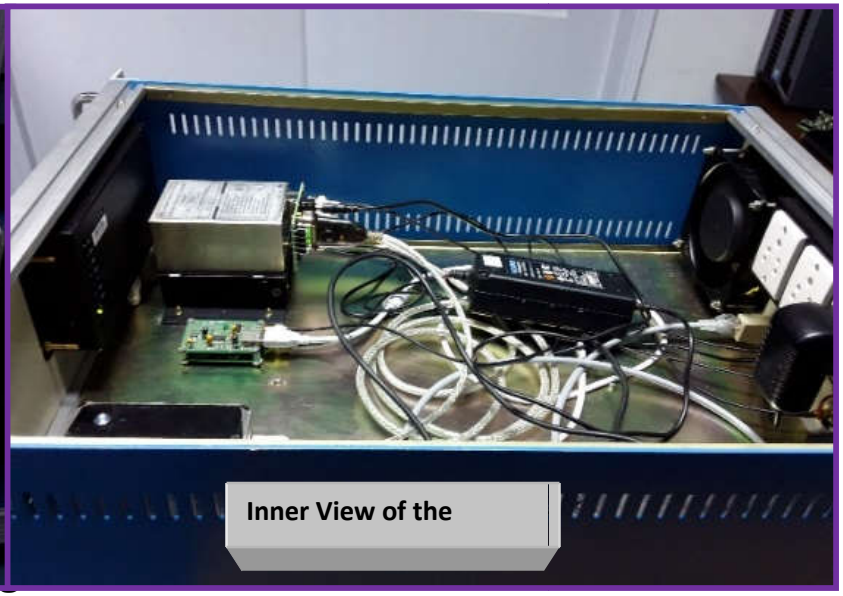
Name of the Technology: Device for Time Synchronization (T-Synch)

Summary: A low cost Time Synchronization System (T-Synch) has been developed at CSIR-NPL, New Delhi. It is capable of providing time synchronization within an uncertainty of 50 ns. Multiple numbers of such devices, located at different places can be mutually synchronized with very high precision. A common reference can be used for synchronizing all those systems.

Front view of the

Fig.1



Inner View of the

Fig.2

Applications: These devices can be used for precise time synchronization. Multiple numbers of such systems can be mutually synchronized with respect to a common reference clock.

Specifications: Output: 10MHz sine wave & 1PPS timing, Short-term stability :< $5x10^{-11}$ (1 s), < $5x10^{-12}$(100 s), Synchronization uncertainty: ±50 ns.

Advantages: This is a robust, easily deployable and low-cost solution for precise time synchronization. Multiple numbers of such systems can be synchronized within an uncertainty of ± 50 ns. Multiple numbers of devices located at different places can be synchronized to a common reference.

Choose the Readiness level of the Technology:

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

Related Patents: Patent Number: Knowhow

Year of Introduction: 2018

Broad Area/Category: Electronics & Instrumentation

User Industries: Telecom Sectors, Surveillances, Defense, Banking, E-ticketing & E-transactions, Railways