



Newsletter



Volume 48, Number 2, Apr 2026



From the Editor's Desk

A Woman's Legacy in Ibero-American Pattern Recognition: The Aurora Pons-Porrata Award

Dear Readers,

In previous editions, I have discussed pattern recognition research in developing countries. On this occasion, I want to turn our attention once again to the Ibero-American Congress on Pattern Recognition (CIARP), endorsed by IAPR. CIARP is a vital forum for pattern recognition, computer vision, artificial intelligence, and data mining—fostering cooperation and scientific exchange across the region. This time, however, I wish to highlight a special recognition presented annually at the conference: the Aurora Pons-Porrata Award.

To understand why this award matters, we must first remember the remarkable woman behind its name. Dr. Aurora Pons-Porrata (1968–2010) was a Cuban mathematician and computer scientist whose work left an enduring mark on pattern recognition and data mining. She earned her Bachelor's in Mathematics from the Universidad de Oriente in Cuba, 1991, and later obtained her PhD in Computer Science from Universitat Jaume I in Spain. She became Director of the Center for Pattern Recognition and Data Mining Studies (CERPAMID) in Cuba, and was a leading voice in text mining, authoring dozens of papers on document clustering and topic detection. Beyond her research, Aurora was a passionate educator. She began teaching as a student in 1989 and continued to mentor young scientists throughout her career. Her colleagues remember her not only for her scientific rigor but also for her warmth, generosity, and dedication.

She died tragically, on November 4, 2010, in an aviation accident while traveling to attend CIARP 2010. Her loss was a profound shock to the Ibero-American pattern recognition community. But rather than let her legacy fade, CIARP established the Aurora Pons-Porrata Award to ensure that her spirit—and her commitment to excellence—would continue to inspire.

The Aurora Pons-Porrata Award (APPA) is presented annually at CIARP to a living woman researcher from Ibero-America in recognition of her outstanding results in research and teaching in pattern recognition and data mining throughout her career. Past winners are listed on [page 15](#) of this issue. Nominations can be submitted for any candidate, as long as the nomination originates from one of the pattern recognition associations in the Ibero-American region. The APPA is more than a prize; it is a promise that her work and her passion for research and teaching will never be forgotten. It honors not only scientific achievement but also the values Aurora embodied: mentorship, perseverance, and the advancement of knowledge.

(continued. on page 2...)

From the Editor's Desk

[CALLS for PAPERS](#)

[ICPRv Call for Papers](#)

New Event!

[ICPR 2026](#)

[General Announcements](#)

[Keynotes](#)

[Tutorials](#)

[Workshops](#)

[Doctoral Consortium](#)

[Calls from IAPR Committees](#)

[Call for TC Award Nominations](#)

[Research Scholarship Applications](#)

[Internship Opportunities](#)

[Summer/Winter School Proposals](#)

[From the ExCo: News and Essay](#)

[Pattern Recognition:](#)

[The Backbone of Modern AI](#)

[EDI: The IAPR Diversity Projects](#)

[PRL Call for Special Issue](#)

[Proposals](#)

[Getting to Know... IAPR Fellow](#)

[Pranav Saha](#)

[IAPR: The Next Generation](#)

[Rohan Kumar](#)

[Technical Committee News](#)

[TC4, TC5, TC6, TC9,](#)

[TC11, TC12, TC19](#)

Table of Contents continues on page 2...

The views expressed in this newsletter represent the personal views of the authors and not necessarily those of their host institutions or of the IAPR.

[...Table of Contents, continued](#)

[Meeting Reports \(conferences are in chronological order beginning with the most recent\)](#)

[DICTA25](#), [ICPRS25](#),
[CIARP25](#), [ICCPR25](#),
[MVA25](#), [WSB26](#) (Winter School on Biometrics)

[Bulletin Board](#)

[Meeting and Education Planner](#)

[IAPR Newsletter](#)

[Submission Deadlines for July](#)

(...From the Editor's Desk, continued, from page 1)

Normally, the award stands alongside the IAPR Best Paper Award and the IAPR Best Student Paper Award at CIARP, forming a trio of recognitions that celebrate excellence, innovation, and diversity in the region. Unfortunately, no APPA was conferred in 2025 (as reported [here](#)). This conference remains one of the most relevant scientific events in Ibero-America, a place where ideas cross borders and collaborations are born. But as we celebrate the technical achievements presented at each edition, we also remember the people who make our community what it is.

I would like to invite all readers to attend [CIARP 2026](#), and in particular, I encourage the Ibero-American pattern recognition associations to submit their nominations of candidates for the Aurora Pons-Porrata Award (submit via email to ciarp2026@ibero.mx by June 15, 2026). It is through these nominations that we will keep Aurora's memory alive and continue to recognize the talent and dedication of women who drive our discipline forward in Ibero-America.

~Heydi Méndez-Vázquez, EiC

Calls For Papers

For the most up-to-date information on IAPR-supported conferences, workshops and summer/winter schools, visit www.iapr.org/conferences



Conferences,
Dates, & Locations

2026

Calls and Deadlines

in order from earliest paper deadline
(other deadlines vary in order)

[ICPR 2026](#)
August 17–22, 2026
Lyon, France

28th International Conference
on Pattern Recognition

Papers: closed

Doctoral Consortium: May 2, 2026

[DeLTA 2026](#)
July 16-17, 2026
Porto, Portugal

7th International Conference
on Deep Learning Theory
and Applications

Papers: closed

Spec. Sess Papers: May 22, 2026
Abstracts Track: May 22, 2026
Tutorials, Demos, Panels: Jun 12, 2026

[AIHA 2026](#)
Aug 21, 2026
Lyon, France

4th International Workshop on Artificial
Intelligence for Healthcare Applications
(held in conjunction with ICPR 2026)

Papers: Apr 30, 2026

[RRPR 2026](#)
Aug 21, 2026
Lyon, France

6th IAPR TC-22 Workshop on Reproducible
Research in Pattern Recognition
(held in conjunction with ICPR 2026)

Papers: Apr 30, 2026

[IJCB 2026](#)
Sept 1–4, 2026
Rome, Italy

IEEE/IAPR International
Joint Conference on Biometrics

Papers: Apr 30, 2026

Tutorial Proposals: May 31, 2026

[XAIE 2026](#)
Aug 22, 2026
Lyon, France

4th Workshop on Explainable and Ethical AI
(held in conjunction with ICPR 2026)

Papers: May 1, 2026

[MANPU 2026](#)
Aug 22, 2026
Lyon, France

7th International Workshop on coMics
ANalysis, Processing and Understanding
(held in conjunction with ICPR 2026)

Title & Abstract: closed

Papers: May 3, 2026

More Calls for Papers

For the most up-to-date information on IAPR-supported conferences, workshops and summer/winter schools, visit www.iapr.org/conferences



Conferences,
Dates, & Locations

2026

Calls and Deadlines

in order from earliest paper deadline
(other deadlines vary in order)

[PRRS 2026](#)

Aug 22, 2026
Lyon, France

14th IAPR TC7 Workshop on
Pattern Recognition in Remote Sensing
(held in conjunction with ICPR 2026)

Papers: May 5, 2026

[ANNPR 2026](#)

Oct 7–9, 2026
Milan, Italy

12th IAPR TC3 Workshop on
Artificial Neural Networks in
Pattern Recognition

Papers: May 14, 2026

[PRHA 2026](#)

Aug 21, 2026
Lyon, France

4th IAPR TC20 International Workshop on Pat-
tern Recognition in Healthcare Analytics and
Bioinformatics (held in conjunction with ICPR 2026)

Papers: May 15, 2026

[S+SSPR 2026](#)

August 24–26, 2026
Bern, Switzerland

Joint IAPR International Workshops on
Statistical Techniques in Pattern Recognition
and Structural and Syntactic Pattern Recognition

Papers: May 15, 2026

[PRESTIGE 2026](#)

Aug 21, 2026
Lyon, France

1st IAPR TC19 Pattern Recognition and Computer
Vision for e-Heritage and Digital Humanities Workshop
(held in conjunction with ICPR 2026)

Papers: May 16, 2026

[IMTA X 2026](#)

Aug 21, 2026
Lyon, France

10th IAPR TC16 Workshop on
Image Mining, Theory and Applications
(held in conjunction with ICPR 2026)

Papers: Jun 1, 2026

[CVIP 2026](#)

Dec 9-12, 2026
Calicut, India

11th International Conference
on Computer Vision and
Image Processing

Papers (Round 2): Jul 31, 2026



Conferences,
Dates, & Locations

2027

Calls and Deadlines

in order from earliest paper deadline
(other deadlines vary in order)

[ICPRS 2027](#)

Mar 8-11, 2027
Talence (Bordeaux), France

16th International Conference
on Pattern Recognition Systems

Papers: Oct 25, 2026

[ICPRv 2027](#)

Oct 4-6 & 14-15, 2027
Online

International Conference on
Pattern Recognition Virtual

Papers: Mar 1, 2027



is pleased to announce

the INAUGURAL INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION (Virtual), ICPRv 2027

October 4, 5, 6 and 14, 15, 2027

<https://iapr.org/icpr-2027/>

CALL FOR PAPERS

The **International Conference on Pattern Recognition Virtual (ICPRv)** is the virtual extension of the flagship physical conference of the International Association for Pattern Recognition, the 29th edition of ICPR. Like its physical counterpart, this fully virtual conference encompasses a wide range of topics where Pattern Recognition methods are applied in fields including Computer Vision, Machine Learning, Image Processing, Speech and Natural Language Processing, and Sensor Pattern Processing.

The Inaugural ICPRv, to be held in 2027, offers an excellent platform for students, academics, and industry researchers to foster new ideas and collaborations. Unlike the face-to-face ICPR conferences, ICPRv will not have tracks and plenary sessions. Instead, all papers will be presented in two-hour thematic sessions of papers on the same topic. This will create sessions with a more focussed and specialized workshop-like feel, with opportunities for discussion and interaction with the authors. Authors will identify their preferred thematic session topic when they submit their paper. Delegates can attend any and all of the live thematic sessions, which will also be recorded for the benefit of delegates wanting to attend simultaneous sessions or sessions at inconvenient times.

Along with traditional ICPR conference topics listed at the end of this CFP, we encourage papers on truly novel research problems. Examples include (but are not restricted to):

- 1. Universal Neuro-Symbolic Knowledge Engines:** Foundation models still hallucinate and update knowledge poorly. New architectures should fuse LLMs with dynamic knowledge graphs to absorb rich documents, update world models without retraining, and enable provable reasoning over evolving scientific and enterprise data.
- 2. Omnimodal Embodied World Models:** Current research still treats vision, audio, and text separately. The next step is to build omnimodal world models that integrate physics and asynchronous IoT signals, enabling robots to understand real-world causal rules and transfer smoothly from simulation to deployment.
- 3. Continuous-Time Fluid Architectures:** Efficient AI still relies on discrete tokens and batching. The next frontier is continuous, asynchronous architectures that adapt compute to signal entropy, using little energy for simple data and deeper reasoning only for anomalies or complex patterns.
- 4. Mechanistic Fairness and Provable Unlearning:** Current trustworthy AI methods remain largely post-hoc. The next step is to combine mechanistic interpretability and algorithmic fairness so models can isolate and remove specific biases or sensitive content, with provable guarantees of privacy and fairness for critical domains such as law and medicine.
- 5. Adversarial Co-Evolutionary Data Ecosystems:** As generative AI advances, the generator-detector arms race is becoming unsustainable. A next step is closed-loop ecosystems where generators and forensic models co-evolve during training, embedding cryptographic provenance and robust invisible watermarks directly into generated outputs.
- 6. Causal Discovery Foundation Models:** Causal discovery remains an emerging field. The next leap is foundation models that can design experiments, intervene in simulations, and infer causal equations from observational data, moving beyond prediction to uncover the physical or economic laws governing a system.
- 7. Hyper-Personalized Cognitive Digital Twins:** Personalized systems remain separate from advanced LLM reasoning. The next step is privacy-preserving, edge-based cognitive twins that learn a user's physiological, emotional, and behavioral patterns, anticipate complex needs, and keep sensitive biometric and behavioral data strictly on-device.

continued on page 4...



ICPRv 2027

CALL FOR PAPERS

continued from previous page

INAUGURAL INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION (Virtual), ICPRv 2027

October 4, 5, 6 and 14, 15, 2027

<https://iapr.org/icpr-2027/>

Important dates and deadlines

(note these dates are tentative and might be adjusted closer to the conference):

- Paper submission deadline: March 1, 2027
- Reviews to authors: April 9, 2027
- Author rebuttal (optional): April 16, 2027
- Author notification: May 24, 2027
- Camera-ready submission: June 7, 2027
- Conference website open for delegate viewing: September 27, 2027
- Conference: October 4, 5, 6 and 14, 15, 2027 (Times will be announced later)

In addition to the novel research areas described on Page 3, ICPRv continues to welcome traditional ICPR topics as listed below:

3D vision
Action, behavior, and event recognition
Affective computing
Audio and speech processing
Autonomous driving
Bioinformatics
Biological vision models
Biometrics and forensics
Clustering and statistical models
Computational imaging
Computer aided diagnostics
Computer analysis of human behavior (inc. face, body, pose, gestures, etc.)
Computer graphics
Computer vision for robotics and autonomous driving
Datasets and evaluation
Deep learning
Document analysis and understanding
Efficient and scalable AI

Embodied vision
Event-based cameras
Explainability and interpretability in pattern recognition
Few-shot and zero-shot learning
Generative models
Graph-based and Bayesian models
Human Computer Interaction
Image analysis and recognition
Image and video processing
Image and video synthesis and generation
Image detection and segmentation
Large Language Models (LLMs) and Vision Language Models (VLMs)
Low-level vision
Machine learning (inc. supervised, unsupervised, semi- and weakly-supervised, etc.)
Medical and biomedical imaging, cell microscopy

Motion and video analysis
Multimodal and multi-label learning
Natural language processing (NLP)
Neural networks
Object detection and recognition
Online, continual, and active learning
Optimization methods
Photogrammetry and remote sensing
Physics-based vision and shape-from-X
Representation learning
Scene analysis and understanding
Social signal processing
Text detection and recognition
Theory of computer vision and pattern recognition
Transfer learning
Transparency, fairness, accountability, privacy, ethics
Vision applications and systems
Vision, language, and reasoning

Submission and Review

ICPRv-2027 will follow a single-blind review process. Authors MUST include their names and affiliations in the manuscript.

Paper Format and Length

Two types of papers are accepted: short (8 pages) and long (15 pages). Short papers are intended for preliminary results and will not be included in the proceedings published by Springer. The format is Springer's LNCS style layout. Paper templates will be provided on the submission webpage.

We look forward to your participation in ICPRv 2027

Contact: icpr27pc@iapr.org

General Chairs: Robert Fisher, Tin Kam Ho,
Larry O'Gorman, Lale Akarun

Program Chairs: Adel M. Alimi, David Doermann,
Albert Ali Salah, Terrence Sim,
Vitomir Struc, Guoying Zhao

ANNOUNCEMENTS

A Message from the Program Committee: ICPR 2026 received 1432 paper submissions corresponding to ~4400 authors from ~70 countries. The papers spanned all 6 technical tracks of ICPR: (a) Machine Learning and Artificial Intelligence in Pattern Recognition; (b) Computer and Robot Vision; (c) Image, Speech, Signal and Video Processing; (d) Biometrics and Human Computer Interaction; (e) Document Analysis and Recognition; and (f) Biomedical Image Analysis and Bioinformatics. The review process was conducted by a total of ~890 Reviewers and 108 Area Chairs. After a rigorous review process, the reviews submitted for each paper were read by an Area Chair who provided an initial recommendation of Accept, Reject, or Borderline along with a suitable justification. Based on these recommendations, the Program Chairs selected 714 papers for presentation at the ICPR 2026 event! The 24 Track Chairs will soon be assigning these papers to oral and poster sessions. These papers capture the latest advances in the field of pattern recognition and are expected to initiate many important scientific discussions at the conference while allowing the authors to network with the broader pattern recognition community. The Program Chairs are grateful to the reviewers, area chairs and track chairs for their invaluable contribution in shaping the program of ICPR 2026. Congratulations to the authors whose papers have been accepted for presentation!

We anticipate ICPR 2026 to be an exciting and impactful scientific event.

REGISTRATION is now open: Click [here](#) for registration information and [here](#) to register.

Please note that anyone in our community is encouraged and welcome to attend ICPR's main conference and/or satellite events (workshops, tutorials, etc.). Presenting a paper is not required.

ATTENTION: IAPR GOVERNING BOARD MEMBERS (representing the IAPR Member Societies)

We invite you to display a poster presenting your IAPR society at ICPR 2026. These poster presentations enable you to advertise your society to the large audience at ICPR 2026, and facilitate the sharing of information and tips with other societies. Please don't miss this excellent opportunity!

To help with the design of your poster, please find a [template here](#), where you can download the source code for the poster and create your own version. The template is only a guideline. You are free to use any software you want to produce the PDF, as long as you can output a printable PDF. Feel free to add photos illustrating the different sections included in the template. The first section contains the main information about your society, including the contact email address. Please keep this section and modify it to fit your society. If you think important information about your society does not fit easily using the proposed list of sections, do not hesitate to add your own.

Those who wish to present a poster should send the PDF to the IAPR Executive Secretariat (execsecretariat@iapr.org). Please note that you may send up to two different posters: One for advertising and one for exchanges with other IAPR representatives. All pdfs must be received before July 1, 2026.



The screenshot shows the website for the French IAPR Society (Association Française pour la Reconnaissance et l'interprétation des Formes (AFRF)). The page includes a navigation menu, a main content area with sections such as 'Main activities', 'Main information', 'For young researchers', 'Prizes and Awards', and 'Membership'. A QR code is prominently displayed under the 'Main information' section, labeled 'QR Code to access to the web page of the society'. Below the QR code, there are three small portrait photos of individuals, labeled 'Chair', 'Vice Chair', and 'Treasurer', with the caption 'IAPR representative secretary Composition of the board with photos.' At the bottom of the page, there is a footer with the website URL, date (April 23, 2026), and contact information.

KEYNOTE SPEAKERS



Henrik I Christensen,
Contextual Robotics Institute, UC San Diego, La Jolla, CA, USA

Henrik I Christensen is a distinguished professor of computer science and the Director of Robotics at UC San Diego. He has held faculty positions in Aalborg, Stockholm, and Atlanta prior to San Diego. He is the co-founder of six companies and serves as an advisor to agencies and companies across four continents. He is a fellow of IEEE and AAAS. Professor Christensen will speak on *Building a Perception Stack for Autonomous Driving*



Alicia Fornés, Universitat Autònoma de Barcelona (UAB), Spain

Dr. Alicia Fornés is an Associate Professor at UAB and an affiliated researcher at the Computer Vision Center (CVC). Her research focuses on document image analysis, handwriting recognition and graphics recognition, with particular focus on historical documents and optical music recognition. She has more than 100 scientific publications and has participated in numerous research and technology transfer projects. Her contributions have been recognized with several awards, including the AERFAI (IAPR) Thesis Award (2010), the IAPR/ICDAR Young Investigator Award (2017), the DonaTIC Award (2021), and the CIARP (IAPR) Aurora Pons-Porrata Award (2024). She has served in multiple leadership positions including the Executive Committee of the IAPR TC-10 Graphics Recognition from 2011-2020 (Chair, 2019-2020), VP of the AERFAI (Spanish branch of the IAPR) from 2021-2024. She was also a member of the commission “Mujer en Informàtica” (Women in Computer Science) from the SCIE (Spanish Scientific Society for Informatics), serving to analyze the current situation for women in computer engineering, to establish synergies, and to reduce the existing gap.



Cuntai Guan, Nanyang Technological University, Singapore

Professor Cuntai Guan is President’s Chair Professor in Computer Science and Engineering and Deputy Dean of the College of Computing and Data Science at Nanyang Technological University (NTU), Singapore. He is also Director of the Centre for Brain-Computing Research and Co-Director of S-Lab for Advanced Intelligence. His research spans brain-computer interfaces (BCIs), machine learning, artificial intelligence, and their applications in rehabilitation and mental health. Professor Guan is internationally recognized for his pioneering contributions to EEG-based BCI research, particularly in motor imagery BCIs, BCI-enabled stroke rehabilitation, and deep learning methods for clinically relevant BCI systems. He has received numerous honors for his research contributions, including the International Annual BCI Research Award (First Prize), the King Salman Award for Disability Research, the Nanyang Research Award, and the IES Prestigious Engineering Achievement Award. Professor Guan is an elected Fellow of the Academy of Engineering Singapore, Fellow of the US National Academy of Inventors, Fellow of IEEE, and Fellow of AIMBE.

4th Keynote Speaker to be confirmed soon!
Get the latest news at [ICPR 2026](#)

TUTORIALS

All Tutorials will take place on Friday, August 21

T1 Graph-based Models for Video Data Analysis from Various Sensors

This tutorial provides theoretical insights and practical methods for applying graph-based models to process video data from a variety of sensors (e.g. normal, egocentric, and moving cameras), and demonstrates the roles of GNNs (deep learning on graphs) and graph signal processing in solving video analysis problems.

T2 Advancing Comprehensive Reasoning in Multimodal Large Language Models

This is a comprehensive overview of reasoning capabilities in Multimodal Large Language Models (MLLMs), focusing on the transition from basic perception to complex inference. We explore how multimodal reasoning differs from text-only reasoning, challenges specific to visual reasoning, and recent advances inspired by reasoning-focused LLMs. We aim to bridge the gap between theoretical foundations and practical implementations, offering insights into current capabilities and future research.

T3 Reliable Industrial AI

This tutorial Introduces the emerging paradigm of Reliable Industrial AI, which integrates:

- Multimodal perception (vision, speech, language)
- Agentic LLM design (agent pipelines, orchestration, evaluation)
- From Chatbot to Coding Agent

We emphasize lessons learned from real-world deployments, highlighting the gap between research prototypes and production systems.

T4: From Perception to Action

Traditional robotic systems with primarily visual interfaces often fail to adapt to unstructured real-world environments. Robot learning—integrating deep learning, reinforcement learning, and imitation learning—offers a transformative paradigm, enabling robots to acquire skills directly from data and close the loop from visual perception to physical action. This half-day tutorial is a comprehensive introduction to this rapidly evolving field, including core principles, applications across a variety of robot types, comparative visualizations and rich video demonstrations from both simulation and real-world deployments.

T5 An Introduction to the Formal Verification of Neural Networks

This tutorial introduces the application of formal verification techniques to neural networks. After exploring why formal methods are a crucial step towards AI systems' safety, formal properties such as robustness and functional properties will be introduced with an industrial example (ACAS-XU). Emphasis will be on the steps of the formal verification: definition of the properties, translation to a specification language, and its effective verification. State-of-the-art verification tools will be introduced, followed by a practical session with PyRAT. We will conclude with open research questions regarding efficient formal verification.

T6 Counterfactual Explanations of AI Systems: Fundamentals, Methods, & User Studies for XAI

This tutorial aims to build connections among pattern recognition, eXplainable AI (XAI), and psychology with a focus on counterfactual explanation strategies, with interactive hands-on sessions on theoretical foundations, modeling approaches, and both computational and psychological evaluation methodologies to help attendees understand how to use counterfactuals for XAI. This program targets pattern recognition researchers, machine learning practitioners, PhD students, and advanced graduate students who have little-to-no background in XAI and/or running user studies.

T7 Agentic Document Intelligence: From Prototype to Production with Trustworthy AI Agents

This is a practical and research-oriented introduction to Agentic Document Intelligence, with a dual focus on (i) how modern document AI systems are architected using multimodal foundation models and agentic reasoning, and (ii) how to make these systems trustworthy in real-world deployment. The program is accessible to ICPR participants with backgrounds in document analysis, computer vision, or NLP, while also offering depth for researchers and engineers actively working in this space.

Questions? Click [here](#)
or Contact the Tutorial
Co-Chairs
at tutorials@icpr2026.org



WORKSHOPS

The following workshops will take place on August 21 & 22

Do you have ideas/methods/analyses/results in preparation or do your ICPR or other conference submissions need additional tests or polishing up? We are pleased to invite submissions to the following workshops, to be held on August 21-22, 2026 in Lyon France, in conjunction with ICPR 2026. The acronyms and topics of the 28 workshops are listed below.

Click on each workshop's acronym for the date, topics of interest, and deadlines. Find general workshop info [here](#).

Deadlines for sponsored/endorsed workshops are on [page 2](#). Endorsed by IAPR **Sponsored by IAPR**

BRAIN	Behavioral Robotics and AI for iNdustry and social systems
PRRS	Pattern Recognition in Remote Sensing
EMM	Efficient Methods for Multimodal Models
MVI2	Machine Vision for Industrial Inspection
AIHA	Fourth International Workshop on Artificial Intelligence for Healthcare Applications
PRESTIGE	Pattern Recognition and Computer Vision for e-Heritage and Digital Humanities
PRHA	Pattern Recognition in Healthcare Analytics and Bioinformatics
CompressLLMs	The Art of Compressing LLMs: Pruning, Distillation, and Quantization Demystified
V3SC 2026-3	Video Surveillance Systems in Smart Cities: Aerial Monitoring and Synthetic Data
PIDM4HCPS	Perception, Interaction and Decision-Making for Human Cyber-Physical Systems
BIOMAP	BIO-inspired Methods for Pattern Recognition
HVG	Human-Centric Video Generation
FMVA	Foundation Models for Vision Applications
PAVER	Physics-Aware Video generation and Restoration
ETTAC	Eye Tracking Techniques, Applications and Challenges
MCMi	Multi- and Cross-Modal Information for Enhanced Pattern Recognition
XAIE4	Explainable and Ethical AI
TrustDoc	Trustworthy Document Understanding: Privacy, Unlearning, Robustness, and Explainability
CVBMC	Computer Vision for Biodiversity Monitoring and Conservation
MPRSS	Multimodal pattern recognition for social signal processing in human computer interaction
AUSTech 2.0	Advances in Underwater Surveillance: Technologies, Challenges, and Future Directions
TIPS	Textual Information Processing & Synthesis in the Wild
HGVA	Human Gaze and Visual Attention Modeling
RRPR	Reproducible Research in Pattern Recognition
MANPU	coMics ANalysis, Processing and Understanding
GREEN-PR	Sustainable PR & PR for Environment
IMTAX	Image Mining. Theory and Applications
GenAAI	Generative and Agentic AI for Real-World Video Understanding



**The 28TH INTERNATIONAL CONFERENCE
ON PATTERN RECOGNITION**
Lyon, France, August 17- 22, 2026, International Convention Center

DOCTORAL CONSORTIUM

The ICPR 2026 Organizing Committee is delighted to offer the second edition of its Doctoral Consortium, an exclusive event for PhD students who are currently enrolled at the time of the conference or who have just defended their thesis within the past year.

As evidenced by the ICPR 2024 Doctoral Consortium, this event offers numerous benefits for PhD students:

- **Feedback from experts:** Students attending the event will have the opportunity to present their research to experienced researchers and receive valuable feedback. This can help them refine ideas and improve the quality of their research.
- **Networking:** The consortium provides a platform for networking with other PhD students as well as established researchers in their field. Building connections can lead to collaborations, job opportunities, and mentorship.
- **Exposure to cutting-edge research:** ICPR is a prestigious conference in the field of pattern recognition. By attending the Doctoral Consortium, they will gain insights into the latest developments and trends in the field.
- **Career development:** Participating in the consortium demonstrates the commitment of PhD students to their research and professional development. It can also enhance their CV and academic profile, potentially leading to future academic or industry opportunities.
- **Personal growth:** Presenting research and engaging in discussions with peers and experts can boost confidence and presentation skills. It's also an opportunity to defend research propositions.

Overall, attending the Doctoral Consortium at ICPR can be a valuable investment in your academic and professional growth, providing feedback, networking opportunities, and exposure to cutting-edge research in pattern recognition.

The goal is to provide PhD students with an opportunity to present their research ideas, share their current progress and future plans, and receive constructive criticism and insights. This consortium welcomes submissions from all thematic tracks of ICPR. PhD students who have submitted regular papers to ICPR (even if not accepted) are encouraged to participate and present their work. **Participation in the ICPR 2026 Doctoral Consortium will be limited to 25 students.**

The Doctoral Consortium is planned for Aug 17. For this event only live, in-person presentations will be accepted. To be eligible, students must be conducting research in one of the domains of ICPR and be within 6 months of graduating with their doctoral degree, taking into account the conference dates.

Details of the Submission Procedure and Review Process are available on the [ICPR 2026 website](#) (Calls tab).

Hurry! →

Deadline for Submissions is May 2, 2026

CALLS FROM IAPR COMMITTEES

IAPR Call for Nominations for the IAPR 2026 Technical Committee Awards

To recognize the **excellence** and **impact** of IAPR Technical Committees (TCs), IAPR grants two awards: the **Outstanding TC Award** and the **Special Achievements Award** both presented during ICPR 2026

HURRY!

The criteria for both awards are the same: excellence and impact of organized events, educational activities, and member/leader development and governance.

The award committee, comprising members of the Ad hoc Committee on Technical Committees and the Executive Committee, will evaluate the nominations and select the awardees.

Nominations must be received by May 15, 2026

Submit nomination via email, highlighting the TC's results and achievements in free format, using [IAPR-TCA] as the subject line.

Send nominations via email to:
IAPR 1st Vice President (fmartine[at]inaoep.mx) and
Exec. IAPR Secretariat (exec-secretariat@iapr.org)
(link will autofill cc and subject line).

(MORE) CALLS FROM IAPR COMMITTEES

From the IAPR Education Committee

[Call for Applications for IAPR Research Scholarships](#)

IAPR Research Scholarships seek to make possible mobility across institutions and international boundaries for Early Career Researchers working in fields within the scope of the IAPR's interests. The scholarship covers round trip travel & basic living expenses for a visit of less than 12 months. Applications may be submitted at any time before the visit starts.

Requirements: The candidate must be a full-time researcher with between one and eight years experience. The candidate must also be a member of an IAPR member society.

Click [here](#) to learn more or email the Executive IAPR Secretariat, Linda O'Gorman, exec-secretariat@iapr.org

From the IAPR

Industrial Liaison Committee

[Call for Students Seeking Internship Opportunities](#) [and for](#) [Companies with Internships Available](#) [to contribute to the](#) [Internship Listings on the](#) [IAPR Internship Brokerage Page](#)

The IAPR-ILC wishes to promote opportunities for students to undertake internships at companies working in Pattern Recognition, AI, Computer Vision, Data Mining, Machine Learning, etc. We do this through a web-based internship listing service. Companies can list their internship opportunities, and students can browse the listings and contact the company.

For Students

If you are seeking an internship, please click on the underlined call title above (or [here](#)) to find a list of companies offering internships, with locations (some remote), requirements, etc.

For Companies with Internships Available

Please email your listings as follows:

To: webmaster@iapr.org

Subject: IAPR internships, listing

1. Details:
2. Host:
3. Location:
4. Post Type:
5. Specialty:
6. Funded:
7. Length:
8. Degree & Visa Requirements:
9. Internship start date:
10. Application closing date:
11. Details:
12. Contact:

Click on call title (link) above for examples

From the IAPR

Executive Committee (ExCo)

[Call for Proposals for Summer/Winter Schools](#)

Summer/winter schools are training activities that expose students and junior students to the latest trends and techniques in a particular pattern recognition field.

To be eligible for a grant, the organizers must work through at least one of the IAPR's Technical Committees as they develop and present the proposal.

How to Submit: Proposals for IAPR-supported summer schools should be submitted by email, **at least four months in advance of the start of the school.**

Send proposals to Executive IAPR Secretariat Linda O'Gorman (exec-secretariat@iapr.org). A PDF attachment containing all the required information is appreciated.

For detailed guidelines, see the Proposal Requirements described in the [ExCo Initiative on Summer Schools](#).



FROM THE EXCo... PATTERN RECOGNITION: THE BACKBONE OF MODERN AI

By Arun Ross, IAPR Treasurer



NEWS BRIEFS FROM THE IAPR EXCo

The 28th International Conference on Pattern Recognition (ICPR 2026) is quickly approaching. Authors have been notified of paper acceptance, and the conference program will be released soon. ICPR 2026 will be held in Lyon, France, Aug. 17-21, 2026 (with some workshops continuing through the 22nd). We warmly encourage the IAPR community to attend the conference and satellite events.

24 IAPR Travel Stipends for ICPR 2026 have been awarded. We received 219 applications. These stipends provide waived conference registrations to students with very limited resources, offering them a valuable opportunity to participate in an international conference, engage with the research community, and present their work at ICPR 2026.

Outstanding TC Award and Special Achievement Awards. To recognize excellence and impact within IAPR Technical Committees, the IAPR ExCo present the Outstanding TC Award and Special Achievements Award, to be presented at ICPR 2026 in Lyon. The [call for nominations](#) is open now. More details and 2024 winners are available [here](#).

Attention, Member Societies: The IAPR ExCo and the ICPR 2026 Organizing Team invite IAPR Member Societies to display a poster presenting their society at ICPR 2026. **This is an excellent opportunity to promote your Society to the broad and international audience attending the conference.** In addition, it enables IAPR representatives participating in the Governing Board meeting to share information, experiences, and best practices with other societies. Contact the Executive IAPR Secretariat for further details at exec-secretariat@iapr.org.

ICPRv - The IAPR is pleased to announce its inaugural Virtual International Conference on Pattern Recognition. ICPRv 2027 will be held online, October 4–6 and 14–15, 2027. This first virtual edition of ICPR will take place between the flagship in-person conferences ICPR 2026 in Lyon, France, and ICPR 2028 in Sydney, Australia. Papers will follow the same length, rigorous review process, and quality standards as in-person ICPRs, with an anticipated acceptance of around 500 papers, to be published by Springer. The virtual format will provide an inclusive and accessible opportunity for the global pattern recognition community to engage, present, and collaborate. Details available in this issue ([pages 4 & 5](#)) and at the [ICPRv website](#) (in development).

50th Anniversary(ies) of the IAPR. Celebratory activities are planned for ICPR 2026, culminating in the grand celebration at ICPR 2028, officially marking 50 years since our incorporation and first Governing Board meeting in 1978. We invite ideas and activities to celebrate the anniversary, memories, and photos. Send these via email to 50th@iapr.org. Be sure to check out IAPR [history](#), and the [50th Anniversary website](#).

At its core, the scientific discipline of pattern recognition (PR) is concerned with the automatic discovery of regularities in data and the classification of objects, signals, or events. Deeply interdisciplinary, it draws upon statistics for probabilistic modeling and inference; mathematics for optimization and decision theory; geometry for spatial representations and manifold learning; physics for insights into sensors and signal processing; and computer science for efficient algorithms and scalable computation. This rich foundation enables machines to interpret the world much as humans do through sensory perception. Its history spans nearly a century, evolving from theoretical tools to data-driven, deep learning systems that power applications from medical diagnostics to autonomous vehicles and advanced robotics.

PR serves as the foundational backbone of modern artificial intelligence. It equips AI systems with the ability to detect meaningful regularities, classify objects, and extract actionable insights from raw sensory inputs—whether pixels in an image, waveforms in speech, or sequences in text—transforming unstructured information into structured knowledge. Every major AI breakthrough rests on PR techniques, ranging from feature extraction and similarity measurement to probabilistic modeling and end-to-end learning. Without PR, computer vision would lack object detection for autonomous vehicles and biometric systems, natural language processing could not power conversational agents, medical diagnostics would miss subtle anomalies in scans, and recommendation engines would fail to personalize content. In essence, PR is the perceptual and cognitive engine that makes artificial intelligence possible, shifting from rule-based programming to adaptive data-driven systems.

PR helped shape the development of artificial intelligence by developing practical methods for perception, classification, and learning from data. Its roots lie in Sir Ronald Fisher's 1936 work on discriminant analysis and in the 1943 neural model of Warren McCulloch and Walter Pitts, while AI itself emerged as a named field through the 1955 Dartmouth proposal by John McCarthy, Marvin Minsky, Nathaniel Rochester, and Claude Shannon. The intellectual prehistory of AI also includes Alan Turing, whose 1950 paper *Computing Machinery and Intelligence* provided one of the earliest systematic discussions of machine intelligence. In the decades that followed, pattern recognition provided AI with concrete tools for recognizing characters, speech, images, and other real-world signals, notably through Frank Rosenblatt's perceptron, nearest-neighbor methods associated with Evelyn Fix, Joseph Hodges, Thomas Cover and Peter Hart, and the statistical frameworks codified by Keinosuke Fukunaga, Richard Duda and Hart. Over time, these methods helped move AI beyond purely symbolic reasoning toward data-driven, probabilistic, and learning-based approaches, making pattern recognition one of the main foundations of modern AI.

news and essay continued on next page...

NEWS BRIEFS FROM THE IAPR ExCo
(continued from previous page)

Summer and Winter Schools. The IAPR encourages Technical Committees to organize summer and winter schools. Recognizing their value in connecting students and early career researchers with senior scientists, we provides support and resources for summer and winter schools. Further details are available [here](#).

IAPR Endorsed/Sponsored Conferences. Many conferences and workshops under the umbrella of the IAPR are held each year around the world. The quarterly *IAPR Newsletter*, the *Between Quarters* announcements, and the IAPR conference schedule [webpage](#) provide dates, deadlines, and venue information for meetings sponsored or endorsed by the IAPR in multiple formats with links to event websites (always check the links for the latest information). Please sign up—and encourage colleagues to sign up—for [IAPR announcements via email](#). Enter your name and email address to receive important announcements (we do not share your email address).

Organizers of conferences of workshops under the umbrella of the IAPR must be aware of the sponsorship/endorsement rules, and the process to apply for it. More details can be found [here](#). The ExCo has approved a “fast track” procedure for C&M approvals. It will be a smoother and faster process for gaining C&M endorsement or sponsorship involving a shorter application, for important IAPR related conferences and workshops.

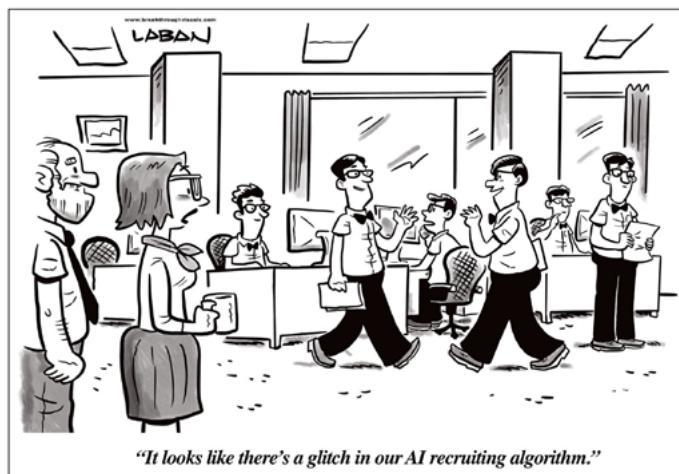
IAPR Research Scholarships (IAPR RS). The ExCo encourages early career researchers to apply for IAPR Research Scholarships, awarded through the IAPR Education Committee. The program supports mobility across institutions and countries and contributes to the professional development of young researchers in pattern recognition. For further details and application information, please visit the program guidelines [webpage](#).

...continued from previous page

Formal international meetings devoted to PR began with the 1973 IJCPN conference in Washington, D.C. Its organizers, including King-Sun Fu, were the forward-thinking leaders who worked to incorporate the IAPR as a non-profit scientific organization in 1978 and to establish the biennial International Conference on Pattern Recognition (ICPR) as the flagship event.

Despite many advancements and benefits, researchers have raised justifiable concerns about environmental costs, creative content theft, job displacement, misinformation, and brain-drain that have caused many young adults around the globe to be wary of PR and AI. ICPR offers the ideal platform to bridge communication gaps, highlight evidence-based progress, and welcome the next generation to contribute to ethical, sustainable, human-centered progress. We encourage you to attend ICPR 2026 and be part of our long tradition demonstrating that thoughtful cooperation among researchers is the most effective way to counter risks while unlocking the potential of Pattern Recognition and AI for the public good.

~ Arun Ross



Used with site permission, Breakthroughvisuals.com

IAPR Research Scholarships help Early Career Researchers engage in international and inter-institutional research.

Scholarships cover round trip travel and basic living expenses for research visits under 12 months.

Applications may be submitted at any time before the visit starts.

Candidate must be a full-time researcher with between one and eight years experience and must be a member of an IAPR Member Society.

Click [here](#) to learn more or contact the Executive IAPR Secretariat,

Linda O’Gorman: exec.secretariat@iapr.org





EQUALITY, DIVERSITY & INCLUSION



Note from your EiC, LE, and EDI Committee Chair: This feature of the IAPR Newsletter is devoted to advertising activities and news from the IAPR Standing Committee on Equality, Diversity and Inclusion (EDI). The statement of IAPR Policy on EDI can be found [here](#). Our goal in this regular feature is to call attention to EDI initiatives that may be of interest to our readers. **Maria De Marsico, Chair of EDI, invites all readers to share information about any related initiatives in their countries or national organizations. Information can be sent to demarsico@di.uniroma1.it. Please use the subject line: "Relevant Information for IAPR EDI Committee."**

IAPR's Diversity Projects: We Welcome Your Story

Dear Readers,

In this issue we want to draw your attention to two initiatives that appeared in the *IAPR Newsletter* exactly four years ago and that have developed and grown over time. In the April 2022 issue of the *IAPR Newsletter*, our everlasting pillar, Linda O’Gorman, together with the newsletter’s Editor-in-Chief at that time, Jing Dong, advertised two projects aiming to encourage women to talk about their personal experience in the scientific world.

The first one, *An IAPR Her Story*, had been launched in 2018. Today, it comprises a collection of short feature articles spotlighting the career paths of IAPR women who have shared their life and career experiences. They have written about their choices, challenges, and successes in the fields of pattern recognition, computer vision, and image analysis, at the beginning, middle, or end of their careers. These exemplary stories were intended to provide inspiration and encouragement to upcoming generations of women researchers.

The series was created as part of the IAPR’s broader efforts to promote gender visibility and inclusivity in the scientific community. This initiative is still curated as part of the *IAPR Newsletter*, and you can find pieces of the series, often (but not necessarily) associated with the

Getting to Know... IAPR Fellows feature when the *Fellows* authors are women. A few examples are Tin Kam Ho ([October 2020](#)), Josiane Zerubia ([July 2023](#)), and Richa Singh ([Oct 2025](#)).

The second IAPR diversity project mentioned in April 2022 was *Gender Visibility in the Pattern Recognition Community*, now called *Diversity in the Pattern Recognition Community*. A dedicated [webpage](#) was initially set up to become a video showcase for women researchers. This second initiative has widened its scope over the years, and the name change now reflects its broader inclusivity. Hosted on the same webpage, the IAPR’s *Diversity in the Pattern Recognition Community* project welcomes all voices among traditionally under-represented pattern recognition researchers. We chose the video format because we know that listening to a story in the protagonist’s own voice can be more personal and engaging, leading to more effective expression and sharing of thoughts and experiences in less time. The series is also hosted on the [IAPR YouTube channel](#).

At present, we invite any researcher from any ‘disadvantaged’ or ‘marginalized’ community to send a short video (about 1 minute) summarizing the most inspiring points of their stories. We continue to invite women, but also researchers of under-represented gender identities, as well as men—in short, anyone from an underdeveloped country or culture or

marginalized community. If you have had to struggle against any kind of marginalization, we call on you to share your experience. Tell others about the challenges you’ve faced or continue to face, and how you have managed them. These videos are meant to give hope and inspiration. In that same spirit, we also welcome any kind of success story that can influence a new generation of researchers in positive ways.

“IAPR’s Diversity in the Pattern Recognition Community project welcomes all voices among traditionally under-represented pattern recognition researchers.”

It is well known that stories are powerful tools for communication. They make abstract statements concrete, more memorable, and more relatable. They foster empathy and emulation while showcasing real-world applications of life lessons and creating emotional connections. They provide context, making lessons, values, or behaviors more readily available to apply in real-world situations, possibly in connection with one’s own life.

We encourage whoever has an interesting scientific adventure to consider participating. If you would like to share a video, please send an email inquiry to IAPR President Robert Fisher at rbf@inf.ed.ac.uk.

~Maria De Marsico



CALL FOR NOMINATIONS FOR THE AURORA PONS-PORRATA AWARD (APPA)

The Aurora Pons-Porrata Award (APPA) is an annual Ibero-American distinction exclusively awarded to women researchers for outstanding technical contributions to pattern recognition and related areas. Conferred at the annual CIARP conference, the award aims to highlight scientific excellence and to recognize women leaders in a field where women have historically been underrepresented.

The award is named in honor of Aurora Pons-Porrata, in recognition of her career as a scientist, educator, and role model for women in science within the Ibero-American pattern recognition community. Her academic work and sustained commitment to strengthening regional scientific networks make her a reference figure for the advancement of women in the discipline.

Nominations must be initiated by Local Committees and should include the candidate's CV and at least one endorsement letter from a member of an Ibero-American Pattern Recognition society different from the nominator. All submissions will be evaluated by the APPA Award Committee.



PAST WINNERS INCLUDE

- 2024 - Alicia Fornés, Autonomous University of Barcelona, Spain
2023 - Bernardete Ribeiro, University of Coimbra, Portugal
2021 - María Matilde García Lorenzo, Central University "Marta Abreu" of Las Villas, Cuba
2019 - Leila Maria Garcia Fonseca, National Institute for Space Research (INPE), Brazil
2018 - Maria Vanrell, Autonomous University of Barcelona (UAB), Spain
2017 - Olga Regina Pereira Bellon, Federal University of Paraná, Brazil
2016 - Petia Radeva, University of Barcelona, Spain
2015 - Heydi Méndez Vázquez, CENATAV (Advanced Technologies Application Center), Cuba
2014 - Maria Luisa Micó Andres, University of Alicante, Spain
2013 - Marta Mejail, University of Buenos Aires, Argentina

Submit nominations via email to ciarp2026@ibero.mx by June 15, 2026

PATTERN RECOGNITION LETTERS ~ CALL FOR SPECIAL ISSUES

We invite researchers in Pattern Recognition and related fields to submit proposals for new Special Issues. Special Issues are a unique occasion to collect high-quality papers that pertain to topics not strictly related to the journal, and therefore to expand the scientific offer for our readers.

SELECTION CRITERIA

1. The VSI must be **well-focused on a current, relevant topic** of interest for the international scientific community, particularly **for researchers in Pattern Recognition**. Too-wide topics such as "Deep Networks for Image Understanding" or "Advances in Pattern Recognition for Image Understanding" will not be considered.
2. **The candidate GEs' scientific production must testify sufficient experience in the proposed topics** in order to better evaluate the overall quality of both papers and reviews.
3. If more GEs participate in the proposal, **a wide geographic distribution will be preferred** to assure a wider submission population, these proposals will be preferred.
4. **GEs must underline in their CVs their engagement with PRL**, as either authors or reviewers, proposals from such GEs will be preferred.
5. Rotation of GEs is preferred, in groups and/or individually.

Proposals are submitted about one year in advance with respect to the requested submission slot (i.e., the period in which submissions will be uploaded). We divide each year into four quarters, starting in January, April, July, and October. We collect proposals during the first month of the quarter of the year before (e.g., **for the July-Sep 2027 Special Issue, proposals will be collected in Jul 2026**). Decisions are made in the second month of the quarter of the year before (e.g., Aug 2026), and prospective GEs are notified in the third month of the quarter of the year before (e.g., Sep 2026). In this way, our decision can be made by comparing all proposals for the same quarter.

For candidate GEs' convenience, a proposal template with all requested information is available,

More details can be found in the documents available [here](#):

After filling in the appropriate template, proposals can be submitted via [Computer Science Journal Special Issues and Conference Proceedings Proposals](#). If the site displays an error message, click on "Submit a Manuscript."

For further inquiries, please contact the EIC for Special Issues, Prof. Maria De Marsico at demarsico@di.uniroma1.it



For contributions to digital topology and geometry and their application (2016)



{5072}
প্রনব সাহা
ডিজিটাল টপোলজি এবং জ্যামিতির
আবলম্বিত প্রয়োগের ক্ষেত্রে

Pranav Saha received his Ph.D. from the Indian Statistical Institute and is currently a professor at the University of Iowa. He is a fellow of IEEE, AIMBE, and IAPR. His contributions have been recognized with several major honors, including the Distinguished Investigator Award from the U.S. Academy for Radiology and Biomedical Imaging Research (2021). He has served as an associate editor for multiple international journals and has been actively involved in professional service, including membership on fellow selection committees for both IEEE and AIMBE.

I began my academic journey in a rural school in West Bengal, India. Although resources were limited, the dedication, sincerity, and genuine care of my teachers more than compensated for the lack of facilities. Their commitment helped build a strong analytical foundation in their students and instilled in me a deep appreciation for learning and independent thinking.

My formal research journey took shape when I joined the Indian Statistical Institute, Kolkata, for my Ph.D. studies. My doctoral work focused on digital topology and geometry, where I developed the theory for characterizing topology preservation in three dimensions and introduced an efficient computational method that continues to be widely used today. This foundational work was further expanded to classify local topological structures, such as plates, rods, junctions, and edges, within medial surface representations of three-dimensional digital objects.

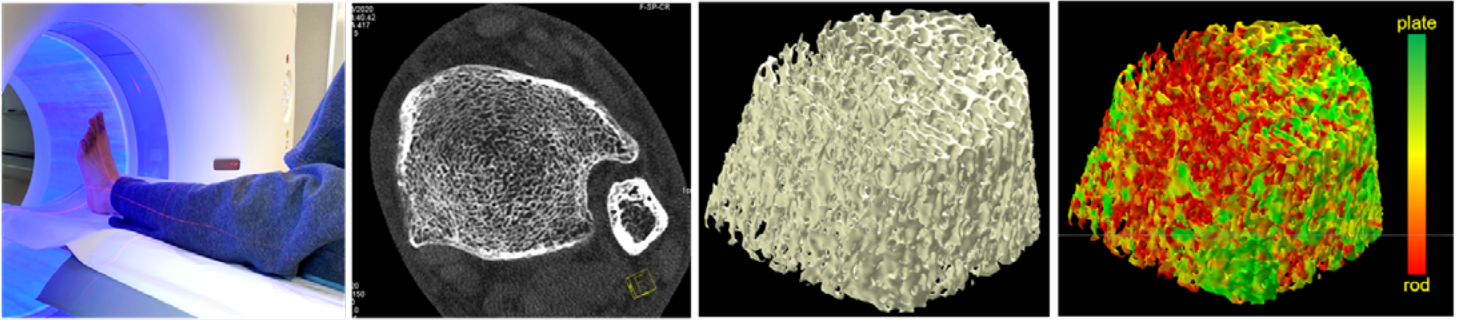


Figure 1. Quantitative bone microarchitectural assessment of the human distal tibia using clinical CT imaging (10 cm scan length) with high-speed acquisition (6.8 s), high spatial resolution (167 μm in-plane), and low radiation dose (~ 5 days of background exposure).

Following my Ph.D., I joined the University of Pennsylvania in Philadelphia, USA, initially as a postdoctoral fellow and later as a Research Assistant Professor. There, we applied these methodologies to quantify individual trabecular bone plate-rod microarchitecture using in vivo imaging and to investigate their contributions to bone quality, which ultimately influences bone strength and fracture risk. These techniques have since become standard analytical tools for quantifying bone microarchitecture and bone quality and are now widely used by leading research and clinical groups (Fig. 1). Alongside bone imaging, I continued to explore related areas, including medical image segmentation, biomechanics, and shape modeling. During this period, I introduced an optimal threshold-selection method that integrates a priori class uncertainty with the a posteriori image-intensity distribution surrounding object boundaries. Additionally, my work on fuzzy distance transforms, skeletonization, and quantitative structural analysis has become widely adopted within the digital geometry and medical imaging communities.

I moved to the University of Iowa in Iowa City, USA, in 2006, where I am currently a tenured professor. After joining the University of Iowa, I launched a research program aimed at disentangling the contributions of lung health and thoracic musculoskeletal conditions to respiratory alterations in chronic obstructive pulmonary disease (COPD). My group developed new computational methods (Fig. 2) for artery-vein separation in non-contrast chest CT, fully automated CT-based segmentation of the airway tree, bronchial labeling, and total and peripheral airway branch counting. More recently, we have introduced automated algorithms for multi-volume chest CT-based quantification of respiratory mechanical biomarkers of the diaphragm, rib cage, and airways. My ongoing research focuses on integrating these multivolume CT-derived thoracic respiratory mechanical biomarkers to identify early mechanical signals predictive of COPD onset, evaluate their prognostic value for disease progression and clinical outcomes, and characterize mechanical phenotypes of respiratory functional impairment and their prognostic significance in COPD. Developing systemic knowledge of COPD progression, incorporating respiratory mechanics, lung health, and comorbid risk factors that influence thoracic musculoskeletal health, such as sarcopenia and osteoporosis, will lay the foundation for a comprehensive framework for early clinical assessment of COPD outcomes.

~ Pranav Saha

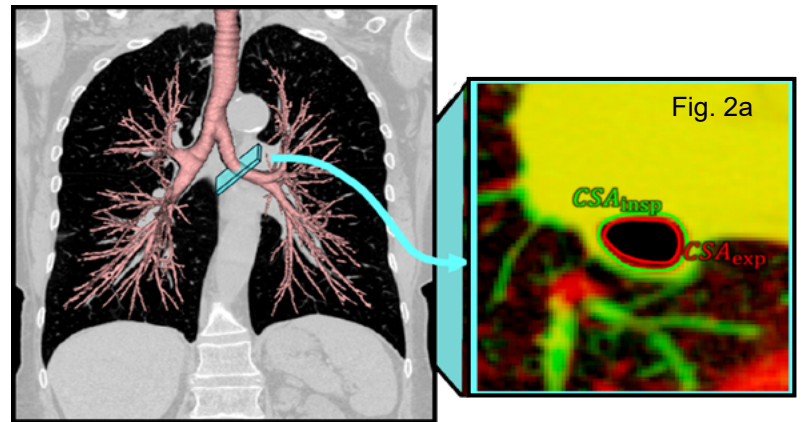
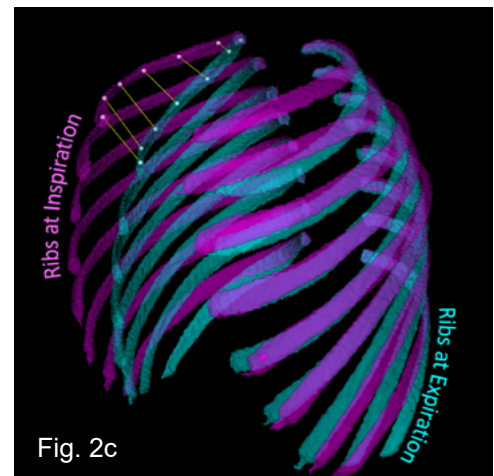
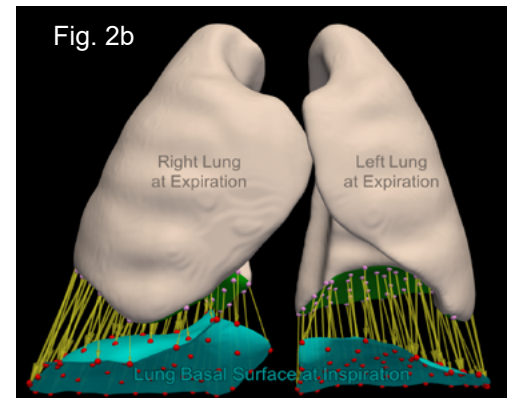


Figure 2. Multi-volume lung CT-based measures of respiratory mechanical biomarkers of the airways (a), diaphragm (b), and rib cage (c).



IAPR THE NEXT GENERATION

In this feature, we invite young researchers to tell us...



= how they became involved in pattern recognition research
= their technical background, current and future research interests
= how IAPR can help young researchers

Enterprise image credit: tab62 - stock.adobe.com

Editor's Note: Rohan received the Best Student Paper Award at ICDAR 2025 for his work on TexTAR. Read here to learn about his initial steps, recent work, and future plans in PR research.

~Heydi Méndez-Vázquez, EiC

Rohan is a Research Engineer at Staqu Technologies, an AI startup in India, where he works on compliance and video analytics

problems in computer vision, tailored to client-specific industry use cases. He holds a Bachelor's degree in Computer Science and Engineering from the International Institute of Information Technology, Hyderabad (IIIT-H). During his undergraduate studies, he worked as a researcher under Prof. Ravi Kiran Sarvadevabhatla, focusing on textual attribute recognition in scanned multilingual documents, with the goal of improving large-scale document digitization.

ROHAN KUMAR

How did you get involved in pattern recognition?

My journey into pattern recognition began during my undergraduate studies. At IIIT-H, a premier Honours Research Program allows students entering their third year to pursue independent research under a faculty advisor. By the end of my second year, I had developed the confidence to take on challenging problems and push my limits. Having performed strongly in mathematics courses and excelled in my Machine Learning course, I decided to enroll in the Honours program to gain first-hand experience in academic research and contribute meaningfully to it.

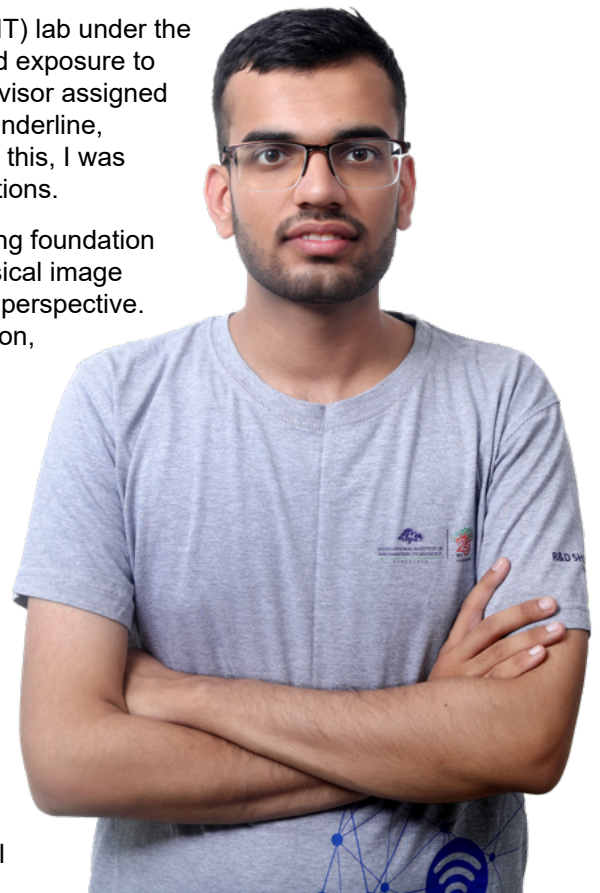
In my third year, I joined the Center for Visual Information Technology (CVIT) lab under the guidance of Prof. Ravi Kiran Sarvadevabhatla. At the outset, I'd had limited exposure to deep learning and research methodologies. To help me get started, my advisor assigned me a problem focused on detecting textual attributes such as bold, italic, underline, and strikethrough for individual words in scanned document images. Alongside this, I was encouraged to study existing approaches and critically analyze their limitations.

Given my initial unfamiliarity with deep learning, I began by building a strong foundation in computer vision and neural networks. At the same time, I explored classical image processing techniques to approach the problem from a non-deep learning perspective. Through this process I started my deep engagement with pattern recognition, understanding how models learn from data, how data quality and representation influence model behavior, and how predictions can be interpreted.

As part of this exploration, I also studied Optical Character Recognition (OCR) systems and document layout analysis models, which became crucial to my understanding of the broader problem space. Over time, I grew increasingly comfortable reading research papers and grasping complex concepts that initially seemed tough to me. Regular weekly meetings with my advisor played a crucial role in this process, providing direction, feedback, and opportunities to refine my understanding and approach.

What technical work have you done, and what are your current research interests?

As the key point of contact for the problem statement related to the Textual Attribute Recognition, I was initially overwhelmed by the many possibilities



and experimentations to be performed. I would like to express my gratitude to Professor Ravi Kiran Sarvadevabhatla, who gave me time to learn initially and taught me to progress towards the solution step by step by pruning the solution paths based on pass/fail of the experimentations. This project was funded by India's Digital India Bhashini Mission, which was another motivation for me: the chance to contribute to my country's bigger project.

The challenge was compounded by working with multilingual, multi-domain documents spanning legal records, land documents, textbooks, and legislative notices, across languages including Hindi, Telugu, Marathi, Punjabi, etc.

Some of the early relevant models failed consistently, and the reason was fundamentally that the textual attributes are inherently relative, not absolute (Fig. 1). A word is not bold in isolation, it is bold because its strokes are heavier than the words around it. Strip away the neighborhood, and that distinction collapses (Fig. 1E). The same logic

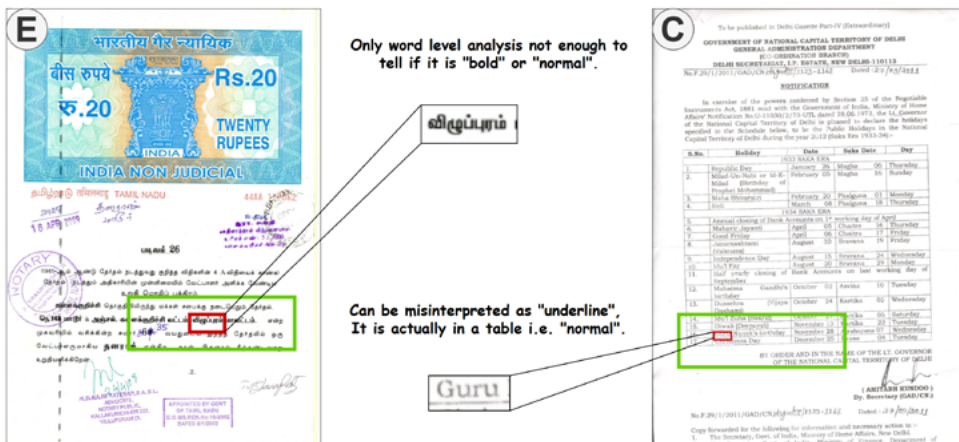


Figure 1. Examples of word attributes that do not live in the word alone.

applies to underline; what looks like an underlined word in isolation may simply be sitting atop the horizontal rule of a table cell (Fig.1C). The attribute does not live in the word alone. It lives in the relationship between the word and its spatial context. This insight reframed the problem entirely such that context became a prerequisite to solve this problem. Also, the most critical challenge was the lack of open codebases and datasets available in relation to this problem statement in previous relevant papers. This became a good point of learning for me, to begin approaching the problem from scratch.

To address this, we developed TextTAR, a multi-task, context-aware Transformer architecture. Its core innovation is a data selection pipeline that constructs Context Windows around each word using a weighted Chebyshev distance metric, gathering its spatial neighborhood into a fixed-size sequence. This sequence is passed to a Transformer Encoder, which models global relationships across the window (Fig. 2).

I observed that without passing the positional encodings or the naive ones, the model predictions were a

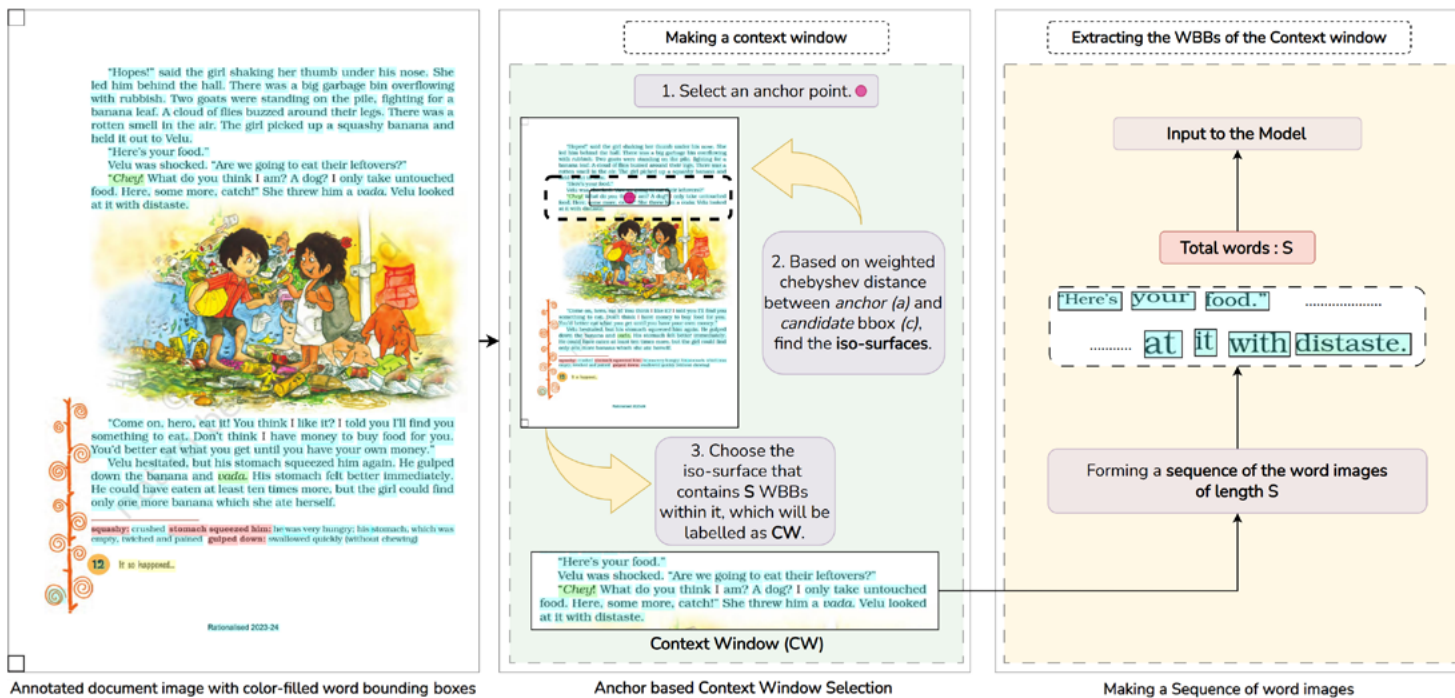


Figure 2. The TextTAR data selection pipeline.

bit uncertain, and the confidences couldn't be explainable from our intuitions. I thought of fusing the recently introduced 2D RoPE positional encodings in our architecture, intuitively thinking of improving the explainability of results. Furthermore, I faced another challenge of getting high confidence false predictions in some of the domain documents in the initial stages. This helped me explore the visual heatmaps through Grad-CAM, which helped us improve our dataset size and prevent overfitting to the domains.

To further encode the 2D spatial layout of words within a document, a property that standard positional embeddings handle poorly, I integrated RoPE-Mixed positional embeddings as a second-stage fine-tuning step, preserving pretrained features while injecting spatial awareness. A dual classification head separates stroke-intrinsic attributes like bold and italic from visually independent ones like underline and strikeout, improving multi-task learning by preventing gradient interference between

groups. A post-processing module then averages predictions across overlapping context windows in that specific scanned document image to produce stable word-level outputs, giving the final predictions for each word.

To support this work, we also introduced MMTAD, a fully annotated multilingual, multi-domain dataset of 1,623 real document images with over 1.1 million word-level annotations. TextAR achieves an average F1 of 0.94 across all attributes, outperforming all prior methods on our benchmark.

Beyond document analysis, I pursued research at the intersection of medical imaging and computer vision with Prof. Chetan Arora. At IIT Delhi, collaborating with AIIMS on breast cancer detection and classification, I built an ensemble framework combining DINO, YOLOv8, and a RoBERTa-ResNet hybrid to improve robustness across tissue densities, a known failure mode of specialized models in clinical deployment. This experience deepened my appreciation

for making robust models that have very high recall rates in medical AI.

In my more recent works, I pushed towards generative modeling. At IISc Bangalore, under Prof. R. Venkatesh Babu, I investigated 3D-consistent single-image-to-video generation using diffusion models. Standard video generation methods often hallucinate geometry across frames, producing structurally incoherent outputs. To address this, I integrated depth maps and Plücker embeddings as explicit geometric priors into the SEVA model, significantly improving cross-frame structural consistency. This line of work, grounding generative models with geometric reasoning, forms the core of my future research interest.

For my future interests, I am also deeply interested in building world models that unify language, vision, and geometric reasoning to support long-horizon planning in autonomous agents, to improve the ability for an agent to simulate and reason over its environment, not just perceive it. I intend to build models that are industry viable for deployment, as a part of my further pursuit of doctoral research.

How can the IAPR help young researchers?

As a young researcher who has moved across multiple institutions and research groups, from document analysis at IIIT-H to medical imaging at IIT Delhi to generative modeling at IISc, one thing has become consistently clear: the most transformative learning rarely happens inside a single lab. It happens at the intersection of people, ideas, and structured exposure to work beyond your immediate environment.

This is why I believe one of the most impactful things the IAPR can do for young researchers is to fund and expand summer schools. A funded summer school is not just an educational event; it is often the first time the young researchers from all over the world get genuine access to the broader community. Covering participation costs removes a barrier that disproportionately affects talented researchers from developing regions, ensuring that the next generation of the field is shaped by the widest possible pool of minds. Intensive, focused learning over a short period can help improve a researcher's thinking in ways that months of independent study cannot.

Beyond summer schools, I think there is significant potential in creating structured, hierarchical groups within the IAPR, organized around shared research domains. Rather than the community remaining a flat network that only activates around conference deadlines, domain-specific groups with clear internal structure, bringing together senior researchers, postdocs, and students working on related problems, could enable a very meaningful collaboration. These groups would serve as 24/7 (around the world) help groups for discussion, where junior researchers have a natural entry point and senior researchers have a focused audience for open problems. From my own experience, some of the most useful conversations I have had were with people working on similar or adjacent problems. A structured community framework would make those conversations fruitful and significantly reduce the struggles faced by young researchers.

~Rohan Kumar



IN THIS ISSUE

Click on the TC name to skip to their news



- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC4

BIOMETRICS

iapr.org/tc4

Chair: Shiqi Yu (Southern University of Science and Technology, China)
Vice Chair: Vitomir Štruc (University of Ljubljana, Slovenia)
Vice Chair of Communications: Jingzhe Ma (Shenzhen Technology University, China)

Aims: With an increasing demand on enhanced security and more reliable personal authentication, biometrics has become a very active research topic in pattern recognition and is set to remain so for many years to come. IAPR TC4 is the leading force in the international biometrics community. Our website serves as the information hub on biometrics-related conferences and workshops, publications, standardization, databases, evaluations, research groups, and other biometrics news.

The 10th IEEE International Joint Conference on Biometrics, [IJCB 2026](#), will be held in Rome, Italy, from September 1 to 4, 2026, as an in-person event. IJCB is the premier international conference for research in biometrics and related technologies, bringing together the IEEE Biometrics Theory, Applications, and Systems (BTAS) conference and the International Conference on Biometrics (ICB) through the partnership of the IEEE Biometrics Council and IAPR TC4. The conference [website](#) includes calls for papers, competitions, tutorials, and special sessions. The deadline for main conference paper submissions is April 30, 2026.



Hurry! → **Deadline has been extended to April 30, 2026**

23rd International Summer School for Advanced Studies on Biometrics, Behavior and Vision: Human Interactions and Large Foundation Models



The 23rd IAPR/IEEE International Summer School for Advanced Studies on Biometrics, Behaviour and Vision will be held in Alghero, Italy, from June 8 to 12, 2026. For the past 22 years, this international summer school has provided an active and dynamic forum to follow recent developments in science and technology and to offer an intensive training course that remains closely aligned with the state of the art. This year's main topic is the impact of generative

AI and large foundation models on the development and deployment of biometrics and human recognition in different application domains to facilitate human interaction with artificial agents. The program will feature 20 lecturers from academia and industry, as well as special keynote lectures by Prof. Arun Ross and Prof. Tomaso Poggio. Further information, including the course description, schedule, and teaching roster, is available at Biometrics.uniss.it

IN THIS ISSUE

Click on the TC name to skip to their news

- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC4
BIOMETRICS

iapr.org/tc4

CONTINUED

Call for New Members: IAPR Technical Committee on Biometrics

IAPR Technical Committee on Biometrics (TC4) has announced an open call for new members in order to broaden participation and bring new perspectives to TC4 activities. **Researchers, practitioners, and professionals working in biometrics and related fields are invited to apply.** More details on how to apply can be found at iapr.org/tc4 ([recent news list](#)).

TC4 members are expected to participate in quarterly meetings and contribute to initiatives such as webinars, mentorship programs, educational events, dataset curation, and conference workshops. Applicants should be members of an IAPR Member Organization and should send the required application materials to Dr. Jingzhe Ma at jingzhema@szpu.edu.cn.

The deadline for this round of applications is April 30, 2026. *← Harry!*

Join TC 4

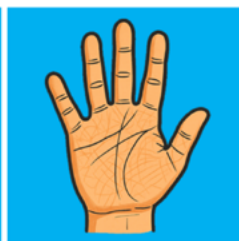
1. Physiological Trait



Face
Datasets



Fingerprint
Datasets



Palmprint
Datasets

2. Behavioral Trait



Gait
Datasets



Signature
Datasets



Gesture
Datasets

IAPR TC4 has made significant updates to its publicly available biometrics dataset list.

Led by Prof. Wenxiong Kang, the list is intended to serve as a centralized and structured resource hub for the biometrics research community. This update added numerous datasets across both physiological and behavioral biometrics (see right).

Researchers are invited to submit additional datasets to Prof. Wenxiong Kang at scutbip@outlook.com.

Added Physiological Biometrics Datasets

12 Face, 3 Iris, 1 Ear, 4 Fingerprint, 3 Finger Vein, 2 Palm Vein, 4 Palmprint, 2 Hand, and 3 Finger Knuckle

Added Behavioral Biometrics Datasets

6 Gait, 4 Signature, 4 Gesture, and 6 Voiceprint

The complete list is available [here](#).



TECHNICAL COMMITTEE NEWS, CONT.

IN THIS ISSUE

Click on the TC name to skip to their news

- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC5 COMPUTER VISION FOR UNDERWATER ENVIRONMENTAL MONITORING

iapr.org/tc5

Chair: Alexandra Branzan Albu (University of Victoria, Canada)
Vice Chair: Kevin Köser (Schmidt Ocean Institute, USA)

Aims: TC5 focuses on the development of computer vision and image processing techniques for applications in environmental underwater monitoring, encompassing a wide range of activities and tasks such as habitat mapping, species identification, estimation of species diversity and abundance, and analysis of animal behaviour. TC5 runs the Computer Vision for Analysis of Underwater Imagery (CVAUI) Workshop series and is closely involved in other workshops such as the Marine Imaging Workshop (MIW).

Source: <https://iccv.thecvf.com/>



Building upon a successful 1st joint Workshop on Marine Vision at ICCV 2025 (Honolulu, Hawaii, USA, October 2025) in

collaboration with AAMVEM (Automated Analysis of Marine Visual Data for Environmental Monitoring), the same team is happy to announce that the **2nd Workshop on Marine Vision** will be held in conjunction with ECCV 2026, in Malmö, Sweden, in September of 2026. Alexandra Branzan Albu (TC5 Chair) and David Nakath (TC5 Communications Officer) are on the organizing committee, while Kevin Köser (TC5 vice-chair) is on the Advisory Board.



ECCV 2026 | MALMÖ | SEPT 8-13

Source: <https://eccv.eva.net/>

TC5 participated in the organization of a [Special Issue on Marine Vision](#) in the journal *Pattern Analysis and Applications* Journal (Springer), containing extended journal editions of selected papers presented at ICCV25 and the 1st Joint Workshop on Marine Vision in conjunction with ICCV25. The Special Issue will be published in September 2026.

Alexandra Branzan Albu (TC5 Chair) is pleased to serve as an Advisor for the organizers of the ICPR 2026 workshop on Advances in Underwater Surveillance: Technologies, Challenges and Future Directions ([AUSTech 2026](#)). Learn more about this and other workshops at icpr2026.org/workshops.



IAPR TC6 COMPUTATIONAL FORENSICS

iapr.org/tc6

Chair: Victor Sanchez (University of Warwick, UK)
Vice Chair: Nicholas Sidere (University of La Rochelle, France)

Aims: TC6 seeks to further research, development, and education in Computational Forensics (CF) and to provide a platform for cooperation and exchange among researchers, practitioners, and teachers from the various disciplines of computational and forensic sciences. CF is an emerging research domain. It concerns the investigation of forensic problems using computational methods. The primary goal is the discovery and the advancement of forensic knowledge. CF involves modeling, computer simulation, computer-based analysis, and recognition in studying and solving forensic problems.



As part of the dissemination activities of the TC6, Prof. Victor Sanchez (TC6 Chair), contributed to the Second Summer School on Artificial Intelligence in Cybersecurity, held in Madrid, Spain, March 2-6, 2026. He spoke on the use of computer vision for several security and forensic tasks, and how explainable AI can be leveraged to understand the creation of synthetic face images.

**IN
THIS
ISSUE**

*Click on the
TC name to
skip to their
news*

TC4 Biometrics
 TC5 Computer Vision for Underwater Environmental Monitoring
 TC6 Computational Forensics
 TC9 Pattern Recognition in Human Machine Interaction
 TC11 Reading Systems
 TC12 Multimedia and Visual Information Systems
 TC19 Computer Vision for Cultural Heritage Applications

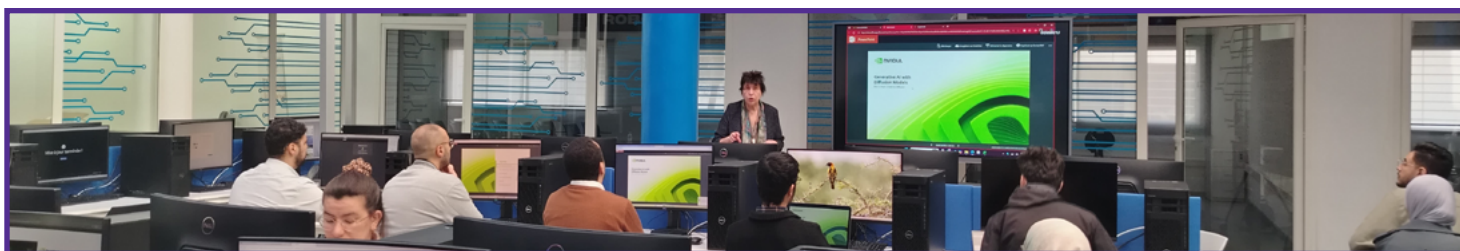


IAPR TC9 PATTERN RECOGNITION IN HUMAN MACHINE INTERACTION

iapr.org/tc9

Chair: Patrick Thiam (Ulm University, Germany)
Vice Chairs: Friedhelm Schwenker (Ulm University, Germany)
 Mariofanna Milanova (University of Arkansas at Little Rock, USA)

Aims: TC9 promotes the use of pattern recognition methods in human-machine interaction (HMI), and intends to offer opportunities for interested researchers to gain a better understanding of the many diverse research topics in remote sensing that require contributions from the pattern recognition community.



**TC9 is pleased to invite you
to participate in the
NVIDIA Deep Learning Institute (DLI)
Instructor-Led Workshop
Building Agentic AI with
Multimodal Models**

Lyon, France
 August 21, 2026
 in conjunction with ICPR 2026

This hands-on training will provide a comprehensive introduction to multimodal AI agent architectures, combining vision, language, and sensor data.

Participants who successfully complete the workshop will receive an official **NVIDIA DLI Certificate of Competency.**

Key topics include:

- Multimodal AI agents (vision, LLMs, LiDAR)
- Vision-language Models (VLMs)
- Retrieval-Augmented Generation (RAG)
- Graph-based Multimodal Pipelines
- The NVIDIA AI Ecosystem:
 - NVIDIA NIM (deployment)
 - NVIDIA NeMo (model development)
 - NVIDIA Cosmos Nemotron (multimodal reasoning)

This workshop is ideal for researchers, graduate students, and industry professionals interested in cutting-edge developments in multimodal and agentic AI.

For more information and registration please visit the

[IAPR MPRSS 2026 website.](#)

TC9 would also like to announce a Special Issue of *Computers* (MDPI) **Multimodal Pattern Recognition of Social Signals in HCI (3rd Edition)** with Special Issue Editors

Prof. Dr. Mariofanna Milanova and Prof. Dr. Friedhelm Schwenker
 For more information, click [here](#).



computers

Image source: <https://www.mdpi.com/journal/computers>

IN THIS ISSUE

Click on the TC name to skip to their news

- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC 11

READING SYSTEMS

iapr.org/tc11

Chair: Andreas Fisher (HES-SO and University of Fribourg, Switzerland)
Vice Chair: Mickaël Coustaty (University of La Rochelle, France),
Communications: Nibal Nayef (MyScript, France)

Aims: IAPR TC11 is concerned with the theory and applications of Reading Systems. We seek to study and develop systems that recognize character content and structure in handwritten and typeset documents, images, and video.



The International Conference on Document Analysis and Recognition (ICDAR) is the premier international event for scientists and practitioners involved in document analysis and recognition. ICDAR 2026 is the 20th edition of this conference and will be held in Vienna, Austria from August 30 – September 04, 2026.

Post-conference Workshops: September 3 – September 4, 2026

Program
Important Dates
Keynote Speakers
Competitions
Workshops
Tutorials
Awards

ICDAR 2026 Workshops Submit & Participate!

The final list of workshops of ICDAR 2026 has been announced! Click on [Workshops](#) to see the complete list, which includes long-standing workshops like DAS & HIP and many others with very interesting topics. Submissions normally stay open until well after the decision on ICDAR papers has been made.



TC11 maintains a collection of online datasets in the [TC11 Datasets Repository](#).



We have two official places for datasets:

1. Historical platform for storage and listing (access [here](#)).
2. Zenodo community page (access [here](#)).

If you have new datasets (e.g., from competitions) that you wish to share with the research community, please use the [online upload form](#). For questions and support, please email the [TC11 Dataset Curator](#).

Open Call for Organizing/Hosting DAR (Document Analysis and Recognition) Events

The IAPR technical committees on Graphics Recognition (TC10) and Reading Systems (TC11) are regularly organizing scientific events for the Document Analysis and Recognition (DAR) community, including the ICDAR flagship conference.

In addition to specific calls for bids to host one of the events, we encourage teams to announce their interest in organizing one of the events (right):

Details can be found in previous or future issues of the [TC11 Newsletter Archive](#) or at previous websites for each event. Announce your interest via email to the TC11 chair [Andreas Fischer](#) and the TC10 chair [KC Santosh](#) in order to receive feedback and support for preparing a proposal (either email link will autofill with both addresses and subject line).

(links are to current or most recent edition of each event)

[ICDAR](#) International Conference on Document Analysis and Recognition (annually, next possibility in 2029)

[DAS](#) International Workshop on Document Analysis Systems (satellite event of ICDAR in even years, next possibility in 2028)

[HIP](#) International Workshop on Historical Document Imaging and Processing (satellite event of ICDAR, next possibility in 2027)

[GREC](#) International Workshop on Graphics Recognition (satellite event of ICDAR in odd years, next possibility in 2027)

[SSDA](#) Summer School on Document Analysis (next possibility in 2027)



IN THIS ISSUE

Click on the TC name to skip to their news

- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC 12 MULTIMEDIA AND VISUAL INFORMATION SYSTEMS

iapr.org/tc12

Chair: Albert Ali Salah (Utrecht University, Utrecht, The Netherlands)

Vice Chairs: Hugo Jair Escalante (INAOE & CINVESTAV, Mexico)

Sergio Esclara (University of Barcelona, Spain)

Henning Müller (HES-SO, Sierre, Switzerland)

Aims: IAPR TC12 promotes interaction among researchers working in modeling, design, and development of systems for the analysis, processing, description, and retrieval of multimedia and visual information as well as the applications of these systems in challenging domains.

The IEEE 9th International Conference on Multimedia Information Processing and Retrieval



[MIPR](#) will be held in Bangkok, Thailand, August 9–11, 2026.

It offers a premier forum for presenting original research and practical advances in the design, implementation, and application of multimedia information processing and retrieval.

The congress convenes university researchers, scientists, industry professionals, software engineers, and graduate students for a 4-day program that blends a flagship technical track with keynote speeches, workshops, demonstrations, posters, tutorials, and panels. Topics include Generative and Foundation Models in Multimedia, Trustworthy AI in Multimedia, Audio and Speech in Multimedia, Content Understanding, Multimedia Retrieval, Machine/Deep Learning/Data Mining, Multimedia Systems and Infrastructures, Data Management, and Applications.

Main congress paper submissions are closed. Workshop papers are due May 31, and the deadline for demos is May 10.

SMART Challenge Series

Context-Aware Student Engagement Detection (CASED) Challenge at ICMI'26

The first iteration of the [SMART Challenge Series](#) is now live. Hosted by the Social Machines and Robotics (SMART) Lab at New York University Abu Dhabi, in collaboration with colleagues from The University of Queensland, Istanbul Technical University, and Utrecht University, this year's challenge focuses on Context-Aware Student Engagement Detection (CASED) and will be featured as part of the 28th ACM International Conference on Multimodal Interaction (ICMI 2026) Grand Challenges.

We invite researchers to explore multimodal and context-aware approaches for understanding student engagement in online classroom environments. The challenge dataset was collected by conducting online lectures (30–90 minutes in duration) on Artificial Intelligence and Mathematics via Zoom in in-the-wild settings.

More information is available at the links below.

[Dataset Details](#)

[How to Participate](#)

The Steering Board of the IEEE International Conference on Automatic Face and Gesture Recognition (FG), the IEEE Biometrics Council, and IEEE Computer Society are seeking meeting site proposals for the 2028 edition of FG. All communications for FG 2028, including requests for information and proposal submission, should be sent to the FG Steering Board Chair (Albert Ali Salah, a.a.salah@uu.nl). The full call is available [here](#).

Call for Site Proposals for FG 2028

Home » News » Call for Site Proposals for FG 2028

Source: <https://ieeebiometrics.org/call-for-site-proposals-for-fg-2028/>

» **Notification of intent by May 15, 2026**

» **Draft proposal for initial feedback by June 15**

» **Full proposals due by September 15, 2026**



IN THIS ISSUE

Click on the TC name to skip to their news

- TC4 Biometrics
- TC5 Computer Vision for Underwater Environmental Monitoring
- TC6 Computational Forensics
- TC9 Pattern Recognition in Human Machine Interaction
- TC11 Reading Systems
- TC12 Multimedia and Visual Information Systems
- TC19 Computer Vision for Cultural Heritage Applications



IAPR TC 19

COMPUTER VISION FOR CULTURAL HERITAGE APPLICATIONS

iapr.org/tc19

Chair: Gennaro Vessio (University of Bari Aldo Moro, Italy)

Vice Chair: Guillaume Caron (Natl. Inst. of Adv. Industrial Science and Technology, Japan)

Aims: The goal for TC19 is to bring together the combined expertise and resources of technologists, heritage administrators, heritage professionals and communication experts concerned with the effective and sustainable application of computer vision technology to Cultural Heritage research and presentation at museums, monuments, and historic sites, as well as the promotion of integration of research efforts in still incompletely coordinated sub-fields like Field Recording and Data Capture, Data Organization, Provenance and Standards, Visualization and Virtual Reconstructions, and Planning for sustainability of heritage projects.

In keeping with the tradition of two well-established, excellent workshop series...

FAPER Fine Art Pattern Extraction and Recognition + **PatReCH** Pattern Recognition for Cultural Heritage =

PRESTIGE 2026

Pattern Recognition and Computer Vision for eHeritage and Digital Humanities Workshop

In conjunction with ICPR 2026

Lyon, France - August 21, 2026

[PRESTIGE 2026: Pattern Recognition and Computer Vision for eHeritage and Digital Humanities Workshop](#)

will be held in conjunction with ICPR 2026 in Lyon, France, August 21, 2026.

The workshop is particularly significant for IAPR TC19 as it represents the first joint initiative merging two well-established workshop series, FAPER (Fine Art Pattern Extraction and Recognition) and PatReCH (Pattern Recognition for Cultural Heritage). ***This convergence reflects a growing need within the community for a more integrated and interdisciplinary framework, bridging pattern recognition, computer vision, e-heritage, and digital humanities.***

The call for papers is currently open, inviting contributions on topics such as computer vision and generative AI for cultural heritage, digital reconstruction, document analysis, and AI-driven interpretation of historical data. This initiative aims to strengthen collaboration within the TC19 community and foster new research directions at the intersection of technology and the humanities.

The workshop will feature a keynote by Guillaume Caron, Vice-Chair of TC19, titled *Visual Perception: From Robotics to Digital Cultural Heritage and Way Back*.

The paper submission deadline is May 16, 2026. Please visit the [Prestige 2026 website](#) for more information.



MEETING REPORTS

CONFERENCES, WORKSHOPS, & SUMMER/WINTER SCHOOLS



Digital Image Computing: Techniques & Applications

DICTA 2025

Dec 3 - 5, 2025

Adelaide Convention Centre, Adelaide, Australia

Goals

DICTA serves the vision, perception, and pattern analysis research community, bringing together academics, industry researchers, and practitioners focused on the theory and application of visual computing and image-based artificial intelligence. DICTA 2025 offered opportunities to connect with the brightest minds from academia and industry in the field of digital image processing.

Organizers

General Chairs:

Simon Lucey, *University of Adelaide, Australia*

Helen Huang, *University of Queensland, Australia*

Technical Program Co-Chairs:

Qi Wu, *University of Adelaide, Australia*

Miaomiao Liu, *Australian National University, Australia*

Lingqiao Liu, *University of Adelaide, Australia*

[Click for Complete List of Organizers](#)

DICTA 2025 LOGISTICS & DATA



Adelaide Convention Center, Adelaide, Australia, Dec 3-5, 2025

Previous Editions



25th DICTA (2024) Perth, Western Australia

24th DICTA (2023) Port Macquarie,

New South Wales, Australia



Host Sponsor: Australian Institute for Machine Learning, University of Adelaide
Supported by the Australian Government, Australian Pattern Recognition Society (APRS), and IEEE, **Endorsed by IAPR**



Submissions Received: **92**

At least 2 reviewers per paper, double-blind peer review

Oral Presentations: **30 (33%)**

Poster Presentations: **32**

10

Countries Represented



Australia, United States, China, United Arab Emirates, Pakistan, Germany, Saudi Arabia, Japan, Canada and South Korea



5 Keynotes

Alex John London

Carnegie Mellon University,
Pittsburgh, USA

*Closing the Loophole in
Responsible AI*

DICTA 2025 PROGRAM HIGHLIGHTS

Angela Yao

National University of Singapore,
Singapore

*From Seeing to Helping – A
Path from Action Recognition
to Visual AI Assistants*



2 Workshops

*Visual Generative Models:
Past, Current and Future*

with speakers **Richard Hartley,**
Chunhua Shen, and Liang Zheng

Australian National University,
Zhejiang University, and
Australian National University,
respectively

Organized by Xinyu Zhang (U. of Auckland),
Lingqiao Liu (U. of Adelaide), Chang Xu (U.
of Sydney), Yujun Cai (U. of Queensland),
Jiaxian Guo (Google Research), Anton van
den Hengel (U. of Adelaide), and Dong Gong
(U. of New South Wales)

Anton van den Hengel

University of Adelaide,
Adelaide, Australia

*On the Evolution of
Stochastic Parrots*

Sonia Chernova

Georgia Institute of Technology,
Atlanta, USA

*Foundation Models, Embodiment,
and the Future of
Home Robot Assistance*

James Hays (above)

Georgia Institute of Technology,
Atlanta, USA

*Gemini Can Tell You
Where a Photo Is—But Not
How It Knows*

*MedAI-CHAS: Challenges,
Hallucinations, and Solutions for
Advancing Clinical Utility
in Medical AI*

Organized by Luping Zhou
(University of Sydney),
Lei Wang (U. of Wollongong), and
Lingqiao Liu (U. of Adelaide)



2 Tutorials

*Neural Network
Reprogrammability:*

*A Unified Theme on Model Reprogramming,
Prompt Tuning and Prompt Instruction*

Feng Liu (U. of Melbourne and RIKEN AIP), Zesheng Ye (U. of Melbourne)

*On the Element-wise Representation and
Reasoning in Zero-shot Recognition*

Zhi Chen (The University of Southern Queensland) and
Jingcai Guo (The Hong Kong Polytechnic University)



Proceedings Info & Link

IEEE Xplore: Available [here](#)



DICTA 2025 PROGRAM, CONT.



Social and Cultural Programs



Participants enjoyed a walk along the River Torrens in Adelaide



DICTA 2025

APRS/IAPR

Best Paper Award

Consistent 3D: Diffusion-Driven Sparse View Completion and Reconstruction with Geometric Priors by Qi Tan, Rong Wei, Zhiyu Xi, and Jingqing Yang

APRS / IEEE Best Student Paper Award

Weakly Supervised Pixel-wise Classification of Hyperspectral Images with Noise-Adaptive Hybrid Attention and Triple Contrastive Learning by Derrick Effah, Ali Zia, Mohammad Awrangjeb, Yongsheng Gao, and Kwabena Sarpong



An elegant Gala Dinner was held in conjunction with the DICTA 2025 Awards Ceremony.

A live band performed and the dance floor quickly filled—a rare and delightful sight, with many computer scientists enthusiastically joining in.

APRS/IAPR Early Career Researcher Award

was presented to **Feng Liu, University of Melbourne and RIKEN AIP**

The Defense Science and Technology Group (DSTG) sponsored two awards:

The Redding Award for the Best Contribution to the Science of Pattern Recognition was presented to *Flow-Selectivity SSM: A Generative State-Space Model with History-Aware GFlowNet Policies*, by Nadhir Hassen and Johan Verjans

The Women in STEM Award was presented to *Variance-Penalized Robust Learning for Pareto-Optimal Group Robustness under Clean and Noisy Annotations* by Kavindya Imbulgoda, Steven Korevaar, Ruwan Tennakoon, & Alireza Bab-Hadiashar



Join In! DICTA 25
Research Commentary

Panel Discussion: What do you see as the biggest differences between industry and academia as an AI researcher?

The panel agreed that the biggest differences come down to timelines, success metrics, and daily collaboration patterns. In academia, you can chase ideas that might take years to pay off, with publications and research influence as your main measures of success. Industry work operates under pressure to demonstrate practical value more quickly. You're also constantly translating technical work for cross-functional teams: product managers, business stakeholders, and engineers from different domains, which means explaining your research in terms of cost reduction, feature enablement, or user value rather than just accuracy improvements. However, some industry settings can pursue fundamental questions while publishing at top venues, provided there's a clear path from research to real-world use. There was consensus that the gap between the two is smaller now than in the past.

~ Violetta Shevchenko



Goal The goal of ICPRS is to create an important networking forum in which participants can discuss the present and future of pattern recognition systems.

Organizers

General Chairs:

- Cesar Astudillo, *University of Talca, Chile*
- Karol Suchan, *Diego Portales University, Chile*
- Sergio A. Velastin, *Queen Mary U, of London, UK; U. Carlos III, Madrid, Spain*

Local Chairs:

- Sebastian Moreno, *Adolfo Ibáñez University, Chile*
- Romina Torres, *Adolfo Ibáñez University, Chile*

[Click for Complete List of Organizers](#)

ICPRS 2025 LOGISTICS & DATA



Viña del Mar, Chile, Adolfo Ibáñez University, Dec 1-4, 2025

Previous Editions



- 14th ICPRS (2024) London, UK
- 13th ICPRS (2023) Guayaquil, Ecuador
- 12th ICPRS (2022) Saint-Etienne, France



13 Countries Represented



Submissions Received: 95

Double-blind review, at least 3 reviewers per paper,
 Accepted for Oral Presentation: **46 (48%)**
 Accepted for Poster Presentation: **9**
 (45 oral and 8 poster papers presented)



Host Sponsor: Adolfo Ibáñez University
 Also sponsored by IEEE, ACHIIP, CENIA, and Data Observatory

Endorsed by IAPR



ICPRS 2025 PROGRAM HIGHLIGHTS

IAPR Keynote: João Papa (São Paulo State University, Brazil)
Perspectives on Quantum-based Learning Approaches in Graphs

IEEE Distinguished Lecturer: Narayan Srinivasa (Intel Corporation, USA)
Opportunities, Challenges, and Threats Using Synthetic Data for AI

Ioannis Pitas (Aristotle University of Thessaloniki, Greece)
Drone Vision and Big Data Analytics for Natural Disaster Management

Monique Thonnat (INRIA Sophia Antipolis, France)
Behavior Recognition by Video Analysis and Applications to Cognitive Disorders Diagnosis

Marcelo Mendoza (Pontifical Catholic University of Chile, Chile)
Toward a General AI System by Combining NLP with the Ability to Simulate Human-like Reasoning



Keynotes



Tutorials

Explainable AI (XAI) for Image Analysis with Deep Learning
Organized by Rodrigo Salas

Multimodal Learning: Vision + Language
Organized by the National Artificial Intelligence Center, Chile (CENIA)

Strategic AI for Women with Purpose
Organized by the Chilean Association of Women in Artificial Intelligence (MIA_CL)



ICPRS 2025 AWARDS

IAPR Best Paper Award

Unsupervised Dual-Task W-Net for Intracranial Hemorrhage Detection and Segmentation in Non-Contrast CT
by Felipe Estay, Constanza Rodriguez, Javier Mora, Rodrigo Salas, Steren Chabert, and David Ortiz

IAPR Best Student Paper Award

mAP-C: A Coverage-Based Metric for Robust Cross-Instrument Sunspot Detection Using YOLOv8
by Martinez Ignacio, Astudillo Cesar, Tenreiro Claudio, Velastin Sergio



Proceedings Info & Link

[IEEEXPLORE 2025](#)



Join In! ICPRS 25 Research Commentary

In transfer learning, the core research question is how knowledge learned from a source task or domain can be effectively reused to improve performance on a different but related target task, especially when labeled data is limited, for example, no label data in the new domain. Among the leading answers, they suggest that pretraining large models on diverse datasets and then fine-tuning them on specific tasks significantly boosts performance, with approaches such as feature extraction, fine-tuning, and domain adaptation being the most important approaches. We had a large consensus that transfer learning is highly effective, particularly in deep learning contexts. However, there are some important challenges, such as: negative transfer, domain mismatch, and understanding when transfer is beneficial. ~*Sebastian Moreno*





NOV 25-28, 2025

Goals

CIARP is the annual international conference dedicated to advancing research in pattern recognition, computer vision, artificial intelligence, data mining, and all related disciplines. This prestigious event, renowned for fostering a rich integration of theoretical developments and practical applications, stands as a cornerstone for international collaboration and knowledge exchange within the Ibero-American and global scientific community.

Organizers

General Co-Chairs:

Manuel Forero Vargas, *University of Ibagué, Colombia*

Oswaldo Rojas Camacho, *National University of Colombia, Colombia*

Program Co-Chairs:

Deisy Chaves, *University of Valle, Colombia*

María Trujillo, *University of Valle, Colombia*

Sergio A. Velastin, *Queen Mary U, of London, UK; U. Carlos III, Madrid, Spain*

[Click for Complete List of Organizers](#)

CIARP 2025 LOGISTICS & DATA



Bogotá, Colombia, National University of Columbia, Nov. 25-28, 2025

Previous Editions



27th CIARP (2024) Talca, Chile

26th CIARP (2023) Coimbra, Portugal



Host: National University of Columbia Colombia.
Endorsed by IAPR and SCo²



Submissions Received: **110**

Using a rigorous double-blind peer review process, each submission received average of 3 reviews

Oral Presentations: **52 (47%)**



11

Countries Represented



CIARP 2025 PROGRAM HIGHLIGHTS



7 Keynotes

Emmanuele Trucco

University of Dundee, UK
Retinoma Excavation in Search of Biomarkers of Systemic Diseases: The Vampire Project

Ioannis Pitas

Aristotle University of Thessaloniki, Greece
Enhanced 3D Pipeline Installation Reconstruction and Modeling for Industrial Inspection

César Beltrán

Pontifical Catholic University of Peru, Lima, Peru
Learning Graphical Representations for Biomedical Data

Elizabeth León Guzmán

National University of Colombia, Columbia
Pattern Recognition, Machine Learning and Industry 5.0

Fabio González

National University of Colombia, Columbia
What Can Quantum Computing Contribute to Machine Learning and Pattern Recognition?

Jonatan Gómez Perdomo

National University of Colombia, Columbia
Finding Patterns Everywhere: From Meaning to Machine

Oscar Corcho

(right)

Polytechnic University of Madrid, Spain (UPM) delivers a Keynote Address entitled

Ontologies and Knowledge Graphs for Data Governance in AI-Based Applications



CIARP 2025

IAPR Best Paper Award

A Second-Order Attention Mechanism For Prostate Cancer Segmentation and Detection in Bi-Parametric MEI

by Mateo Ortiz, Juan Olmos, and Fabio Matinez

IAPR Best Student Paper Award

DECA: A Novel Deep Learning Framework for Seismic Phase Association Using Deep Embedded
by Sebastian Gamboa, Nahomy Campos, Esteban Chaves, and Esteban Meneses



Proceedings Info/Link

[Springer in LNCS](#)



Join In! CIARP 25 Research Commentary

A central research question discussed during CIARP 2025 concerns how to develop robust, interpretable, and data-efficient machine learning models for real-world applications, particularly in scenarios with limited labeled data, domain shifts, and high reliability requirements such as healthcare, intelligent systems, and industrial environments.

Another relevant research question highlighted during CIARP 2025 is how to develop trustworthy and secure artificial intelligence systems, particularly in the context of adversarial attacks, data privacy, and deployment in critical infrastructures such as cybersecurity, telecommunications, and smart systems

The leading approaches presented at the conference focused on the integration of deep learning with transfer learning, self-supervised learning, and hybrid modeling techniques. These methods aim to improve model performance while reducing dependence on large annotated datasets.

There was a general consensus that while deep learning continues to dominate the field, pure data-driven approaches are not sufficient for many real-world applications. Instead, researchers emphasized the importance of incorporating domain knowledge, model interpretability, and robustness mechanisms.

However, no full consensus was reached regarding the best strategy to achieve these goals. Open challenges remain in explainability, generalization across domains, and trustworthy AI systems, highlighting the need for new frameworks and evaluation methodologies.

~ *Oswaldo Rojas Camacho,
Deisy Chaves, & Manuel Guillermo Forero*



14TH ICCPR 2025

2025 14th International Conference on Computing and Pattern Recognition

Beijing, China | October 24-26, 2025

Goals The main objective of ICCPR is to create an effective platform for researchers and technical experts to share recent ideas, innovations and problem-solving techniques in the vast areas of Computing and Pattern Recognition.

Organizers

General Chairs:

Umapada Pal, *Indian Statistical Institute, India*
Qiang Wu, *Beijing University of Technology, China*

Program Committee Chairs:

Yong Yang, *Tiangong University, China*
João Paulo Papa, *São Paulo State University, Brazil*
Kenji Suzuki, *Tokyo Institute of Technology, Japan*
Mounim A. El Yacoubi, *Polytechnic Institute of Paris, France*

[Click for Complete List of ICCPR 2026 Organizers](#)

ICCPR 2025 LOGISTICS & DATA



Beijing Henan Plaza: Huaweiili, Panjiayuan, Chaoyang District, Beijing, China
October 24-26, 2025



Sponsored by Beijing University of Technology, with support from Tiangong University, East China Normal University, Shanghai University, Shenzhen University, Xiamen University of Technology, and Wayne State University. **Endorsed by IAPR**



Previous Editions

13th ICCPR (2024) Tianjin, China
12nd ICCPR (2023) Qingdao, China
11th ICCPR (2022) Beijing, China (online)
10th ICCPR (2021) Shanghai, China (online)
9th ICCPR (2020) Xiamen, China (online)



9 Countries Represented

Singapore, United States, China, Japan, New Zealand, Canada, Germany, Australia, Italy



Submissions Received: 171

Papers were blind reviewed by 2-3 reviewers or the Technical Committee.

Accepted for Oral Presentation: **67 (39%)**
Accepted for Poster Presentation: **16**



ICCPR 2025 Organizing Committee

ICCP 2025 PROGRAM HIGHLIGHTS



3 Keynotes

Qingshan Liu (left)

Nanjing U. of Posts and Telecommunications, China
*Two Points in Embodied Vision Research:
 3D Perception and Affective Computing*

Zhaoxiang Zhang (right)

Chinese Academy of Sciences, China
When VLA Meets World Models

Mohamed-Slim Alouini, King Abdullah

University. of Science and Technology, Saudi Arabia
Tapping into the Full Potential of the Stratosphere



14 Invited Speakers

Fengchao Xiong (no photo), Nanjing University of Science and Technology, China
Hyperspectral Video Analysis

Pengfei Zhang (1), Chengdu University of Traditional Chinese Medicine, China
Digital and Intelligent Technologies and Applications in Traditional Chinese Medicine Diagnostic Data

Nan Wang (2), East China University of Science and Technology, China
Anomaly Detection Based on Multimodal Medical Imaging Data

Jiixin Cai (3), Xiamen University of Technology, China
Later Temporal Attention in Computer Aided Medical Diagnosis

Hongyuan Jing (4), Beijing Union University, China
Global and Local Feature Fusion Strategy for Image Dehazing

Yang Zhao (5), Sun Yat-sen University, China
Sensor-based Data Driven Approaches to Intelligent Elderly Gait Analysis and Risk Prediction

Yibin Tang (6), Hohai University, China
Intelligent Assisted Diagnosis of Mental Disorders Based on Brain Functional Topology

Yihang Zhou (7), Shenzhen Institute of Advanced Technology, Chinese Academy of Science, China
Intelligent Diagnosis Foundation Model Based on Distributed Low-Field Magnetic Resonance Imaging

Chengwei Chen (8), Changhai Hospital, China
Artificial Intelligence-based Analysis and Applications of Radiological and Pathological Features

Jinyu Wen (9), Guangzhou University, China
Medical Image Analysis and Applications Based on Multimodal Data

Rui Wang (10), Jiangnan University, China
Deep Learning on the Riemannian Manifolds

Wei Tang (11), Tongji University, China
Multi-source Image Fusion

Jianwei Zhang (12), Iwate University, Japan
*Toward Human-Like Empathetic Dialogue:
 Response Generation via Multi-Stage Information Fusion for Emotional Support Conversation*

Huiqi Deng (13), Xi'an Jiaotong University, China
Rigorous Explanation, Defect Localization, and Targeted Repair of Deep Model Representations



ICCPR 2025 PROGRAM, CONTINUED



Awards Best Oral Presentations

Session 1

Enhancing Sample Efficiency in Online Reinforcement Learning via Policy-Guided Diffusion Models

by Yixuan Dong and Jun Zhang

Session 2

Comparison among YOLO Series in SAR Ship Detection with Preliminary Results

by Runlin Chen, Guanghao Yu, and Feng Chen

Session 3

Enhancing Pretrained Multilingual Machine Translation Model with Code-Switching: A Study on Chinese, English and Malay Language

by Noraini Binti Seman and Haijing Liu

Session 4

A Comparative Analysis of Three Multispectral Images in Classification with Different Methods

by Feng Chen, Zhibin Gao, and Yuejun Song

Online Session 1

A Spatiotemporal Aerosol Optical Depth Forecasting in Thailand using Deep Learning

by Chaiyo Churngam, Veerasit Kaewbundit, and Papis Wongchaisuwat

Online Session 2

Spatial-Perception Fusion and Progressive Refinement Network For RGB-DCamouflaged Object Detection,
by Xianglong Jin, Yu Liu, Cheng Guo, Xueqiang Guo, and Yixuan Kang



Proceedings

will be published by Springer, in *Computer and Information Science (CCIS)*



Special Sessions

1. *AI-Driven Medical Analysis and Diagnostic Assistance*
2. *Machine Learning and Deep Learning Models*
3. *Image Processing and Its Application*



Join In! ICCPR 2025 Research Commentary

Research presented at ICCPR 25 included a new approach for deep learning-based segmentation of facial parts from 3D point cloud data. To overcome the limitation of facial 3D point clouds with detailed annotations, the authors employed a novel method of 3D face reconstruction named 3DDFA-V3 (3D Dense Face Alignment V3) and created a large-scale synthetic dataset. They then trained an efficient, high-performance model named PTV3 (Point Transformer V3) in two steps: pre-training on the synthetic dataset and fine-tuning on our small-scale private dataset. The experimental results showed that PTV3 performed significantly better than the previous method based on classical techniques. The authors confirmed the great potential of PTV3 to comprehend 3D point cloud data of the face.

In the future, we will test the performance of other deep learning methods for facial part segmentation from 3D point cloud data. In addition, we need to improve the segmentation accuracy to make the face analysis more accurate and reliable. Possible solutions include modifying the model architecture and designing a loss function.

~Olivia Lai



MVA2025

19th International Conference on Machine Vision Applications
July 26–28, 2025, **Kyoto, Japan**

Goals The MVA conference series, established in 1988, aim to bringing together researchers and practitioners from both academia and industry, covering the topics of sensing, algorithms, and applications in machine vision research.

Organizers

General Chairs:
Shunsuke Kudoh, *The University of Electro-Communications, Japan*
Ryoma Bise, *Kyushu University, Japan*

Program Chairs:
Ryo Yonetani, *CyberAgent, Japan*
Chun-Yi Lee, *National Taiwan University, Taiwan*

[Click for Complete List of Organizers](#)

MVA 2025 LOGISTICS & DATA



Kyoto International Conference Center, Kyoto, Japan, July 26-28, 2025

Previous Editions



18th MVA (2023) Hamamatsu, Japan
17th MVA (2021) Fully Online
16th MVA (2019) Tokyo, Japan
15th MVA (2017) Nagoya, Japan
14th MVA (2015) Tokyo, Japan



Sponsored by *IEICE-ISS*
Technical Co-Sponsor
IEEE-RAS
Endorsed by *IAPR*



Submissions Received: 122

At least 3 reviewers per paper
completed double-blind reviews

Accepted for Oral Presentation: **20 (16%)**

Accepted for Poster Presentation: **44**



11

Countries
Represented



MVA 2025 PROGRAM HIGHLIGHTS



Keynotes

Ming-Yu Liu (NVIDIA)
*Building World Foundation Models for
Unlocking Physical AI*

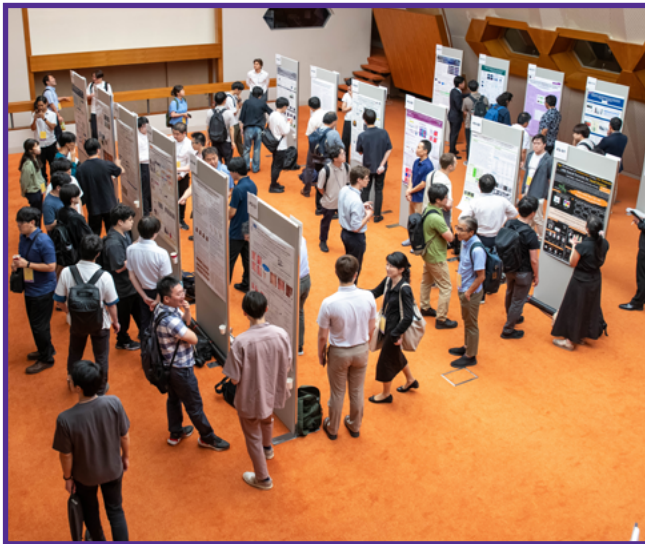
Katerina Fragkiadaki (Carnegie Mellon University)
Learning World Simulators from Data

Yasuyuki Matsushita (Microsoft Research Asia, Tokyo)
Making Sense of the Real-world via 3D Computer Vision



Competition

Small Multi-Object Tracking for Spotting
Birds ([SMOT4SB](#)) Challenge 2025



Join In! MVA 2025 Research Commentary

MVA is an international conference centered on machine vision, and in recent years its scope has expanded beyond traditional visual recognition tasks. Research has increasingly focused on integrating vision with robotics and autonomous systems, particularly through Vision-Language-Action (VLA) models that connect perception, reasoning, and action. This reflects a broader shift from passive scene understanding to enabling systems that can operate in real-world environments. At MVA 2025, this trend was clearly evident. Notably, two of the three IAPR invited talks



Tutorials

***Learning and Improving Multimodal
Commonsense Reasoning***
by Bo Wo (MIT-IBM Watson AI Lab)

***Developing and Evaluating Interactive Lifelog
Retrieval Systems***
by Cathal Gurrin (Dublin City University)

Awards



**Most Influential Paper Over the
Decade Award (selected from the
papers presented at MVA 2015: Two papers)**
*Pedestrian Detection in Thermal Images Using Adaptive
Fuzzy C-Means Clustering and Convolutional Neural
Networks*, by Vijay John, Zheng Liu, Seiichi Mita and
Bin Qi; and *A Dataset for Computer-Vision-Based PCB
Analysis* by Christopher Pramerdorfer and Martin
Kampel

Best Paper Award
*Leveraging 2D-VLM for Label-Free 3D Segmentation in
Large-Scale Outdoor Scene Understanding* by Toshihiko
Nishimura, Hirofumi Abe, Kazuhiko Murasaki, Taiga
Yoshida, and Ryuichi Tanida

Best Poster Awards
*Bidirectional Action Sequence Learning for Long-term Action
Anticipation with Large Language Models* by Yuji Sato,
Yasunori Ishii, and Takayoshi Yamashita

*Multi-Person Pose Estimation Evaluation Using Optimal
Transportation and Improved Pose Matching* by Takato Moriki,
Hiromu Taketsugu, and Norimichi Ukita

*Detection of Medial Epicondyle Avulsion in Elbow Ultrasound
Images via Bone Structure Reconstruction* by Shizuka Akahori,
Shotaro Teruya, Pragyan Shrestha, Yuichi Yoshii, Satoshi
Iizuka, Akira Ikumi, Hiromitsu Tsuge, and Itaru Kitahara



Proceedings are published
in *IEEE Xplore* ([available here](#)).

focused on physical simulation for controlling robots and other systems. These talks emphasized the importance of simulation environments for efficient and safe learning, as well as the challenge of bridging the Sim-to-Real gap between simulated and real-world conditions. Audience discussions further highlighted the importance of estimating real-world physical parameters, such as friction and mass, which are critical for accurate system behavior.

~ Shunsuke Kudoh

IAPR/IEEE WINTER SCHOOL ON BIOMETRICS 2026

25-29 January 2026 Shenzhen, China



The 10th IAPR/IEEE Winter School on Biometrics (WSB 2026) was successfully held from January 25 to 29, 2026, in Shenzhen, China. Focusing on the theme of generative AI and multimodal foundation models for biometrics, the event attracted 81 participants from academia and industry across five countries.

It was jointly organized by the Department of Computer Science, Hong Kong Baptist University; the Institute of Automation, Chinese Academy of Sciences; and the Department of Computer Science and Engineering, Southern University of Science and Technology. The event was technically co-sponsored by the IAPR TC4 and IEEE Biometrics Council, reinforcing its role as a premier platform for knowledge exchange in biometrics.

Our 10th Anniversary Celebration

This edition celebrated the 10th anniversary of the winter school, which was first launched in January 2017. A special ceremony was held to mark this milestone. A commemorative cake was ordered, and following the opening ceremony on the first day, lecturers and organizers were invited to cut the cake together with all participants. Additionally, a special 10th-anniversary logo was designed, and commemorative caps were prepared as gifts for all attendees. A short video is also created to celebrate the 10th anniversary of the winter school, which can be viewed and downloaded [here](#).



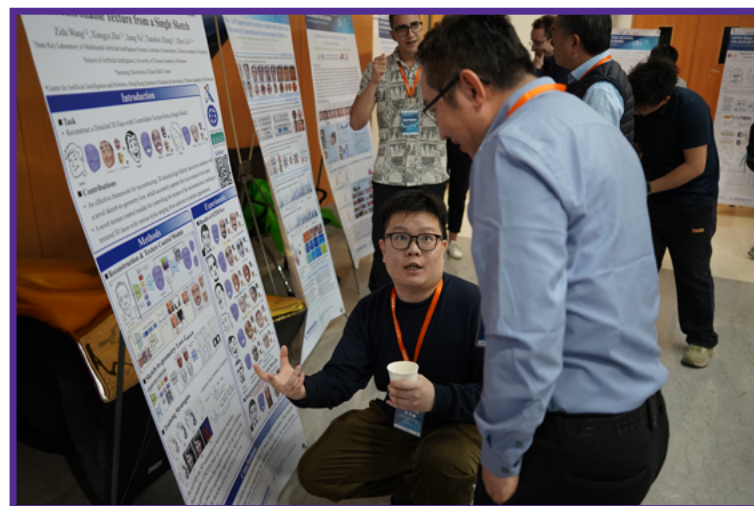
The Lectures

The winter school covered key topics in biometrics through a series of expert talks. A total of 17 lectures, amounting to 25.5 hours, were delivered by leading researchers. Prof. Tieniu Tan from Nanjing University provided an overview lecture on the future outlook of AI, while Prof. Anil Jain from Michigan State University gave an overview of biometrics.

Several professors delivered lectures on the core technologies for different biometric modalities. Prof. Mark Nixon introduced gait and soft biometrics, and Prof. Ajay Kumar discussed contactless palmprint recognition systems for secure authentication. Prof. Davide Maltoni presented on fingerprint recognition and continuous learning, and Prof. Zhenan Sun detailed advancements in iris recognition. Prof. Xiaoming Liu analyzed human recognition in the era of foundation models, and Prof. Massimo Tistarelli introduced the application of multimodal LLMs for face analysis. Prof. Arun Ross explored leveraging foundation models for biometric tasks. Addressing the important issues of safety and privacy, Prof. PC Yuen introduced presentation attack detection using remote photoplethysmography for 3D facial mask attacks.

Regarding emerging AI technologies, Prof. Chen Change Loy explored generative AI for vision applications. Prof. Dong Xu and Prof. Qian Yu introduced state-of-the-art diffusion-based approaches for scalable vector graphics generation and robot manipulation. Prof. Kaiyang Zhou outlined technical roadmaps for multimodal foundation models. Prof. Josef Kittler deconstructed self-supervised learning paradigms for limited-data scenarios, and Prof. Vishal Patel discussed bridging generative AI and large vision-language models for biometrics.

On real-world applications, Dr. Norman Poh from Trust Stamp introduced common attack vectors enabled by GenAI and corresponding countermeasures. Ms. Jia Wu, an OpenCV developer, taught participants how to build face recognition tools using OpenCV and Python. Most students completed their practical projects, with three teams winning prizes for their creative solutions.



The Participants: Geographic Diversity and Professional Backgrounds

The winter school attracted 81 participants from five countries, including China (73), Spain (3), Slovenia (2), Norway (1), and Luxembourg (1). Doctoral researchers and industry engineers comprised 24.7% of the participants and 69.1% were PhD and master students; 6.2% were undergraduate students and others.

Multidimensional Knowledge Exchange

The winter school organized three core activities to facilitate interaction among participants. A mentoring session was held on the opening day, where participants were divided into eight groups. Each group met with distinguished mentors, including Prof. Josef Kittler, Prof. Mark Nixon, Prof. Ajay Kumar, Prof. Xiaoming Liu, Dr. Norman Poh, Prof. Dong Xu, Prof. Pong C Yuen, Prof. Manuel J. Marin-Jimenez, and Prof. Jing Dong. Mentors shared career stories and engaged in discussions on research and life with the students.

A poster session on the second day allowed 16 students to present their work on topics such as hand biometrics, gait recognition, privacy protection, and human behavior analysis. This session provided a valuable opportunity for in-depth discussion and idea exchange, which participants greatly enjoyed.

A social program was arranged on the afternoon of the fourth day, featuring a cruise that sailed out to sea. The trip took participants past the Hong Kong-Zhuhai-Macao Bridge, one of the world's longest sea-crossing bridges. Eight professors joined the program. As the ship sailed beneath the bridge, students admired the 55-kilometer structure that connects three cities across the Pearl River Delta.

~Shiqi Yu

Please take a minute to watch our 10th Anniversary video by clicking [here](#).





STUDENT REPORT

10th IAPR/IEEE Winter School on Biometrics, 2026

Report from Guozhen Peng, Beihang University

I am Guozhen Peng, a second-year Ph.D. candidate at Beihang University, China. My research focuses on gait recognition. I also have a strong interest in the broader fields of computer vision and biometrics, including face, iris, and fingerprint analysis. I was excited to deepen my knowledge and skills through this Winter School. I sincerely thank the IAPR for the support of attending.

One of the most impressive lectures was on “Gait and Soft Biometrics,” delivered by Prof. Mark Nixon from the University of Southampton, UK. It provided a comprehensive overview of gait recognition techniques and their applications. Prof. Nixon covered various analysis methods, such as model-based and appearance-based approaches, and discussed the field’s challenges and future directions. This lecture was highly relevant to my research and offered valuable insights. All the lectures of the winter school were impressive and inspiring.

During the winter school, I communicated with participants from diverse backgrounds. In discussions with Mr. Songping Wang from Nanjing University, we exchanged ideas on biometric security and multi-modal large language models. I also spoke with Mr. Dongyang Jin, a master’s student from Prof. Shiqi Yu’s group at the Southern University of Science and Technology. We shared experiences and challenges in gait recognition, particularly in wild pedestrian scenarios. These discussions were invaluable, giving me new perspectives on biometric research.

Besides lectures and talks, I joined the hands-on session. It offered practical experience using OpenCV for face recognition. I learned how to implement various computer vision techniques with this open-source library. I also presented my research, “From Gradient Analysis to Norm Control: Rethinking Triplet Loss for Gait Recognition,” at the poster session. It allowed me to share my work and receive helpful feedback. It was a very valuable experience.

The most enjoyable part was the social program. The winter school arranged a cruise that sailed past the Hong Kong–Zhuhai–Macao Bridge, offering great views and an onboard dinner. The trip created a relaxed setting for academic exchange and research discussions, and I made more friends there.

The Winter School on Biometrics 2026 was a highly enriching experience. I gained valuable knowledge from the lectures and discussions, which will certainly help my research. The chance to connect with experts and peers was priceless. I am grateful to the organizers and speakers for making the event so successful.


~ Guozhen Peng



IAPR BULLETIN BOARD
FOR ITEMS OF GENERAL INTEREST
TO PATTERN RECOGNITION FOLKS

Congratulations,
Event organizers!

Not only did you organize a
successful conference, but you
no longer have to write a lengthy
report for the IAPR Newsletter!
Just click [here](#) instead and
answer the questions!

Clickable! 

ATTENTION
IAPR-sponsored or
IAPR-endorsed Conference
or Workshop Organizers

Crazy font
means this
really needs
your
attention!


Please, please, please...
Watch your inbox and your spam folder to
make sure you are able to view emails from
your Layout Editor, Carolyn Buckley,
(cab@sayitbetterscience.com). Important
emails, if not replied to, can delay publication
of your report!

Thank
you!
-C.B.

Email is the ONLY way I can contact you!

Conference Proceedings CAN be FREE!

Through an agreement with Springer, IAPR members have free access to
a designated set of IAPR proceedings that are published by Springer.

search for a box like the one below when registering for IAPR-sponsored events 


By checking this box, I express my interest in receiving access to the IAPR / Springer-
Nature conference proceedings archive at no charge to me.

I understand that my name, email address, and IAPR member society will be provided
to the IAPR Secretariat and to Springer-Nature to confirm my eligibility. I give my
permission for this information to be shared with the IAPR Secretariat and Springer-
Nature.

For details about IAPR / Springer-Nature conference proceedings, see:
[IAPR Conference Proceedings webpage](#) OR [Springer IAPR webpage](#)



For a list of the current IAPR member societies, see iapr.org/aboutus/organizations.php

MEETING AND EDUCATION PLANNER

Month	Days	Meetings, Workshops & Schools	Previous edition & link to Report	Venue	Paper/ Application Deadline
 = Sponsored by IAPR 2026					
May	25-29	SSDA 2026 6th IAPR TC10/TC11 Summer School on Document Analysis: Next-Gen Document Understanding	2023	Vall de Nuria, Catalonia Spain	closed
Jun	8-12	SSB 2026 23rd International Summer School for Advanced Studies on Biometrics, Behavior and Vision: Human Interactions and Large Foundation Models	2025 no report available	Alghero Italy	closed
Jun	24-27	MCPR 2026 18th Mexican Conference on Pattern Recognition	2025	Ciudad Juárez Mexico	closed
Jul	16-17	DeLTA 2026 7th International Conference on Deep Learning Theory and Applications	2024	Porto Portugal	closed
Aug	17-22	ICPR 2026 28th International Conference on Pattern Recognition	2024	Lyon France	closed
	21	MPRSS 2026 8th IAPR TC9 Workshop on Multimodal Pattern Recognition for Social Signal Processing in Human Computer Interaction	2024	Lyon France	closed
		RRPR 2026 6th IAPR TC22 Workshop on Reproducible Research in Pattern Recognition	2024	Lyon France	Apr 30 2026
	21	AIHA 2026 4th International Workshop on Artificial Intelligence for Healthcare Applications	2024	Lyon France	Apr 30 2026
	21	PRHA 2026 4th IAPR TC20 International Workshop on Pattern Recognition in Healthcare Analytics and Bioinformatics	2024	Lyon France	May 15 2026
		PRESTIGE 2026 1st IAPR TC19 Workshop on Pattern Recognition and Computer Vision for e-Heritage and Digital Humanities Workshop		Lyon France	May 16 2026
		IMTA X 2026 10th IAPR TC16 Workshop on Image Mining, Theory and Applications	2024	Lyon France	Jun 1 2026
	22	MANPU 2026 7th International Workshop on coMics ANalysis, Processing and Understanding	2024	Lyon France	May 3 2026 (Title Apr 26)
		XAIE 2026 4th workshop on Explainable and Ethical AI	2024	Lyon France	May 1 2026
	22	PRRS 2026 14th IAPR TC7 Workshop on Pattern Recognition in Remote Sensing	2024	Lyon France	May 5 2026
24-26	S+SSPR 2026 Joint IAPR International Workshops on Statistical Techniques in Pattern Recognition and Structural and Syntactic Pattern Recognition	2024	Bern Switzerland	May 15 2026	

continued on next page...

MEETING AND EDUCATION PLANNER

Month	Days	Meetings, Workshops & Schools	Previous edition & link to Report	Venue	Paper/ Application Deadline
 = Sponsored by IAPR 2026 ...continued					
Aug-Sept	30-4	ICDAR 2026 20th International Conference on Document Analysis and Recognition	2024	Vienna Austria	closed
Sept	1-4	IJCB 2026 IEEE/IAPR International Joint Conference on Biometrics	2025	Rome Italy	Apr 30 2026
Oct	7-9	ANNPR 2026 12th TC3 Workshop on Artificial Neural Networks in Pattern Recognition	2024	Milan Italy	May 14 2026
Dec	9-12	CVIP 2026 11th International Conference on Computer Vision and Image Processing	2024	Calicut India	Apr 15 2026
 = Sponsored by IAPR 2027					
Mar	8-11	ICPRS 2027 16th International Conference on Pattern Recognition Systems	2025	Talence (Bordeaux) France	Oct 25 2026
Oct	4-6 14-15	ICPRv International Conference on Pattern Recognition Virtual		Online	Mar 1 2027

IAPR NEWSLETTER SUBMISSION DEADLINES FOR JULY 2026

Sunday	Monday	Tues	Wed	Thurs	Friday	Saturday
Jun 28	Jun 29 <i>Invited Next Gen, 50 Years Essays Due</i>	Jun 30	Jul 1	Jul 2	Jul 3 <i>Invited Getting to Know IAPR Fellows Essay Due</i>	Jul 4
Jul 5	Jul 6 <i>New ads, plus...</i> ALL Meeting Reports! ALL Meeting Reports! ALL MEETING REPORTS	Jul 7	Jul 8	Jul 9	Jul 10 <i>Standing Committee Columns/News, Technical Committee News, Changes to existing ads</i>	Jul 11
Jul 12	Jul 13 <i>From the ExCo Essay and News Points</i>	Jul 14	Jul 15	Jul 16	Jul 17 <i>Conference Calls for Papers, Proposals, & Applications</i>	Jul 18
Jul 19 through Jul 25: Final Copy Draft and Review Week (New materials can no longer be accepted)						
Jul 26	Jul 27 <i>Publication Day (Planned)</i>	Jul 28	Jul 29	Jul 30	Jul 31	Aug 1

Wondering when to send new or unlisted content? Please contact the [Layout Editor](#) by Jun 15, 2026



Published quarterly (Jan, Apr, July & Oct) in association with iapr.org
 Editor in Chief (EiC): Heydi Méndez-Vázquez hmendez@cenatav.co.cu
 Layout Editor (LE): Carolyn Buckley cab@sayitbetterscience.com
 Assistant Secretariat: Rosemary Green: secretariat@iapr.org

Please email comments or ideas to EiC or LE! Thank you!