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## Bringing algae to the data centers

**Sai Guna Ranjan Emani and Niveditha Kakinada**  
National College of Ireland, Ireland

The main problem faced by both modern and traditional data centres is carbon usage efficiency (CUE) and power usage efficiency. As per a report, over 10 year, data centres will waste over £0.5M in power charges and emit 80% of CO<sub>2</sub> but the chances of increasing the percentage in coming years are more. Thus creating Data centre a 'Villain- Destroyer of Earth'. This paper illustrates and explains about the new Algae concept for carbon usage efficiency and power usage efficiency. Algae unicellular microorganism is a billionaire solution for all the current data centres. It can absorb tons of carbon dioxide in few minutes whereas a single tree can't even do in its life time. Algae undergo photosynthetic reaction and gives biogas and biofuel as a by-product. Thus turning CO<sub>2</sub> into valuable products lead to significant changes in Data centers. This new CO<sub>2</sub> controlling technique to save the environment with the help of algae panels can give us the most profitable business. By Moving to Algae Centered Power Plant(ACPP) Model, we can achieve the sustainability, energy efficiency and global conservation. Data Center Operators are no longer a pure Consumer, but also they are become a Producing Consumer- a "Prosumer". The Opportunities to change a data center from the consumer to prosumer are more diverse here. This technology is a pioneer in green algae power and carbon neutrality. Using this algae technology, data centre can change its image from "CO<sub>2</sub> villain to an Environment Saviour".

## Biography

Sai Guna Ranjan Emani has recently graduated from National College of Ireland. Currently working on publishing few research papers related to his field of study.

ranjan.emani59@gmail.com  
niveditha.kkd@gmail.com

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