

**LAPORAN PENELITIAN MANDIRI
KATEGORI A**



**REKAYASA DESAIN ALUR PEJALAN KAKI DIDALAM GEDUNG KULIAH
MENGANTISIPASI "A NEW NORMAL" PROSES PEMBELAJARAN TATAP
MUKA MENGGUNAKAN ARTIFICIAL INTELLIGENCE DENGAN INTEGRASI
GIS INDOOR DAN AGENT BSED MODEL**

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**JURUSAN PERENCANAAN WILAYAH DAN KOTA
FAKULTAS TEKNIK
UNIVERSITAS BRAWIJAYA MALANG
SEPTEMBER 2021**

HALAMAN PENGESAHAN

Judul Penelitian : Rekayasa Desain Alur Pejalan Kaki Didalam Gedung Kuliah Mengantisipasi "A New Normal" Proses Pembelajaran Tatap Muka Menggunakan Artificial Intelligence dengan Integrasi GIS Indoor dan Agent Based Model

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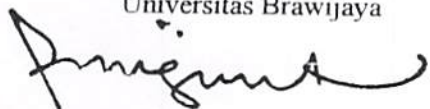
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8. Hasil yang ditargetkan : Simulasi traffic civitas akademika PWK UB dalam pelaksanaan pembelajaran full daring dan blended learning di gedung PWK UB

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RINGKASAN

COVID-19 memberikan dampak terhadap perubahan secara massif aktivitas masyarakat sehari-hari, pekerja kantor memberlakukan Working from Home, Siswa SD-SMA menerapkan Study from Home, demikian juga pada aktivitas mahasiswa yang menerapkan Learning from Home. Perubahan perilaku manusia ini sudah berlangsung selama setahun. Pada tahun 2021, setelah dilakukan program vaksinasi secara global, maka pada akhirnya akan diikuti dengan perubahan pola hidup aktivitas sehari-hari menuju "a new normal", dimana interaksi manusia secara langsung akan diberlakukan kembali, dengan tetap memenuhi protocol kesehatan, salah satunya adalah kegiatan social distancing. Studi ini akan mengkaji deteksi alur pejalan kaki civitas akademika Jurusan Perencanaan Wilayah dan Kota, Universitas Brawijaya serta memprediksi kerumunan pada spot-spot tertentu didalam gedung perkuliahan Department urban and regional planning (URP), menggunakan integrasi Agent Based Modeling dan GIS Indoor.

Keywords: path, a new normal, social distancing, computer vision, geospatial agent based modelling

SUMMARY

COVID-19 has had an impact on massive changes in people's daily activities, office workers apply Working from Home, elementary-high school students apply Study from Home, as well as student activities implementing Learning from Home. This change in human behavior has been going on for a year. In 2021, after a global vaccination program has been carried out, it will eventually be followed by a change in the lifestyle of daily activities towards "a new normal", where direct human interaction will be reinstated, while still complying with health protocols, one of which is activities. social distancing. This study will examine the detection of pedestrian paths by the academic community of the Department of Urban and Regional Planning, Universitas Brawijaya and predict crowds at certain spots in the lecture building of the Department of urban and regional planning (URP), using the integration of Agent Based Modeling and GIS Indoor.

Keywords: path, a new normal, social distancing, computer vision, geospatial agent based modelling

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