

## **IIITB COMET Foundation: Action initiated in solving problems flagged by various ministries**

Through a meeting organized by the Council of Scientific & Industrial Research (CSIR), IIITB COMET Foundation has picked up two end user problems which the Department of Telecommunications prioritized:

- a) Indigenous development of technologies for telecom sector can help in reducing import dependency
- b) Technologies that can be used to mend the gaps in the 5G communication landscape

We have organized our technology development initiatives along these two directions. We called for proposals in two categories of projects, each corresponding to one of the problems mentioned above. The details are as follows.

1. Research and Development of 5G and beyond base station technologies:

This corresponds to tackling problem a) as mentioned above. We established a technical review committee that reviewed the received proposals, and we have funded two projects in this area. The first project is a major undertaking that aims to indigenously build a 5G base station adhering to the Open RAN standards laid down by the O-RAN Alliance. Several premier institutes of the country (IIT Hyderabad, IIIT Bangalore, IIT Roorkee, IIIT Naya Raipur, and IIT Bhilai) are involved in this effort. We have also funded a second project in this area, which focuses on AI co-design and development of 5G hardware and software. Both these projects were approved by the Hub Governing Body.

2. Research and Development in the areas of Reconfigurable Intelligent Surfaces (RIS):

This corresponds to tackling problem b) as mentioned above. We have collected reviews from a technical review committee, of proposals received in this area. The upcoming Hub Governing Body meeting will finalize which proposals will be funded.

Additionally, we are exploring possible collaboration with ARTPARK (IISc) on responding to Indian Army's RFI for Mobile Cellular Communication System (MCCS).