



**CALIFORNIA STATE SCIENCE FAIR  
2015 PROJECT SUMMARY**

<b>Name(s)</b> <b>Sunil K. Alexander</b>	<b>Project Number</b> <b>S0901</b>
<b>Project Title</b> <b>Fibonacci Solar Array vs. Regular Panels on a Roof</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> To measure and compare the electricity output generated by the solar panels on a rooftop to the photovoltaic cells placed on the tree branches in the Fibonacci sequence. Also to find if the process photosynthesis will help us build better solar devices.</p> <p><b>Methods/Materials</b> Materials: 22 solar panels, PVC pipes, and copper wires. Methods: I tested each system with a multimeter to find the amps and watts. I also tested the models with a propeller and lab quest reader.</p> <p><b>Results</b> The Fibonacci solar array produced more energy output in amps, and RPM than the rooftop panels.</p> <p><b>Conclusions/Discussion</b> The improved Fibonacci Solar Array produced more energy than the Standard roof panels. It also showed greater efficiency than the older model. This means that trees can teach us how to generate energy more efficiently.</p>	
<b>Summary Statement</b> To find if trees can show us how to produce more energy.	
<b>Help Received</b> Guided by engineers from PSOMASFMG,	