

INNOVATION BY *INDIAN NAVY* TOWARDS COVID-19

1. Certain in-house initiative/ innovation pursued by the Indian Navy, with an aim to contribute to the ongoing efforts toward COVID-19, which could be useful for the IONS nations is being shared for information.

Temperature Aided Patient Monitoring Application Networked (TAPMAN)

2. **Item/ Purpose.** Temperatures of all quarantined patients can be monitored from a remote location on a PC or on the Doctor's own mobile screen.

3. **Impact.** Avoid prolonged proximity of health care staff with multiple personnel suspected of COVID-19.



4. **Details.** In a typical quarantine facility, temperature measurements would have to be done physically by a doctor/ health assistant for a large number of suspected COVID-19 cases. In order to avoid prolonged proximity of health care staff with multiple personnel suspected of COVID-19, a system called TAPMAN has been developed by Indian Naval Dockyard. The setup involves placing a small wired thermal probe available at each bed under the armpit by the patients themselves, which is in turn connected with a Data Acquisition Unit (DAU) and a PC. The temperatures of all quarantined patients can be monitored from a

remote location on a PC or on the Doctor's own mobile screen. A visual alarm depicting patients with fever would be available on the PC/ mobile screen. This low cost solution (less than INR 500/- for six patients) can be replicated easily by any MSME with locally available components that can be readily sourced.



5. The Temperature Aided Patient Monitoring Application Networked (TAPMAN), as described above, can be manufactured at any Ship Maintenance Facility or Repair Yard. If required by any IONS nation, drawing could be provided by Indian Navy. Indian Navy could be contacted via email acnsfci@navy.gov.in or through promulgated IONS POC.