



Zespół Szkół
Elektrycznych
im. T. Kościuszki
w Opolu

Michał Podpora

Dynamic re-definition of Region-of-Interest in Vision System's Feedback

mgr inż. Michał Podpora
Apple Distinguished Educator

Department of Electrical and Computer Engineering,
Group of Control and Computer Engineering,
Opole University of Technology



HUMAN CAPITAL
NATIONAL COHESION STRATEGY



EUROPEAN UNION
EUROPEAN
SOCIAL FUND

Work co-financed by European Social Fund



Agenda

- introduction to (JPEG2000, DWWT,) ROI
- introduction to Active Vision
- ActiveVision && ROI
- vision system's feedback
- HTMs (Hierarchical Temporal Memory)



JPEG 2000 [* .jp2]

- DWT + entropy coding = better compression performance than JPEG [* .jpg],
- multiple resolution of an image,
- DWT + IDWT = lossy OR lossless compression,
- Regions of Interest,
- ...



Zespół Szkół
Elektrycznych
im. T.Kościuszki
w Opolu

Michał Podpora

ROI

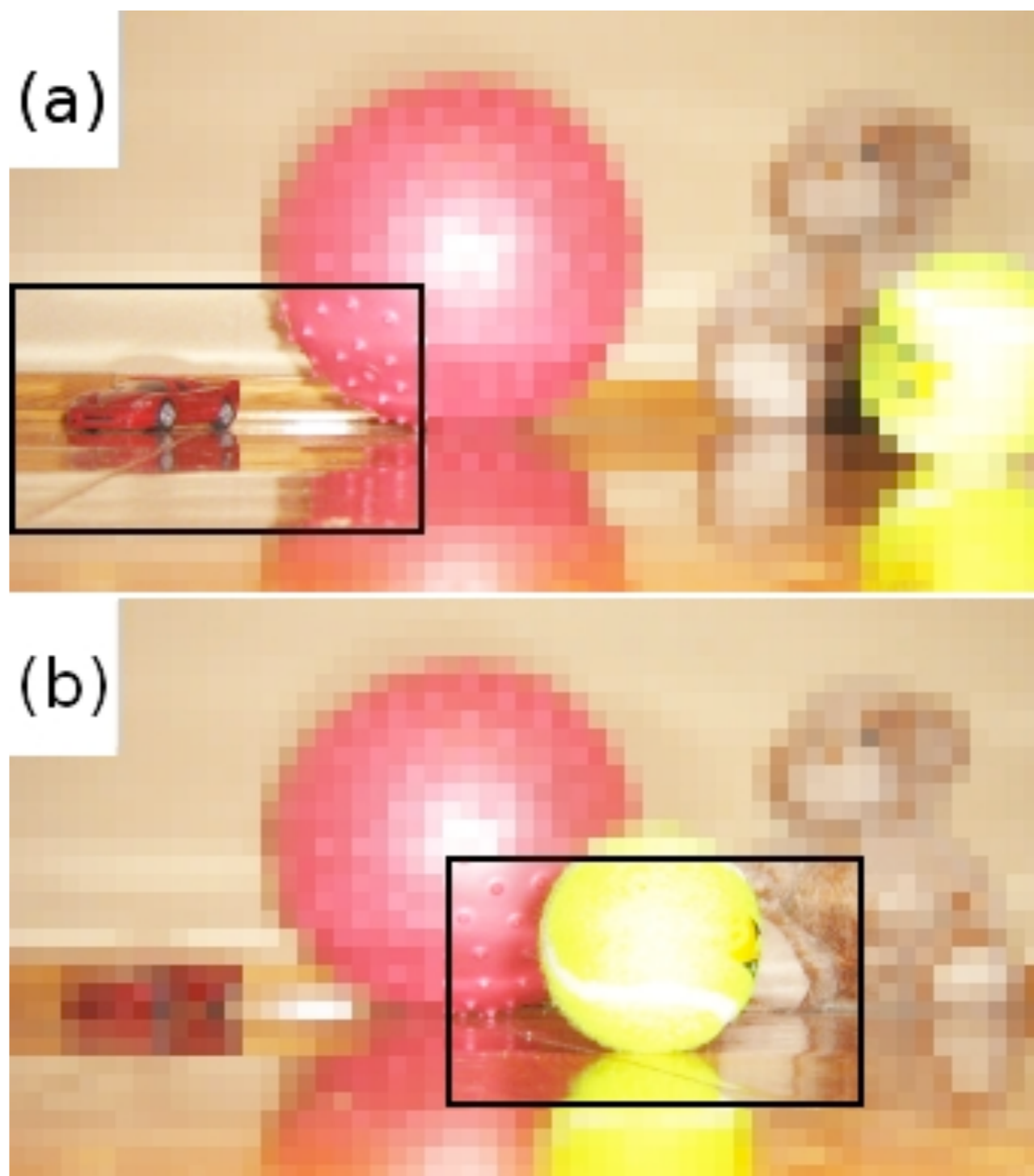




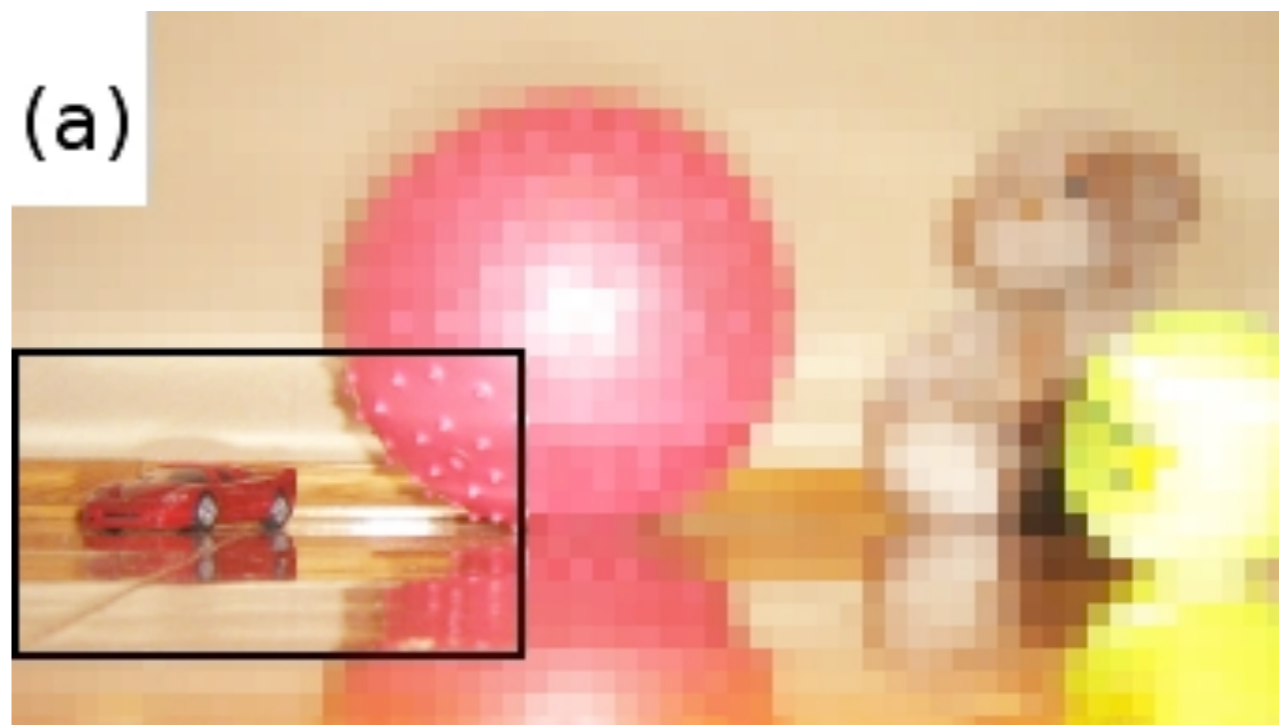
Active Vision

- analysing a part of an image while ignoring the rest of it,
- scanning and processing the whole image tile-by-tile,
- initially based on human eye

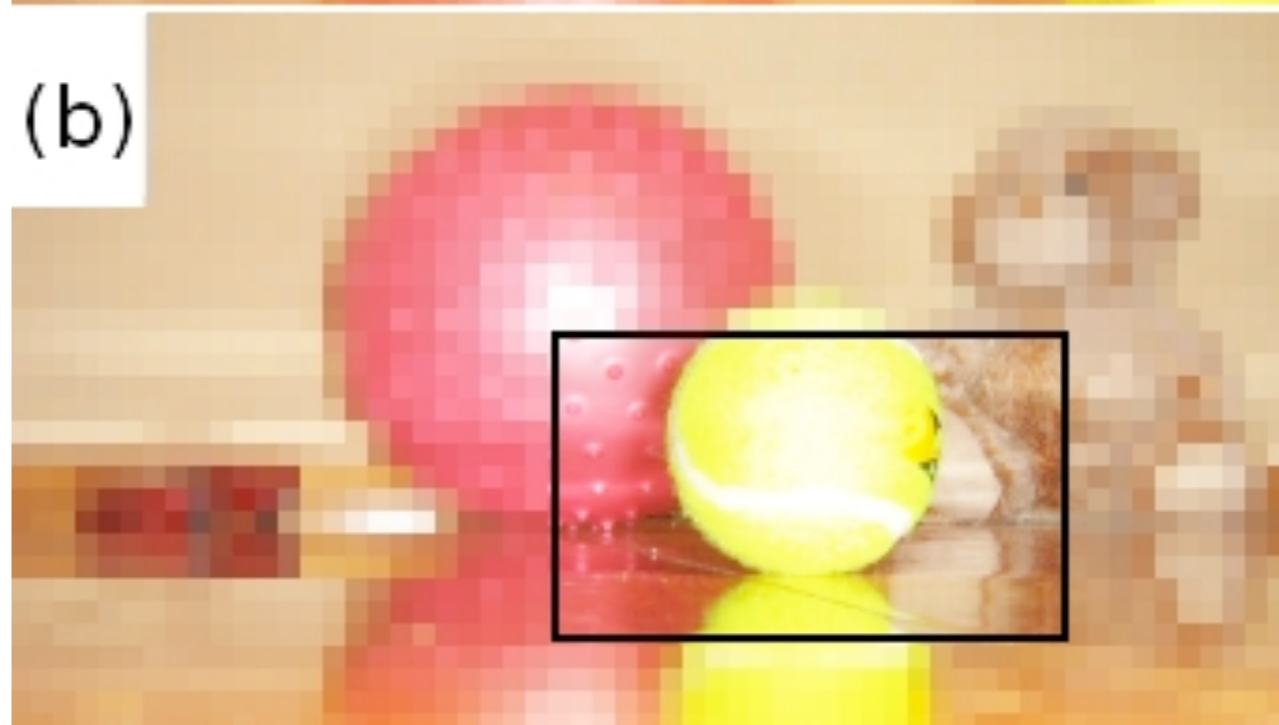
Active Vision & Region-of-Interest



(a)



(b)



(a)



(b)

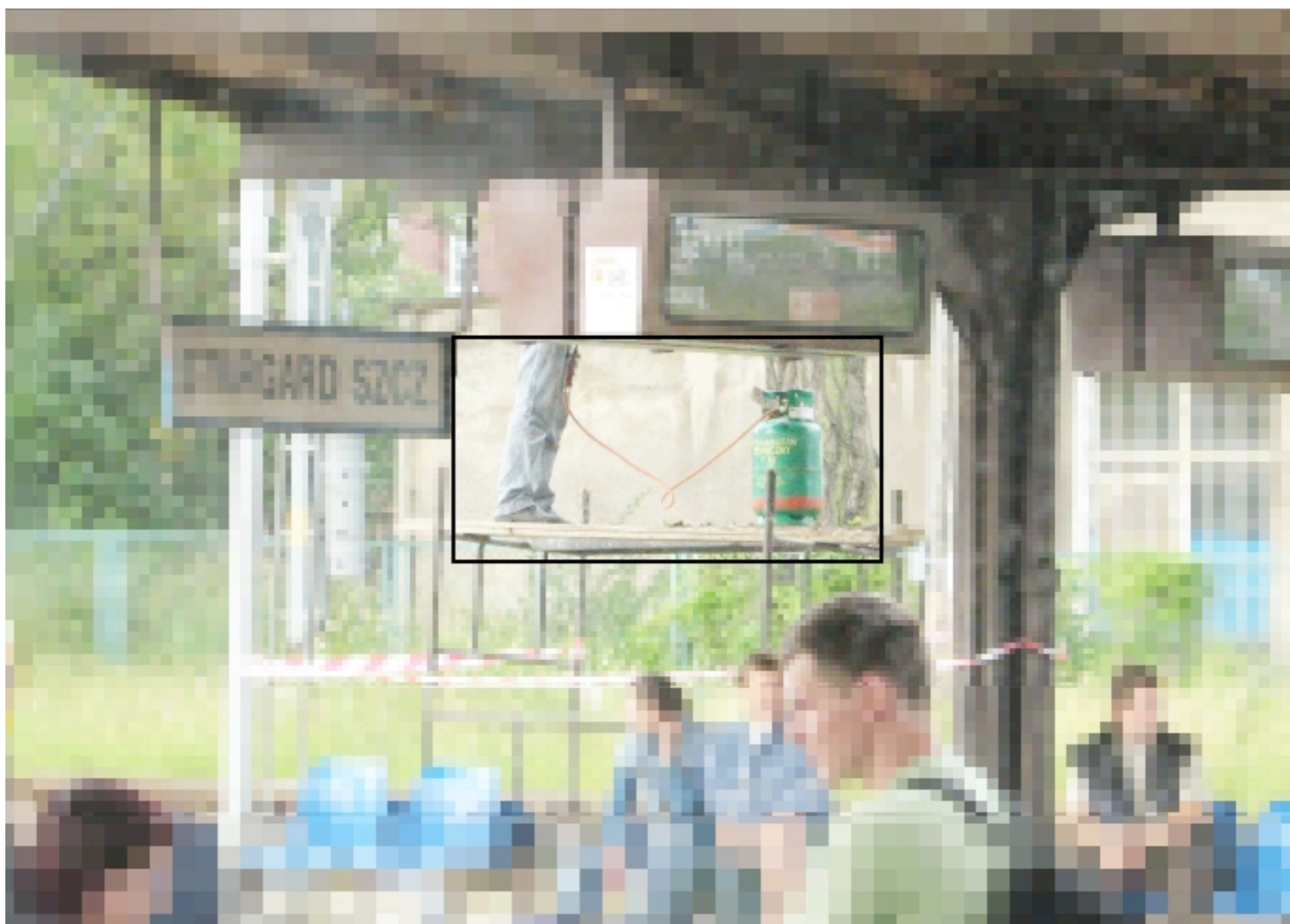




Zespół Szkół
Elektrycznych
im. T. Kościuszki
w Opolu

Michał Podpora

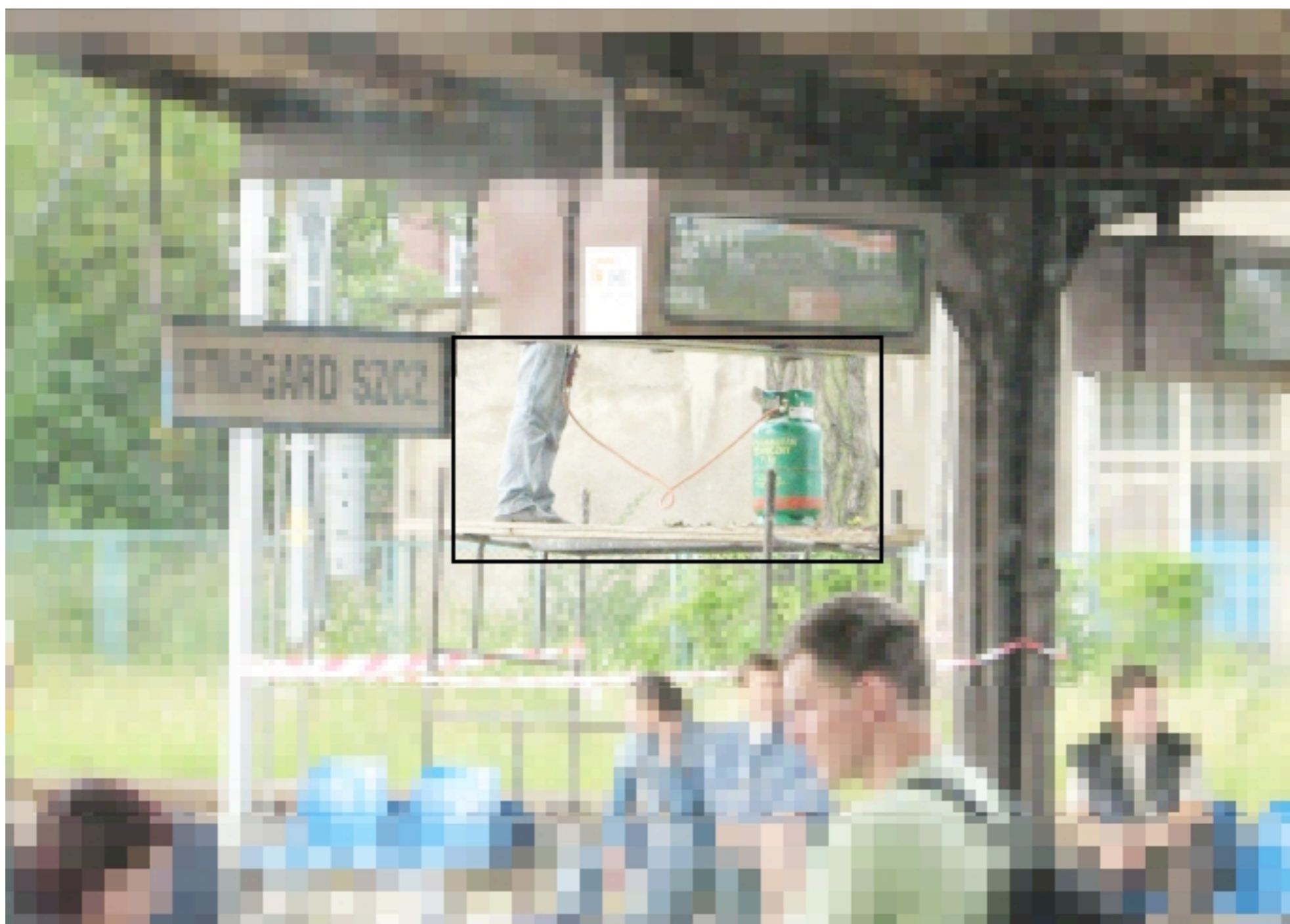
Feedback





Zespół Szkół
Elektrycznych
im. T. Kościuszki
w Opolu

Michał Podpora



WARD 5002



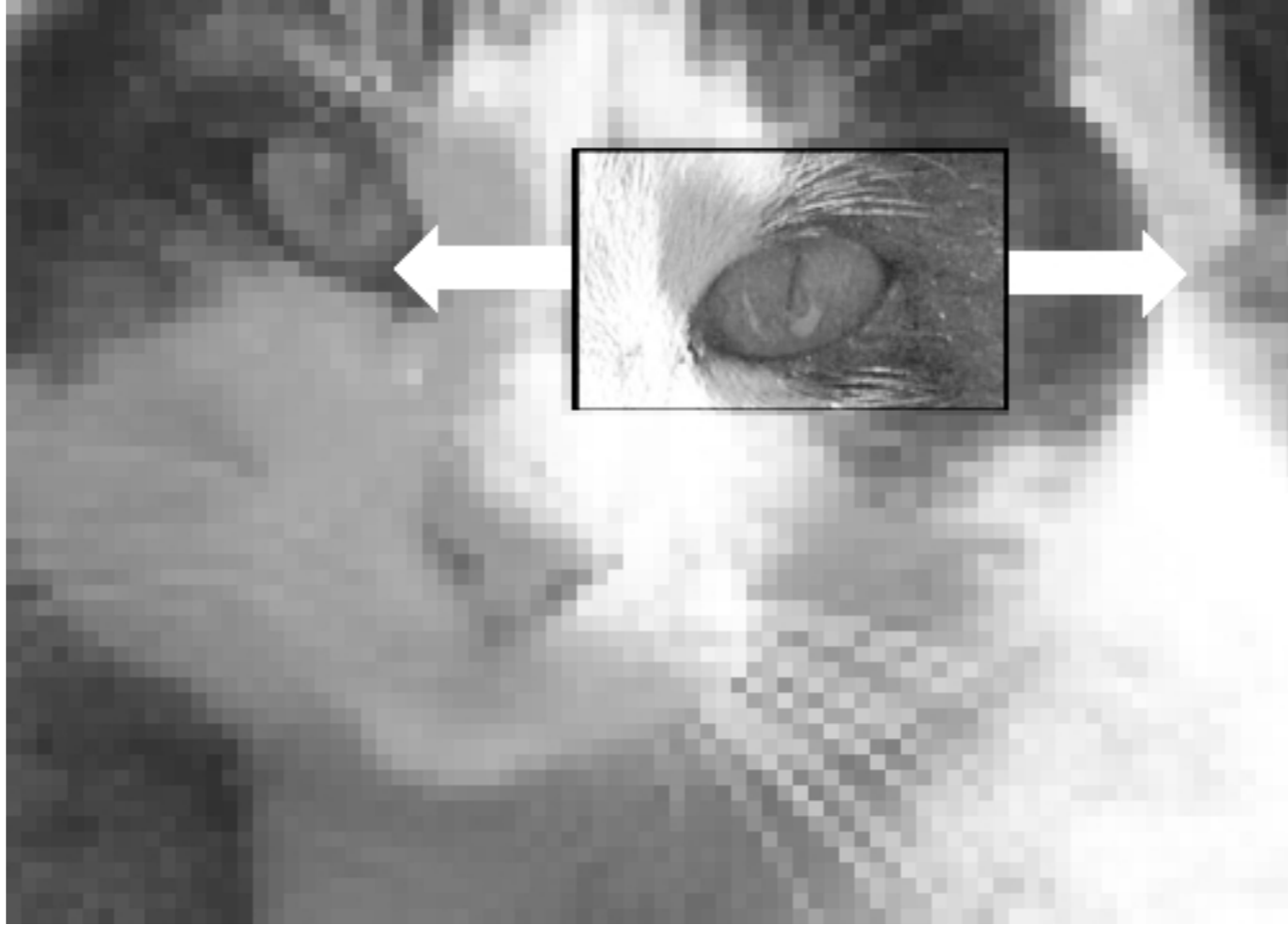


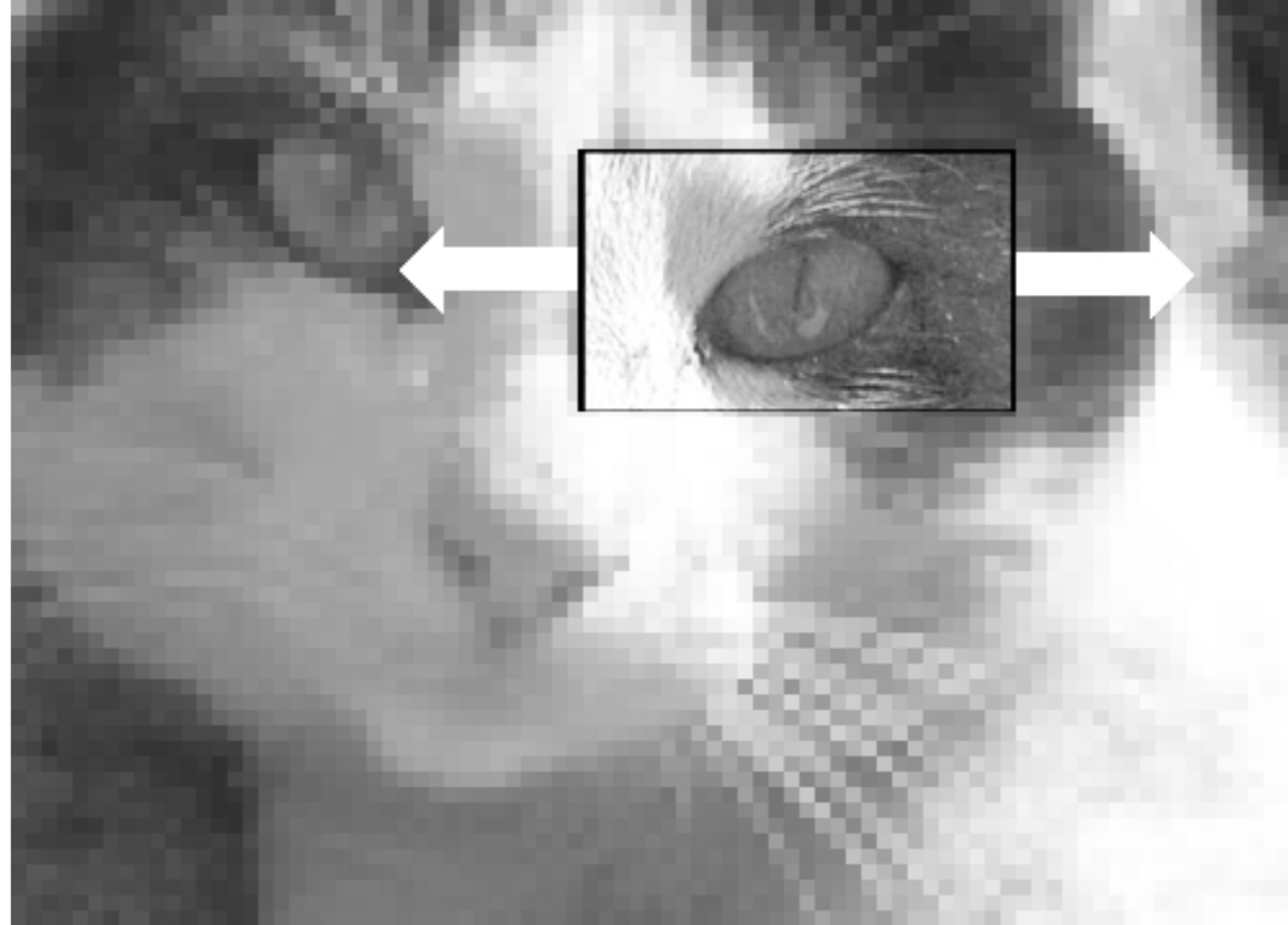
Zespół Szkół
Elektrycznych
im. T. Kościuszki
w Opolu

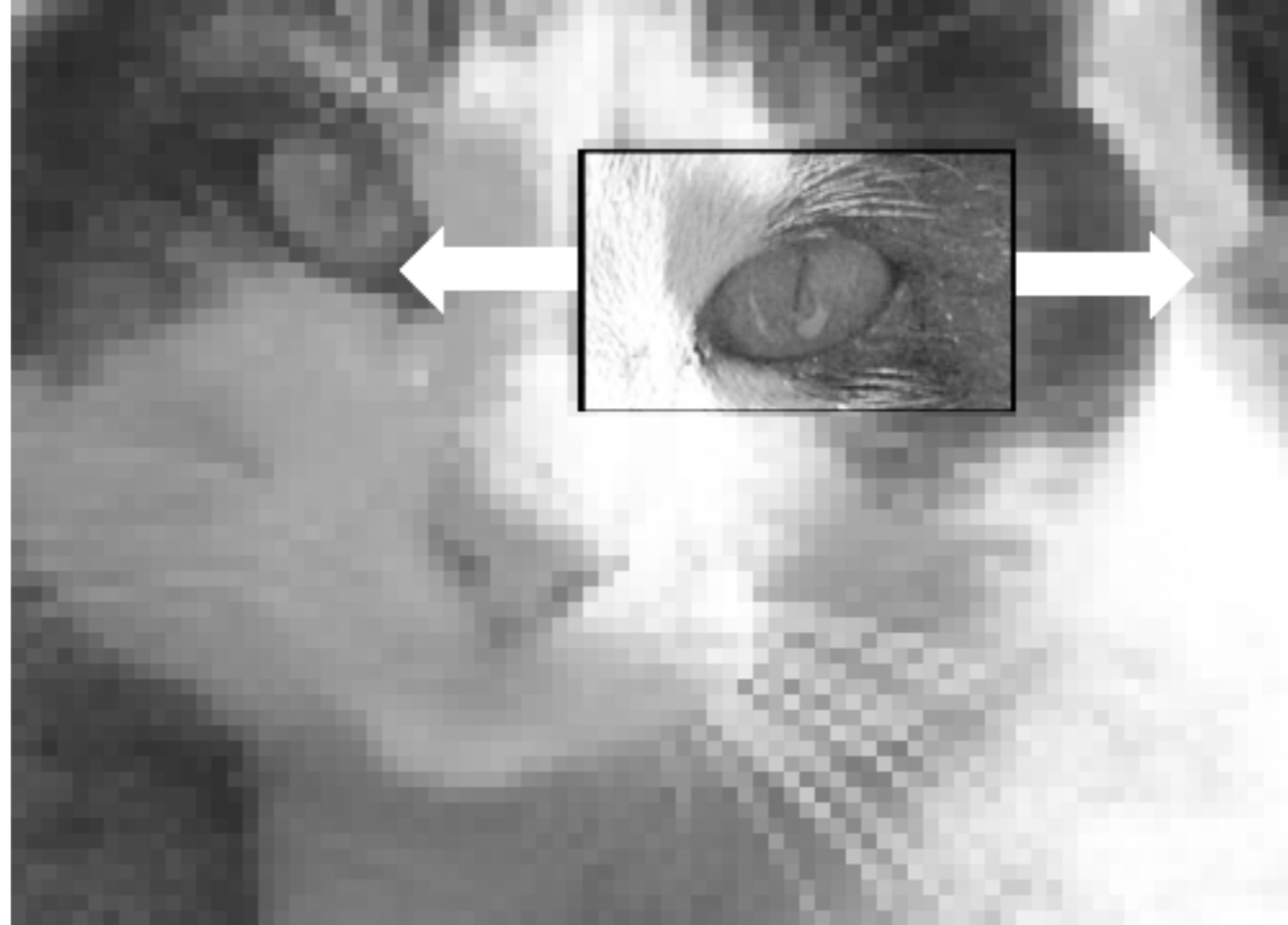
Michał Podpora

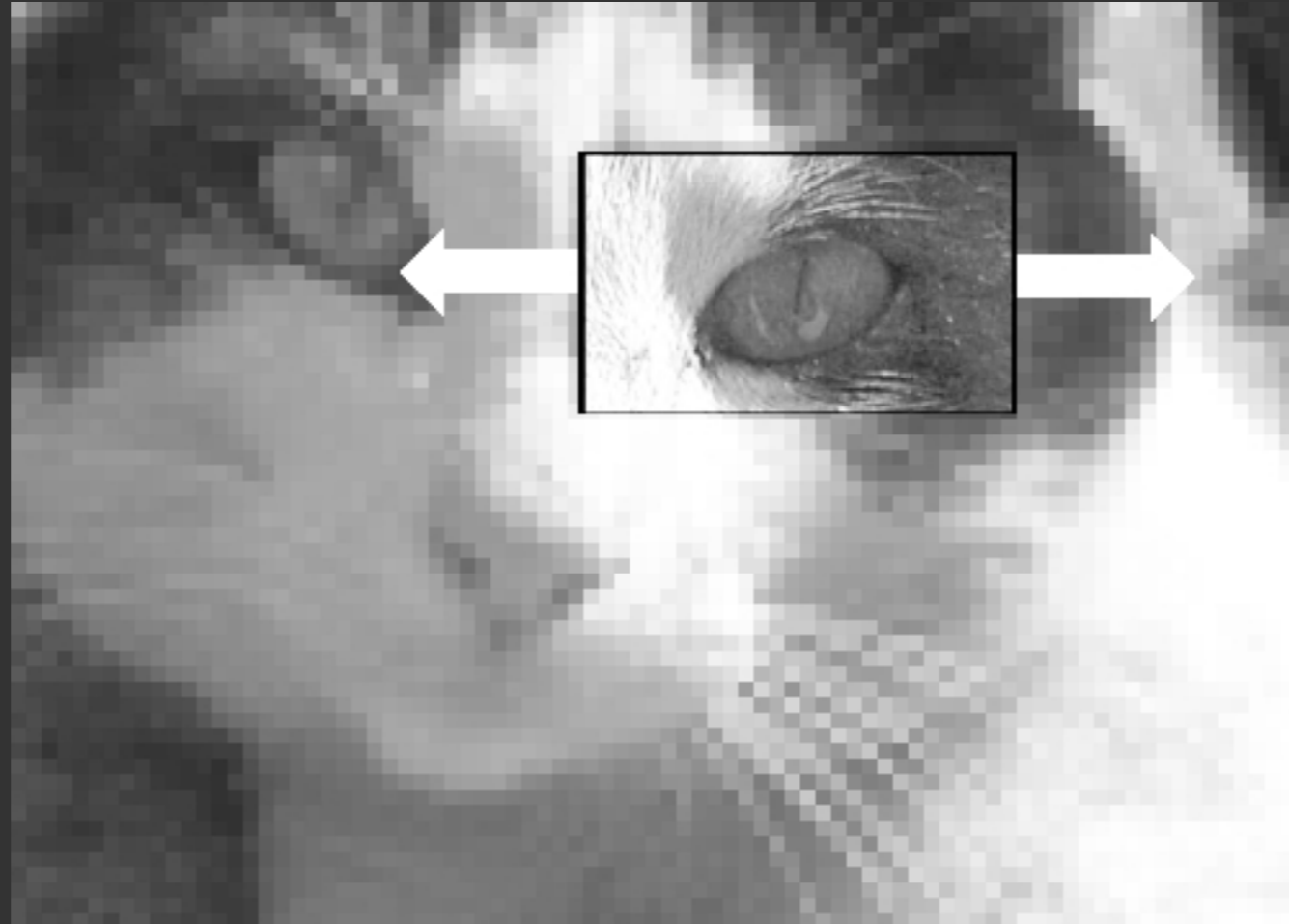
HTMs













Zespół Szkół
Elektrycznych
im. T.Kościuszki
w Opolu

Michał Podpora

Thank you for your attention

