SSBAktuellt

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INNEHÅLL

December 2024

Ordförandes Ord

Amanda Berg

Kära medlemmar,

Ännu ett halvår har gått sedan senaste numret av SSBA-Aktuellt och julen är i antågande. Här i Linköping är det blött och regnigt, jag kan inte påstå att julkänslan infunnit sig helt än.

I början av december anordnades ICPR i Kolkata, Indien. I samband med det hölls IAPR's Governing Board möte där vi fanns representerade. I detta nummer finns både en konferensrapport samt en rapport från själva Governing Board mötet. Utöver det innehåller detta nummer också konferensrapporter från ICDAR och MICCAI samt i vanlig ordning en lista över doktorander som framgångsrikt försvarat sina avhandlingar. Önskar er alla ett stort grattis och lycka till!

I mars är det återigen dags för SSBA/SSDL symposiet. Denna gången på KTH vilket jag verkligen ser fram emot. Hoppas på att se många av er där! Missa inte heller SCIA i Reykjavik i juni.

När jag skriver det här har vår julgran precis vält och min ärvda julgransspira krossats. Det kanske inte blir som det var tänkt, men det kan bli bra ändå! Önskar er alla trevlig läsning och en riktigt fin jul, med möjlighet till vila och återhämtning. Hoppas vi ses under nästa år!

Dec 2024, Sweden

A Word from the Editors
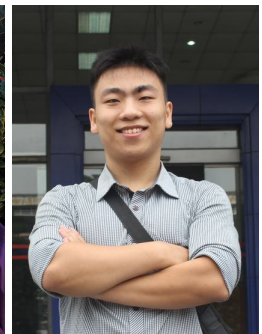
Call for SSBAktuellt Content

Dear SSBA Community,

It is time for a new year, and with that come new opportunities. Many things have happened in the last 6 months, and we're excited to share them with you all. There are also some exciting conferences coming up that we would like to share with you. We also wanted to take this opportunity to invite you all to contribute your ideas and engaging content, such as conference reports, internship experiences, interviews, and more, for inclusion in the upcoming issues of SSBAktuellt. Feel free to reach out to us at redaktionen@ssba.org.se with your suggestions.

Kind Regards,
SSBAktuellt Redaktionen

James   Bao-Long
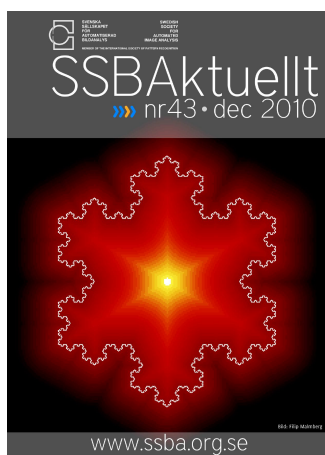
A Word from the Editors

Call for SSBAktuellt Cover Images

Do you have photos, images or graphics you would like to share with SSBA community that would fit the SSBA newsletter? Images connected to Sweden, your research, SSBA activities or graphics which relate to image analysis are all welcome! Please send your proposal to redaktionen@ssba.org.se.

Conference Report
MICCAI 2024

For the first time ever, the 27th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI) was held in Africa, specifically in Marrakesh, Morocco between October 6th -10th. Approximately 31% of submitted papers were accepted, yielding 858 papers in proceedings. October 6th and 10th were reserved for workshops and tutorials, addressing challenges in e.g. interpretability, personalized medicine, and multimodality.

I would like to highlight for example CoReEcho: Continuous Representation Learning for 2D+time Echocardiography Analysis, by Adamsyah Maani et al. aiming create time-consistent representations for echocardiography, and Evidential Concept Embedding Models: Towards Reliable Concept Explanations for Skin Disease Diagnosis, by Gao et al., which implements concept-based models for added explainability. Other than that, language-vision models (LVMs) have swept the field from its feet and was undoubtedly one of the largest topics of the conference, used for interactivity, conditional generation and uncertainty estimation.

This year, MICCAI emphasized accessibility

and inclusion, with a popular Women in MICCAI (WiM) event, prominent female keynotes and remarked that Morocco makes for an especially well-suited venue in Africa, due to its lax visa rules and proximity to all continents (except Asia). Special grants were instituted to under-privileged students, and participants from countries in Africa. If this was a lasting initiative it would have been more commendable, but ironically, MICCAI 2025 will be held in Daejon, South Korea, which bragged about flight connections to the entire world – but with virtually no options to travel from Africa.

That said, Marrakesh offered a wealth of impressions, smells, sounds and colours, as well as a remarkably generous and hospitable people, and stunning nature. Some of us said that it is a country one should visit at least once more.

The conference dinner was no different, and featured a cohort of horse riders with rifles, a man on a flying carpet, fire eating, and a bombastic fireworks show and a burning MICCAI 2024 effigy. Now, I was not in Vancouver 2023, but I think it might have beaten the background jazz bands there.

The Author

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ICDAR 2024

The 18th edition of the IAPR International Conference on Document Analysis and Recognition was held 30 August – 4 September 2024 in Athens Greece. ICDAR is sponsored by the IAPR TC10 & TC11 technical committees. The ICDAR conference had been a biannual conference since its initial forming in 1991. This year was the first time that tradition was changed and ICDAR was held in an even year as it became an annual event. Three professors from Luleå were heavily engaged in its planning and organization. Foteini Simistira Liwicki was one of the three General Chairs along with Basilis Gatos from the National Centre for Scientific Research "Demokritos", Greece and Vassilis Katsouros from the Athena Research Center. Elisa Barney Smith and Marcus Liwicki from LTU were two of the Program Committee chairs. They were complemented by Liangrui Peng of Tsinghua University, Beijing, China. Elisa was chosen to represent the Americas before she moved to Sweden.

There were 4 conference keynote talks. Jürgen Schmidhuber, Director of the AI Initiative at KAUST, Swiss AI Lab IDSIA, and the University of Lugano, Switzerland gave the first on the opening day of the conference "Thoughts about Machine Learning". On the second day Cheng-Lin Liu, State Key Laboratory of Multimodal Artificial Intelligence Systems, Institute of Automation of the Chinese Academy of Sciences, China spoke on "Towards Explainable Document Recognition". Vincent Christlein, Friedrich-Alexander-Universität Erlangen (FAU), University of Erlangen–Nuremberg, Germany was awarded the IAPR/ICDAR Young Investigator Award 2024 and gave a talk "Unraveling Scribal Authorship: New Frontiers in Writer Retrieval". The final keynote was held on the last day of the conference where Maria Kamilaki, Acting Director-General of e-Administration, Library & Publications of the Hellenic Parliament spoke on "Sharing the past, preparing the future. The digital transformation of the Hellenic Parliament Library" where she showed how the library was using technology like reported on at this conference to further their goals.

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spoke on "Sharing the past, preparing the future. The digital transformation of the Hellenic Parliament Library" where she showed how the library was using technology like reported on at this conference to further their goals.

A total of 263 papers were submitted to the main conference (plus 35 papers to the ICDAR-IJDAR journal track), with 52 papers accepted for oral presentation (plus 17 IJDAR track papers) and 92 for poster presentation. The pre-conference featured 6 excellent workshops, 4 value-filled tutorials, and the doctoral consortium.

Attendance was about 370 people, many of whom have attended many times before. ICDAR is a two-track conference. This makes it easier for people to network and interact with each other. Nudrat Habib, a PhD student at LTU attended ICDAR for the first time. It was also the first big conference she attended. She found the diversity of the attendees to be very impactful. The articles were also diverse covering many different topics within document analysis allowing attendees in 3 days to get an overview of the field. She found it to be a great platform to meet peers and network. "At coffees you talk with people and can get a lot of ideas and how you can incorporate that in your own work." Konstantina Nikolaidou, also a PhD student at LTU, attended ICDAR for the third time. She shared "It is always pleasant to visit ICDAR and engage with this smaller, friendly community. The welcoming atmosphere encourages collaboration and inspires new directions for research that can be further developed and presented at larger, more competitive conferences." Simon Corbillé, a postdoctoral researcher at LTU, attended for his second time. He found that "It allowed me, among other things, to discover the latest advances in the research field around document analysis and also to discuss with other researchers working in fields similar to my research work." Chang Liu, also a postdoctoral researcher at LTU attending for

his second time, feels "It is a domain specific conference that takes in some interesting methods, which lack the SOTA performance (or luck) to go to "bigger" venues like CVPR/NIPS. This helps us to get a peek of the potential of a variety of yet-to-mature paths, which can provide some unique inspirations that are not usually found in the "bigger" venues."

ICDAR 2025 will be held in Wuhan China. ICDAR 2026 will be in Vienna Austria and ICDAR 2027 will be held in Kuala Lumpur Malaysia.

The Author

Elisa Barney Smith
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IAPR Governing Board

At ICPR 2024, Ida-Maria Sintorn was elected new 2nd vice president. (Photo by Ingela Nyström)

SSBA represents Sweden in the International Association for Pattern Recognition (IAPR). Once every second year, the Governing Board consisting of representatives from all of the different national member societies, meet. At the moment, IAPR has 48 member societies. The number of representatives and, hence, also votes the national society has at the meeting depends on the number of members. Sweden has two representatives, and these spots have traditionally been filled by the current and the previous chair. That is, at the moment, Sweden is represented in the Governing Board by me, Amanda Berg, and Ida-Maria Sintorn.

The meeting is held in conjunction with ICPR and is know to be long, usually around eight hours. But there are a lot of items that have to be covered, since the board only meet once every second year. This year, the meeting was a hybrid meeting organized in Kolkata on the second day of ICPR, on the 3rd of December. Ida-Maria participated on site, while I joined remote. Thankfully, the time difference was to my advantage, and all of the eight hours happened during work hours.

First, there were a lot of different reports from the Executive Committee, the Technical Committees, and the Standing Committees (for example the different Award Committees). There were also status reports from the 2024 ICPR Kolkata and 2026 ICPR Lyon organization committees. Some items were brought up for discussion, for example there was a proposal suggesting another odd year fully virtual conference and another one suggesting an additional odd year Governing Board meeting. SSBA was against an additional conference for several reasons. First, we would not like such a conference to compete with SCIA. Second, virtual conferences have their own problems and, at the moment, a lack of conferences does not seem to be an issue. All in all, we felt that it would be better to focus on strengthening the ICPR.

After all of the reports and motions, it was time for elections and voting. In the election for the new Executive Committee, two candidates had been nominated for each office. As the new 2nd Vice President, Ida-Maria was elected! Robert Fisher (UK) was elected as the new President of IAPR. Proposals for the location of ICPR 2028 were also presented and after voting, Sydney ended up as the winner.

As a final comment, I would also like to mention that a new Swedish IAPR Fellow was presented during the conference dinner, Michael Felsberg. Congratulations Michael! If you know someone eligible for the IAPR Fellowship, do not hesitate to make a nomination for the upcoming round by contacting the SSBA board.

The Author

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Conference Report
ICPR 2024

The 27th international conference on pattern recognition, took place December 1st to 5th at the Biswa Bangla Convention Centre in Kolkata, India. The first day included pre-conference events such as workshops and tutorials, while the main conference was held during the remaining four days. The main conference kicked off with a welcome dinner in the evening of the 1st of December, the venue was outside which was very appreciated when just arrived from the cold weather in Sweden.

The conference included oral presentations within several categories such as generative models, graph models, representation learning and much more. There were in total five poster sessions spread out during the whole event. On the 3rd of December a Women at ICPR workshop was arranged where a panel of inspiring women talked about their experiences.

Except the welcome dinner, there was also a banquet dinner. This took place on the 3rd of December, it started with some cultural entertainment including traditional Indian music and dance. This was followed by a delicious buffet style dinner where several talks were made and awards were handed out.

For me one of the best things with Kolkata was the food, and luckily, we got the pleasure to enjoy Indian food during each lunch at the conference.

Visiting Kolkata is an experience of a lifetime with its chaotic traffic, spicy food, and kind people. The amount of noise, people and traffic can be intimidating at first (especially for a person who is used to Sweden), but after giving it some time to adapt one can really appreciate the opportunity to experience such a vibrant and interesting culture.

The Author

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Conference Announcement

SSBA/SSDL 2025

The joint 42nd Swedish Symposium on Image Analysis (SSBA) and 8th Swedish Symposium on Deep Learning (SSDL) will be hosted by KTH Royal Institute of Technology.

The event will take place from March 12–14, 2025, at the KTH Campus in Stockholm.

The SSBA/SSDL Symposium is Sweden's premier event bringing together researchers from academia and industry, as well as students, to explore the latest advancements in image processing, computer vision, pattern recognition, and related fields. We warmly invite researchers and students to contribute to this joint event, which will also feature distinguished keynote speakers.

Submissions and registrations are planned to open in January 2025.
Please watch this space for more updates:
https://ssba.org.se/ssba2025/
We look forward to welcoming you in March 2025!

SCIA 2025

The Scandinavian Conference on Image Analysis will be held from June 23rd to June 25th, 2025, at the University of Iceland campus, in Reykjavík, Iceland. The conference program will feature top invited speakers and scientific presentations, giving attendees a chance to learn from top experts about cutting-edge research in image analysis and its applications in healthcare, environmental monitoring, and automation. Alongside the classical SCIA submission format, for the first time, SCIA 2025 offers authors the unique opportunity to present their recently published works. This new session format enhances knowledge sharing and provides further visibility to cutting-edge research in image analysis. This year will also include the awarding of the Best Nordic Thesis Prize, a biennial prize recognizing and promoting outstanding research by young scientists.

This year, areas of focus will include:
- 3D vision from multiview and other sensors
- Action and behavior recognition
- Biometrics, faces, body gestures and pose
- Computational photography
- Datasets and evaluation
- Detection, recognition, classification, and localization in 2D and/or 3D
- Explainable AI for CV
- Image and video processing, analysis, and understanding
- Low·level and physics·based vision
- Machine learning and deep learning
- Medical, biological, and cell microscopy
- Motion and tracking
- Scene, text and document analysis and understanding
- Segmentation, grouping, and shape
- Vision + language (+ other modalities)
- Vision applications and systems
- Vision for robotics and autonomous vehicles

Announcement

Aktuella Avhandlingar

Här presenteras de avhandlingar som publicerats sedan senaste numret av SSBAktuellt och kommit redaktionen till känna. Meddela redaktionen om aktuella avhandlingar

Nosheen Abid
Luleå Tekniska Universitet
Unsupervised Curriculum Learning Case Study: Earth Observation UCL4EO
Diva Link Pending

Iulian Tampu
Linköping University
Deep Learning for Medical Image Analysis in Cancer Diagrams

Yu Zhao
KTH
Deep Learning for Wildfire Detection Using Multi-Sensor Multi-Resolution

Georg Bökman
Chalmers University
Equivariant Deep Learning with Applications in Computer Vision
Main Supervisor: Fredrik Kahl

Arvi Jonnarth
Linköping University
Learning Robot Vision under Insufficient Data

Pavlo Melnyk
Linköping University
Spherical NeurO(n)s for Geometric Deep Learning

Nadezhda Koriakina
Uppsala University
Deep Learning and Explainable Artificial Intelligence for Biomedical Applications: Methods for Cytology-based Cancer Detection
Main Supervisor: Joakim Lindblad

Marc Fraile Fabrega
Uppsala University
Computer Vision and Explainability in Human-Human and Human-Robot Interaction
Main Supervisor: Ginevra Castellano