

## **BUILTCON** Dreams of Construction

#### OUR DEPARTMENT 'S...

#### **VISION**

To develop dynamic learning environment in the field of civil engineering to congregate the professional skills and innovative needs of the society..

#### **MISSION**

- To impart quality technical education by dedicated faculty using innovative learning techniques.
- To bridge the gap between professionals and academic institute.
- To inculcate moral and ethical values among the students.
- To create awareness and thirst for lifelong learning keeping in mind sustainable issues, technological trends and entrepreneurship.
- To emerge as a reliable knowledge hub for the industry,



#### **CIVIL ENGINEERING DEPARTMENT**

GOVERNMENT POLYTECHNIC FOR GIRLS OPP. PRL, GUJARAT UNIVERSITY ROAD, NAVARANGPURA, AHMEDABAD – 380 015



#### Acknowledgment

या कुन्देन्दुतुषारहारधवला या शुभ्रवस्त्रावृताया वीणावरदण्डमण्डितकरा या श्वेतपद्मासना। या ब्रह्माच्युत शंकरप्रभृतिभि र्देवैः सदा वन्दिता सा मां पातु सरस्वती भगवती निःशेषजाड्यापहा ॥1॥

जो विद्या की देवी भगवती सरस्वती कुन्द के फूल, चंद्रमा, हिमराशि और मोती के हार की तरह धवल वर्ण की हैं और जो श्वेत वस्त्र धारण करती हैं, जिनके हाथ में वीणादण्ड शोभायमान है, जिन्होंने श्वेत कमलों पर आसन ग्रहण किया है तथा ब्रह्मा, विष्णु एवं शंकर आदि देवताओं द्वारा जो सदा पूजित हैं, वही संपूरण जड़ता और अज्ञान को दूर कर देने वाली माँ सरस्वती हमारी रक्षा करें॥1॥

Civil Engineering Department of Government Polytechnic for Girls, Ahmedabad feels concrete to present its genuine stakeholders "BUILTCON" a semester with newsletter. This newsletter "BUILTCON" started with an objective of knowledge sharing and spreading divergent activities of Civil Engineering Department. Civil Engineering Department would also like to focus on new technology in construction field, latest ongoing and upcoming trends and events, previous month's news and events.

Civil Engineering Department consider this newsletter "BUILTCON" as a best place to appreciate the students, faculty members and stake holders for their achievements. Civil Engineering Department hope, this newsletter provides necessary motivation to the stake holders as well as also very much helpful to update our knowledge of fast growing Civil Engineering and construction field.

Finally, Civil Engineering Department would like to extend our deepest gratitude to all members who directly or indirectly involved and give their valuable support for making this newsletter "BUILTCON". We know that without grace of all mighty GOD this thing is not possible. So, here by we present the first Volume of "BUILTCON".

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#### <u>Message from Principal's Desk</u>



Dr Ushma Anerao

Dear Readers,

Civil Engineering Department of Government Polytechnic for Girls started in 2002 with the aim to provide globally competent skilled girls technocrat in the field of Civil Engineering. It's diversified field with in the vicinity of P.R.L. Initiating something new is always motto of Civil department which is great!!!

It is my great pleasure to see the first bit (Volume 1) of BUILTCON newsletter of Civil Engineering Department which is going to be launched in December-2019. The aim behind this newsletter of Civil Engineering Department is to disseminate knowledge, skill and information amongst all stake holders. Students, Faculty members and Industrialists related to Civil Engineering gets platform to share the upcoming technologies, events in the department and achievement of students and faculties by this newsletter. It clearly shows that the synergetic approach of Civil Engineering Department to make better than the best platform for knowledge sharing.

Congratulations as we are having 17<sup>th</sup> batch going to pass in 2020 and we are having great alumnae for Civil.

All the best and Keep better!!

Message from HOD's Desk



#### M. M. DESAI

Dear readers,

It gives me great pleasure to welcome the first edition of "BUILTCON" (Volume 1) a biannual newsletter of Department of Civil Engineering, Government Polytechnic for Girls (GGP), AHMEDABAD. "BUILTCON" offers a glimpse of students' activities and achievements, increase in intellectual gains through faculty development, industrial interaction and overall development of a department time to time.

In the modern world of construction, where we witness every day as a day of a new construction method, material and skill. So, it is very much important to forward the same to the students by means of latest teaching aids and by providing an equal and proper learning platform. Hence, with a team of highly qualified and experienced faculty members, we offer the most enjoyable and effective learning to all the students. We aim towards making every student from Foundation to be a true asset for the Nation with the technological versatility.

Best of Luck for your Bright Future....

#### **Faculties information of Civil Engineering Department**



Mrs. M. M. Desai (Head of Department) (M.E, Transport)



Mr. U. Y. Nanavati (M.E, WRM)



Mr. P. N. PATEL (M.E, WRM)



Mrs. M. B. Soneji (M.E, Geo.tech)



Mr. R.M. Patel (M.E, WRM)



Mr. H. S. Patel (M.E, WRM)



Mr. D. H. Dalal (M.E, WRM)



Mrs. F. P. Ambalia (M. Tech., Town Planning)



Mr. P. B. Shah (M.E, WRM)



Ms. I. M. Upadhyay (M.E, WRM)



Ms. B. H. Dave (M.E, Infrastructure)



Ms. T. R. Agrawal (M.E, Structure)



Ms. K. J. Shah (B.E Civil)



Mr. K. M. Vora (M.E Structure)



Ms. R. C. Dave (M.E Structure)

#### <u>Scope of Civil Engineering :</u>

This question may be asked by most of the Civil Engineering Graduates during the studies or after the graduation.

Studying Civil engineering is the dream of every second aspirant due to a number of reasons – growth, job opportunities, salary range and continuous industry growth.

The major driving force for the present-day Construction Technology revolution is the development in Civil Engineering. The advancements in construction technology, analog new techniques for construction have resulted in developing maximum safety, economic and environment friendly structure for society.

The basic principles and performance of new construction technics are introduced in the course. Design and analysis of different civil structure are considered in detail.

The huge career scope of civil engineers is worldwide - as according to research report by Global Marketing Insights, Inc, the market size of civil engineering is expected to grow up USD 11.72 trillion by 2025.

Best Career Options After Engineering. 1) Higher Studies. 2) Public Service Undertakings. 3) Management. 4) Entrepreneurship. 5) Campus Placements. 6) Become an Expert. 7) Civil Services. 8) Look for internships. 9) Enter the private sector. 10) Charted valuer. 11) Join the Indian Armed Forces.

The most exciting new technologies used in civil engineering is building integrated photovoltaic (BIP) glazing, which can help buildings to generate their own electricity, by turning the whole building envelope into a solar panel.

Modern construction methods are methods that are developed in construction industry with proper planning and design so that each project reduces the construction time, cost and maintain overall sustainability.

The course also covers the study of different subjects like

- Environmental and Water Resources Engineering.
- Geotechnical Engineering.
- Structural Engineering and Materials.
- Transportation Infrastructure and Systems Engineering.
- Construction Engineering and Management.

#### <u>Core companies offer internships and jobs</u>



Although there are numerous startups/small firms offering internships on specific domains, there are quite a lot of private/public sector companies that too offer internship opportunities for engineering students.

#### <u>Some of the top private sector companies are:</u>

- Ambuja cement pvt.ltd
- Ultratech
- KCT Consalting service
- PSP Projects
- Adani Infra (India) Limited
- Relience Infra structure
- CAD CENTER
- L&T
- R. B. Construction Co. (RBC)
- P.C. Snehal Construction Company P.C. Snehal Engineers Private Limited
- Cube Construction Engineering Limited
- SCC Infrastructure Pvt. Ltd. (Formerly, Shashin Construction Company)
- Nila Infrastructures Limited
- Bridge & Roof Co (India) Limited
- Coastal Projects Pvt Ltd (CPPL)

#### Some of the public sector companies are:

- R&B
- Irrigation
- Municipal Corporation
- GWSSB
- Urban development authority
- Town Planning Department
- Education Department
- IRCOL
- EIL
- ONGC
- ISRO
- AAI

- UGVCL
- Torrent
- DEFENCE SERVICE (Level Architect)

#### New Technologies:



These new Technologies will become mainstream in nearest future hence one can make their proper career planning and prepare themselves as per the need of that field.

- Building Information Modelling (BIM)
- Cloud and Mobile Technology
- Drones or Unmanned Aerial Vehicles (UAVs)
- Virtual Reality
- Augmented Reality
- 3D Printing
- Artificial Intelligence
- Robotics
- Exoskeletons
- The Connected Jobsite
- Autonomous Vehicles
- Advanced Materials
- The Intelligent Built Environment
- Machine Learning
- Prefabrications
- Predictive Analytics
- Construction Software And Data Ecosystem
- Self Healing Concrete
- Advance Uses Of GPS
- New Effective Scanning Solutions
- Timber Constructions
- Wearable Technology
- Smart Building
- Modular Construction And 3D Printed Dwellings
- Smart Buildings
- Connected Homes
- Home Analytics

#### <u>Upcoming Events:</u>

✤ <u>Síte vísíts</u>:



- Water Treatment Plant, kotarpur, Ahmedabad
- Construction Site of Building, Ahmedabad
- Building Material Testing lab
- Construction Site visit at IIM Building, PSP Project, Ahmedabad
- Sewage treatment plant, Pirana, Ahmedabad

#### Semínar



Seminar on different subject of Civil Engineering.

#### \* Project



Survey Project: Chain and Tape, Dumpy Level and Plane table Survey at Collage

campus for 3rd semester Students, Project related to different Civil engineering Subject of 5th sem for their final year curriculum.

\* Shining Star of Civil



En.No: 156140306019 ZEEL PRADIP DAVE 2015 batch Passing Year: 2018 SPI: 10 CGPA: 9.89

Awarded by, Shri Kumarpal Desai and vice chancellor of GTU Shri Navin Sheth on 10th February, 2019

#### **GTU Results**

Result of 5th sem w2018										
RANK	ENROLLMENT	NAME	SPI	CPI	CGPA					
1	166140306067	PARMAR VIBHASHREE KIRTIKUMAR	9.33	8.85	9.1					
2	156140306026	JADAV PRIYA NARENDRA	8.61	8.73	9.01					
3	166140306034	GOHEL DHWANI NARESHKUMAR	8.85	8.73	9.13					

Result of 3rd sem w2018 declare on 17/2/19										
Rank	ENROLLMENT	name	SPI	CPI	CGPA					
1	1761403 <mark>06108</mark>	SHAH JEEL PANKITKUMAR	10	9.54	10					
2	176140306084	PATEL PRATIXABEN SHAILESHBHAI	9.66	8.57	9.66					
3	176140306033	GOHEL NIYATI RASHMINBHAI	9.28	8.95	9.28					

1ST SEM RESULT W2018 DECLARED ON 16/3/19								
RANK	ENROLLMENT	NAME	SPI	CPI				
1	186140306001	ADITHYA BIJU	7.32	7.32				

# \* व्यात्रे वसुधैव कुटुम्बकम्

### कर्मण्येवाधिकारस्ते मा फलेषु कदाचन। मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि॥

(द्वितीय अध्याय, श्लोक 47)

We shape our buildings; thereafter they shape

#### us.:Winston Churchill

Civil Engineering is the art of directing the great sources of Power in Nature for the use and convenience of man; being that practical application of the most important principles of natural Philosophy which has in a considerable degree realized the anticipations of Bacon, and changed the aspect and state of affairs in the whole world. The most important object of Civil Engineering is to improve the means of production and of traffic in states, both for external and internal Trade.: **Thomas Tredgold** 



#### **OUR INSTITUTE'S**

#### **VISION**

To carve a brighter prospect for the nation through excellence in technical education to foster skills, ethical values and environmental consciousness among girls while undertaking existing and forthcoming challenges.

#### **MISSION**

- To nurture technical and creative skills through quality education.
- To strengthen industries interaction.
- To impart real-life problem-solving skills.
- To promote care for sustainability of environment and social responsibility.

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Website: http://www.ggpa.cteguj.in

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#### **Team behind First Edition**

Idea- M. M. DESAI Content- P. N. PATEL Editing- F. P. AMBALIA Data Collection- T. R. AGRAWAL, K. J. SHAH Title and Logo- B. H. DAVE Proof reading- D. H. DALAL Designing- I. M. UPADHYAY Support- H. S. PATEL,

Over all Convener Now onwards : R. M. PATEL