

Special Call for Establishment of ICMR Centres for Advanced Research (CAR) under the National Initiative for Reliable Medical Device Development and Assessment Network - Assistive Technology (NIRMAN – AT)

INDIAN COUNCIL OF MEDICAL RESEARCH (ICMR)

Medical Device and Diagnostic Mission Secretariat (MDMS), Development Research Division (Extramural Research), New Delhi

1. Background

The Indian Council of Medical Research (ICMR), the apex body for formulation, coordination and promotion of biomedical research in India, has been supporting translational research, indigenous health-technology development, validation and strategic partnerships to address national healthcare priorities. Building on ICMR's experience in medical-device translation and assistive health-technology innovation, a dedicated mission-mode initiative is proposed to accelerate the development, assessment and adoption of reliable, affordable and context-appropriate assistive technologies for Indian users.

Under the aegis of National Initiative for Reliable Medical Device Development and Assessment Network - Assistive Technologies (NIRMAN-AT), this special call is for proposals for ICMR Center for Advanced Research (CARs) to establish multidisciplinary translation hubs for assistive devices. The programme will encompass clinical need identification, co-design with end users, engineering development, usability and human-factors assessment, regulatory compliant, clinical evaluation, manufacturing translation and pathways for adoption. The initiative will be coordinated by the Medical Device and Diagnostic Mission Secretariat (MDMS), Development Research Division (Extramural Research), ICMR Headquarters.

2. Vision

To establish a national network of multiple Centres of Advanced Research across India, for the accelerated development and assessment of indigenous assistive technologies for all age groups that meet the state-of-the-art quality standards, are safe, reliable, affordable, user-centered and suitable for deployment across diverse Indian healthcare and community settings.

3. Objectives

To select and support investigator-initiated Center for Advanced Research proposals for development and translation of a portfolio of regulatory-compliant assistive technologies addressing clearly defined unmet needs.

4. Scope

Applicants should propose a coherent CAR programme centered on a portfolio of assistive technologies (indicatively 5-8 technologies) with a clear five-year development and translation roadmap. The proposed technologies may address one or more of the following Domains:

S	Domain	Assistive Technologies
1	Mobility, transfer and accessibility	Wheelchairs, tricycles, walkers/rollators, crutches, canes and walking sticks, tripods/tetrapods, portable ramps and related mobility or transfer-assistance systems.
2	Prosthetic, orthotic and	Prostheses, orthoses, therapeutic footwear and related adaptive or supportive devices.

	assistive technologies	
3	Vision and accessible-information technologies	Visual aids, optical/digital magnifiers, assistive canes for persons with visual impairment, Braille technologies, tactile/audio signage, modified smartphones/laptops and related accessible-information systems.
4	Hearing and communication technologies	Hearing aids, cochlear implants, electrolarynx, deaf-blind communication systems and related communication-assistance technologies.
5	Self-care, safety and independent-living technologies	Modified commode chairs, fall-detection/prevention systems, incontinence-management products and other technologies supporting activities of daily living, ageing and independent living.
6	Others	Communication software/boards, screen readers, pressure-relief cushions/mattresses, standing frames, personal emergency alarm systems, pill organisers, time-management products, travel aids, video-communication devices, keyboard/mouse emulation systems club foot braces, audio players with DAISY capability, Personal digital assistant (PDA), Alarm signallers with light/sound/vibration and related technologies.

For all categories, proposals may incorporate digital, sensor-based, AI-enabled or smart functionality. Proposed solutions should be affordable, accessible, and suitable for deployment across diverse Indian healthcare, community and home settings, including resource-constrained environments; accordingly, where relevant, preference may be given to edge-deployable, offline-capable or intermittently connected architectures where continuous cloud connectivity cannot be assured.

Infrastructure: Implementation should primarily leverage existing institutional infrastructure. Funding support will have emphasis and focus on product development, clinical testing, validation and assessment. Creation of major new facility or infrastructure will not be supported under this grant call.

5. Eligibility Criteria

The call is open to investigators from institutions eligible for ICMR Extramural Research support. The Principal Investigator must be a regular faculty member/scientist with demonstrated extensive experience in health-technology development, clinical/rehabilitation research, biomedical engineering or a closely related area. The proposed CAR should demonstrate:

- A multidisciplinary team with relevant clinical/rehabilitation expertise and engineering/product-development capability; participation of an appropriate clinical specialist and technology-development expert must be integral to the proposal. The team should demonstrate a verifiable track record relevant to the proposed work, including, as applicable, prototype development, clinical validation, patents, technology transfer, start-up incubation, manufacturing translation, or deployment of health technologies. Supporting evidence of such experience should be provided with the proposal.
- Access to target users/patient populations and suitable facilities for usability studies and clinical evaluation/validation, field feasibility studies, where applicable.
- Institutional commitment to sustain the research, technology-development and translation ecosystem beyond the period of ICMR support.

- Collaboration with other academic institutions, hospitals, rehabilitation centers, start-ups, industry partners or user organizations is highly encouraged to be included when essential to the programme. Engagement with an appropriate start-up or industry partner is particularly encouraged to facilitate product translation, manufacturability and navigation of applicable regulatory requirements.

6. How to Apply

Applicants will need to submit a detailed full proposal through the ICMR e-PMS portal as per ICMR Extramural Research guidelines describing the unmet need, proposed technology portfolio, current Technology Readiness Level (TRL), multidisciplinary team, available infrastructure, user/clinical access, five-year milestones, anticipated outputs, translational and regulatory compliance pathway and budget.

7. Evaluation Priorities

To maximize the likelihood of successful translation within the CAR timeframe, preference will be given to proposals demonstrating:

1. **Unmet Need & User Relevance:** Well-defined clinical or functional need, target user population and measurable use-case, supported by user/clinician inputs.
2. **Technology Readiness:** A credible starting TRL and a realistic achievable plan for advancing technologies to validation, regulatory readiness and deployment. Preference may be accorded to portfolios with technologies already at advanced proof of concept or prototype stage or above. The proposal should specify the current TRL separately for each proposed technology and the target TRL/milestone to be achieved during the CAR period.
3. **Multidisciplinary Capability:** Strong integration of clinical/rehabilitation, engineering, design, human-factors, regulatory and implementation expertise.
4. **Co-design & Usability:** Meaningful involvement of end users and caregivers, with planned usability, accessibility and human-factors evaluation.
5. **Regulatory & Standards Pathway:** Early mapping of applicable CDSCO requirements, BIS/ISO/IEC standards, testing needs, risk management and quality-system considerations, as relevant and with necessary approvals in place.
6. **Methodology:** A well-defined and appropriate methodology should be provided, incorporating all relevant technical details, a clear strategy for performance evaluation, clinical validation based on a defined PICO framework, and generation of real-world evidence, commensurate with the risk classification and intended use of the technology.
7. **Affordability & Manufacturability:** Design-for-manufacture, indigenous sourcing, cost targets, serviceability and scalability for Indian settings. Applicants should identify critical import-dependent components and demonstrate, wherever feasible, a realistic pathway for domestic substitution, localization or indigenization without compromising safety, performance or regulatory compliance.
8. **Translation & Adoption:** Defined pathway for IP management, technology transfer/start-up or industry partnership, procurement/adoption and post-project sustainability.

8. Implementation Support

The applicants may avail support through ICMR MedTech Mitra for regulatory guidance and Medical Innovation Patent Mitra for Intellectual property and technology transfer related facilitation, as applicable. The ICMR's Indian Clinical Trial Education Network, INTENT may be leveraged wherever appropriate, to facilitate clinical investigation/evaluation and validation of technologies developed under the program.

9. Budget and Financial Guidelines

The budget can be up to INR 15 crores per CAR, for a maximum period of five years. The budget shall be formulated under ICMR Extramural Research heads and in accordance with prevailing ICMR guidelines.

10. Submission Process & Format

The proposals shall be submitted electronically through the ICMR e-PMS portal (<https://epms.icmr.org.in/>) under the notified NIRMAN-AT special call.

Full proposal must be submitted electronically via the ICMR e-PMS portal as per ICMR Extramural guidelines. Please refer to:

https://www.icmr.gov.in/icmrobject/custom_data/1720159244_guidelines_for_extramural_research_programme.pdf for template for full proposal submission.

- i. For Submission portal (<https://epms.icmr.org.in/>) will open from **07th October 2026**.
- ii. After completing mandatory section of PI profile, go to Proposal Submission → Click on 'Apply Proposal' → Select "NIRMAN-AT" from the dropdown
- iii. Click on 'Apply New Proposal' and fill the form step by step.
- iv. Kindly ensure that all sections are adequately filled with the necessary details.
- v. Inclusion of at least one Co-PI from PI's institute is mandatory.
- vi. PIs are advised to submit proposal well ahead of the last date, since servers may be overloaded and slow to respond.

For any query related to the call, please mail to the addresses given below; other modes of communication won't be entertained.

For Technical Queries (e-PMS Portal): po.epms@icmr.gov.in

For Scientific Queries (Proposal related): Dr Harpreet Singh Pawar, harpreet.pawar@icmr.gov.in

11. Tentative Timelines

Milestone	Indicative Timeline
Release of Call	01 st October 2026
Start Date for Proposal Submission	07 th October 2026
Last Date for Proposal Submission	13 th November 2026, 1700hrs IST
Final Selection	15 th December 2026