

# ACIVS 2023 Program

Monday, August 21

- 08:30-12:00 Registration  
09:00-09:15 Opening Session  
09:15-10:30 Computer Vision (1/2): 120, 115, 104  
10:30-10:45 Coffee break  
10:45-12:00 Affective Computing and Human Interactions (1/2): 118, 140, 138
- 12:00-12:30 Lunch break
- 12:30-14:30 Visit to Kumamoto Castle  
**14:30 - 16:00 IROAST session (invited IROAST presentations)**  
**16:00 - 18:00 POSTER SESSION**  
18:00-18:30 Springer Award of the Best Student Paper  
19:30-20:30 Opening Reception (Included in the registration fee)

Tuesday, August 22

- 09:00-10:40 Computer Vision (2/2): 105, 124, 108, 131  
10:40-11:00 Coffee break  
11:00-12:05 Managing the Biodiversity: 151, 142, 106
- 12:05-12:40 Lunch break
- 12:40-14:45 Robotics and Drones: 119, 121, 122, 130, 145  
14:45-15:00 Coffee break  
15:05-16:20 Machine Learning: 152, 127, 137  
16:20-17:10 Affective Computing and Human Interactions (2/2): 153, 125
- 17:15 End of ACIVS Conference  
19:00 Conference dinner (Included in the registration fee)

Students and researchers of Kumamoto university can attend only IROAST session and poster session as free registration.

Monday, August 21

14:30 -16:00 **IROAST session (invited IROAST presentations)**

**Presenter1: Dr. Woodward**

**Title: Development of the Brain/MINDS Data Portal for Open Neuroscience**

**Abstract: Launched in 2014, Brain/MINDS is Japan's Brain Mapping Project.**

Abstract

The unique appeal of the Brain/MINDS project is its focus on mapping the brain of a small new world monkey, the common marmoset (*Callithrix jacchus*).

This is important because research on the non-human primate brain is essential for understanding the human brain and for developing knowledge-based strategies for the diagnosis and treatment of psychiatric and neurological disorders. The Brain/MINDS Data Portal has been launched for sharing the data and knowledge being produced in the Brain/MINDS project. The portal aims to provide integrated knowledge for public use and original data for open research and collaboration. This talk will discuss both the data and the data portal infrastructure to give insight into the creation of a resource of brain imaging data that incorporates some of the state-of-the-art in online database technology.

**Presenter2: Dr. Gastelum Strozzi**

**Title: Multispectral light for color and textural characterization of archeological earthenware pot (Tepalcate)**

Abstract

This paper presents a technique for analyzing the color and texture characteristics of archaeological objects, specifically those known as tepalcates. The technique utilizes a professional color lamp that has been calibrated to control Hue, Value, and Intensity, and can associate Hue angles with spectral responses using a spectrometer.

To scan the objects, a set of Hue angles are defined, and a camera is used to capture frames for each angle in a dark room where the only light source is the calibrated lamp. This produces a multispectral image stack for each object. After each stack is produced, a color classification technique based on clustering is applied to group tepalcates that have similar color and textural properties. The system was tested using archaeological objects from the Michoacan region of Mexico, where distinct colors, burn and fabrication techniques, and painting methods can be associated with different time periods, communities, and traditions. This system can assist specialists in the classification of archaeological objects that belong to similar periods, communities, and traditions. This paper presents a technique for analyzing the color and texture characteristics of archaeological objects, specifically those known as tepalcates. The technique utilizes a professional color lamp that has been calibrated to control Hue, Value, and Intensity, and can associate Hue angles with spectral responses using a spectrometer.

**Presenter3: Associate Professor Patrice Delmas**

**Title: AI for good: Ecosystems preservation**

Abstract

Throughout the years, the Intelligent Vision Systems lab (Patrice Delmas, Director) has worked on projects supporting wildlife and ecosystems preservation. In this presentation, I will provide a brief overview of our research area: AI and Computer vision and explore further our past and current projects notably around Meerkats (Wellington Zoo) behaviour assessment, Albatross counting on remote Sub-Antarctic islands. I will also report on the latest progress on our underwater mapping operations and our tree health initiative using AI and edge computing. There will be as little mathematical content as possible and as many images and videos as possible.