iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 9 **Issue:** III **Month of publication:** March 2021

DOI: https://doi.org/10.22214/ijraset.2021.33418

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 9 Issue III Mar 2021- Available at www.ijraset.com

Android based Building Plan and Estimation for Rural India an (Inspired By) Atmnirbhar Bharat

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***Abstract:** As we know there are some underdeveloped areas where traditional method or local construction methods are used. They are trying to finish the building within the budget to stop a professional person taking advice. But instead of local consultants if they go with a technical plan, they can meet requirements with proper planning in almost the same budget. Building your dream home is easy, but it is not easy with proper planning. To ensure a hassle-free construction process, it is imperative to adopt rules and regulations called build-by-law.*
***Keywords: Design, Keywords, Planning Estimation, Development, Android Applic*ation**

I. INTRODUCTION

We are working on an application which will provide planning and estimation to the people in rural areas. As more than 70% population follows traditional method till date. As they consult the local contractor, they go over budget as they don't have the proper estimation for their plan and the planning of the houses is not technically sound so they face problems in future. While working on the project we figure out the common problems faced by the people and started working on them accordingly. This application is easy to handle easy to understand by the rural peoples. With the use of this application, they can select the plan according to their needs and get the estimation for the selected plan. This is also useful for taking loan from banks as they get proper plan and their estimation.

The android application functions on the principles of engineering. This Android application is developed as per IS code and provides all necessary facilities at the minimum possible cost. According to the requirements of the customers and the dimensions of the plot, Android application shows the appropriate plans and also provides estimation of that plan. The aim of this Android application is to provide plan for the poor and middle-class peoples as they are usually constructed there house according to the local contractor 's guidance and not preferring Engineer due to additional expenses of plans and other expenses. Therefore, as this framework is for local residents, this offers 450sq. ft. to 2500sq. ft. This software includes detailed plans suitable for that site according to the plot size or according to customer's budget. There is "no need to measure or design," according to the product description. This is also a good choice for users who have little experience in designing floor plans.

This app is also useful for peoples come under below poverty line, who are applicable for PMAYG (Pradhan Mantri Avas Yojna-Gramin). They get housing plans as per their plot size & also in the budget of funds gets from PMAYG. By using this app, they get required facilitated plans in the budget.

II. PROBLEM STATEMENT

India is the developing country with more than 60 percent (65.97% as per world bank report 2018) of people living in the rural sector. Due to lack of awareness the villagers build their house without implementing engineering principles. Eventually, the cost building rises as they refer to the local contractor’s advice. Local contractors are constructing their house using local methods that are not technically sound by laws as per the Indian Standards. Houses are designed accordingly, and later they can face many problems and high maintenance cost that the residents cannot afford. Proper Residential planning will solve many of the problems and keep grip on budget.

III. LITERATURE REVIEW

The CESE is a 5-star green rating building by GRIHA(India) & Research facility at IIT, Kanpur on a plot area of 175,000 Sqm. It has been designed in an environmentally friendly manner and constructed as “building in the garden” that isbsustainable. Buildings account for more than 40% of all global carbon emission, one of the main culprits implicated in the phenomenon of global warming in which India comes on 144th position (1.4 metric ton) in carbon emission rating in the world. Green Building is the practice of constructing or modifying structures to be environmentally responsible, Sustainable & resource-efficient throughout their life cycle.

This includes efficiently using energy, water and other natural resources, protecting occupant health, improving employee productivity reducing waste, pollution and environmental degradation. The entire document should be in Times New Roman or Times font. Type 3 fonts must not be used. Other font types may be used if needed for special purposes.

This paper has published by mozhgan khapur in 2011 the abstract of the paper is the study has considered the architectural style of old and new housings with the aim of identifying the impact of cultural changes on villages and examine components on changes in the housing model. The paper defining & explaining rural housing indicators and identifying its element the study has shown the housing space quantities and the existing differences in housing quantity and quality needs.

One technique that is still developing is the conservation of clean hot or cold air. The California Academy of Sciences building has vented that open on the domes to let out hot air as well as motorized windows to let in cool air (Green building incorporates). While this can control the temperature in a building efficiently, air quality is just as important, since, on average, people spend 80-90% of their time in buildings. There is a constant battle between keeping a constant temperature while using the least amount. Most home heating and air conditioning systems advertise providing accurate temperature control as well as filtering mould, moisture, dust, and pollen. There is not yet technology that can meet the same standards while using much less energy.

Design techniques of green building". They identify the design technique for green building and gives design techniques for green building via case study on centre for Environmental science and Engineering Building IIT, Kanpur, India. Their concern to attempt it in the direction to make people, communities and general for creating awareness of GRIHA. The MNRE formed a GRIHA secretaries. They were assigned with a task of performing training sessions and awareness programs throughout the country. In one of the schemes launched by MNRE the GRIHA registration fee for first 100 government buildings where relinquish. MNRE also provide subsidies for building which adopted the renewable energy technologies, because of which the awareness of GRIHA has risen in the building sectors since 2007.

IV. CONCLUSIONS

This software application helps the people in rural areas to build their home. To provide residence plans for small houses using Android application based on engineering principles with the estimated cost to the specific design. Program provides plan according to customer requirement and usable plot size. This prevents potential issues and the buildings over maintenance, within their budget with proper planning.

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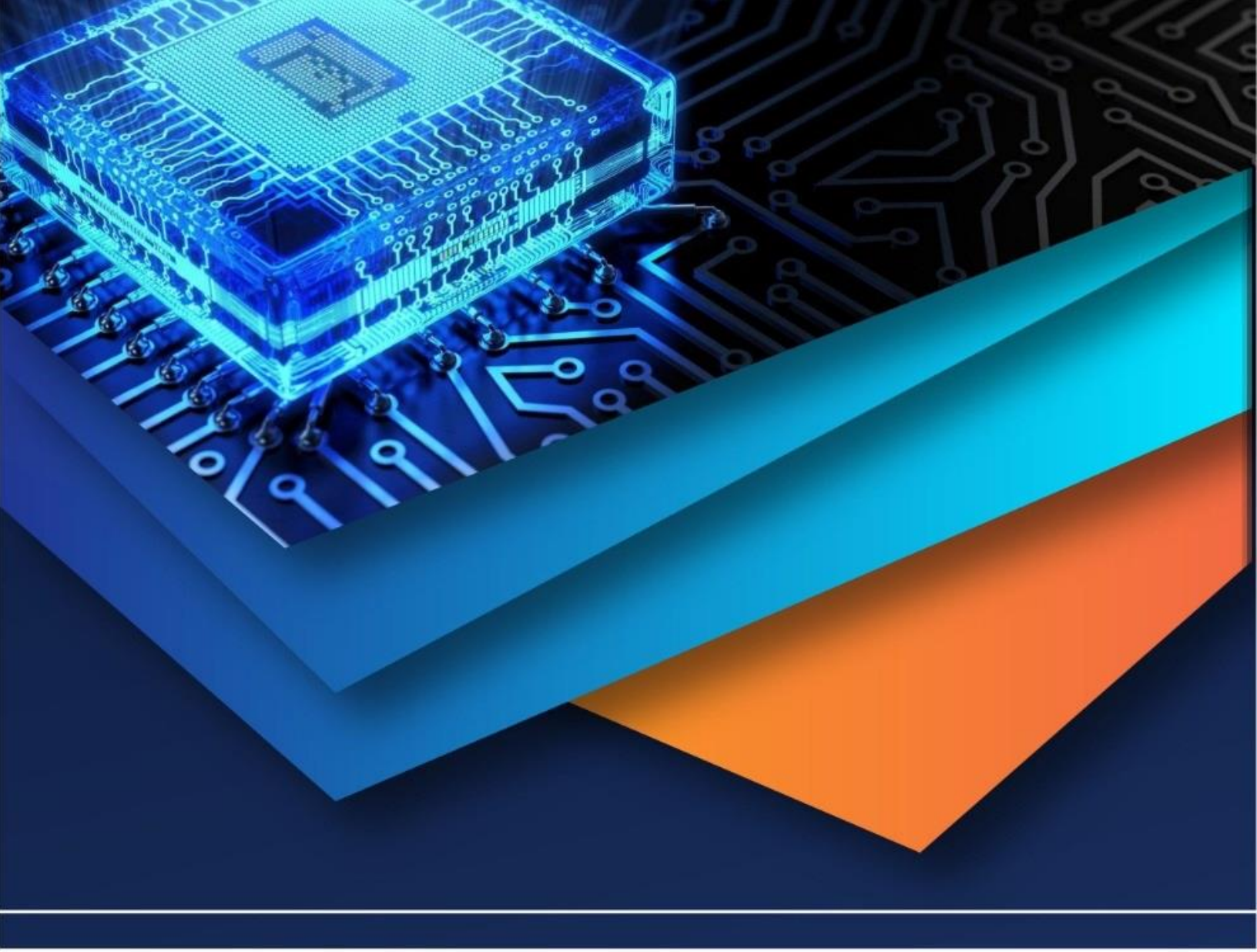

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