

Time Synchronization to Avoid Heavy Rushes at HOLY PLACES

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Abstract - A simple solution to avoid heavy rushes at holy places is proposed. Let τ be the allowed time/devotee to have the DHARSHAN of Lord Venkateswara at Tirumala. Let L be the length/devotee in the Que. Then construct a single Que directly towards the Lord, with Que length $L^0 (L^0 > L = \sigma L)$ such that L^0 is Slightly greater than L , where σ is total number of devotees in the Que. Here a group of sincere and honest security allows the devotees into the Que according to the exact in-time printed on the DHASHAN TICKET. Also the exact out-time to come out from inside to the outside of the temple must have been printed on the same D h a r s h a n ticket. Anybody can book their ticket through on-line (may be by paying some money). One common server should issue the in and out-time on the booked ticket based on 'first-come first-serve principle such that it maintains τ time-difference (= the allowed time to have a glance at The Lord) between any two consecutively issued tickets. If a family of 5 persons is booking a single ticket, then the time difference between this family ticket and next issued one is, of course naturally, 5τ Seconds. As many as possible number of SYNCRONIZED CLOCKS must be placed at almost every possible places where devotees can roam around at the Holy place and also at all possible places inside the temple. Obviously, the same synchronized clocks are placed both at the Que entrance (in-gate) as well as at the out-gate. Obviously the common server prints only this synchronized temple-time on the issued tickets such that devotees need not change their personal time settings with respect to the temple-time. Let T_{in} be the in-time and T_{out} be the out-time on a devotee's ticket. Since the in-flux and out-flux of the devotees are going to be exactly the same,

$$T_{out} - T_{in} = T$$

where T can be arbitrary but it should be the same constant for all issued tickets. Obviously this constant time can't be too long because humans do occupy some finite area on the ground when they are standing still. Let $\langle a \rangle$ be the average area occupied by one devotee and let A be the Allowed ground- area inside the temple. Then a maximum-number of devotees allowed inside the temple, $N_{max} = A / \langle a \rangle$. Since for every τ Seconds, one devotee is getting-in and going-out of the temple, the maximum time one devotee can be allowed to stay inside the temple is,

$$T_{max} = \tau N_{max}.$$

So it is clear that an Absolutely free movement for devotees are possible if and only if

$$T_{out} - T_{in} = T_c < T_{max}$$

Where T_c is some critical-time to be evaluated.

Let there be N important locations inside the temple to visit after the Dharshan of the Lord, and on an average $\langle n \rangle$ number of devotee can spend an average time $\langle t \rangle$ Seconds at each location, then one can choose

$$T_c = N \langle n \rangle \langle t \rangle$$

The Sincere and Honest security persons at the out gate must verify whether the devotees are really maintaining the out-time or not. Any delay beyond 5mts must be considered as a serious crime and prolonged delays must be treated even by imprisonment.

So, First Have The Holy Dharshan Of The Lord Within $\Sigma\tau$ Seconds And Then Roam Around Inside The Temple Freely For The Allowed Time T_c . All Will Enjoy Their Holy Trip Both Inside As Well As Outside The Holy Temple.