



**Khandesh Bahuuddeshiya Sanstha's  
College of Engineering & Technology,  
North Maharashtra Knowledge City, Jalgaon**

## **News Letter**

Volume 01, Number 01

**Aug - Dec 2023**

### **Civil Engineering Department**

#### **Vision**

The Department shall be the center of excellence with the highest level of achievement in technical education.

#### **Mission**

1. Overall development of students inculcating in them the ground reality.
2. Being the choice of students, parents and employers in India for technical Education.
3. Maintaining the best infrastructure, developing knowledge and skills.

# Program Outcomes

	<b>Program Outcomes</b>
<b>PO 1</b>	<b>Engineering Knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>PO 2</b>	<b>Problem analysis:</b> Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
<b>PO 3</b>	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
<b>PO 4</b>	<b>Conduct investigations of complex problems:</b> 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.
<b>PO 5</b>	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
<b>PO 6</b>	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
<b>PO 7</b>	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
<b>PO 8</b>	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>PO 9</b>	<b>Individual and team work:</b> Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>PO 10</b>	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions
<b>PO 11</b>	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
<b>PO 12</b>	<b>Life-long learning:</b> 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)

<b>PSO 1</b>	Ability to apply theoretical knowledge for specific field applications: a civil engineering graduate must be able to identify the constraints of a real world problem and must be able to decide appropriate combination of technology to resolve the problem. S/he must be able to implement the solution.
<b>PSO 2</b>	Ability to work with advanced equipment: a civil engineering graduate must be able to deal with advanced equipments used for various civil engineering applications for faster and precise observations.
<b>PSO 3</b>	Awareness about alternative and blended construction materials: natural materials are getting scarce and their over exploitation is causing environmental damages. A civil engineering graduate must be aware about the applications of alternative and blended construction materials which are more sustainable.

## Workshop

### AI- Generation

The department of Civil Engineering of College of Engineering and Technology North Maharashtra Knowledge City, Jalgaon organized a 3 days' Workshop on "Civil Engineering Software" on 12-08-2023.

The Guest speaker: **Mr. Trivikarma Sir (AIR93 IIT delhi, AI Expert)**

Heartily welcomed by Prof. D. G.Pardeshi Head of the Civil Engineering Department

#### **AI Generation Overview:**

##### **1. First Generation (1950s-1960s):**

**1. Focus:** Symbolic AI, rule-based systems.

**2. Key Developments:** Turing Test, Logic Theorist.

**3. Challenges:** Limited computing power, lack of data.

##### **2. Second Generation (1980s-1990s):**

**1. Focus:** Knowledge-based systems, expert systems.

**2. Key Developments:** Expert systems like MYCIN and Dendral.

**3. Challenges:** Difficulty in handling uncertainty, knowledge representation issues.

##### **3. Third Generation (1990s-2010s):**

**1. Focus:** Machine Learning (ML), statistical approaches.

**2. Key Developments:** Rise of neural networks, SVMs, and decision trees.

**3. Challenges:** Limited data, computational constraints.

**4. Fourth Generation (2010s-2020s):**

**1. Focus:** Deep Learning (DL), big data, increased computational power.

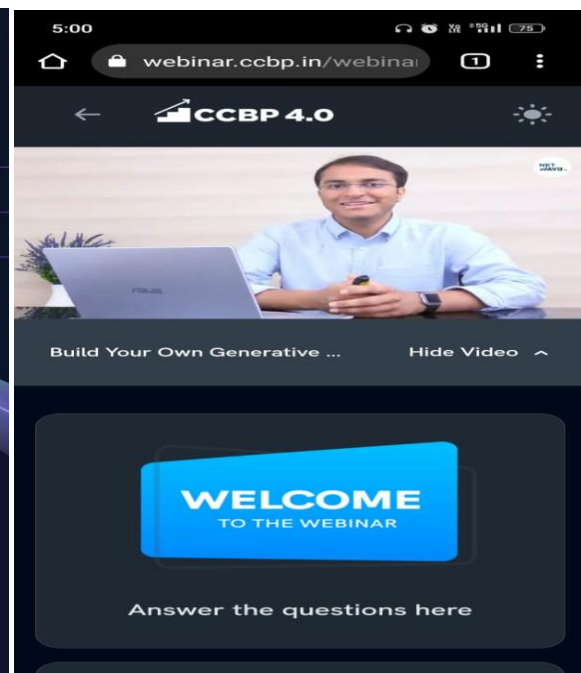
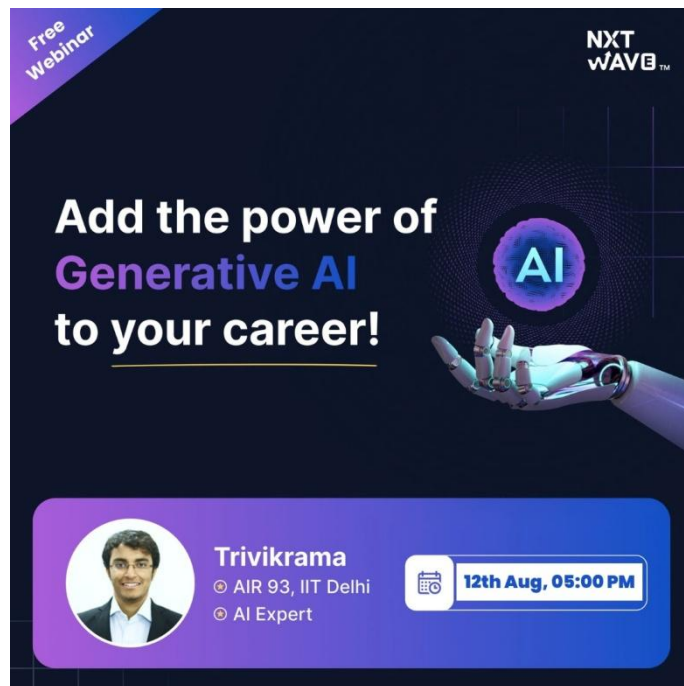
**2. Key Developments:** Deep neural networks, reinforcement learning.

**3. Challenges:** Data privacy concerns, model interpretability issues.

**4. Focus:** Continuation of deep learning, integration with other technologies (e.g., Iot, block chain).

He gave brief idea about recent software used in AI. As per the feedback received from the participants it was a very good learning experience, the lecture helped them in understanding the recent software used in construction.

## Glimpses of Workshop



## Site Visit

### 1) “A visit at Under Construction Bridge Site at Bhambhori”

**04th Oct 2023**

#### **Location of Bridge**

On 04/10/2023 we the Student of CIVIL visited to Under Construction Bridge, ,Bambhori Jalgaon for BRIDGE SITE VISIT. Our visit started at 12pm with our Prof. D.G.Pardeshi & Prof. S. R.Kolhe and lasted for three hours. In this three hours we learn different component of bridge and importance of Bambhori Bridge .

A bridge is a structure which is built over some physical obstacle such as a body of water, valley, or road, and its purpose is to provide crossing over that obstacle. It is built to be strong enough to safely support its own weight as well as the weight of anything that should pass over it. A bridge is a structure which maintains the communication over a physical obstacle,

e.g. A channel/river, A road, A railway line or A valley.

- If it carries road traffic or railway traffic or a pipe line over a channel or a valley: Bridge
- If it carries the traffic or pipe over a communication system like roads or railways: Fly-over/Over-Bridge
- Bridge (several small spans) constructed over a busy locality, a valley, dry or wetland, or forming a flyover to carry the vehicular traffic: Viaduct

Bridge is a structure which covers a gap generally bridges carry a road, walkways, pipelines or railway across a natural or artificial obstacle such as, a river, water body (part of sea, canal) or another railway or another road /junction, structure. Boring can be possible with the support of the **Auger Boring Machine**. The structural drawing gives the information about (Size) diameter/s.

# Glimpses of site Visit



## 2) “A Visit At Waste Water Treatment Plant,Nasik”

On 3th Nov, 2023at 10.30 am students reached at waste water treatment plant, Nasik.

At starting Mr.prakashgave the basic knowledge about waste water treatment process, they explain to students about The main objectives of wastewater treatment are (i) reducing water pollution and (ii) making use of the waste resulting from treatment processes to ensure a more sustainable use of water resources.

SPML Infra has designed and constructed the 70 MLD sewage treatment plant in Nashik to provide treatment and safe disposal of wastewater produced by residential colonies and commercial and industrial establishments of Nashik city having a population of more than a million. This involves collection, primary treatment and biological treatment to make it safe for disposal. Collection of digested sludge and digested sludge dewatering system along with common chemical preparation and dosing facilities for gas production that will be utilized in biogas engines. The treatment plant is based on the activated sludge process with chlorination of the treated sewage before discharging in to the river Godavari to maintain the water level of the river during the famous Kumbh Mela. A programmable logic controller (PLC), a digital computer is used for automation of electromechanical processes for the first time in Nashik. A variable-frequency drive (VFD) system is used for controlling the rotational speed of an AC electric motor by controlling the frequency of the electrical power supplied to the motor. Gas flare is used to eliminate waste gas which is otherwise was not feasible.

### Glimpses of Site visit Plant



### 3) “A Educational Visit At Meri, Nasik”

On 4th Nov, 2023 at 11.00 am students reached at waste water treatment plant, Nasik.

At starting Mr.azadgave the basic knowledge about construction field , they explain to students about Construction Process.

purpose for this visit was to give the overall knowledge of research centre, soil testing, model. By this visit students can be known the research lab knowledge. Also in 4th semester subject like Water and waste water Engineering requires knowledge ,HighwayEngineering,Soil Engineering, so it is very much convenient to see all the practical and components in real time work environment.

Student will be able to work with the engineers of the MERI, which is entrusted with the work of applied research in various branches of civil engineering that includes soil mechanics, construction material studies, testing, highway research, remote sensing and seismology, hydraulic model studies, reservoir administration and sedimentation, etc.

In Meri ,Visit at following Division-

- 1.Highway research division no.1
- 2.soil testing division (M.E.R.I ) Nasik-4
- 3.Material Testing Division
- 4.Seismic Cell,Nasik
- 5.Resource Engineering Centre,Nasik
- 6.Hydrodynamics Research Division
- 7Maharastra Model

# Glimpses of Educational site visit



## Add-on Course

### Courses on “Architectural Auto cad”

Department of Civil engineering from College of Engineering and Technology North Maharashtra Knowledge City, Jalgaon arranged 30 hrs workshop on AutoCAD dated 12 Dec 2023. Expert of the workshop, Mr. Er. Nikhil Saonawane who was CEO of Brilliant Academy, Jalgaon. The workshop was started with inauguration ceremony followed by introductory speech of Mr. Er. Nikhil Saonawane, Workshop is divided into two parts theory and hands-on practice. D

Expert rendered his expertise to all Modules of AutoCAD on effective use of subjective knowledge. More than 60 students from our Civil Engineering Department were attending the workshop.

The objective of the event was to make students familiar with AutoCAD software and to give them practical exposure through hands-on practice.

After completion, this workshop we conclude that student gets more benefits about this workshop and they are more familiar about the software. In market scenario the extra skills are required for getting good job so that software knowledge is most important factor of industry.

The students are very enthusiastic to learn the software and they are ready to do more study in this kind of workshop.

# Glimpses of Add on Course



## “International Conference”

It's a great deed that **Civil & Electrical Engineering of KBS's C.O.E.T. N.M.K.C., Jalgaon** commences an **International Conference on Recent Trends in Science, Engineering and Technology [ICRTSET- 2023]**. Undeniably, it is an incomparable panorama for budding aspirants to present ostentatiously and demonstrate their innate adroitness that specify their proficiency and adeptness. With a gleesome note, we have obtained almost **102 Papers** for the **Conference across India** which became difficult on account of time constraints and space limitation; we could not publish all the papers. I am in high spirits that that not only KBS's C.O.E.T. N.M.K.C students divulged their proficiency, but also scholars from different areas projected their exuberant skills in the conference. With this, **International Conference** scholarly personalities share their expertise knowledge to young technocrats where they procure enormous information and awareness related to recent trends in order to meet the industry requirements and fulfill its demands. It was very tough for us to select the

best among the best papers. This **International Conference** creates innovation ideations in young minds to seed a thought of startups and inculcates entrepreneurial skills. Being **the Principal, Patron, Convener and Editor** selected the papers on various technologies. I feel it's a proud moment and privilege to organize the **International Conference on 22<sup>nd</sup> of December 2023**. We are very much thankful to **Conference World** who came forward to associate with us. A special thanks to the **Delegates** for supporting and accepting the **hybrid mode both online and offline participation**. Lastly, exceptional thanks to **AR Research Publications too**.

this **International Conference** blooms and unseals the ignorance of knowledge and braces to kindle the latest knowhow and develops to prowess in all aspects. I am very much elated that the endeavours of the **Convener, Prof. Durgesh G. Pardeshi, Co-Conveners, Keynote Speakers, National Advisory Board, International Advisory Board, Organizing Committee, Faculty, Students of KBS's C.O.E.T. N.M.K.C** for their persistent and strenuous work to conduct the **International Conference**, in an overwhelming manner.

## Glimpses of Conference



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 has presented and published his/her paper titled  
 Retrofitting of RCC Apartment Building –A Case Study  
 during the International Conference ICTRSET-2023 held on 22 December 2023

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PROF. DURGESH G. PARDESHI  
 HOD CIVIL ENGG.  
 CO-CONVENER

PROF. KAMLESH S. PATIL  
 HOD ELECTRICAL ENGG.  
 CO-CONVENER

PROF. SOHAN R. KOLHE  
 ACADEMIC COORDINATOR  
 CO-CONVENER

K7030

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PROF. DURGESH G. PARDESHI  
 HOD CIVIL ENGG.  
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PROF. KAMLESH S. PATIL  
 HOD ELECTRICAL ENGG.  
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 ACADEMIC COORDINATOR  
 CO-CONVENER

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**ICTRSET-2023**

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**NORTH MAHARASHTRA KNOWLEDGE CITY, JALGAON**  
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