Civil Engineering ancient ground water structures solving problems

----old techniques but efficient even now

CIVIL ENGINEERING DEPARTMENT NEWS LETTER

2020-2021 | JAN-JUNE 2020|

HOD s Message:

Thisnewsletterpublishedfortheyear2020-21 is dedicated to structures built and to be built by civil Engineers to solve ground water deficiencies by solving problems. Current issue is completely dedicated to the problems solved by the civil engineering in the history till present where we demonstrate the technique of solving ground water problems.

DEPARTMENT MISSION

"An integrated development of Civil Engineering Professionals with technological knowledge and managerial skills; possessing environmental, ethical and human values".

DEPARTMENT VISION

"To enrich the society through Civil Engineering education forsocio-economic development and welfare of the people."

PROGRAM EDUCATIONAL OBJECTIVES

I. To provide basic scientific training to the students so as to solve Civil Engineering problems with scientific outlook rather than mere continuationof traditionalpractices.

II. To provide training in basic engineering sciences so that students apply the concepts of basic engineering sciences to the solution of Civil Engineeringproblems.

III. TotrainthestudentsinthebroadareasofCivil Engineering and inter-disciplinary areas.

IV. To mould the students professionally competent with managerial and communicationskills.

V. To train the students to mitigateNatural/environmental disasters And to inculcate professional ethics and humanvalues.

PROGRAM OUTCOMES

- Graduates will have an ability to apply the knowledge of basic sciences like Physics, Mathematics and Chemistry for the solution of Civil EngineeringProblems.
- Graduates will have sound knowledge in basic engineering sciences like Engineering Mechanics, Solid Mechanics, and Fluid Mechanics to solve Civil Engineering problems.
- Graduates will have generalized knowledge in Civil Engineering and inter-disciplinary knowledge to design and execute Civil EngineeringProjects.
- Graduates will have an ability to design and conduct experiments as well as to analyse and interpretdata.
- Graduates will have an ability to demonstrate knowledge and understanding of engineering and management principles and apply these principles in theirprofession.
- Graduates will have an ability to identify, formulate and solve engineeringproblems.
- Graduates will have requisite knowledge to pursue Post-graduate / Research Programmes and for life-long learning.
- Graduates will have computational and draftingskills.
- Graduates will be professionally competent with managerial and communicationskills.
- Graduates mitigate environmental problems and natural disasters like earthquakes, cyclones andfloods.
- Graduates perform professional duties with environmental, ethical and humanvalues.
- Graduates will have broad education necessary to understand the impact of Civil Engineering solutions in global societalcontext.

LET US have a look into how our ancestors have put thier effort to solve problems!!!!!

Kunda in Rajasthan

Traditionally Kund is a rainwater harvesting system found in the barren regions like the Bikaner and Jaisalmer districts of Rajasthan.

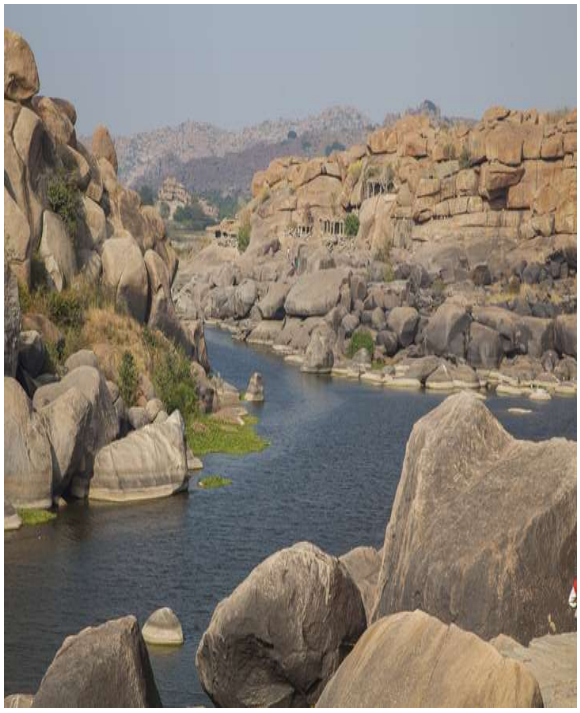
Kund is a huge saucer-shaped structure built of Concrete. Kund is cleaned every year before the onset of rains.

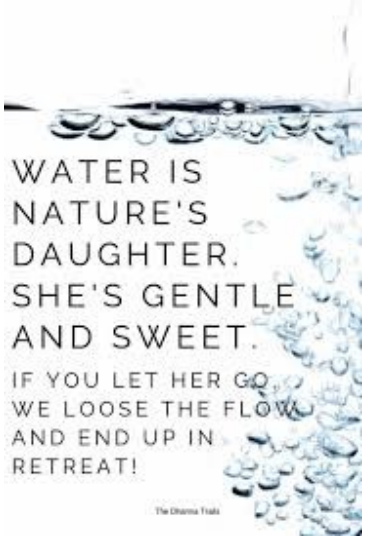
Johads

A Johad, also called a pokhar or a percolation pond is a traditional harvested rainwater storage wetland principally used for the effective harness. Since early times,

Johads (earthen funds or round ponds or check dams) existed in every village.

They served as rainfall storage tanks, also used for minor irrigation. They facilitate the soil conservation and improvement of moisture in the soil.





Practices adopted to learn and amplify simple techniques of olden days

by Faculty of Civil Engineering!!!

Research Papers Published in Refereed Journals:

R. Chandramohan and N. Siva Vignesh, "Recognizing outlet points description on watershed on ottanchatram taulk by GIS" International Journal of Innovative Technology and Exploring Engineering, Vol.8 (3), 101–106, 2020.

B. Krishna Chaitanya, Ch. Bala Rama Krishna, R. Vaishnav Kumar, N Venkata Sairam Kumar and S. Srikanth Reddy, "Feasibility and Performance of Bacteria Based Self-Healing Mechanism in Concrete" Journal of Critical Reviews, Vol.7 (18), 765–769, 2020.

K. Neelakantam and K. S. Sai Ram, "Free vibration of functionally graded carbon nanotube reinforced composite cylindrical shell panel with a cutout" Journal of Structural Engineering, Vol.47 (1), 80-90, 2020.

K. S. Vivek, T. Sreedhar Babu, K. S. Sai Ram, "Buckling analysis of functionally graded thin square plates with triangular cut-out subjected to uni-axial loads" Materials Today Proceedings, Vol.24, 663-672, 2020.

Paper Presentations in Conferences /Seminars/published in proceedings:

B. Kesava Rao, V. Maruthi, V. Vineeth and Madhusudhan Reddy, "Effect of shear walls on high rise buildings" 4th International Conference Advances in Civil & Structural Engineering (ICACSE-2020), Government College of Engineering, Karad, May 18-20, 2020.

B. Kesava Rao, R. Sai babu, P. Manoj kumar R Raju, SK. Basha and P. Manideep, "Consequences of bracings on high rise buildings" 4th International Conference Advances in Civil & Structural Engineering (ICACSE-2020), Government College of Engineering, Karad, May 18-20, 2020.

Conferences/ Symposia/Workshops Attended

R. Chandramohan, one day workshop "The power of questions" IEEE Education Society Chapter, Hyderabad Section and Academic Staff College, KLEF Deemed to be University, Guntur, Feb.18, 2020.

J. Usha Kranti and P. Srilakshmi, one day national seminar "Emerging trends in civil engineering (ETCE-2020)" Dr. Y.S.R. A.N.U. College of Engineering & Technology, Acharya Nagarjuna University, Guntur, Feb. 26, 2020.

P. V. S Maruthi Krishna, K. Leela Krishna, and M. Srikanth Kumar, two-Day Workshop "Industry academia meet on waste management sector" Water & Environment division, Department of Civil Engineering, NIT Warangal, Feb. 28–29, 2020.

J. Usha Kranti, one-week FDP "Civil engineering research - a step forward" Department of Civil Engineering, Gudlavalleru Engineering College, Gudlavalleru, May 25–30, 2020.

G. Sanijya, three-day FDP on "Current research avenues in civil engineering" Department of Civil Engineering, Tontadarya college of Engineering, Gadag, May 29–31, 2020.

N. Venkata Sairam Kumar and L. N. K. Sai Madupu, three-day FDP "Rehabilitation and retrofitting of structures (R2S)" Department of Civil

Engineering, Sree Vidyanikethan Engineering College, Tirupati, June 04–06, 2020.

B. Krishna Chaitanya and R. Vaishnav Kumar, three-day National level online faculty development program on "Advanced Technologies in Civil Engineering (ATCE)" Department of Civil Engineering, Tirumala Engineering College, Guntur, June 18–20, 2020.

PhD Awarded Under Faculty Guidance

P. Samatha Chowdary, Asst. Professor, RVR&JCCE was awarded Ph.D from Acharya Nagarjuna University, for her thesis on 'Low Cost Solutions to Problematic Subgrades of Rural Roads by Utilization of Locally Available Waste Materials', under the guidance of Professor M. Rama Rao, in June, 2020.

Tanakas in Gujrat

- *Tanka is a rainwater harvesting system developed several centuries ago.*
- *Rainwater falling from the sloping roofs of houses is conveyed through a pipe into an underground tank called a tank built in the main house or courtyard.*
- *It is the most reliable source of drinking water in the desert in summer. Whereas Under the Gujarat Development Control Regulations, for buildings with areas between 500 and 1500 sq. meters, the owner or developer shall have to undertake Rainwater Harvesting as per the Authority Specifications.*

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