Use of Artificial Intelligence to save energy

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Abstract- In the emerging field of Machine Learning and Artificial Intelligence, there are so much field specific researches are going on. This paper shows research over persons who love music and how the machine learning and artificial technology can come up with a boon for them. The cynosure of this paper is on the implementations of the artificial intelligence over the general life routine of people around the world. The paper is providing the ideas so that enhancements could be seen on ground zero.

Index Terms- Artificial Intelligence, Save Energy, Criteria for Sensors, Future Scopes, Cell Phones

I. INTRODUCTION

In today's world of hectic schedule each and every person needs rest, especially the quiescent peaceful mind, so everybody is in the seek of a calm sleep. We all know about the general routine of the people around the globe, there are two kinds of workers, first, those who work in shades and the other one is those who work beneath sunlight on grounds both need the real harmony in mind and "music" is the thing which can work as a stress buster. Specially the music which is mild brings peace, so here we can take a step to make people's life peaceful with energy savings. Many people around us listen music at night on their headset or on cell phones. They need the tunes until they fall asleep but what happens after that is phone is still playing its beats but the actual listener is sleeping, which can cause energy loss easily. No doubt people use timers also as according to their music players but eventually it may happen that the person fall asleep just after it and timer will play the music until it reaches its end point and in other case it may happen that if person doesn't get sleep again he/she will put it with timer and again the issue of energy loss will be there. We can work to cut these chances of unnecessary energy consumption.

To remove these kind of unnecessary energy loss we can use the special type of sensors and programs those who can detect the issue and can go ahead accordingly to abort the running of music player, same we can do for so many things in a phone. Phone can easily be found as a disturbing element in one's life at night.

We can make such technologies that so many functions are there those who are using phones battery there and which is becoming a major cause of inessential loss of energy.

II. THESIS

A normal charger has rating somewhere between 3-7 W while we charge with them. Which clearly means that even if your cell phone takes 2-2:30 hours of charging it will be consuming only 0.0006 to 0.014 units or kWh of electricity to charge phone. This brings us to a point that if you charge your phone daily for 2 hours then it will spend only 2-5 units in the complete year.

But the point is do you keep the mobile phone on charging for only 2-2:30 hours a day? No, sometimes it went on charge for hours when you sleep after putting it up on charge and sometimes you charge it often because you use it very often that you need to charge it again and again. You are already losing so much of electricity unnecessarily then why to lose it more? There are seven artificial intelligence (AI) tools reviewed that have proved to be useful with sensor systems.

They are: knowledge-based systems, genetic algorithms, fuzzy logic, automatic knowledge acquisition, case-based reasoning, ambient-intelligence and neural network. We can make use of these sensors to solve this issue also, where activity recognition sensors could be used. There are some criterion to detect whether a person is sleeping or not.

III. CRITERIA

With the help of Artificial Intelligence we can use such sensors those who can abort such processes, where activity recognition sensors could be used. There may be some criterion to detect that somebody is sleeping. This technique will be very useful when you are heading to save electricity and phones battery life.

Generally the respiratory rates of the adult people rom age group 11-65 years have 12-18 breaths per minute and this is the age group in which people do hectic work in daily routine so that they got stressed, this will create their need to listen music at work as well as before sleep. While we are awake our breathing pattern is slightly irregular because of movements, speech, posture, emotions exercise and other factors but while sleeping breathing will be steady unless the person is healthy. So, breath could be a major factor to detect whether a person is sleeping or not because while working our breath will be somewhat faster than this normal inhale.

Secondly, the body movements, this will be acting as huge measure to check that person is sleeping or not. While sleeping most of the time only stomach is the moving one on outer body because of respiration. The sensors can detect that if a person is near and is sleeping or not.

Another one is snoring, everybody here around doesn't snore but sometimes might be some people does. One reason for snoring can also be the lethargy, when somebody is really tired then the person can snore. Sound of snoring will be helpful to grasp that a person is sleeping or not.

Body temperature, increased Physiological activity during sleep and many other Parameters are there to measure the term sleep. We can easily recognise with a device in the phone so that a person is sleeping.

IV. FUTURE SCOPES

Other than the music auto off stuff, there are so many other things that should have been closed when a person sleeps. Examples are the recent applications, wi-fi or data connection etc. but we have to take care about calls and alarms. Call and alarm will ring and they will remain same vibrate as according to the users settings. This will really be a helpful step to make a pause on non-essential energy(electricity) loss. Specially we can set it work in night only. On the other hand the Wi-Fi and Data signals can cause harm unnecessarily to human body so that to prevent this it will close them off to get rid of it.

V. CONCLUSION

Challenges with the energy saving that I mentioned throughout this paper are huge and certainly affect other areas beyond the field of Artificial Intelligence and its implementation. With the help of artificial intelligence here are some small steps to save energy and provide a peaceful night for the working people from their hectic schedule. Many researchers can take this into account and can work on it.

Regarding artificial intelligence, it has been shown that it the most hot field in research sector, with a huge number of papers related to it. Moreover, the artificial intelligence sector is successfully using so many of the advances obtained by scientists.

I end this paper here and I know that so many areas of artificial Intelligence have not been specifically covered here, where researchers might find additional challenges. We are dealing with the challenges not only for the future scope but the present too.

VI. CONCLUSION

A conclusion section is not required. Although a conclusion may review the main points of the paper, do not replicate the abstract as the conclusion. A conclusion might elaborate on the importance of the work or suggest applications and extensions.

APPENDIX

Appendixes, if needed, appear before the acknowledgment.

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