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**AGH UNIVERSITY OF SCIENCE  
AND TECHNOLOGY**

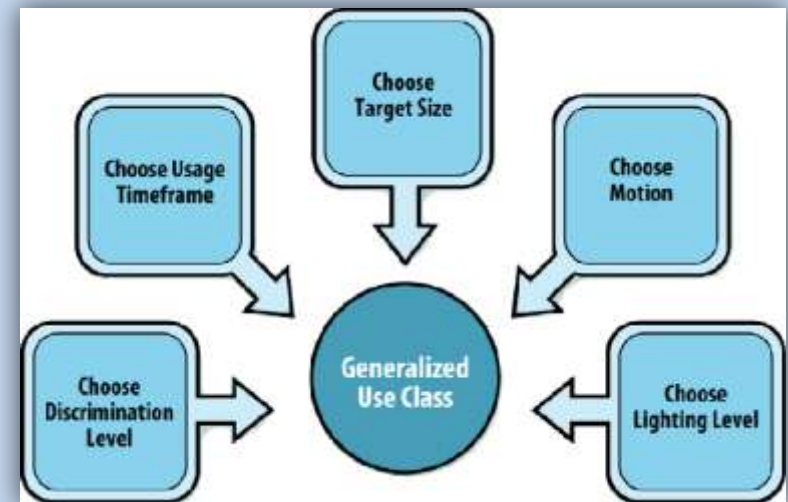


# **AUTOMATIC CLASSIFICATION INTO GENERALIZED USE CLASSES**

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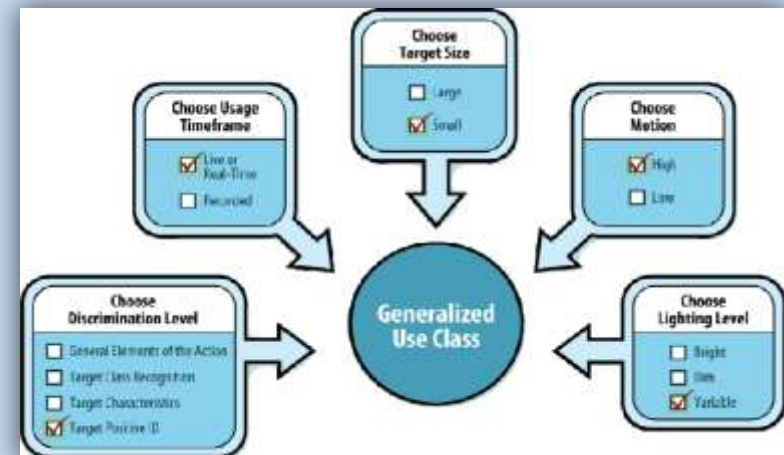
# GENERALIZED USE CLASSES

- ⊙ Use Characteristics:
  - ⊙ Discrimination Level
  - ⊙ Usage Timeframe
- ⊙ Scene content:
  - ⊙ Target Size
  - ⊙ Motion
  - ⊙ Lighting Level



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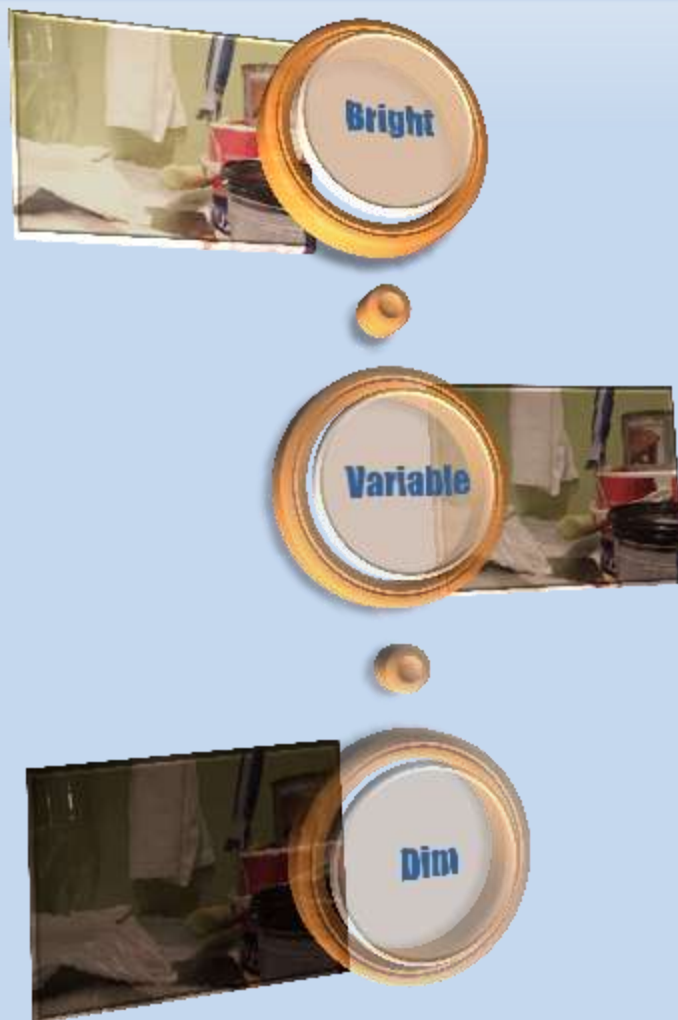


# OUR MAIN GOALS FOR AUTOMATIC CLASSIFICATION INTO GENERALIZED USE CLASSES

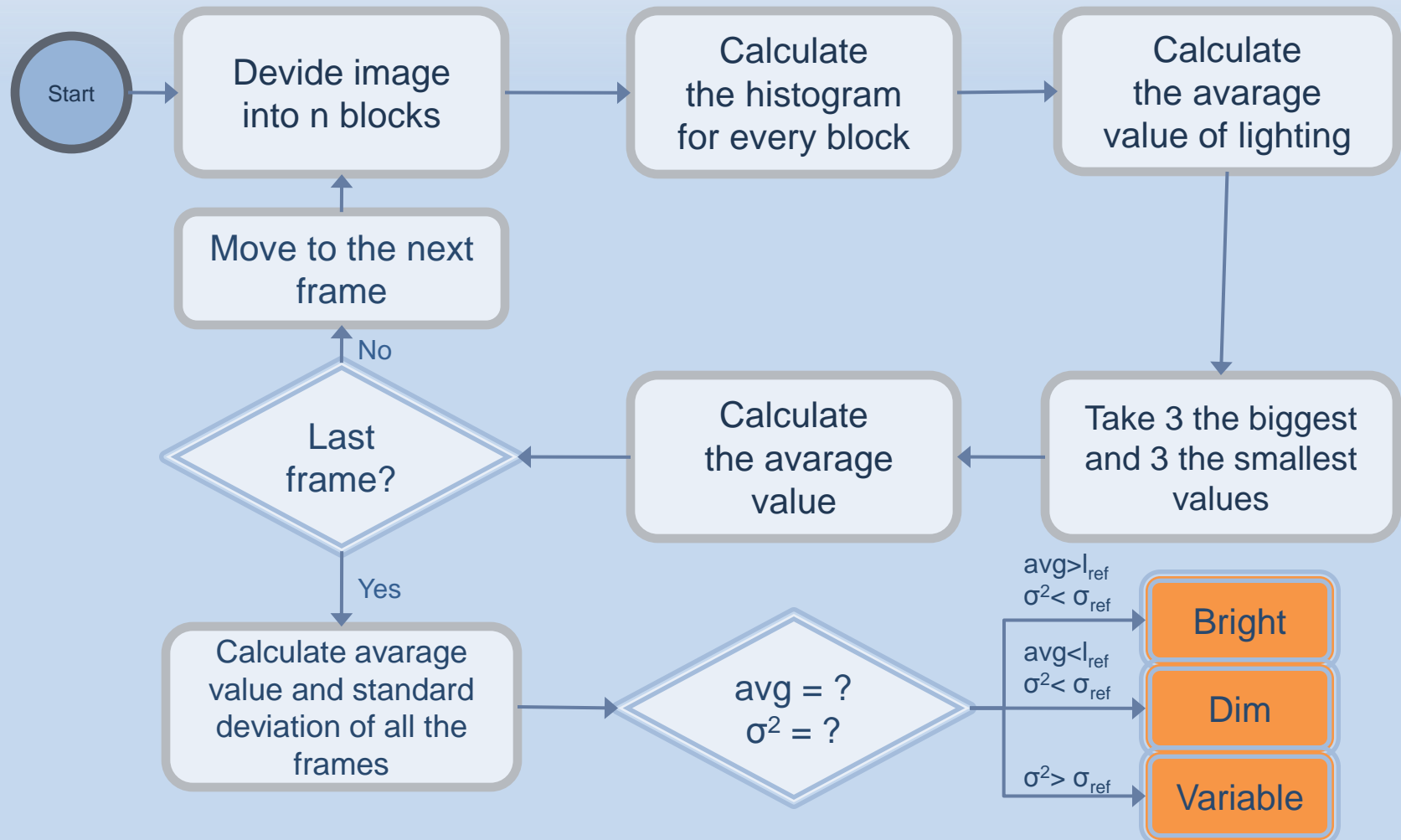
- ⊙ Research on efficient algorithms that classify video sequences upon target size and lighting level
- ⊙ Implementation of these algorithms
- ⊙ Tests



# LIGHTING LEVELS MEASUREMENT



# LIGHTING LEVEL MEASUREMENT ALGORITHM BASED ON DISTORTION OF IMAGE HISTOGRAM



# TARGET SIZE MEASUREMENT

- **Levels:**

- Large
- Small

- **Problems:**

- Target discrimination



# WEB INTERFACE FOR TESTING SIZE AND LEVEL OF BRIGHTNESS

Gathering Ground Truth



# OPENING SITE

## Target Size and Lighting Level Recognition

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In this test, we ask you to decide what is the target on video material, classify its size (large or small) and lighting level (bright, dim or variable) of the whole video sequence. Variable lighting level means that the exposure on video material changes during the whole sequence.

The test consists of 32 video samples. When you check up one sample press "Send" button. This will send result and the next sample will be shown.

You can pause, rewind or fast forward each video at any time, to see better the considered features.

If you read the instructions please complete the fields below and if you are ready - press start button.

---

Age

Gender



# MENU AT OPENING SITE

<b>Age</b>	<b>Gender</b>
<input type="text" value="28"/>	<input type="text" value=""/>
	Male
	Female

# MAIN SITE

## Target Size and Lighting Level Recognition



TARGET:

TARGET SIZE:

LIGHTING LEVEL:

SEND

SEND

TARGET:

TARGET SIZE:

LIGHTING LEVEL:

# MENU AT MAIN SITE

**TARGET:**  **TARGET SIZE:**

Small  
Large

**LIGHTING LEVEL:**

Dim  
Bright  
Variable

# FINAL SITE



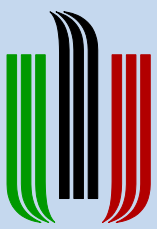
## **Target Size and Lighting Level Recognition**

**This is the end of the test!**

**Thank you for participating.**

# SITE CURRENTLY LOCATED AT...

<http://pbz.kt.agh.edu.pl/~witkowski>



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# THANK YOU! ACKNOWLEDGMENT...



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