



**Tulsiramji Gaikwad-Patil  
College of Engineering & Technology  
Nagpur - 441108**

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**DTE  
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**DEPARTMENT OF CIVIL ENGINEERING**

**NEWSLETTER (2021-22)**

# **SURVEKSHAK**



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**Issue 1**

## About TGPCET

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self-financed Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur and is approved by All India Council for Technical Education, New Delhi. Also, college is approved by Directorate of Technical Education (DTE), Mumbai, Maharashtra State. The Institute is Accredited with A+ (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC). An Autonomous Institute affiliated to RTM Nagpur University, Nagpur.

## About Department

Department of Civil Engineering was established in 2009 with a degree course in Civil Engineering with an intake of 60 students for graduate course & later on intake of 24 students for Post graduation in Structural Engineering and 60 students for Diploma in Civil Engineering.

Civil Engineering is considered as one of the oldest engineering disciplines. Civil Engineering involves planning, designing and executing structural works. The profession deals with a wide variety of engineering tasks including designing, supervision and constructional activities of public works like roads, bridges, tunnels, buildings, airports, dams, water works, sewage systems, ports etc. and offers a multitude of challenging career opportunities. The Department is dedicated to consultancy, educational research, and an exposure of students to the trends of development in the field of Planning, Designing & Execution to meet the needs of the construction industry, consultancies and research organizations in India and abroad. The department of Civil Engineering in TGPCET possesses a faculty team of experienced & well-qualified professors, well acquainted with deep subject knowledge, commitment to disseminate quality & value-based education in technical subjects. All faculties work hard on student to meet the requirement of market and groom the student to be job friendly.

## Institute Vision & Mission

**Vision -** To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management.

### **Mission -**

1. To strive for rearing standard and stature of the students by practicing high standards of professional ethics, transparency and accountability.
2. To provide facilities and services to meet the challenges of Industry and Society.
3. To facilitate socially responsive research, innovation and entrepreneurship.
4. To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices

## Department Vision & Mission

**Vision -** To forge learning Center of Excellence in the field of Civil Engineering.

### **Mission -**

1. To promote academic and ethical development while upholding high standards.
2. To provide advance facilities with the skills needed to face Industry and societal challenges.
3. To promote socially responsible research, innovation, and entrepreneurship in the field of Civil Engineering.
4. To foster the holistic development of both students and faculty members by inculcating a blend of knowledge and professional work methods for overall progress.

## Department – Program Specific Outcomes (PSOs)

**PSO 1 -** Competency to manage large infrastructure projects while providing safe and cost-effective project execution, along with expertise of rapid construction and project management.

**PSO 2 -** Plan, execute, manage, maintain and rehabilitate civil engineering systems and processes.

**PSO 3 -** Apply innovative construction and management techniques to compete with modern structural design and construction within the budget and time frame.

## Department – Program Educational Objectives (PEOs)

**PEO 1** - Analyse and design civil engineering structures while keeping social awareness and ethical responsibilities in mind.

**PEO 2** - Demonstrate leadership abilities in supporting sustainable practices in Civil Engineering.

**PEO 3** - Exhibit a commitment to lifelong learning, staying updated on developing technologies and industry trends, and adjusting to the evolving world of Civil Engineering.

**PEO 4** - Executing Proficiency in creative problem-solving and innovation, demonstrating an entrepreneurial attitude within the context of Civil Engineering.

## Program Outcomes (POs) – Engineering

**PO 1** – Engineering Knowledge

**PO 2** – Problem Analysis

**PO 3** – Design/development of Solutions

**PO 4** – Conduct Investigations of Complex Problems

**PO 5** – Modern Tool Usage

**PO 6** – The Engineer and Society

**PO 7** – Environment and Sustainability

**PO 8** – Ethics

**PO 9** – Individual and Team Work

**PO 10** – Communication

**PO 11** – Project Management and Finance

**PO 12** – Lifelong Learning



## Message from HoD



**Dr. S. S. Rathore**  
**HoD (Civil)**

I am delighted to present the welcome message for our newsletter **"SURVEKSHAK"** which gives glimpses of the cumulative efforts of the Department of Civil Engineering (TGPCET) & highlights major key activities that have taken place during the academic year 2021-22, guided by the Honorable Management & Principal and supported by the administration.

**"Survekshak"** is a Hindi word that translates to "Surveyor" or "Explorer."

Our department has a team of qualified and experienced faculty and staff members and we are striving hard continuously to improve upon the quality of education and to maintain its position of leadership in engineering and technology. I am certain that our students will prove to be an invaluable asset to an organization.

## Message from Editorial Board



**Ms. Vaishnavi Kamde**  
**Chief Editor (Student)**

**"Survekshak"** signifies a keen observer, someone who meticulously examines the built environment, analyzes challenges, and seeks innovative solutions. It reflects the department's commitment to pushing the boundaries of knowledge and contributing to the advancement of civil engineering.

As the Chief Editor of **"Survekshak"** – a civil engineering department annual newsletter, please let me start by conveying my regard to all the team members who supported me for making this happen especially Harish Bahekar, Juhi Ramteke, & Sujal Mirche (Student Editors).

I would like to thank Dr. S. S. Rathore (HOD, Civil) for his continuous motivation, inputs and time to time feedback for the final draft of **"Survekshak"**.



**Mr. Harish Bahekar**  
Student Editor

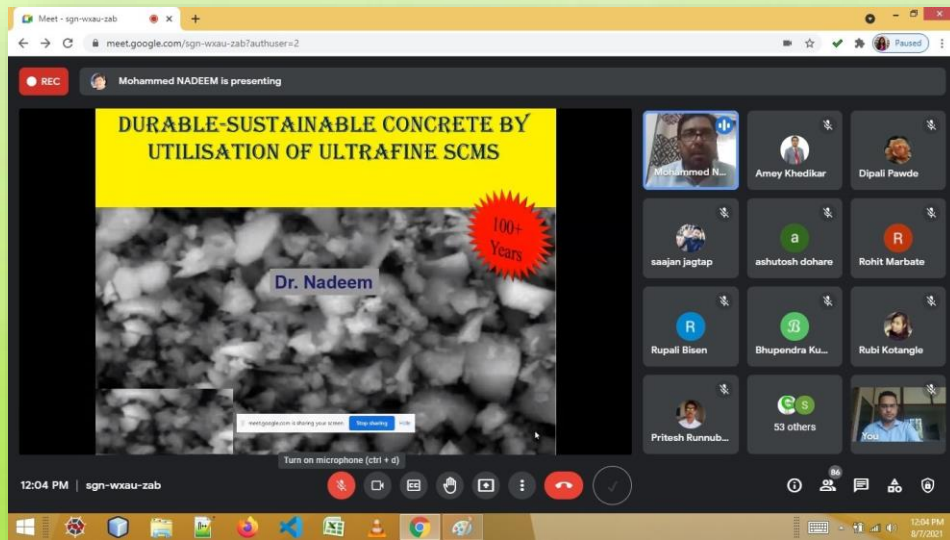


**Ms. Juhi Ramteke**  
Student Editor

# Student Achievement & Participation in Activities

Sr. No.	Name of Student	Name of Events	Details of Activity	Event Organized By / Date of Conduction	Position/ Remark	Awards & Prizes
1	Mohitgiri Goswami	Workshop	Sim City, CAD Wars	RCOEM, NEEV 2022	Participation	-
2	Akash Palandurkar	Workshop	(24 March 2022)	RCOEM, NEEV 2022	Participation	-
3	Karan Biswas	Workshop	Elevate, CAD Wars	RCOEM, NEEV 2022	Participation	-
4	Dhanashri Hukare	Workshop	(24 March 2022)	RCOEM, NEEV 2022	Participation	-
5	Pratiksha Sahare	Workshop	Advanced Construction Techniques & A.I. in Civil Engineering (25 to 26 March 2022)	RCOEM, NEEV 2022	Participation	-
6	Shivneri Chichghare	Workshop		RCOEM, NEEV 2022	Participation	-
7	Surabhi Chatte	Workshop		RCOEM, NEEV 2022	Participation	-
8	Ashwini Hiware	Workshop		RCOEM, NEEV 2022	Participation	-
9	Grishma Janbandhu	Workshop		RCOEM, NEEV 2022	Participation	-
10	Rani Dambhare	Workshop		RCOEM, NEEV 2022	Participation	-
11	VaishnaviKamde	Workshop		RCOEM, NEEV 2022	Participation	-
12	Yogita Gaikwad	Workshop		RCOEM, NEEV 2022	Participation	-
13	Roshan Gaikwad	Workshop		RCOEM, NEEV 2022	Participation	-
14	RajendraBhelave	Workshop		RCOEM, NEEV 2022	Participation	-
15	Ratan Sarkar	Workshop		RCOEM, NEEV 2022	Participation	-
16	Mohitgiri Goswami	Workshop		RCOEM, NEEV 2022	Participation	-
17	Sneha Khobragade	Workshop		RCOEM, NEEV 2022	Participation	-
18	Gaurav Bisane	Workshop		RCOEM, NEEV 2022	Participation	-
19	Akash Palandurkar	Workshop		RCOEM, NEEV 2022	Participation	-
20	Karan Biswas	Workshop		RCOEM, NEEV 2022	Participation	-
21	Dhanashri Hukare	Workshop		RCOEM, NEEV 2022	Participation	-

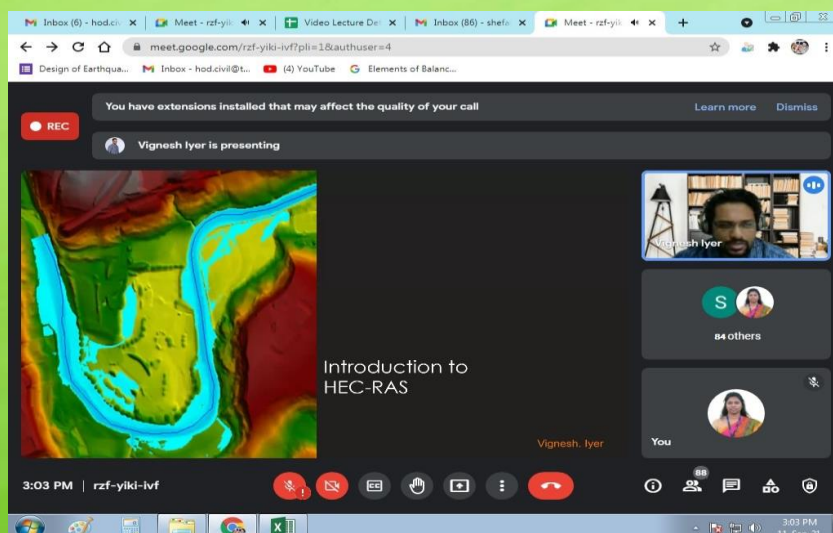
## E-Expert Talk (Webinar) on “Durable-Sustainable Concrete by utilization of ultrafine SCMs”



Department of Civil Engineering on 07.08.2021 under ARTEX Forum in association with Indian Concrete Institute (ICI), ISTE & IE(I) have organized a Guest Lecture (E-Expert Talk - Webinar) on “Durable-Sustainable Concrete by utilization of ultrafine SCMs” delivered by Dr. Mohd. Nadeem, Vice President (Technical Services), Ambuja Cement, Mumbai.

Dr. Mohd. Nadeem gave detailed information about the latest changes happening in the concrete technology field, the challenges faced by the construction industry while constructing high rise structures, the research work being done by Cement industries worldwide by using GBGS & Fly Ash as ultrafine materials and the scope for Civil engineering students to play a role in the research work at final year project level. Dr. Nadeem also shared some real-world case studies of structures being constructed in & around Mumbai & Navi Mumbai in collaboration with Ambuja Cement.

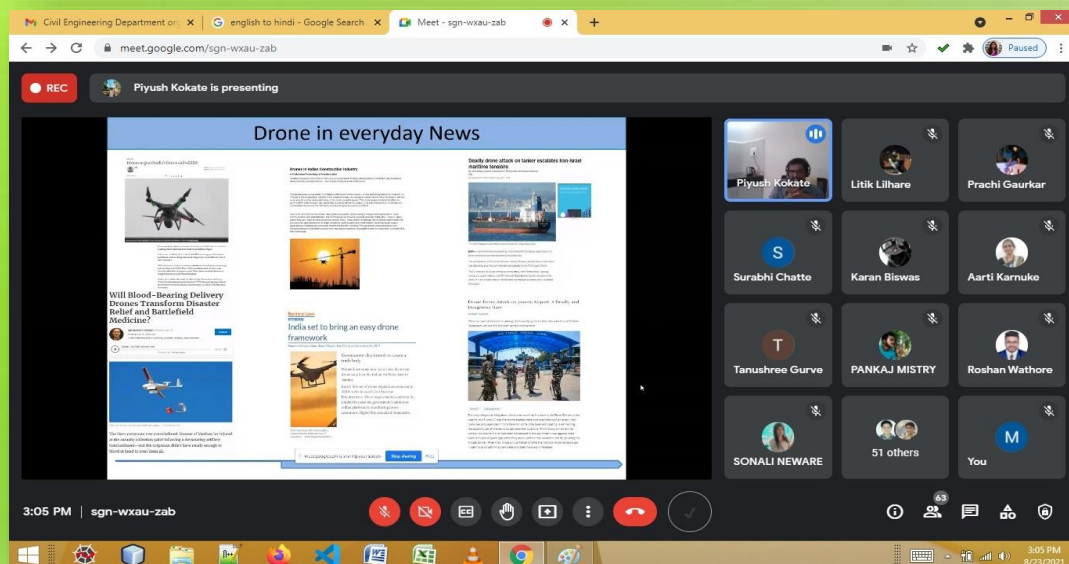
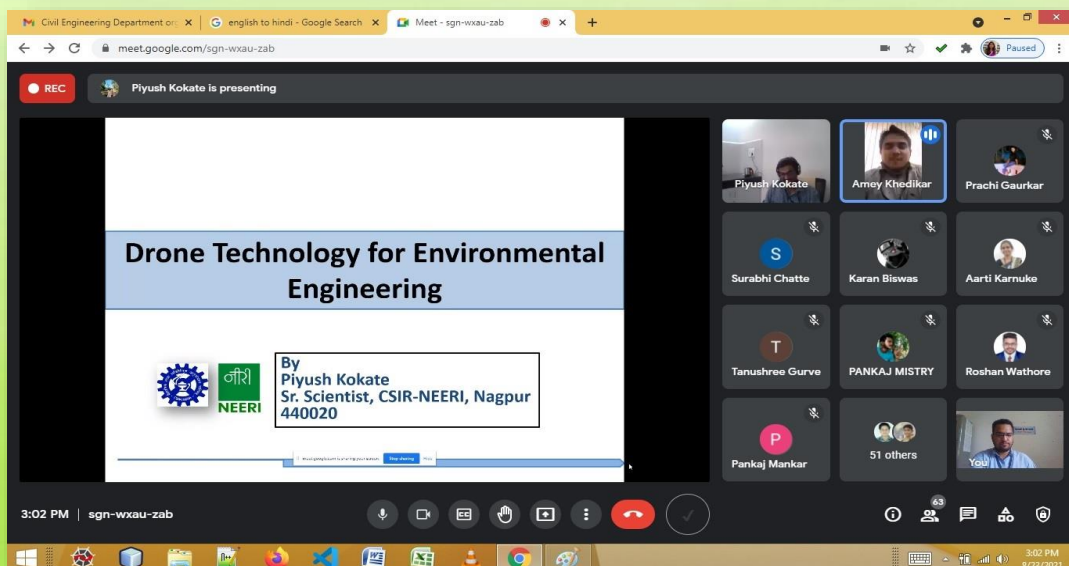
## E-Expert Talk (Webinar) on “Introduction to HEC-RAS (Software)”



Delivered by Mr. Vignesh Iyer, Associate Engineer at Stantec, Pune (11.09.2021)



# E-Expert Talk (Webinar) on “Drone Technology for Environmental Engineering”



Department of Civil Engineering under ARTEX Forum in association with Indian Water Works Association (IWWA), ISTE & IE(I) have organized a Guest Lecture (E-Expert Talk Webinar) on Topic “Drone Technology for Environmental Engineering” delivered by Mr. Piyush Kokate, Senior Scientist, Energy & Resource Management Division, CSIR-NEERI, Nagpur.

Mr. Piyush Kokate gave detailed information about the history of drone technology, the novelty of drone technology & its benefits in the field of Civil Engineering like surveying & mapping for infrastructure sector. He explained about the electronic controller arrangement of drones, GPS stability & operation principles of drones along with common applications of drones in agriculture, mining & other industries. He also explained in brief about technical applications of drones in Environmental Engineering like biodiversity & habitat mapping, tree & animal species identification, canals & dams inspection, seashore mapping, air & water quality sampling & monitoring, Municipal Solid Waste (MSW) emissions monitoring, inspection of solar panels & agricultural crops, etc. Future job & consultancy opportunities for students were also discussed by the expert.



## (Virtual) Online Site Visit: CSIR-NEERI

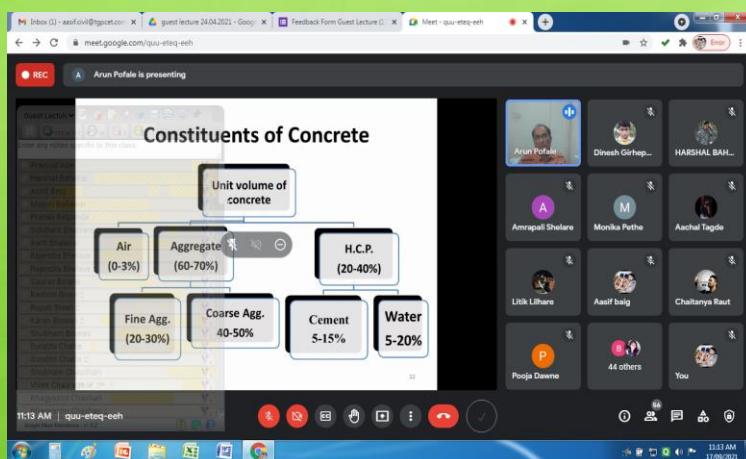


Department of Civil Engineering under ARTEX Forum in association with Indian Water Works Association (IWWA), ISTE & IE(I) have organized an Online Site Visit to CSIR-NEERI, Nagpur. Mr. Mohitsingh Katoch, Assistant Professor at Civil Engineering department, TGPCET was the incharge of this Online Site Visit which was guided by Mr. Prakash Kumbhare, Senior Principal Scientist, PRMMG, CSIR-NEERI, Nagpur.

Mr. Prakash Kumbhare, Senior Principal Scientist, PRMMG guided this complete visit to following departments :

- 1.) Water Technology & Management Division,
- 2.) Air Pollution Control Division,
- 3.) Waste Water Technology Division,
- 4.) Chemical & Hazardous Waste Management Division &
- 5.) Harit Sangrahalaya

## E-Expert Talk (Webinar) on "Concrete-Yesterday, Today's and Tomorrow"



Delivered by Dr. Arun Pofale, Former Professor and HOD (Civil Engg. Dept.) VNIT, Nagpur (17.09.2021).

He gave detailed information about the history of concrete. He explained the difference between History concrete and Present concrete. He also explained all the types of concrete like fiber reinforced concrete, transparent concrete, HFRC and pervious concrete.

## (Virtual) Online Site Visit: AIIMS, Nagpur (Mihan) Construction Site



Department of Civil Engineering under ARTEX Forum in association with ICI & IE(I) have organized an Online Site Visit to Construction Site of AIIMS, Nagpur (Mihan) - a project by “Ahluwalia Contracts (India) Ltd.”. Mrs. Priyanka Petkar, Assistant Professor, Civil Engineering department, TGPCET was the in-charge of this Online Site Visit which was guided by Mr. Sachin Motghare, Project Manager at Ahluwalia Contracts (India) Ltd., Nagpur.

Mr. Sachin Motghare explained different aspects of construction and various complications which comes during construction. He also explained briefly about the different materials used on the construction site. He also motivated the students about environment conservation and role of civil engineer in the environment friendly construction.

## Site visit at “Level Crossing 104 (Construction of Railway Under-Bridge and Expansion of Railway Track) Mohgaon, Nagpur”



Department of Civil Engineering under ARTEX Forum in association with Indian Concrete Institute (ICI), Institution of Engineers (India) and Indian Student Technical Education (ISTE) have organized Site visit at “Level Crossing 104 (Construction of Railway Under Bridge and Expansion of Railway Track) Mohgaon, Nagpur”. Er. M.G. Joshi, Senior Assistant Engineer, Central Railways, Nagpur, gives the information about the railways and how it works.



## All India Workshop on “Application of Advanced Surveying Instruments”



**Students during the performance of total station**

Department of Civil Engineering in association with Indian Concrete Institute (ICI) Nagpur Local Center on 20.12.2021 have organized an All India Workshop on “Application of Advanced Surveying Instruments”. Er. Ashwin Chandsarode & Er. Sumit Bagmar, Forest surveyor, Metro Rail Corporation, Nagpur demonstrated and performed the surveying instruments in front of students. After that they gave chance to every student member of the group to perform the same. In first phase of workshop Prof. Mohitsingh Katoch gave a detailed presentation on various advanced instruments used in surveying. And in the second phase of the workshop, students were divided into three groups, and live demonstration was shown by the invited experts. Students were also allowed to operate Total Station, Auto Level and handy GPS under the supervision of experts. Experts also guided the students about the importance of surveying and how these instruments help to ease work on construction site. Students from different colleges actively participated in the workshop.

## Site visit: Sewage Treatment Plant, Bhandewadi, Nagpur



Department of Civil Engineering under ARTEX Forum in association with ICI, Institution of Engineers (India) and ISTE have organized Site visit at “Sewage Treatment Plant, Bhandewadi, Nagpur”. Mr. Pramod Malshiraskar, Plant Head, STP, Bhandewadi Nagpur, gave the information about the different units of plant and how they work.



## Guest Lecture: Irrigation Planning, Yield Studies and Simulation



Department of Civil Engineering under ARTEX Forum in association with Indian Water Works Association (IWWA), ISTE & IE(I) have organized a Guest Lecture on topic “Irrigation Planning, Yield Studies and Simulation” delivered by Shri. Narayan G. Oke, Retired Deputy Engineer, Water Resources Department, Maharashtra on 22.03.2022.

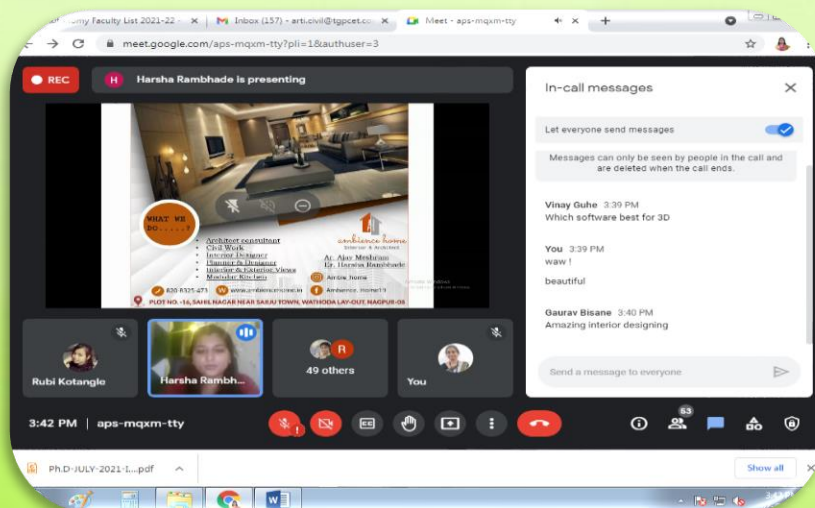
Shri. Narayan G. Oke gave the information about different types of canals, dams, spillways, and catchment areas of these structures. He also explained to the students about different empirical formulae used to calculate the amount of rainfall, High Flood level, catchment basin, etc. He also motivated students about taking projects based on various hydrological works and parameters. This Guest Lecture helped to bridge the gap between theory about Irrigation Engineering and application of Irrigation Planning concepts on field. The lecture was also useful for mapping the subjects like Hydrology, Water Resources Engineering and Fluid Mechanics.

## Guest Lecture: Design Considerations for Kolhapur-type Weirs on Rocky & Soft Foundations



Department of Civil Engineering under ARTEX Forum in association with Student Chapters of ICI, IWWA, ISTE & IE(I) on 22.04.2022 has organized a Guest Lecture on topic “Design Considerations for Kolhapur-type Weirs on Rocky & Soft Foundations” delivered by Shri. Jayant M. Dharkar, Retired Sub-Divisional Engineer, Water Resources Department, Government of Maharashtra.. The lecture was useful for mapping the subjects like Water Resources Engineering, Irrigation Engineering, Environmental Engineering, Geotechnical Engineering, and Structural Engineering.

## Alumni Webinar: Career in Interior Designing & Opportunities



Civil Engineering Department of Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur organized an E-Expert Talk (Alumni webinar) on “Career in Interior Designing & Opportunities” delivered by Ms. Harsha Rambhade, Interior Designer, Ambience Home, Nagpur on 17.09.2021. The expert gave detailed information about scope of interior designing and various career options in interior designing. She also explained which education is needed to become an interior designer

## Alumni Webinar: Advances in Pre- engineered Structures



Civil Engineering Department of Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur organized an E-Expert Talk (Alumni webinar) on “Advances in Pre-engineered Structures” delivered by Ms. Yamini Dadwe, Director Accurate Megastructure, Nashik on 28.09.2021. The expert gave detailed information about the benefits and advantages of pre-engineered building. She also explained the different types of material used for pre-engineered buildings and various applications of the pre-engineered structures.



# Survey Camp



Department of Civil Engineering under ARTEX Forum in association with Indian Concrete Institute (ICI), Institution of Engineers (India) and Indian Student Technical Education (ISTE) have organized two days Survey Camp for 2<sup>nd</sup> and 3<sup>rd</sup> Year Civil Engineering students on dated 06 & 07 May 2022 at VMIT Campus, Dongargaon, Nagpur..

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