



CV-NEWS

Strength of Materials
Applied Mechanics
Waste Water
Irrigation
Softwares
AutoCAD
SAP2000
GIS
Structural Design Specifications
Supply Engineering
Highway Engineering
Soil Mechanics
Concrete Technology
Building Materials
Construction Management
Technical Writing
Construction
Hydraulics
Costing
Theory of Structures
Estimating

Civil Engineering

Surveying R.C.C Structure Design



PANDIT DEENDAYAL
PETROLEUM UNIVERSITY

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Dr. Anurag Kandya
Dr. Dayashankar Kaul
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Coordinator

Mr. Manish Shewaramani



Director's Message



Dear reader,
I am delighted to introduce this edition of the Civil Engineering department newsletter. We intend to make it a regular publication and to use it to keep you in touch with news and developments related to the Department.

I take this opportunity to congratulate the editorial team for bringing out this newsletter, which in itself is an achievement considering the effort and time required. May all our students, staff and faculty soar high in uncharted skies and bring glory to the world and their profession with the wings of education.

– Dr. T.P Singh

Message from HOD



Dear reader,
It am delighted to share newsletter of the Civil Engineering Dept. 2018- 2019 which gives glimpses of the cumulative efforts of the department. The Department of Civil Engineering at PDPU, Gandhinagar is one of the premier departments that provides a unique educational and research environment.

I congratulate the entire civil engineering department faculties, staff and students for their contribution to departmental activities and look forward for future developments. Heartiest congratulations to the Editorial team for in house development of this newsletter.

-Dr. Tejas Thaker



DEPARTMENT OF
CIVIL
ENGINEERING

Faculty Zone: Awards/ Honors

- **Dr. Tejas Thaker** was invited to Chair the Technical Session at 2nd International Conference on Smart Engineering: Smart Construction, organized jointly by Wroclaw University of Science and Technology, Poland and Pa-rul University, Vadodara during 24-25th May, 2019.

- **Dr. Rajesh Gujar** was invited as Judge at an institutional event i.e. KAIZEN 2K19 organized by L D College of Engineering Ahmedabad on 11th April 2019. This Open house showcased the industry and user defined Projects by Under-graduate and Post-graduate students of 2019 batch of Civil Engineering Department.



Dr. Rajesh Gujar as Judge at KAIZEN by LDCE



- **Dr. Anantha Singh** received “ Early Career Research Award ” for the project titled “ Integrated electro-oxidation, electro-reduction and electro-coagulation process for the degradation of Ammoniacal nitrogen in the presence and absence of carbon based pollutants” from SERB. Sanctioned amount is INR 33,00,000/- (including overhead) for 3 years.



Wroclaw
University
of Science
and Technology



Faculty Zone: Awards/ Honors



- **Dr. Anurag Kandya** chaired the session on **Urban Climate and Mitigation** organized during European International Conference on Transforming Urban System (**EICTUS-2019**) which was jointly organized by *École Régionale des Avocats du Grand Est (ERAGE), France and Université de Strasbourg France* held at Université de Strasbourg France during 28-30 June, 2019. The conference witnessed participation of 116 participants from 28 countries. Dr. Kandya also presented in the research paper titled **Investigating the Dynamics of Urban Heat Islands of Ahmedabad city of India using Satellite data, Statistical Analysis and GIS** in the conference which was well received.

- **Dr. Dhruvesh Patel** was appointed as Doctoral Progress Committee (DPC) member at GTU and Dr. Patel has reviewed the DPC-3 of Ms. Payal Shah on the topic of **“Water Quality Framework for Watershed using hydrological modeling”** , during 29th June 2019 at VGEC, Chandkheda.



- **Dr. Dhruvesh Patel** attended the Meetings at Space Application Centre, Ahmedabad for the ongoing research project **‘Flood Damage Assessment of Dhanera City of Banaskantha District Using Geo-Spatial Techniques and Hydrodynamic Flood Inundation Modeling’** during 24th May, 2019.

Faculty Zone: Conferences

- **Dr. Rajesh Gujar** delivered an oral presentation on “Modeling and Prediction of Freight delivery for Blocked and Unblocked Conditions Using Machine Learning Techniques” at World Conference on Transport Research – WCTR 2019 organized by Elsevier at IIT Bombay dated 26th-31st May 2019.



- **Ms. Vidhi Vyas** delivered an oral presentation on “Debonding detection in asphalt pavements using infrared thermography” at World Conference on Transport Research – WCTR 2019 organized by Elsevier at IIT Bombay dated 26th-31st May 2019.

- **Dr. Anantha Singh T S** delivered an oral presentation on “A comparative study between Fenton and Electro Fenton processes on removal of carbon based pollutant from dye intermediate wastewater” at New Delhi organized by Environment analysis India dated 25th-26th April 2019.

- **Dr. Manas Bhoi** delivered an oral presentation on “Study of soil profile on the basis of soil strength using dynamic cone penetration test” at IISc Bangalore organized by ISSMGE dated 26th-27th April 2019.



Faculty Zone: Workshops Attended



- Aimil Ltd. in collaboration with Indian Geotechnical Society (IGC) has initiated a series of “Arvind Verma Memorial Lecture”. **Dr. Manas Bhoi** attended the first “Arvind Verma Memorial Lecture” organized along with IGS Ahmedabad Chapter at Vishvakarma Government Engineering College (VGEC), Ahmedabad on 15th May 2019.

- **Mr. Naimish Bhatt** attended the Startup connect 2019 at PDPU organized by IIC on 14th June 2019.



Faculty Zone: Outreach

- **Dr. Anurag Kandya** was invited by Faculty of Technology, Centre for Environment Planning and Technology (CEPT), Ahmedabad for the viva-voce of the final year B.Tech dissertation on **05th May, 2019**.

CEPT
UNIVERSITY

Faculty Zone: Expert Lectures Delivered

Expert Lecture on Application of Advance Surveying in Civil Engineering by Dr. Rajesh Gujar



Dr. Rajesh Gujar delivered an expert talk on “Application of Advance Surveying in Civil Engineering” on National Survey Day Celebration (10th April 2019) organized by Institute of Engineers, Gujrat Chapter at Bhaikala Bhavan, Law Garden Ahmedabad. The session was very much interactive and highly appreciated by Senior Engineers and Academicians.



Expert Lecture on Analysis of Corrugated web plate girder using ANSYS by Mr. Apurva Dave.



Mr. Apurva Dave delivered an expert talk on “Analysis of Corrugated web plate girder using ANSYS” on 11th May 2019 organized by CEPT university, Ahmedabad.

Dr. Dhruvesh Patel has attended collaborative meeting at Gujarat Institute of Disaster Management (GIDM) during 13th May 2019 and delivered an expert talk on “Sabarmati River flooding” to the GIDM academic staff members.

Faculty Zone: Expert Lectures Delivered

Expert Lecture on Formulation of Research Methodology and Promising Research guidelines for dissertation by Dr. Rajesh Gujar

Dr. Rajesh Gujar delivered an expert talk on “**Formulation of Research Methodology and Promising Research guidelines for dissertation**” at in-house conference on water Resources Management organized by LD college of Engineering , Ahmedabad on 14th May 2019.

Expert Lecture on Seismic Site Characterization using Ambient Noise Measurement by Dr. Tejas Thaker

Dr. Tejas Thaker delivered a Keynote talk on “**Seismic Site Characterization using Ambient Noise measurement**” at Parul University jointly organized by Wroclaw University of Science and Technology , Poland during 24th - 25th May 2019.



Dr. Dhruresh Patel has attended meeting at Rajkot Irrigation Circle at Rajkot during the 20th May 2019 and delivered an expert talk on “Preparation of an EAP for Bhadar-1 Dam” to the Rajkot Irrigation staff members.

Faculty Zone: Expert Lectures Delivered

Dr. Debasis Sarkar Delivered an Expert Lecture at Risk Assessment Management Development Program organized by IIM Ahmedabad



MDP Participants presenting real life case studies

Participants of MDP along with Prof. Goutam Dutta

Dr. Daya Shankar Kaul Delivered an Expert Lecture on “Air Pollution receptor Modelling” on the occasion of world Environment Day 2019 at Institution of Engineers , Ahmedabad

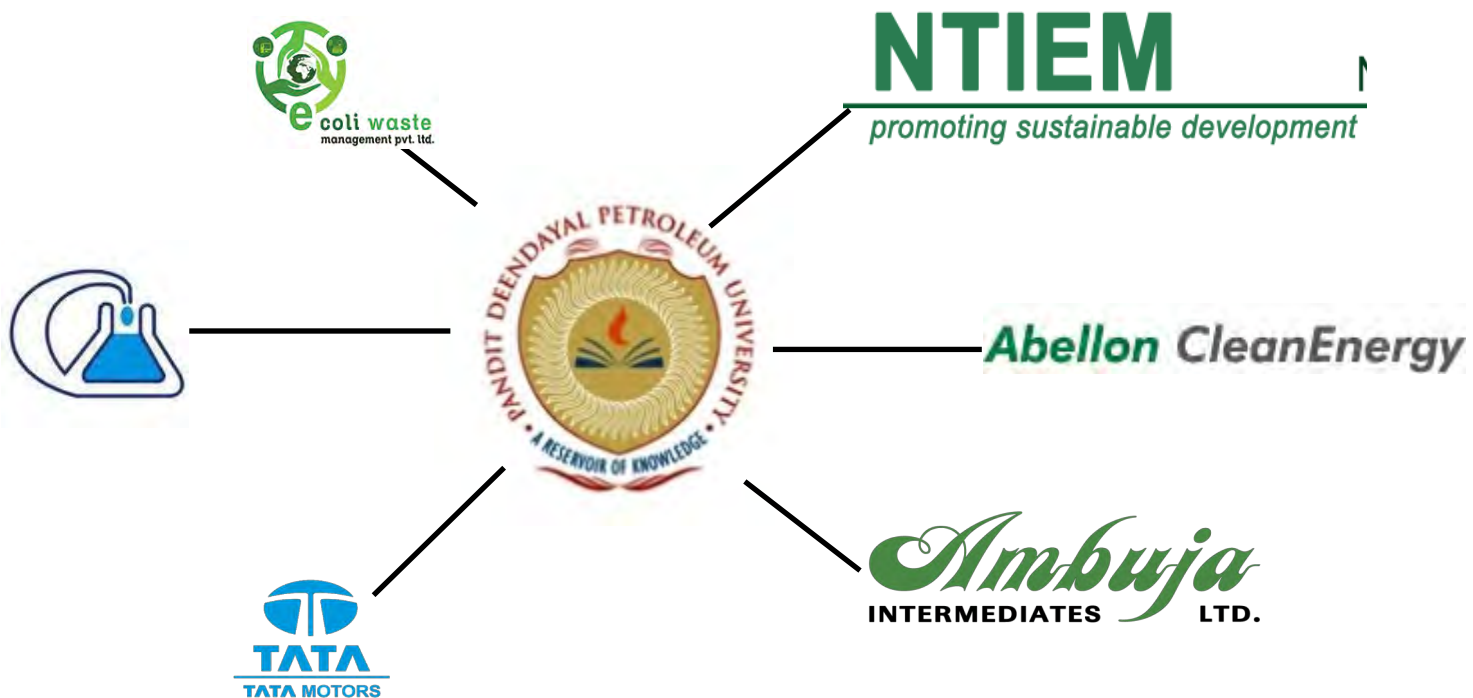


Faculty Zone: Consultancy Assignments

Gujarat Pollution Control Board, Gandhinagar has assigned **6 industries** to Environmental Engg Lab, School of Technology, Pandit Deendayal Petroleum University, Gandhinagar for carrying the Annual Environmental Audit work for the year 2019-20. **Dr. Anurag Kandya** is the Principal Investigator and this task while **Dr. Anantha Singh** is the Co-investigator from the Civil Engineering Department.

The details of the Industries are mentioned below:

- E-Coli Waste Management Pvt Ltd
- Ambuja Intermediates Pvt Ltd
- Abellon Clean Energy Ltd
- Chandan Intermediates and Chemical Pvt Ltd
- Tata Motors Ltd
- Narol Textile Infrastructure & Envio Management



Departmental Activity: Workshop conducted



Dr. Manas Kumar Bhoi of Civil Engineering Department has organized a 3 days intensive training program on ABAQUS software training program on April 19th, 20th and 21st. The training was conducted by Mr. Narendra Palande, Application Engineer – SIMULIA Division, EDS Technologies Pvt. Ltd. The training was attended by both mechanical and civil engineering B.Tech and M.Tech students. The training program was inaugurated by Dr. T.P. Singh, Director School of Technology, PDPU.

The logo for SIMULIA ABAQUS, featuring a stylized 'S' symbol followed by the word 'SIMULIA' in a smaller font and 'ABAQUS' in a larger, bold font, all in a teal color.

NEW HIRES ANNOUNCEMENT



Ms. Bivina Geetha Rajendran

Pursuing Ph.D. (IIT Roorkee)

Research areas :

Transportation Planning ,Traffic Engineering
Pedestrian Safety and public transport

Publications : 06

Conferences: 12

Departmental Activity: Invited Guest Lectures

Expert Lecture on Technology for Construction Project



MR. CHINTAN PATEL from HCP Consultants On 09th April 2019 gave the lecture on “**Technology for Construction Project**”. He gave detailed case study on PDPU F Block Construction Site. He also Explained how to calculate construction of Floor cycle calculation, shuttering requirements calculation and Productivity analysis etc.



Dr. Dhruvesh Patel has organized Ph.D. pre-synopsis open seminar of Ms. Ujas Pandya (Ph.D. scholar) on 25th May, 2019 at PDPU, Gandhinagar, the talk was on “**To Develop Flood Forecasting Approach of Ahmedabad City, Gujarat, India**”

Departmental Activity: Invited Guest Lectures

Expert Lecture on Rehabilitation by In-situ Cold Recycling Technique



In continuation of 10% lectures to be conducted by Industry Expert, **Dr. Rajesh Gujar** have organized an Expert talk on "**Rehabilitation by In-situ Cold Recycling Technique (CRT)**" by **Mr. Vishwas Kelkar**, Assistant Vice President Design & Development Unit, IL&FS Transportation Networks Ltd (ITNL), Ahmedabad, Gujarat on Monday i.e. 29th April 2019. Cold Recycling Technology (CRT) of worn out bituminous pavement is a relatively new technology which has important application in the road surface treatment and paving towards green highway. The talk was very much interesting and was very much interactive for students.

Expert Lecture on Technology of Ground Penetration and Radar

On 10th May 2019, a guest lecture by:- **Ms. SILKY AGRAWAL**, Founder of Geo-Carder Radar Technology Pvt Ltd. on "**Ground Penetration and Radar**" was organized by **Dr. Manas Bhoi** for final year (B.Tech Civil) at Pandit Deendayal Petroleum University. Ms. Silky Agrawal shared her insights about the latest technology used in Ground Penetration.



Departmental Activity: Field Tests

Standard Penetration Test by Geo-tech Students

Department of Civil Engineering students performed one of the most challenging field test i.e. **Standard Penetration Test of Geo-Tech subject** with **Mr. Vasudeo Chaudhari**. This is all because of the great support by the lab assistant Yatinbhai, TA Payal Mehta and students motivation.



Dynamic Cone Penetration Test



Dr. Manas Bhoi did **Dynamic Cone Penetration test (DCPT)** at E block PDPU along with final year students.

Dynamic-Cone Penetration (DCP) testing is used to measure the strength of in-situ soil and the thickness and location of subsurface soil layers .

Departmental Activity: Comprehensive Site Visit by Faculties



For the final year project the Civil Engineering students has been given the option of doing in-house research project or going to industry for doing comprehensive industry project (CP). For this purpose individual faculties has been assigned a certain number of students according to their convenience and it is their responsibility to make sure that the students opted for CP are doing it in a proper manner. One important part of this whole mechanism is that all faculties has to visit the site with students, where they are doing CP and the purpose is to make sure that everything is going as per mentioned SOPs. So industry visit has been conducted by the faculties at individual level and in some cases in combination with other faculties.

Departmental Activity: Site Visit



Students from all semesters visited PDPU “**F Block Construction site**” during **April-May 2019** coordinated by various faculties. Faculties explained about cycles, time calculations and site layout planning. Faculties clarified the doubts of the students. The PSP senior engineer welcomes faculty-students and brief about the various construction activities at site. Faculties decided to bring all Civil Engineering students batch-wise for showing ongoing activities. It was decided that all faculties will prepare list of probable construction activities pertaining to their subject and will brief students in class before visiting site. It is also decided to make this visit a part of the examination by asking the questions based on expected key learning’s.



□ □ □ □ □

Key Learnings from F block Site Visit :

- ⇒ Understanding of site Planning
- ⇒ Study the cycle time of Construction
- ⇒ Study of placing the reinforcement work
- ⇒ Manufacturing process of ready-mix Concrete.

Departmental Activity: Collaborations

Civil Engineering Department is happy to share that PDPU has signed an MOU with Gujarat Institute of Disaster Management (GIDM) for 5 years.



Broad Areas of this collaboration :

- ◆ Joint Development and Delivering of Prioritised Training Programmes on use of Science, Engineering and Technology in Disaster Risk Management.
- ◆ Strengthen use of Science, Engineering and Technology in Disaster Risk Management Training Capacities.
- ◆ Support and promote use of science, Engineering and Technology in Disaster Risk Management Knowledge.



Faculty of Civil Engineering Department for this collaboration :

- **Dr. Tejas Thaker**
- **Mr. Ronak Motiani**



Student Activities: Publications /Conferences



Mr. Dishant Khatri , Student of Environmental Engineering presented his paper “Evaluating the optimal blue cover for mitigating the urban heat island effect using ENVI-met Software” at conference EICTUS-2019 organized by Universite de Strasbourg , France during 26th-28th June 2019.

Mr. Ashish Chaurasia , Student of Environmental Engineering presented his paper “Near Road air pollution modelling using vehicular emissions and dispersion model & validation with in-situ measurement” at conference EICTUS-2019 organized by Universite de Strasbourg , France during 26th-28th June 2019.



Mr. Dhruv Ghodasara , M.Tech(IEM) Student presented his paper “Application of building Information Modelling in Facility Management: A case Study of a commercial project” at Conference Creative Construction 2019 organized by Diamond Congress KFT, Budapest, Hungary during 29th July-02nd July 2019.

Ms. Gloria James, Student of Environmental Engineering presented her paper “A comparative study on energy recovery from tyre waste using plasma pyrolysis and plasma gasification process” at conference HERAKLION-2019 organized by National Technical University of Athens, Greece during 24th-30th June 2019.



Student Activities: Achievements

- **Mr. Neeraj Khatrani**, Alumnus of M.Tech (Environmental Engineering) Program of SOT, PDPU bagged the prestigious **CSIR-SRF** for a period of 3 years for his research project *Monitoring and Modelling the Ground Water and its impact on salinity ingress and agricultural productivity with mitigation measures*. **Dr. Anurag Kandya** is the mentor of his research project.

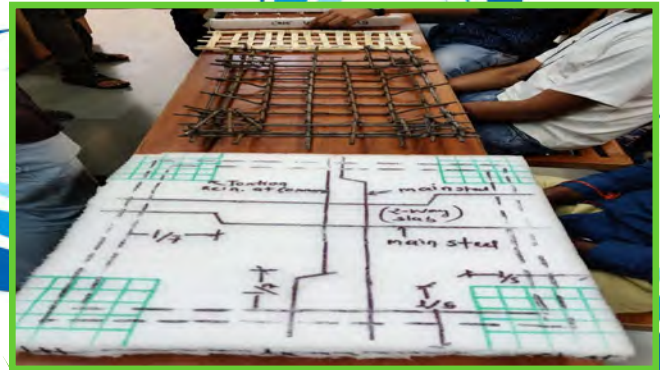


清華大學
Tsinghua University

- **Mr. Niraj Kathrani**, Senior Research Fellow (SRF) at School of Technology, Pandit Deendayal Petroleum University working under the supervision of **Dr. Anurag Kandya** received an invitation from **Tsinghua University, Beijing, China** for participating in the 2 weeks '**International Summer School – Environment**' organized by School of Environment **Tsinghua**

Student Activities: Teaching Pedagogy using Prototypes

In terms of new teaching pedagogy, Students were asked to work with prototypes of models taught during lecture. Students of 6th semester div 2 have prepared various models showcasing behaviour of slabs like one way, two way, deep and shallow foundations or beams etc. as a part of internal assessment under the guidance of **Dr. Tejas Thaker** and **Mr. Ronak Motiani**.

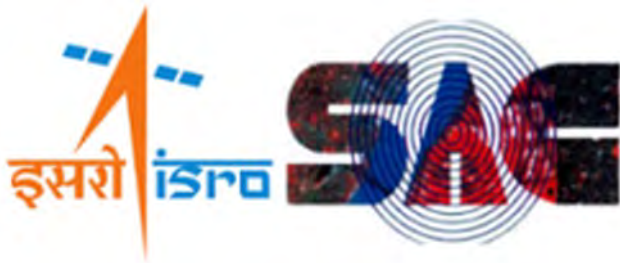


Student Activities: Poster Presentation at ISRO

On the Occasion of World Environment Day (5th June, 2019), Space Application Centre, Indian Space Research Organization (ISRO), Ahmedabad organized a Poster Presentation Competition where students of age 18 and above of different universities and colleges across Gujarat took part. In all there were 23 teams which presented their research work on the theme 'Beat Air Pollution'. From our Environmental Engineering branch a group of 5 students (*Dishant Khatri, Aneri Patel, Hirva Pandya, Ashish Chaurasia and Tejas Thurakia*) presented 3 posters under the mentorship of **Dr. Anurag Kandya**.



The poster presented by Dishant Khatri and Aneri Patel won the First Consolation Prize. The work presented was a part of their dissertation .



SOT Event: Clash of the Titans 2019

Dr. Anurag Kandya organized Group Discussion Competition “Clash of the Titans 2019” which was held in 3 phases (Phase I at class level during 1st - 15th April, 2019; Phase II at branch level during 16th – 28th April, 2019 and the Phase III - Grand Finale at Institute level on 1st May, 2019). More than 400 students took part in a month long event. In the Grand Finale, there were 14 Finalists (2 from each branch) who discussed on the topic ‘Winner takes it all and there is no point in being second’. The event was judged by Dr. Nigam Dave, Director, School of Liberal Studies and Dr. Anirbid Sircar, Director General, GER-MI while Dr. T.P. Singh was the Guest of Honour. Mr. Rohit Iyer of Mechanical Engg. was the winner of the event while Ms. Saloni Solanki of Chemical Engg. and Mr. Aditya



Dave from ICT Engg. were the first and second runner-up respectively. The Grand Finale was witnessed an audience of more than 200 students and faculty members. Dr. Anurag Kandya and Dr. Annie Royson were overall event coordinators.



Civil Engineering students preparing for Clash of titans 2019

FoET Snaps

Dr. Tejas Thaker, Dr. Dayashankar Kaul and Mr. Naimish Bhatt from our department along with Director SOT, Heads and nominated faculty members of other departments of SOT and SPT attended counselling session arranged by PDPU for aspirant students for engineering and their parents at Starrotel Ahmedabad on 25th May 2019.



Dr. Tejas Thaker along with Heads of all other departments attended open house session for M.Tech. and Ph.D. aspirants at Hotel Express Residency, Vadodara on 8th June, 2019.



World Environment Day



Air pollution is responsible for 12.5% deaths in India. Over 1,00,000 children below the age of five die due to bad air in the country.



Just a week before World Environment day, Juhu Beach has been witnessed by 50,000 kgs of Plastic Garbage on its shores.



Plastic materials and plastic bags are killing 1 million sea creatures annually.



Airport Authority of India bans single-use plastic items on 129 Airports. 16 Airports till now has been declared as single-use plastic free.

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