

## Paper on Universal Mean Time (UMT) For the International Journal of Engineering and Science

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### -----Abstract-----

*At Present Whole World Is Following Time Zone System To Measure Time. Earth Is Divided Into Longitude Of 15 Degrees Amounting To One Hour Separation. Zone Starts With Standard At One Place Being 12 Noon Corresponding To Sun Crossing The Meridian. Countries In Each Zone Will Have Their Time Fixed Based In Respective Longitudes Passing Through Or Near Them. Degree Of Error With Respect To Each Place Is Acceptable. But What I Propose Is Why We Need To Keep The Time Related To Sun Crossing The Meridian. We Need A System Which Has Same Time In Whole Globe Eliminating All These Complications.*

**Keywords** – Earth, Longitude, Sun, Time Zone, UTC

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Date of Submission: 12, February, 2013  Date Of Publication: 25, February 2013  
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### I. INTRODUCTION

Problem is with the whole nature of fixed Time Zones.. Strictly speaking time should be independent of fixing on some nature movements like Sun, Earth, etc. Time is an irreversible factor and should be measured as such. Present way of fixing 12 noon as sun crossing meridian is not the correct approach.

### II. TIME MEASUREMENT

#### 2.1 Present System

At present earth is divided vertically into 24 zones of 15 Degrees each using imaginary lines called longitude. A standard is fixed at Greenwich, England for the mean time. When sun supposedly cross meridian at Greenwich it is termed with number 12:00. All other places east of this will be added one hr. for each of the 15 degree line and west of this line is subtracted by one hour. Each country picks the line nearest to it and that will be the time for that country when 12:00 noon happens in England. The global standard is termed as UTC and each country is specified with its own standard with correction w.r.t UTC. Some countries like India do not have a single longitude passing through it to cover the entire region and hence it has one more imaginary line between the two longitudinal lines and therefore IST is +5.30 of UTC. Note half an hour difference. Adding to this confusion there is, one more variable called Day Light Saving time. Based on seasons during summer clock is reversed for an hour to take care of longer duration of sun.

#### 2.2 Problem With The Present System

Each country is having its own time zones with some large countries like USA have more than one time zones. Whenever we are suggesting time globally others need to know what location this time zone is specific to. Any software programs are interpreting time with respect to location. When we are talking of Universal time this becomes difficult to understand and do not have meaning. For example if we colonize Moon or Mars can this time zone serves the purposes? Any cases we are interpreting time it is always with respect to location and also there will be difference in dates between two places depending on number of hour's separation. One more question in this regard can be if seasons does not have zone to differentiate with respect to calendar why this is required for time. For example countries in southern side of equator have altogether different seasons for the same calendar. Date, Month and Year are same across all countries. All basic units of measurements are moving away from relative term to absolute.

### **2.3 Proposed System**

We need to have same time across all countries in the world. If it is 12:00 noon at GMT then it has to be same 12:00 at all other places in the world. That means it is not noon but value is same 12:00 and on same date. With this current morning 6:00 AM may not correspond to early morning as we understand today for many places. We are moving away time from sun path and hence each location may have different normal working zones. For example in India normal office hours may be 4:00 to 12:00 corresponding to normal day lights. Note now there will not be corresponding AM or PM. Time is just a number from 0 to 24 and its fractions. Ultimately we can have a starting date from which time increases continuously in terms of 100's or 1000's of hours, minutes and seconds.

### **2.4 Advantages of new system**

This solves most of the problems mentioned above in the problems section and it should help mankind to move towards time absoluteness from existing relativeness system. Future Space travel is helped with changed social behavior of human beings since we will start understanding time as absolute number rather than a relative figure. Whole society is increasingly software dependent. This will make software code to be simpler wherever date and time are involved. With increased illumination plan during nights in future we may have man made sun during night hours. If so existing system does not serve any purposes.

### **2.3 Supposed Disadvantages Of New System**

Human perception of relating time to sun movement is affected. As with any changes, with passage of time this is bound to overcome.

## **III. CONCLUSION**

It is better for Scientific World, Human Society, International community to leave away existing time zone system and have one common uniform single time across universe, viz. Universal Mean Time (UMT).