

## Editorial

[“Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.....” in Our Common Future; The World Commission on Environment and Development]

Like every year, the World Environment Day (WED) was celebrated across the globe on 5th June 2022 to create worldwide awareness of the environment. Fifty years ago, on this day, the first United Nations Conference on the Human Environment was held in Stockholm, Sweden from June 5-16 in 1972. The date coincides with the first day of the landmark Conference. This year’s theme of the WED was focused on #OnlyOneEarth, which was also the motto for the 1972 Stockholm Conference. Even after five decades, the motto continues to be relevant – we have only one earth to live and we must do every bit at our command to save it and nurture it.

We are living in times when automation is the trend. This automation is largely driven by digital technology. A very large amount of data transfer is the key to this technology. As I write there are 5.3 billion people in the world who are using the internet. We have more than 1.9 billion websites functioning worldwide. On an average, we send more than 3 million emails in a second. More than 4 billion videos are viewed on YouTube in a day. More than 50 million images get uploaded daily on Instagram. More than 3 billion people are using Facebook actively. On an average, more than 4 lakhs computers get sold daily. More than 3 million smartphones get sold daily. On average, internet traffic consumes more than 7 billion GB of data daily. The internet alone leads to the consumption of more than 2 million MWh of electricity daily, which is equivalent to more than 2 million tons of CO<sub>2</sub> emitted globally daily. (<https://www.internetlivestats.com/>). In the last decade, digital technology’s energy consumption has increased by more than 70 percent. Various studies have estimated that the digital carbon footprint is about 2.3 percent to 3.7 percent of the global CO<sub>2</sub> emissions, which is equivalent to the CO<sub>2</sub> emissions of the entire aviation industry.

We have been made to believe that the digital is always green! One has to accept it with a pinch of salt. In these times of climate change, we cannot afford to let our guards down. Demand side management can greatly ease the global CO<sub>2</sub> emissions on account of digital technology. According to a study, video streaming causes 75 percent of global traffic data. Reducing video streaming and using audio files for song listening is a way forward in this direction. Judicious purchase of devices and proper disposal of old devices continue to be the mantra for sustainable development. According to a study, more than 50 million metric tonnes of e-waste are generated every year globally. Minimizing dependence on the cloud for data storage leads to lesser energy consumption (<https://www.myclimate.org/information/faq/faq-detail/what-is-a-digital-carbon-footprint/>). According to an estimate, a country like the UK could reduce its carbon output by over 16,433 tons, simply by each adult sending one less email per day (<https://www.genevaenvironmentnetwork.org/resources/updates/data-digital-technology-and-the-environment/>)!

We are happy to carry 25 manuscripts consisting of research articles, general articles and book review in this issue. These relate to the topics such as creative commons, teaching-learning of different subjects using online methods, use of multimedia in teaching learning different subjects and effectiveness of online teaching for children with special needs. Online teaching and learning especially during the COVID times continue to generate a lot of research interest. In this issue too, there is a large number of such manuscripts discussing various aspects related to it. I hope these studies will contribute effectively in the academic discourse.

**(ABHAY KUMAR)**

**Editor**