

RELACION I PUNIMEVE TOPOGRAFIKE

Pune: Krijimi i modelit 3D, dhe , pointcloudit dhe rilevimi I Bulevardid “ Zogu 1 “ Tirane.

Data ne Teren: 15/04/2018

Punimet e kryera ne Teren.

-Krijimi I Bazamentit Gjeodezik duket perdor GPS (Sokkia GRX2) dhe stacion Total (Fx.101)

-Parapergaditja per fotografim (pozicionimi I GCP dhe rilevimi I tyre duke u bazuar ne bazamentin gjeodezik te krijuar.)

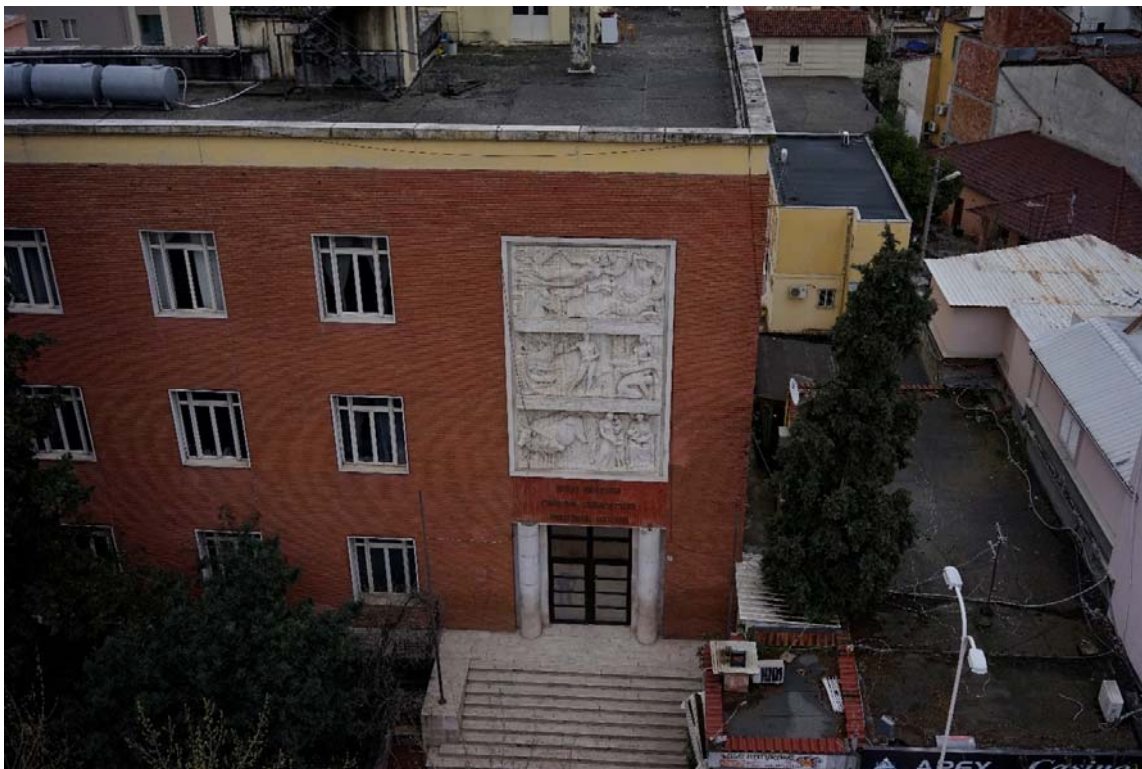
Rilevimi i GCP u be me poligonometri me Stacion Total Sokkia fx101 duke u mbeshtetur ne pikat e bazamentit te krujuar.

-Fotogrametri me dron (Topcon Falcon8)

Fotografimi u be me 2 faza :

-Me intererare te programuara ne Asctec Navigator horizontale dhe me intererare vertikale manual. Gjate gjithë fotografimit u ruajt mbulese gjatsore 60% ne mes fotografive dhe mbulese terthore 80%.

-Me fotografim me fluturim manual u be fotografimi ne zonat problematike ku pati pengesal.



(Fotografi nga fotografimi me dron)

Perpunim fotogrametrik I te dhenave te mara nga fotografimi ne teren dhe nxjerja e modelit 3D, pointcloud, ortofoto dhe siperfaqja ne formatin .dwg.

Data e dorzimit te punimeve 18/15/2018

-Postprocesimi fotogrametrik

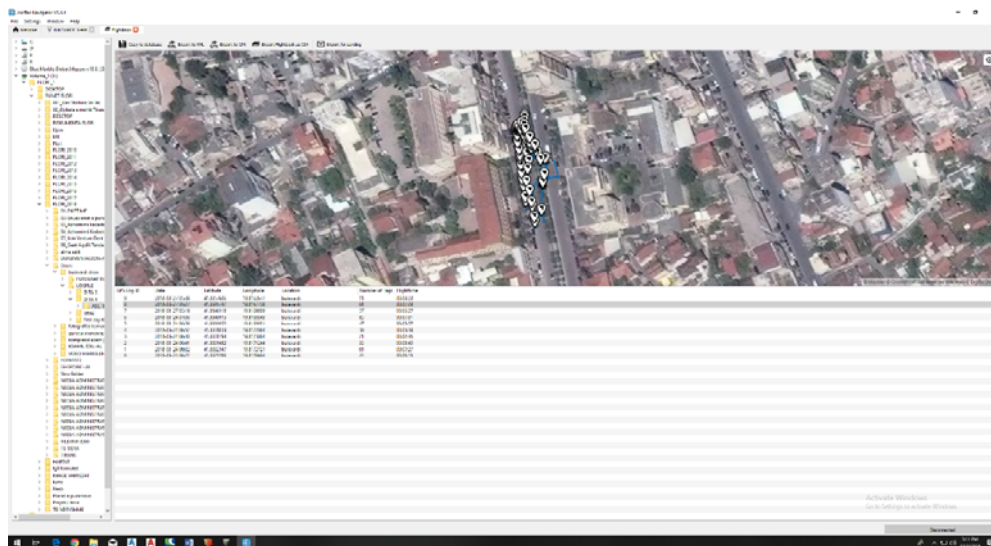
Per postprocesim te fotografive u perdoren sofweret

-Asctec Navigator

-Bentley context capture

-AscTec Navigator

Per lidhje e fotografive te dronit me pozicionet e qendrave te fotografimit dhe parametrave tjere sic jane tre rotullimet u perdoror program AscTec Navigator.



Pas procesimit me kete program exportohem blloqet .xml per postprocesim ne Bentley context capture.

Control points														
Spatial Reference System (SR): WGS 84 / UTM zone 34N (EPSG:32634)														
Name	Category	Check point	Given X	Given Y	Given Ellipsoidal height	Horizontal accuracy [m]	Vertical accuracy [m]	Estimated X	Estimated Y	Estimated Ellipsoidal height	RMS of reproj error [px]	RMS of dist. to rays [m]	3D error [m]	3D horizontal error [m]
10KT_KTF_DPOSHT	Full	☐	400964.365	4576599.686	180.464	0.010	0.010	400964.365	4576599.686	180.464	0.03	0.019	0.000	0.000
10KT_KTF_DPOSHT	Full	☐	400955.692	4576645.099	180.480	0.010	0.010	400955.692	4576645.099	180.481	0.28	0.013	0.001	0.001
14KT_LM_SKT	Full	☐	400997.657	4576710.659	169.422	0.010	0.010	400997.658	4576710.662	169.418	0.69	0.020	0.005	0.003
14KT_M_SKT	Full	☐	400984.153	4576671.586	166.606	0.010	0.010	400984.154	4576671.582	166.602	0.54	0.014	0.006	0.004
14KT_LD_SKT_SAKT	Full	☐	400983.736	4576681.586	169.401	0.010	0.010	400983.721	4576681.588	169.404	0.52	0.021	0.006	0.006
GCP	Full	☐	400981.290	4576700.255	148.719	0.010	0.010	400981.293	4576700.254	148.726	1.21	0.019	0.007	0.003
KON_D_LM	Full	☐	401017.019	4576320.060	159.144	0.010	0.010	401017.018	4576320.063	159.142	1.22	0.005	0.004	0.003
KON_M_LM	Full	☐	401021.715	4576295.849	159.071	0.010	0.010	401021.715	4576295.850	159.068	1.09	0.003	0.003	0.001
MA_LD	Full	☐	401014.756	4576546.744	162.895	0.010	0.010	401014.757	4576546.744	162.894	0.30	0.006	0.001	0.001
MINLD	Full	☐	401004.413	4576335.876	168.940	0.010	0.010	401004.413	4576335.879	168.945	0.52	0.015	0.006	0.003
MINLM	Full	☐	400997.257	4576373.055	168.946	0.010	0.010	400997.257	4576373.051	168.952	1.14	0.014	0.007	0.004
MINLM	Full	☐	401000.237	4576357.579	162.779	0.010	0.010	401000.237	4576357.584	162.787	1.33	0.036	0.012	0.005
NOTERIA_LD	Full	☐	400985.206	4576481.937	162.649	0.010	0.010	400985.211	4576481.942	162.649	0.62	0.014	0.007	0.007
NOTERIA_LD	Full	☐	400993.577	4576420.378	162.281	0.010	0.010	400993.590	4576420.377	162.280	0.40	0.008	0.003	0.003
NOTERIA_LD	Full	☐	400989.482	4576459.775	162.272	0.010	0.010	400989.475	4576459.777	162.274	0.74	0.007	0.008	0.007
NOTERIA_LD	Full	☐	400985.206	4576481.937	162.649	0.010	0.010	400985.213	4576481.930	162.649	0.35	0.034	0.010	0.010
OBVLM	Full	☐	401034.635	4576433.396	165.270	0.010	0.010	401034.635	4576433.396	165.270	0.13	0.012	0.000	0.000
OBVLM	Full	☐	401034.635	4576433.396	165.270	0.010	0.010	401034.637	4576433.394	165.272	0.96	0.018	0.004	0.003
OBVLM	Full	☐	401026.981	4576449.278	165.186	0.010	0.010	401026.979	4576449.280	165.183	0.90	0.014	0.004	0.003
PKUQLM	Full	☐	401038.189	4576391.487	165.151	0.010	0.010	401038.189	4576391.487	165.150	0.21	0.009	0.001	0.000
SP_AM_LM	Full	☐	401012.245	4576525.409	158.086	0.010	0.010	401012.244	4576525.409	158.087	0.19	0.011	0.002	0.001
XHAM_M_PM	Full	☐	401018.851	4576309.184	159.116	0.010	0.010	401018.852	4576309.182	159.117	0.70	0.002	0.002	0.002
XHAM_P_PM	Full	☐	401018.859	4576309.159	155.065	0.010	0.010	401018.861	4576309.158	155.068	0.62	0.003	0.003	0.002
alpha_x_ld	Full	☐	401045.746	4576169.378	159.691	0.010	0.010	401045.748	4576169.374	159.691	1.12	0.013	0.005	0.005
gcp	Full	☐	401029.527	4576285.856	148.299	0.010	0.010				0.84	0.007		
gcp1	Full	☐	401075.052	4576110.701	147.470	0.010	0.010	401075.052	4576110.701	147.471	0.21	0.011	0.001	0.000
gcp2	Full	☐	401062.756	4576107.551	147.459	0.040	0.010	401062.757	4576107.549	147.458	0.67	0.009	0.003	0.003
gcp5	Full	☐	401047.237	4576196.454	147.953	0.010	0.010	401047.236	4576196.458	147.954	1.08	0.030	0.005	0.005
pkuqlid	Full	☐	401103.919	4576185.574	167.875	0.010	0.010	401103.920	4576185.573	167.877	0.22	0.031	0.002	0.001
pverdh_xh_lm	Full	☐	401028.072	4576236.752	174.720	0.010	0.010	401028.072	4576236.752	174.719	0.33	0.012	0.001	0.001
sigal_xh_ld	Full	☐	401100.732	4576122.338	168.664	0.010	0.010	401100.721	4576122.345	168.661	2.51	0.011	0.014	0.013
sigal_xh_ld	Full	☐	401090.283	4576121.962	164.882	0.010	0.010	401090.292	4576121.952	164.884	2.63	0.022	0.013	0.012
sigal_xh_lm	Full	☐	401082.443	4576162.745	166.336	0.010	0.010	401082.441	4576162.746	166.335	0.23	0.006	0.002	0.001
sigal_xh_lm	Full	☐	401082.443	4576162.745	166.336	0.010	0.010	401082.442	4576162.749	166.337	0.12	0.031	0.004	0.001
ufo_xh_ld	Full	☐	401049.630	4576149.260	160.202	0.010	0.010	401049.629	4576149.262	160.202	0.61	0.011	0.002	0.002
ufo_xh_lm	Full	☐	401043.375	4576110.916	160.243	0.010	0.010	401043.374	4576110.916	160.244	0.24	0.016	0.002	0.001

Me pas u perpunua modeli I keypoints per te nxjer pointcloud 3dmash dhe ortofoton.



Te dhenat te produkteve ne fjale:

-Ortofoto Sampling distance: **0.02**

-Pointcloud dhe 3dmash: mbi 112,125,941 pika shpeshtesi **0.02**

Instrumentet e perdorura dhe te dhenat: Sokkia GRX2



Gps per GCP

SOKKIA	
GRX2 Detailed Specifications	
Category	Specification
GNSS Technology & Board	Vanguard, Fence Antenna, QLL
Number of Channels	226 (w Universal Tracking)
Satellite signals tracking GPS GLONASS SBAS GALILEO	L1C/A, L2C, L2E (L2P) L1C/A, L1P, L2C/A, L2P - L1C/A
User Interface	1 Power button 22 status LEDs
Communication Ports	1x Bluetooth Class 1 1x 7-pin (ODU) PWR 1x 5-pin (ODU) SER
SBAS	<0.6m (HRMS)
Static	H:3mm+0.5ppm V:5mm+0.5ppm
Code diff.	<0.5m RMS
RTK	H:10mm+1ppm V:15mm+1ppm
Network RTK	H:10mm+0.5ppm V:15mm+0.5ppm
Initialization Time	15 sec (typical)

Droni Topcon Falcon8



Flight Systems	
Type	V-Form Octocopter
Dimensions	770 x 820 x 125 mm
Engines	8 electric brush-less motors
Rotor Diameter	20 cm (8 inches)
Rotors	Total Rotors: 8 / Weight: 6 g each
Weight	Without payload: 1086 g Max Take-off: 2.3 kg Max Payload: 800 g
Flight Time	12 - 22 minutes
Maximum Flight Range	1 km
Tolerable Wind Speed	Up to 15 m/s
Navigation Sensors	
AscTec® Trinity (IMU, barometer and compass)	
AscTec high-performance GPS (GNSS)	
Maximum Airspeed	
Manual Mode	16 m/s
Height Mode	5 m/s
GPS Mode	4.5 m/s
Maximum Climb / Sink Rate	
Manual Mode	6 - 10 m/s
Height Mode	3 m/s
GPS Mode	3 m/s

Wireless Communication
2x Independent (diversity) control/data links
2.4 GHz FHSS link (10' to 63 mW)
1 Analogue diversity video receiver
5.8 GHz (25 mW)
LiPo Battery Types (mAh)
PP 6250 / 3 Cells 6250 (~ 426 g)
Available Payload Options
Sony Alpha 7R
Panasonic Lumix TZ71 + FLIR TAU 640
Sony Camcorder HDR-PJ810E
Certifications
CE
RoHS

Per “Geopoint-Al”sh.p.k

Ing.Lumi Krcishta

TIRANE 2018