Technical proposal: new CCRH website

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Working prototype: https://vedanshugoyal.github.io/ccrh-prototype/

1. Overview

We will rebuild ccrhindia.ayush.gov.in as a bilingual (English and Hindi) website on an open-source CMS, compliant with GIGW 3.0, DBIM and WCAG 2.1 AA. The site goes live within 20 weeks of the work order with CERT-In Safe-to-Host and STQC Certified Quality Website (CQW) certificates, and we then host and run it on a MeitY-empanelled cloud in India for 5 years.

Working prototype of the new website: https://vedanshugoyal.github.io/ccrh-prototype/ (28 pages in English and Hindi, built with CCRH's own public content). More design concepts and colour options can be provided on request.

- A new DBIM-based design with navigation built around visitors; every key service within 3 clicks.
- All existing content, documents, media and data migrated without loss; every old link keeps working.
- WCAG 2.1 AA, CERT-In Safe-to-Host and STQC CQW cleared before launch.
- Hosting on a MeitY-empanelled cloud in India at 99.9% uptime; no data stored or routed abroad.
- 5 years of operation: content updates, annual CERT-In audit, STQC renewal, EV SSL, patching and backups.
- 100% ownership of source code, database and documentation transferred to CCRH.

2. What we found on the current website

We studied the public pages of ccrhindia.ayush.gov.in on 8 October 2026 (181 menu pages in both languages; no logins, no scans).

Area	Finding	What the new website does
Platform	Drupal 10, whose security support ends on 9 December 2026	Moves to a supported Drupal version, with database-level migration
Speed	Pages take about 6.7 seconds to build; the home page is about 9.4 MB	Home page about 140 KB in the prototype; optimised images; caching
Hindi and English	Two separate page trees; menus differ (94 vs 87 links); 169 documents in one language only	One item holds both languages; the language switch keeps you on the same page

Area	Finding	What the new website does
Accessibility	Same title on all 181 pages; no high-contrast option; scrolling text cannot be paused; missing alt text	Unique titles; contrast and text-size options; pausable ticker; alt text required
Security	Plain HTTP not redirected to HTTPS; no Content-Security-Policy; server versions disclosed	HTTPS only, security headers, WAF, hardened servers
Data sovereignty	Google Maps embedded on about 34 pages	No third-party calls; India-hosted maps
Documents	424+ PDFs, most without file size; some over 100 MB	Type and size on every download; large files flagged and compressed

3. Approach and technology

Layer	Choice
CMS	Drupal (open source), the same CMS as today, upgraded through supported versions at our cost
Servers	Web server and database server as specified in §4.3 (4 vCPU, 32 GB RAM, 300 GB SSD each), Linux with enterprise support
Network	Two-tier: only the web server is public (ports 80/443 behind the WAF); the database has no public route
Security	Web Application Firewall with rate limiting and virtual patching, no CAPTCHAs; admin access only from whitelisted IPs
Data in India	Hosting, backups, logs and firewall all in Indian regions of a MeitY-empanelled cloud; logs kept 180 days (CERT-In directions)
Ownership	Code in a repository owned by CCRH; infrastructure scripted so it can be rebuilt and handed over

4. New website structure

Eight sections replace ten, each built around one group of visitors:

Section	Main pages
About CCRH	The Council, objectives, governance, citizen charter, annual reports
Research	8 research areas, public health programmes, Extra Mural Research, collaborations
Our Network	Centre finder for all 33 institutes and units with address and phone, by state and type

Section	Main pages
Publications	Standard Treatment Guidelines, IJRH, annual reports, newsletter, books, IEC material
Opportunities	Vacancies, results, recruitment rules, scholarships
Tenders	Open, recently closed and archived tenders, with corrigenda under each tender
Media	News and updates, photo and video galleries
Help and Contact	Contact details, RTI, grievances (CPGRAMS), FAQ, feedback

5. Data migration

1. Take a database and file export of the current site (week 1) and list every page, file and URL.
2. Pair every English page with its Hindi page; flag documents that exist in one language only.
3. Agree a mapping of old content to new content types with CCRH (week 3).
4. Run two trial migrations on staging (weeks 13–14) with a reconciliation report: item counts, file checksums, links, translations.
5. Final migration at go-live after a 48-hour content freeze; every old URL redirects to its new page.
6. Keep the old site read-only for 30 days as a fallback.

6. Certification plan

Certificate	Issued by	When
WCAG 2.1 AA (internal check)	Our testing on every build	Weeks 7–14
CERT-In Safe-to-Host	CERT-In empanelled auditor (booked in week 8)	Certificate by week 18; renewed every year
STQC Certified Quality Website	STQC Directorate, MeitY (applied in week 14)	Certificate by week 18; renewed in year 3

Production servers are built early (weeks 11–12, at our cost, as allowed by Corrigendum 1), so the audits test the environment that actually goes live.

7. Timeline (20 weeks)

Phase	Weeks	Deliverables	CCRH sign-off
1. Discovery	1–3	Requirements, current-site assessment, information architecture, project plan, migration strategy	Project plan

Phase	Weeks	Deliverables	CCRH sign-off
2. Design	4–6	Wireframes, 3 DBIM design concepts, interactive prototype	M1: final design
3. Build	7–12	Website, CMS, responsive layouts, GIGW and DBIM compliance; production servers built	Demo every 2 weeks
4. Test	13–14	Two trial migrations; functional, accessibility, performance and browser testing	M2: staging ready
5. Certify	15–18	CERT-In audit and fixes; STQC testing; both certificates	M3: certificates
6. Harden	19	WAF rules, EV SSL, network rules, control panel, backup restore test	M4: production ready
7. Launch	20	Final migration, UAT, go-live, credentials, first backup, training	M5: go-live; 5-year AMC starts

8. Operations and support for 5 years

- **Response:** within 30–60 minutes in working hours and 2–4 hours otherwise (Corrigendum 1). No onsite staff needed.
- **Content updates:** published within 1 working day; urgent notices within 2 hours.
- **Security:** Drupal security patches within 48 hours (24 hours if critical); monthly OS patching; incidents reported to CERT-In within 6 hours.
- **Uptime:** 99.9% per year, checked every minute from India; monthly uptime report with each quarterly invoice.
- **Backups:** daily, kept in a second Indian region; full encrypted backup delivered to CCRH every quarter and at each year-end, restore-tested.
- **Credentials:** full set handed to CCRH at go-live; any change shared within 24 hours.
- **Yearly:** CERT-In audit, EV SSL renewal, performance review; STQC renewal in year 3.
- **Training:** CMS training for CCRH staff at go-live and yearly, with user manual and SOPs.
- **Exit:** complete handover of code, data, credentials and documentation, with knowledge transfer, before any final payment.

9. Points we will confirm with CCRH at kick-off

- Access to a database and file export of the current website.
- Who provides Hindi translations of new content.
- Whether institute and unit staff will edit their own pages.
- Whether the website should open in Hindi or English by default.
- Which officer will act as Web Information Manager.

Team

Two Computer Science graduates of IIT Jodhpur with private-sector experience building and running websites and large software systems.

Vedanshu Goyal, Proprietor and Project Lead (hosting, performance, security)

- B.Tech, Computer Science and Engineering, IIT Jodhpur. ICPC World Finalist 2023, an international programming contest.
- Software Development Engineer, Live Your Best Life (lybl.com) (Jan – Jul 2023): built the online booking system and a community forum for the LYBL website.
- Software Engineer, Qi-CAP, Bangalore (Aug 2023 – Jun 2026), a stock-market trading technology company.
  - Built software that handles about 10 lakh stock-market updates every second.
  - Made the company's trading systems more than 70% faster, and kept them steady at the busiest times of the day.
  - Worked on storing and retrieving large amounts of data quickly and safely, which is also what keeps a busy website fast and available.

Sarthak Kumar Singh, Web Development Lead

- B.Tech, Computer Science and Engineering, IIT Jodhpur.
- Full Stack Engineer, Regie.ai (Apr 2026 – Jun 2026). Earlier SDE I and SDE II at ConveGenius.ai (May 2023 – Mar 2026), promoted within 2 years.
- Built and ran web systems used by over 10 crore people, available 99.9% of the time and handling about 5,000 requests every second.