

## **Engineering awareness in the 21<sup>st</sup> Century**

People are relying more and more on Engineering Technology and it has now reached the point where most human activity is supported by some aspect of it.

Humans have used engineering technology to supplement their lifestyle whereas, stating something that is obvious, animals and plants have not! It is not easy to identify exactly when people started to utilise engineering technology in a big way, but the invention of windmills, water turbines and steam engines marked a progressive revolution of people devising devices that have assisted their own existence. The Industrial revolution of the 18<sup>th</sup> and 19<sup>th</sup> century saw a massive further emergence of engineering expertise and this has continued at an accelerated pace up to today.

Now, in 2023 of the 21<sup>st</sup> century it is difficult to think of any profession in an advanced economy where engineering technology is not present in some capacity and the significance of this on human activity should not be underestimated. Technology advances are occurring at an ever increasing rate. Most people are aware of this and the benefits they bring, but few are debating the potential downside consequences.

The 2022 Russia/Ukraine war has certainly made European and British people aware of the importance of energy. In the UK, a sudden shift in energy supply away from Russia resulted in a significant cost penalty that is effecting many households. In the not so distant past Europeans dealt with cold weather by being more resilient than they are at present and for example by putting more clothes on in winter. Many people have lost these attributes and relied on centrally heated houses that they now may be unable to afford to heat.

The Covid epidemic also resulted in shortages of commodities such as food, materials, computer chips and other goods that previously were readily available. Global supply chains were disrupted and what was previously taken for granted was no longer available. Global travel was suddenly halted and the freedom of people movement within a country curtailed.

Energy, communications, travel and manufacturing are all now global activities and any disruption of parts of the global network can effect everyone. We no longer rely on our local surroundings, we are all globally interconnected by modern technology.

At any one instant the changes can not necessarily be seen to be occurring, but they nevertheless are happening. Dramatic events such as covid and the Russia Ukraine war, have highlighted the changes and so now it is now a good time for serious debate on the effect of global technology 'advances'. Innovation is not necessarily bad, but some innovation can have unexpected and negative consequences which need to be identified and addressed.

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