## **Five Fingered Bionic Prosthetic Hand** Funding: BDTD, DST



**Prof. Shyamanta M Hazarika - Department of Mechanical Engineering** 

**<u>Objective</u>**: Development of a cost-effective anthropomorphic five-fingered bionic prosthetic hand.

## **Brief Description of Technical/Scientific Achievements**

- Optimization of kinematic design of the under-actuated hand using synergies for grasps.
- Fundamental work on corticomuscular coupling functional coupling between the neural activity in the brain and the associated muscles for an EEG-EMG Hybrid control.
- Non-assembly mechanism prosthetic hand i.e., fabricating multi-articulated mechanisms without the involvement of an assembly step.





**Bionic Prosthetic Hand** 

## EEG-EMG Hybrid Control of Prosthetic Hand