|  |  |  |  |
| --- | --- | --- | --- |
| **Title:** | Image Based Automatic Traffic Surveillance System Through Number-Plate identification And Accident Detection | | |
| **Author(s) Name:** | [Sakib Ahmed Shad](https://ieeexplore.ieee.org/author/37088959068); [Kazi Firoz Ahmed](https://ieeexplore.ieee.org/author/37088770758) | | |
| **Contact Email(s):** | k.firoz@aiub.edu | | |
| **Published Journal Name:** | ACMI2021 | | |
| **Type of Publication:** | Conference | | |
| **Volume:** |  | Issue |  |
| **Publisher:** | IEEE | | |
| **Publication Date:** | **July 2021** | | |
| **ISSN:** |  | | |
| **DOI:** | https://doi.org/10.1109/ACMI53878.2021.9528284 | | |
| **URL:** |  | | |
| **Other Related Info.:** |  | | |
|  | | | |

|  |  |
| --- | --- |
| **Abstract:** |  |
| In making countries, deficiency of power is the principal obstruction for financial and social turn of events. A rising nation like Bangladesh is still in lack of electricity in remote island areas. Those areas could be electrified by diesel generators but because of carbon dioxide emission by diesel fuel, alternative power generation scenarios are needed to consider. This paper suggests a hybrid generation system for such a remote area from Bangladesh where still people are using PV panels to get electricity during daytime. But at night they are deprived from electricity. In this paper the feasibility study is done for renewable resources for that the load data is collected from door-to-door survey process. Simulation was carried in HOMER (Hybrid Optimization Model for Electric Renewables) software. HOMER uses maximum simulation per optimization technique to perform maximum number of possible combinations, system design precision technique to select a precise system, net present cost (NPC) precision technique to get the best NPC and optimization category winners technique to run additional optimizations with or without each component. Bauphal area has 14 Unions, one Paurashava, 135 Mauzas/Mahallas, and 147 villages. Total population is near about 1500. The hybrid system considered is composed of PV, Biogas generator and Hydrogen Fuel Cell (HFC). Because of the availability of biomass, the biogas generator is considered. Result showed the hybrid system comprises 48% of PV penetration, 2% HFC and 50% of biogas generator with Cost of Electricity (COE) 0.082/kW.TheNPCofthesystemis1,693,811. Furthermore, this system can reduce almost 427 tons/year of carbon dioxide compared to conventional diesel-PV scenario. Sensitivity analysis with variation of parameters of PV are also performed in the research. | |