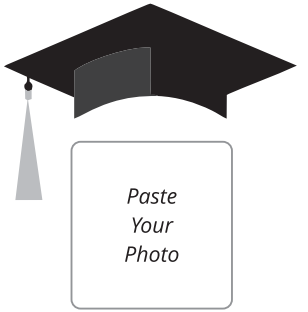
Career after Civil Engineering



Scope after B.E.\ B.Tech.



Set your Goal

- Government Job
- Private Job
- Consultancy
- Business
- Further Study

Central Government & PSU Jobs

1. IOCL (Indian Oil Corp. Ltd.)
2. BPCL (Bharat Petroleum Corp. Ltd.)
3. HPCL (Hindustan Petroleum Corp. Ltd.)
4. NTPC (National Thermal Power Corp.)
5. NHAI (National Highways Authority of India)
6. NBCC (National Buildings Const. Corp. Ltd.)
7. NPCC (National Projects Const. Corp. Ltd.)
8. NLC (Neyveli Lignite Corporation)
9. OPGC (Odisha Power Generation Corp. Ltd.)
10. PSPCL (Punjab State Power Corp. Ltd.)
11. THDC (Tehri Hydro Development Corp. Ltd.)
12. PGCIL (Power Grid Corporation of India Ltd.)
13. CEL (Central Electronics Ltd.)
14. ISRO (Indian Space Research Organization)
15. SAIL (Steel Authority of India Ltd.)
16. RRB (Railway Recruitment Board)
17. ONGC (Oil and Natural Gas Corporation)
18. AAI (Airport Authority of India)
19. IRCON (Indian Railway Construction Company Ltd.)

and many more...

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Selection Procedure for PSUs

Sr.	Company	Where to apply	Eligibility	Exam Pattern
1	IOCL	www.iocl.com	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	• Short listing on the basis of GATE score • Group discussion / task • Personal interview
2	BPCL	www.bharatpetroleum.com		
3	HPCL	www.hindustanpetroleum.com		
4	NTPC	www.ntpc.co.in	B.E./B.Tech. (Civil) with minimum 65% aggregate marks	
5	NHAI	www.nhai.org	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	• Short listing on the basis of GATE score • Personal interview
6	NBCC	www.nbccindia.com		
7	NPCC	www.npcc.gov.in		
8	NLC	www.nlcindia.com		
9	OPGC	www.opgc.co.in		
10	PSPCL	www.pspcl.in		
11	THDC	www.thdc.co.in	B.E./B.Tech. or M.E./M.Tech. (Civil) with minimum 65% aggregate marks	
12	PGCIL	www.powergridindia.com		
13	CEL	www.celindia.co.in		

Selection Procedure for PSUs (Contd...)

Sr.	Company	Where to apply	Eligibility	Exam Pattern
14	ISRO	www.isro.gov.in	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	• Written test
15	SAIL	www.sailcareers.com		
16	RRB	www.rrcb.gov.in		
17	ONGC	www.ongcindia.com	B.E./B.Tech. (Civil)	• GATE score : 60% Marks • Interview : 15% Marks • Qualification : 25% Marks
18	AAI	www.aai.areo	B.E./B.Tech. (Civil)	• Written test • Personal Interview • Voice test to be conducted at the time of interview.
19	IRCON	www.ircon.org	B.E./B.Tech. (Civil) with minimum 60% aggregate marks	• Short listing on the basis of GATE score • Written test • Personal interview

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State Government & Local Authority Jobs

State Government Authority

1. R&B (Roads and Buildings Dept.)
2. NJSKP (Narmada Jal Sampati & Kalpsar)
3. SSNNL (Sardar Sarovar Narmada Nigam Ltd.)
4. GWSSB (Guj. Water Supply & Sewerage Board)
5. GGL (Gujarat Gas Ltd.)
6. GHB (Gujarat Housing Board)
7. GSPHC (Gujarat State Police Housing Corp.)
8. GSPL (Gujarat State Petronet Ltd.)
9. GERI (Gujarat Engineering Research Institute)
10. GPCB (Gujarat Pollution Control Board)
11. GWRDC (Gujarat Water Resources Development Corp.)
12. DLR (District Land Record)
13. GIDC (Gujarat Industrial Development Corp.)
14. GSFC (Gujarat State Fertilizer & Chemicals Ltd.)
15. GMDC (Gujarat Mineral Development Corp.)
16. GEMI (Gujarat Environment Management Institute)
17. WALMI (Water And Land Management Institute)
18. WASMO (Water And Sanitation Management Org.)
19. GETCO (Gujarat Energy Transmission Corporation Ltd.)
20. GNFC (Gujarat Narmada Valley Fertilizers & Chemicals)

Local Authority

1. Municipal Corporation (RMC, AMC, SMC, VMC, BMC, JMC, GMC, etc.)
2. Urban Development Authority (RUDA, AUDA, VUDA, SUDA, etc.)
3. District Development Office
4. Nagar Palika at Taluka level

- **Selection Procedure for State Government Authority and Local Authority**

Step-1 Job announcement in newspaper

Step-2 Apply online at ***www.ojas.gujarat.gov.in***

Step-3 Written test will be conducted as per schedule (MCQ type test)

Step-4

Class- II
- Document verification
- Personal interview

Class- III
- Document verification
- Direct recruitment on the basis of merit

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Private Jobs



- Multi National Company
- National Level Company
- Under Private Contractor
- Under Government Contractor

- **Multi National Company**

  (1) TATA Consulting Engineers **(2)** Shapoorji Pallonji **(3)** Linde **(4)** L & T *and 100+ companies*

  Selection Procedure

  Screening based on CPI/CGPA ➡ Written test ➡ Group discussion ➡ Personal interview

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- **National Level Company**

  (1) Gammon Infra **(2)** Backbone Infra **(3)** IRB Infra **(4)** NCC *and 1000+ companies*

  Selection Procedure

  Written test ➡ Group discussion ➡ Personal interview

- **Under Private Contractor**

  If you want to start your own private business then you should do job for atleast 2 to 3 years under private contractor. 5000+ private contractors are working in Gujarat.

- **Under Government Contractor**

  If you want to start your own government contract business then you should do job for atleast 2 to 3 years under government contractor. 1000+ Government contractors are working in Gujarat.

Consultancy

Consulting Civil engineer provides expert advice on the design, planning and management of construction projects. It is a field for an engineer who enjoys the challenges of dynamic problems. Civil Engineer can work as a,



- **Structural Consultant**
- **Engineer (Architect or Planner)**
- **Surveyor / Plan Maker**
- **Site Supervisor**
- **Valuer**
- **Manager/Engineer in Material Testing Laboratory**

- **Structural Consultant**

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least **5-years experience** under certified Structural Engineer in Structural Design Work
M.E./M.Tech. (Structural Engineering)	At least **2-years experience** under certified Structural Engineer in Structural Design Work
Ph.D. (Structural Engineering)	At least **1-year experience** in Structural Design Work

B) Scope of Work

To prepare & submit structural details for

- All types of Buildings (Residential, Commercial, Industrial, etc.)
- Special structures (Bridge, Transmission Tower, Cooling Tower, etc.)

C) Registration

- Register as Structural Engineer in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Architect & Builder / Owner of building

Source: http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf

- **Engineer (Architect or Planner)**

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least **2-years experience** under certified architect or engineer after completion of B.E. (Civil)
Diploma (Civil Engineering)	At least **5-years experience** under certified architect or engineer after completion of D.E. (Civil)

B) Scope of Work & Competence

- Preparation & planning of all types of layouts, submission drawings, to submit certificate of supervision & completion for all types of buildings.
- Supervision & execution of construction work as per specifications & drawings prepared by authorized registered structural designer.
- Preparation of the structural details and calculations for buildings of load bearing structures.

C) Registration

- Register as an Engineer in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Builder / Owner of building

Source: http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf

- **Surveyor/Plan Maker**

A) Qualification

- **B.E./B.Tech.** (Civil Engineering)
- **Diploma** (Civil Engineering or Architecture)

B) Scope of Work & Competence

- Preparation of plans and layouts and execution of low rise buildings

C) Registration

- Register as Surveyor/Plan Maker in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Government tenders, Owner, Architect, Valuer or Builder

Source: http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf

- **Site Supervisor**

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering)	At least **1-year experience** in professional work
Diploma (Civil Engineering)	At least **3-years experience** in professional work

B) Scope of Work & Competence

- Execution of **structures (high rise buildings, public buildings, buildings with basement etc.)**

C) Registration

- Register as Site Supervisor in Urban Development Authorities (RUDA, AUDA, JUDA, SUDA, etc.) and Municipal Corporations (RMC, AMC, SMC, VMC, etc.)

D) Source of work

- Contractor, Project Management Consultancy or Owner

Source: http://www.rajkotuda.com/pdf/tender/dp2031/RUDA-GDCR-2031.pdf

- **Valuer**
  - Valuers can work under the following area,
    - Real Estate
    - Building Construction
    - Town Planning
    - Land Development

A) Qualification and Experience

Qualification	Experience
B.E./B.Tech. (Civil Engineering, Architecture or Town Planning)	**10-years experience** in Building Construction, Town Planning etc.
M.E./ M.Tech in valuation	**2-years experience**

Source: http://www.incometaxindia.gov.in/Rules/WealthTax%20Rules,%201957/2010/103120000000006826.html

B) Categories of Valuers

- Empanelment of valuers **by the Bank** shall be in the following categories:

Category	Work Experience	Valuation limit
A	Min. 10 years + already empanelled with at least 2 PSBs*	No limit
B	Between 5 to 10 years + already empanelled with at least 1 PSB*	Up to Rs. 50 crore
C	Up to 5 years	Up to Rs. 5 crore

Source: https://www.ucobank.com/other-services/Eligibility_CodeofConduct_Valuers.pdf

* Public Sector Banks

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- **Government Approved Material Testing Laboratory**
  - Scope of the work

    To carry out civil engineering materials testing as per standard methods (IS, IRC, ASTM, etc.) and to prepare the test results with recommendation and remarks.

  - Approval required
    - NABL (NATIONAL ACCREDITATION BOARD FOR TESTING AND CALIBRATION LABORATORIES)

      Source: http://www.nabl-india.org/nabl/index.php?c=publicaccredationdoc&m=index&docType=both

    - R & B (ROADS AND BUILDING DEPARTMENT)

      Source: http://rnbgujarat.org/document/material-testing-lab-gr-7-8-15.pdf

Business

Civil Engineer can design, build, supervise, operate and maintain construction projects and systems in the public and private sectors. Civil engineer can work as a,



- **Builder / Developer**
- **Private Contractor**
- **Government Contractor**

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- **Builder / Developer**

  Deals with development of,
  - Residential society
  - Low & high rise builiding
  - Township
- **Private Contractor**
  - Labour contractor
  - Labour + Material contractor
  - Repair & Rehabilitation of distorted structures
- **Government Contractor** (Licences complines should be fulfilled)
  - Labour + Material contractor
  - Irrigation work
  - Road work
  - Bridge work
  - Repair and Rehabilitation of old government structures etc.

- **Government Contract Licence Category**

	Category of Registration	Minimum Solvency	Narmada F.D.R. Bond	Monetary limit for tendering of works	Registration / upgradation fees	Type and number of technically qualified engineers
	Class-AA	₹ 300 Lacs	₹ 30 Lacs	unlimited	₹ 33,000	3 - B.E. (Civil)* 5 - Diploma (Civil)
	Class-A	₹ 75 Lacs	₹ 7.5 Lacs	upto ₹ 700 Lacs	₹ 18,000	2 - B.E. (Civil) 5 - Diploma (Civil)
	Class-B	₹ 35 Lacs	₹ 3.5 Lacs	upto ₹ 300 Lacs	₹ 13,000	2 - B.E. (Civil) 3 - Diploma (Civil)
B.E. (Civil) can directly apply for	Class-C	₹ 25 Lacs	₹ 2.5 Lacs	upto ₹ 150 Lacs	₹ 7,500	1 - B.E. (Civil) 3 - Diploma (Civil)
	Class-D	₹ 12 Lacs	₹ 1.2 Lacs	upto ₹ 100 Lacs	₹ 7,500	2 - Diploma (Civil)
	Class-E1	₹ 2 Lacs	₹ 0.2 Lacs	upto ₹ 50 Lacs	₹ 4,500	1 - B.E. (Civil) 1 - Diploma (Civil)
	Class-E2	₹ 1 Lacs	₹ 0.1 Lacs	upto ₹ 15 Lacs	₹ 4,500	1 - B.E. (Civil) 1 - Diploma (Civil)

* 1 B.E. Civil Engineer shall have an experience of safety in construction zone.

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- **Special Categories under which Contractor can work**

Category of Registration	**Special Category-I** Roads, Bridges & Buildings	**Special Category-II** Roads, Bridges & Buildings	**Special Category-III** Roads & Buildings
Minimum Solvency	₹ 300 Lacs	₹ 75 Lacs	₹ 35 Lacs
Narmada F.D.R Bond	₹ 30 Lacs	₹ 7.5 Lacs	₹ 3.5 Lacs
Monetary limit for tendering of works	Unlimited	upto ₹ 700 Lacs	upto ₹ 300 Lacs
Registration / upgradation fees	₹ 35,000	₹ 18,000	₹ 15,000
Renewal Fees for three years	₹ 18,000	₹ 7,500/-	₹ 7,500/-
Type and number of technically qualified engineers	3 - B.E. (Civil) 5 - Diploma (Civil)	2 - B.E. (Civil) 5 - Diploma (Civil)	2 - B.E. (Civil) 3 - Diploma (Civil)

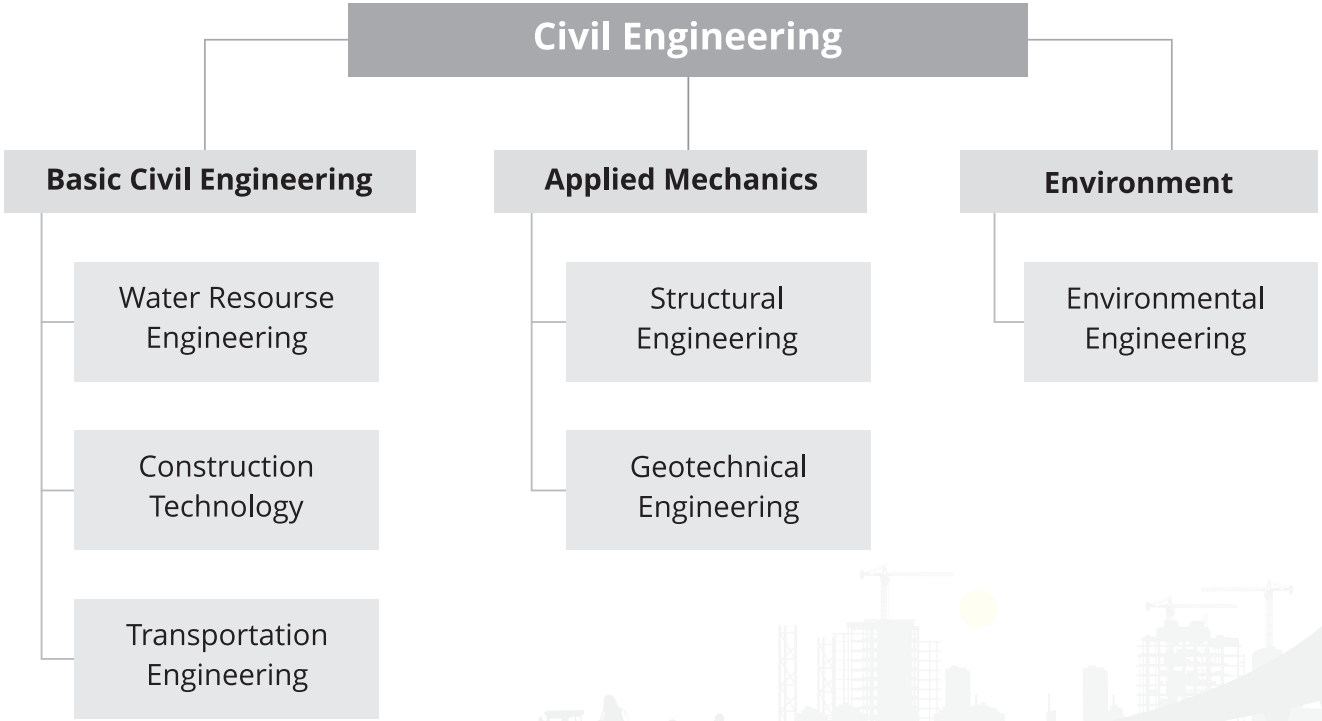
Further Study

- **M.E./ M.Tech.**
  - Admission through GATE / PGCET
  - Following are the specialization of civil engineering :

Sr.	Branches	Best Colleges
1	Structural Engineering	SVNIT, BVM, LD
2	CASAD (Computer Aided Structural Analysis & Design)	Nirma University , DDU
3	Geotechnical Engineering	MSU, DDU, SVNIT
4	Infrastructure Engineering & Technology	IITRAM, ADANI
5	Construction Engineering & Management	CEPT, BVM
6	Transportation Engineering	SVNIT, MSU, BVM, LD
7	Environmental Engineering	SVNIT, MSU, BVM
8	Water Resources Engineering	MSU, SVNIT
9	Valuation	ISTAR, Khayati Inst. of Valuation

- **MBA**
  - Admission through GMAT / CAT

Sub Branches of Civil Engineering



Career Scope

Water Resource Engg.

- Site supervision
- Work as a contractor
- Engineer in consulting firm
- Private consultant
- Government job

Construction Tech.

- Site supervision
- Register as a planner (Architect)
- Work as a contractor
- Start material testing lab
- Work as a valuer
- Government job

Transportation Engg.

- Site supervision
- Engineer in consulting firm
- Work as a contractor
- Start material testing lab
- Government job

Structural Engg.

- Site supervision
- Registered as a structural Engineer in corporations
- Engineer in consulting firm
- Government job

Geotechnical Engg.

- Start soil testing lab
- Engineer in consulting firm
- Government job

Environmental Engg.

- Start environment testing lab
- Engineer in consulting firm
- Government job

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