



Išmaniųjų miestų
ir infrastruktūros
centras



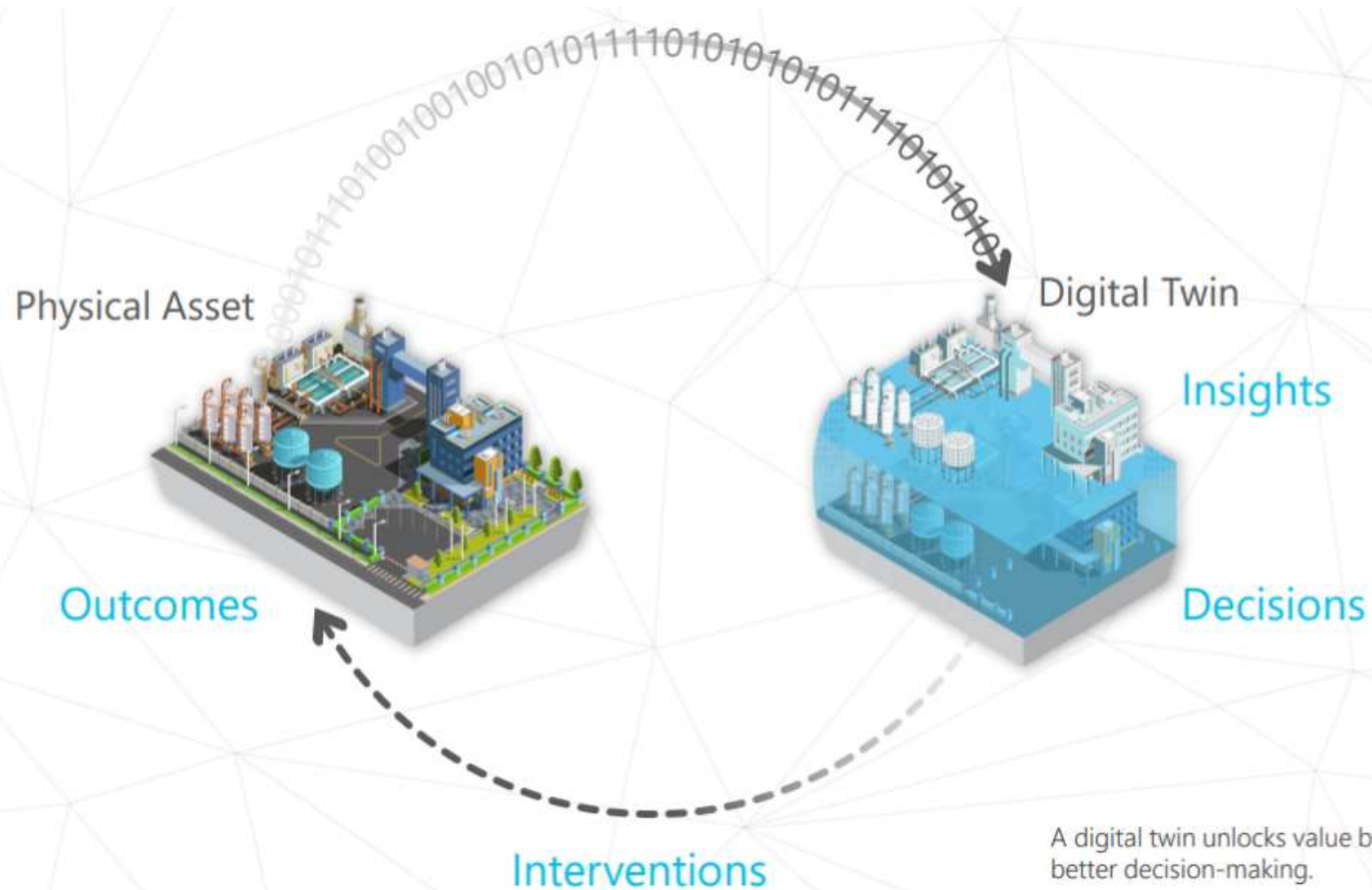
Užstatytos aplinkos skaitmeniniai dvyniai

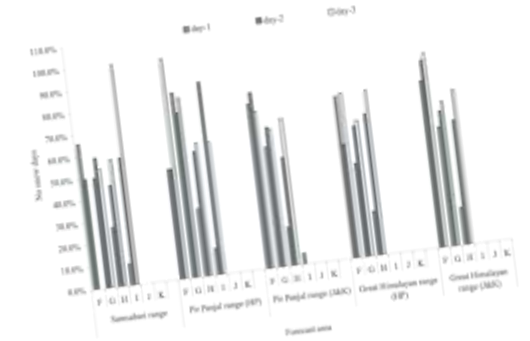
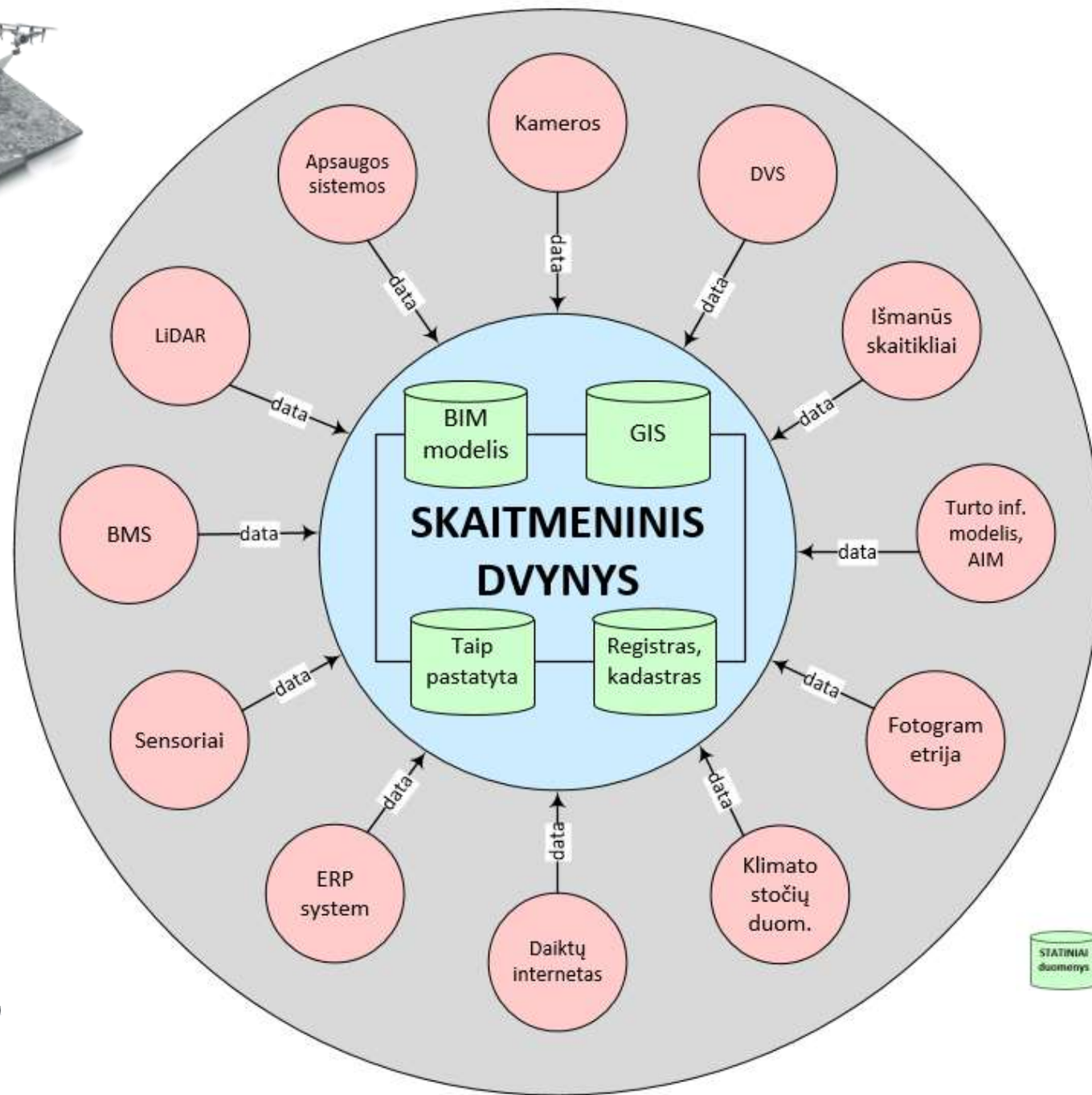
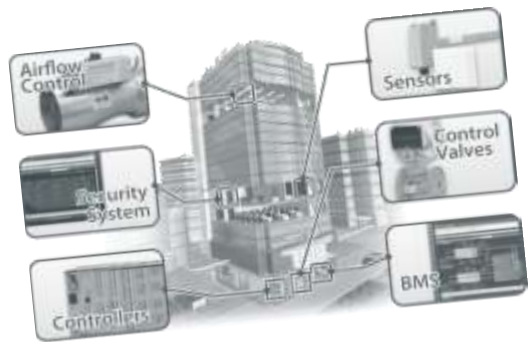
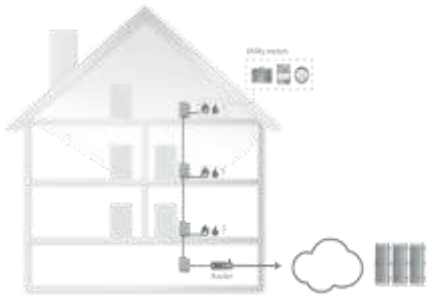
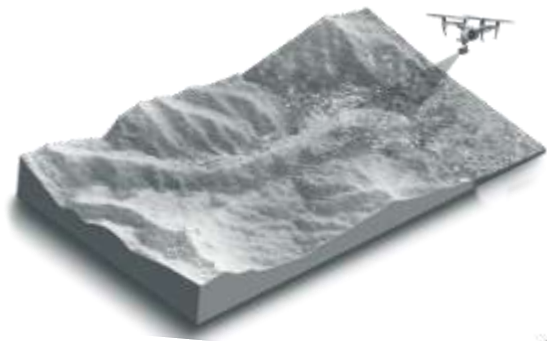
2021-05-14

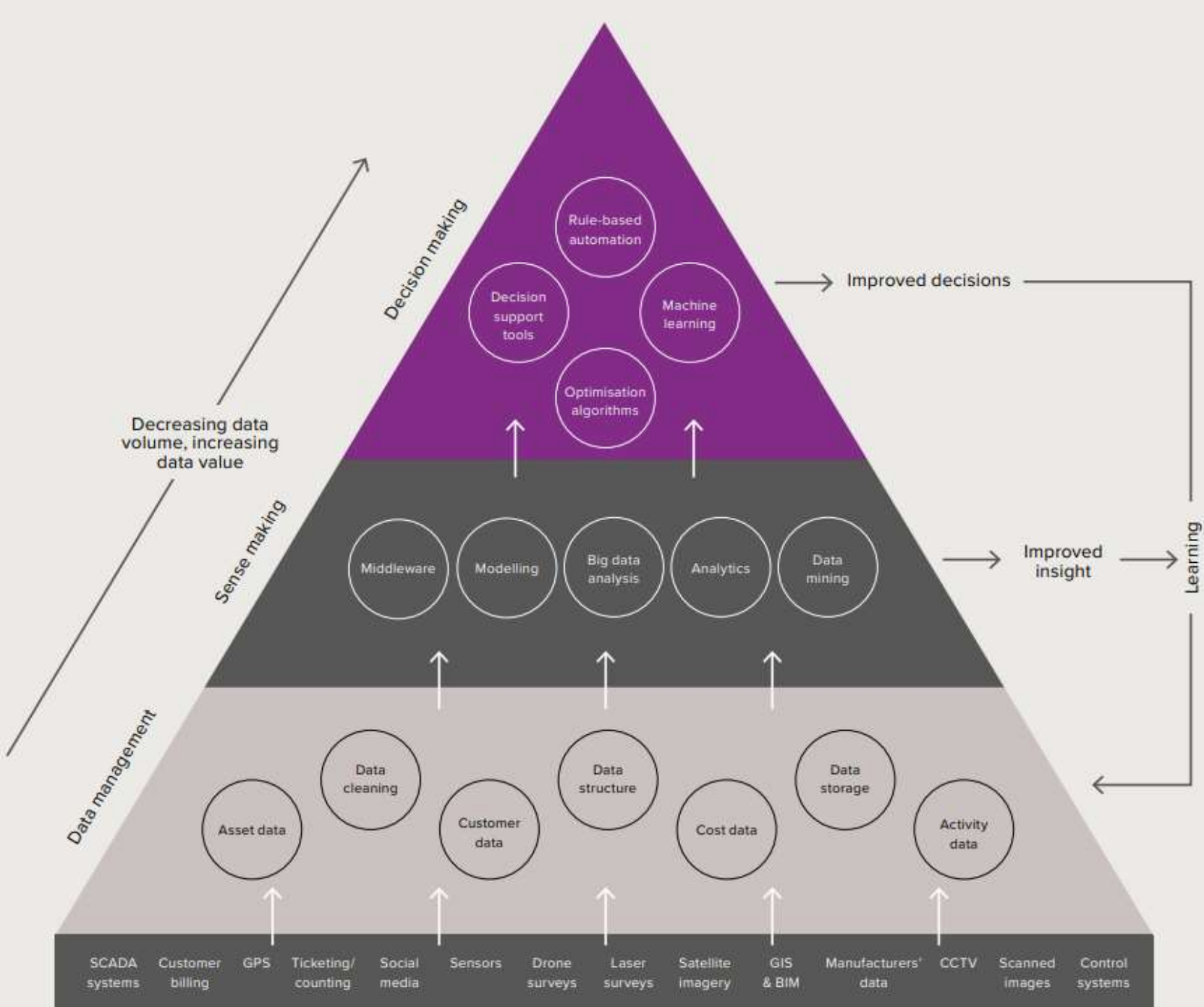
dr. Darius Pupeikis



Skaitmeninis dvynys - virtuali ir sinchronizuota užstatytos aplinkos reprezentacija.







Skaitmeninių dvynių brandos lygiai

Kauno miesto skaitmeninio dvynio projektas



An aerial photograph of the Kaunas city center, showing a dense urban layout with numerous buildings featuring red-tiled roofs. A large, open square is visible in the center, surrounded by various structures, including a prominent church with a tall spire. The image is overlaid with a green banner at the top and bottom containing text. The top banner has a white checkmark icon on the left. The bottom banner contains a URL.

Kauno miesto skaitmeninio dvynio projektas

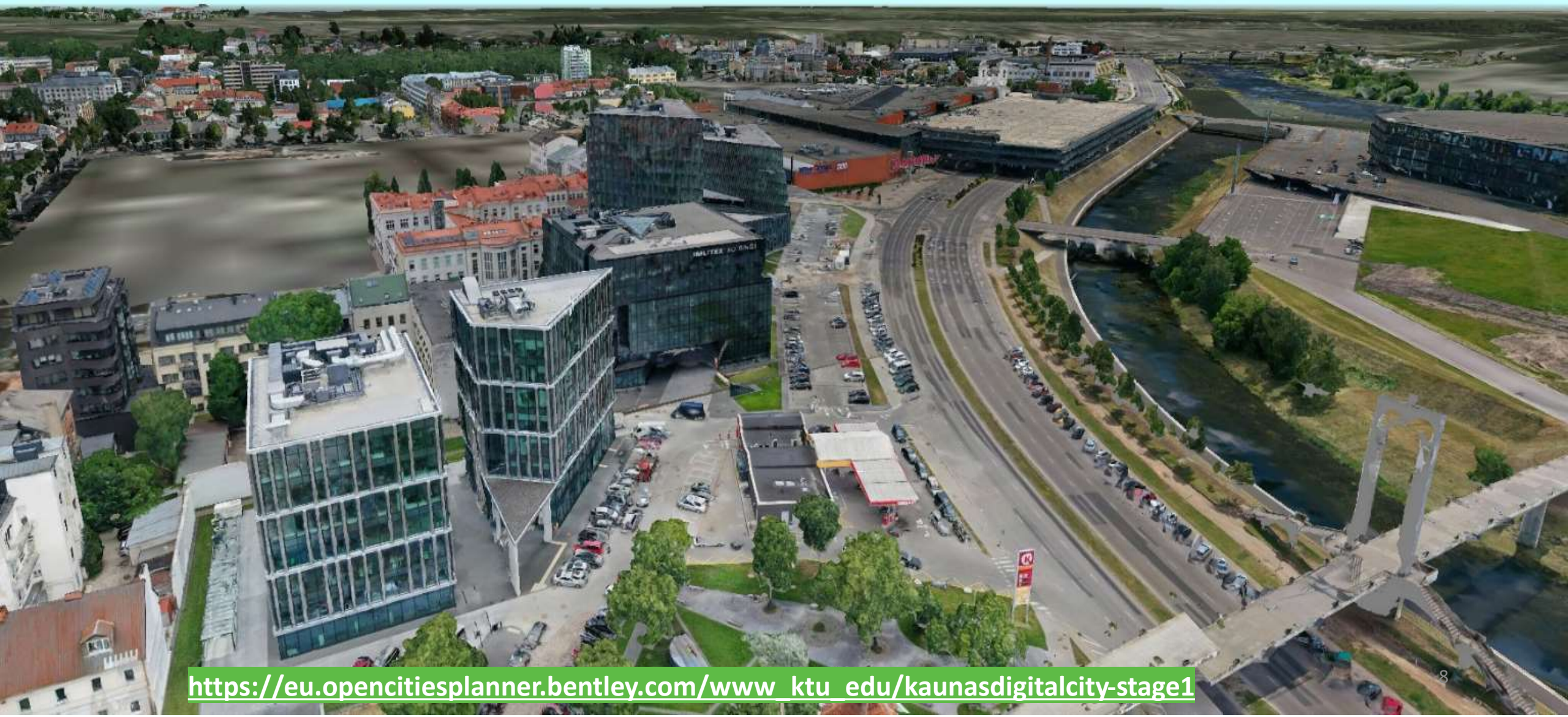
https://eu.opencitiesplanner.bentley.com/www_ktu_edu/kaunasdigitalcity-stage1

Kauno miesto skaitmeninio dvynio projektas

An aerial photograph of Kaunas, Lithuania, showing a dense urban area with many buildings. A semi-transparent digital overlay is visible, showing a grid-like pattern of streets and building footprints, representing a digital twin of the city. The city is situated near a river, and the surrounding landscape is green and hilly.

https://eu.opencitiesplanner.bentley.com/www_ktu_edu/kaunasdigitalcity-stage1

Kauno miesto skaitmeninio dvynio projektas



https://eu.opencitiesplanner.bentley.com/www_ktu_edu/kaunasdigitalcity-stage1

Kauno miesto skaitmeninio dvynio projektas



https://eu.opencitiesplanner.bentley.com/www_ktu_edu/kaunasdigitalcity-stage1

Kaunas city Digital Twin project 2020-2022



Stage 3
Nemunas river island /
Science museum project



Stage 1
Kaunas University of
Technology campus



Stage 2
Digital Twin of FCEA building

Stage 2
YIT Lietuva Residential
Development PILIAMISTIS



Stage 1
Kaunas city centre area /
heritage buildings project



Stage 2
Energy 3D project – energy
data + reality mesh



Stage 3
GENIUS LOCI project: urbanisation
and society



└ Kauno skaitmeninio dvynio projektas. Saugomų teritorijų duomenys

SAUGOMOS TERITORIJOS

Code: 1790
NameOffici: Kauno rotušė
Status: Paminklas
Address: Rotušės a. 15, Kaunas, Kauno m. sav.
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Shape_Area: 10823.969890544400000
objectid: a9aae432-14f3-43ae-a377-75437ccb0636



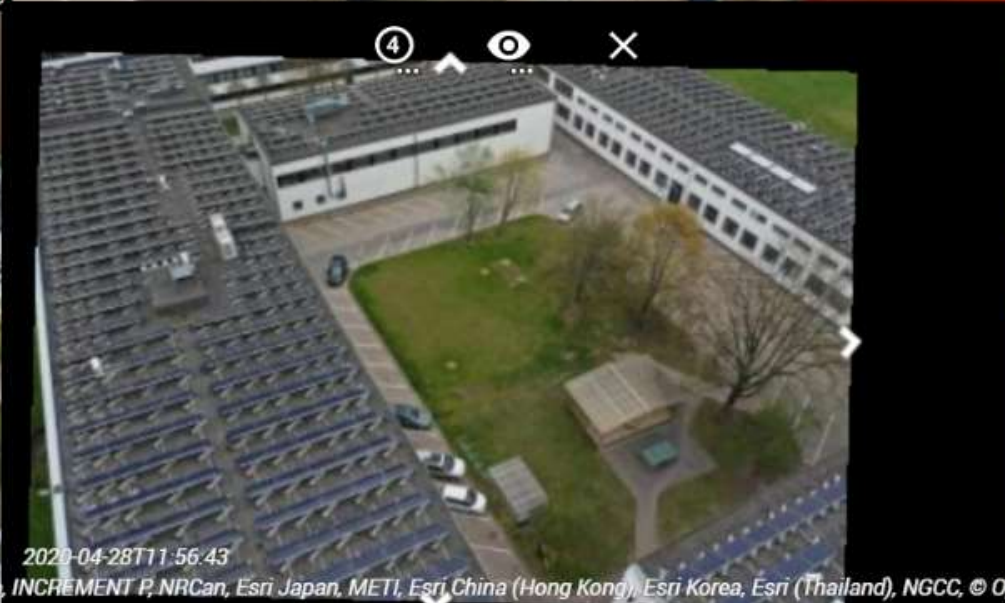
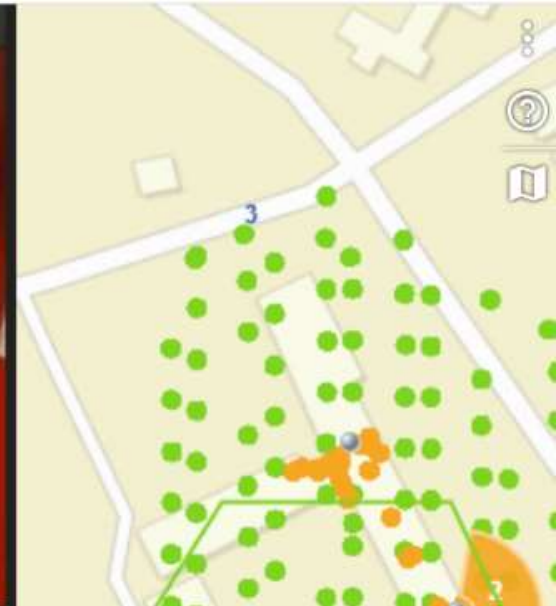
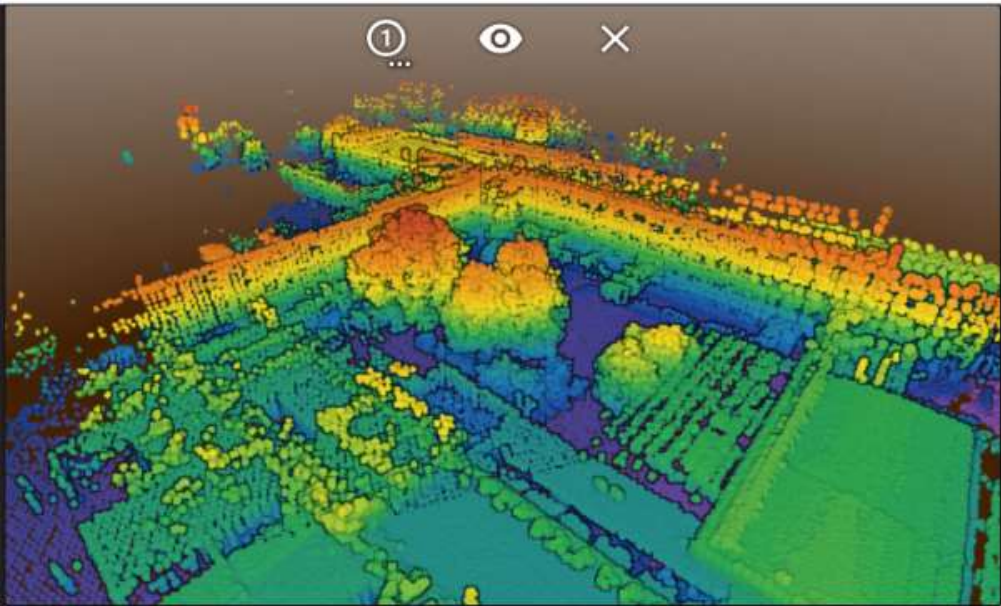
KTU studentų miestelio skaitmeninio dvynio projektas



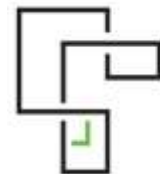
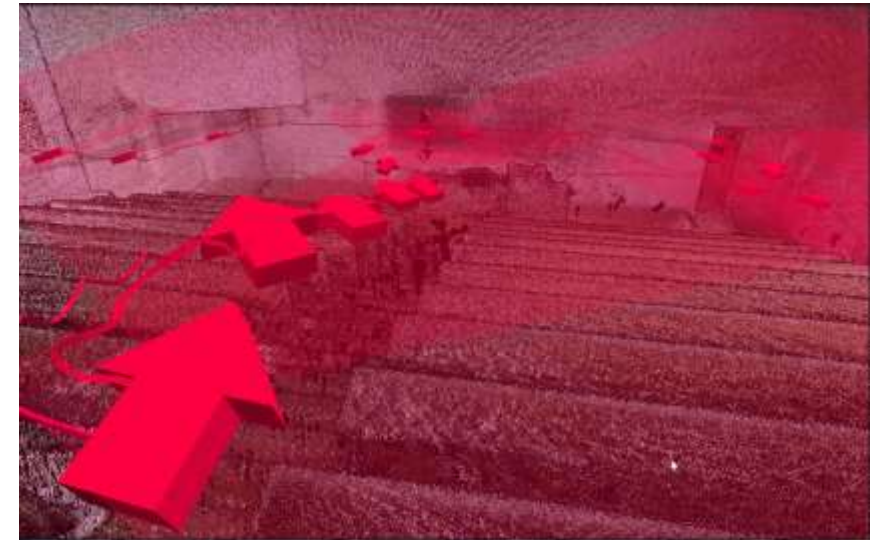
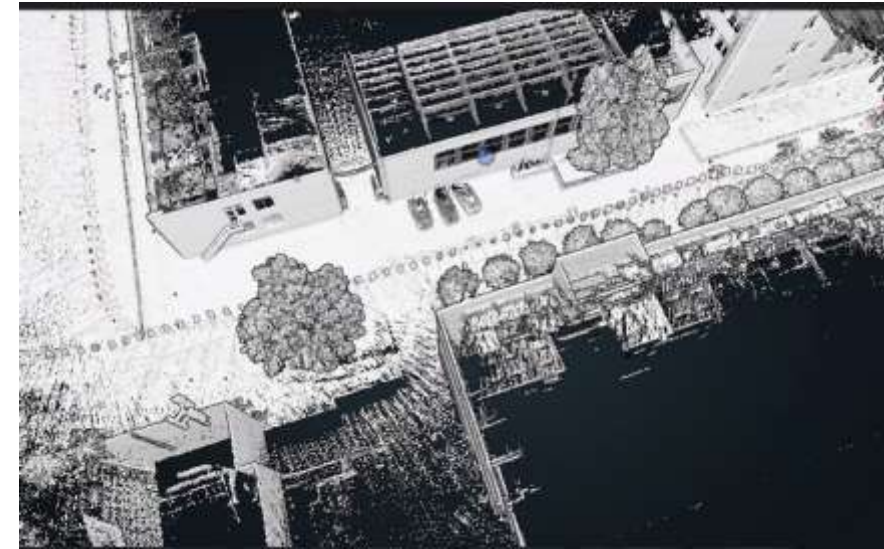
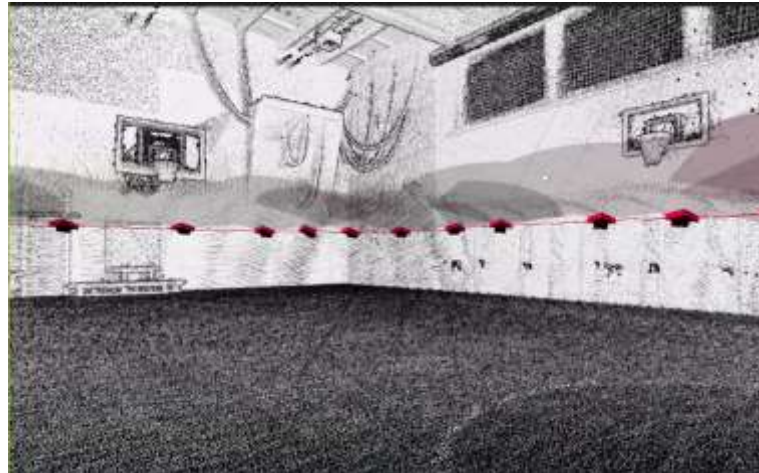
Integracija su BIM modeliais



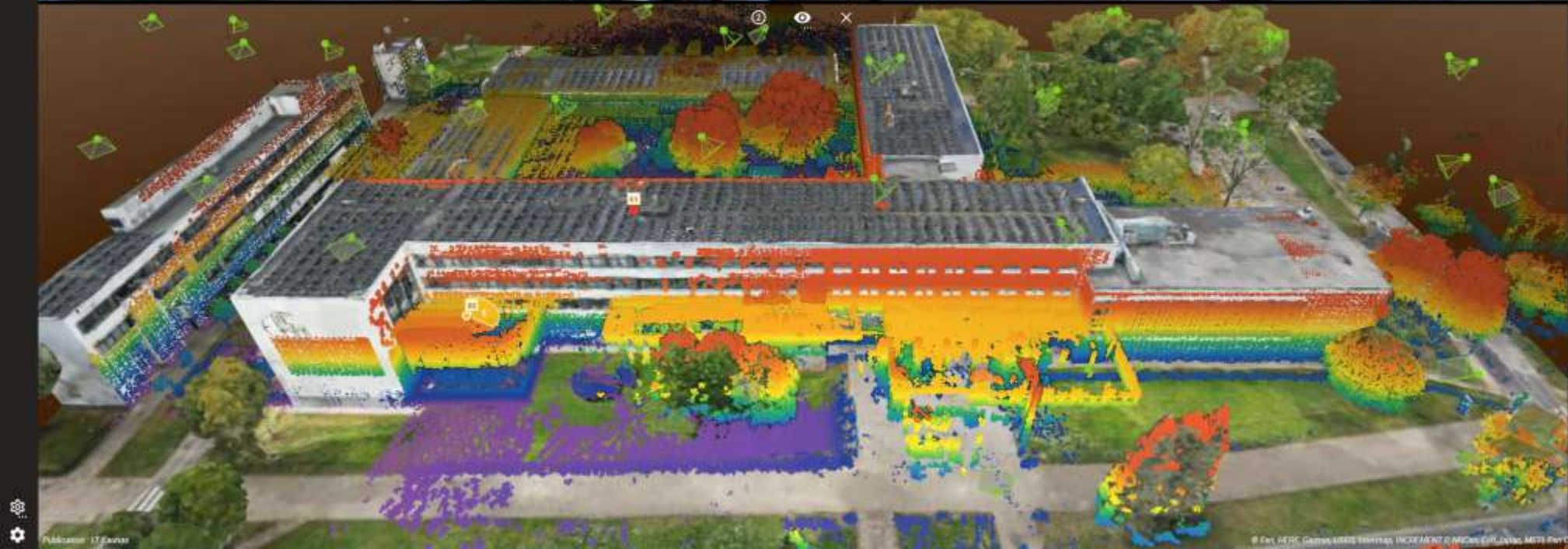
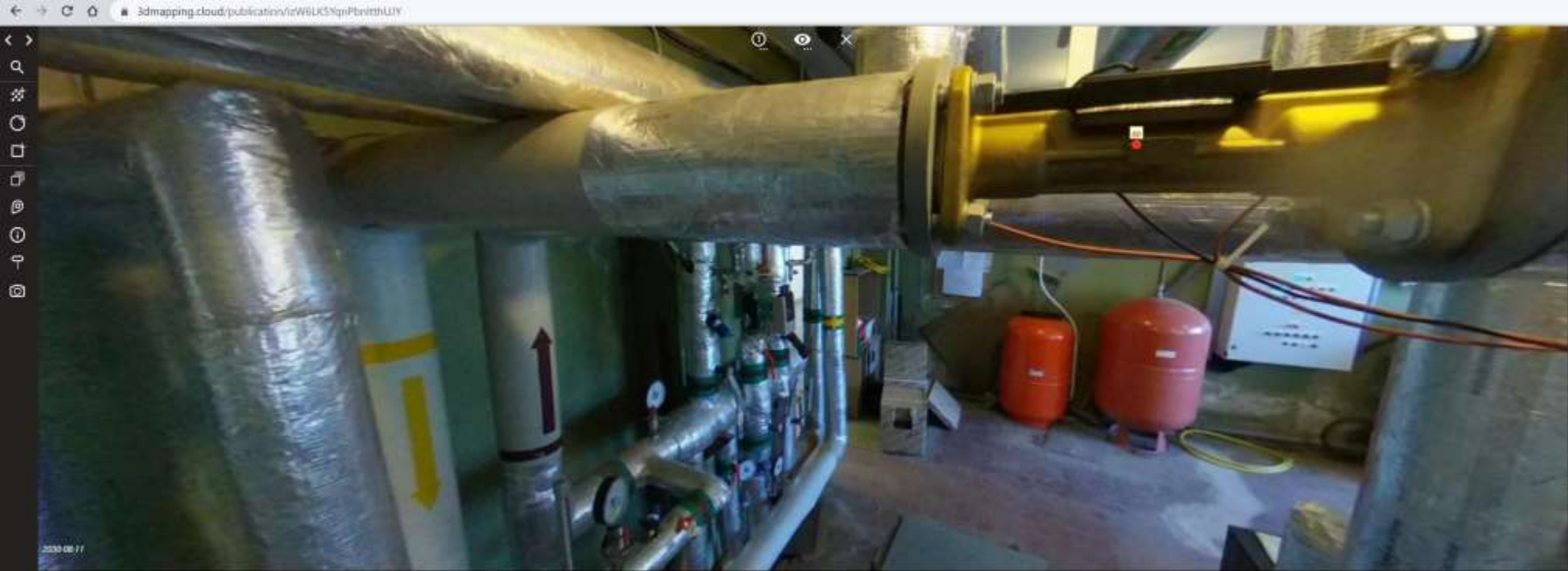
└ Pastato Studentų g. 48, skaitmeninio dvynio projektas



└ Studentų g.48 pastato skaitmeninio dvynio projektas

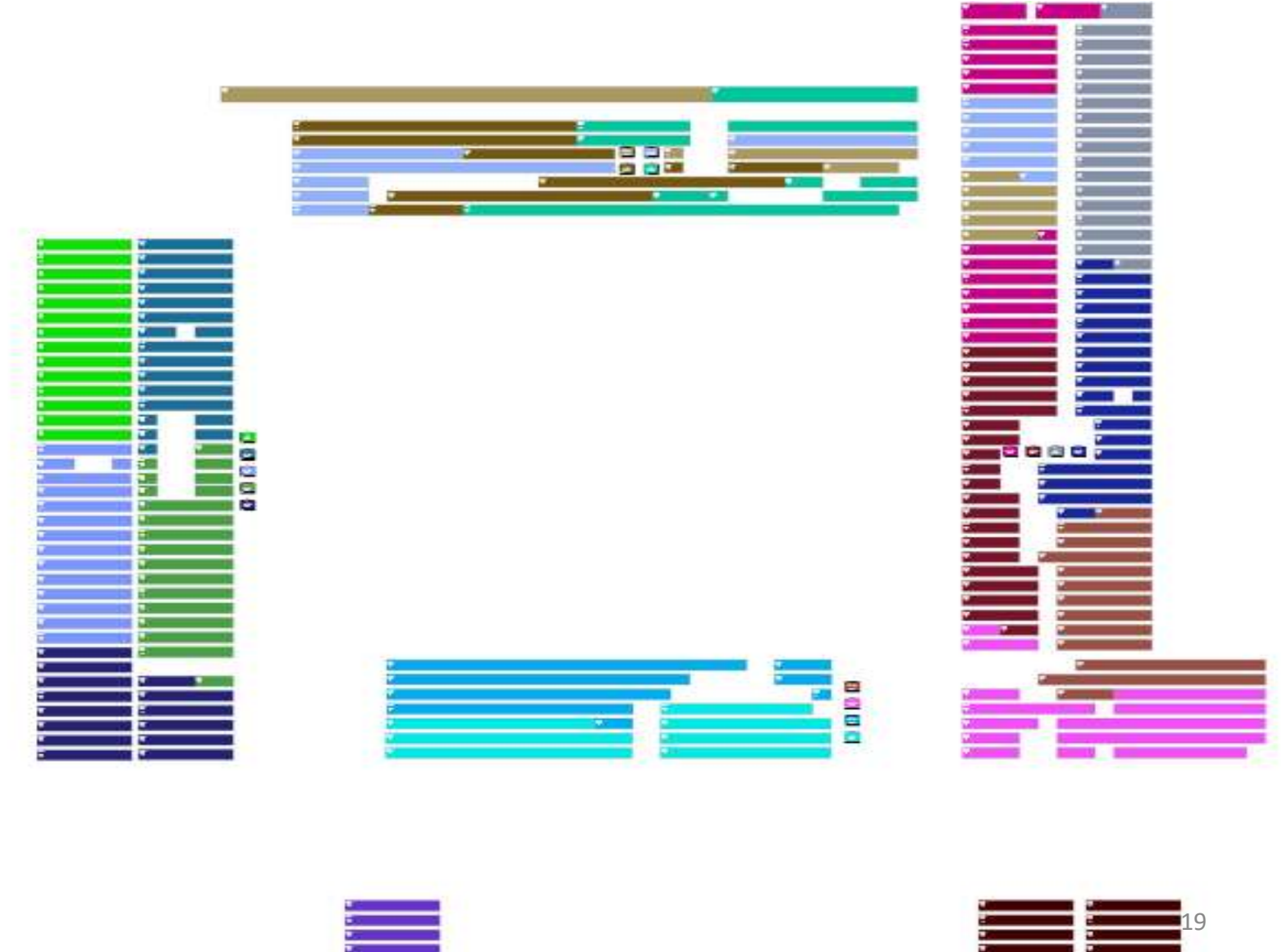


lišmaniųjų miestų
ir infrastruktūros
centras



Studentų g.48 pastato skaitmeninio dvynio projektas

- Kauno technologijos universitetas
- Inverter 1 (7E12C0CF-1F)
 - Inverter 2 (7E120C8F-2B)
 - Inverter 3 (7E12DF75-E4)
 - Inverter 4 (7E12CB7C-D7)
 - Inverter 5 (7E12CB7A-D5)
 - Inverter 6 (7E120C89-25)
 - Inverter 7 (7E120C05-A1)
 - Inverter 8 (7E12CB8D-E8)
 - Inverter 9 (7E12C0CA-1A)**
 - Inverter 10 (7E12CB84-DF)
 - Inverter 11 (7E12C0C8-18)
 - Inverter 12 (7E120C83-1F)
 - Inverter 13 (7E12CB75-D0)
 - Inverter 14 (7E12CB8A-E5)
 - Inverter 15 (BE04046F-35)
 - Inverter 16 (BE040ADC-A8)
 - Inverter 17 (BE040B18-E5)
 - Inverter 18 (BE040B56-23)
 - Inverter 19 (7E120C8A-26)
 - Inverter 20 (7E12DF61-D0)



Studentų g.48 pastato skaitmeninio dvynio projektas

ZABBIX Monitoring Inventory Reports

Dashboard Problems Overview Web Latest data Graphs Screenshots

Latest data

Host groups

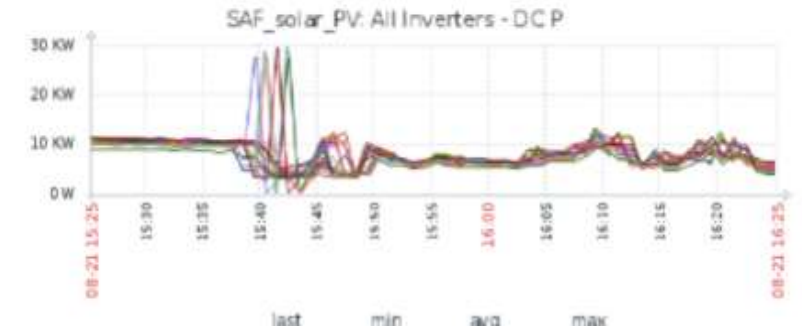
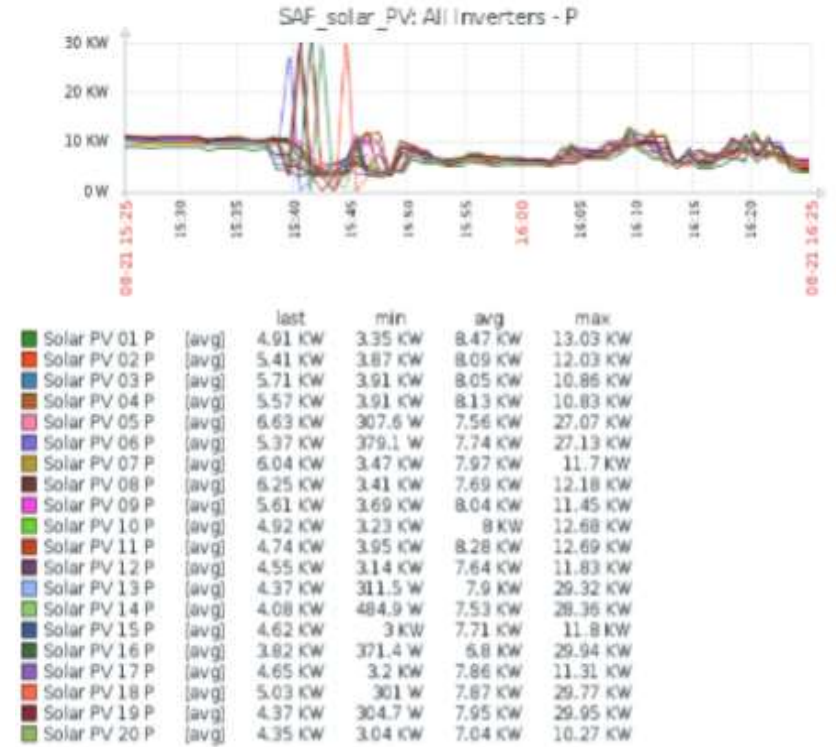
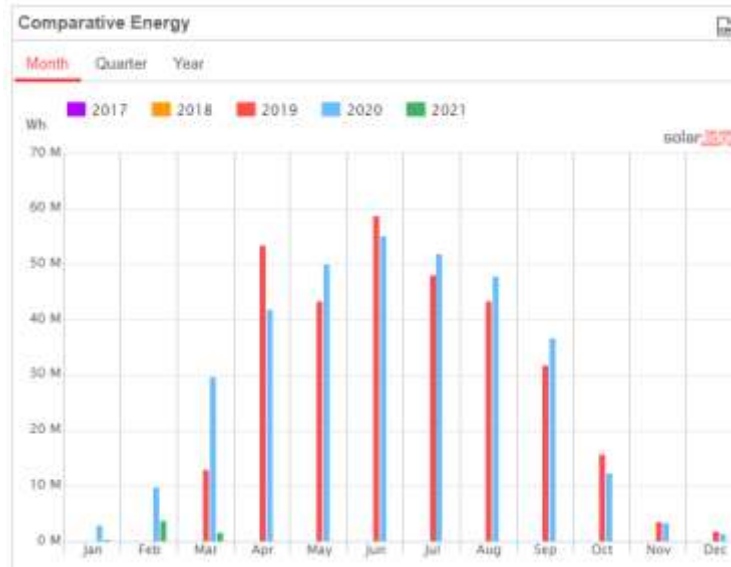
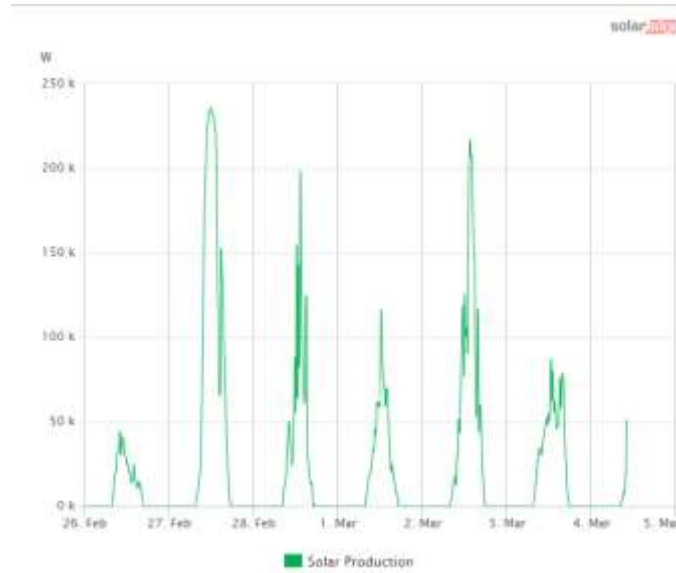
Hosts type here to search

Application

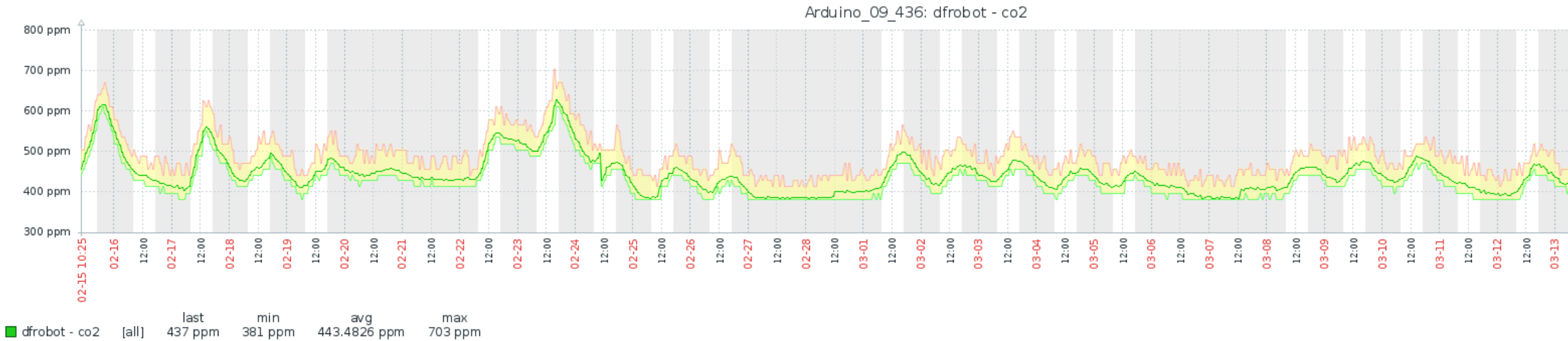
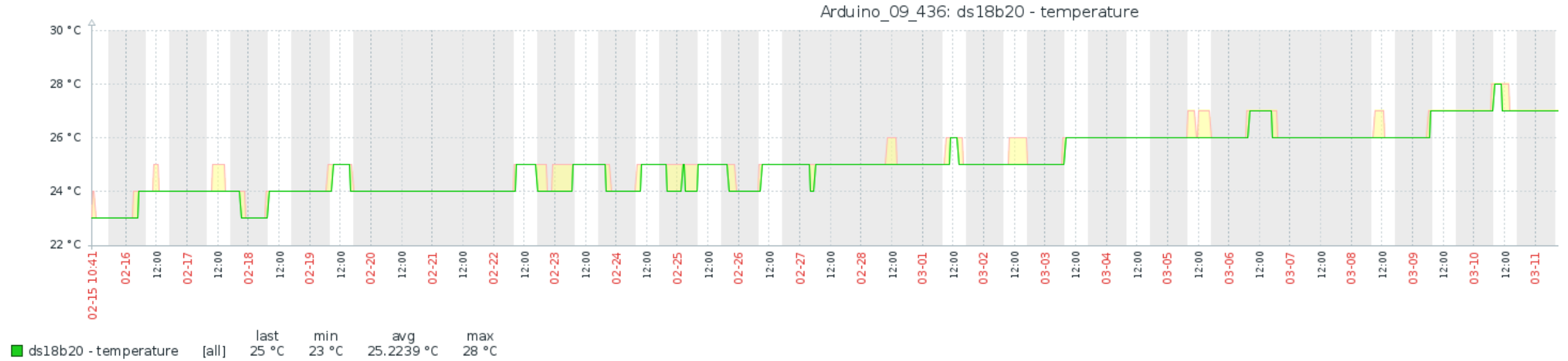
▼ Host Name ▲

▼ SAF_solar_PV Inverter.01 (13 Items)

- Solar PV 01 CosPhi
- Solar PV 01 DC I
- Solar PV 01 DC P
- Solar PV 01 DC U
- Solar PV 01 F
- Solar PV 01 Ia
- Solar PV 01 Ib
- Solar PV 01 Ic



Pastato Studentų g. 48, skaitmeninio dvynio projektas





KTU CSCI CO2



2021-03-26 06:32:11 to 2021-04-02 06:32:11



PV All



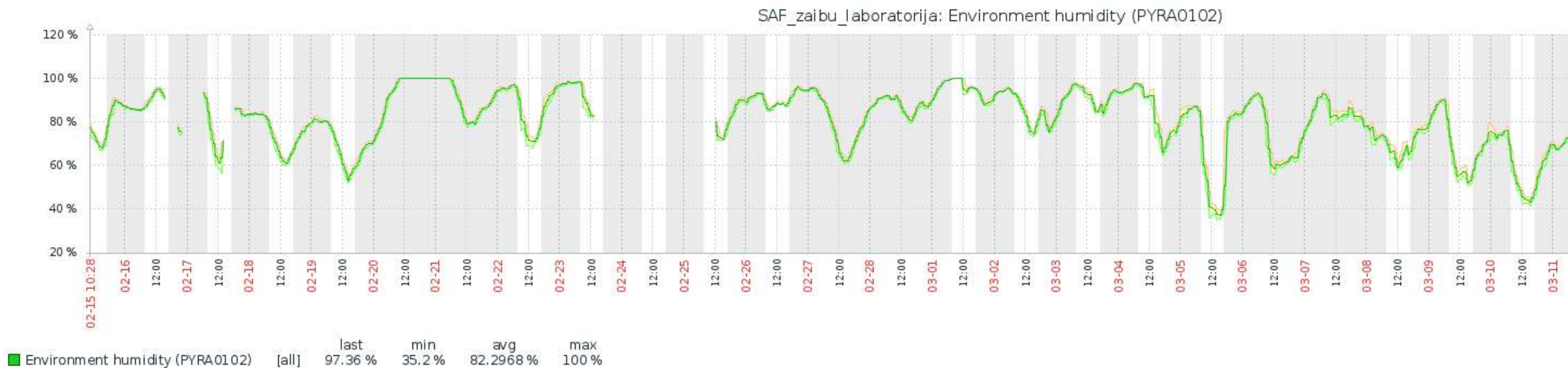
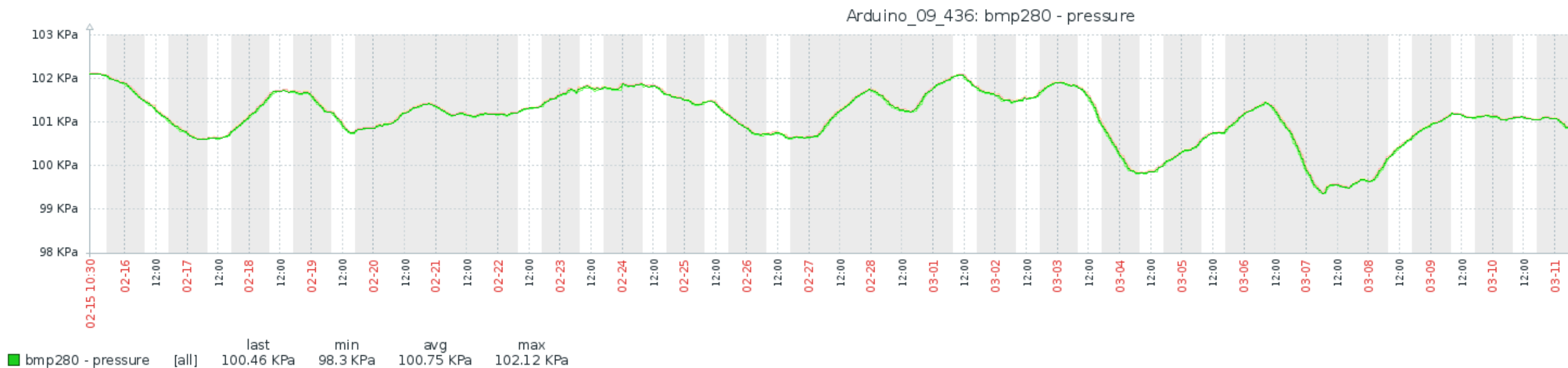
dfrobot - co2



dfrobot - co2



Pastato Studentų g. 48, skaitmeninio dvynio projektas





Išmaniųjų miestų ir infrastruktūros centras



Statbos ir architektūros fakultetas | Studentų str. 48, Kaunas

Privatumo politika
Sukurta KTU VR Lab



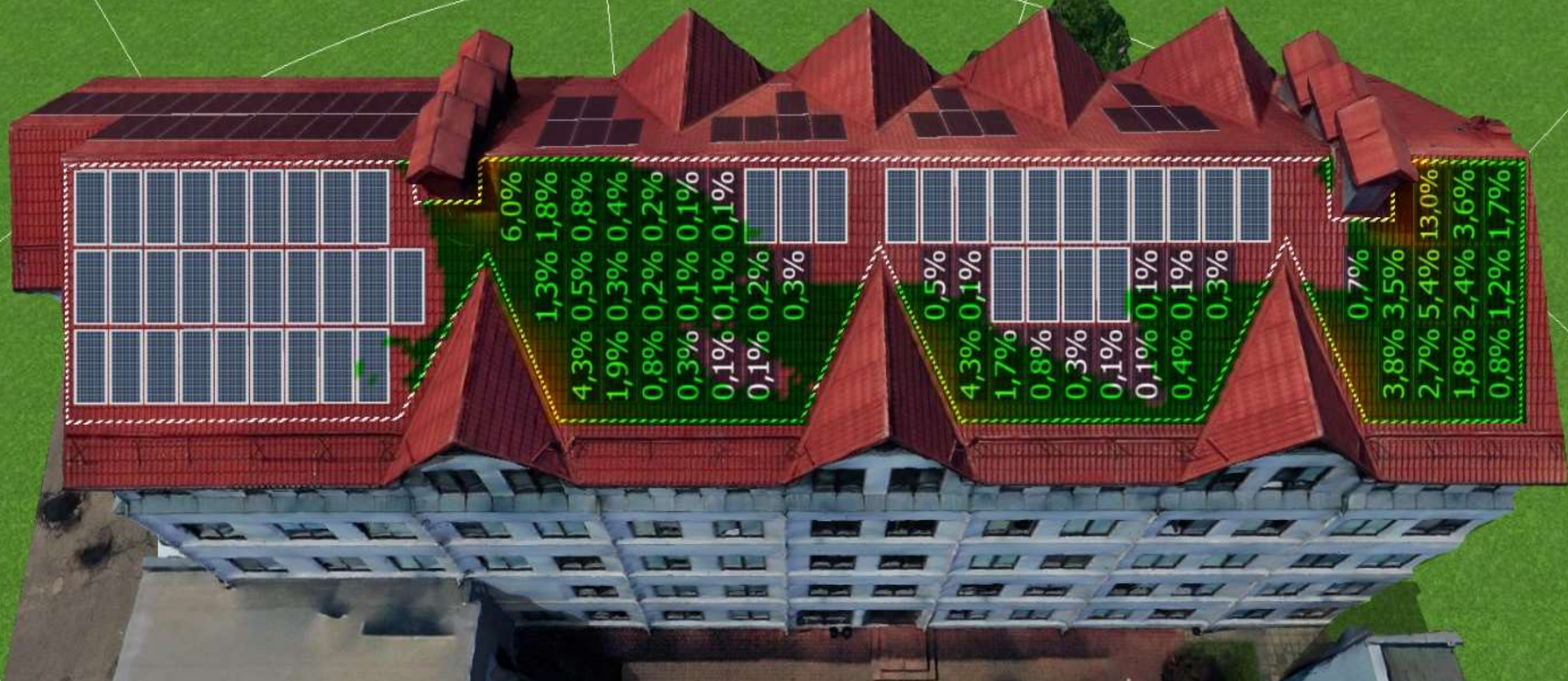
Statybinių medžiagų ir konstrukcijų tyrimų centras

Išmaniųjų miestų ir infrastruktūros centras



Energija 3D

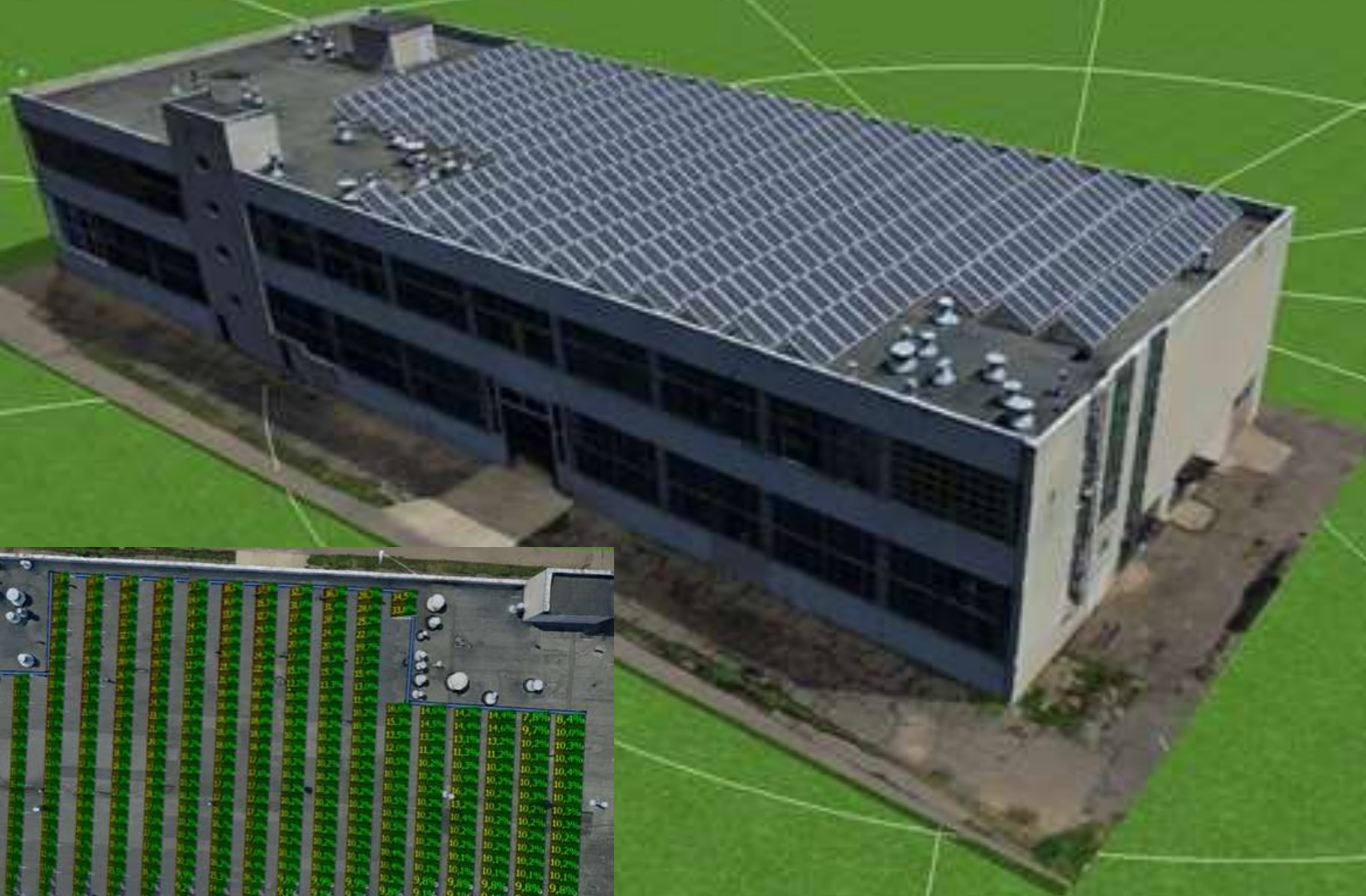
50 m



Saulės elektrinės diegimo galimybių vertinimas panaudojant skaitmeninius aplinkos (statinių ir kitų gretimybių) 3D modelius

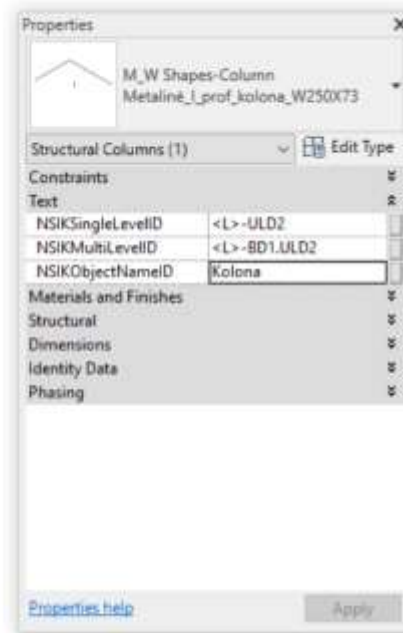
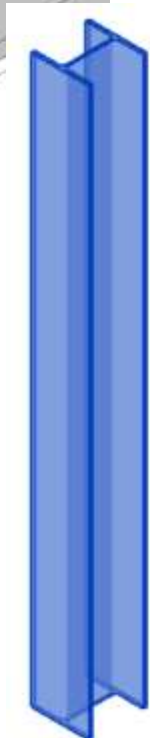
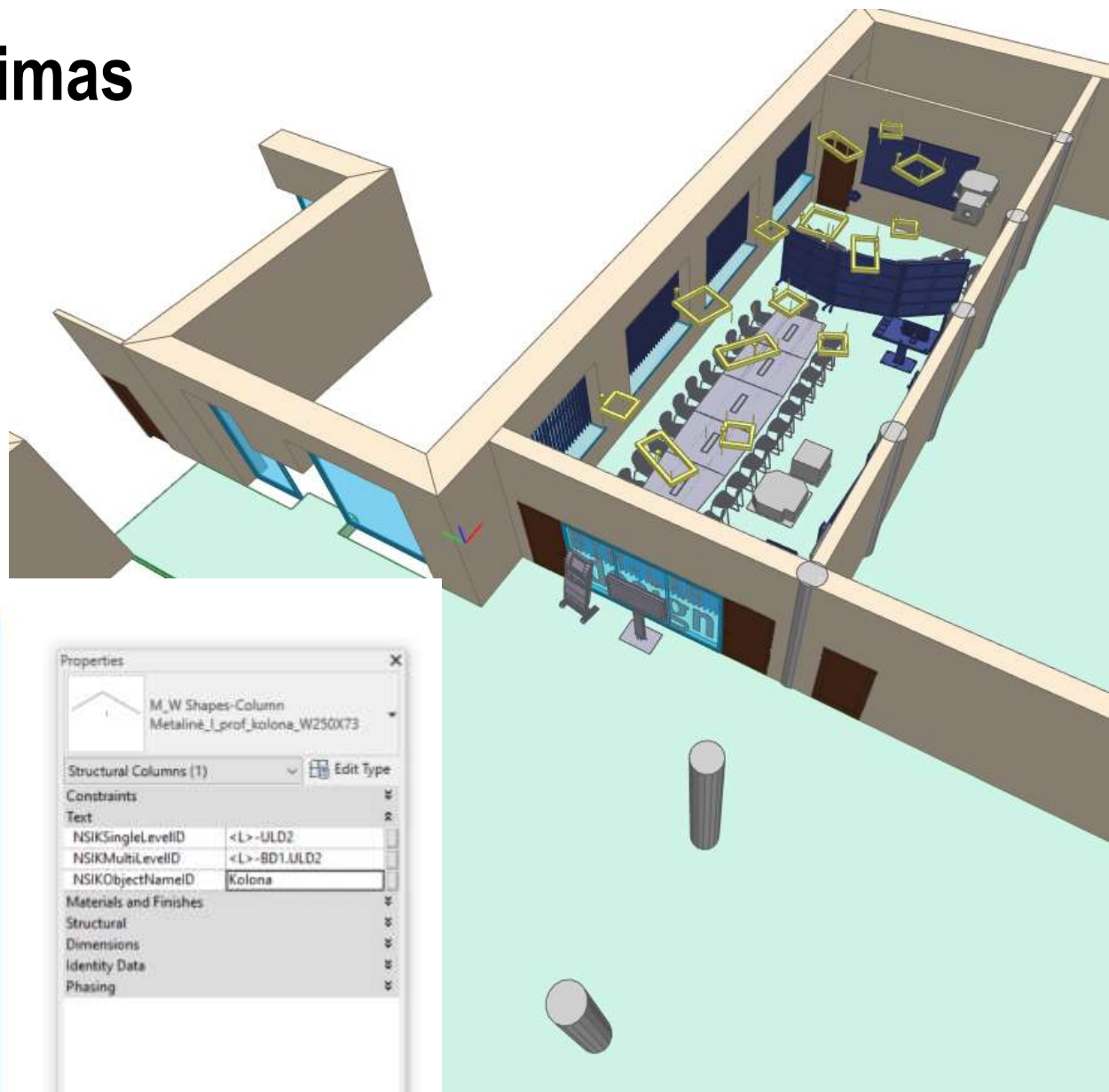
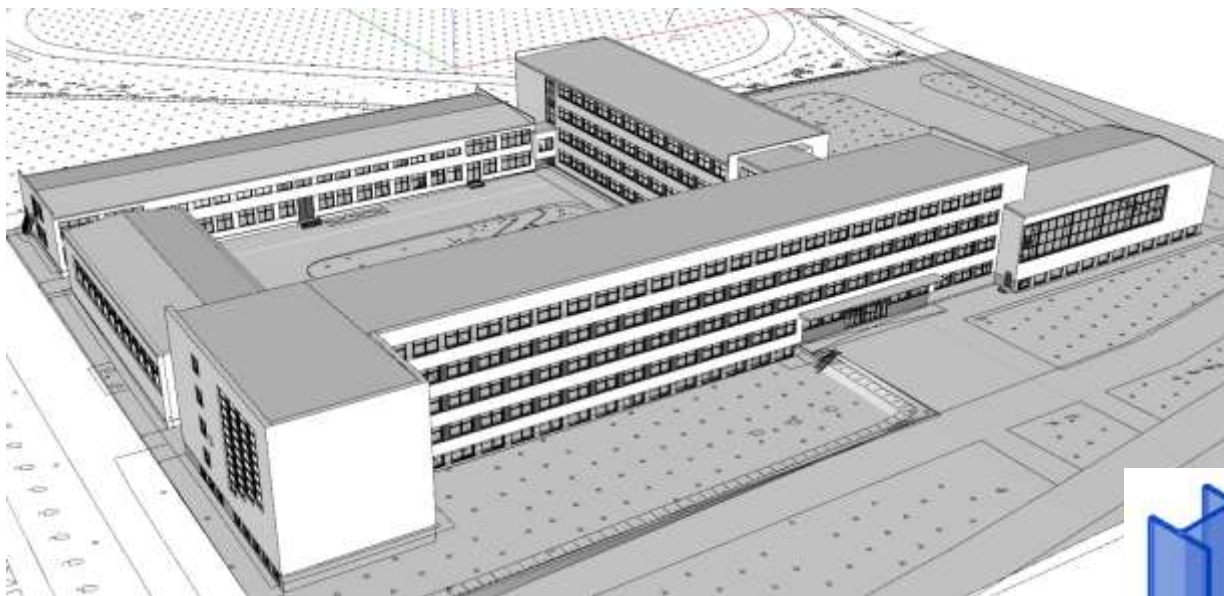


Energija 3D

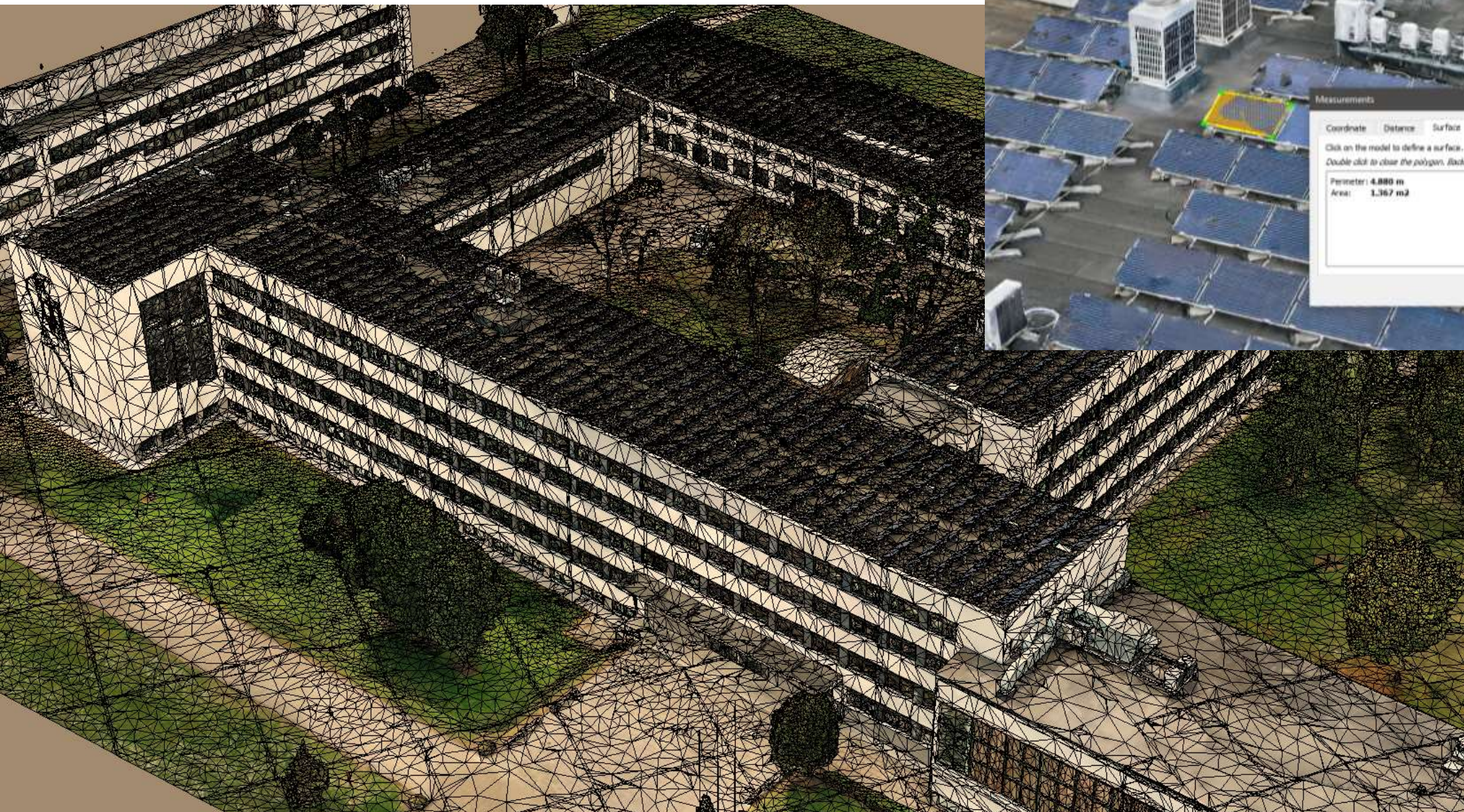


Skaitmeninių dvynių kūrimo technologijų pagrindas

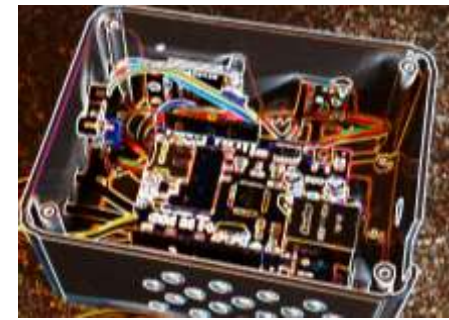
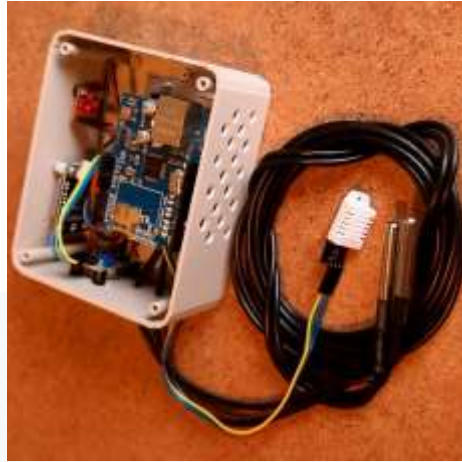
BIM – Statinių informacinis modeliavimas



Fotogrametrija



Daiktų internetas & sensoriai



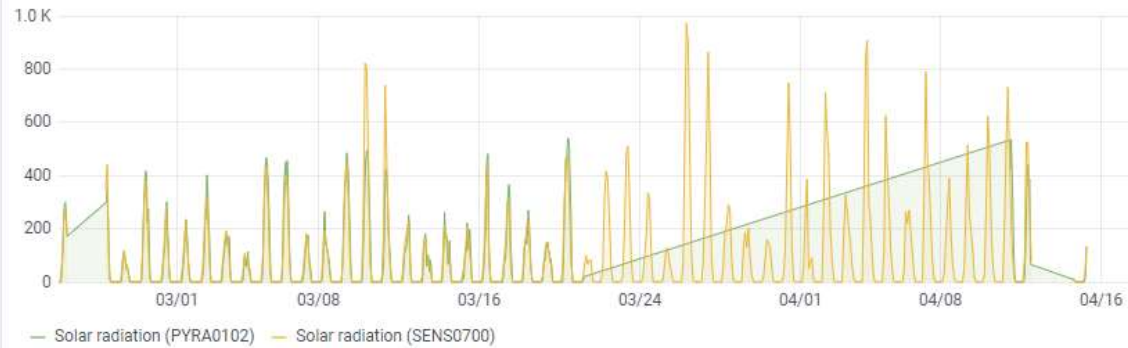
Išmanieji miestai ir infrastruktūra

PV All

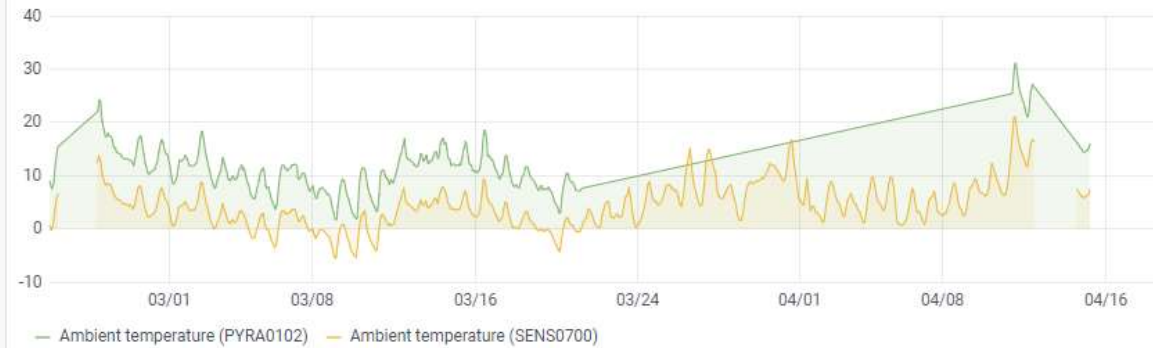
SAF_zaibu_laboratorija

2021-02-23 03:53:40 to 2021-04-20 04:53:40 EET

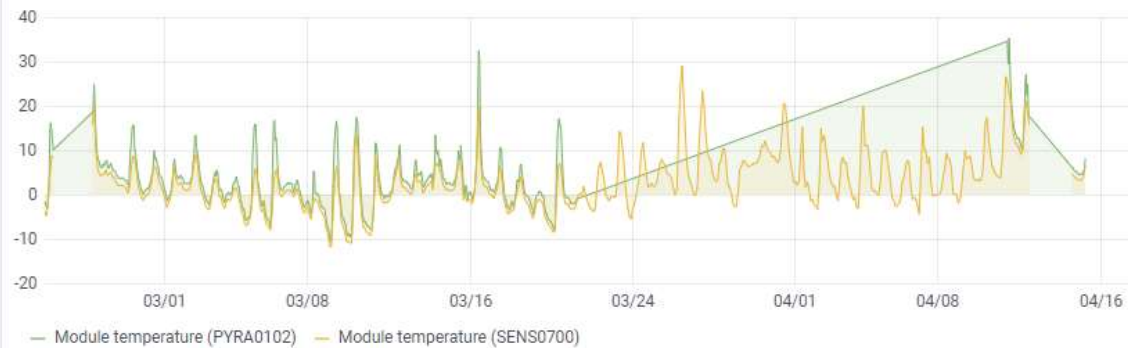
Solar radiation (PYRA0102)/(SENS0700)



Ambient temperature (PYRA0102)/(SENS0700)



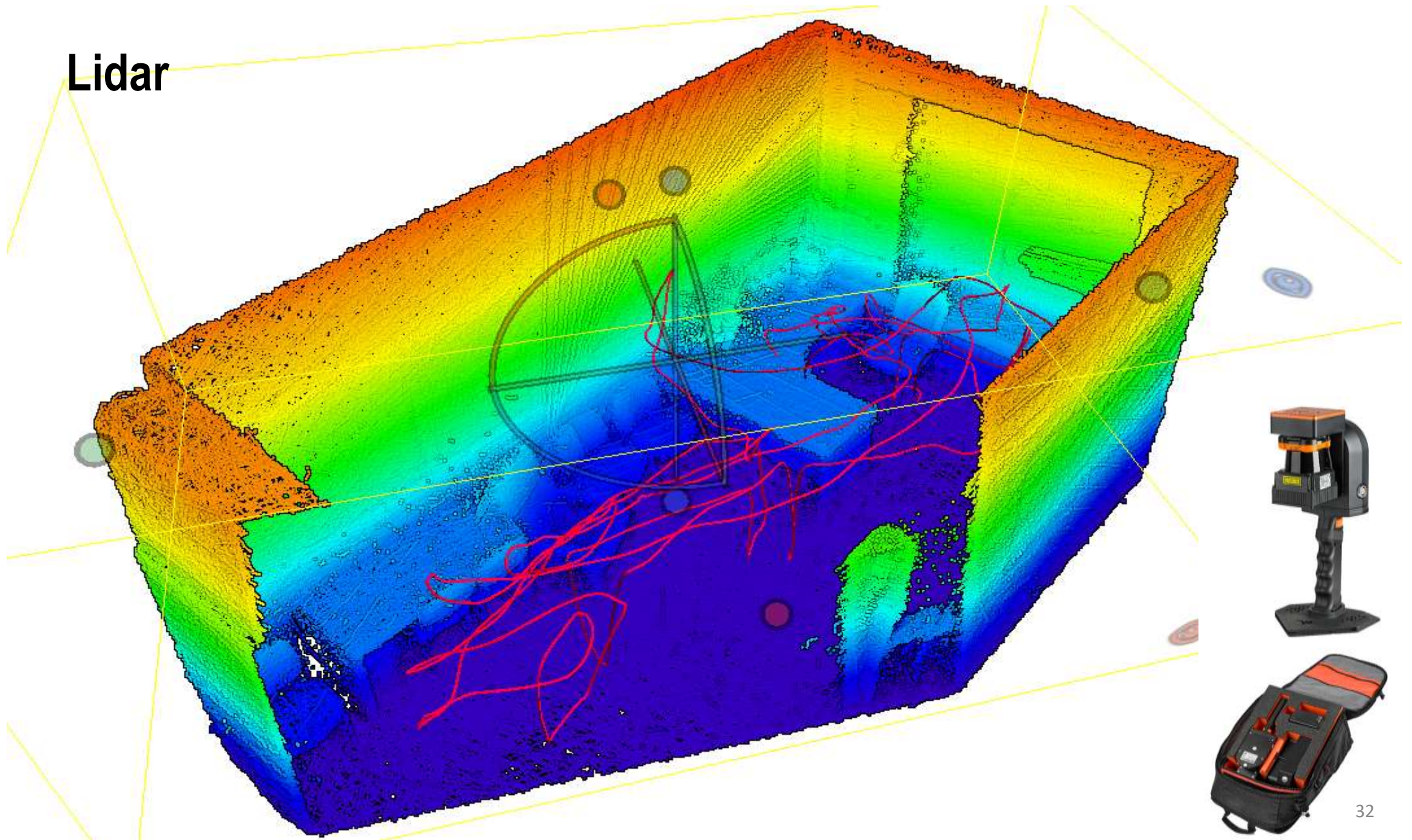
Module temperature (PYRA0102)/(SENS0700)



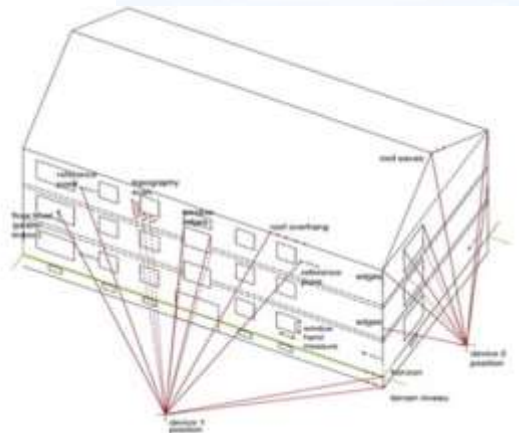
Environment humidity (PYRA0102)



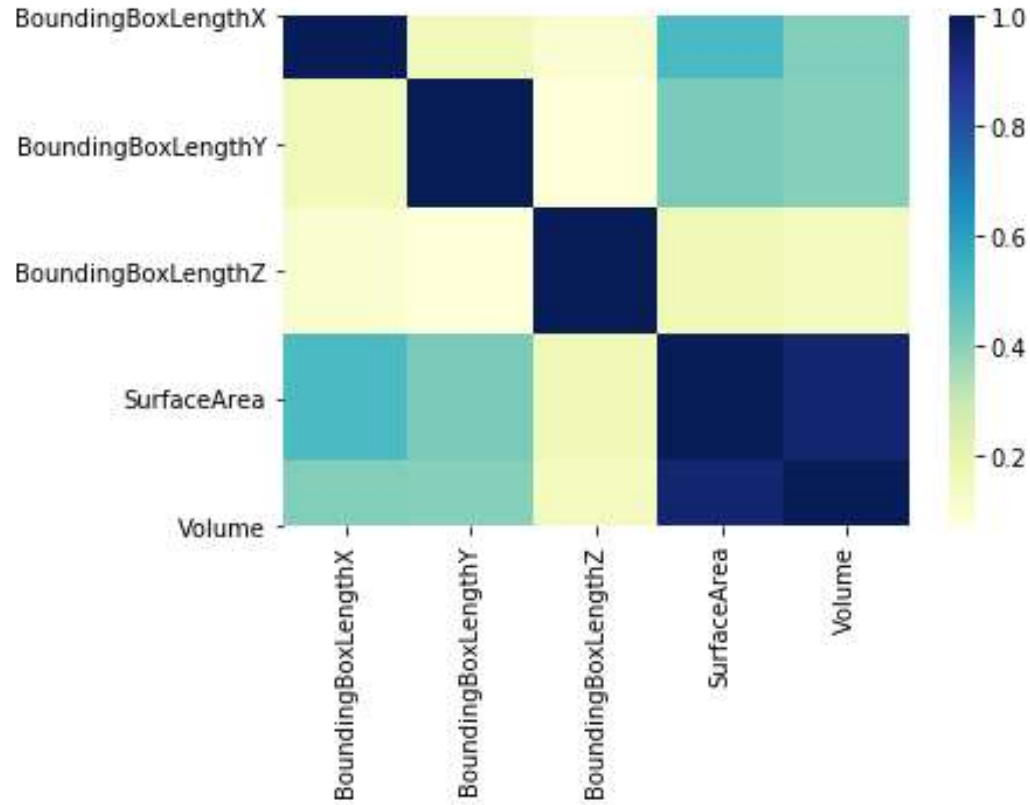
Lidar



Bepiločiai orlaiviai & Tacheometrai & GNSS



Dirbtinis intelektas > Mašinių mokymasis

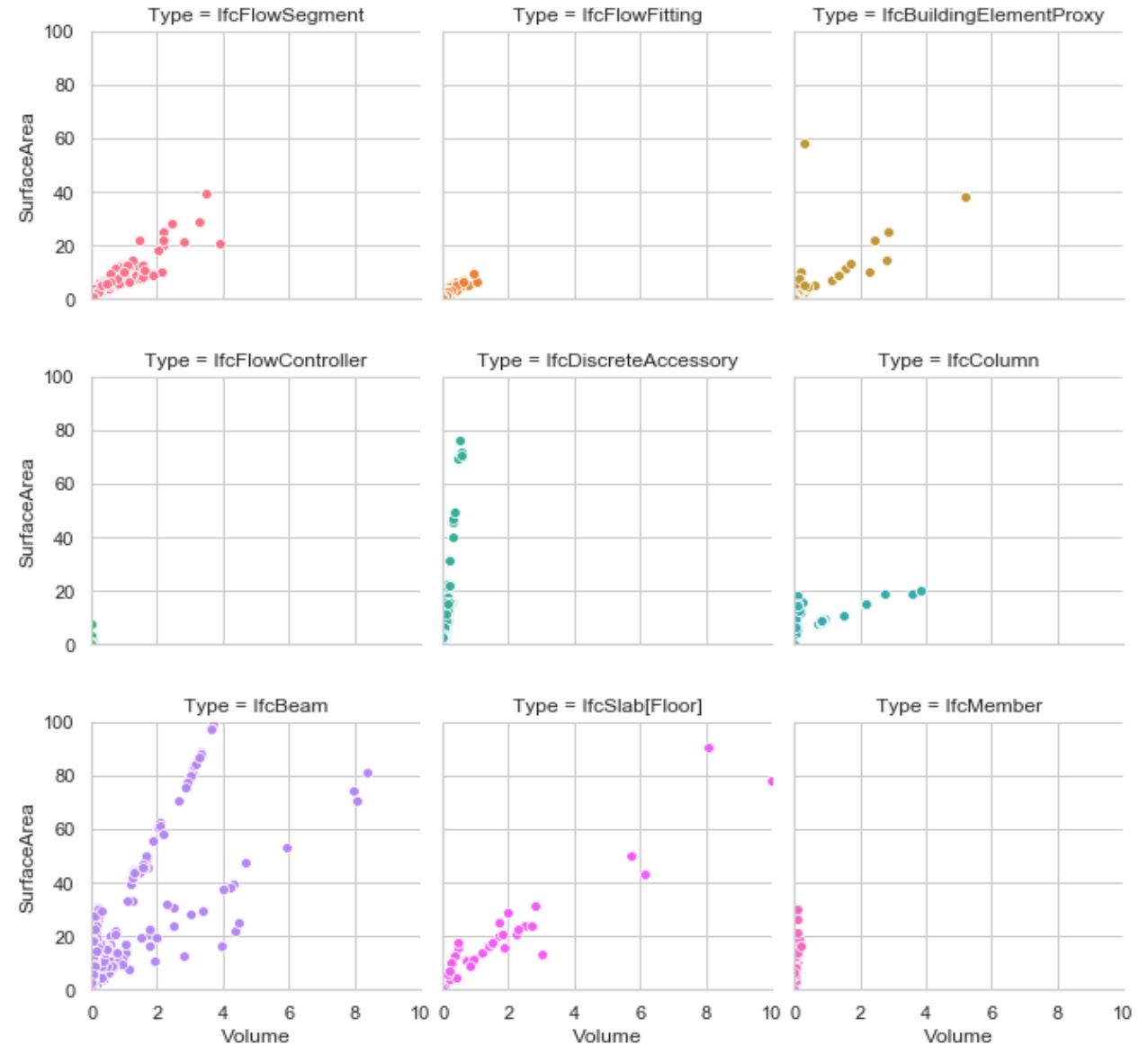


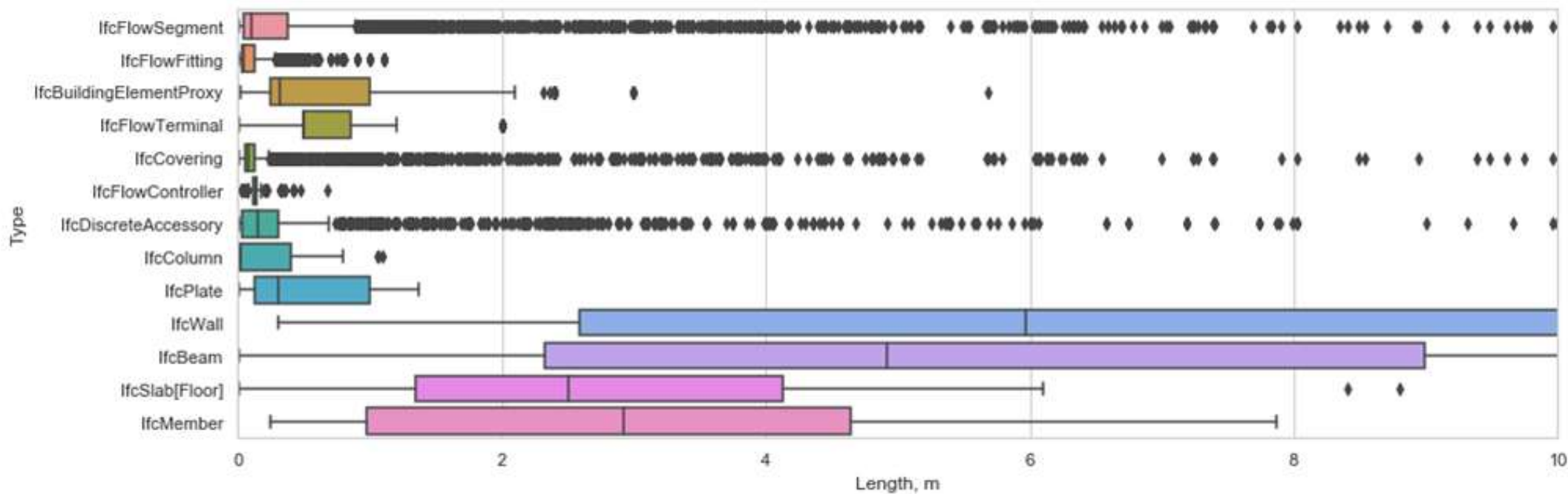
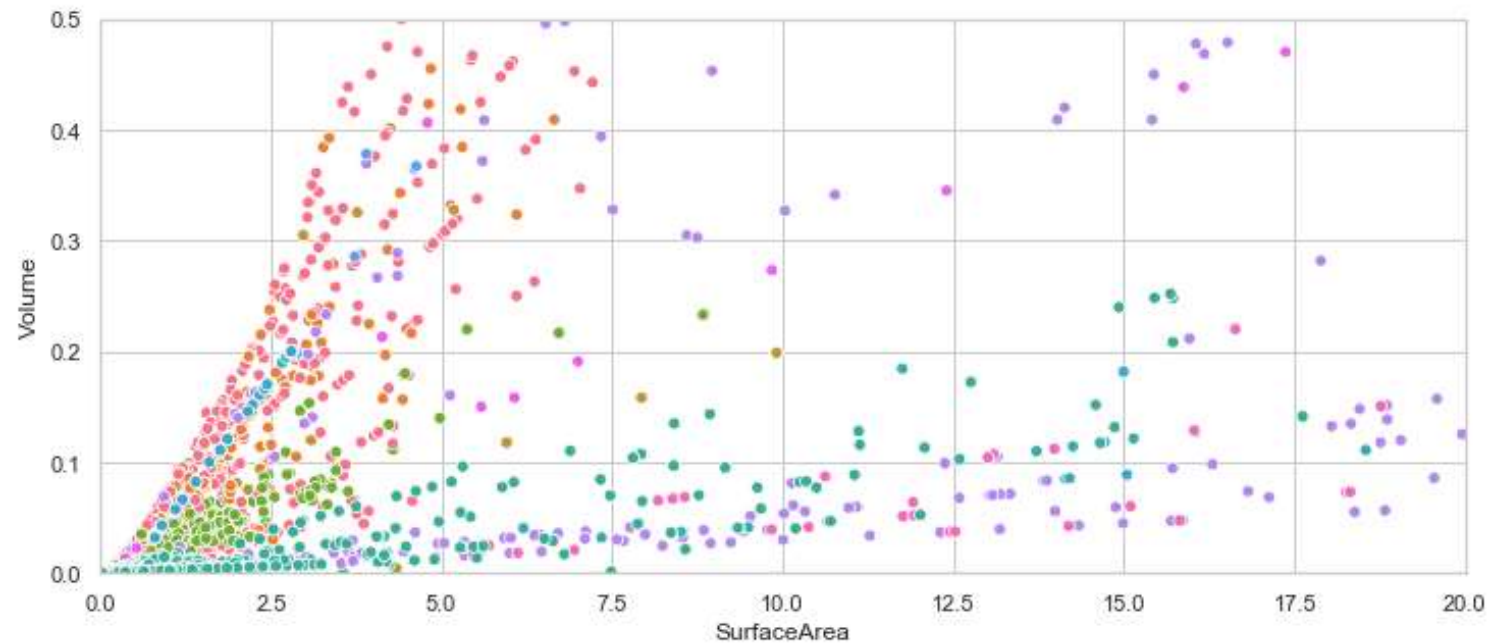
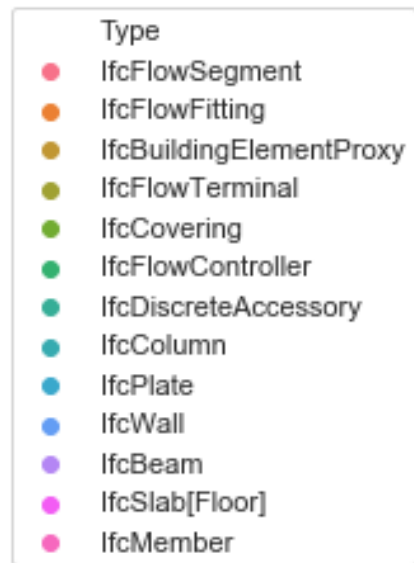
Random Forest Classifier

```
rfc=RandomForestClassifier(n_estimators=10)  
rfc.fit(X_train, y_train)  
pred_rfc=rfc.predict(X_test)
```

```
print("RandomForest TIKSLUMAS: {:.3f}".format(rfc.score(X_test, y_test)))
```

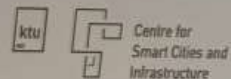
RandomForest TIKSLUMAS: 0.940







Išmaniųjų miestų ir infrastruktūros centras



360 foto

<https://tour.ktu.edu/>



Lšmaniųjų miestų
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