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## Research interests

Renewable energies, Solar energy, Photovoltaic cell performance with Nanofluids, Ansys simulation, TRNSYS

## Employment

### Doctor of Philosophy, Department of Mechanical Engineering

Faculty of Engineering  
United Kingdom  
2 Jul 2018 → present

### Member, Bristol Doctoral College

United Kingdom  
1 Mar 2018 → present

### Teaching Assistant

Mechanical Engineering Department, Shoubra Faculty of Engineering, Benha University, Egypt  
Egypt  
1 Sep 2012 → 25 Jun 2018

## Research outputs

### Numerical Study with Eco-exergy Analysis and Sustainability Assessment for a Stand-alone Nanofluid PV/T

Abdallah, S. R., Saidani-Scott, H. & Abdelrahman, M. A., 1 Aug 2021, In: Thermal Science and Engineering Progress. 24, 100931.

### Effect of using saturated hydrogel beads with alumina water-based nanofluid for cooling solar panels: Experimental study with economic analysis

Abdallah, S. R. & Saidani-Scott, H., 15 Mar 2021, In: Solar Energy. 217, p. 155-164 10 p.

### Exergy and parametric analysis of freeze desalination with reversed vapor compression cycle

Abd Elrahman, M. A., Abdo, S., Hussein, E., Altohamy, A. A. & Attia, A. A. A., 1 Oct 2020, In: Thermal Science and Engineering Progress. 19, 12 p., 100583.

### Cooling solar panels using saturated activated alumina with saline water: Experimental study

Abdallah, S. R., Saidani-Scott, H., Borges, B. & Abdelrahman, M. A., 10 Aug 2020, In: Solar Energy. 208, p. 345-356 12 p.

### Hydrogels beads for cooling solar panels: Experimental study

Abdallah, S. R., Saidani-Scott, H., Benedi, J. & Abdelrahman, M. A., 1 Jun 2020, In: Renewable Energy. 153, p. 777-786 9 p.

### Experimental study with analysis for a novel saturated activated alumina photovoltaic thermal system

Abdo, S., Saidani-Scott, H., Benedi, J. & Tierney, M. J., 15 Apr 2020, In: Energy. 197, 12 p., 117210.

### Encapsulation surface roughness effect on the performance of cool storage systems

Altohamy, A., Elsemary, I., Abdallah, S. R., Abdelrahman, M. A., Attia, A. & Sakr, R. Y., 1 Apr 2020, In: Journal of Energy Storage. 28, 101279.

**Experimental study for thermal regulation of photovoltaic panels using saturated zeolite with water**  
Abdallah, S. R., Saidani-Scott, H. & Benedi, J., 1 Aug 2019, In: Solar Energy. 188, p. 464-474 11 p.

**Performance analysis for hybrid PV/T system using low concentration MWCNT (water-based) nanofluid**  
Abdallah, S. R., Saidani-Scott, H. & Abdellatif, O. E., 15 Mar 2019, In: Solar Energy. 181, p. 108-115 8 p.

**Experimental investigation on the Effect of Using Nano fluid (Al<sub>2</sub>O<sub>3</sub> - Water) on the Performance of PV/T System**  
Abdallah, S. R., 27 Apr 2018, (E-pub ahead of print) In: Thermal Science and Engineering Progress. 7, p. 1-7 7 p.