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Design and Development of a Low-Cost Solar Powered Drip Irrigation System Using Systems Modelling Language

Onur Deveci, Mert Onkol, Hakki Ozgur Unver, Zafer Ozturk



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- Solar powered water pumping system with battery buffer configuration is developed.
- Theoretical and field study results and SysML modeling of the system are presented.
- SysML modeling simplified and standardized the design and implementation process.
- Total cost is reduced by 63 % with respect to commonly used direct coupled system.
- System performance is improved and made independent of atmospheric conditions.

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