



Ministry of Electronics and  
Information Technology  
Government of India



## **GRAND CHALLENGE - PRODUCT DESIGN & DEVELOPMENT FOR MOBILE HANDSET ASSESORIES**

Centre for Development of Advanced Computing (CDAC), is an Indian autonomous scientific society operating under the Ministry of Electronics and Information Technology (MeitY), Govt. of India. A Centre of Excellence (CoE) is being setup for design and development of products related to Mobile handset accessories and other electronic application at CDAC Noida in association with the Industry partner – India Cellular and Electronics Association (ICEA), financially supported by MeitY, Govt. of India and Government of Uttar Pradesh. This Coe shall provide a complete eco-system i.e R&D, Design & Testing hub for local industries to make India self-reliant in products based on Li-ion Cell for mobile handset accessories. CDAC is inviting proposals under Grand Challenge from different R&D institutes, industries and academia for seven products. The main objective of this grand challenge is to energize young minds and develop indigenous innovative commercially viable product designs which can be up-scaled further under this CoE. The details of products are given below:

### **P-001: To design a low-cost Power Bank**

Power bank is a device that stores power in a Li-Ion battery. The stored power is used for charging- hand held or portable devices like mobile phones, tablets etc. Expected features are LED status indicator, chip level safety protection, portable size, fast Charging.

### **P-002: To design a low-cost USB Charger**

A USB charger is a type of power adapter used to charge a battery-operated electronic device. It converts an AC voltage into required DC voltage with safety features to charge the load equipment. Expected features are over voltage protection, short circuit protection, surge protection.

### **P-003: To design low-cost Wireless Charger**

Wireless charging works by transferring energy from the charger to a receiver in the back of the phone via electromagnetic induction. Expected features are elimination of stray radiation and, compatibility with multiple devices

### **P-004: To design low-cost Bluetooth Speaker**

Wireless speakers are loudspeakers that receive audio signals using radio frequency (RF) waves rather than over audio cables. Bluetooth technology is used to transmit audio data to the receiving speaker. Expected features are easy pairing and noise cancellation

**P-005: To design a low-Cost Smart Light System**

Smart light systems constitute of automated ways to light up homes and offices thereby eliminating the need for traditional switches. Expected features in design are dim ability, energy efficiency, connectivity through an app and, provision to set timing.

**P-006: To design a low-cost Digital Radio**

Digital radio is the use of digital technology to transmit or receive across the radio spectrum. Expected features are sound clarity, LCD screen display, USB/AUX connectivity, Bluetooth connectivity, availability of a memory card slot.

**P-007: To design a low-cost Bluetooth or a USB headset**

A headset is a device that provides a two-way connection to the user's cell phone via Bluetooth. Expected features are touch control, noise cancellation, low battery consumption

**Registration Link:**<https://bit.ly/2W7zn30>