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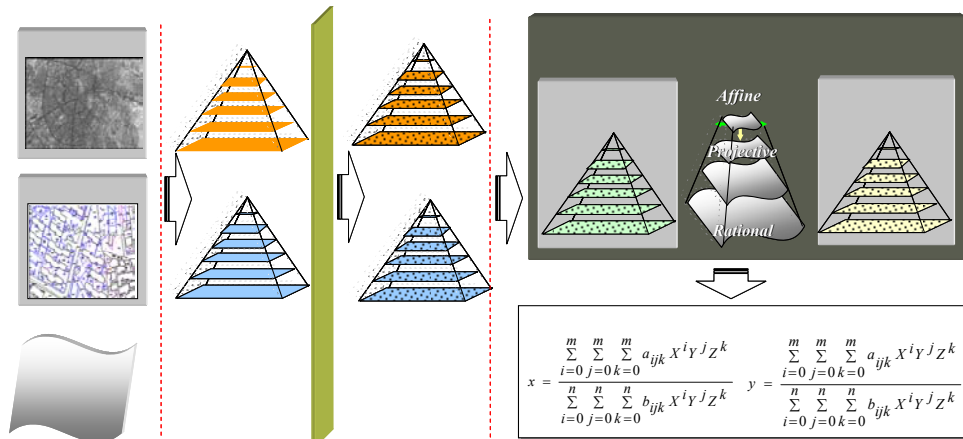
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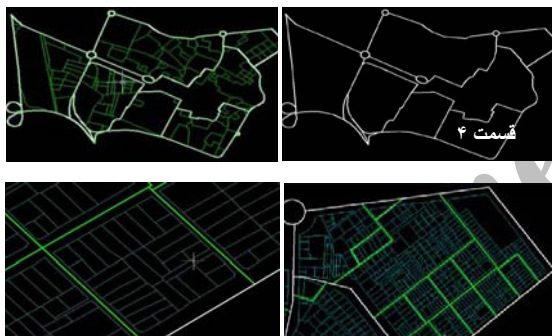
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### :Mesh Simplification

GIS

Mesh

Simplification

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$$M_1 \quad \{V_1, V_2, \dots, V_5\} \\ V_4 \quad V_3 \quad M_0 \quad (\{b_1, b_2, \dots, b_5\}) \\ a_{\min} \quad V_6^{(1)} \quad V_4$$

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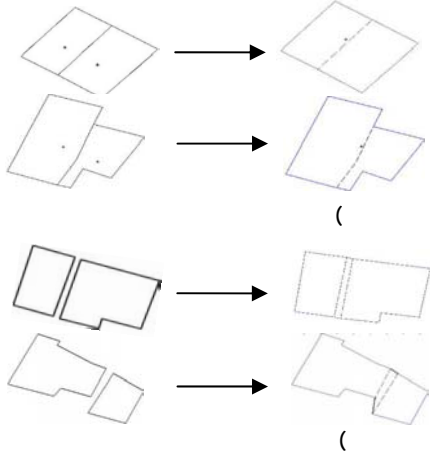
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Mesh Simplification



Delaunay

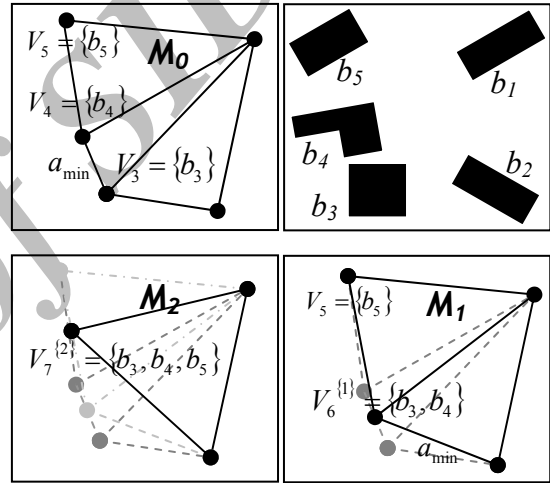
Delaunay

Delaunay

Mesh

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Simplification



Mesh Simplification

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$$x = \frac{p1(X,Y,Z)}{p2(X,Y,Z)} = \frac{\sum_{i=0}^{m_1} \sum_{j=0}^{m_2} \sum_{k=0}^{m_3} a_{ijk} X^i Y^j Z^k}{\sum_{i=0}^{n_1} \sum_{j=0}^{n_2} \sum_{k=0}^{n_3} b_{ijk} X^i Y^j Z^k} \quad ( )$$

$$y = \frac{p3(X,Y,Z)}{p4(X,Y,Z)} = \frac{\sum_{i=0}^{m_1} \sum_{j=0}^{m_2} \sum_{k=0}^{m_3} c_{ijk} X^i Y^j Z^k}{\sum_{i=0}^{n_1} \sum_{j=0}^{n_2} \sum_{k=0}^{n_3} d_{ijk} X^i Y^j Z^k} \quad ( )$$

y x  
Z Y X

d<sub>ijk</sub> c<sub>ijk</sub> b<sub>ijk</sub> a<sub>ijk</sub>

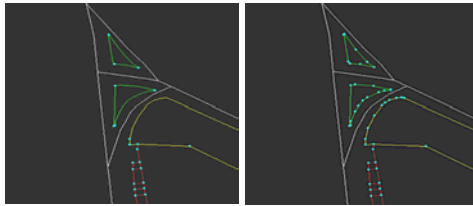
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Delaunay

DLT Projective

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Archive of SID

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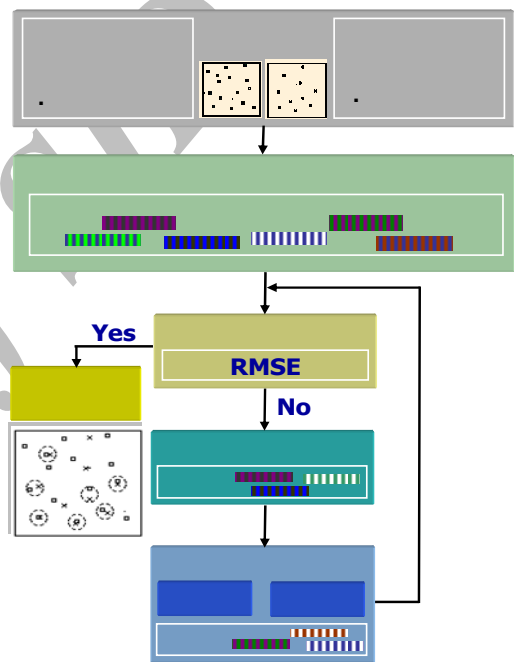
(RMSE)

$$l + v = A \cdot x$$

$$l = [x_1, x_2, \dots, x_n, y_1, y_2, \dots, y_n]^T$$

$$A = \begin{bmatrix} 1 & z_1 & \dots & x_1^A & -x_1 z_1 & \dots & -x_1 x_1^B & 0 & 1 & z_1 & \dots & x_1^C & -y_1 z_1 & \dots & -y_1 x_1^D \\ 1 & z_2 & \dots & x_2^A & -x_2 z_2 & \dots & -x_2 x_2^B & \vdots & 1 & z_2 & \dots & x_2^C & -y_2 z_2 & \dots & -y_2 x_2^D \\ \vdots & \vdots & \ddots & \vdots & \vdots & \ddots & \vdots & \vdots & \vdots & \vdots & \ddots & \vdots & \vdots & \vdots & \vdots \\ 1 & z_n & \dots & x_n^A & -x_n z_n & \dots & -x_n x_n^B & 0 & 1 & z_n & \dots & x_n^C & -y_n z_n & \dots & -y_n x_n^D \end{bmatrix}$$

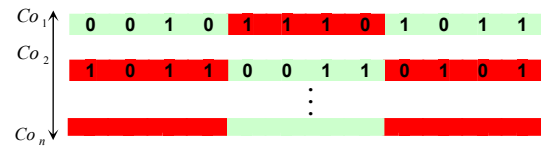
$$x = [a_0 \dots a_{I_A}, b_1 \dots b_{I_B}, c_0 \dots c_{I_C}, \dots d_1 \dots d_{I_D}]^T$$



Archiving of

RMSE

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Geo  
WGS84  
UTM  
UTM  
WGS84

: در روند پیشنهادی روش لقاح تک نقطه‌ای که برای کروموزومها با نمایش باینری بکار می‌رود، استفاده شده است. ابتدا دو عضو با نمایش باینری به‌عنوان والد توسط تابع انتخاب، انتخاب می‌شوند. سپس الگوریتم ژنتیکی با توجه به پارامتری به نام احتمال لقاح کنترل می‌کند که آیا عمل لقاح باید انجام شود و یا خیر. بر مبنای نتایج تجربی در این تحقیق احتمال لقاح  $0/6$  در نظر گرفته شده است. اگر شرط لقاح ایجاد گردد، اعضاء انتخاب شده با روش تک نقطه‌ای ترکیب و جمعیت جدید بوجود می‌آید.

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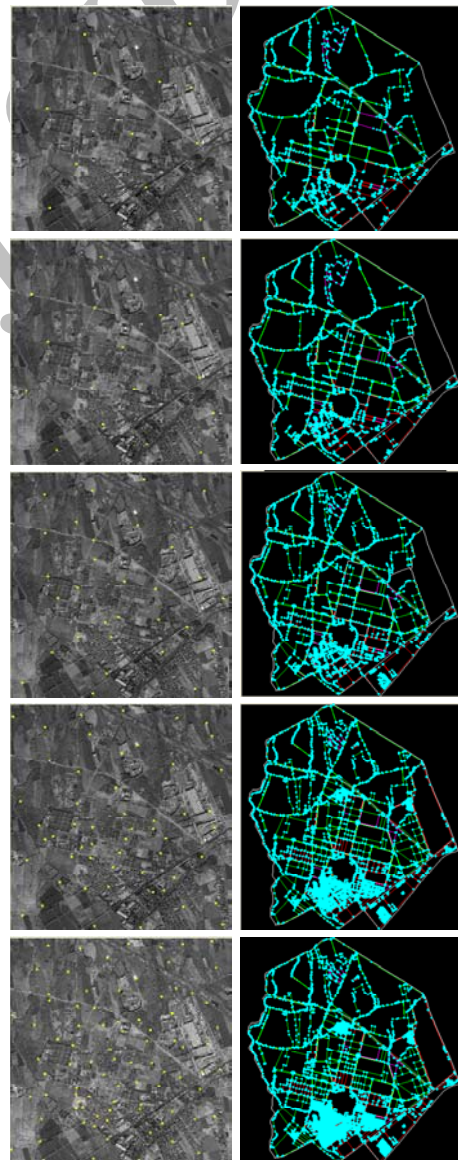
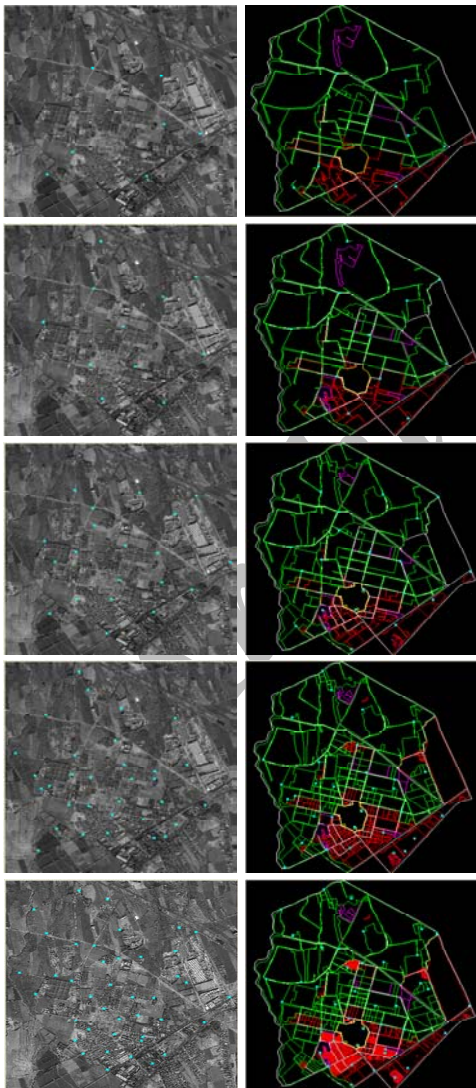
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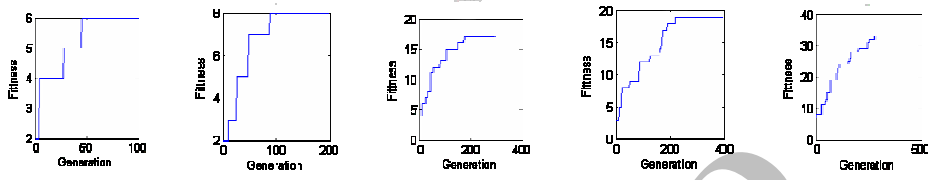
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RMSE (m)								
ry	rx							
/	/	2D-1	P2=P4=1					
/	/	2D-1	P2=P4					
/	/	3D-1	P2=P4					
/	/	3D-1	P2≠P4					
/	/	3D-2	P2=P4					



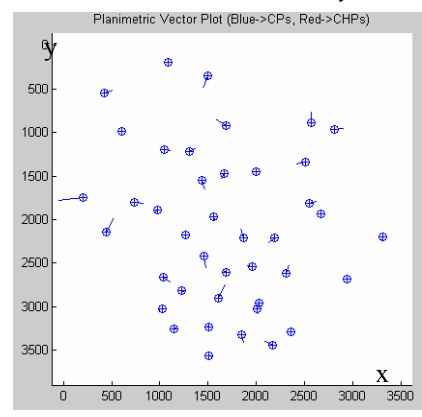
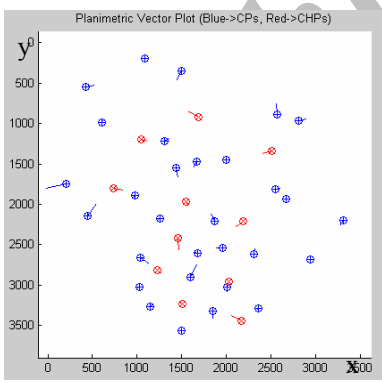
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y x x y

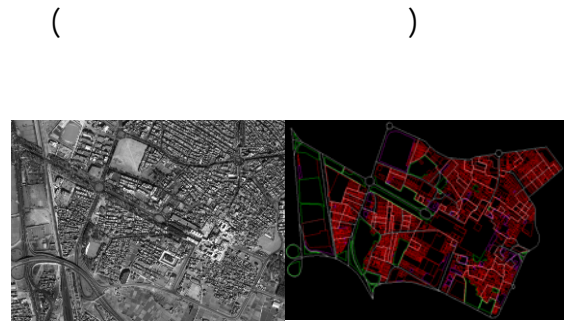
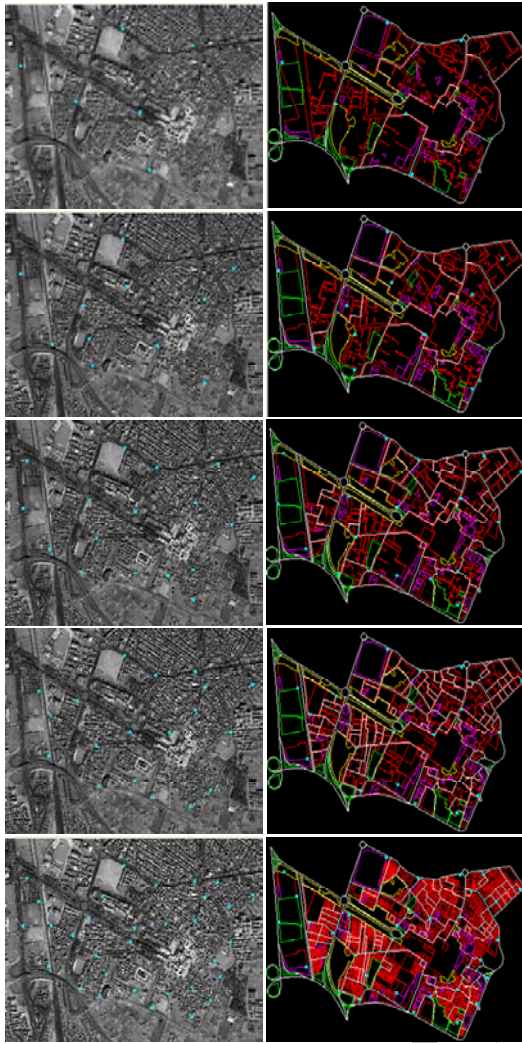


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RMSE :

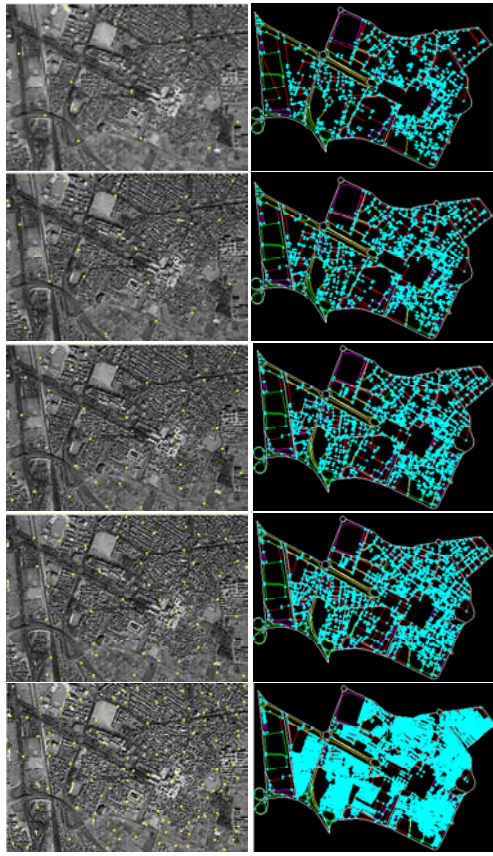
			RMSE (m)	RMSE (m)			
		/	/	/	/	/	/



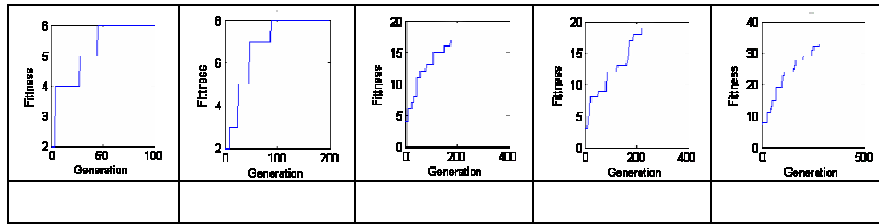
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Architectural  
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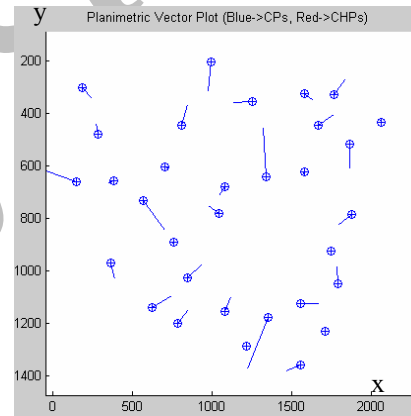
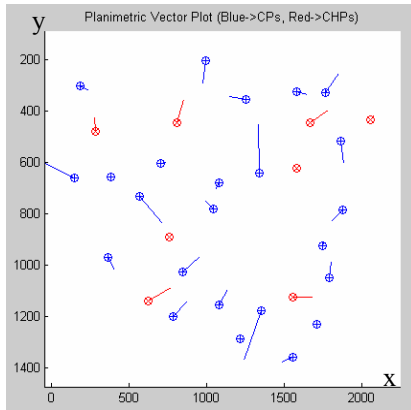
x  
 y



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RMSE (m)							
ry	rx						
/	/	2D-1	P2=P4=1				
/	/	3D-1	P2=P4				
/	/	3D-2	P2=P4				
/	/	3D-3	P2=P4				
/	/	3D-3	P2=P4				



RMSE							
RMSE (m)	RMSE (m)						
/	/	/	/	/	/	/	/



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- 1 - Georeferencing
- 3 - Rules
- 5 - Segmentation
- 7 - Patch matching
- 9 - Supervised segmentation
- 11 - Least square matching
- 13 - Crossover
- 15 - Objective Function
- 17 - Crossover probability

- 2 - Semantic nets
- 4 - Road segmentation
- 6 - Preparation
- 8 - Boundary pixel matching
- 10 - Rational
- 12 - Selection
- 14 - Mutation
- 16 - Roulette wheel selection
- 18 - Mutation probability

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