

The International SEEDS Conference 2016
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RISE AWARD Submission
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Up-Skilling the UK Work Force in Renewable Energy Technologies

"Tell me, I'll forget. Show me, I'll remember. Let me do it, I'll understand"

D Garlovsky, BSc, MSc, Certificate in Social Phenomenology
www.solar-active.com/www.inno-therm.com

Key Points we have addressed in our submissions:

• What need did the product, process, project or service fill?

The Challenge

1. There is a shortfall in knowledge and direct experience of how teachers can use renewable energy technologies within a teaching environment at all key stages.
2. To strengthen students problem solving skills, raise attainment in STEM subjects and encourage careers in engineering and physical sciences.

• Why is it different/special/unique?

1. The solar resources were designed for participants to be given the opportunity to use their creative and inventive skills through a trial and error approach to learning.
2. The approach was effective in encouraging invention while gaining knowledge and problem solving skills the application of Science, Technology, Engineering & Mathematics subjects.

• What challenges were faced and how were they overcome?

The challenge was to provide evidence of the value and applicability of renewable energy technologies. The challenges were overcome by:

1. Engaging and exciting participants by getting them involved with a problem solving solar project to promote careers in STEM subjects.
2. Participants gained grounding in electronics as well as renewable energy.
3. Participants built solar cells
4. Participants built solar powered cars and boats.
5. Participants set-up an off grid system portable PV system that had the capacity to recharge e.g. mobile phones.

• What did it achieve? What are the current and future benefits?

1. Renewable energy technologies have proven to be an excellent way to teach STEM subjects; whilst gaining real world employable knowledge and skills.
2. Focus included the UK's design and use of existing bricks and mortar infrastructure.
3. Practical teaching resources were used which are essential along with side self-supporting educational refresher sessions.
4. Professional development practical sessions were available to primary, secondary and FE/HE teachers; along with CPD sessions for professionals in the field e.g. architects, quantity surveyors and energy officers.