

GOVERNMENT POLYTECHNIC, KARAD

DEPARTMENT OF CIVIL ENGINEERING

Academic Year Newsletter – 2021-2022

Chief Editor :

Dr. K. M. Bagwan

Smt. J. S. Patil

Dr. S. T. Bidgar

From the Principal's Desk

I Congratulate the Head of Department who is also the Chief Editor of this newsletter of its kind. Department is keen in coordinating the activities marching for welfare of students and mankind.

Dr. R. K. Patil

Editor :

Miss. Disha Patil

From the HOD's Desk

I am very delighted to put forth the department newsletter. I am thankful for the efforts taken by the departmental faculty, students and support of our Principal. I am pleased with the student's initiative and coordination among themselves for publishing this issue and wish bright success to all students.

Dr. K. M. Bagwan

Co - Editor :

Afraz Shaikh

Anagha Jagtap

Arati Patil

It is indeed a great honour to launch this newsletter for year 2021-22. Newsletter highlights various events and activities of Civil Engineering department as an outcome of efforts of dedicated Faculty and hardworking, sincere students. Lastly I would like to thank our Principal Dr. R. K. Patil for their everlasting support for creating this e-newsletter.

Smt. J. S. Patil

Students Corner –

Workshop, Training and Expert Lectures organised by Department :

A “ State Level Poster Presentation Competition” was arranged on the Occasion of “World Environment Day” by Civil Engg. Department. Also Tree Plantation was planned in campus on this day.



GOVERNMENT POLYTECHNIC, KARAD
Civil Engineering Department

WORLD ENVIRONMENT DAY
5TH JUNE 2021

**A STATE LEVEL
POSTER PRESENTATION COMPETITION**

Topics of Poster Presentation Competition:

1. Environment Conservation for Sustainability
2. COVID-19 Pandemic Prevention and Cure

Dr. R. K. Patil
Principal, GP Karad

Shri. S. V. Sakhalakar
HOD, GP Karad

Smt. J. S. Patil
HOD, GP Karad

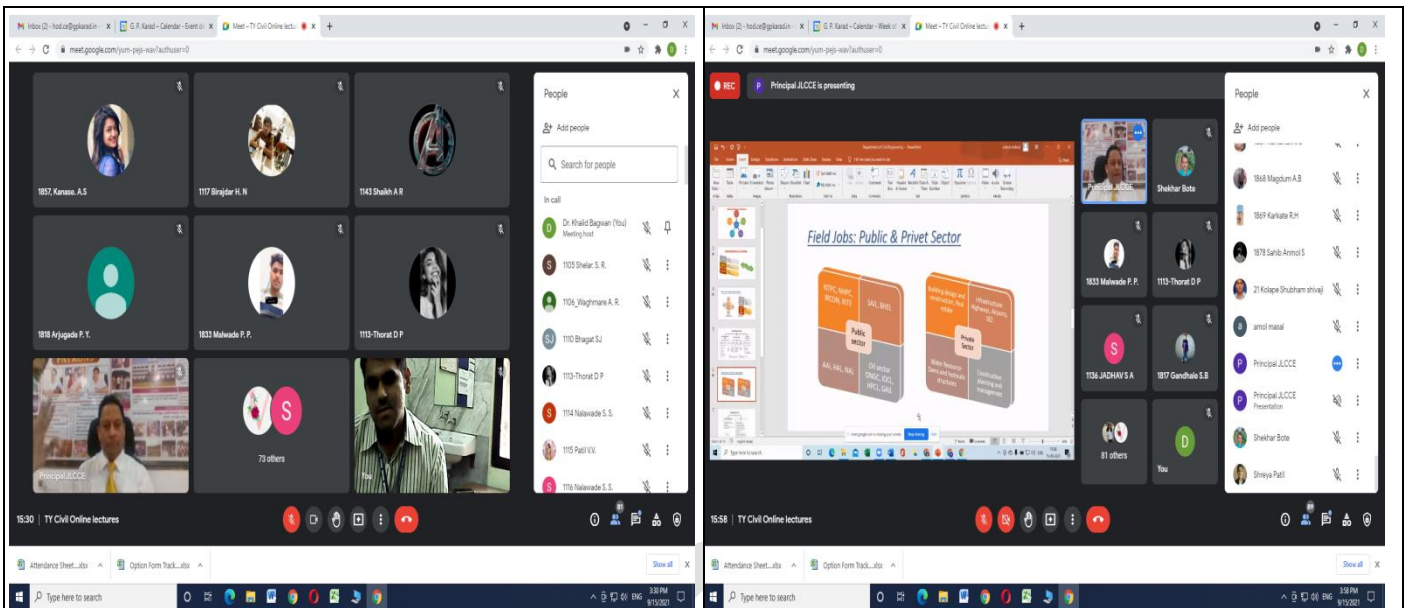
Mr. J. P. Huddar
Lecturer, Civil Dept.

Mr. S. B. Bote
Lecturer, Civil Dept.

For more details please refer brochure for competition

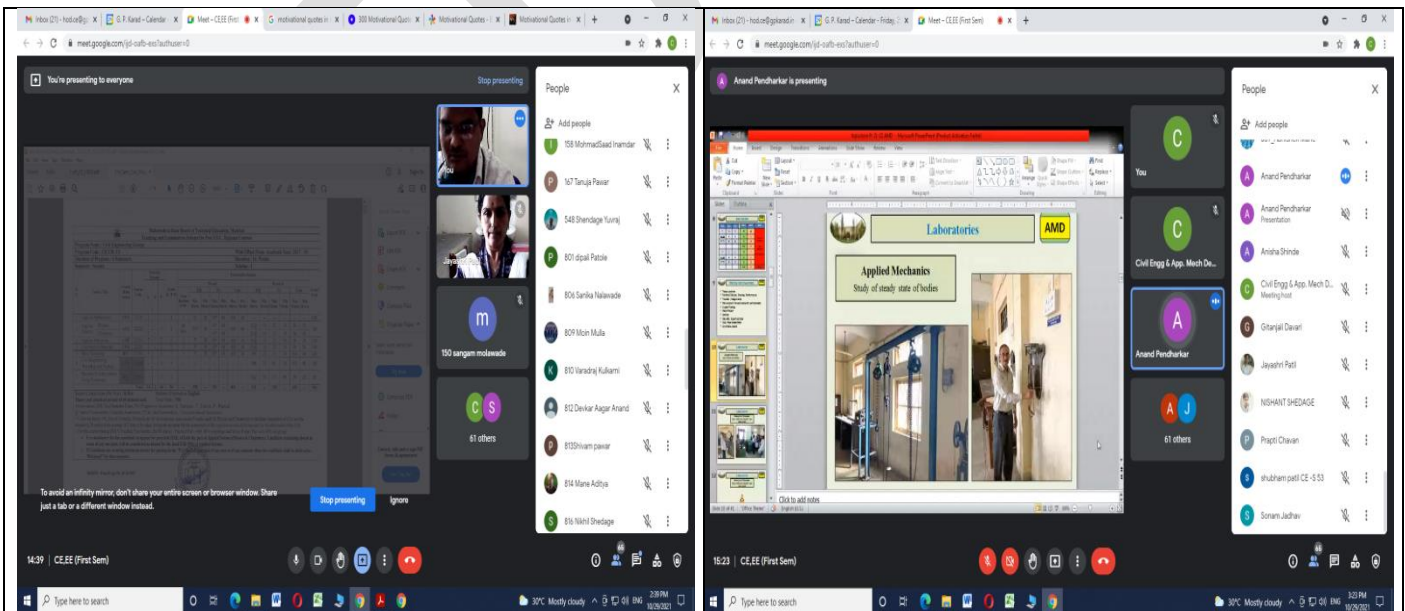
Expert Lectures

Online Expert lecture on Motivational talk and Opportunities in Civil Engineering by Dr. Abhay M Shende, Principal, P.J.L College of Engineering, Nagpur on 15.9.2021 at 3:30 pm.



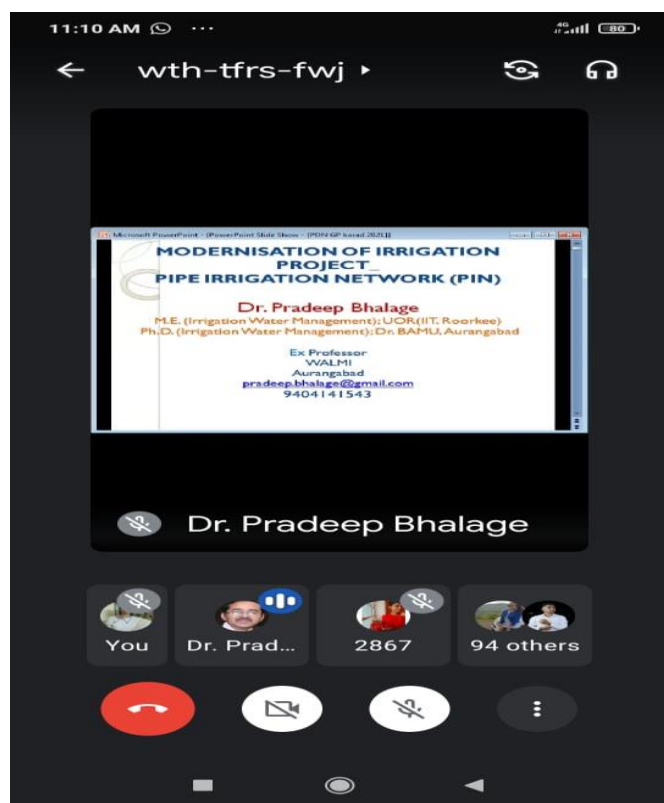
Online Expert lecture on Motivational talk and Opportunities in Civil Engineering by Dr. Abhay M Shende,

First year Induction programme, AY 2021-2022

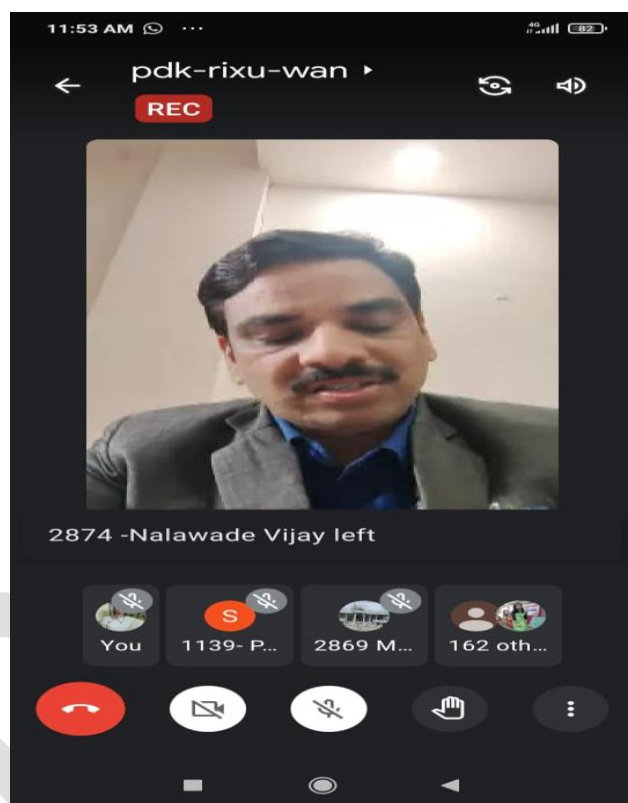


First year Induction programme, AY 2021-2022 conducted on 29/10/2021 at 02.00 to 4.30pm

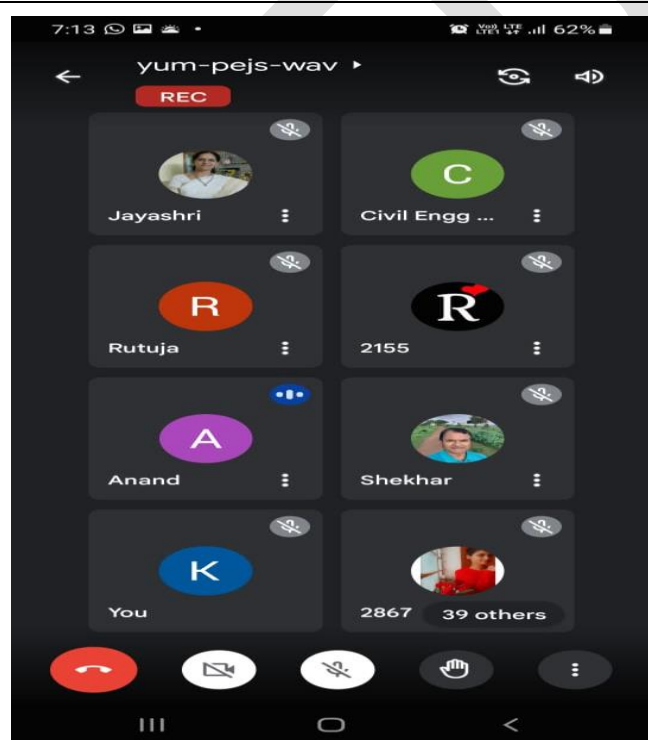
Expert Lecture by Dr. Pradeep Bhalage – Modernisation of Irrigation Project Pipe Irrigation Network (PIN)



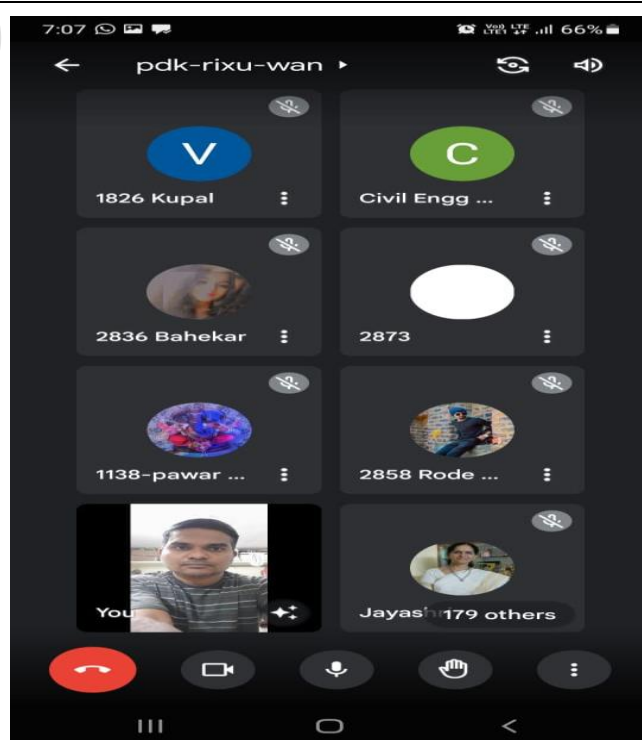
Expert Lecture on Environment Cultivation on 25th Nov 2021



Online Alumni meet : 24/11/2021 at 07.00 pm



Online Parent meet : 23/11/2021 at 07.00 pm



Industrial Training :

6 weeks industrial training organized after fourth semester examination. 74 students opted for option-1 and 81 students completed training through option-3 organised by “Progressive Expert Consulting Pvt. Ltd. Aurangabad”.

Toppers :

Second Year

Ku. Jagtap Anagha Dipak (0010)

Ku. Patil Arati Anil (1599)

Third Year

Ku. Shaikh Afraj Rais (0010)

Ku. Patil Disha Mahesh (1599)

The toppers for the Academic Year 2020-21 are appointed as Class Representatives (C.R.) for the Academic Year 2021-22.

Faculty worked during Lockdown for student's Welfare :

Some of the subjects listed below are used for effective teaching using PPT's, Third party videos, faculty made videos.

Course-wise Learning Resources prepared its Implementation in the academic year 2020-21 & 2021-22	Name of the Faculty contributed
Geo-Technical Engg.	Shri. A. S. Pendharkar
Building Planning & Drawing	Shri. J. P. Huddar
Contracts And Accounts	Shri. J. P. Huddar
Maintenance And Repairs Of Structures	Shri. A. S. Pendharkar
Solid Waste Management	Smt. J. S. Patil
Advanced Design Of Structures	Shri. A. S. Pendharkar
Construction Management	Smt. P. T. Dhigare
Advanced Surveying	Dr. K. M. Bagwan
Highway Engineering	Shri. S. B. Bote
Mechanics of Structures	Dr. S. T. Bidgar
Building Construction	Shri. P. N. Bachal
Concrete Technology	Shri. A. S. Pendharkar
Water Resource Engineering	Shri. S. B. Bote
Design of Steel and RCC Structures	Shri. A. S. Pendharkar
Estimating And Costing	Smt. J. S. Patil / Shri. A. M. Masal
Public Health Engineering	Shri. P. N. Bachal / Smt. P. T. Dhigare
Rural Development	Smt. N. J. Jadhav / Shri. S. S. Salve

Coursewise learning resources :

Sr. No.	Particulars	Total No.
1	Online Courses	01
2	Learning Audio / Video	60
3	Third Party Videos : YouTube, NPTEL and others	30
4	Students Task Assignments :12 Question Bank :10 Quiz and group Discussion 01 each 1	23

Since March 16, 2020 the state-level lockdown begins so the activities were badly hampered. However the faculties of the department has taken lot-of efforts, the MCQ's, video lectures, Online lectures on Google Meet were conducted. Google classrooms are created for all courses. Students uploaded their Term-work on class for all courses.

Participation in activities like Quiz, Paper Presentation :

For the Academic Year 2020-21 about 67 students were participated in various activities like Quiz, Paper Presentation and Poster Presentation and other activities.

List of Students who secured Prize in competition

Sr. No.	Name of Student	Competition Name	Prize
1	Sangram Balaso Ombase	Technical Paper Presentation	First Prize
2	Jadhav Rohit Prakash	Online Project Competition	Second Prize
3	Patil Sanika Sanjay	State Level Quiz Competition	First Prize
4	Sakshi Anil Patil	Online Project Competition	Second Prize
5	Ayesha Chand Shaikh	Online Project Competition	Second Prize

Student's Achievements –

पुण्य नगरी



कराड : मान्यवरांकडून वक्तृत्व स्पर्धेतील बक्षीस स्वीकारताना श्रेया जावरे.

श्रेया जावरे हिचे यश

कराड / प्रतिनिधी

कॉप्स विद्यार्थी संघटना व इतर सामाजिक संस्था यांच्यावतीने आयोजित राज्यस्तरीय वक्तृत्व स्पर्धेत येथील श्रेया निलेश जावरे हिने व्दितीय क्रमांक पटकावला. श्रेया ही शासकीय तंत्रनिकेतन कराड येथील विद्यार्थीनी व कराड अर्बन बँकेचे वरिष्ठ अधिकारी निलेश जावरे यांची मुलगी आहे. स्पर्धेचे आयोजन कॉप्स विद्यार्थी संघटनेचे अध्यक्ष अमर एकाड यांनी केले होते. त्यामध्ये राज्यातील २७० स्पर्धक सहभागी झाले होते. १५ ते १७ वयोगटातून शासकीय तंत्रनिकेतन नंदुरबार येथील विद्यार्थीनी पूर्वा चौधरी हिने प्रथम तर कराडच्या श्रेया जावरे हिने व्दितीय क्रमांक पटकावला.

Smart Satara

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Community Services :

Technical Education Awareness Programme named as “School Connect” was successfully arranged Taluka – wise.



School- connect Programme – Taluka - Wai

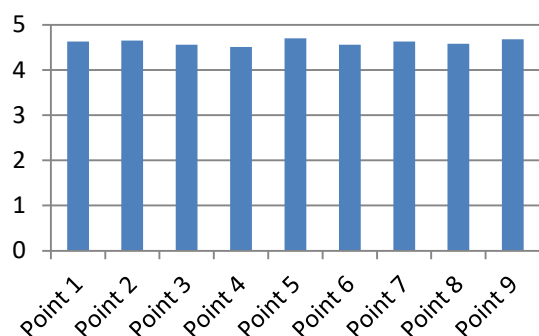
During the “School- connect Programme” different committees visited Taluka-wise schools where ongoing 10th students were aware about Technical Education Admission Process and cleared their doubts regarding admission process.

Student’s Feedback for Teaching Learning :

This is fair means to know the performance of faculty member's classroom teaching. The performance of all the faculty members as given by the students is very good.

Faculty Analysis as given by the students (1-sample) for faculty

Students feedback sample



Feedback is based on following points

1. Has the Teacher covered entire Syllabus as prescribed by MSBTE
2. Has the Teacher covered relevant topics beyond syllabus
3. Effectiveness of Teacher in terms of: a) Technical content / course content b) Communication skills c) Use of teaching aids
4. Pace on which contents were covered
5. Motivation and inspiration for students to learn
6. Support for the development of Student's skills i) Practical demonstration ii) Hand on training
7. Clarity of expectations of students
8. Feedback provided on Student's progress
9. Willingness to offer help and advice to students

Outcome of Teaching & Learning :

Result Analysis for Semester Summer 2021

Class : CE6I (Regular & Shift)

Sr. No.	Subject	Numbers of students appeared		Lowest marks		Highest Marks		Number of students passed		% Of students above 60%		% Passing	
		0010	1599	0010	1599	0010	1599	0010	1599	0010	1599	0010	1599
1	MANAGEMENT	72	74	32	24	70	62	72	73	83.33	79.73	100	98.65
2	CONTRACTS AND ACCOUNTS	72	74	20	32	70	70	70	74	84.72	79.83	97.22	100
3	MAINTENANCE AND REPAIRS OF STRUCTURES	72	74	24	34	70	70	70	73	83.33	86.49	97.22	98.65
4	EMERGING TRENDS IN CIVIL ENGINEERING	72	74	28	14	70	70	72	73	88.89	85.14	100	98.65
5	ADE	8	8	32	40	70	50	8	8	87.50	37.50	100	100
6	SOLID WASTE MANAGEMENT	64	66	28	28	70	70	64	66	78.13	80.30	100	100

Class : CE4I (Regular & Shift)

Sr. No.	Subject	Numbers of students appeared		Lowest marks		Highest Marks		Number of students passed		% Of students above 60%		% Passing	
		0010	1599	0010	1599	0010	1599	0010	1599	0010	1599	0010	1599
1	HYDRAULICS	85	70	22	20	70	66	84	69	48.24	57.14	98.82	98.57
2	THEORY OF STRUCTURES	85	70	20	16	70	70	79	65	32.94	25.71	92.94	92.86
3	RAILWAY AND BRIDGE ENGINEERING	85	70	32	28	70	70	85	70	71.76	82.86	100	100
4	GEO-TECHNICAL ENGINEERING	85	70	24	18	70	70	82	66	48.24	48.57	96.47	94.29
5	BUILDING PLANNING AND DRAWING	85	70	35	30	60	62	85	70	63.53	68.57	100	100
6	ENVIRONMENTAL STUDIES	85	70	28	27	70	66	85	69	74.12	80.00	100	98.57

Faculty Corner :

- Faculties have utilised the lockdown period and all faculties have attended online FDPs by Swayam, NITTTR.
- Faculties have worked out for online classes and practical conduction using various platform, during the lockdown.
- Smt. J.S. Patil, HOD, Civil Dept.(1599) delivered seminar on “Outcome based Education Philosophy & Process” for Faculty of Premalatai Chavan Polytechnic, Karad.

Faculties Handling Institute Level Portfolio :

Sr. No.	Name of Faculty	Institute Level Portfolio
1	Dr. K. M. Bagwan	Civil Works – Nodal Officer
2	Smt. J. S. Patil	Institute Time Table Co-ordinator
		DTE MIS Admin (HOD of Programmer's Dept.)
		President Women Grievance Cell
3	Dr. S. T. Bidgar	UBA / UMA

4	Shri. S. B. Bote	Court cases
5	Shri. A. S. Pendharkar	FY/DSY Admission In-charge
		Alumni Association – Secretary/ Treasurer
		Change of Branch / Institute
6	Shri. A. S. Pendharkar, Shri. P. N. Bachal	New Construction

MoU's

For the year 2021-22 Civil Engg. Department & Applied Mechanics Department made total 04 MoU's with leading Industries from Karad. The MoU's are as per the given table.

Sr. no.	Name of Industry	Name of owner
1	Anumit Constructions, Karad	Shri. Avinash Shah
2	Dimension Construcions, Karad	Shri. Sanjeev Shah
3	Savitri Construcions, Karad	Shri. Rajendra Kumar Yadav
4	Konark Construction Chemicals, Karad (APM Dept.)	Shri. Rajesh Kale

Civil Engineering Updates

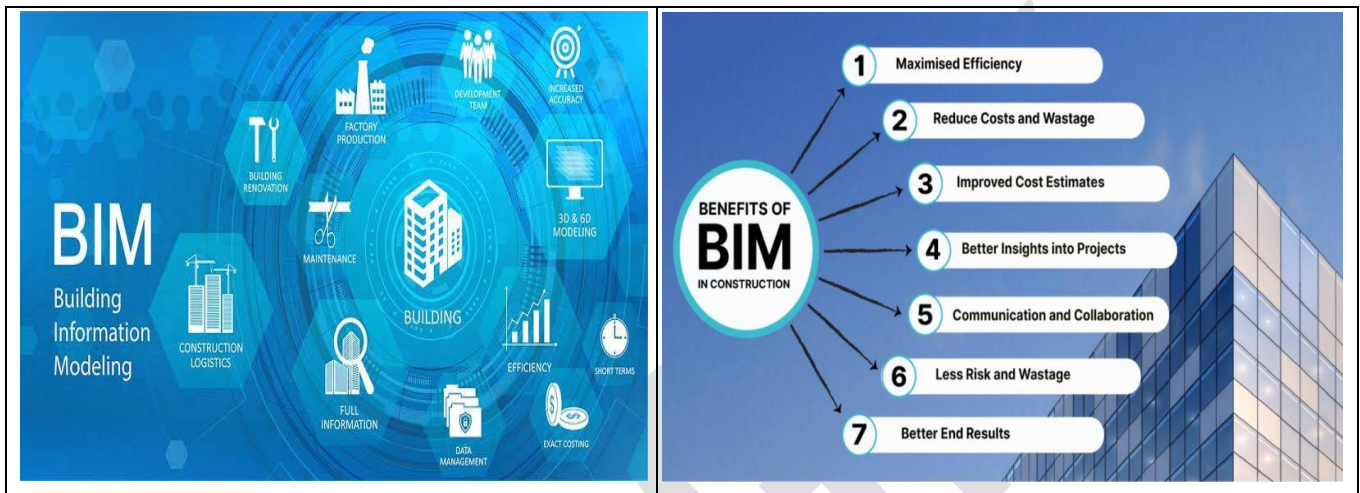
Glass Fiber Reinforcement Bars :



Glass Fiber Reinforcement Bars

FRP bars are made of different fibres (glass, carbon, aramid and basalt). Fibres are bound together with various resins (e.g., polyester, vinyl ester and epoxy). Mechanical properties as well as the surface profile of FRP bars can be considerably different from conventional steel reinforcement. GFRP reinforcing bar has higher tensile strength and higher corrosion resistance than steel rebar in addition, moderate flexural strength, these properties make GFRP is good alternative of steel in foundations application.

Building information modeling (BIM)



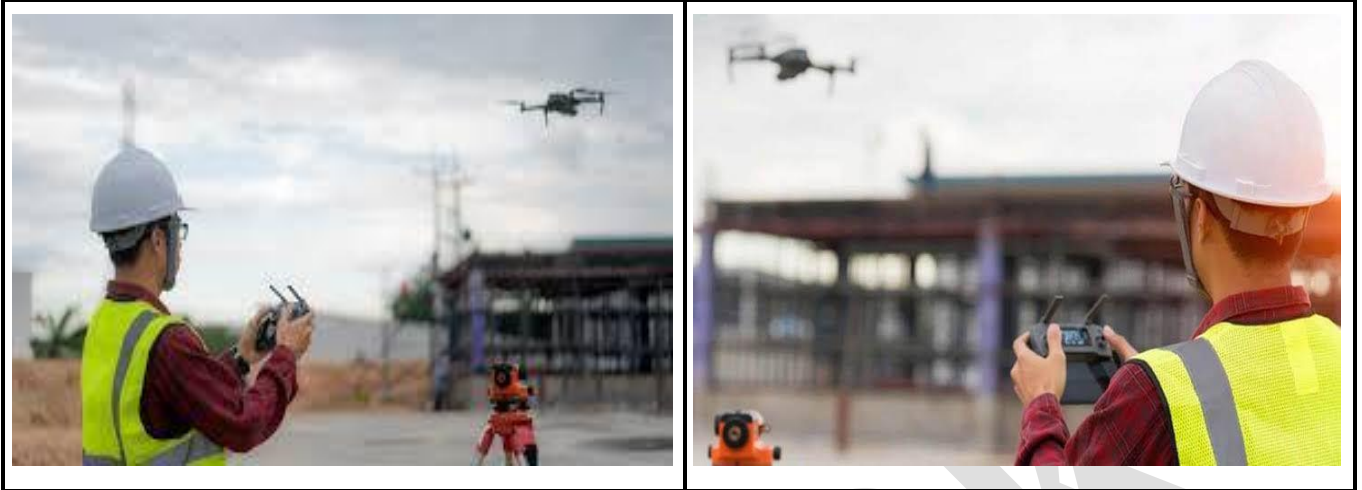
It is a process supported by various tools, technologies and contracts involving the generation and management of digital representations of physical and functional characteristics of places. Building information models (BIMs) are computer files (often but not always in proprietary formats and containing proprietary data) which can be extracted, exchanged or networked to support decision-making regarding a built asset. BIM software is used by individuals, businesses and government agencies who plan, design, construct, operate and maintain buildings and diverse physical infrastructures, such as water, refuse, electricity, gas, communication utilities, roads, railways, bridges, ports and tunnels.

Building information model of a mechanical room developed from lidar data

The concept of BIM has been in development since the 1970s, but it only became an agreed term in the early 2000s. Development of standards and adoption of BIM has progressed at different speeds in different countries; standards developed in the United Kingdom from 2007 onwards have formed the basis of international standard ISO 19650, launched in January 2019

The importance of BIM can be seen in its very application. It helps coordinate, plan, design and construct with data that is precise and accurate. It helps project costs, feasibility, and schedules. It also helps in the standardization of data that flows through the project- whether at a desk or on the field.

DRONES And CONSTRUCTION INDUSTRY :



Advancement and technology usage is raising up with affordable rates and availability of new age Equipments.

Drones as a tools that increase communication between construction participants, improves site safety, uses topographic measurements of large areas, with using principles of aerial photogrammetry is possible to create buildings aerial surveying, bridges, roads, highways , industrial construction projects.

There are many uses of drone mainly

1. Land measurement
2. Land mapping and survey work
3. Marking and alignment
4. General inspection: Get instant inspection information without leaving the ground
5. Facade inspection: Utilize real-time video transmission to get the vital info you need
6. Roof inspection: Take advantage of thermal and visual imagery for a comprehensive inspection.

Like this drones can be used at many other places in construction industry.