# Ethical and environmental considerations – Part B

Ever wondered what the actual electricity cost is for keeping electrical items at home on standby instead of switching them off? According to "The Energy Saving Trust" an average home spends between £45 to £80 a year in electrical costs for keeping items on standby.

You might not think that's a lot of money over a year, but think how much wasted electricity that is, now multiply that by each household on your street, in your town and across the country! That's a lot of wasted electricity.

Different items have different energy efficiency ratings, and we are encouraged to consider an energy efficient item when purchasing it.

Did you know that a laptop can use up to 85% less electricity when compared to a desktop PC? Older laptops would become incredibly hot when used for long periods, if you compare this with some newer laptops they have more efficient parts inside them to prevent the laptops from heating up, they also use less electricity and there is therefore less waste.

The fan attached to a PC, on a computer, is always on while the computer is on. The purpose of the fan is to make sure the computer's CPU remains at a constantly low temperature.

Now if we think about how things are maintained on a larger scale in Data Centres their level of wasted electricity increases in order to keep all those computers and components cooled down, air conditioning units are powered 24/7 to constantly make sure that the servers are at a constant temperature. According to 4d-dc offering an environmentally friendly data centre alternative:

"5% of Europe's annual energy bill is spent just on cooling computers. In legacy data centres (usually those computers older than 5 years), this can often account for nearly 40% of the power consumed."

This alternative method offered if adopted by a data centre could decrease their energy usage by 88.9% which just goes to show how much energy is wasted in cooling these systems.

## Computing Ethics for Professionals

Medics and Lawyers can only practice in their field if they belong to a self-regulating professional organisation. The Computing profession is still relatively new; there has not been the organisational capability to develop a binding set of moral rules.

The British Computing Society has published a 'Code of Conduct' they expect their members to follow. These outline a duty to be followed by professionals and outline expected moral behaviour. Although these are not legislated in law, members can be expelled from the society if they do not adhere to the code of conduct.

The code of conduct covers four important areas:
Obligation to public interest
Professional competence and integrity
Duty to relevant authority
Duty to the profession

By adopting a professional code an organisation benefits from gaining in public trust. The profession uses the code of conduct to self-regulate the behaviours of its members. The code of conduct instils ethically values, which is acceptable behaviour.

Ethical codes of practice are needed as computer professionals have access to a lot of sensitive information that could be misused. A computer professional will have access to a company's data, as well as financial and medical records, the code of ethics sets clear guidelines of what is expected from individuals working under the trust of their employers.