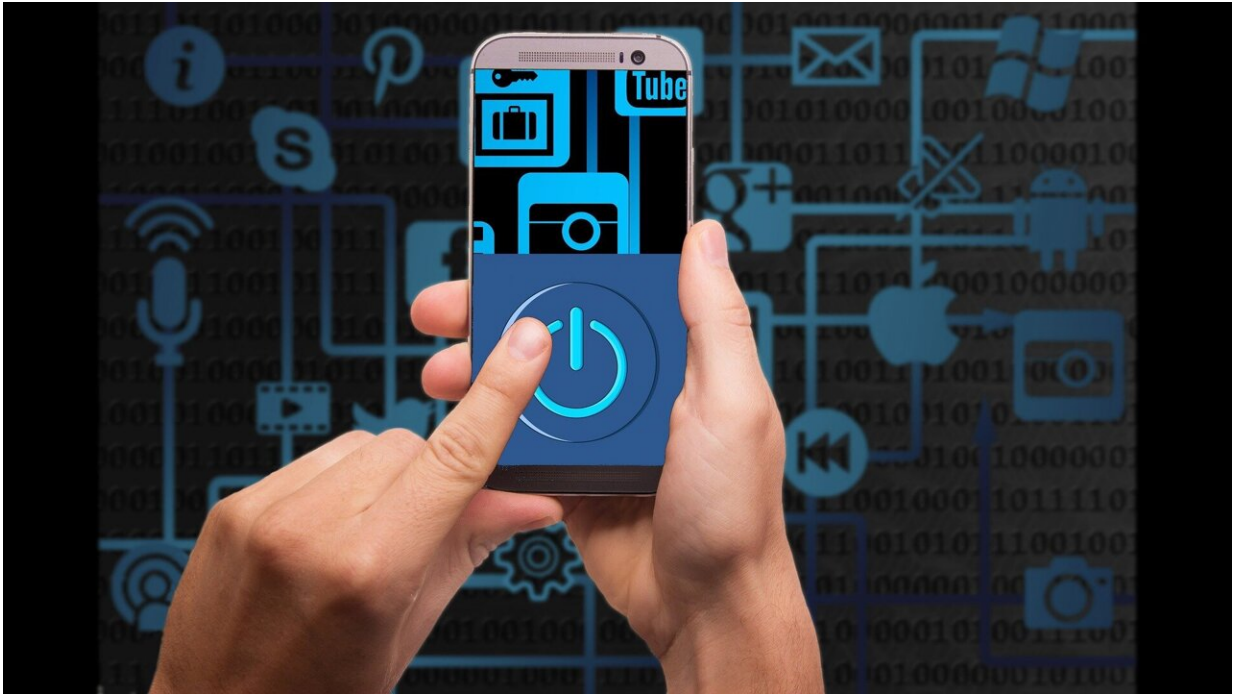


Science using smartphone downtime

October 10 2022, by David Bradley



Credit: Pixabay/CC0 Public Domain

A smartphone application that can utilize a device's idle time could reduce the computational and bandwidth loads for scientific research team members who have large amounts of project data to download from the cloud. Akshay Taywade and R. Sasikala of the School of Computer Science and Engineering at VIT University in Vellore, Tamil Nadu, India, provided details in the *International Journal of Internet Protocol Technology*.

The [processing power](#), data storage space, and [battery life](#) are commonly restrictive characteristics of most smartphones. As such, cloud computing systems are key to much scientific data management and manipulation. However, there are times when a scientist will inevitably need to draw down data from said cloud and that can quickly use up processing power and bandwidth as well as drain batteries. If this data drawdown conflicts with other critical smartphone use, then it becomes limiting. The team has developed an app with the simple name Power Save, which they suggest does just that.

Power Save works to coordinate essential downloads for any member of the scientific research team using the smartphone when it is otherwise idle. The app could find use in medicine, astronomy, geology, physics, and many other areas of scientific endeavor. The team points out that by utilizing a Wi-Fi connection power consumption can be greatly reduced when compared to 3G or 4G cellular data usage.

More information: R. Sasikala et al, Processing power sharing using a gadget 'Power Save' for downloading scientific research projects, *International Journal of Internet Protocol Technology* (2022). [DOI: 10.1504/IJIPT.2022.10051092](#)

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