**Abstract**

* The solar energy sector faces significant challenges in site selection, risk assessment, and decision support, resulting in suboptimal outcomes and financial losses. Traditional approaches, marked by static methodologies, have proven inadequate in adapting to dynamic environmental conditions. To revolutionize decision-making in solar power projects, this project introduces an innovative and adaptive system for site selection and risk assessment.
* In response to the pressing challenges faced by the solar energy sector, this project advocates for a transformative shift in decision-making methodologies. The existing paradigm, marked by static and limited approaches to site selection, risk assessment, and decision support, has shown its shortcomings through financial losses and operational inefficiencies.
* Recognizing the need for a more adaptive and data-driven solution, this project endeavors to introduce an innovative framework that redefines the landscape of solar power project planning.
* **KEYWORDS**: Solar energy, sustainable development, solar energy applications, perspective of solar energy.