big data and cloud computing. Ms. Grise served as the Technical Program Chair of the IEEE COMPSAC 2022 Symposium – Data Sciences, Analytics, & Technologies (DSAT). Prior to joining the IEEE staff, Ms. Grise held numerous positions at IBM, and most recently was a Senior Engineering Manager for Process Design Kit Enablement in the IBM Semiconductor Research and Development Center. Ms. Grise led the overall IT infrastructure implementation, and software development in support of semiconductor device modeling verification, packaging, and delivery; device measurement and characterization data collection and management, and automation for device modeling engineers. Ms. Grise is a graduate of Washington and Jefferson College, and an IEEE Senior member.



Fabrizio Lamberti is full professor at Politecnico di Torino, Turin, Italy. His research interests include computational intelligence, human-computer interaction, computer graphics, and visualization. Lamberti co-authored more than 150 technical papers in international journals and conferences in the areas of computer graphics, computer vision, human-machine interaction and intelligent systems. He has also coordinated and participated to the activities of a number of research projects at the national and international level funded by both public and private bodies in the above fields. He is a senior member of the IEEE. He is an Associate Editor of IEEE Consumer Electronics Magazine, of the IEEE Transactions on Computer, of the IEEE Transactions on Emerging Topics in Computing and of the IEEE Transactions on Learning Technologies.



Louis Nisiotis is the Course Leader for BSc Computing at the University of Central Lancashire, Cyprus, responsible for delivering the Games Development and Computer Graphics modules. Dr. Nisiotis is leading research in innovation and application of Intelligent Reality systems and immersive XR technologies to support and foster the ongoing digital transformation of education, industry and the society, to disrupt the way we (humans) interact with real and virtual environments, with our surroundings, and with each other. His research interests include eXtended Reality (XR) technologies, Intelligent Reality Systems, Cyber-Physical-Social Systems, Serious Games, Human Computer Interaction, and immersive Learning. He was the General Chair of the IEEE International Conference on Intelligent Reality (ICIR 2022), Steering Committee Member of the IEEE Metaverse scientific community, and a member of the Immersive Learning Research Network. He is also a Fellow of the UK Higher Education Academy, IEEE, and ACM SIGCSE.



Jeewika Ranaweera is an engineer, an author, an illustrator, an inventor, a sustainability champion, a frequent conference speaker, and an avid volunteer for IEEE and various women in tech organizations. She is an IEEE Senior Member, an ABET PEV, the vice chair for IEEE Future Directions Committee, a member of the ABET team and the Committee on Engineering Accreditation Activities (CEAA). Jeewika authored an eBook about her engineering journey for IEEE Women in Engineering to inspire others to follow STEM careers and illustrated the 1st children's book published by IEEE. She received her bachelor's in Computer Science and engineering from ISPJAE in Havana, Cuba and her Master's and PhD degrees in Electrical and Computer Engineering from the University of Toronto, Canada. She has authored and co-authored many papers published in technical journals and presented at international conferences. Jeewika holds five US Patents.



May Dongmei Wang is Wallace H. Coulter Distinguished Faculty Fellow and full professor of Biomedical Engineering, Electrical and Computer Engineering, Computational Science and Engineering at Georgia Institute of Technology (GT) and Emory University (EU). She is Director of Biomedical Big Data Initiative, Georgia Distinguished Cancer Scholar, Petit Institute Faculty Fellow, Kavli Fellow, AIMBE Fellow, IAMBE Fellow, IEEE Fellow, and Board of Directors of American Board of AI in Medicine. Her research is in Biomedical Big Data with AI-Driven Intelligent Reality (IR) for predictive, personalized, and precision health (pHealth). She has 20+ years academic professorship and ~4 years industrial research experience, published 290+ articles in referred journals and conference proceedings with 15,000+ Google Scholar citations, and delivered 280+ invited and keynote lectures. Dr. Wang received BEng from Tsinghua University China, and MS with PhD degrees from GT.

Plenary Panel | Tuesday June 27 | 1:30pm

Reinforcing European Presence in the International Standardization Landscape

The EU-funded StandICT.eu 2023 project, carried out through 9 Open Calls (with € 3,000,000 funding earmarked over 36 months) to financially support European specialists (+300 individuals) in the context of international Standards Developing Organisations Working Groups, aims at creating a Standardisation ecosystem where the EU's priorities and expertise are taken into account to enhance Europe's overall competitiveness.

In this panel we will showcase a snapshot of StandICT.eu impact across European and International SDOs and ICT domains with some tangible examples of the activities carried out by the funded participants and how this meaningfully relates to the priorities listed in the European Commission Multi-Stakeholder Platform document "Rolling Plan for ICT Standardisation".

This will be the chance to present other projects' collaterals such as:

- The series of "Landscape Standards Reports" produced by our experts under different ICT domains (AI, Smart Cities, Digital Product Passport, IoT & Edge and more), which provide an exhaustive mapping of the standardisation's ecosystem in the corresponding areas.
- The role of our "Standards Academy", a go-to reference platform for all training needs about ICT standard and to support the uptake and growth of newcomers in the Standardisation arena.



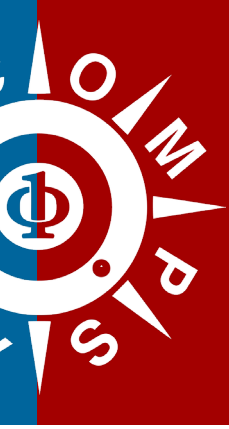
Francesco Osimanti
Senior Project Manager & Vice
Coordinator of StandICT.eu 2023



Maria Giuffrida
Senior Research Analyst and
Head of the StandICT.eu 2023
Dissemination



Gabriele Quattrocchi
Communication Specialist at
Trust-IT Srl



Plenary Panel | Wednesday June 28 | 1:30pm

Open Science & Open Education

This plenary panel explores the integration of Open Science, which promotes transparency, collaboration, and accessibility, revolutionizing research and learning, and Open Education, to facilitate access to quality materials for all learners. We discuss the benefits of Open solutions in fostering interdisciplinary collaboration, knowledge sharing, and innovation. We examine the challenges and opportunities in Open practices.



Moderated by Marco Aldinucci, Full Professor & Head of the Parallel Computing group at the Computer Science Department of the Università degli Studi di Torino



Moderated by Marina Marchisio, Full Professor of Complementary Mathematics at the University of Turin and Delegate of the Rector for Digital Education Strategies



Panelist: Diana Andone, Director of the e-Learning Center of Politehnica University of Timisoara, Romania



Panelist: Raffale A. Calogero, President of the Italian Bioinformatics Society, Member of the management committee of Ilixir IT node and Member of the scientific committee of CINI InfoLife Lab



Panelist: Rossana Damiano, Associate Professor at the Computer Science Department of the University of Torino



Panelist: Claudio Demartini, Professor of Information Systems & Innovation Management, Politecnico di Torino Board of Directors member



Panelist: Sorel Reisman, Professor Emeritus of Information Systems at California State University, Fullerton, former Managing Director of MERLOT, COMPSAC Standing Committee Chair, IEEE Fellow, IEEE Education Society Board of Directors, Fulbright Scholar



Panelist: Enrico Spinello, Senior Officer of the Italian Army, School of Applied Military Studies - Turin - Section Chief for University and External Relations

Monday June 26

6:30pm

COMPSAC 2023 Reception

Location: Rettorato University di Torino - Via Po, 17

Tuesday June 27

8:30 - 10:00am

Breakouts

Room D2

COMPSAC Symposium on Autonomous Systems (ASYS 2023)

Session 1

Session Chair: Mihhail Matskin, Royal Institute of Technology, Sweden

When Graphs Meet Game Theory: A Scalable Approach for Robotic Car Racing (992)

Ahmet Tikna, Marco Roveri, Daniele Fontanelli and Luigi Palopoli

Robotic Fiber Fabrication Based on Solidification Force Control (3768)

Houari Bettahar, Arthur Vieira and Quan Zhou

Efficient Diverse Redundant DNNs for Autonomous Driving (4060)

Martí Caro, Jordi Fornt and Jaume Abella

Room D3

COMPSAC Symposium on Computer Architectures & Platforms (CAP 2023)

Session 1

Session Chair: Cristina Seceleanu, Mälardalen University, Sweden

Memory-virtualizing and -devirtualizing VM Migration with Private Virtual Memory (2498)

Yuji Muraoka and Kenichi Kourai

FACEE: Framework for Automating CNN Explainability Evaluation (7473)

Ahmad Rezaei, Johannes Nau, Johannes Richter, Detlef Streitferdt and Jörg Schambach

Efficient Hard Real-time Implementation of CNNs on Multi-core Architectures (9067)

Jonas Peeck, Robin Hapka and Rolf Ernst

L2 Cache Access Pattern Analysis using Static Profiling of an Application (9899)

Theodora Adufu and Yoonhee Kim

Room E2

COMPSAC Symposium on Data Sciences, Analytics & Technologies (DSAT 2023)

Session 1

Session Chair: Kathy Grise, IEEE Future Directions

LogKT: Hybrid Log Anomaly Detection Method for Cloud Data Center (944)

Xuedong Ou and Jing Liu

Context-aware, Composable Anomaly Detection in Large-scale Mobile Networks (1977)

Nguyen Ngoc Nhu Trang and Hong-Linh Truong

Failure Prediction in 2D Document Information Extraction with Calibrated Confidence Scores (3687)

Juhani Kivimäki, Aleksey Lebedev and Jukka Nurminen

Room E3

COMPSAC Symposium on Emerging Advances in Technologies & Applications (EATA 2023)

Session 1

Session Chair: Tomoki Yoshihisa, Shiga University, Japan

Automatic Parallelization of Cellular Automata for Heterogeneous Platforms (419)

Chase Phelps and Tanzima Islam

Neural Optimization for Quantum Architectures: Graph Embedding Problems with Distance Encoder Networks (7580)

Chiara Vercellino, Giacomo Vitali, Paolo Viviani, Alberto Scionti, Andrea Scarabosio, Olivier Terzo, Edoardo Giusto and Bartolomeo Montrucchio

Room E4

COMPSAC Symposium on Smart IoT Systems & Applications (SIoT 2023)

Session 1

Session Chair: Hironori Washizaki, Waseda University, Japan

Toward a Labeled Dataset of IoT Malware Features (2627)

Stian Olsen and Tj Oconnor

Secure Feedback to Edge Servers in Distributed Machine Learning Using Rich Clients (5129)

Saki Takano, Akihiro Nakao, Saneyasu Yamaguchi and Masato Oguchi

10:00 - 10:30

Coffee Break

10:30 - 12:00

Opening Remarks

Keynote: Ernesto Damiani

Intelligent Orchestrations along the Cloud Continuum: The MUSA Approach

Location: Aula Magna

12:00 - 1:30pm

Lunch Break

1:30 - 3:00pm

Plenary Session: Reinforcing European Presence in the International Standardization Landscape

Session Chair: StandICT.eu

Location: Aula Magna

3:00 - 3:30

Coffee Break

3:30 - 5:00pm

Breakouts

Room D2

The 1st IEEE International Workshop on Digital and Public Health (DigiHealth 2023)

Session 1

Session Chair: Amina Almarzouqi, University of Sharjah, UAE

Examining the Relationship Between Stress Levels and Cybersecurity Practices Among Hospital Employees in Three Countries: Ghana, Norway, and Indonesia (541)

Muhammad Ali Fauzi, Prosper Yeng, Bian Yang, Dita Rachmayani and Peter Nimbe

Review of Machine Learning Advancements for Single-Cell Analysis (949)

Nida Nasir, Mohammad Alshabi, Nabeel Al-Yateem, Syed Azizur Rahman, Muhammad Arsyad Subu, Heba Hesham Hijazi, Fatma Refaat Ahmed, Jacqueline Maria Dias, Amina Al Marzouqi, Mohammad Yousef Alkawaldeh, Ahmad Rajeh Saifan and Mohannad Eid Aburuz

Using Robotic Technology in Intensive Care Units: A Qualitative Exploration of Nurses' Perspective in Indonesia (7108)

Suhartini Ismail, Muhammad Arsyad Subu, Nabeel Al-Yateem, Mohammad Yousef Alkawaldeh, Fatma Refaat Ahmed, Jacqueline Maria Dias, Mohannad Eid Aburuz, Ahmad Rajeh Saifan, Amina Al Marzouqi, Heba Hesham Hijazi, Mohammad Alshabi and Syed Azizur Rahman

Positive Perception of Self-Medication Practice and Cyberchondria Behavior Among Adults in Bangladesh (129)

Ahmed Hossain, Md. Aminul Islam, Anika Tasneem Chowdhury, Syed Azizur Rahman, Alounoud Salman, Jacqueline Maria Dias, Muhammad Arsyad Subu, Mohammad Yousef Alkawaldeh, Amina Al Marzouqi, Heba Hesham Hijazi, Mohammad Alshabi and Nabeel Al-Yateem

Room D3

COMPSAC Symposium on Security, Privacy & Trust in Computing (SEPT 2023)

Session 1

Session Chair: Shapna Akter, Kennesaw State University, USA

Milo: Attacking Deep Pre-trained Model for Programming Languages Tasks with Anti-analysis Code Obfuscation (1712)

Leo Song and Steven Ding

Target-X: An Efficient Algorithm for Generating Targeted Adversarial Images to Fool Neural Networks (4110)

Samer Khamaiseh, Derek Bagagem, Mathew Mancino, Abdullah Al-Alaj, Hakam Alomari and Ahmed Aleroud

AirKeyLogger: Hardwareless Air-Gap Keylogging Attack (4610)

Mordechai Guri

Feature Engineering Based Detection of Buffer Overflow Vulnerability in Source Code Using Deep Neural Networks (9752)

Mst Shapna Akter, Hossain Shahriar, Juan Rodriguez Cardenas, Sheikh Ahamed and Alfredo Cuzzocrea

Room D4

COMPSAC Symposium on Software Engineering Technologies & Applications (SETA 2023)

Session 1

Session Chair: Dave Towey, University of Nottingham Ningbo China (UNNC), China

Sound Predictive Fuzzing for Multi-threaded Programs (2070)

Yuqi Guo, Zheheng Liang, Shihao Zhu, Jinqiu Wang, Zijiang Yang, Jinbo Zhang, Wuqiang Shen and Yan Cai

Towards a Service-based Adaptable Data Layer for Cloud Workflows (9550)

Yuandou Wang, Nikita Janse, Riccardo Bianchi, Spiros Koulouzis and Zhiming Zhao

Exploring Metamorphic Testing for Fake-News Detection Software: A Case Study (931)

Lin Miao, Dave Towey, Yingrui Ma, T.Y. Chen and Zhi Quan Zhou

Room E2

COMPSAC Symposium on Data Sciences, Analytics & Technologies (DSAT 2023)

Session 2

Session Chair: Kathy Grise, IEEE Future Directions

Towards Course of Disease Based Epidemiological Modelling: Motivation and Computational Optimization (5450)

Yu-Heng Wu and Torbjörn E. M. Nordling

ContrastNER: Contrastive-based Prompt Tuning for Few-shot NER (5627)

Amirhossein Layegh, Amir H. Payberah, Ahmet Soylu, Dumitru Roman and Mihhail Matskin

Discrepancy Scaling for Fast Unsupervised Anomaly Localization (1493)

Juha Mylläri and Jukka K. Nurminen

Room E3

COMPSAC Symposium on Networks, Communications, Internet & Web Technologies (NCIW 2023)

Session 1

Session Chair: Tomoki Yoshihisa, Shiga University, Japan

Positioning Vectors for Mobile Ad-hoc Positioning (687)

Yerkezhan Sartayeva, Yunfei Liu, Yik Him Ho and Henry C. B. Chan

SRv6 Network Debugging Support System Assigning Identifiers to SRH (796)

Shuichiro Shimatani, Hiroki Kashiwazaki and Nobukazu Iguchi

Latency Analysis of JP and Root DNS Servers from Packet Capture Data (8295)

Kazunori Fujiwara, Shuji Sannomiya, Akira Sato and Kenichi Yoshida

Room E4

COMPSAC Symposium on Smart & Connected Health (SCH 2023)

Session 1

Session Chair: TBA

Comprehensive Analysis of Dieting Apps: Effectiveness, Design, and Frequency Usage (6266)

Allison Hsu and Ying-Feng Hsu

Transformer-based Automatic Mapping of Clinical Notes to Specific Clinical Concepts (7873)

Jay Ganesh and Ajay Bansal

OB-GYN Telehealth Access and Utilization During COVID-19: Racial and Sociodemographic Disparities (9299)

Mohammad Yousef Alkhaldeh, Muhammad Arsyad Subu, Nabeel Al-Yateem, Syed Azizur Rahman, Fatma Refaat Ahmed, Jacqueline Maria Dias, Mohannad Eid Aburuz, Ahmad Rajeh Saifan, Amina Al Marzouqi, Heba Hesham Hijazi, Mohammad Alshabi and Ahmed Hossain

Room F1

Panel: Digital University Campuses in International Alliances

Moderators: Mario Giacobini, University of Torino

Panelists: Diana Andone, Roberto Cavallo Perin, Manuela Consito, Laura Corazza, Ernesto Damiani and Ernesto Exposito

The roundtable aims to bring together educational stakeholders, policy-makers, teachers and researchers to collect and share experiences and good practices in the integration and enhancement of campuses potentialities in the digital world, considering the nature of various environments and systems, especially about university alliances like UNITA Universitas Montium.

Wednesday June 28

8:30 - 10:00

Breakouts

Room D2

COMPSAC Symposium on Smart & Connected Health (SCH 2023)

Session 2

Session Chair: Shapna Akter, Kennesaw State University, USA

Autism Disease Detection Using Transfer Learning Techniques: Performance Comparison Between Central Processing Unit vs Graphics Processing Unit Functions for Neural Networks (778)

Mst Shapna Akter, Hossain Shahriar and Alfredo Cuzzocrea

Fetal ECG Signal Processing for Fetal Monitoring Based on BSS and EMD (3521)

Ionuț Manea and Dragoș Țarălungă

Room D3

COMPSAC Symposium on Security, Privacy & Trust in Computing (SEPT 2023)

Session 2

Session Chair: Samer Khamaiseh, Miami University, USA

A Linux Audit and MQTT-based Security Monitoring Framework (5412)

Jie Yin, Yutaka Ishikawa and Atsuko Takefusa

MaGnn: Binary-Source Code Matching by Modality-Sharing Graph Convolution for Binary Provenance Analysis (5741)

Wei Han Ou and Steven Ding

Detecting and Preventing ROP Attacks using Machine Learning on ARM (7201)

Gebrehiwet Biyane Welearegai, Christian Hammer and Chenpo Hu

IDS-MA: Intrusion Detection System for IoT MQTT Attacks Using Centralized and Federated Learning

²⁰Adebayo Omotosho, Yaman Qendah and Christian Hammer

Room D4

The 1st IEEE International Workshop on Workflows in Distributed Environments (WIDE 2023)

Session 1

Session Chair: Iacopo Colonnelli, University of Turin

A Proposal for a Continuum-aware Programming Model: From Workflows to Services Autonomously Interacting in the Compute Continuum (7073)

Marco Aldinucci, Robert Birke, Antonio Brogi, Emanuele Carlini, Massimo Coppola, Marco Danelutto, Patrizio Dazzi, Luca Ferrucci, Stefano Forti, Hanna Kavalionak, Gabriele Mencagli, Matteo Mordacchini, Marcelo Pasin, Federica Paganelli and Massimo Torquati

Porting the Variant Calling Pipeline for NGS Data in Cloud-HPC Environment (2333)

Alberto Mulone, Sherine Awad, Davide Chiarugi and Marco Aldinucci

Towards Formal Model for Location Aware Workflows (6210)

Doriana Medic and Marco Aldinucci

WfCommons: Data Collection and Runtime Experiments using Multiple Workflow Systems (6755)

Henri Casanova, Kyle Berney, Serge Chastel and Rafael Ferreira da Silva

Room E2

COMPSAC Symposium on Data Sciences, Analytics & Technologies (DSAT 2023)

Session 3

Session Chair: Kathy Grise, IEEE Future Directions

Examining Feasibility and Efficacy of Traditional Stream Clustering Algorithms on Complex Human Activity Recognition Data (3192)

Martin Woo, Farhana Zulkernine and Hanady M. Abdulsalam

GX-HUI: Global Explanations of AI Models based on High-Utility Itemsets (3246)

Davide Napolitano and Luca Cagliero

Performance Evaluation of Transformer-based NLP Models on Fake News Detection Datasets (5637)

Raveen Narendra Babu, Chung-Horng Lung and Marzia Zaman

Comparative Analysis of Neural Networks Techniques to Forecast Airfare Prices (3621)

Alessandro Aliberti, Yao Xin, Alessio Viticchié, Enrico Macii and Edoardo Patti

Room E4

COMPSAC Symposium on Autonomous Systems (ASYS 2023)

Session 2

Session Chair: Mihail Matskin, Royal Institute of Technology, Sweden

Robust 6D Pose Estimation for Texture-varying Objects in Autonomous System (171)

Masaya Fujiwaka and Kousuke Nogami

Adaptive Expected Reactive Algorithm for Heterogeneous Patrolling Systems based on Target Uncertainty (3674)

Niccolò De Bona, Davide Brunelli, Luca Santoro and Daniele Fontanelli

Room F1

The 6th IEEE International Workshop on Smart and Sustainable Mobility & Logistics in Smart Cities (SSMLS 2023)

Session 1

Session Chair: Stefano Musso, Politecnico di Torino, Italy

Improving Long-Term Traffic Prediction with Online Search Log Data (678)

Itsuki Matsunaga, Yuto Kosugi, Ge Hangli, Takashi Michikata and Noboru Koshizuka

The Effect of COVID-19 on the Economic Systems: Evidence from the Italian Case (3926)

Maria Elena Bruni, Giacomo Masali and Guido Perboli

Decentralizing Electric Vehicle Supply Chains: Value Proposition and System Design (3931)

Maria Elena Bruni, Vittorio Capocasale, Marco Costantino, Stefano Musso and Guido Perboli

Room F2

The 17th IEEE International Workshop on Quality Oriented Reuse of Software (QUORS 2023)

Session 1

Session Chair: Xiaodong Liu, Edinburgh Napier University, UK

Coevolution Index: A Metric for Tracking Evolutionary Coupling (2004)

Huseyin Yapici and Hasan Sozer

A Test Case Prioritization Based on Genetic Algorithm with Ant Colony and Reinforcement Learning Improvement (2831)

Yu Yang, Lu Wang, Na Cha and Hua Li

Towards Improving Accessibility of Web Auditing with Google Lighthouse (5151)

Thomas McGill, Oluwaseun Bamgboye, Xiaodong Liu and Chathuranga Sampath Kalutharage

Business Process Representation Analysis in the RPA Context (2025)

Virginia Niculescu, Cristina-Claudia Osman, Camelia Chisalita-Cretu and Adrian Sterca

Towards Better Online Communication for Future Software Development in Industry (4385)

Masanari Kondo, Shinobu Saito, Yukako Imura, Eunjong Choi, Osamu Mizuno, Yasutaka Kamei and Naoyasu Ubayashi

10:00 - 10:30

Coffee Break

10:30 - 12:00

Awards: Information Processing Society of Japan (IPSJ)

Keynote: Diana Andone

12:00 - 1:30pm

Lunch

1:30 - 3:00

Plenary Panel: Open Science & Open Education

Session Chair: Marco Aldinucci

3:00 - 3:30pm

Coffee Break

3:30 - 5:00pm

Breakouts

Room D2

The 17th IEEE International Workshop on Quality Oriented Reuse of Software (QUORS 2023)

Session 2

The 15th IEEE International Workshop on Security Aspects in Processes and Services Engineering (SAPSE 2023)

Session 1

Session Chairs: Xiaodong Liu, Edinburgh Napier University, UK and Stelvio Cimato, L'Università degli Studi di Milan, Italy

(QUORS 2023) A Preliminary Critical Review of the Impact of Three Popular Development Practices on Source Code Maintainability (3928)

Daniel Knight, Stephen Torri and Tanmay Bhowmik

(QUORS 2023) Determining the Relative Importance of Features for Influencing Software Product Similarity Matching (9606)

Mike Mannion and Hermann Kaindl

(QUORS 2023) Commit Classification Into Software Maintenance Activities: A Systematic Literature Review (9385)

Tjaša Heričko and Boštjan Šumak

(SAPSE 2023) Transparency-based Reconnaissance for APT Attacks (7422)

Alessio Rugo and Claudio Ardagna

Room D3

COMPSAC Symposium on Security, Privacy & Trust in Computing (SEPT 2023)

Session 3

Session Chair: Samer Khamaiseh, Miami University, USA

Research on Malicious Account Detection Mechanism of Ethereum Based on Community Discovery (1183)

Min Li, Bo Cui, Wenhan Hou and Ru Li

Partial Outsourcing of Malware Dynamic Analysis Without Disclosing File Contents (2265)

Keisuke Hamajima, Daisuke Kotani and Yasuo Okabe

A Decentralized Authorization and Security Framework for Distributed Research Workflows (7947)

Richard Cardone, Smruti Padhy, Steve Black, Sean Cleveland and Joe Stubbs

Room D4

The 15th IEEE International Workshop on Software Test Automation (STA 2023)

The 17th IEEE International Workshop on Security, Trust, and Privacy for Software Applications (STPSA 2023)

Session 1

Session Chair: Dave Towey, University of Nottingham Ningbo China (UNNC), China

(STPSA 2023) Evaluating ChatGPT for Smart Contracts Vulnerability Correction (5987)

Emanuele Antonio Napoli and Valentina Gatteschi

(STA 2023) Metamorphic Testing of an Automated Parking System: An Experience Report (1743)

Dave Towe, Zepei Luo, Ziqi Zheng, Peijian Zhou, Junbo Yang, Puttipatt Ingkasit, Changyang Lao, Matthew Pike and Yifan Zhang

(STA 2023) Automated Metamorphic-Relation Generation with ChatGPT: An Experience Report (4622)

Yifan Zhang, Dave Towe and Matthew Pike

(STA 2023) Testing Compilers with Obfuscators: A Metamorphic Experience (6245)

Injae Cho, Dave Towe and Pushpendu Kar

Room E2

The 6th IEEE International Workshop on Smart and Sustainable Mobility & Logistics in Smart Cities (SSMLS 2023)

Session 2

Session Chair: Sara Khodaparasti, Politecnico di Torino, Italy

Machine Learning to Forecast Rainfall Intensity (4494)

Chiara Vandoni, Guido Perboli, Maria Elena Bruni and Valeria Lazzaroli

Connecting Data Providers with Data Consumers: the 5GMETA Data Monetisation Framework (4240)

Michela Apruzzese, Natalia Selini Hadjidimitriou, Elisa Pautasso and Matteo Falbo

Identifying 5G technology Enablers in the Maritime Sector using Survey and Twitter Data (5436)

Natalia Selini Hadjidimitriou, Giulia Renzi, Michela Apruzzese, Stefano Musso and Guido Perboli

Room E3

The 6th IEEE International Workshop on Smart IoT Sensors & Social Systems for eHealth and Well-Being Applications (SIS-SS 2023)

Session 1

Session Chair: Luca Vollero, Università Campus Bio-Medico di Roma, Italy

Identification of the Optimal Meal Detection Strategy for Adults, Adolescents, and Children with Type 1 Diabetes: an in Silico Validation (1347)

Federico D'Antoni, Martina Bertazzoni, Luca Vollero and Mario Merone

Feature-Level Cross-Attentional PPG and Motion Signal Fusion for Heart Rate Estimation (3202)

Panagiotis Kasnesis, Lazaros Toumanidis, Alessio Burrello, Christos Chatzigeorgiou and Charalampos Patrikakis

Development and Evaluation of IoT System Consisting of ROS-based Robot, Edge and Cloud (5883)

Reina Sasaki, Atsuko Takefusa, Hidemoto Nakada and Masato Oguchi

Room E4

COMPSAC Symposium on Data Sciences, Analytics & Technologies (DSAT 2023)

Session 4

Session Chair: Kathy Grise, IEEE Future Directions

DA-Parser: A Pre-trained Domain-aware Parsing Framework for Heterogeneous Log Analysis (7817)

Shimin Tao, Yilun Liu, Weibin Meng, Jingyu Wang, Yanqing Zhao, Chang Su, Weinan Tian, Min Zhang, Hao Yang and Xun Chen

NP-Free: A Real-Time Normalization-free and Parameter-tuning-free Representation Approach for Open-ended Time Series (7968)

Ming-Chang Lee, Jia-Chun Lin and Volker Stolz

Anomaly Localization in Audio via Feature Pyramid Matching (2343)

Jorma Valjakka, Juha Mylläri, Lalli Myllyaho, Juhani Kivimäki and Jukka K. Nurminen

Spatio-Temporal Agnostic Deep Learning Modeling of Forest Fire Prediction Using Weather Data (9879)

Mutakabbir Abdul Mutakabbir, Chung-Horng Lung, Samuel Ajila, Marzia Zaman, Kshirasagar Naik, Richard Purcell and Srinivas Sampalli

Evening

COMPSAC 2023 Banquet

Location: NH S. Stefano Hotel, Via Porta Palatina, 19

Cocktail reception and banquet at 7:30 PM

Optional for Conference Registrants and Guests: 75-minute guided, English language tours of the historical city center - including the ancient Roman gates, the Savoy Royal Palace, the breathtaking central square Piazza Castello, the heart of Turin, with the Palazzo Madama Castle, the first Senate of the Kingdom of Italy, as well other splendid baroque palaces and monuments. Please arrive at the NH S. Stefano Hotel meeting point at 6:15 PM. Be sure to bring your conference badge for identification as a conference attendee. Attendees will be divided into groups of 25 each.

Thursday June 29

8:30 - 10:00am

Breakouts

Room D2

The 13th IEEE International Workshop on Network Technologies for Security, Administration & Protection (NETSAP 2023)

Session 1

Session Chair: Motoyuki Ohmori, Tottori University, Japan

Let's Block Encrypted Malicious Sites (3296)

Motoyuki Ohmori

Towards Functional Analysis of IoT Malware Using Function Call Sequence Graphs and Clustering (4784)

Kei Oshio, Satoshi Takada, Tianxiang He, Chansu Han, Akira Tanaka, Takeshi Takahashi and Jun'ichi Takeuchi

Room D3

The 7th IEEE International Workshop on Software Engineering for Smart Systems (SESS 2023)

The 6th IEEE International Workshop on Secure Digital Identity Management (SDIM 2023)

Session Chair: Francois Siewe, De Montfort University, UK

(SESS 2023) A Rigorous Iterative Analysis Approach for Capturing the Safety Requirements of Self-Driving Vehicle Systems (3871)

Fahad Alotaibi, Thai Son Hoang and Michael Butler

(SESS 2023) Towards the Formal Analysis of UML Activity Diagrams in a Calculus of Context-aware Ambients (6542)

Francois Siewe

(SDIM 2023) Cryptographic Requirements of Verifiable Credentials for Digital Identification Documents (1749)

Maximilian Richter, Jasper Seidensticker, Magdalena Bertram and Marian Margraf

Room D4

COMPSAC Symposium on IT in Practice (ITiP 2023)

Session 1

Session Chair: Patrikakis Charalampos, University of West Attica, Greece

Public Bicycle Flow Forecasting using Spatial and Temporal Graph Neural Network (2506)

Xiang-Li Lu, Hwai-Jung Hsu and Cheng-Chung Chu

Machine Learning Based Method for Auditing Personnel Expenses in Public Expenditure (3614)

Pedro Teixeira, Nádia Silva and Rogerio Salvini

Multi-Agent Reinforcement Learning in Dynamic Industrial Context (7014)

Hongyi Zhang, Jingya Li, Zhiqiang Qi, Anders Aronsson, Jan Bosch and Helena Holmström Olsson

Room E2**The 10th IEEE International Workshop on Medical Computing (MediComp 2023)****Session 1****Session Chair: TBA**

A Strategy for Aided Diagnosis of Obstructive Sleep Apnea in Children Based on Graph Neural Network (387)

Yi Lei, Han Qin, Xiaodan Li, Qing Wang, Lin Zang, Jun Tai and Jijiang Yang

Study on Assessment Methods of Developmental Coordination Disorder in Children (2534)

Wenbo Cui, Wenai Song, Zitong Pei, Yi Lei, Qing Wang, Yanjie Chen and Jijiang Yang

Computational Cost of CT Radiomics Workflow: A Case Study on COVID-19 (7180)

Giulia Varriano, Antonella Santone, Francesco Mercaldo, Valeria Sorgente and Luca Brunese

Evaluation of the Relevance of Adverse Drug Reactions Based on ERNIE-DPCNN (4138)

Hongliang Liu, Zhiyu Chen, Miao Yu, Wenbo Cui, Lin Zang, Wei Ren, Yongfang Hou and Yi Lei

Room E3**The 18th IEEE International Workshop on e-Health Systems & Web Technologies (ESAS 2023)****Session 1****Session Chair: Stelvio Cimato, L'Università degli Studi di Milano, Italy**

Aphluentia: Supporting Communication for People with Fluent Aphasia (1122)

Samuel Silva, Cátia Azevedo, Ana Rita Valente, Ana Rocha, Marisa Lousada, Luciana Albuquerque and António Teixeira

A System for Selective Disclosure of Information about a Patient with Intractable Disease (9353)

Erika Sugita, Ryosuke Abe, Shigeya Suzuki, Keisuke Uehara and Osamu Nakamura

Room E4**COMPSAC Symposium on Computing Education & Learning Technologies (CELT 2023)****Session 1****Session Chair: TBA**

OPTES: A Tool for Behavior-based Student Programming Progress Estimation (5835)

Yuqian Zhuang, Liang Wang, Xianping Tao and Mingya Zhang

Hybrid/Online Teaching: A Survey and Key Issues (3254)

Yue Jiang, Hoi Yan Lin, Long Fai Cheung, Henry C. B. Chan and Li Ping

Requirements for an International School Educational Collaboration System Architecture, A Case Study: Coláiste Nano Nagle School in Limerick, Ireland, and Irshad Private High School in Kabul, Afghanistan (3961)

Mohd Saay and Alex Norta

Learning Analytics to Monitor and Predict Student Learning Processes in Problem Solving Activities During an Online Training (382)

Cecilia Fissore, Francesco Floris, Marina Marchisio, Sergio Rabellino

Orientative teaching with Open Educational Resources: the role of teachers in students' transition from high school to university

Alice Barana, Marina Marchisio and Matteo Sacchet

Room F1

The 11th IEEE International Workshop on Architecture, Design, Deployment & Management of Networks & Applications (ADMNET 2023)

Session 1

Session Chair: Yong Jin, Tokyo Institute of Technology, Japan

BillingOpsSC: Smart Contract-based Service Billing Management Method for Consortium Blockchain-based Systems (604)

Tatsuya Sato, Taku Shimosawa and Nariyoshi Yamai

Resource Allocation Methods among Server Clusters in a Resource Permeating Distributed Computing Platform for 5G Networks (7085)

Daisuke Sasaki, Hiroki Kashiwazaki, Mitsuhiko Osaki, Kazuma Nishiuchi, Ikuo Nakagawa, Shunsuke Kikuchi, Yutaka Kikuchi, Shintaro Hosoai and Hideki Takase

On the Potential of Modern TCP Congestion Control Algorithms in Information-Centric Networking (1043)

Han Nay Aung and Hiroyuki Ohsaki

10:00 - 10:30

Coffee Break

10:30 - 12:00

COMPSAC PCIC Report

Plenary Panel: Future Directions

12:00 - 1:30pm

Lunch

1:30 - 3:00pm

Breakouts

Room D2

Fast Abstract

Session 1

Session Chair: TBA

Performance Evaluation of MQTT Communication with Heterogeneous Traffic (909)

Ryohei Banno

Modeling Time-Varying User Attitudes in Social Media (1597)

Etienne Gael Tajeuna, Ahmed F. M. Fahmy and Mohamed Bouguessa

A Preliminary Study on Random Walk Based Similar Contents Discovery (3171)

Ryo Nakamura

A Named-entity-based TTP-free Authentication and Authorization Architecture for IoT Systems (4247)

Yong Jin and Masahiko Tomoishi

New Technique for Stock Trend Analysis – Volume-weighted Squared Moving Average Convergence & Divergence (4894)

Sze Chit Au and Jacky Keung

Deep Learning Based Security Enhancement of Wireless Connectivity (6352)
Seonghan Ryu

A Named-entity-based TTP-free Authentication and Authorization Architecture for IoT Systems (4247)
Yong Jin and Masahiko Tomoishi

Room D3

Journal then Conference (JC 2023)

The 2nd IEEE International Workshop on Advanced Visual Knowledge Management Tools (AVKMT 2023)

Session 1

Session Chair:

(AVKMT 2023) Towards Unlocking Sustainability Potentials – Adoption and Diffusion of Digital Innovation (705)
Barbara Steffen

(AVKMT 2023) BC4ECO – Visual Tools for the Development of a Shared Understanding and Pedagogical Approach between an International Consortium (9658)
Andy Peruccon, Roisin Lyons, Amalia de Götzen, Tiziana Margaria and Luca Simeone

(JC 2023) Assessing and Improving the Quality of Generated Tests in the Context of Maintenance Tasks (5327)
Wesley B. R. Herculano, Everton Alves and Melina Mongiovi

Room D4

COMPSAC Symposium on IT in Practice (ITiP 2023)

Session 2

Session Chair: Patrikakis Charalampos, University of West Attica, Greece

Knowledge Graph Generation for Unstructured Data Using Data Processing Pipeline (4021)
Sushmi Thushara Sukumar, Chung-Horng Lung and Marzia Zaman

Moving Towards an Accessible Approach to Music Therapy for Autistic People: A Systematic Review (4998)
Samatha Dobesh, Jamey Albert, Shameem Ahmed and Moushumi Sharmin

Room E2

The 8th IEEE International Workshop on Distributed Big Data Management (DBDM 2023)

The 5th IEEE International Workshop on Deep Analysis of Data-Driven Applications (DADA 2023)

Session 1

Session Chair: Akbar Namin, Texas Tech University, USA

(DBDM 2023) Evolution of Big Data Models from Hierarchical Models to Knowledge Graphs (3050)
Anifat Olawoyin and Carson Leung

(DBDM 2023) Privacy Preservation of Big Spatio-Temporal Co-occurrence Data (4208)
Anifat Olawoyin, Carson Leung and Alfredo Cuzzocrea

(DBDM 2023) Towards Graph-based Cloud Cost Modelling and Optimisation (4559)
Akif Quddus Khan, Nikolay Nikolov, Mihhail Matskin, Radu Prodan, Christoph Bussler, Dumitru Roman and Ahmet Soylu

(DADA 2023) Machine Learning For Text Anomaly Detection: A Systematic Review (6811)
Karima Boutalbi, Faiza Loukil, Hervé Verjus, David Telisson and Kavé Salamatian

Room E3

The 11th IEEE International Workshop on Consumer Devices, Systems, and Services (CDS 2023)

Session 1

Session Chair: Toru Kobayashi, Nagasaki University

A Policy-Based Path Selection Mechanism in QUIC Multipath Extension (1474)

Masahiro Kozuka and Yasuo Okabe

Standing Human Detection Method Using 2D-LiDARs (1760)

Takuya Watanabe, Yoshiaki Terashima and Ryoza Kiyohara

Leveraging Temporality of Data to Improve Failure Predictions for Solid State Drives in Data Centers (3280)

Chandranil Chakrabortii and Jonas Boettner

Room E4

The 6th IEEE International Workshop on Advances in Artificial Intelligence & Machine Learning: Towards Sustainable AI and AI for Sustainability (AIML 2023)

Session 1

Session Chair: TBA

An Asynchronous Federated Learning Focusing on Updated Models for Decentralized Systems with a Practical Framework (3012)

Yusuke Kanamori, Yusuke Yamasaki, Shintaro Hosoi, Hiroshi Nakamura and Hideki Takase

Hybrid Intelligence for Stock Market Analysis and Prediction (3096)

Yuet-Yu Chan, Ka Chun Tang, Ka Kiu Mok, Henry C. B. Chan and Sing Hing Kenny Tang

On the Effectiveness of Features for Predicting User Churn in Reddit Communities (6450)

Masayoshi Matsumoto and Sho Tsugawa

Room F1

The 11th IEEE International Workshop on Architecture, Design, Deployment & Management of Networks & Applications (ADMNET 2023)

Session 2

Session Chair: Hiroki Kashiwazaki, Kindai University, Japan

Trustworthy Name Resolution Using TLS Certificates with DoT-enabled Authoritative DNS Servers (7529)

Toshio Murakami, Kenta Shimabukuro, Nao Sato, Rei Nakagawa, Yong Jin and Nariyoshi Yamai

Security Operation Support by Estimating Cyber Attacks Without Traffic Decryption (8404)

Shohei Hiruta, Itaru Hosomi, Hirokazu Hasegawa and Hiroki Takakura

3:00 - 3:30

Coffee Break

3:30 - 5:00pm

Breakouts

Room D2
Fast Abstract
Session 2
Session Chair: TBA

Improvement of TCP Performance based on Characteristics of Private LoRa Interface (7864)
Jumpei Sakamoto, Daiki Nobayashi, Kazuya Tsukamoto, Takeshi Ikenaga, Goshi Sato and Kenichi Takizawa

Verification Method of Associated Domain Names Using Certificates by Applying DNS over TLS to Authoritative Servers (8546)
Nariyoshi Yamai, Yong Jin, Toshio Murakami and Rei Nakagawa

Experimental Evaluation of Transmission Control Method Based on Received Signal Strength for Spatio-Temporal Data Retention (9093)
Renju Akashi, Daiki Nobayashi, Kazuya Tsukamoto, Takeshi Ikenaga and Myung Lee

Extracting Common and Variable Code using the LCS Algorithm for Migration to SPLE (9723)
Taeyoung Kim, Jihyun Lee and Sungwon Kang

Simple Measurement of Customer-oriented QCD for Improving Business Agility (6081)
Kumi Jinzenji and Akio Jin

Authentic Learning Approach for Artificial Intelligence Systems Security and Privacy (7033)
Mst Akter, Hossain Shahriar, Dan Lo, Nazmus Sakib, Kai Qian, Michael Whitman and Fan Wu

Room D3
The 6th IEEE International Workshop on Advances in Artificial Intelligence & Machine Learning: Towards Sustainable AI and AI for Sustainability (AIML 2023)
Session 2
Session Chair: TBA

Has the Social Robot Been Hacked? An Emotion Detection System with Distance-Range Parameters for Feature Selection (3503)
Subhash Rajapaksha Pathiranage and Debbie Perouli

A Comparative Analysis of Graph Neural Networks for Fake News Detection (4092)
Ahmed Harby and Farhana Zulkernine

Linking Team-level and Organization-level Governance in MLOps through XAI and RAI Connector 7361)
Elie Neghawi, Jun Huang, Zerui Wang and Yan Liu

The EcoIndex Metric, Reviewed from the Perspective of Data Science Techniques (2821)
Christophe Cérin, Denis Trystram and Tarek Menouer

Room D4
The 1st IEEE International Workshop on Digital and Public Health (DigiHealth 2023)
Session 2
Session Chair: Syed Azizur Rahman, University of Sharjah, UAE

Smartphone Addiction and Mental Health Wellbeing Among Indonesian Adolescents (8571)
Muhammad Arsyad Subu, Mohammad Yousef Alkhawaldeh, Fatma Refaat Ahmed, Nabeel

Al-Yateem, Jacqueline Maria Dias, Syed Azizur Rahman, Mohannad Eid Aburuz, Ahmad Rajeh Saifan, Amina Al Marzouqi, Heba Hesham Hijazi, Mohamad Qasim Alshabi and Ahmed Hossain

BlockTheFall: Wearable Device-based Fall Detection Framework Powered by Machine Learning and Blockchain for Elderly Care (9022)
Bilash Saha, Md Saiful Islam, Abm Kamrul Riad, Sharaban Tahora and Hossain Shahriar

Telehealth for Obstetrics and Gynecology Outpatient: Improving Patients' Experiences During the COVID-19 Pandemic (8433)
Mohammad Yousef Alkhaldeh, Muhammad Arsyad Subu, Nabeel Al-Yateem, Syed Azizur Rahman, Fatma Refaat Ahmed, Jacqueline Maria Dias, Mohannad Eid Aburuz, Ahmad Rajeh Saifan, Amina Al Marzouqi, Heba Hesham Hijazi, Mohammad Alshabi and Ahmed Hossain

Cardiovascular Health Management Compliance with Health Insurance Portability and Accountability Act (8232)
Masrura Tasnim, Arleen Joy Patinga and Hossain Shahriar

Room E2

The 1st IEEE International Workshop on Digital Twins for Metaverse (DT4Meta 2023)

Session 1

Session Chair: Valeria Lukaj, University of Messina, Italy

Optimized NLP Models for Digital Twins in Metaverse (640)
Valeria Lukaj, Alessio Catalfamo, Maria Fazio, Antonio Celesti and Massimo Villari

The Graph-Massivizer Approach Toward a European Sustainable Data Center Digital Twin (995)
Radu Prodan

Room E3

The 11th IEEE International Workshop on Consumer Devices, Systems, and Services (CDS 2023)

Session 2

The 7th IEEE International Workshop on Open Education Resources (OER 2023)

Session Chair: Yasuo Okabe, Kyoto University, Japan

(CDS 2023) Zero Trust Security Framework for IoT Actuators (5071)
Nobuhiro Kobayashi

(CDS 2023) LINE Metaverse for Elderly People (6756)
Toru Kobayashi, Atsushi Isozaki, Kazuki Fukae, Kenichi Arai, Daiki Togawa and Masahide Nakamura

(OER 2023) Curating History Datasets and Training Materials as OER: An Experience (7318)
Ciara Breathnach, Rachel Murphy, Alexander Schieweck, Enda O'Shea, Stuart Clancy and Tiziana Margaria

(OER) Experiences from the First Delivery of a New Immersive Software Engineering Course: Mathematical Foundations and Data Analytics
Florenc Demrozi, Marina Marchisio, Tiziana Margaria and Matteo Sacchet

Room E4

The 1st IEEE International Workshop on Data Science & Machine Learning for Cybersecurity, IoT & Digital Forensics

Session 1

Session Chair: TBA

An Expert System for Automatic Cyber Risk Assessment and Its AI-based Improvements (911)
Gabriele Gatti, Cataldo Basile and Guido Perboli

Towards Data Generation to Alleviate Privacy Concerns for Cybersecurity Applications (9285)
Chandranil Chakrabortii and Dhiraj Ganji

Security Impact Analysis of Degree of Field Extension in Lattice Attacks on Ring-LWE Problem (9854)

Yuri Lucas Direbieski, Hiroki Tanioka, Kenji Matsuura, Hironori Takeuchi, Masahiko Sano and Tetsushi Ueta

Room F1

The 4th IEEE International Workshop on Rising ICT Solutions for Smart Grids as Multi-energy Systems (ICT4SmartGrid 2023)

Session 1

Session Chair: Lorenzo Bottaccioli, Politecnico di Torino, Italy

Exploring the Potential of Energy Data Marketplaces: an Approach based on the Ocean Protocol (7520)

Silvio Meneguzzo, Alfredo Favenza, Valentina Gatteschi and Claudio Schifanella

LSTM for Grid Power Forecasting in Short-Term from Wave Energy Converters (1667)

Rafael Natalio Fontana Crespo, Alessandro Aliberti, Lorenzo Bottaccioli, Enrico Macii, Giorgio Fighera and Edoardo Patti

An Electric Vehicle Simulator for Realistic Battery Signals Generation from Data-sheet and Real-world Data (1668)

Raimondo Gallo, Gianluca Bussolo, Marco Zampolli, Rémi Jaboeuf, Paolo Tosco, Alessandro Aliberti and Edoardo Patti

Room F2

Panel: The Role of Digital Humanities in the Education Scenario

Moderator: Andrea Balbo

Panelists: Elisa Corino, Melanie Lucciano, Tiziana Margaria, Veronica Orazi, and Gianni Vercelli

In this roundtable, we explore Digital Humanities (DH) in the educational landscape. DH fosters interdisciplinary collaboration among educators, researchers, and students. DH also promotes critical thinking, problem-solving, and digital literacy skills. We also explore the ethical and inclusive dimensions of DH, addressing challenges and opportunities.

Video Presentations

The COVID-19 pandemic has resulted in travel restrictions for many, and health concerns have caused some institutional or national limits on visa accessibility and/or international travel. COMPSAC 2023 is being held as an in-person event with the option for authors to submit on-demand video presentations related to their accepted papers. The following papers were accepted to COMPSAC 2023 and appear in the proceedings, each with an accompanying video presentation. All registered participants for COMPSAC will receive instructions by email about how to access on-demand video presentations as well as the conference proceedings. We encourage all participants to view the on-demand video presentations and contact the authors directly regarding their work.

Papers on Emerging Technologies - 2023

Dynamic Analysis for the Detection of Suicidal Smart Contracts (SCs)

Zulfiqar Ali Khan and Akbar Siami Namin

Case Study-Based Approach of Quantum Machine Learning in Cybersecurity: Quantum Support Vector Machine for Malware Classification and Protection

Mst Akter, Hossain Shahriar, Sheikh Iqbal Ahamed, Kishor Datta Gupta, Muhammad Rahman, Atef Mohamed, Mohammad Rahman, Akond Rahman and Fan Wu

An AI Framework for Modelling and Evaluating Attribution Methods in Enhanced Machine Learning Interpretability

Alfredo Cuzzocrea, Qudrat E Alahy Ratul, Islam Belmerabet and Edoardo Serra

Blockchain Technology in Higher Education Ecosystem: Unraveling the Good, Bad, and Ugly

Sharaban Tahora, Bilash Saha, Nazmus Sakib, Hossain Shahriar and Hisham Haddad

A Survey of Conversational Agents and Their Applications for Self-Management of Chronic Conditions

Min Sook Park, Paramita Basak Upama, Adib Ahmed Anik, Sheikh Iqbal Ahamed, Jake Luo, Shiyu Tian, Masud Rabbani and Hyungkyoung Oh

Predicting and Classifying Heart Rates Using Instantaneous Video Data

Paramita Basak Upama, Masud Rabbani, Kazi Shafiul Alam, Lin He, Shiyu Tian, Mohammad Syam, Iysa Iqbal, Anushka Kolli, Hansika Kolli, Syeda Shefa, Bipasha Sobhani and Sheikh Iqbal Ahamed

Understanding Rural women's Experience in STEM and Non-STEM field in Bangladesh

Mst Shapna Akter, Nova Ahmed and Hossain Shahriar

2023 IEEE International Symposium on Autonomous Systems (ASYS 2023)

The Anatomy of Software Changes and Bugs in Autonomous Operating System

Katerina Goseva-Popstojanova, Denny Hood, Johann Schumann and Noble Nkwocha

Towards Environment-Dependent Model Switching for Performance and Accuracy Conscious Object Detection in Day- and Nighttime Urban Traffic Environments

Kevin Schmidt and Sabolc Jut

2023 IEEE International Symposium on Computer Architecture & Platforms (CAP 2023)

Program Balancing in Compilation for Buffered Hybrid Dataflow Processors

³⁴Anoop Bhagyanath and Klaus Schneider

2023 IEEE International Symposium on Computing Education & Learning Technologies (CELT 2023)

Multilevel Modeling for the Analysis and Prediction of School Dropout: a systematic review
Myke Oliveira and Ellen Barbosa

Early Prediction of Student Performance with LSTM-Based Deep Neural Network
Han Wan, Mengying Li, Zihao Zhong and Xiaoyan Luo

Personalizing Student Graduation Paths using Expressed Student Interests
Nicolas Dobbins, Ali Hurson and Sahra Sedigh Sarvestani

2023 IEEE International Symposium on Data Sciences, Analytics & Technologies (DSAT 2023)

DAC-PPYOLOE+: A Lightweight Real-time Detection Model for Early Apple Leaf Pests and Diseases under Complex Background
Bin Liu, Xiaoyu Bai, Xinyue Su, Chenxi Song, Zhuohan Yao, Xing Wei and Haixi Zhang

A Hybrid Intrusion Detection System Based on Feature Selection and Voting Classifier
Rong Liu, Zemao Chen and Jiayi Liu

Adversarial Human Context Recognition: Evasion Attacks and Defenses
Abdulaziz Alajaji, Kavin Chandrasekaran, Luke Buquicchio, Walter Gerych, Emmanuel Agu and Elke Rundensteiner

Signal Processing Based Method for Real-Time Anomaly Detection in High-Performance Computing
Tanzima Islam, Arunavo Dey, Chase Phelps and Christopher Kelly

Application Recommendation based on Metagraphs: Combining Behavioral and Published Information

Jinyi Wang, Tong Li and Hongyu Gao

Human Activity Dataset of Top Frequent Elderly Emergencies for Monitoring Applications using Kinect

Raoudha Nouisser, Salma Kammoun Jarraya and Mohamed Hammami

Generating Host-Based Data from Network Traces for Intrusion Detection
Patrick Day, Stefano Iannucci and Ioana Banicescu

Historical Redundant Process Data Recovery based on Genetic Algorithm
Ying-Feng Hsu

Improved Deep Embedded K-Means Clustering with Implicit Orthogonal Space Transformation
Xinrui Liu, Wenzheng Liu and Yuxiang Li

An Analysis of Grading Patterns in Undergraduate University Courses
Gary Weiss, Luisa Rosa, Hyun Jeong and Daniel Leeds

PrefixCDD: Effective Online Concept Drift Detection over Event Streams using Prefix Trees
Jesus Huete, Abdulhakim Qahtan and Marwan Hassani

A Real-Time Text Analysis System

Chi Mai Nguyen, Phat Trien Thai, Duy Khang Lam and Van Tuan Nguyen

2023 IEEE International Symposium on Emerging Advances in Applications & Technologies (EATA 2023)

An Efficient and Verifiable Polynomial Cross-chain Outsourcing Calculation Scheme for IoT
Cui Zhang, Hui Yang, Jun Li, Yunhua He, Jie Zhang, Qiuyan Yao and Chao Li

Reflections Removal Produced by Multiple Transparent and Reflective Glass objects in TLS Measurements

Wanpeng Shao, Kenichi Kakizaki, Shunsuke Araki and Tomohisa Mukai

Decentralized Reinforced Anonymous FLchain: a Secure Federated Learning Architecture for the Medical Industry

Chenghan Wang, Shanshan Wang, Chuan Zhao, Wenyue Wang, Bin Hu, Youmian Wang, Zhenxiang Chen and Lin Wang

A Phased Game Algorithm Combining Deep Reinforcement Learning and UCT for Tibetan Jiu Chess

Xiali Li, Yandong Chen, Yanyin Zhang, Bo Liu and Licheng Wu

Limiting the Spread of Misinformation on Multiplex Social Networks

Yumi Fujita and Sho Tsugawa

2023 IEEE International Symposium on Human Computing & Social Computing (HCSC 2023)

AGAA: An Android GUI Accessibility Adapter for Low Vision Users

Yifang Xu, Zhuopeng Li, Huaxiao Liu and Yuzhou Liu

Is Twitter a News Source or a Social Platform: A Case Study of Covid-19 Vaccine Conversations

Aditi Dubey, Likhitadevi Athina and Swapna Gokhale

2023 IEEE Symposium on IT in Practice (ITiP 2023)

Data Interoperating Architecture (DIA): Decoupling Data and Applications to Give Back Your Data Ownership

Jiuqi Wei, Ying Li, Yufan Fu, Youyi Zhang and Xiaodong Li

MIRec: Neural News Recommendation with Multi-Interest and Popularity-Aware Modeling

Yuxin Zhang, Gaode Chen, Lei Wang and Xiaobo Guo

2023 IEEE International Symposium on Journal then Conference/Conference then Journal (JC/JC 2023)

Evaluation of Classification Algorithms Framework Domain-Specific Language: the case of finance-accounting domain

Sofia Meacham

2023 International Symposium on Mobile, Wearable, & Ubiquitous Computing (MOWU 2023)

Deep Reinforcement Learning Based Rendering Service Placement for Cloud Gaming in Mobile Edge Computing Systems

Yongqiang Gao and Zhihan Li

2023 IEEE Symposium on Security, Privacy & Trust in Computing (SEPT 2023)

Reconstructing Android User Behavior through Timestamped State Models

Honghe Zhou, Phuong Dinh Nguyen, Lin Deng, Weifeng Xu, Josh Dehlinger and Suranjan Chakraborty

A Small Leak Will Sink Many Ships: Vulnerabilities Related to mini-programs Permissions

Jianyi Zhang, Leixin Yang, Yuang Han, Zixiao Xiang and Xiali Hei

SILK: Constraint-guided Hybrid Fuzzing

Junhao Li and Yujian Zhang

Privacy Protection Federated Learning Framework Based on Blockchain and Committee Consensus in IoT Devices

Shuxin Zhang and Jinghua Zhu

Preserving Privacy of Neuromorphic Hardware From PCI-e Congestion Side-Channel Attack
Anup Das

CCDetector: Detect Chaincode Vulnerabilities Based on Knowledge Graph

Xiangfei Xu, Tianyuan Hu, Bixin Li and Li Liao

CCDetector: Detect Chaincode Vulnerabilities Based on Knowledge Graph

Xiangfei Xu, Tianyuan Hu, Bixin Li and Li Liao

Reputation-Based Trust Assessment of Transacting Service Components

Konstantinos Tsiounis and Kostas Kontogiannis

Toward Face Biometric De-identification using Adversarial Examples

Mahdi Ghafourian, Julian Fierrez, Luis F Gomez, Ruben Vera-Rodriguez, Aythami Morales, Zohra Rezgui and Raymond Veldhuis

RL-KDA: A K-degree Anonymity Algorithm Based on Reinforcement Learning

Xuebin Ma, Nan Xiang and Yulan Gao

FL-PTD: A Privacy Preserving Defense Strategy Against Poisoning Attacks in Federated Learning

Geming Xia, Jian Chen, Xinyi Huang, Chaodong Yu and Zhong Zhang

Modeling and Verifying Privacy-Preserving Authentication Scheme for VANET Using CSP

Ning Qin and Hongyan Mao

Security is Readily to Interpret: Quantitative Feature Analysis for Botnet Encrypted Malicious Traffic

Long Chen, Qiaojuan Wang, Yanqing Song and Jianguo Chen

Improved Bayesian Network Differential Privacy Data-releasing Method based on Junction Tree

Xuebin Ma, Xuejian Qi and Yulei Meng

2023 IEEE Symposium on Software Engineering Technologies & Applications (SETA 2023)

An Ontology-Centric Approach for Network Security Situation Awareness

Yixuan Wang, Bo Zhao, Weidong Li and Lingzi Zhu

A Full-fledged Commit Message Quality Checker Based on Machine Learning

David Faragó, Michael Färber and Christian Petrov

Identifying CC Test Cases with Multiple Features Extraction for Better Fault Localization

Yonghao Wu, Shuaihua Tian, Zezhong Yang, Zheng Li, Yong Liu and Xiang Chen

Prediction of Bug Inducing Commits Using Metrics Trend Analysis

Parul Parul, Kostas Kontogiannis and Chris Brealey

A Modular and End-to-End Profile-Guided Optimization Framework for Android Kernels

Keyuan Zong, Baojian Hua, Yang Wang, Shuang Hu and Zhizhong Pan

EDP-BGCNN: Effective Defect Prediction via BERT-based Graph Convolutional Neural Network

Hao Shen, Xiaolin Ju, Xiang Chen and Guang Yang

SMT-Based Verification of NGAC Policies

Vladislav Dubrovenski, Erzhuo Chen and Dianxiang Xu

Investigating Code Generation Performance of ChatGPT with Crowdsourcing Social Data

Yunhe Feng, Sreecharan Vanam, Manasa Cherukupally, Weijian Zheng, Meikang Qiu and Haihua Chen

SGS: Mutant Reduction for Higher-order Mutation-based Fault Localization

Zheng Li, Luxi Fan, Hengyuan Liu, Yong Liu, Doyle Paul, Haifeng Wang and Xiang Chen

A Self-attention Agent of Reinforcement Learning in Continuous Integration Testing

Bangfu Liu, Zheng Li, Ruilian Zhao and Ying Shang

TBCUP: A Transformer-based Code Comments Updating Approach

Shifan Liu, Zhanqi Cui, Xiang Chen, Jun Yang, Li Li and Liwei Zheng

A Tool to Generate Diverse Personas for Children and the Elderly for Software Development Projects

Tanjila Kanij, Xiaojiao Du, John Grundy, Anu Madugalla and Devi Karolita

2023 IEEE Symposium on Smart IoT Systems & Applications (SIoT 2023)

Plain Source Code Obfuscation as an Effective Attack Method on IoT Malware Image Classification

Hayato Sato, Hiroshi Inamura, Shigemi Ishida and Yoshitaka Nakamura

2023 IEEE International Workshop on Architecture, Design, Deployment & Management of Networks & Applications (ADMET 2023)

A Resource Estimation Method in Multi-Cloud Environment with a Model based on a Repairable-Item Inventory System

Naoki Okuda, Kaori Maeda, Chisa Takano and Hideyuki Ichihara

2023 IEEE International Workshop on Advances in Artificial Intelligence & Machine Learning: Towards Sustainable AI and AI for Sustainability (AIML 2023)

New Problems in Active Sampling for Mobile Robotic Online Learning
Xiuxian Guan, Junming Wang, Zekai Sun, Zongyuan Zhang, Tianyang Duan, Shengliang Deng, Fangming Liu and Heming Cui

Measuring Bias in AI Models with Application to Face Biometrics: An Statistical Approach
Daniel DeAlcala, Ignacio Serna, Aythami Morales, Julian Fierrez and Javier Ortega-Garcia

Gait Recognition using Deep Residual Networks and Conditional Generative Adversarial Networks
Entesar Talal, Zakariya Oraibi and Ali Wali

Integrating Multiple Visual Attention Mechanisms in Deep Neural Networks
Fernando Martinez and Yijun Zhao

Toward a Method Engineering Framework for Project Management and Machine Learning
Murat Pasa Uysal

Social Media, Market Sentiment and Meme Stocks
Yijun Zhao, Zefan Du, Shengjian Xu, Yu Cheng, Jiachen Mu and Michael Ning

Dealing with Explainability Requirements for Machine Learning Systems
Tong Li and Lu Han

2023 IEEE International Workshop on Consumer Devices, Systems, & Services (CDS 2023)

A Process Reduction Method for Spatial Information in Real-Time AR Snow Visualization Systems
Yasuaki Kobayashi, Tomoya Kawakami, Satoru Matsumoto, Tomoki Yoshihisa and Yuuichi Teranishi

A Message Reduction Method Based on Geographical Information in Initiative-Evacuation Induction Using Social Graphs
Sora Okamoto and Tomoya Kawakami

A GA-Based Safe Route Recommendation Method Based on Driver Characteristics
Hayato Fukatsu, Tomoya Kawakami and Yoshimi Kawamoto

Towards Examining The Security Cost of Inexpensive Smart Home IoT Devices
Tj Oconnor, Dylan Jessee and Daniel Campos

2023 IEEE International Workshop on Deep Analysis of Data-Driven Applications (DADA 2023)

The Application of the BERT Transformer Model for Phishing Email Classification
Denish Omondi Otieno and Akbar Siami Namin

A Survey on Blockchain-Based Federated Learning and Data Privacy
Bipin Chhetri, Saroj Gopali, Rukayat Olapojoye, Samin Dehbashi and Akbar Siami Namin

2023 IEEE International Workshop on Dynamic Data Science & Big Data Analytics in Finance (DDS-BDAF 2023)

Resilient Portfolio Optimization using Traditional and Data-Driven Approaches for Cryptocurrencies and Stocks

Joy Dip Das, Sulalitha Bowala, Ruppa K. Thulasiram and Aerambamoorthy Thavaneswaran

Fuzzy Option Pricing for Jump Diffusion Models using Neuro Volatility Models

Md Erfanul Hoque, Sulalitha Bowala Mudiyansele, Alexander Paseka, Aerambamoorthy Thavaneswaran and Ruppa Thulasiram

A Novel Fading-Memory Filter Multiple Trading Strategy with Data-Driven Innovation Volatility

You Liang, Aerambamoorthy Thavaneswaran, Alex Paseka, Sulalitha Bowala and Juan Liyau

Comparison of Trading Strategies: Dual Momentum vs Pairs Trading

Japjeet Singh, You Liang, Ruppa Thulasiram, Aerambamoorthy Thavaneswaran and Alexander Paseka

Approx-SMOTE Federated Learning Credit Card Fraud Detection System

Jiacheng Wang, Wenzheng Liu, Yifei Kou and Dicheng Xiao

2023 IEEE International Workshop on Digital & Public Health (DigiHealth 2023)

Sentence Level Analysis for Detecting Mental Health Causes Using Social Media Posts

Abm. Adnan Azmee, Manohar Murikipudi, Md Abdullah Al Hafiz Khan and Yong Pei

Detection of Behavioral Health Cases from Sensitive Police Officer Narratives

Martin Brown, Md Abdullah Al Hafiz Khan, Dominic Thomas, Yong Pei and Monica Nandan

Challenges of Artificial Intelligence in Medicine

Nida Nasir, Mohammad Alshabi, Nabeel Al-Yateem, Syed Azizur Rahman, Muhammad Arsyad

Subu, Heba Hesham Hijazi, Fatma Refaat Ahmed, Jacqueline Maria Dias, Amina Al Marzouqi,

Mohammad Yousef Alkhalaf, Mohannad Eid Aburuz and Ahmed Rajeh Saifan

2023 IEEE International Workshop on Digital Twins for Metaverse (DT4Meta 2023)

Hanfu AR: Digital Twins of Traditional Chinese Costumes for Augmented Reality Try-On Systems

Yukun Fu and Yue Li

2023 IEEE International Workshop on e-Health Systems & Web Technologies (ESAS 2023)

An Improved Data Management Approach for IoT-Enabled Smart Healthcare: Integrating Semantic Web and Reinforcement Learning

Aytug Turkmen and Ozgu Can

2023 IEEE International Workshop on Medical Computing (MediComp 2023)

CMTN: A Convolutional Multi-Level Transformer to Identify Suicidal Behaviors Using Clinical Notes

Manohar Murikipudi, Abm. Adnan Azmee, Md Abdullah Al Hafiz Khan and Yong Pei

Evaluation of the Relevance of Adverse Drug Reactions Based on ERNIE-DPCNN

Hongliang Liu, Zhiyu Chen, Miao Yu, Wenbo Cui, Lin Zang, Wei Ren, Yongfang Hou and Yi Lei

Mental Health Analysis During Pandemic: A Survey of Detection and Treatment
Paramita Basak Upama, Maria Valero, Hossain Shahriar, Mohammad Syam and Sheikh Iqbal Ahamed

Quantum Machine Learning in Disease Detection and Prediction: a survey of applications and future possibilities

Paramita Basak Upama, Anushka Kolli, Hansika Kolli, Subarna Alam, Mohammad Syam, Shahriar Hossain and Sheikh Iqbal Ahamed

2023 IEEE International Workshop on Network Technologies for Security, Administration & Protection (NETSAP 2023)

Psychological Study on Judgment and Sharing of Online Disinformation)

Haruka Nakajima Suzuki and Midori Inaba

2023 IEEE International Workshop on Open Educational Resources (OER 2023)

A System for Generating MultiModal Learning Analytics Dashboards in Open Education

Alvaro Becerra, Roberto Daza, Ruth Cobos, Aythami Morales, Mutlu Cukurova and Julian Fierrez

2023 IEEE International Workshop on Quality Oriented Reuse of Software (QUORS 2023)

Locating Procedural Steps in Source Code

Shinpei Hayashi, Teppei Kato and Motoshi Saeki

Classifying Packages for Building Linux Distributions

Qi Jing, Lian Yu, Lei Zhang, Haolin Xue and Zheng Liu

A Catalog for Historical Soundscapes Requirements

Joao Araujo, Armanda Rodrigues and Inês Menezes

2023 IEEE International Workshop on Security Aspects in Processes & Services Engineering (SAPSE 2023)

API-based Features Representation Fusion for Malware Classification

Yassine Belkhouche

2023 IEEE International Workshop on Smart Computing & Applications (SCA 2023)

Post-stroke Exercise Assessment using Hybrid Quantum Neural Network

Md Abdullah Al Hafiz Khan, Manohar Murikipudi and Abm. Adnan Azmee

Usability Differences of Telehealth Technologies by Multi-linguistic and Multi-cultural Users in UAE

Fatma Refaat Ahmed, Ragad Ghassan Zabin, Rawan Saad Abukoush, Abdullah Ahmad Alnahoum, Mohammad Yousef Alkhalwaldeh, Nabeel Al-Yateem, Muhammad Arsyad Subu Subu, Amina Alboloshi, Amina Al Marzouqi, Alkhansa Ahmad Alawad, Syed Azizur Rahman and Ahmed Hossain

2023 IEEE International Workshop on Secure Digital Identity Management (SDIM 2023)

PAD-Phys: Exploiting Physiology for Presentation Attack Detection in Face Biometrics
Luis Felipe Gómez, Julian Fierrez, Aythami Morales, Mahdi Ghafourian, Ruben Tolosana, Imanol Solano, Alejandro Garcia and Francisco Zamora-Martinez

Motive Metrics: A Jira Plug-In for Personality, Motivation and Performance Tracking
Akash Saggarr, Andrew Cao, Jie Xiang Fan, Jiten Verma, Kunj Dave, Sharan Sharabinth, Dulaji Hidellaarachchi and John Grundy

2023 IEEE International Workshop on Software Engineering for Smart Systems (SESS 2023)

Mobile Application Based Solution for Building Accessibility Assessment for Comprehensive and Personalized Assessment
Sayeda Farzana Aktar, Shiyu Tian, Kazi Shafiul Alam, Mason Dennis Drake, Laryn Michele O'Donnell, Roger O Smith and Sheikh Iqbal Ahamed

Monitoring the Energy Consumption of Docker Containers
Mehul Warade, Kevin Lee, Chathu Ranaweera and Jean-Guy Schneider

A User Behaviour-Based Video Segmentation Strategy for High-Concurrency Environment
Danning Shen, Wenhao Zhu, Yujie Ding and Chenyun Liu

An Empathetic Approach to Human-Centric Requirements Engineering Using Virtual Reality
Nicholas Chong, Emmanuel Chu, Adrian Nadonza, Sienna Marie Rodriguez, Sothearith Tith, Jin Shan, John Grundy, Thuong Hoang, Owen Wang and Ben Cheng

2023 IEEE International Workshop on Software Test Automation (STA 2023)

Detecting Hidden Failures of DBMS: A Comprehensive Metamorphic Relation Output Patterns Approach
Matthew Siu-Hin Tang, T.H. Tse and Zhi Quan Zhou

Improving Fault Localization by Complex-Fault Oriented Higher-Order Mutant Generation
Yong Liu, Zexing Chang, Shumei Wu, Doyle Paul, Haifeng Wang and Xiang Chen
Evaluating the Resilience of Software Architecture Based on Minimal Path
Donglin Li, Jiaxin Pan, Zixuan Liu and Bixin Li

VERISILICON: Towards a Comprehensive Framework for Secure FPGA Development
Xiaoyan Liu, Baojian Hua, Junmin Wu, Hao Zhu and Zhizhong Pan

ML-Based Boundary Value Analysis in White-Box Testing
Xiujing Guo, Hiroyuki Okamura and Tadashi Dohi

2023 IEEE International Workshop on Software Test Automation (STA 2023)

Enhancing the Formal Verification of Train Control Systems based on Decomposition
Tengfei Li, Junfeng Sun, Xinjun Lv, Xiang Chen, Jing Liu, Haiying Sun

A Standard Baseline for Defect Prediction
Nitin Sai Bommi and Atul Negi

2023 IEEE International Workshop on Security, Trust, & Privacy for Software Applications (STPSA 2023)

A Quantum Generative Adversarial Network-based Intrusion Detection System

Md Abdur Rahman, Hossain Shahriar, Victor Clincy, Md F Hossain and Muhammad Rahman

Uncovering Software Supply Chains Vulnerability: A Review of Attack Vectors, Stakeholders, and Regulatory Frameworks

Nafisa Anjum, Nazmus Sakib, Juanjose Rodriguez-Cardenas, Corey Brookins, Ava Norouzinia, Asia Shavers, Miranda Dominguez, Marie Nassif and Hossain Shahriar

HIPAAChecker: The Comprehensive Solution for HIPAA Compliance in Android mHealth Apps

Bilash Saha, Sharaban Tahora, Abdul Barek and Hossain Shahriar

Security Risk and Attacks in AI: A Survey of Security and Privacy

Md Mostafizur Rahman, Aiasha Siddika Arshi, Md Mehedi Hasan, Sumayia Farzana Mishu, Hossain Shahriar and Fan Wu

A Plugin for Kotlin based Android Apps to Detect Security Breaches through Dataflow

Md Arabin Islam Talukder, Hossain Shahriar, Sumaiya Farzana Mishu, Abm Kamrul Islam Riad, Fan Wu and Akond Rahman

2023 IEEE Fast Abstract

Evaluation of the Performance Impact of SPM Allocation on a Novel Scratchpad Memory

Essa Imhmed, Edgar Ceh-Varela, Jonathan Cook and Caleb Parten

Blockchain-Oriented Software Testing: A Preliminary Literature Review

James Orr and Sandeep Reddivari

Telehealth in Cardiovascular Diseases: Reflections on Its Usability in the Jordanian Context

Ahmad Rajeh Saifan, Mohannad Eid Aburuz, Nabeel Al-Yateem, Syed Azizur Rahman, Muhammad Arsyad Subu, Heba Hesham Hijazi, Fatma Refaat Ahmed, Jacqueline Maria Dias, Amina Al Marzouqi, Mohammad Yousef Alkhawaldeh, Mohammad Alshabi and Ahmed Hossain

Uncovering Water Research with Natural Language Processing

Ceh-Varela and Essa Imhmed

A Machine Learning based Traceability Links Classification: A Preliminary Investigation

Hika Workneh and Sandeep Reddivari

AI-Assisted Security: A Step towards Reimagining Software Development for a Safer Future

Yong Shi, Nazmus Sakib, Shahriar Hossain, Dan Lo, Hongmei Chi and Kai Qian

Virtual Learning and Pervasiveness of Depression Among University Students in the UAE

Heba Hesham Hijazi, Reem Mohd Alotaibi, Zenah Maher Alzaben, Amina Al Marzouqi, Nabeel Al-Yateem, Muhammad Arsyad Subu, Fatma Refaat Ahmed, Mohammad Alshabi, Mohammad Yousef Alkhawaldeh, Syed Azizur Rahman and Ahmed Hossain

VA4SM: A Visual Analytics Tool for Software Maintenance

Sandeep Reddivari and Kyle Liu

A Graph Construction Method for Anomalous Traffic Detection with Graph Neural Networks Using Sets of Flow Data

Norihiro Okui, Yusuke Akimoto, Ayumu Kubota and Takuya Yoshida

Defeasible-PROV: Conflict Resolution in Smart Building Devices

Abdullah Al Farooq, Zac Taylor, Kyle Ruona and Tom Moyer

Deep Learning for Regional Subsidence Crisis Prediction in Smart Grid Infrastructure

Zhaoran Wang, Xiangyu Bai and Yu Han

Semantically Enabled Content Convergence System for Large Scale RDF Big Data

Yongju Lee

Optimized Paillier Homomorphic Encryption in Federated Learning for Speech Emotion Recognition

Samaneh Mohammadi, Sima Sinaei, Ali Balador and Francesco Flammini

2023 IEEE COMPSAC Student Research Symposium (SRS 2023)

A Proactive Data Privacy Compliance Framework for Establishing Dynamic Data Privacy Management Systems

Reem Alsubaie and Mohammed Elaffendi

Survivability Model of Networks using Attack Graphs and Markov Chains

Shuvo Bardhan

Reinforcement Learning Approaches for Racing and Object Avoidance on AWS DeepRacer

Jacob McCalip, Mandil Pradhan and Kecheng Yang

A Metaverse Object Management Method Based on Visible Areas using Geographical Overlay Networks

Nobuki Aoki, Tomoya Kawakami, Satoru Matumoto, Tomoki Yoshihisa and Yuuichi Teranishi

Graph Attention Network Reinforcement Learning Based Computation Offloading in Multi-Access Edge Computing

Yuxuan Liu, Geming Xia, Jian Chen and Danlei Zhang

Study on Performance Bottleneck of Flow-Level Information-Centric Network Simulator

Shota Inoue, Han Nay Aung, Keita Goto, Soma Yamamoto and Hiroyuki Ohsaki

Securing the Transportation of Tomorrow: Enabling Self-Healing Intelligent Transportation

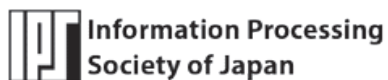
Elanor Jackson and Sahra Sedigh Sarvestani

Modeling MultiPath TCP for Control Parameter Tuning

Han Nay Aung, Keita Goto and Hiroyuki Ohsaki



**JULY
2-4
2024
OSAKA**



<https://ieeecompsac.computer.org/2024/>

