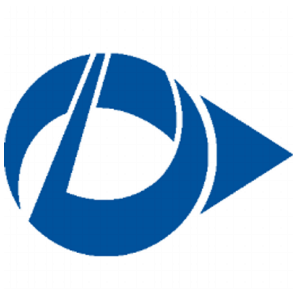
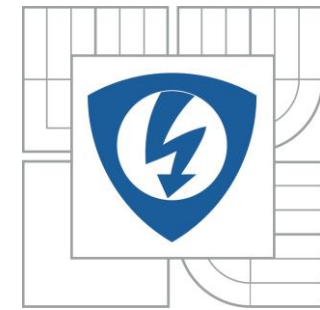


Segmentace textur na RPi 2

Autoři: Adam Ligocki, Tomáš Lázná

Vedoucí: Ing. Daniel Davídek





Segmentace textur – Úvod ?!

- Využití
 - Oddělení objektu od pozadí
 - Vyhledání vzoru
- Zadání:



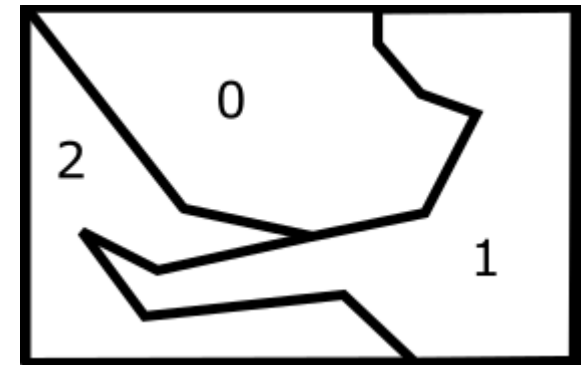
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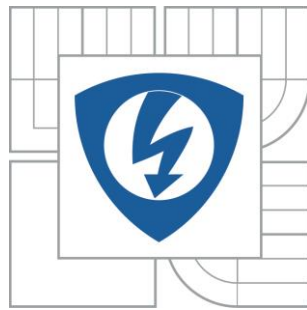


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http://midas.uamt.feec.vutbr.cz/ROZ/roz_cz.php
https://wiki.openwrt.org/_media/media/raspberry_pi_foundation/rpi1a.jpg
<https://cdn.sparkfun.com//assets/parts/8/2/7/8/11868-00a.jpg>

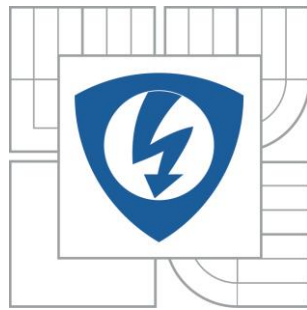




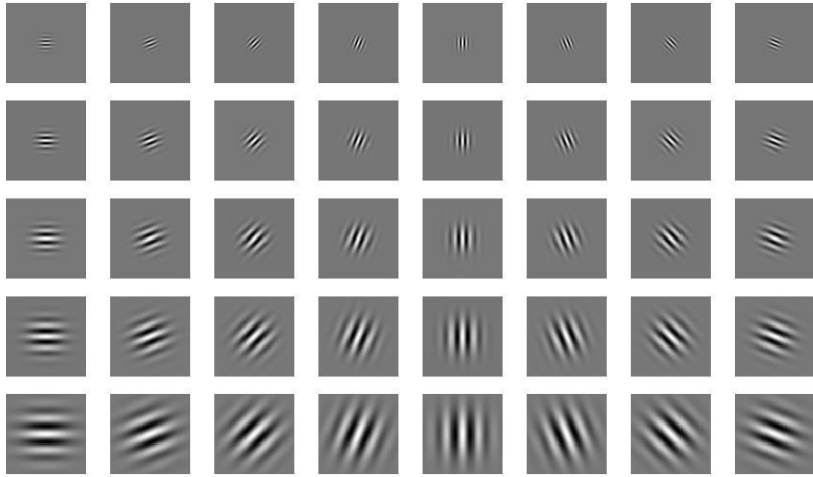
Problém nejednoznačnosti



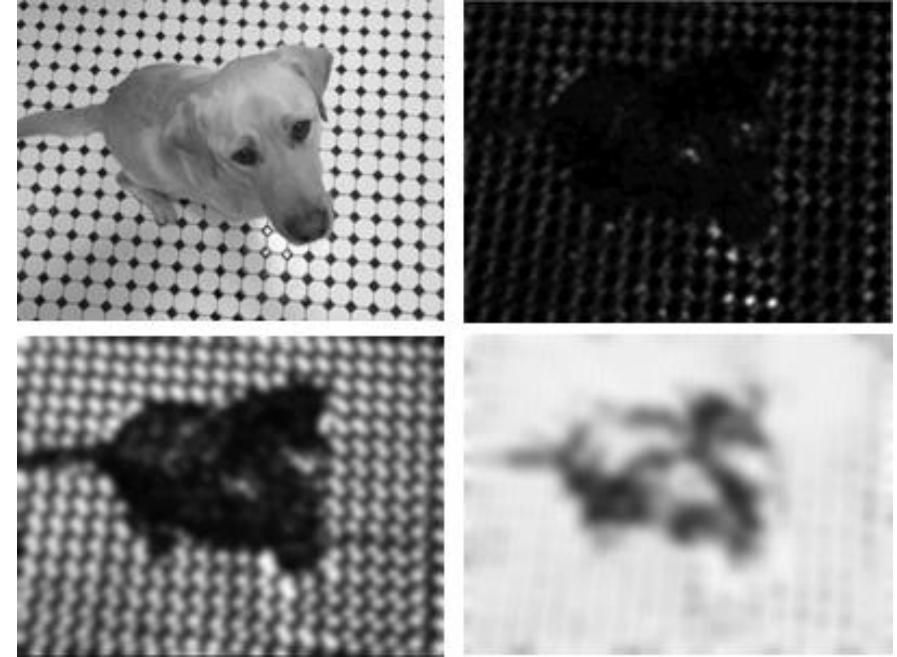
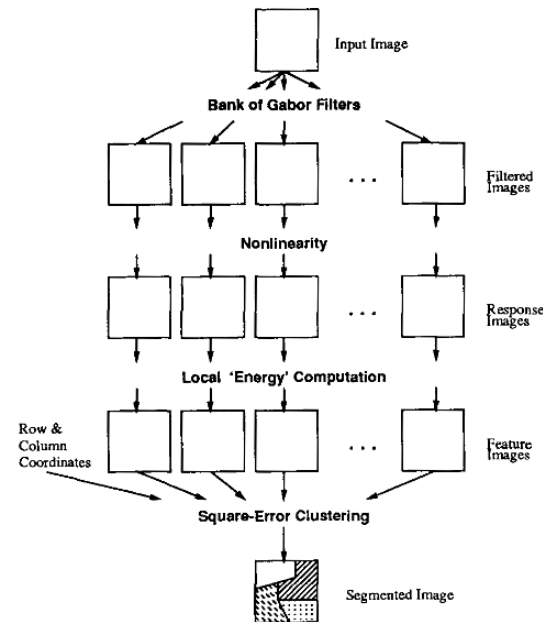
<http://www.riodejaneiro.com/blog/wp-content/uploads/2014/09/copacabana-beach.jpg>



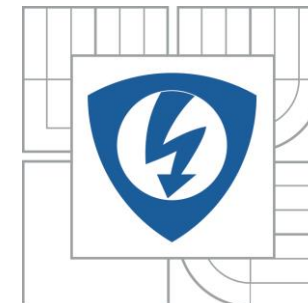
Segmentace Gaborovými Filtry a K-means



<http://i.stack.imgur.com/cANCe.jpg>



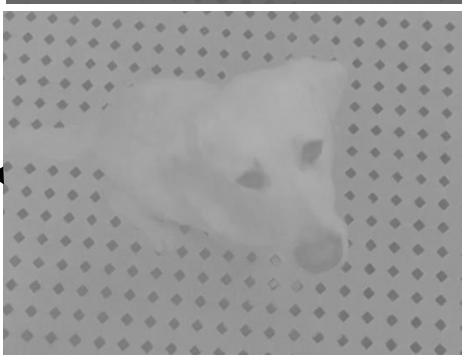
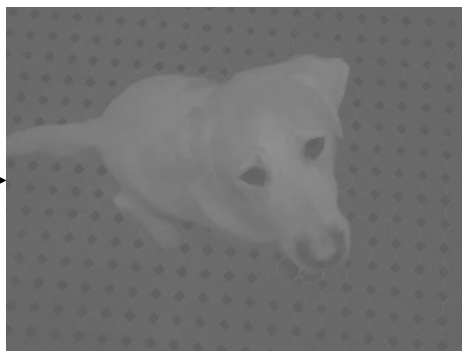
<http://www.ee.columbia.edu/~sfchang/course/dip/handout/jain-texture.pdf>



Fuzzy C-Means



Originál



L^*u^*v

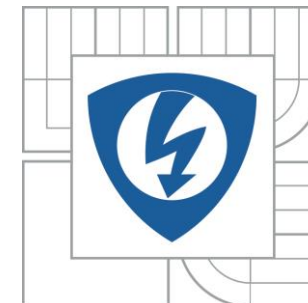


Fuzzy C-means

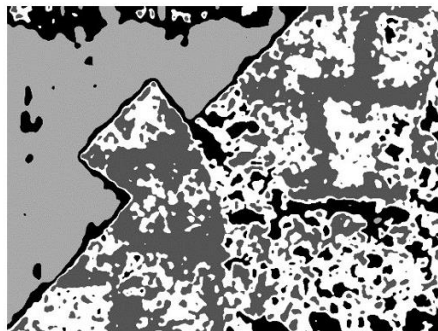


Výstup





Výstupy

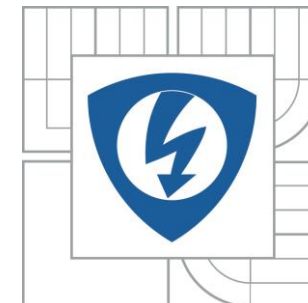


Originál

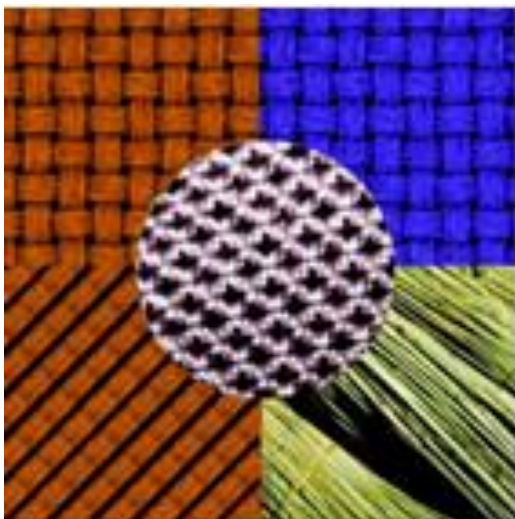
Gabor (frekvence)

Fuzzy (barvy)





Výstupy



Originál

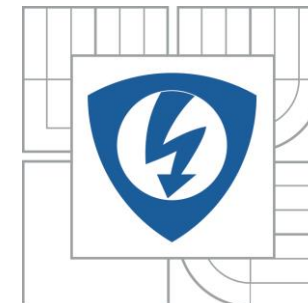


Gabor (frekvence)



Fuzzy (barvy)





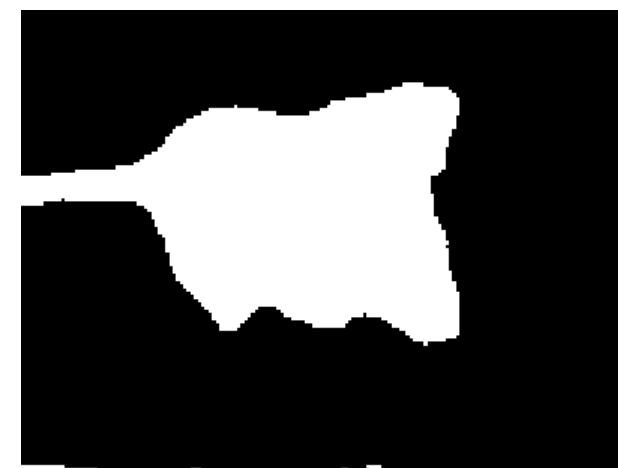
Výstupy



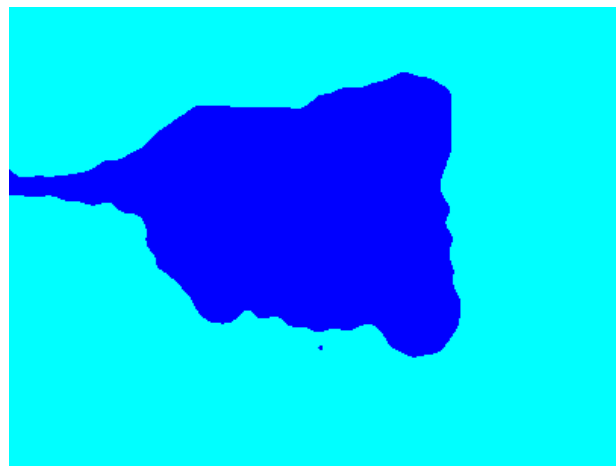
Originál



Gabor (frekvence)



Fuzzy (barvy)

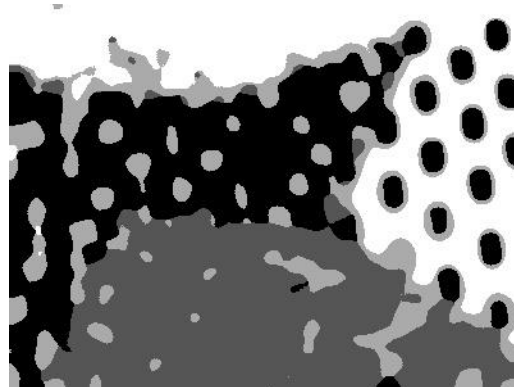
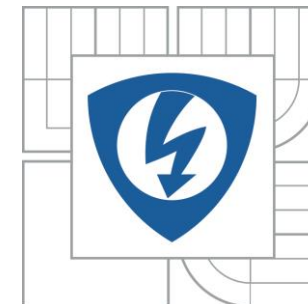


Matlab



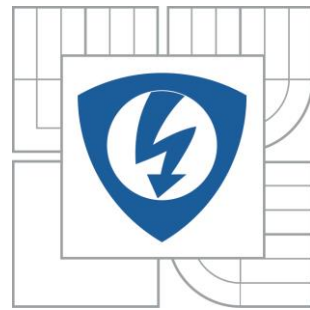


Výstupy – Live Camera





Literatura

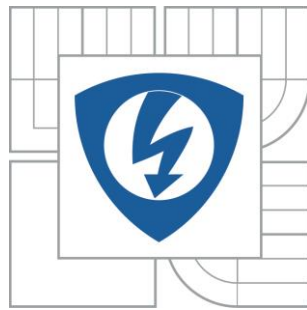


[1] Anil K. Jain a Farshid Farrokhnia. *Unsupervised Texture Segmentation Using Gabor Filters* [online]. Department of Computer Science Michigan State University, 1990 [cit. 2016-05-03]. Dostupné z: <http://www.ee.columbia.edu/~sfchang/course/dip/handout/jain-texture.pdf>

[2] *Mathworks Documentation* [online]. [cit. 2016-05-03]. Dostupné z: http://www.mathworks.com/help/examples/images/TextureSegmentationUsingGaborFiltersExample_01.png

[3] *Stackexchange* [online]. [cit. 2016-05-03]. Dostupné z: <http://dsp.stackexchange.com/questions/25040/whats-the-optimal-filter-size-for-a-2d-gabor-filter>





Děkuji za pozornost

Otázky ...

