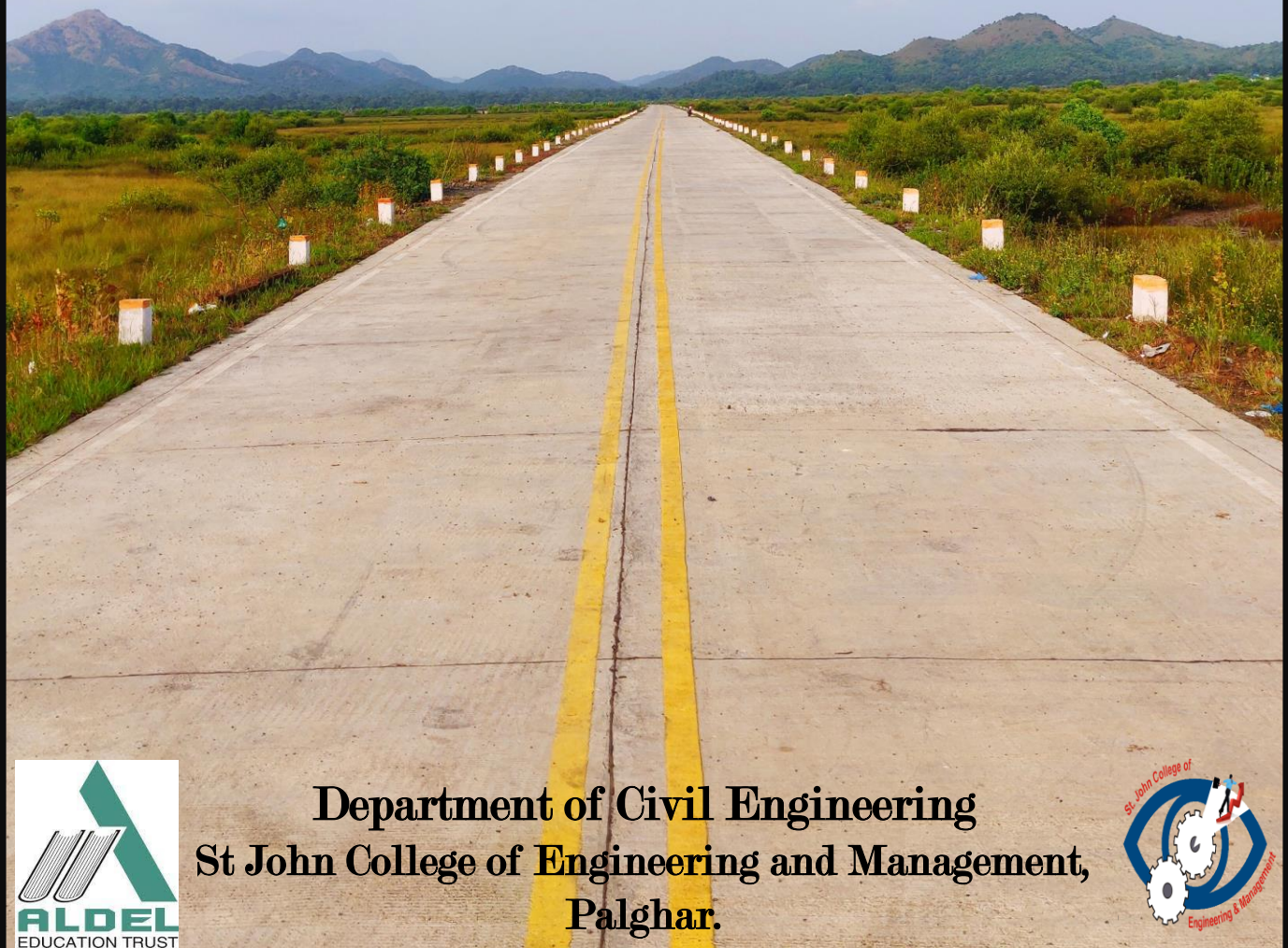
CONSTRUCTO

Academic 2020-2021

Volume -1

December-2020



Department of Civil Engineering

St John College of Engineering and Management,

Palghar.

DEPARTMENT OF CIVIL ENGINEERING

Institute Vision

"Excellence in Engineering Education & Creating Next-Gen Leaders / Managers in the Service of Society"

Department Vision

“To create high quality Civil Engineers with global perspective and to inculcate in them professionalism and work ethics for building a stronger society”

Institute Mission

- To impart quality engineering education for holistic development
- To provide conducive environment for joyful learning, innovation and research
- To promote innovative technology enabled teaching and learning process
- To nurture socially responsible engineers, entrepreneurs and leaders
- To enhance employability skills to meet the changing industrial trends

Department Mission

- To nurture Civil Engineers with competent technical skills, professional and ethical values to serve the Nation.
- To transform the department into a centre of excellence in the field of Civil Engineers and allied research.
- To provide knowledge base through consultancy services to the community in all areas of Civil Engineers.
- To inculcate innovation and eco sustainable construction in the minds of budding Civil Engineers to face ever evolving challenges.

Quality Policy

To impart quality professional education with conducive environment for technology enabled teaching-learning and to nurture socially responsible professionals with enhanced employability skills

Programme Educational Outcome

- To provide outgoing graduates with sound basics in mathematics, science and engineering
- To imbibe technical skills, analysis and design, to solve civil engineering problems.
- To enable them to deal construction related issues in a responsible, professional and ethical manner for implementing eco-friendly, sustainable technologies.
- To make them realise the need of higher education, research and development in civil engineering.

Programme Outcomes (POs)

PO 1. Graduate will be able to Apply the knowledge of mathematics, applied sciences to civil engineering for the solution of complex engineering problems.

PO 2. Graduate will be able to Identify, formulate, research literature, and solve problems in structural, construction management, hydraulic, transportation, and geotechnical stream of civil engineering.

PO 3. Graduate will be able to Design solutions for complex civil engineering problems with appropriate consideration to safety, economy, health and environmental considerations.

PO 4. Graduate will be able to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5. Graduate will be able to Create, select, and apply appropriate upgraded civil engineering tools, techniques and resources, and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6. Graduate will be able to serve the society with engineering knowledge and onus on societal health, safety, legal and cultural issues.

PO 7. Graduate will be able to understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the need for sustainable development.

PO 8. Graduate will be able to Apply and Demonstrate ethical principles, commit to professional ethics, responsibilities and norms of the engineering practice.

PO 9. Graduate will be able to deliver as a leader and good team player in diverse team and in multidisciplinary settings.

PO 10. Graduate will be able to have spoken and written skills of communication by being able to comprehend and effective reports, design documentation, make effective presentation, give and receive clear instructions.

PO 11. Graduate will be able to coordinate as team member or the leader at the site projects, finance, and consultancy with ease in multidisciplinary environments.

PO 12. Graduate will be able to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSOs)

PSO1. Graduates will be able to apply engineering knowledge to plan and design structures creating townships in the region with best transport systems.

PSO2. Graduates will be able to understand the impact of geotechnical investigation and environmental pollution, societal health, legal and cultural issues so as to serve society with professional ethics.

PSO3. Graduates will be able to understand complex problems and design solutions in structural constructions, water resource, hydrological systems, sewerage, industrial effluent conveyor and treatment systems.

PSO4. Graduate will be able to lead and engage in team work to understand modern construction technology and management with advanced research and development in the field of Civil Engineering.

Message from Head of Civil Engineering Department.

Dr. Buddharatna J. Godboley

Welcome to the Department of Civil Engineering!

If you are looking for a well-balanced and innovative teaching-learning atmosphere in Civil Engineering, then you are at the right place! The Department of Civil Engineering strives for excellence in teaching and learning and professional development. We are proud to have state-of-the-art laboratories and dedicated academic and technical staff to support our academic program. Our department and its experienced staff offer practice related education, preparing our students for a successful and rewarding career. Our graduates are exceptionally well prepared for challenging careers, handling major projects and being on the fast track towards new heights in their careers.

"The road to success is always under construction" Get it right…. ….

CIVIL ENGINEERS

DEPARTMENTAL TEACHING STAFF

Dr. B. J. Godboley
Associate Professor & HoD
Ph.D, M.Tech Environmental Engineering.
buddharatnag@sjcem.edu.in

Dr. R.S. Kale
Assistant Professor
M.Tech Structural Engineering.
Rajeevk@sjcem.edu.in

Mr. Shreeshail Heggond
Assistant Professor
M.Tech Structural Engineering.
shreeshailh@sjcem.edu.in

Mrs. Swati Dhurve
Assistant Professor
M.Tech Structural Engineering.
swatid@sjcem.edu.in

Mr. Swapnil Malipatil
Assistant Professor
M.Tech Structural Engineering.
swapnilm@sjcem.edu.in

Mr. Ashok Meti
Assistant Professor
M.Tech Structural Engineering.
ashokm@sjcem.edu.in

Mr. Naveen Hanchinahal
Assistant Professor
M.Tech Geotechnical Engineering.
naveenh@sjcem.edu.in

Mrs. Shruti V.
Assistant Professor
M.Tech Geotechnical Engineering.
Shrutiv@sjcem.edu.in

Mrs. Mittali Shelke
Assistant Professor
M.Tech Construction Management.
Mittalis@sjcem.edu.in

Mr. Ashish Chavan
Assistant Professor
M.Tech Structural Engineering.
Ashishc@sjcem.edu.in

DEPARTMENTAL Non-TEACHING STAFF.

Mr. Balram Tandel
Lab Assistant

Mr. Vivek Patil
Lab Attendant

Mr. Darshan Bonge
Lab Attendant

Mr. Yogesh Janathe
Lab Attendant

STUDENTS STRENGTH

Year	Students
Second Year	64
Third Year	77
Final Year	76

CLASS REPRESENTATIVES

Year	Students
S.E.	Mrs. Akansha Damke
T.E.	Mr. Preet Jain
B.E.	Mr. Suresh Suthar

RESULT ANALYSIS

Year	Semester	Percentage of Result
S.E.	IV	100 %
T.E.	VI	100 %
B.E.	VIII	100 %

TOPPERE'S LIST

Year	Student's Name	Rank	Score
S.E.	Raut Chidambari Haresh Neeta	1	9.95
S.E.	Mishra Pratik Rajesh Savita	2	9.91
S.E.	Bandodkar Akshay Sanjeev Sanjana	3	9.89
T.E.	Upadhyay Aashi Chandrakant Shashi	1	10
T.E.	Wade Nihar Dinesh Dixa	2	9.77
T.E.	Thakur suraj Nandkumar Sudhiradevi	3	9.77

Guest Lecture /Expert Talks

Sr. No.	Topic of Guest Lecture	Class	Date	Resource Person
01	Real Estate Regulatory Act (RERA)	T. E & B. E	12th December, 2020	Mr. Yogesh A. Jain Founder, Centreline Consultants & Engineers Palghar, 401404
02	Autodesk Revit Software	SE, TE & B. E	30th Nov 2020	Mrs. Amrita Karambelkar Manager Operations, Knowledge Solutions India
03	Maintenance and Repairs of Building Structure	T. E	23rd November 2020	Mrs. DhanashriJoshi, Assistant Professor New Horizon College of Engineering, Thane.
04	Introduction and Fluid statics	T. E	23rd October2020	Dr. PrabhulingUllagaddi Professor in S.G.GS Institute of Engineering & Technology, Nanded.
05	Applied Hydraulics	T. E	22nd October 2020	Dr. A. S. Kambekar Associate Professor, Sardar Patel College of Engineering, Mumbai.
06	High and Low Dam	B. E	17th October 2020	Mrs. LissyJose Professor & HOD of VIVA Institute of technology, virar.
07	Drinking Water Contamination Heavy Metals”	T. E	15th October 2020	Dr. Ranjeet N. Patil Assistant Professor, Priyadarshini Bhagwati College of Engineering, Nagpur.
08	High Performance and Fibre Reinforced Concrete”	B. E	15th October 2020	Dr. Prashant Y. Pawade Professor & HOD, GHRCE Nagpur.
09	Water Management in the Traditional Indian Spiritual Consciousness”	B. E	15th October 2020	Dr. B. V. Khode Professor & HOD, GHRCE Nagpur
10	Classification & Identification of Clay Minerals in Expansive Soil”	T. E	14th October 2020	Dr. Anant Lal Murmu Nagpur Institute of Technology, Nagpur.
11	Plastic Analysis of Steel Structure”	T. E	14th October 2020	Dr. Kuldeep Dabhekar Assistant Professor, GHRCE Nagpur
12	Waste to Energy step Towards Sustainable Development”	B. E	12th October 2020	Dr. Isha P Khedikar Assistant Professor, GHRCE Nagpur.
13	Real Estate Regulatory Act (RERA)	B. E	12th December 2020	Mr.Yogesh Jain, Founder Centreline Consultant Engineer Palghar.
14	AutoDesk Revit	B. E	30th November 2020	Mrs. Amrita karambelkar

Student's Achievement's Detail's

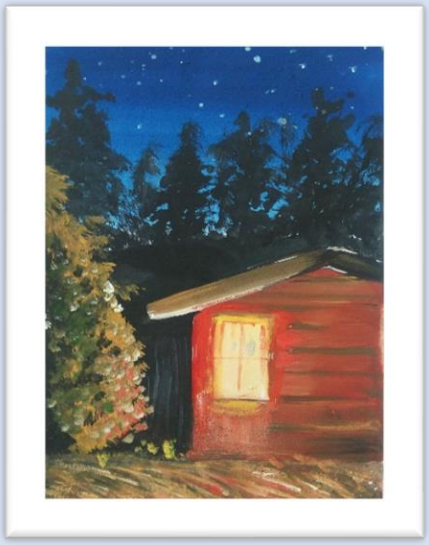
Sr.no	Student name	Semester	Subject	Certification Form
1.	Ms. Vaidehi.P. Patil	5	Civil 3D for Infrastructure Design Exam Prep	Coursera
2.	Mr. Kruten Keni	5	SAP 2000: From Beginner to Pro	Udemy
			Autodesk Revit: Beginner to intermediate Level	Udemy
			Revit Structure 2018 from Zero to Hero	Udemy
3.	Mr. Sumit Malkar	7	TVAS-Solar PV Fundamentals	TPSDI [Tata Power]
4.	Mr. Suraj N. Thakur	7	eLearning program on Industry 4.0	Capability Development [Tata Steel]
			Basic TQM Principals	Capability Development [Tata Steel]
			Initiating and Planning Projects	Coursera
			Write Professional Emails in English	Coursera
			Effective Problem-Solving and Decision-Making	Coursera
5.	Mr. Preet S. Jain	5	Temperature controlled concrete for mass concrete applications	JSW Cement Limited in Association with Indian Concrete Institute, Bengaluru Centre

All India Topper in NPTEL Course "Reinforced Concrete Road Bridges" with consolidated score of 96%

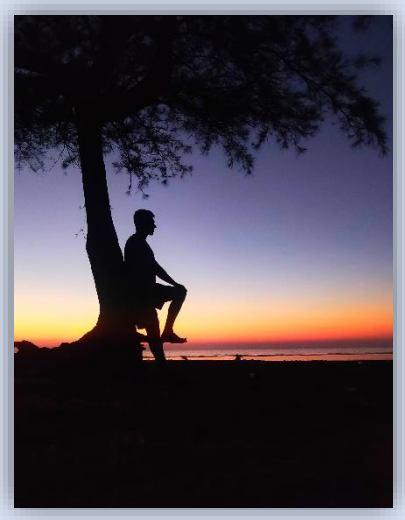
Invited by IIT Bombay, Mumbai for Internship

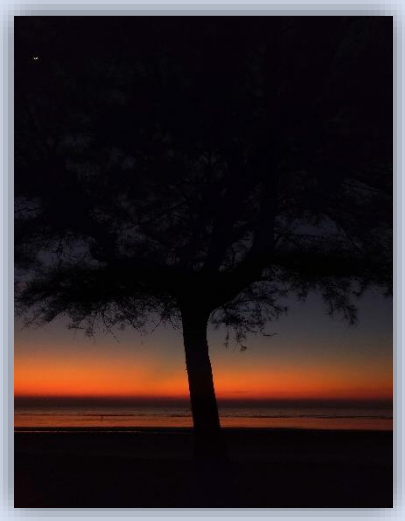
STUDENTS ART GALLERY

Painting By Jayesh Patil.
B.E.Civil

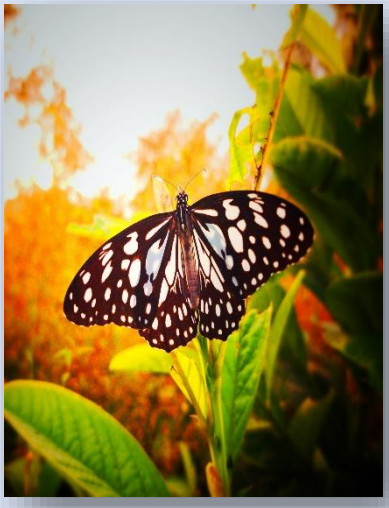


Paintings By Jayesh Patil.
B.E.Civil





Photography By Ritesh Patil.
B.E.Civil



Photography By Deepak Bhurkud.
B.E.Civil

STUDENTS ARTICLES

CIVIL 4.0

USE OF IOT IN CONSTRUCTION

Industry 4.0 is digital transformation of mechanised industry. Various tools like IoT, Cloud Computing, Big data, BIM etc are all set to bring changes to the Construction Industry. It has touched several fields and brought remarkable changes in it, but the construction Industry has been bashful towards these changes. But the next gen Civil Engineers are all set to inculcate Industry 4.0 in construction field. As this field is considered as the mother of all engineering and it directly impacts the civilization, so the change will definitely have a greater impact as compared to changes made by industry 4.0 in other fields. This field is mostly subjected to on field job with time constraints and heavy load of work and huge budget so use of IoT has proved to be great boost to safety and quality in Construction management.

The Internet of things (IoT) is a system of inter-related computing devices provided with unique identifier (UID) and ability to transfer data over a network requiring human to human or human to computer interaction. The construction industry is bringing real time information into processes that are centuries old IoT devices and sensors collecting job site data in a more affordable, efficient and effective way than previously imaginable IoT has potential to increase productivity, on-site safety, and operational efficiency with increased productivity and effective maintenance.

Safety & Security:

Theft of construction equipment and materials is a great problem on huge sites IoT tags placed on this equipment sends a real time location update and thus contribute to their effective management and security. Also, sensors installed at suitable points gives a real time feedback of air quality and alerts the labours thus enhancing safety of labours.

Concrete curing:

Here Sensors are embedded in concrete during casting and they follow curing concrete in real time allowing the construction manager to monitor and plan their schedules with certainty. One of the major issues during construction is managing labour and formwork costs. Knowing the maturity of concrete can make the difference between profitability and loss as it allows scheduling and cycling of formwork and optimization of labour. Sensitive Matrix, Doka Concrete and Giatec Smart-Rock are some of the implementations of IoT in concrete Curing, Ready mix Suppliers, cement manufactures, Consulting engineers and concrete testing labs can also rely on this IOT technology to enhances service delivery.

BIM optimization & Digital Twins:

Building Information Modelling (BIM) has very wide application, from planning to monitoring and execution. Digital twins are the virtual models of real time site progress on an office table, using this technology we can effectively plan for labour and materials synchronised with the site progress resulting in cost savings. Also, the Optical Character Recognition (OCR) gives detailed information of each and every member of the building at any time with its progress, materials required, labour required to perform that particular job etc. SmartVid, Egnyte, Dodge Data, PCL Construction are some of the providers of such technology. Also, non-availability of materials in stock is the major reason for delay in work IoT can help to sort this problem as sensors placed in store can directly order the depleting materials for further work using cloud data of previous work and current progress to the respective vendors.

Thus, use of IoT can boost construction industry in various aspects. Even small-scale project finds it profitable with enhanced safety, accuracy and management.

- By Suraj Thakur
B.E Civil

STUDENT'S POEMS

Home made out of humans

What if we stay in a home made out of humans?
Until, peace will traverse within our veins.
Even with delay of clock but
With pleasure and kindness.

Grass is so greener on that side
Because it's always raining there.
Where one's whose arms are there
To protect your foundation of soul
From your own internal storm.

Where one's whose legs are not buckling at knees,
While carrying your weight of regret.

Where one's who decorates wall,
To keep barrier between your truth
And your delusion.

Where one's whose palms are like curtain,
To keep silence
while voices inside your head are screaming.

But there is strange about this house
Which is made out of humans
Where one's who sweeps their own sorrows
Off the floor,
For you, not to fall down with disgrace.

Where one's who gives you broadest smile,
Have pillows filled with tears.

Where one's whose bookshelves are
Filled with bravest stories,
Are crippled by their fears in edge of corner.

Where one's who swings you to show dreams,
Have foots buried in ground with weeds.

Yes, where one's who keeps you dreaming,
are not perfect, ideal or being loved.

They are filled with lonely people,
But they are never seen alone.

Where those make you feel
The most at home,
Are lack of real shelter.

Knowing this, they see all glooming stars,
over top of the home.
Because it's their pureness,
Even sky have seen it.
It's their happiness as a home,
They choose to live in
With or without roof.

Maybe their grass looks greener,
Because have painted on its hue.
But they learn to love its window view
Just remember, your grass looks greener too!

- **By Darshana Shinde**
B. E. Civil

Faculty Interaction with Outside World

Faculty Name	Topic Delivered	Name of the Institute
Dr. B. J. Godboley	Environmental Impact Assessment.	J.D. College of Engineering, Nagpur [An Autonomous Institute]
	Sustainability Development and Environmental Impact Assessment.	Bapurao Deshmukh College of Engineering, Sewagram, Wardha.
	The Best Engineering Jobs For The Future [For 2020 And Beyond]	Padre Conceicao College of Engineering, Goa
	Session Chair in National Conference	Viva Institute of Technology Virar Mumbai

Faculty Publication

Sr.no.	Faculty Name	Title	Publisher Details	Month & year
1.	Dr. B.J.Godboley	Effect of Turbidity on Survival of Escherichia Coli , Fecal Coliform and Total Coliform in Grey Water by using Solar Disinfection (SODIS)	ICRFS-2021 (International Conference on Research Frontiers in Sciences-2021	Feb 2021
2.	Mr. Shreeshail Heggond	Effect of Nano Silica on Properties of High-Performance Concrete	IRJMST, ISSN: 2250-1959 (O), 2348-9367 (P) Volume-11, Issue-6	June 2020
3.	Mrs. Swati Dhurve	Health Safety and Risk Management in Residential Building	IJSRD, ISSN (online):23210613, Volume-8, Issue 12.	Feb 2021

Faculty Achievement

Mrs. Swati Dhurve, Assistant Professor Department of Civil Engineering uccessfully completed NPTEL online Course on “Design of steel Structure”

Online Logo Competition under Banner of ACE

28th November 2020

Aldel Education Trust's

ST. JOHN COLLEGE OF ENGINEERING & MANAGEMENT

(A Christian Religious Minority Institution)

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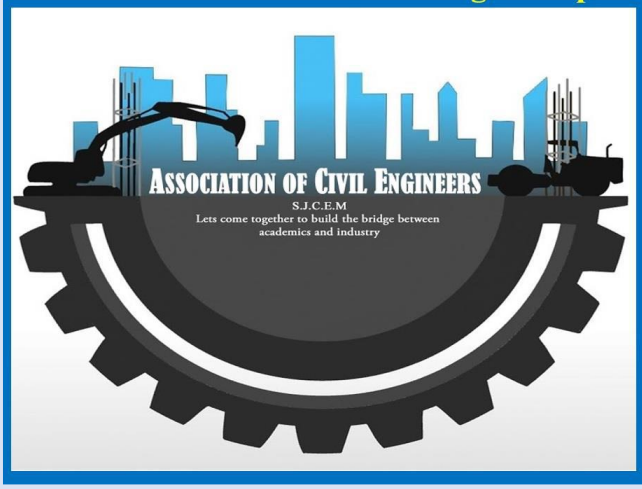
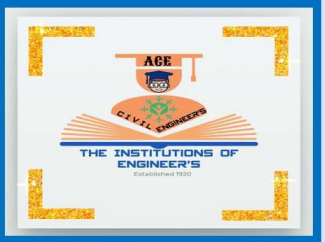
NAAC Accredited With Grade A

Department of Civil Engineering

Organized

Online Logo Competation Under the Banner ACE





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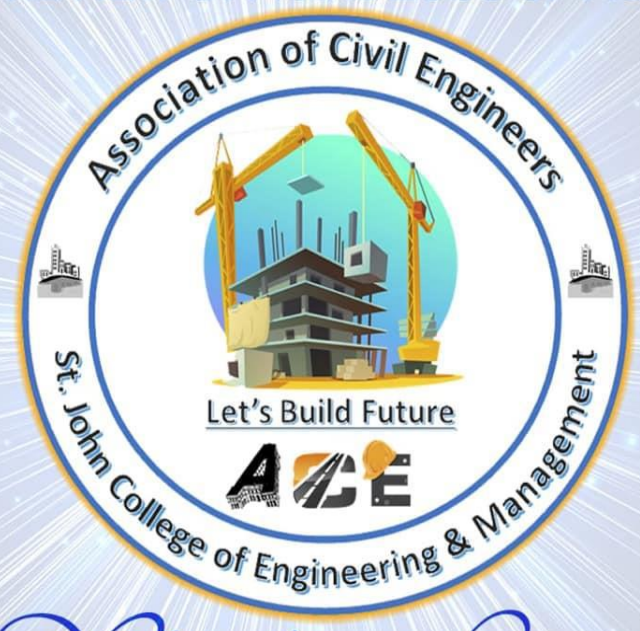
THE NEW OFFICIAL LOGO OF ACE



Winning Logo

- by Dharmik Rajendra Patil (BE Civil)

Final year Farewell

7th December 2020

Alumni Interaction/Visits

Mr. Sarvesh Nirulkar, and Mr.Anand Ketan Patel
Batch 2014-15. Partners at White Owl construction LLP, Mumbai
Visited on: 08/2/2021

Mr. Priyank Rathod,
Batch 2015, After five years of field experience in Dattani Congratulations he is pursuing Global MBA program from Cardiff Metropolitan University, UK. Visited on: 08/2/2021

Mr.Jay Kini ,
Alumni of Batch 2014-15 pass out.
Currently he is working as Assistant Manager for Anarock in Residential vertical, Mumbai.
Visited on 27/08/2020

Mr.Nikhil Coutinho
Alumni of Batch 2016-17.
Currently he is pursuing PGDM degree from NICMAR Goa. Also,he has developed a software for monitoring downlines members and he has shared with Department of Civil Engineering. That will be implemented immediately for current batch 2020-21.
Visited on 22/02/2021

Mr. Joyal Lobo,
Alumni of Batch 2016-17.
He is writer of various web series for Amazon and Author of “Some Text Missing”.
Department of Civil Engineering wishes him all the best for future endeavours...
Visited on 12/02/2021

Parents Meeting Report

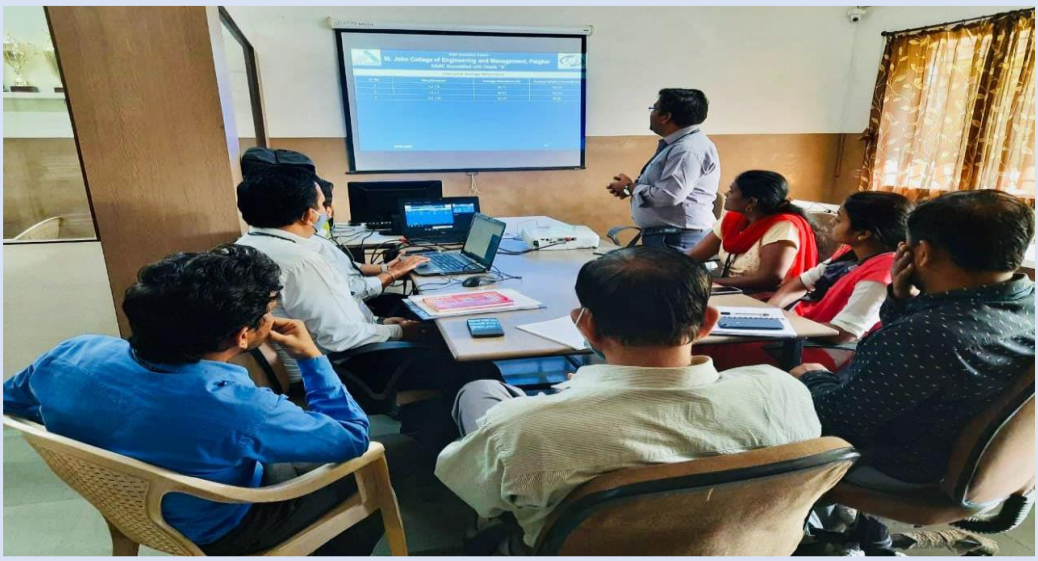
Parent's meeting - 10th November 2020

Department of Civil engineering organised a departmental Parent's meet. This meeting was held for SE, TE and BE civil engineering students by online mode for students listed under defaulter's list. Meeting was scheduled on 10th Nov. 2020. The meeting began with opening remark by Principal of SJCEM in the presence of parents, students and all departmental faculties.

Departmental Advisory Board Meeting

Department of Civil Engineering organized DAB meeting on 30th Jan 2021. Following suggestion were given by all stockholders.

1. Give focus on mini projects
2. Department is having sufficient lab equipment's but for research purpose procurement of extra equipment is required
3. Add more practices in curricula
4. Focus on emerging arears like, Smart city, Infrastructure Development. Bullet train, Sustainable Development etc.
5. Due to this COVID-19 situation students are not getting any practical knowledge, so institute must think on this.
6. Minimum 10 Projects topics can be share with students where departments want to accelerate the research
7. Second year onwards department can give awareness on sub domains of Civil Engineering, which create interest and students can take projects on final year.
8. As a faculty we must give importance to all domain of Civil Engineering and explain the domain specific industry demand
9. Exposure to competitive examinations and Governments jobs for 2nd year.
10. What could be student approach after lockdown towards Teaching and Learning?



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The Institution of Engineers (India)

Association of Civil Engineers *(ACE)* Students Chapter

Post Holders AY 2020-21

Akshay Salvi (BE)
President

Preet Jain (TE)
Vice President

Darshana Shinde (BE)
Secretary

Pratik Mishra (TE)
Treasurer

Akanksha Damke (SE)
Document Co-ordinator

Vaidehi Patil (TE)
Event Coordinator

Bhumik Dholu (TE)
Core Member

Rani Patil (SE)
Core Member

Ketan Dhodi (BE)
Core Member

Agam Fadia (TE)
Core Member

Chinmayee Jadhav (TE)
Core Member

Akshata Patil (TE)
Core Member

Editorial team

Faculty Co-Ordinator	Designation	Students Co-Ordinator
Mrs. Swati Dhurve	Chief Editor	Deepak Bhurkud, Student Editor From B.E.Civil
Mr. Ashish Chavan	Editor	Chinmayee Jadhav, Student Editor From T.E.Civil