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BY USING IMAGE SEGMENTATION TECHNIQUES TO EXPLORE THE WATERSHED ANALYSIS OF SEA SURFACE AREA

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ABSTRACT

By using image segmentation techniques to bifurcate the image shadow in between the sea surface area.A code has been generated to evaluate these kind of heavy muddy clay area.A band of modis A interferometric data used here to target the particular area. Also a generated kernel reevaluated and implement to detect the water content mixture in between the subsurface scattering.

1. INTRODUCTION

Motivation

- Introduction:
- • Image segmentation is the process of partitioning a digital image into multiple segments.
- • Pixels
- • Locate objects and boundaries (lines, curves, etc.)
- • Result of image segmentation:entire image, or a set of contours.

objective

- Watershed: To generate a matlab code to detect and analysis of watershed.
- Morphological watersheds provide a complementary approach to the segmentation of object.
- L=watershed(f)
- f=input image,L=level matrix

2. MATERIALS AND METHOD

bwdist
Contd.
• *B=~im;*
• *C=-B*
• *L=watershed(C);*
• *Im(L==0)=0;*
Raw data for image segmentation:

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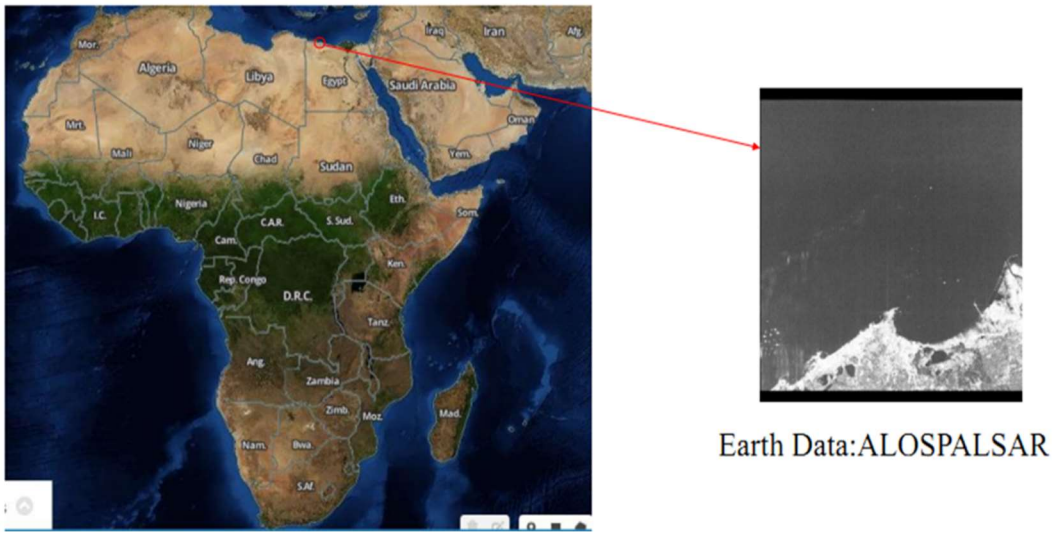
1	1	0	0	0
1	1	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	1	1

0.00	0.00	1.00	2.00	3.00
0.00	0.00	1.00	2.00	3.00
1.00	1.00	1.41	2.00	2.24
1.41	1.00	1.00	1.00	1.41
1.00	0.00	0.00	0.00	1.00



Earth Data:ALOSPALSAR

3. RESULT

- Code generated for image segmentation:
- close all
- I=imread('ALP.jpg');
- I1=imtophat(I, strel('disk',10));
- figure,imshow(I1);
- I2=imadjust(I1);
- figure,imshow(I2);
- level=graythresh(I2);
- BW=im2bw(I2,level);
- figure,imshow(BW);
- C=~BW;
- figure,imshow(C);
- D=-bwdist(C);
- D(C)=-Inf;
- L=watershed(D);
- figure,imshow(L);
- Wi=label2rgb(L,'hot','w');
- figure,imshow(Wi);
- im=I;
- im(L==0)=0;
- figure,imshow(im);

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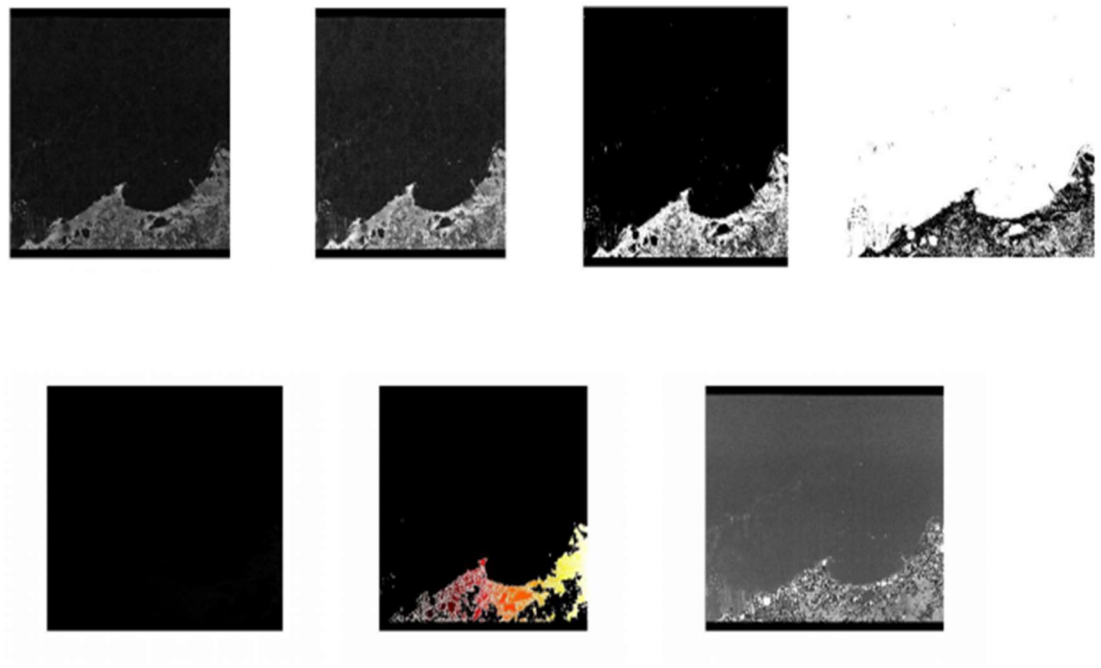

Figure 1: Project model

4. DISCUSSION

- Regional descriptors: Topological, Texture
- Image segmentation through watershed.
- The generated code bifurcate the watershed,which is associated in the .jpeg image.
- It is not necessary to take the bulky data set which covers the spatial info.
- The main objective or prime requirements is over,but for future research purpose the modification of code is considered.

5. CONCLUSIONS

- Image segmentation done through generated code.
- Analysis and key points to explore the image segmentation:
- speed, connectivity, match physical objects or not…
- match physical objects:
- morphological: how to choose foreground or background?
- geometric mathematic: wrong connection
- Representation & Description
- Boundary descriptor:
- rotation, translation, degree of match boundary, closed or non-closed boundary

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