

Jurnal Arsitektur dan Pembelajaran

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Abstrak

this research was carried out to investigate the influence of building form and open space geometric toward the amount of radiation on the open space in a region located at latitude 7. building form and open space geometric which covers HIV (building height/width of open space in building range) ratio, H/d building height/distance between building mass) ratio, orientation and configuration are chosen as research variable. this study used simulation experiments methods with Ecotect v5.20 as the key software. the data from the simulation was analyzed with qualitative (spread radiation pattern analyzed) and quantitative (average radiation analyzed) method, by using table and graphic to see the preference which in every category of certain variable.

the result of this study shows the influences of building form geometric to the amount of solar radiation on the open space. the reduction of radiation by building form geometric changes can reach as much as 27%. this study result the principals of height, width, orientation and configuration of building form and open space which result minimum radiation on the ground, and the qualitative influence from geometrical buildings form toward spread radiation pattern on the ground.

the result can be used as design guidelines for the new cities or certain district and also can be applied in existing urban spaces by adding building mass, open spaces and shadowing, and changing shape and orientation of the open spaces.