

CITIZEN'S CHARTER

CENTRAL SOIL AND MATERIALS RESEARCH STATION

The Central Soil and Materials Research Station (CSMRS), an attached office of the Ministry of Water Resources, is a premier Institute in the country located at New Delhi which deals with field and laboratory investigations, basic and applied research on problems in soil mechanics, rock mechanics, concrete technology, construction materials and associated environment issues, having direct bearing on the development of irrigation and power in the country and functions as an adviser and consultant in the above fields to various projects and organizations in India and abroad.

Vision

- World class centre of excellence in the areas of soil mechanics, rock mechanics, concrete technology and allied areas, research and development in the field of water resources. The vision is responsive to changing global needs, with special emphasis on quality, innovation, entrepreneur and leadership competencies, professional and human values so as to have effective contribution in socio-economic upliftment of the public.

Our Mission

- Our mission is to create world class testing facilities and to provide geotechnical and other services of international standards and support for the planning, design, construction, maintenance and safety of hydraulic and other civil engineering structures so as to meet the requirements of clients and stake holders.

“Start by doing what's necessary, then what's possible; and suddenly you find that you are successful in performing and achieving even the impossible”

The Mandate

- To carry out basic and applied research in the fields of soil mechanics, rock mechanics, concrete technology and allied areas which have a vital bearing on the irrigation and power development of the country.
- To assist Central and State Government organizations, Ministries, Departments of Government of India, Public Sector Undertakings, etc. primarily in the field of soil mechanics, rock mechanics, construction materials and allied fields pertaining to projects in the water sector and other infrastructure projects. Assistance to neighbouring countries as and when required.
- To undertake site characterization, laboratory and field investigations including stress measurements, instrumentation and other measurements of prototype structures to monitor their behaviour, quality control in water resources and other complex civil engineering structures.
- To undertake construction materials survey, to evolve mix design of mortars, concrete, shotcrete etc. for use in projects to realize economical utilization of locally available materials.
- To undertake chemical analysis of all construction materials.
- To impart training to engineers and scientists from within the country and from overseas for investigation and testing in the fields of soil mechanics, rock mechanics, construction materials, concrete technology, water quality, numerical modelling etc.

Services Provided

The activities of CSMRS encompass varied studies viz.

- Basic and applied research
- Consultancy

*“In all human affairs there are efforts, and there are results,
the strength of the effort is the measure of the result.”*

- Self-sponsored research schemes
- Preparation of manuals/ state-of the-art-reports
- Projects in collaboration with national and international organizations
- Mass awareness programmes
- Training
- Formulation of new codes or amendments in existing codes wherever necessary in the related field.
- DPR evaluation
- Member of TAC of various Institutions/ programmes

These activities are undertaken in by the six different Groups listed below.

Soil Mechanics Group

Soil Mechanics group comprises of Soil divisions, Soil Chemistry division, Information Technology division, and Drilling division. Main activities are:

- Field and laboratory soil investigations viz. foundation and borrow area investigations of various river valley projects and civil engineering structures are taken up for characterization of soil and construction/foundation materials.
- Assistance are also offered to the projects for carrying out the foundation investigations and the field tests such as Standard Penetration test, Static Cone Penetration test, Plate Load test, Insitu Permeability test etc.
- Special investigations are also carried out for characterizing the problematic soils such as expansive and dispersive soils.
- Fly ash characterization

“There are two kinds of people: those who do the work and those who only want to manipulate and take the credit. It is better to be in the first group as there is much less competition.”

- Numerical Modelling
- Chemical investigation on soil as a construction material.

- Information Technology Division
 - The Information Technology division is involved in various Information Technology related activities such as:
 - Server Management, Management of DTP facility, Network Support, Computer Services Support (including NICNET services), Procurement of Computer and related Products Purchase, Automation of various user divisions/sections including Data Archiving and Retrieval (Digitization of records), Website Support and Maintenance, Call coordination for Repair and Maintenance, AMC related works of IT Products, Coordination for IT specific Training programmes. This division has undertaken a study on Information Strategy Plan (ISP).

- Drilling Technology Division
 - The Drilling division is equipped with deep drilling facilities. The Drilling division can also do the drilling required for in-situ investigations.

- Dissemination of expertise to in-service engineers of various State Government Departments by establishing regional testing laboratories and impart training in testing of soil.
- Impart training to engineers from within the country and from overseas for investigation and testing in the fields of Geotechnical Engineering.

*“Imagination is more important than knowledge.
Knowledge is limited while Imagination encircles the whole universe.”*

Concrete Technology Group

Main activities of the concrete technology group are:

- Field and laboratory investigations of construction materials for major river valley projects in India and abroad. It has full fledged field and laboratory facilities for conducting standardized (BIS, ASTM etc.,) and specialized testing and analysis of concrete, masonry, cement, steel and other construction materials for evaluating the material properties, their failure and performance problems.
- Special testing facilities, housed in concrete laboratory, are utilized for studying the thermal properties of mass concrete, Abrasion Erosion Resistance.
- Mix design of mass concrete as well as high performance concrete mixes.
- Construction quality control of concrete in the field for major hydraulic structures.
- Dissemination of expertise to in-service engineers of various State Government Departments by establishing regional testing laboratories and impart training in testing of concrete.
- Disseminating knowledge on Roller Compacted Concrete for the construction of dams in the country.
- In addition to the above, this group has the State of the Art equipment facilities for carrying out studies on 'Behaviour of Concrete under Multiaxial State of Stresses' and long term behaviour of concrete under Creep.
- Quality Control

"Insanity is doing the same thing, over and over again, but expecting different results."

Concrete Diagnostics and Chemistry

Concrete Diagnostics and Chemistry group comprises of Concrete Diagnostics division, Concrete Chemistry division, and Special Studies division. Main activities are:

- Field investigation facilities include deployment of non-destructive testing equipment by Ultrasonic Pulse Velocity method using PUNDIT in assessing the insitu quality of the structure (concrete and masonry) in question.
- Diagnostic investigation/Health Monitoring
- Material for repair and rehabilitation
- Petrography studies
- Chemical investigation of construction materials
- Durability of concrete
- Chemistry and Mineralogy
- Instrumental methods of analysis
- Water quality testing
- Alkali Aggregate reaction studies
- New material - Polymer, Grout etc.
- SC/SFRC/ HPC/HSC/CFRD

Rockfill Soil Dynamics

Rockfill, Soil Dynamics group comprises of Rockfill Technology division, Soil Dynamics division, and Geosynthetics division. Main activities are:

- Characterization of soil under dynamic loading condition including evaluation of liquefaction potential.

“Yesterday is history, tomorrow is a mystery, today is a gift of God that is why it is considered as the present.”

- Strength and deformation characteristics of rock fill materials.
- Evaluation of properties such as tensile strength, resistance, thickness, apparent opening size, permeability, interface friction and the pull out resistance of Geosynthetic materials Quality and assurance work of rock fill dams.
- Quality and assurance work of rock fill dams.
- Numerical Modelling
- Dissemination of expertise to in-service engineers of various State Government Departments by establishing regional testing laboratories and impart training.

Rock Mechanics-I

Rock Mechanics (I) group comprises of Rock Mechanics Field division, and Engineering Geophysics division. Main activities are:

- In-situ stress, rock deformability, shear strength parameter etc.
- Geophysical investigations/Sub surface exploration.
- A Remote operated under water Vehicle (ROV) to detect the cracks, voids etc on the surface of concrete/masonry dam under water.
- Numerical Modelling.
- Dissemination of expertise to in-service engineers of various State Government Departments by establishing regional testing laboratories and impart training in in-situ testing of rock.
- Impart training to engineers from within the country and from overseas for investigation and testing in the fields of Geotechnical Engineering.
- Store division.

“To be yourself in a world that is constantly trying to make you something else is the greatest accomplishment.”

Rock Mechanics-II

Rock Mechanics (II) group comprises of Rock Mechanics Laboratory division, Workshop and Instrumentation division, and Electronics division. Main activities are:

- For detailed and controlled testing of responses of rock under different loading conditions, the Rock Engineering Laboratory is well-equipped to undertake the holistic assessment of the detached rock.
- The involvement of Instrumentation division with Hydro-electric Projects starts at the pre-construction stage, and this association continues throughout the construction stage, and remains active even during the post-commissioning stage. To gain confidence in the functioning/safety of the structures involved, and to check the assumptions involved in the design of the structures, crucial importance of instrumentation cannot be over-emphasised.
- Monitoring the health of the existing structures.
- The Electronics division provides support and consultancy in Electronic Instrumentation, preparation of specifications of electronic equipments, calibration and accreditation of laboratory testing facilities in addition to providing support on testing, installing newly procured electronic equipments. Repair and Maintenance of instruments.
- Dissemination of expertise to in-service engineers of various State Government Departments by establishing regional testing laboratories and impart training in laboratory testing on rock.

“If you tell the truth, you don't have to remember anything.”

- Impart training to engineers from within the country and from overseas for investigation and testing in the fields of Geotechnical Engineering.
- Procurement Division Procurement of equipments, instruments and consumables. Annual Maintenance contract for existing equipments. Preparation of purchase manual.

Our honored clients

- Central Government and State Govt. agencies
- Public sector Undertakings
- River valley project authorities
- Thermal power stations
- Academic institutions/ universities for their programmes of teaching, etc.
- Non governmental and community-based organizations

Our Global Recognition

- Quality control of Hydroelectric Power Project in Bhutan
- Quality control of Hydroelectric Power Project in Afghanistan
- Specialised investigation in Myanmar
- International standards such as ISO
- World Bank

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Organizational Set-Up And Role Of The Department


Proud of its past performance and knowing its future responsibilities, CSMRS has armed itself with a team of about 150 dedicated scientists and engineers. Many of them have trained abroad under various UNDP/NGI assisted programmes executed successfully during last 3 decades. Equipped with the state of art equipment and trained manpower, CSMRS can take up any challenging investigation works in respect of dams, bridges, multistoreyed buildings, nuclear and thermal power stations besides safety evaluation of existing hydraulic and other civil engineering structures.

Governing Council

The Governing Council functions as principal policy formulating and advisory body under the Chairmanship of Secretary, Ministry of Water Resources. The Governing Council comprises members from Central Water Commission, Planning Commission, Department of Science and Technology, experts representing academic and research institutes, other organizations and concerned officers from MoWR. The Governing Council monitors the overall progress and performance of the Research Station.

Standing Technical Advisory Committee

The Standing Technical Advisory Committee (STAC) with Member (Design & Research), Central Water Commission as its Chairman inter-alia provides an



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overall perspective and guidance, technical scrutiny of research programmes and recommending priorities, scrutinizes and recommends the expansion proposals in the form of five year plans/external assistance and suggests programmes for training of manpower.

GRIEVANCE REDRESSAL

Grievance redressal mechanism

The Institute has established a Grievance Redressal Cell to deal with the grievances of the general public and staff of the Institute. Sh. Mahabir Dixit, Scientist 'D' is in-charge of the public grievances and staff grievances respectively. If any member of the public or staff wishes to take up the matter personally, he/she may contact the Public Grievance Officer (Sh. Mahabir Dixit, Scientist 'D' & Director (Grievance)), CSMRS, New Delhi-110016 telephone no. 91-11- 26581368.

Committee for safeguarding the interests of SC/ST/OBC/Minorities

As per the directives of the Govt. of India, a liaison cell under the chairmanship of Scientist 'E' has been functioning to look into the complaints of SC, ST, OBC or any employee belonging to minority community working in the Institute. Presently, the cell is headed by Dr R. Chitra, Scientist 'E'. Any affected staff member belonging to such category having complaints of harassment or related discrimination may contact her personally or through telephone no. 91-11-26532547.

“Live as if you were to die tomorrow. Learn as if you were to live forever.”

Committee on Complaints of Women on Sexual Harassment

As per the directives of the Govt. of India, a committee under the chairmanship of Scientist 'E' has been functioning to look into the complaints of women employees working in the Institute. Presently, the Committee is headed by Dr R. Chitra, Scientist 'E'. Any staff member having complaints of sexual harassment or other gender related offences may contact her personally or through telephone no. 91-11-26532547.

MEASURABLE SERVICE STANDARDS FOR THE SERVICES PROVIDED

Nature of Service	Service Delivery Standard
R&D studies, sponsored projects, consultancy projects	To be completed within the stipulated period
Testing services (Field and laboratory based)	As specified in the terms of agreement
Dissemination of data collected by CSMRS	As and when requested by the users, within 7 days
Detailed Project Reports	To be completed within 3 weeks
Training and awareness programmes	As specified in the event calendar for the year
Seminars/ symposia/ workshops/ brainstorming sessions	As specified in the event calendar for the year
General queries	To be replied within 7 days
Grievances	Acknowledgement to be provided within 7 days, and grievance redressed within 3 months of receipt in the Institute

“Experience is a hard teacher because she gives the test first, the lesson afterwards.”

Interaction with stakeholders

- Periodical meetings are held with Central and State organizations, and other stakeholders through various Committees, i.e. Governing Body, Standing Technical Advisory Committee and Working Groups
- Interactions and idea-sharing during various seminars/workshops/ conferences
- Variety of training and capacity programmes for field engineers, scientists, researchers, students
- Mass awareness programmes
- Through participation in International Trade Fairs

GUIDANCE AND HELP

The Research Station has published a brochure containing the details of infrastructure facilities available, activities and research outputs. The brochure is available free of cost and a soft copy can be downloaded from the Research Station's website. Dissemination of information in regard to our latest research findings, policies and procedures is made available through the Research Station's annual report and the website at www.CSMRS.nic.in.

Remedies available to our clients/customers in the event of non-compliance of service standards:

- We have created a link for registering complaints at the Research Station's website (www.CSMRS.nic.in)
- A complaint box has been kept at the Reception of the Research Station. All complaints will be acknowledged by the Research Station within 15 days

*“Darkness cannot drive out darkness: only light can do that.
Hate cannot drive out hate: only love can do that.”*

- The name and contact details of the Public Grievance Officer of the Research Station is as under:

Sh. Mahabir Dixit

Scientist 'D' & Director (Grievance)

Central Soil and Materials Research Station (CSMRS),

Hauz Khas New Delhi-110016

Ph. 91-11-26581368, Email: mdixit@nic.in

- If the customer is not satisfied with the reply received or if it is not responded promptly, he/she can approach the Director, Central Soil and Materials Research Station (CSMRS) New Delhi.

OUR COMMITMENTS

We are committed to constantly revise, improve and update the service standards being offered under the Charter. We are eager to receive any suggestions/feedback for improving our capabilities and efficiency for cause of serving humanity.

The suggestions may be addressed to:

**The Director
Central Soil and Materials Research Station
Outer Ring Road,
Olof Palme Marg,
Hauz Khas, New Delhi- 110016**

Ph: 91-11-26563140-43 (EPABX)

Fax: 91-0-11-26853108

E-mail: director-csmrs@nic.in

“You only live once, but if you do it right, once is enough.”