

## For consideration under COVID -19 Initiatives by NITs

### **Title: Current trending of COVID 19 and strategies for post-pandemic period**

Category: Others

#### **OUTCOME/ABSTRACT/DESCRIPTION:**

##### Problem Statement

Creating a deeper scientific understanding of bacteria and proteins, modelling the pandemic, studying the current trends and possibly looking into strategic planning for the post-pandemic period. Using physiological aspects of control system for helping in drug delivery in humans.

##### Abstract

This project has 3 phases. In the first, a brief study would be made on how a protein (and not a bacterium) affects the human biochemistry. This study is oriented towards understanding the interconnections (pathology) at a level sufficient for symptoms, testing and treatment.

The second phase is to make a SEIRS model of the phenomenon. This is done not just by gathering mounds of data, but also by checking the consistency with the study carried out in the previous phase. This thick-data modeling incorporates reasoning to an extent in addition to the trending and hence it is important.

The third phase compares the results of the thick-data model with other previously known phenomena, Spanish flu and the like. If needed, fine tuning to the model shall be made. The trending shall be quantitatively correlated to various causes and effects (lessons from the past and present diseases) and preventive measures shall be recommended in terms of hygiene (personal as well as societal), food habits, physical fitness and immunity development

**Expected Time-line: 3 - 6 Months**

**Remarks:** Funding requirement -Rs. 2 Lakh

**Proposed by (team):** **Faulty Mentors:** Dr. A. Ramakalyan and Dr. N. Sivakumaran

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