# 7th IEEE CASS/SPS Seasonal School on Digital Processing of Visual Signals and Applications (DPVSA 2025)

Pelotas, Brazil – October 6–8, 2025

The 7th IEEE CASS/SPS Seasonal School on Digital Processing of Visual Signals and Applications (DPVSA 2025) took place in Pelotas, Brazil, from October 6 to 8, 2025. Organized by the Federal University of Pelotas (UFPel) and the Federal Institute of Rio Grande do Sul (IFRS), the event was fully in-person and supported by both the IEEE Circuits and Systems Society (CASS) and the IEEE Signal Processing Society (SPS). The school gathered students, researchers, and industry professionals to discuss the latest developments in visual signal processing, machine learning, and hardware architectures for video coding and computer vision.

## Program Highlights

DPVSA 2025 featured lectures, poster sessions, an art exhibition, and social events fostering academic exchange. Among the distinguished invited speakers were Dr. Ioannis Katsavounidis (Meta, USA), who presented an in-person lecture on video-streaming principles through the IEEE SPS Distinguished Industry Speaker program; Dr. Ismael Seidel (UFSC), who discussed light-field coding and JPEG Pleno standardization activities; and engineers from Petrobras, who explored challenges in deep-water drilling and exploration where visual signal processing can be a key tool. The school also hosted Prof. Attilio Fiandrotti (Politecnico di Torino, Italy) with a lecture entitled Around and beyond the variational model.

## Participation and Engagement

The event welcomed over 93 participants from Brazil and abroad, including graduate and undergraduate students, faculty members, and industry representatives. The poster sessions showcased more than 30 research works covering topics from AI-based compression to embedded hardware for video processing. In addition, the Pixforce AI Challenge encouraged students to design multimodal AI solutions for safety and efficiency in industrial settings, strengthening ties between academic and industrial communities.

## Beyond the Lectures

Complementing the technical sessions, DPVSA 2025 featured an Art Exhibition, turning scientific visualizations and AI-generated media into a gallery where research met creativity. Social activities—including two networking dinners sponsored by IEEE SPS and CASS—promoted collaboration and the exchange of ideas in a friendly atmosphere.

## Looking Ahead

DPVSA 2025 reinforced the importance of bridging academic research and industrial innovation in the field of visual signal processing. With its continued support

from IEEE CASS and SPS, the school remains a key initiative for advancing knowledge and fostering the next generation of researchers in Latin America.

More information is available at the school website: https://wp.ufpel.edu.br/dpvsa2025/

Picture of the attendees after the IEEE student branch lecture.